NC Department of Health and Human Services

Older Adult Falls and Related Traumatic Brain Injury: Overview, Prevention Strategies, and Statewide Resources

March 17, 2022
Who’s in the Room?

Please let us know in the chat what sector you work in:

- Local public health
- Physical therapy
- Occupational therapy
- Medical provider
- Area Agency on Aging / a senior center
- Gerontology
- Academics/research
- Other (please specify)
Injury Data Update: Older Adult Falls and Related TBI

Shana Geary
Unintentional fall-related deaths have continued to increase over the last 10 years

Number of Deaths

- 883 in 2011
- 1,549 in 2020

75% increase

Data limited to NC Residents
Source: NC State Center for Health Statistics, Death Certificate Data, 2011-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional fall-related deaths with TBI have also increased by 71% since 2011.

Data limited to NC Residents
Source: NC State Center for Health Statistics, Death Certificate Data, 2011-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional falls were the third leading cause of injury death from 2016-2020.

<table>
<thead>
<tr>
<th>Cause</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poisoning - Unintentional</td>
<td>11,779</td>
</tr>
<tr>
<td>MVT - Unintentional</td>
<td>7,749</td>
</tr>
<tr>
<td>Fall - Unintentional</td>
<td>6,901</td>
</tr>
<tr>
<td>Firearm - Self-Inflicted</td>
<td>4,166</td>
</tr>
<tr>
<td>Firearm - Assault</td>
<td>2,875</td>
</tr>
<tr>
<td>Suffocation - Self-Inflicted</td>
<td>1,624</td>
</tr>
<tr>
<td>Unspecified - Unintentional</td>
<td>1,122</td>
</tr>
<tr>
<td>Suffocation - Unintentional</td>
<td>1,089</td>
</tr>
<tr>
<td>Poisoning - Self-Inflicted</td>
<td>1,042</td>
</tr>
<tr>
<td>Fire/Burn - Unintentional</td>
<td>569</td>
</tr>
<tr>
<td>All Other Injury Deaths</td>
<td>4,028</td>
</tr>
</tbody>
</table>

* by mechanism and intent

Data limited to NC Residents
Source: NC State Center for Health Statistics, Death Certificate Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional falls were the **number one** cause of injury death for adults 55 and older.

**Data limited to NC Residents (N=6,901)**

**Source:** NC State Center for Health Statistics, Death Certificate Data, 2016-2020

**Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit**
Unintentional fall death rates are highest among those ages 75 and older

*Rate suppressed due to count being less than 5

Data limited to NC Residents (N=6,901)
Source: NC State Center for Health Statistics, Death Certificate Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Fall-related death rates (ages 55+) were highest for NH white residents and males, but similar by sex.

Fall-Related Deaths Among Adults 55 and Older by Sex and Race/Ethnicity, 2016-2020

Rate per 100,000

Data limited to NC Residents (N=6,525); NH – non-Hispanic; AI/AN – American Indian/Alaskan Native
Source: NC State Center for Health Statistics, Death Certificate Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
For Fall deaths involving TBI, rates were highest for males and non-Hispanic white residents.

Fall-Related Deaths Among Adults 55 and Older by Sex and Race/Ethnicity, 2016-2020

Rate per 100,000

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>Hispanic</th>
<th>White NH</th>
<th>Black NH</th>
<th>AI/AN NH</th>
<th>Asian NH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.7</td>
<td>22.0</td>
<td>7.7</td>
<td>21.5</td>
<td>9.5</td>
<td>11.4</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Data limited to NC Residents (N=3,034); NH – non-Hispanic; AI/AN – American Indian/Alaskan Native
Source: NC State Center for Health Statistics, Death Certificate Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Rates of Unintentional Fall Deaths with TBI by County, Ages 55 and Older, 2016-2020

North Carolina Fall-TBI Death Rate: 5.4 per 100,000

Data limited to NC Residents (N=3,034)
Source: NC State Center for Health Statistics, Death Certificate Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
The cost of fall-related deaths in North Carolina in 2020 alone is estimated at...

$6.0 Billion

<table>
<thead>
<tr>
<th>Number of Deaths</th>
<th>Medical</th>
<th>Value of Statistical Life</th>
<th>Combined Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintentional Falls</td>
<td>1,549</td>
<td>62.8M</td>
<td>5.9B</td>
</tr>
</tbody>
</table>

Data limited to NC Residents
Source: NC State Center for Health Statistics, Vital Statistics Death Certificate Data, 2020; CDC WISQARS Cost of Injury Estimates (costs include spending on health care, lost work productivity, and estimates of cost for lost quality of life and lives lost). Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit.
Unintentional fall-related deaths are the tip of the iceberg

Between 2016-2020 there were...

Despite NC’s excellent reporting systems, the total burden of fall injury in the state is unknown.

Data limited to NC Residents
Source: NC State Center for Health Statistics, Death Certificate and Hospital Discharge Data; NC DETECT, Emergency Department Visit Data (2016-2020) Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional Fall Hospitalizations
Unintentional fall-related hospitalizations have also increased over the last 5 years.

Number of Hospitalizations

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>22,553</td>
</tr>
<tr>
<td>2017</td>
<td>23,030</td>
</tr>
<tr>
<td>2018</td>
<td>24,081</td>
</tr>
<tr>
<td>2019</td>
<td>25,240</td>
</tr>
<tr>
<td>2020</td>
<td>26,169</td>
</tr>
</tbody>
</table>

Fall-related Hospitalizations

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>3,346</td>
</tr>
<tr>
<td>2017</td>
<td>3,574</td>
</tr>
<tr>
<td>2018</td>
<td>3,674</td>
</tr>
<tr>
<td>2019</td>
<td>4,035</td>
</tr>
<tr>
<td>2020</td>
<td>3,958</td>
</tr>
</tbody>
</table>

Fall-related Hospitalizations With TBI

Data limited to NC Residents (N=121,073)
Source: NC State Center for Health Statistics, Hospital Discharge Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional falls were the leading cause of injury hospitalization from 2016-2020.

<table>
<thead>
<tr>
<th>Cause</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall - Unintentional</td>
<td>121,073</td>
</tr>
<tr>
<td>MVT - Unintentional</td>
<td>33,748</td>
</tr>
<tr>
<td>Poisoning - Unintentional</td>
<td>24,970</td>
</tr>
<tr>
<td>Poisoning - Self-Inflicted</td>
<td>14,872</td>
</tr>
<tr>
<td>Unspecified - Unintentional</td>
<td>8,861</td>
</tr>
<tr>
<td>No Mech Or Intent Determined</td>
<td>7,353</td>
</tr>
<tr>
<td>Fire/Burn - Unintentional</td>
<td>6,521</td>
</tr>
<tr>
<td>Struck By/Against - Unintentional</td>
<td>5,152</td>
</tr>
<tr>
<td>Other Specified/Classifiable - Unintentional</td>
<td>3,932</td>
</tr>
<tr>
<td>Motor Vehicle-Nontraffic - Unintentional</td>
<td>3,660</td>
</tr>
</tbody>
</table>

* by mechanism and intent

Data limited to NC Residents (N=121,073)
Source: NC State Center for Health Statistics, Hospital Discharge Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
87% of unintentional fall hospitalizations were among adults 55 and older.

Fall-Related Hospitalization Rates by Age Group, 2016-2020

Rate per 100,000

4,000

3,000

2,000

1,000

0

<1 1-4 5-9 10-14 15-19 20-24 25-34 35-44 45-54 55-64 65-74 75-84 >84

Data limited to NC Residents (n=121,073)
Source: NC State Center for Health Statistics, Hospital Discharge Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Fall-related hospitalization rates (ages 55+) were highest among **females** and **NH white** residents.

Fall-Related Hospitalizations Among Adults 55 and Older by Sex and Race/Ethnicity, 2016-2020

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>850</td>
</tr>
<tr>
<td>Male</td>
<td>511</td>
</tr>
<tr>
<td>Hispanic</td>
<td>258</td>
</tr>
<tr>
<td>White NH</td>
<td>797</td>
</tr>
<tr>
<td>Black NH</td>
<td>342</td>
</tr>
<tr>
<td>AI/AN NH</td>
<td>693</td>
</tr>
<tr>
<td>Asian NH</td>
<td>223</td>
</tr>
</tbody>
</table>

Data limited to NC Residents ages 55 and older (n=105,474)
NH – non-Hispanic; AI/AN-American Indian/Alaskan Native
Source: NC State Center for Health Statistics, Hospital Discharge Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Rates of fall-related hospitalization with TBI were highest among males and NH white residents.

Fall-Related Hospitalizations with TBI Among Adults 55 and Older by Sex and Race/Ethnicity, 2016-2020

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>95</td>
</tr>
<tr>
<td>Male</td>
<td>110</td>
</tr>
<tr>
<td>Hispanic</td>
<td>52</td>
</tr>
<tr>
<td>White NH</td>
<td>112</td>
</tr>
<tr>
<td>Black NH</td>
<td>62</td>
</tr>
<tr>
<td>AI/AN NH</td>
<td>58</td>
</tr>
<tr>
<td>Asian NH</td>
<td>52</td>
</tr>
</tbody>
</table>

Data limited to NC Residents ages 55 and older (n=15,414)
NH – non-Hispanic; AI/AN-American Indian/Alaskan Native
Source: NC State Center for Health Statistics, Hospital Discharge Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Rates of Unintentional Fall Hospitalizations with TBI by County, Ages 55 and Older, 2016-2020

North Carolina Fall-TBI Hospitalization Rate: 29.7 per 100,000

Data limited to NC Residents ages 55 and older (n=15,414)
Source: NC State Center for Health Statistics, Hospital Discharge Data, 2016-2020
Analysis by the NC- DP H Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional Fall Emergency Department Visits
Unintentional fall-related ED visits have stayed relatively stable.

There was a 18% decrease in total ED visits from 2019-2020.

Number of ED Visits

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall-related ED Visits</th>
<th>Fall-related ED Visits With TBI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>202,052</td>
<td>6614</td>
</tr>
<tr>
<td>2017</td>
<td>199,813</td>
<td>6091</td>
</tr>
<tr>
<td>2018</td>
<td>225,222</td>
<td>8020</td>
</tr>
<tr>
<td>2019</td>
<td>221,729</td>
<td>8186</td>
</tr>
<tr>
<td>2020</td>
<td>182,948</td>
<td>6673</td>
</tr>
</tbody>
</table>

Data limited to NC Residents
Source: NC DETECT, Emergency Department Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Unintentional falls were the leading cause of injury ED visits from 2016-2020.

### Injury by Mechanism and Intent

<table>
<thead>
<tr>
<th>Injury Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall - Unintentional</td>
<td>1,031,763</td>
</tr>
<tr>
<td>MVT - Unintentional</td>
<td>605,202</td>
</tr>
<tr>
<td>Unspecified - Unintentional</td>
<td>381,935</td>
</tr>
<tr>
<td>Struck By/Against - Unintentional</td>
<td>258,903</td>
</tr>
<tr>
<td>Natural/Environmental - Unintentional</td>
<td>194,765</td>
</tr>
<tr>
<td>Cut/Pierce - Unintentional</td>
<td>142,075</td>
</tr>
<tr>
<td>Other Specified/Classifiable - Unintentional</td>
<td>134,587</td>
</tr>
<tr>
<td>Poisoning - Unintentional</td>
<td>95,614</td>
</tr>
<tr>
<td>Overexertion - Unintentional</td>
<td>91,474</td>
</tr>
<tr>
<td>Struck By/Against - Assault</td>
<td>74,518</td>
</tr>
</tbody>
</table>

* by mechanism and intent

Data limited to NC Residents
Source: NC DETECT, Emergency Department Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
53% of unintentional fall ED visits were among adults 55 and older.

Fall-Related ED Visit Rates by Age Group, 2016-2020

Data limited to NC Residents (n=1,031,763)
Source: NC DETECT, Emergency Department Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Fall-related ED visit rates (ages 55+) were highest among females and NH white residents.

Fall-Related ED Visits Among Adults 55 and Older by Sex and Race/Ethnicity, 2017-2020

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Female</th>
<th>Male</th>
<th>Hispanic</th>
<th>White NH</th>
<th>Black NH</th>
<th>AI/AN NH</th>
<th>Asian NH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>4,368</td>
<td>2,800</td>
<td>2,556</td>
<td>3,883</td>
<td>2,769</td>
<td>2,062</td>
<td>819</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White NH</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black NH</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>AI/AN NH</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian NH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data limited to NC Residents ages 55 and older (n=450,025)  
NH – non-Hispanic; AI/AN-American Indian/Alaskan Native  
Source: NC DETECT, Emergency Department Data, 2017-2020; data in NC DETECT are unavailable prior to 2017  
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Rates of fall-related ED visits with TBI (ages 55+) were also higher for females and NH white residents.

Fall-Related ED visits with TBI Among Adults 55 and Older by Sex and Race/Ethnicity, 2017-2020

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Female</th>
<th>Male</th>
<th>Hispanic</th>
<th>White NH</th>
<th>Black NH</th>
<th>Al/AN NH</th>
<th>Asian NH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>130</td>
<td>113</td>
<td>90</td>
<td>136</td>
<td>65</td>
<td>76</td>
<td>51</td>
</tr>
</tbody>
</table>

Rate per 100,000

Data limited to NC Residents ages 55 and older (n= 15,055)
NH – non-Hispanic; Al/AN-American Indian/Alaskan Native
Source: NC DETECT, Emergency Department Data, 2016-2020; data in NC DETECT are unavailable prior to 2017
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Rates of Unintentional Fall ED Visits with TBI by County, Ages 55 and Older, 2016-2020

North Carolina Fall-TBI ED Visit Rate: 35.2 per 100,000

Data limited to NC Residents ages 55 and older (n=18,253)
Source: NC DETECT, Emergency Department Data, 2016-2020
Analysis by the NC-DPH Injury and Violence Prevention Branch, Injury Epidemiology and Surveillance Unit
Experiencing a fall can increase the chance of falling again.

Adults 45 and older reporting 1 or more falls in the last 12 months

- 25% report 1 or more falls
- 13% report 2 or more falls

Adults experiencing injury from falling that limited regular activities or required medical attention

- 37% report injury from falling

Source: NC State Center of Health Statistics, 2020 Behavioral Risk Factor Surveillance System (BRFSS) Survey Results
Demographic characteristics among adults ages 65 and older in North Carolina

- Have a disability: 35%
- Have less than high school education: 17%
- Have high school education/GED: 31%
- In the labor force: 17%
- Income below poverty level (PL): 9%
- Income 100%-149% of PL: 11%

Source: American Community Survey, 20149 5-year estimates. Table S0103: Population 65 and older

42% of housing units with people 65 and older are single person households
The populations most at risk of falls are projected to have the fastest growth over the next 20 years.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>18-44</td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td>45-59</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>60+</td>
<td>27%</td>
<td>44%</td>
</tr>
<tr>
<td>65+</td>
<td>21%</td>
<td>57%</td>
</tr>
<tr>
<td>85+</td>
<td>3%</td>
<td>117%</td>
</tr>
</tbody>
</table>

The North Carolina Falls Prevention Coalition and Action Plan

Ingrid Bou-Saada
Janice White
The NC Falls Prevention Coalition works to reduce the number of injuries and deaths from falls in NC.

ncfallsprevention.org
NC Falls Prevention Coalition
Together as a coalition, we:

• Build and strengthen regional/local falls prevention coalitions.
• Increase access to and the promotion of evidence-based falls prevention programs.
• Increase access, timeliness and understanding of falls prevention data.
• Ensure that each community or county has an array of resources essential for falls prevention.
• Educate and communicate with key constituencies about falls prevention.
• Cultivate relationships with new partners in NC.
• Use policy as a prevention tool.
• Share information about current activities, research, and projects happening across the state.
NC Falls Prevention Coalition
NEXT Quarterly Meeting
May 18, 2022, 1:00 – 3:00 pm
Agenda and Info

https://ncfallsprevention.org/upcoming-meetings/
NC Falls Prevention Coalition Website

The NC Falls Prevention Coalition works to reduce the number of injuries and deaths from falls in NC.

https://ncfallsprevention.org/
NC FPC Website

Resources

• NC & National Resources
• Statewide Contacts
• NC Local & Regional Coalitions
• Coalition Meetings

• Falls Data
• NC Summits
• Falls Prevention Awareness Week
• Strategic Action Plans

and more…
NC FPC Website

Falls Data

CDC Older Adult Falls Data: New interactive maps released in September 2019, including deaths from falls and falls by state.

CDC’s WISQARS™ is an interactive, online database that provides fatal and nonfatal injury, and cost of injury data. Researchers, the media, public health professionals, and the public can use WISQARS™ data to learn more about the public health and economic burden associated with unintentional injury in the United States.

NC DETECT (NC Disease Event Tracking and Epidemiologic Collection Tool) Intentional Falls Dashboard

Great tool for county level data!

https://ncfallsprevention.org/falls-data/
Quarterly Minutes & Presentations

Please click on links below to download .pdf versions of minutes and presentations.

2022

- February 23, 2022
  - Minutes
  - Presentation: Building Our Largest Dementia (BOLD) Infrastructure
  - Presentation: NC Alzheimer’s Association Programs and Partnerships
    - Resource: Community Education Programs
    - Presentation: Coalition Updates

2021

- November 17, 2021
  - Minutes
  - Presentation: Regional Falls Prevention Coalitions – Best Practices; Falls Prevention Awareness Week Summary

- August 18, 2021
  - Minutes
  - Presentation: Breathe Easy: Tobacco Use and Falls
  - Falls Prevention Awareness Week Overview
  - Research Study: How Aging Affects the Control of Balance

https://ncfallsprevention.org/quarterly-minutes-presentations/
The NCFPC 2021-2025 Action Plan

Goal #1: Enhance opportunities for collaboration

Goal #2: Prevent falls through clinical and community integration

Goal #3: Increase public awareness and statewide advocacy

https://ncfallsprevention.org/2021-2025-action-plan/
Action Plan Strategic Goals

Enhance opportunities for collaboration & networking among falls prevention stakeholders

Prevent falls through comprehensive and coordinated clinical and community integration

Increase public awareness and educational efforts regarding falls as an urgent public health issue and increase statewide advocacy for policies and systems that support falls prevention initiatives
Action Plan Goal 1

Enhance opportunities for collaboration & networking among FP stakeholders

• Share innovation and best practices
• Strengthen connections between coalitions
• Develop local adaptable resources
• Connect all 100 counties
• Collaborate across the continuum of care
• Identify & engage partners using the Shared Risk & Protective Factors framework
Action Plan Goal 2

Prevent falls through clinical and community integration

• Use Shared Risk & Protective Factors Framework
• Ensure quality resources
• Increase provider access to resources
• Promote core competency training
• Promote effective referral pathways
Action Plan Goal 3

Increase public awareness and statewide advocacy

• Gather and analyze data
• Leverage regional coalitions
• Increase public access to resources
• Promote Falls Prevention Awareness Week
• Develop a social marketing campaign
• Create an advocacy resource hub
Action Plan Work Groups

• Marketing and Communication
• Member Engagement
• Research and Practice
• Shared Risk and Protective Factors Framework
Shared Risk and Protective Factors

- Different types of health outcomes are connected
- They often share the same root causes, risk factors, and protective factors
- Older adult falls share many of the same risk and protective factors with other conditions, diseases, and illnesses

- Cardiovascular disease
- Diabetes
- Dementia
- Osteoarthritis
- Traumatic brain injury

- Osteoporosis
- Deaf/hard-of-hearing
- Blind/visual impairment
- Mental Health (depression, suicide, substance use)
Why Do We Focus on SRPFs?

• Break down the “silos” dividing programs and the prevention of health conditions
• Prevent multiple negative health outcomes simultaneously
• Develop new partnerships
• Leverage resources/funding streams
• Increase efficiency of efforts
• Consider a larger pool of strategies and program options
• Increase reach and scale up impact of programs and strategies
Connecting to Evidence-Based Falls Prevention Programs in NC

Ellen Bailey, MA, MPH
Falls Prevention Project Manager
Please Let us Know in the Chat

Which song from this falls prevention playlist best reflects the current state of your falls prevention work TODAY (or your state of mind?!)

- Walking On Sunshine (Katrina and the Waves)
- Stand (REM)
- Don’t Stand So Close To Me (The Police)
- Free Falling (Tom Petty)
- Help! (Beatles)
Evidence-Based Programs

- Evidence-based programs (EBPs) offer proven ways to promote health and prevent disease among older adults.
- They are based on research and provide documented health benefits.
- Many EBPs allow for more efficient use of available community and health care resources as they use trained lay leaders and/or coaches.
Immediate benefits of evidence-based programs

- The programs address specific issues for people with ongoing health problems.
- Participants choose their own goals and track their own progress toward success.
- Support and social interaction with peers who are living with ongoing health conditions.
- Trained peer leaders offer guidance and support, but participants find practical solutions individually and together.
Evidence-Based Programs Implemented in Clinical/Community Settings:

- A Matter of Balance (AMOB)
- Tai Chi for Arthritis and Fall Prevention (TCA/FP)
- Chronic Disease Self Education Programs
  - Living Healthy with Chronic Disease Self-Management Program
  - Living Healthy with Diabetes Self-Management Program
  - Living Healthy with Chronic Pain Self-Management Program
- Walk With Ease
EBPs Common in NC

**Living Healthy NC - Self-Management Programs**
- Chronic Disease
- Chronic Pain
- Diabetes

**Fall Prevention**
- Otago
- A Matter of Balance
- Tai Chi for Arthritis and Fall Prevention
- Moving for Better Balance

**Physical Activity**
- Walk With Ease
- GeriFit

**Both Fall Prevention & Physical Activity**
- Enhance Fitness
- Bingocize
A Matter of Balance (AMOB)

*Ideal for participants who:* need to address a fear of falling, identify solutions, build skills, and engage in gentle exercises.

- **Led by:** 2 trained coaches or 1 Master Trainer
- **Group size:** 8-12 participants
- **Program length:** 8* - 2 hour sessions, 2x/4 weeks or 1x/8 weeks
- ***9 sessions with the Virtual Delivery + 1 tech support**
A Matter of Balance (AMOB)

Outcomes

After completing AMOB classes*:
97% feel more comfortable talking with others about their fear of falling
97% feel more comfortable increasing activity
99% plan to continue exercising
98% would recommend AMOB

* Participant class evaluation percentage who agree to strongly agree.
Tai Chi for Arthritis and Fall Prevention (TCA/FP)

Ideal for participants who: need to improve mobility, balance, strength, flexibility, relaxation, and/or self awareness.

- Led by: 1-2 trained instructors
- Group size: 6-18* participants
- Program length: 20 - 1 hour sessions, 2x/10 weeks or 1x/20 weeks
- *12 max virtual delivery + 1 tech support
Tai Chi for Arthritis and Fall Prevention (TCA/FP) - Outcomes

Tai Chi for Arthritis and Fall Prevention has been shown to:

- Improve balance
- Increase muscular strength
- Improve mobility
- Increase flexibility
- Improve psychological health
- Decrease pain
- Prevent falls

Leader Training Overview

Review and/or print this document for your reference in the future

Click here to review information about becoming a leader on our website
FIND A PROGRAM

Many previously scheduled classes have been postponed due to COVID-19 social distancing safety measures. Our partners are working on alternatives during this time, such as online options or future programs. If you are interested in a program, please still contact healthyagingncinfo@gmail.com and we will make sure to connect you to the program provider for more information about upcoming workshops in your area.

Below is a partial listing of workshops available in North Carolina. For more information about workshop locations, please contact us!

Map

Satellite

Please type in Program Name

Search

Please type in City or Zip Code or leave blank

Near...

Near...

Show Advanced Search
MAKE A REFERRAL

Would you or someone you know benefit from one of the evidence-based health programs offered through Healthy Aging NC? Our referral form makes it easy to make the referral for yourself, a friend, a relative, or for a patient, if you are a health professional.

When you refer yourself or someone else to one of our classes, someone from Healthy Aging NC will respond within three business days.

If you aren’t sure which class, that’s ok! Please go ahead and submit the form and we’ll help you to figure that out.
Take Control of Your Health: 6 Steps to Prevent a Fall

Every 11 seconds, an older adult is seen in an emergency department for a fall-related injury. Many falls are preventable. Stay safe with these tips!

1. Find a good balance and exercise program
   Look to build balance, strength, and flexibility. Contact your local Area Agency on Aging for referrals. Find a program you like and take a friend.

2. Talk to your health care provider
   Ask for an assessment of your risk of falling. Share your history of recent falls.

https://www.ncoa.org/article/6-steps-to-help-prevent-falls-in-older-adults
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Regularly review your medications with your doctor or pharmacist. Make sure side effects aren’t increasing your risk of falling. Take medications only as prescribed.</td>
</tr>
<tr>
<td>4</td>
<td>Get your vision and hearing checked annually and update your eyeglasses. Your eyes and ears are key to keeping you on your feet.</td>
</tr>
<tr>
<td>5</td>
<td>Keep your home safe. Remove tripping hazards, increase lighting, make stairs safe, and install grab bars in key areas.</td>
</tr>
<tr>
<td>6</td>
<td>Talk to your family members. Enlist their support in taking simple steps to stay safe. Falls are not just a seniors’ issue.</td>
</tr>
</tbody>
</table>

To learn more, visit [ncoa.org/FallsPrevention](http://ncoa.org/FallsPrevention).

www.facebook.com/NCOAging  |  www.twitter.com/NCOAging  
ncoa.org  |  @NCOAging  |  ©2021  |  All Rights Reserved.
Western NC Falls Prevention Coalition

Counties: Buncombe, Henderson, Madison, McDowell, Polk, Rutherford, Transylvania.

The Western NC Falls Prevention Coalition collaborates closely with the Region A/Southwestern Commission Coalition covering Cherokee, Clay, Graham, Haywood, Jackson, Macon, and Swain Counties.

2022 Quarterly Coalition Meeting Schedule

- Quarterly Coalition → January 14, April 8, July 8, October 14 9-10:30am
- Join the meeting(s) here: https://unc.zoom.us/j/95055829623
- Click HERE to download our meeting schedule flyer!
Resources

For Family and Community Members, Patients, Caregivers:

- [CDC Medication Fact Sheet](#) – Are your medicines increasing your risk for falls?
- [CDC STEADI Check for Safety Brochure](#) – A Home Fall Prevention Checklist for Older Adults
- [CDC Stay Independent Brochure](#) - Fall Risk Self-Assessment
- [Falls Free Check-Up](#) - Online version with feedback
- [CDC What You Can Do to Prevent Falls Brochure](#) – Customizable
- [CDC My Mobility Plan](#) – A mobility planning tool to help you stay independent, safe at home, mobile in your community.

For Health Care Providers:

- [CDC STEADI (Stopping Elderly Accidents, Deaths & Injuries) Toolkit](#) for Healthcare Providers
Welcome to the North Carolina Home Modification and Repair Resources Page! On this State Resources page, you will find resources for consumers and professionals specific to North Carolina, including featured programs, funding sources, home modification and repair providers by city, and educational materials!

We’d love your feedback! Click on this Link to answer some quick questions about this page.
Next Steps

- Explore programs on our website
- Refer participants to programs as appropriate
- Connect community leaders to leader trainings
- Reach out to us with questions
- Connect with your regional and/or state falls prevention coalition.
- Explore falls prevention resources.
Take Home Summary

Review and/or print this document for your reference in the future

Contact Information
Ellen Bailey, ebailey@unca.edu
828-255-7072

Healthy Aging NC connects people to programs and agencies that improve community health.

North Carolina’s statewide Resource Center for Evidence-Based Self-Management Programs

Our partners, including the 18 NC Area Agencies on Aging, can often leverage federal funding to offer these programs at low or no cost to participants.

CHRONIC DISEASE SELF-MANAGEMENT
For participants who need tools and support in managing their symptoms of chronic health conditions through lifestyle modifications

TAI CHI FOR ARTHRITIS & FALL PREVENTION
For participants who need to improve mobility, balance, strength, flexibility, relaxation, and/or self-awareness.

A MATTER OF BALANCE
For participants who need to address a fear of falling, identify solutions, build skills, and engage in gentle exercises.

WALK WITH EASE
For participants who are not physically active and need support in safely increasing physical activity.

828-255-7712
healthyagingncinfo@gmail.com
healthyagingnc.com
Service Options for the NC TBI Community

Scott Pokorny
Please let us know in the chat:

What is your level of experience working with the TBI population?

- **None** (no understanding of TBI)
- **Limited** (some understanding of TBI but no formal education or work experience in the field)
- **Basic** [good understanding of TBI with some education or work experience in the field (up to 3 years)]
- **Proficient** [detailed knowledge and application of skill, including both education and work experience (4 to 9 years)]
- **Advanced** [highly developed skill and ability, including continuing education and practical hands-on work experience (10 years plus)]
TBI Program Components

➢ Introduction to Service Options in NC
➢ TBI Grant
➢ TBI State Funds Program
➢ TBI Training
➢ TBI Screening
➢ TBI Waiver
➢ Brain Injury Advisory Council
➢ Brain Injury Resources
NC Traumatic Brain Injury (TBI) Services

- If an individual has a TBI and has long term support needs it is important that you know about the Local Management Entity/Managed Care Organization (LME/MCO) system.
- There are currently 6 LME/MCOs in North Carolina.
- The LME/MCOs are anticipated to transition to Tailored Plans on December 1, 2022.
- This following website has a directory that lists all the LME/MCOs, their contact information and the counties they serve:
  
  https://www.ncdhhs.gov/providers/lmemco-directory
Accessing Traumatic Brain Injury Services in NC

What do I need to know?
- You MUST have established residency in NC
- Documentation regarding TBI diagnosis is REQUIRED (i.e., medical records)
- Individuals diagnosed with a brain injury by the age of 21 may be eligible for I/DD services
- NC has a Registry of Unmet Needs for the Innovations Waiver

Who do I contact?
- To check for TBI services available in your area, find and contact your respective LME-MCO
- For Disability Benefits (i.e. SSI), find and contact your county’s Social Security Administration and/or Apply for Disability Benefits through SSA online
- For other benefits (NC Medicaid, assistance programs, etc.) find and contact your county’s Department of Social Services or Apply Online

Where can I find more information?
- Ages 0-5 Children’s Developmental Services Agencies
- Ages 0-20 Children and Youth with Special Health Care Needs or 1-800-737-3028
- Ages 0-21 with Medicaid Early Periodic Screening Diagnostic and Treatment (EPSDT)
- Medicaid Programs and Services
- Services for People who do not have Medicaid

What do I do if I have more questions?
- Contact your respective LME-MCO for questions about TBI Services
- For State Operated Healthcare Facilities contact monica.harrelson@dhhs.nc.gov
- For all other community services and/or trouble contacting an LME-MCO, contact the Customer Service and Community Rights Team at 984-236-5300 or email dmh.advocacy@dhhs.nc.gov.
### Additional Resources

**Ages 0-21 with Medicaid**
- **Early Periodic Screening Diagnostic and Treatment (EPSDT)**
  - **Personal Care Services** can be requested under EPSDT for those with Medicaid aged 21 and under with a physician's referral
- **Community Alternatives Program for Children (CAP/C)**
  - Ages 0-20
- For Research Based-Behavioral Health Treatment eligibility, contact your respective Local Management Entity-Managed Care Organization (LME-MCO)

**Additional Medicaid Programs and Services**
- **Behavioral Health Services**
- **Community Alternatives Program for Disabled Adults (CAP/DA)**
- **Home Health Services**
- **Personal Care Services (PCS)**
- **Private Duty Nursing**
- For additional Medicaid services eligibility (B3 Services, In Lieu of Services, ICF-IID), contact your respective LME-MCO

**Additional Resources**
- Contact your respective LME-MCO for services available in your area
- First in Families of North Carolina
- Brain Injury Association of North Carolina
- Disability Rights North Carolina
- Community Empowerment and Engagement
- Contact Hope4NC for emotional support and additional community resources.
**TBI Grant**

- Five-year TBI grant funded by federal Administration for Community Living (ACL).

- Grant Goal: To facilitate the continued development and expansion of a comprehensive, multi-disciplinary, and easily accessible system of care for individuals with lived experience and their families.

- **Main Grant Objectives**
  - Contribute to the infrastructure development of the whole care system to ensure individuals with Traumatic Brain Injury (TBI) are receiving culturally responsive, quality care in the new managed care system;
  - 100% of individuals who seek services through a Local Management Entity-Managed Care Organization (LME-MCO) will be screened for a potential TBI
  - Increased provider knowledge, skill and ability across all service programs
  - Expanded options for online support groups
  - Increase education to individuals with TBI to promote person-centeredness, empowerment and skill building
TBI State Funds Program

• The TBI program operates on approximately $3.9 million-dollar legislative appropriation for the purposes of services, supports, education and awareness.
  - $3,413,868 for the LME-MCO’s
    - services and supports
  - $559,218 for the Brain Injury Association of NC (BIANC)
    - education and awareness

• Types of services that are commonly provided through the LME-MCO’s include:
  - Residential Support
  - Personal Care
  - Home Modifications
  - Respite
  - Transportation
  - Other services/supports deemed medically necessary by the LME/MCO and the Primary Care Physician
TBI Training

• Statewide Training (in-person and webinars)
  – A variety of training topics are available such as Brain Injury Foundations, Brain Injury, Continuum of Care, Behavioral and Crisis De-Escalation after Brain Injury, Concussion Awareness, Prevention & Return to Learn among many others.

• Online NC Training Modules
  – Crisis Intervention Training for Law Enforcement and other First Responders
  – Cognitive and Behavioral Consequences of TBI in Adults
  – Pediatric TBI
  – Primary Care and TBI
  – Public Services and TBI in NC
  – Substance Use and TBI
  – Steps to Successful Employment after Brain Injury

• Trainings can be accessed at www.bianc.net
TBI Data Initiatives

- TBI screening occurs at 5 LME-MCO’s.
- ABI screening will begin soon with one Domestic/Intimate Partner Violence program pilot site and one Probation pilot site.
- Claims Data Reviews
  - The TBI Program continues working with the Quality Management Section at the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS) to determine the number of individuals that have accessed publicly funded services such as physical health, mental health and substance use service systems.
NC TBI Waiver

- TBI Waiver provides home and community-based services and supports to qualified individuals who sustained a TBI

- Currently available in Wake, Durham, Johnston and Cumberland counties

- Some qualifying criteria include:
  - TBI must have occurred on or after their 22nd birthday
  - Individuals must be Medicaid eligible (financial and medical criteria)
  - Individuals must meet one of two levels of care:
    - Skilled Nursing Facility
    - Neurobehavioral
NC TBI Waiver

Some examples of Services included in the NC TBI Waiver:

- Cognitive Rehabilitation
- Life Skills Training
- Extended State Plan Allied Health Services
- Personal Care
- Residential Supports
- Supported Employment
- Community Networking
- Day Supports
- Resource Facilitation
- Specialized Consultative Services
Brain Injury Advisory Council

The purpose of the Brain Injury Advisory Council (BIAC) is:

- To review the nature and cause of traumatic and other acquired brain injuries in North Carolina.

- Make recommendations to the Governor, the General Assembly, and the Secretary of Health and Human Services regarding the planning, development, funding, and implementation of a comprehensive statewide service delivery system to address the needs of brain injury survivors.

- There are 33 Council members

- Council Meets Quarterly

- Council Standing Committees---Children and Youth, Public Policy, Service Delivery System and Prevention.

- DMH/DD/SAS provides administrative support to the Council.
Brain Injury Resources

Brain Injury Association of NC (BIANC)

www.bianc.net

North Carolina Department of Health and Human Services (NC DHHS) - TBI Program


Brain Injury Association of America (BIAA)

www.biausa.org

National Association of State Head Injury Administrators (NASHIA)

www.nashia.org

Administration for Community Living (ACL)


Center for Disease Control and Prevention (CDC)

https://www.cdc.gov/traumaticbraininjury/index.html
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