

Impact of falls among seniors in Hawaii

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Resources for fall prevention: HIPP from EMS&IP, and State Plan from EOA



- Both documents recommend 4 key fall prevention strategies:
- *1. Physical activity/exercise*
- *2. Medication management*
- *3. Vision checks*
- *4. Home modifications*

Hawai'i State Department of Health
Emergency Medical Services and Injury Prevention System Branch

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Available at:
http://health.hawaii.gov/injuryprevention/files/2013/09/Hawaii_Injury_Prevention_Plan_2012_to_2017_4mb.pdf

Available at:
https://www.hawaiiadrc.org/Portals/_AgencySite/2013Falls.pdf

Importance of falls:

Falls among seniors (65+ years) in Hawaii are...

- The **3rd leading** cause of fatal injuries for residents of all ages (13%)
 - The **leading** cause of fatal injuries among seniors (46%)
- The **leading** cause of injury-related hospitalizations for all ages (37%)
 - The **leading** cause of injury hospitalizations among seniors (83%)
- The **leading** cause of hospitalizations for TBI for all ages (40%)
 - The **leading** cause of hospitalizations for TBI among seniors (87%)
- The **5th leading** cause of injury-related ED visits for all ages (8%)
 - The **leading** cause of injury ED visits among seniors (61%)
- The **leading** cause of injury-related EMS calls (24%)
 - The **leading** cause of injury-related EMS calls among seniors (81%)

The “injury pyramid” for falls among senior residents of Hawaii, 2010-2014

Deaths
1
(92/year)

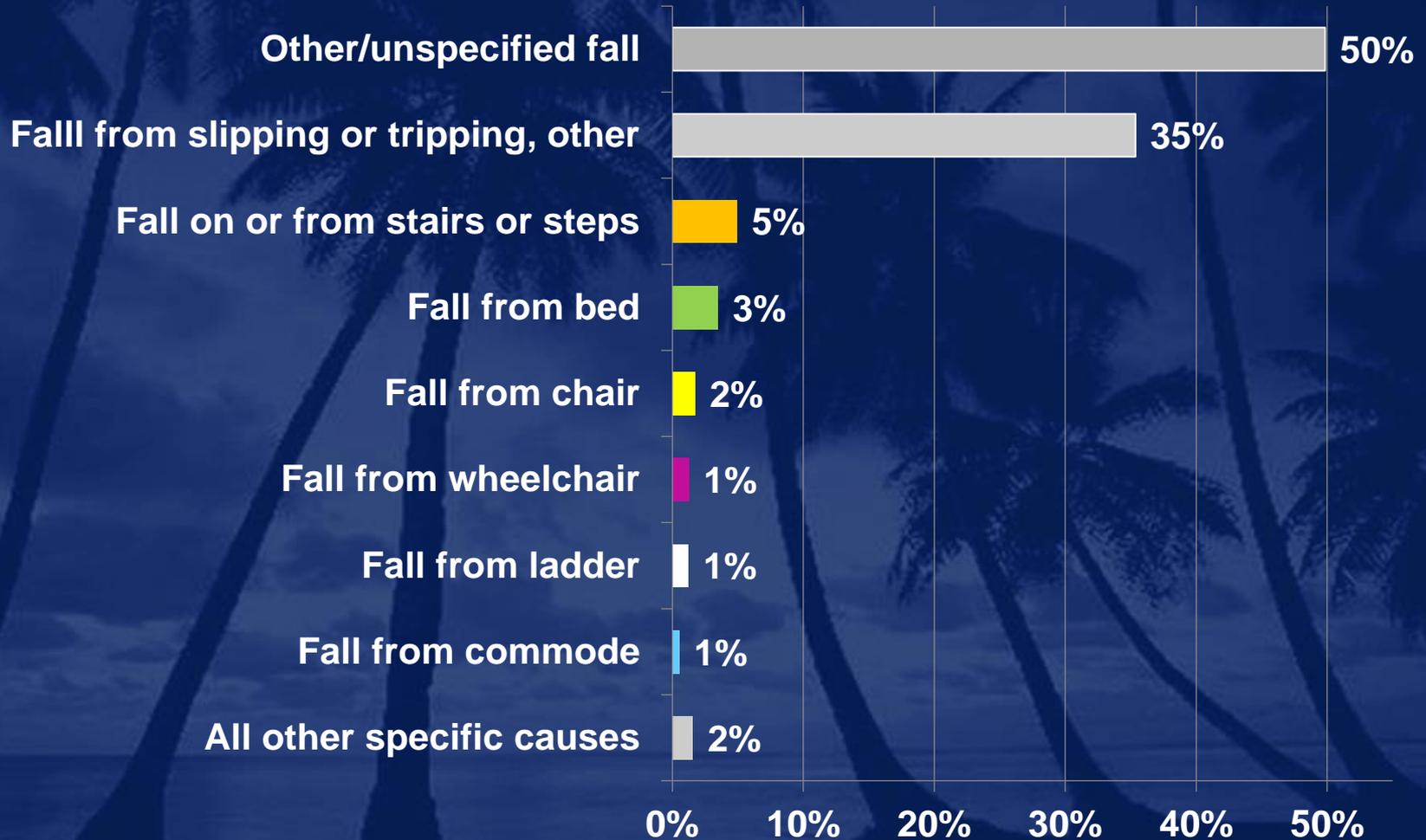
Hospitalizations
21 : 1 death
(~1,905/year)

Emergency department visits
68 : 1 death
(~6,296/year)

EMS ambulance calls
73 : 1 death
(~6,750/year)

**Total of 9,215
injuries per year →
25 per day**

Causes of falls among seniors in Hawaii, 2010-2014: Summary of external cause of injury codes from medical records



Why do we have such vague or missing information on the causes of falls?!

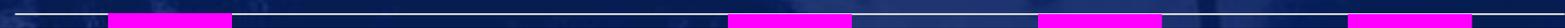
- A. We have crappy data
- B. We have lazy medical coders
- C. The causes of falls are multi-factorial
- D. The causes of falls are multi-factorial
- E. The causes of falls are multi-factorial
- F. C, D, and E

Survey of Hawaii residents: the 2014 Behavioral Risk Factor Surveillance System

- Acknowledge Tina Salvail, MSc., and Yesid Romero, M.D.
- Total of 5,841 individuals (1,804 were 65 years or older) who answered the falls questions:
 - *Preferred term for older adult*
 - Senior, Kupuna, Auntie/Uncle, 60 plus, Baby boomer, other
 - *General knowledge of how to prevent falls*
 - *Message testing around:*
 - Medication review
 - Exercise (balance and strength)
 - Reactions to messages
 - *Reasons for negative reaction*

Preferred term: *“Of the following terms, which would you say you MOST identify with?”*

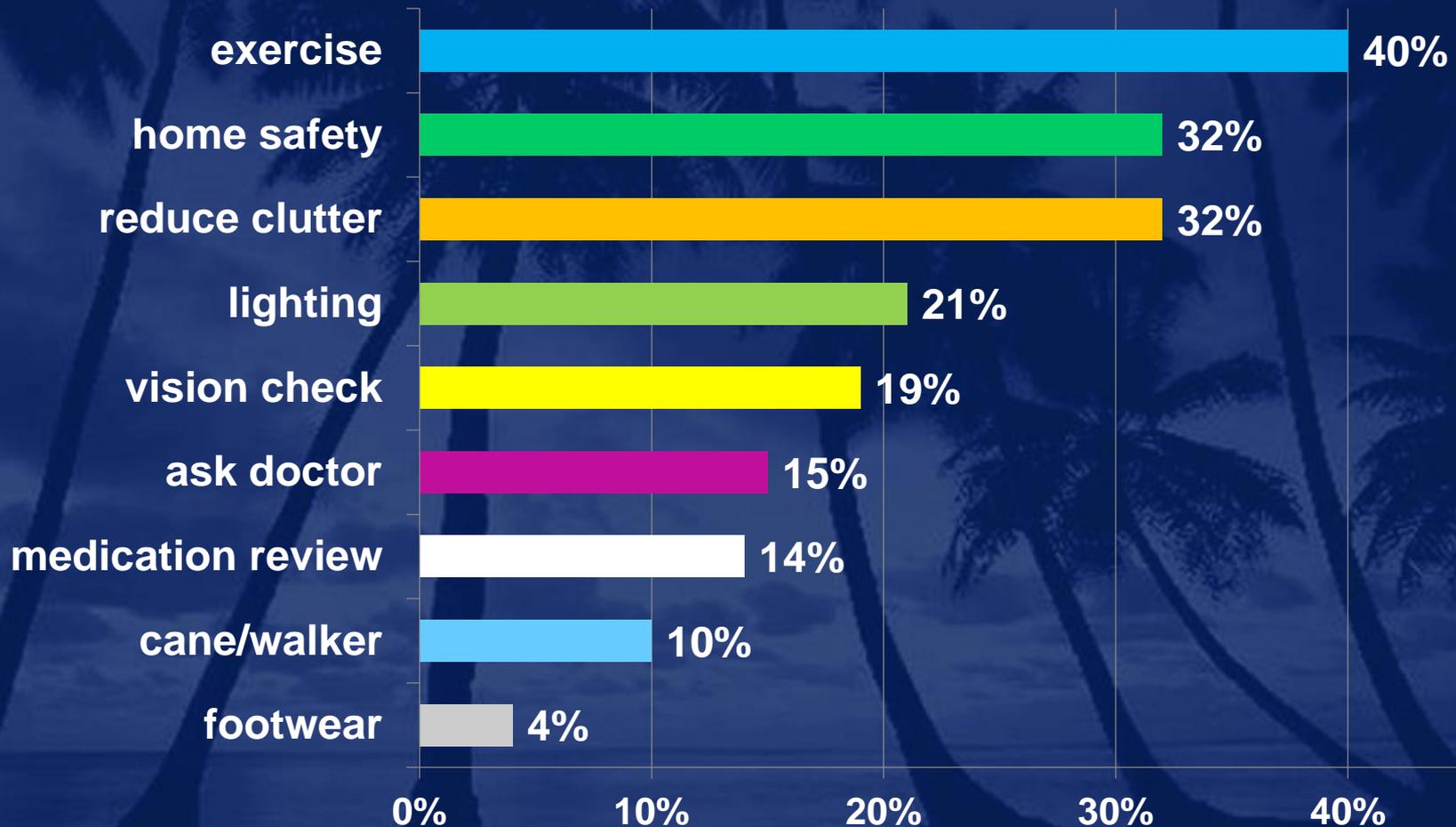
100%



- **Candidate terms: Senior, Kupuna, Auntie/Uncle, 60 plus, Older adult, or Baby boomer**
- **Results do not include ~5% who answered “other”:**
 - “all of the above”
 - “tutu” “grandma” / “grandpa”
 - “lil’ old lady”
 - “cool aunty”
 - “glamorous”
 - “joe”
 - “just a guy”
 - “old fut”
 - “grouchy old fart”

“What are some actions seniors can do to reduce their risk of falls?”

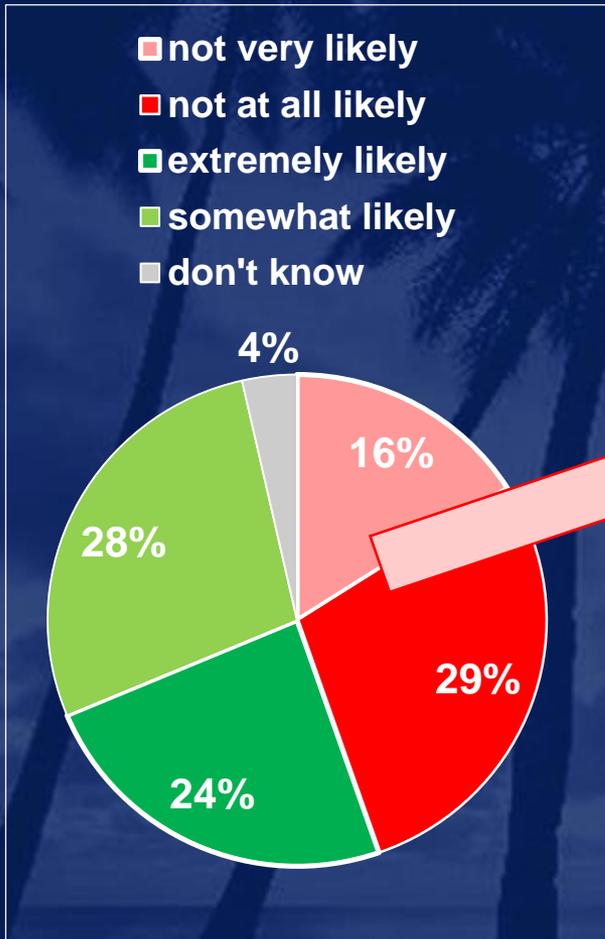
(Respondents 65 years and older, n=1,692)



Survey of Hawaii residents: the 2014 Behavioral Risk Factor Surveillance System

- **Message for medication review:**
 - *“Some medications cause dizziness, which can lead to falls. Be proactive and prevent a fall. Simply make an appointment with your doctor or pharmacist today to review your medications, including any over-the-counter drugs and supplements.”*

“After hearing the message, how likely would you be to have a medication review?” (Respondents 65+yrs, n=1,804)



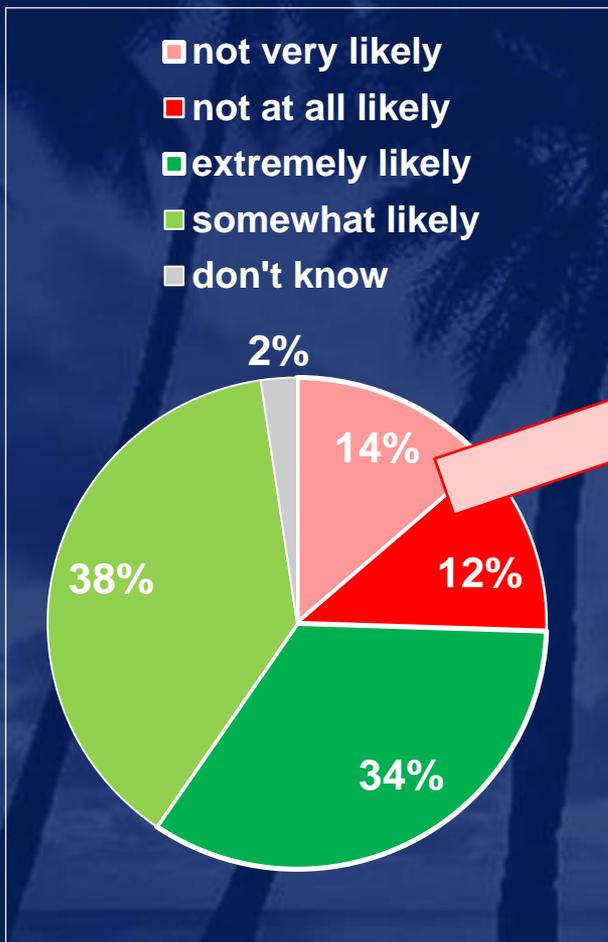
Why unlikely to have a medication review? (n=779)



Survey of Hawaii residents: the 2014 Behavioral Risk Factor Surveillance System

- **Message for exercise/physical activity:**
 - *“Balance and strength are essential to preventing falls—be active and do simple movements every day—walk, garden, do yoga, swim, dance, or start a program like Tai Chi.”*

“After hearing the message, how likely would you be to become more active or exercise?” (Respondents 65+yrs, n=1,796)

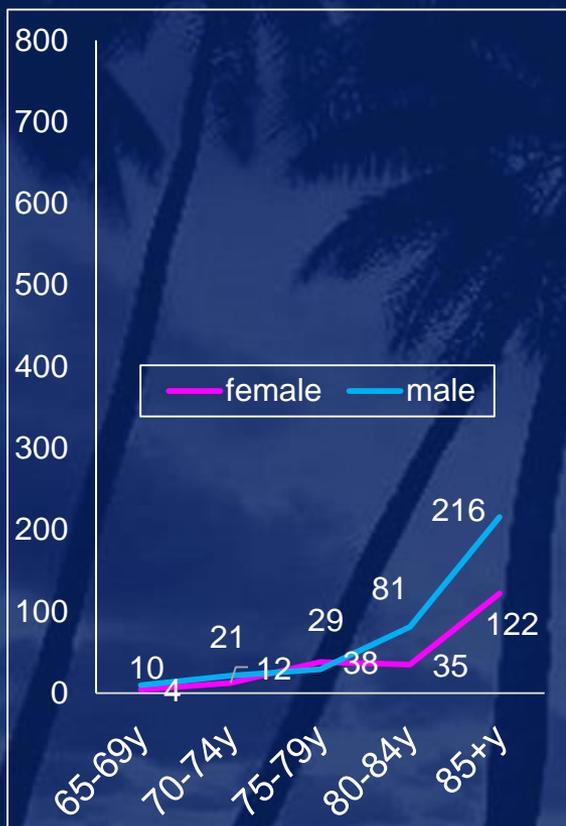


Summary

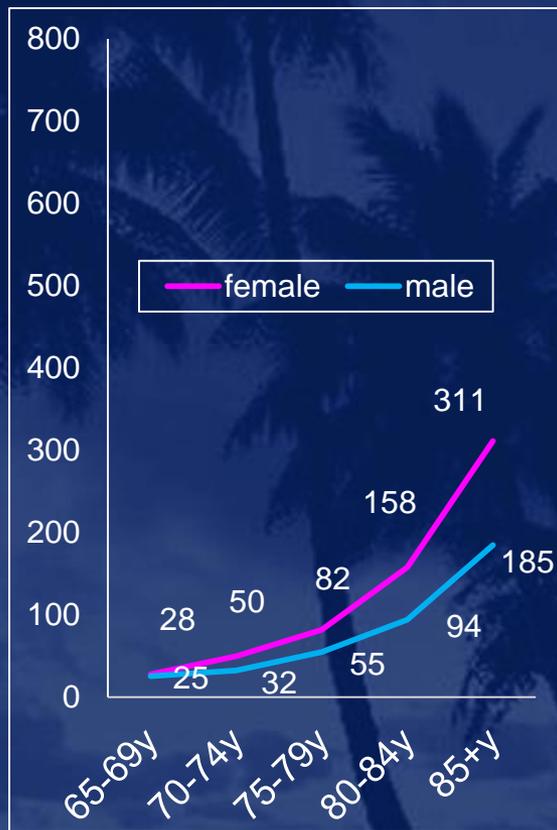
- **Falls among seniors present the biggest injury burden in Hawaii**
- **Causes are believed to be multi-factorial**
 - *4 major prevention strategies: physical activity/exercise, medication management, vision, home modifications*
- **Existing prevention knowledge**
 - *High (~30%-40%) for exercise and home modifications*
 - *Low (~15%) for medication management*
- **Messaging**
 - *“Senior” is best all-around term*
 - *Message promoting physical activity well received (~75%)*
 - *Message for medication review impactful for ~52%*



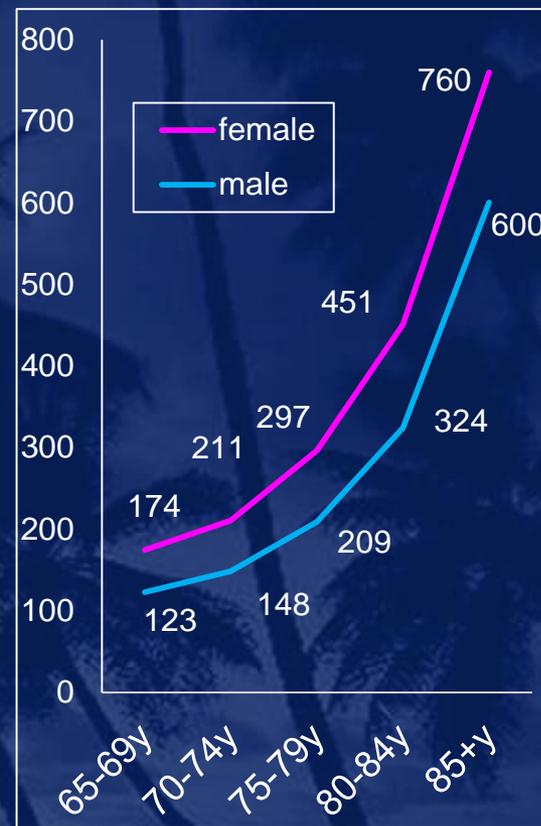
Rates of injuries from falls among senior residents of Hawaii, by gender and level of severity, 2010-2014



Deaths
(/100,000)

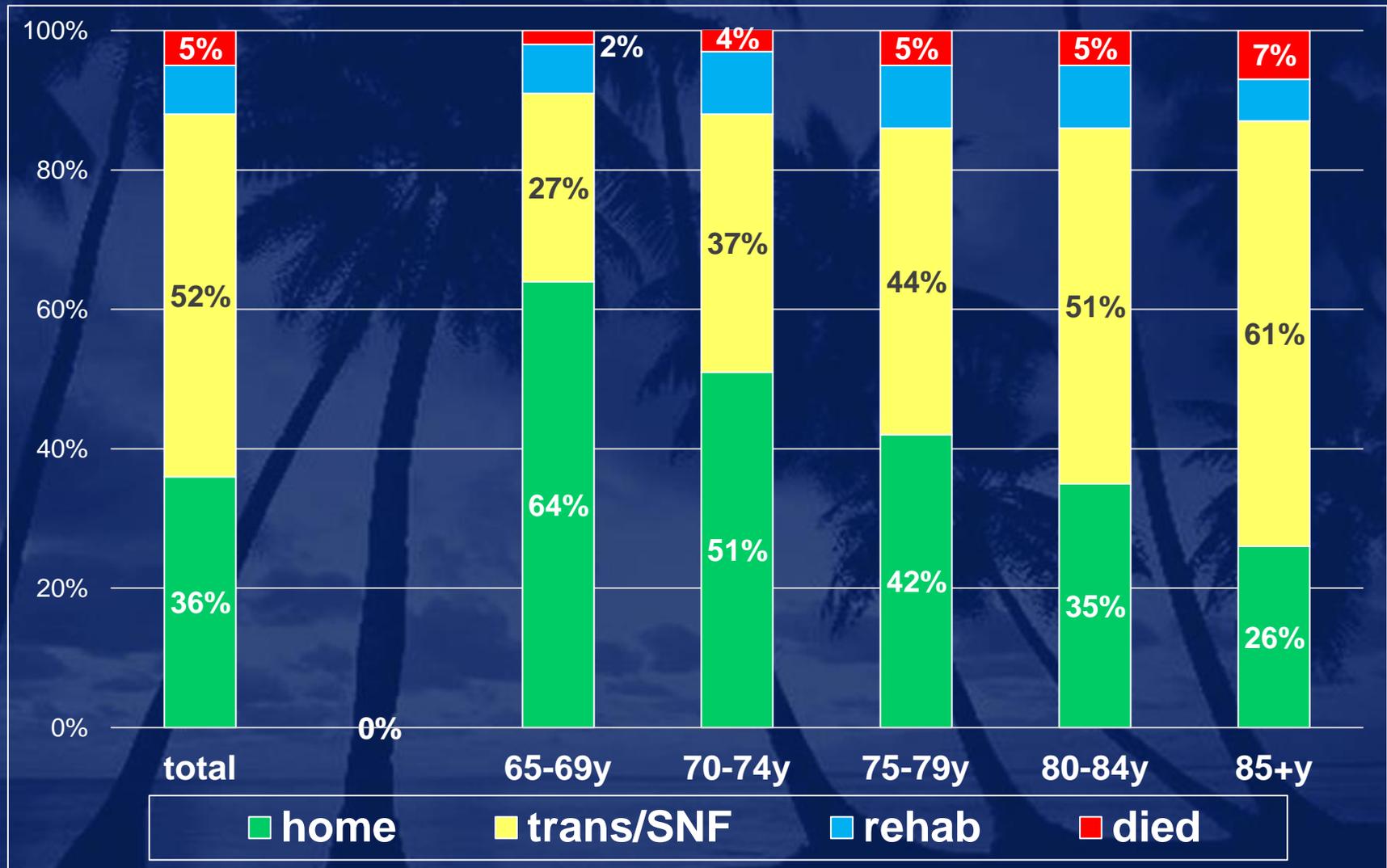


Hospitalizations
(/10,000)



Emergency dept.
(/10,000)

Disposition of senior residents hospitalized for falls in Hawaii, by age group, 2010-2014



Distribution of charges for injuries treated in Hawaii hospitals, by mechanism, 2010-2014

