

Addressing Knowledge Gaps In the Neuroepidemiology of Geriatric Traumatic Brain Injury (TBI)

Forum on TBI: Approaches to Address Unmet Research Needs in TBI Among Older Adults

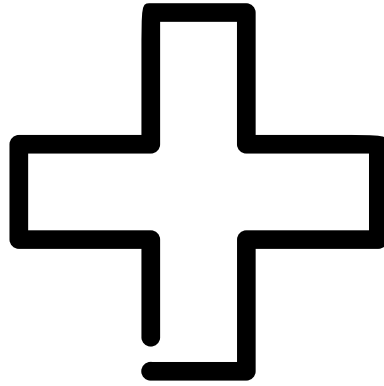
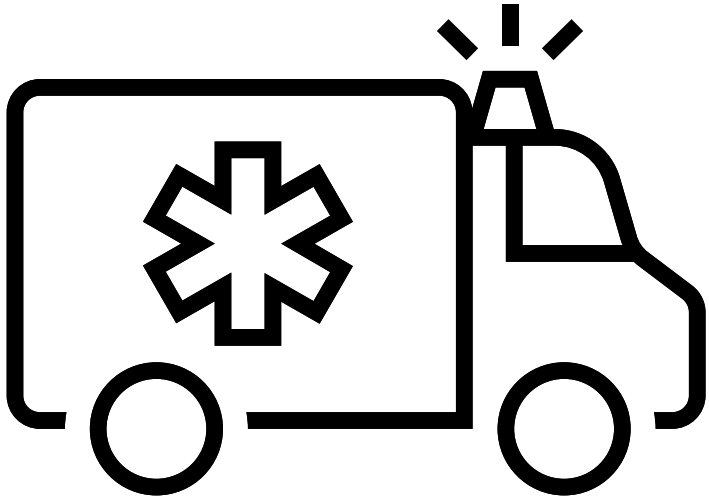
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Capturing Incidence of TBIs in Older Adults in the United States



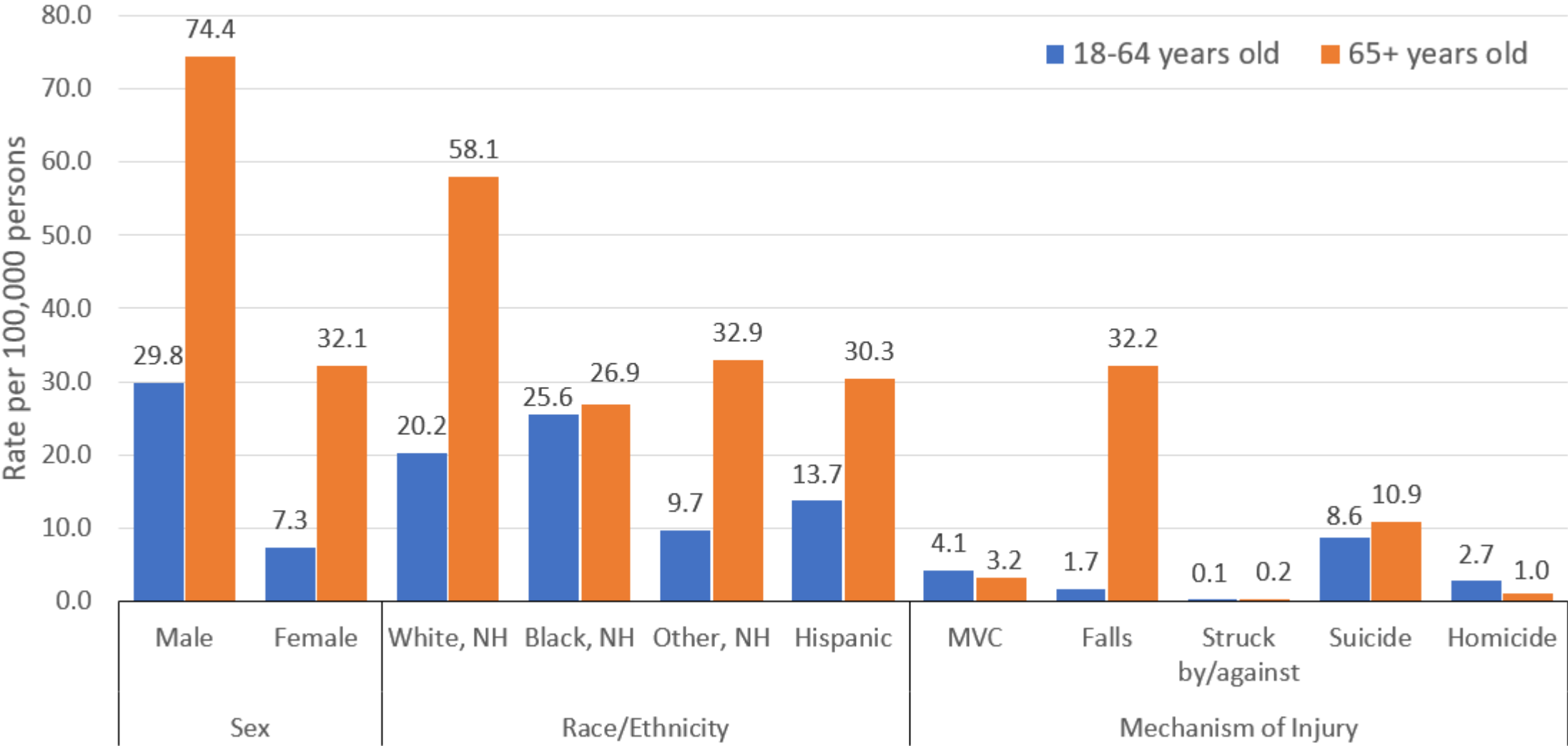
768,000 ED visits in 2022¹

97,000 TBI-related hospitalizations in 2020²

30,000 TBI-related deaths in 2022³

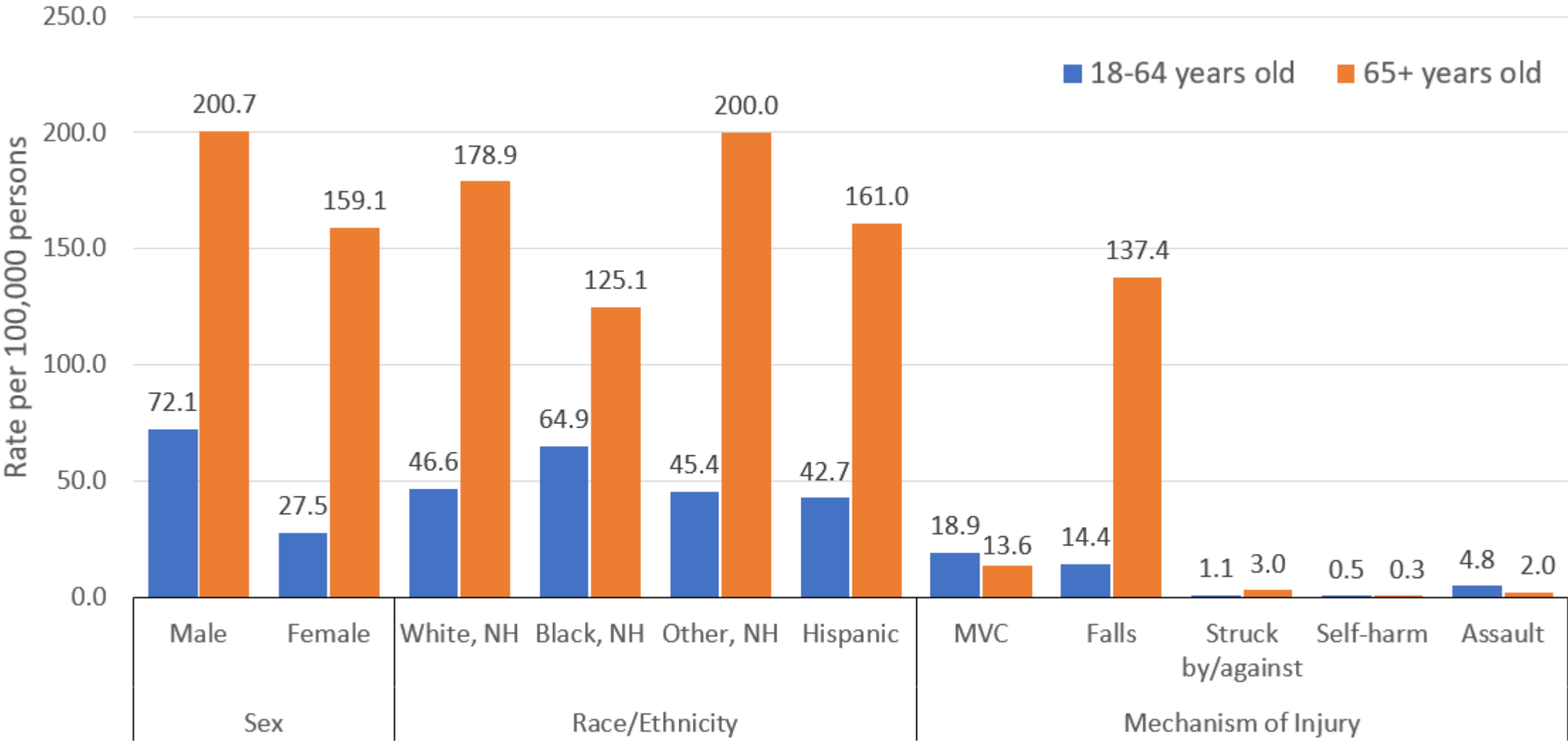
1. United States Consumer Product Safety Commission. NEISS coding manual: all trauma. Available: <https://www.cpsc.gov/Research--Statistics/NEISS-Injury-Data>
2. Agency for Healthcare Research and Quality (AHRQ). Healthcare Cost and Utilization Project (HCUP) National Inpatient Sample (NIS) 2024. Available: <https://www.hcup-us.ahrq.gov/>
3. CDC WONDER (Wide-ranging ONLINE Data for Epidemiologic Research). Available: <https://wonder.cdc.gov/mcd.html>

Older adults have the highest rates of TBI-related deaths, 2022



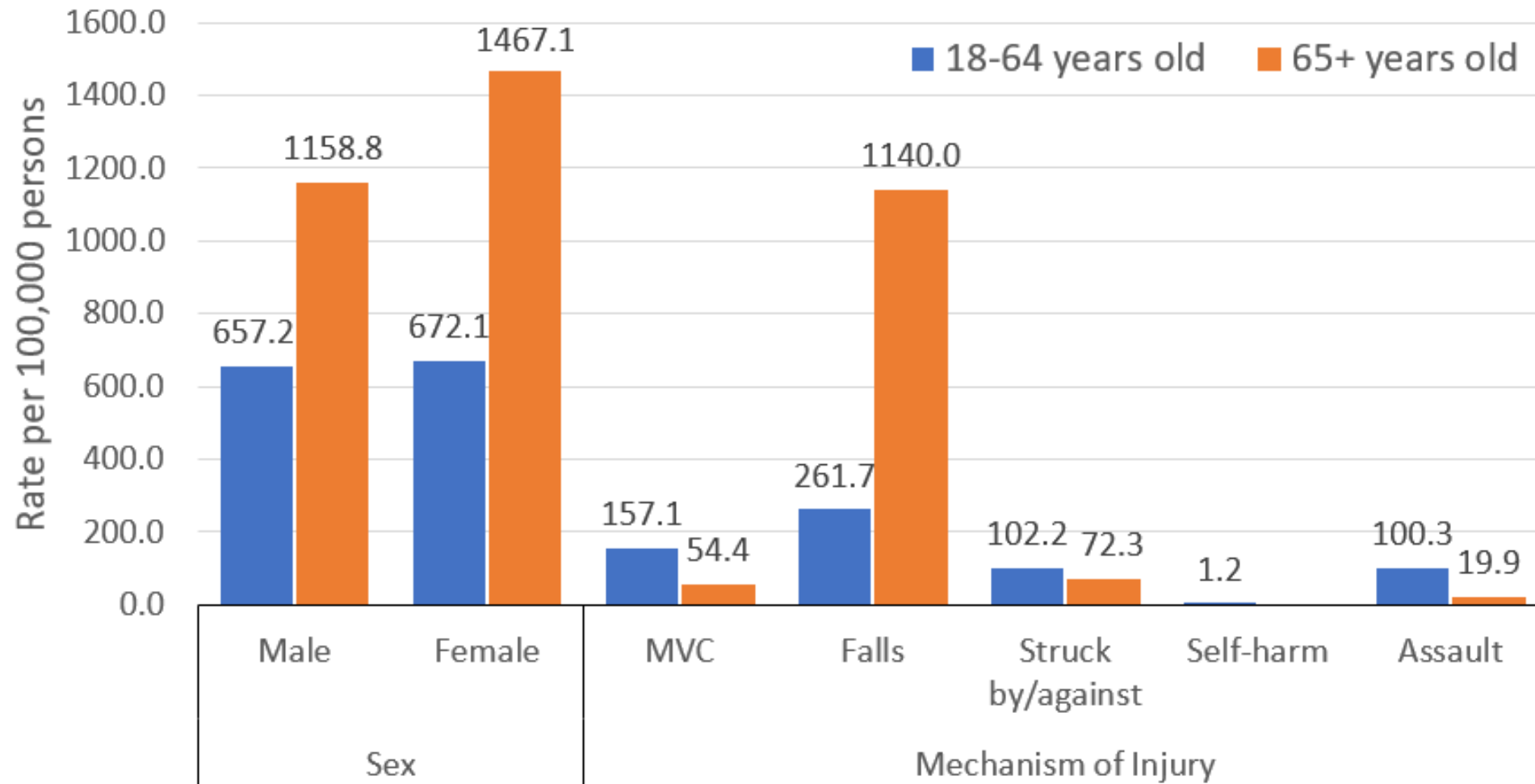
Abbreviations: NH = Non-Hispanic; MVC = motor vehicle crashes
CDC WONDER (Wide-ranging ONLINE Data for Epidemiologic Research). Available: <https://wonder.cdc.gov/mcd.html>

Older adults have the highest rates of TBI-related hospitalizations, 2020



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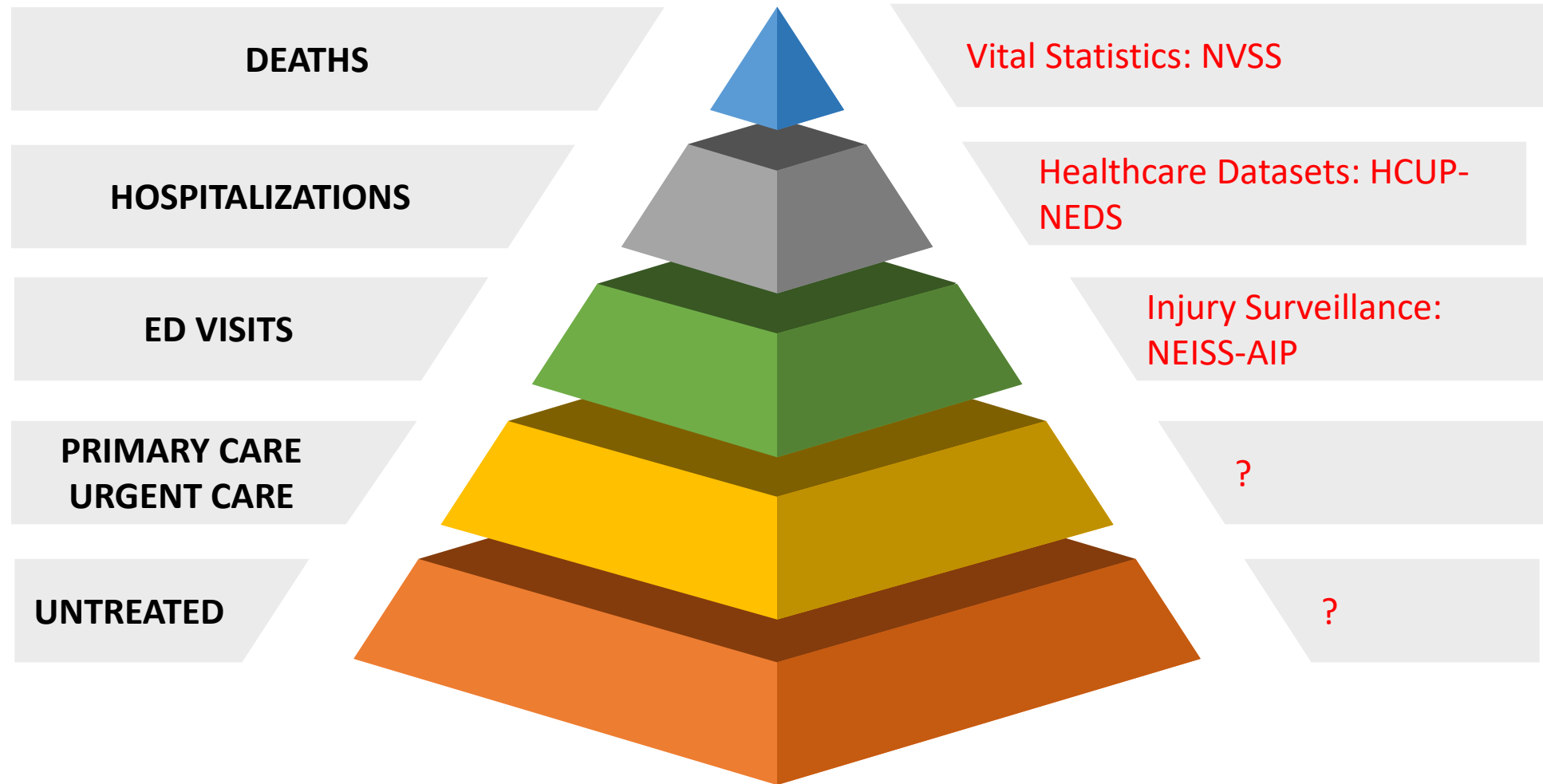
Falls are the most common mechanism of injury for older adult emergency department visits for head injuries, 2022



Abbreviations: MVC = motor vehicle crashes

United States Consumer Product Safety Commission. NEISS coding manual: all trauma. Available: <https://www.cpsc.gov/Research--Statistics/NEISS-Injury-Data>

Gaps in TBI Epidemiology



National Center for Health Statistics. (2016). About the National Vital Statistics System. Available from https://www.cdc.gov/nchs/nvss/about_nvss.htm.

Agency for Healthcare Research and Quality (AHRQ). Healthcare Cost and Utilization Project (HCUP) National Inpatient Sample (NIS) 2024. Available: <https://www.hcup-us.ahrq.gov/>

United States Consumer Product Safety Commission. NEISS coding manual: all trauma. Available: <https://www.cpsc.gov/Research--Statistics/NEISS-Injury-Data>

How can we get a more accurate estimate of TBI in the United States?

- National surveys can complement administrative data and collect a range of additional measures:
 - Context of injury
 - Healthcare utilization
 - Individual/Family level characteristics
- CDC's National Concussion Surveillance System (NCSS) pilot
 - 11% of older adult respondents (65+ years) sustained a TBI in the past 12 months

Summary

- Older adults have higher rate of deaths, hospitalizations, and ED visits for TBIs
 - Unintentional falls are the primary injury mechanism
- National surveys are a complementary approach to TBI surveillance



Thank you!

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Extra Slides

TBI Registry vs Surveillance System

Attributes	National TBI Registry	NCSS
Identifies TBI prevalence and incidence		✓
Creates a national estimate of the number of people who have sustained a TBI in the preceding 12 months		✓
Provides information about the most common cause of injury related to TBI		✓
Monitors trends to determine if the number of TBIs are increasing or decreasing		✓
Provides information about the number of sports-related concussions among youth		✓
Collects personally-identifiable information on individuals living with TBI	✓	
Provides information directly to individuals with a TBI on where to seek care for a TBI	✓	
Provides information on new treatments and clinical trials to persons with a TBI	✓	
Provides information about services and therapies to address comorbidities often associated with TBI	✓	
Provides information to caregivers for individuals with TBI	✓	
Facilitates clinical discoveries to benefit individuals living with TBI	✓	
Collects information about mild, moderate, and severe TBIs	✓	✓
Provides insights to healthcare utilization patterns (i.e., where people with TBI are seeking care and how these change over time); time to symptom recovery; impacts upon functioning after TBI; and why an individual did or did not seek care	✓	✓

CDC's Still Going Strong campaign (how to age without injury)



Burden of TBI among older adults

