



Wisconsin EMS and Falls Report

EMS and Falls in Wisconsin, 2022 Report

Falls are a leading cause of injury and death in Wisconsin and in 2022, emergency medical services (EMS) in Wisconsin responded to over 130,000 falls. EMS data offers a unique insight into falls, and EMS offers an opportunity to address falls in the community.

According to the Centers for Disease Control and Prevention (CDC), [Wisconsin has the highest fall death rate among older adults in the United States](#). Falls do not just cause fatal injuries, but also can cause long-term health conditions stemming from injuries or a loss of confidence in one's own physical fitness.

Despite all of this, falls can be prevented. **There are a variety of steps that people can take to reduce their chance of falling. Some of these include**

- Improving lighting
- Reducing clutter
- Making commonly used items easily accessible

People should consider working with an occupational or physical therapist, their local [Aging and Disability Resource Center](#), or other specialists.

Many people lack access to the community or health care resources needed to prevent falls, or the factors causing their falls are out of their control.

[Community organizations and volunteers should consider partnering with EMS agencies](#) to better understand falls in their community and to provide interventions.



Key takeaways

- Wisconsin has a high rate of falls among older adults and has the highest fall death rate in the country.
- EMS responses to falls are increasing at an accelerated pace.
- EMS most often responds to falls at home.

Resources

You can find more resources on preventing falls on [CDC's Stopping Elderly Accidents, Deaths & Injuries website](#), on [Wisconsin Institute for Healthy Aging's website](#), on the [Stepping On program's website](#), and in the [Partnering with Fire and Emergency Medical Services to Prevent Falls article from National Council on Aging](#).

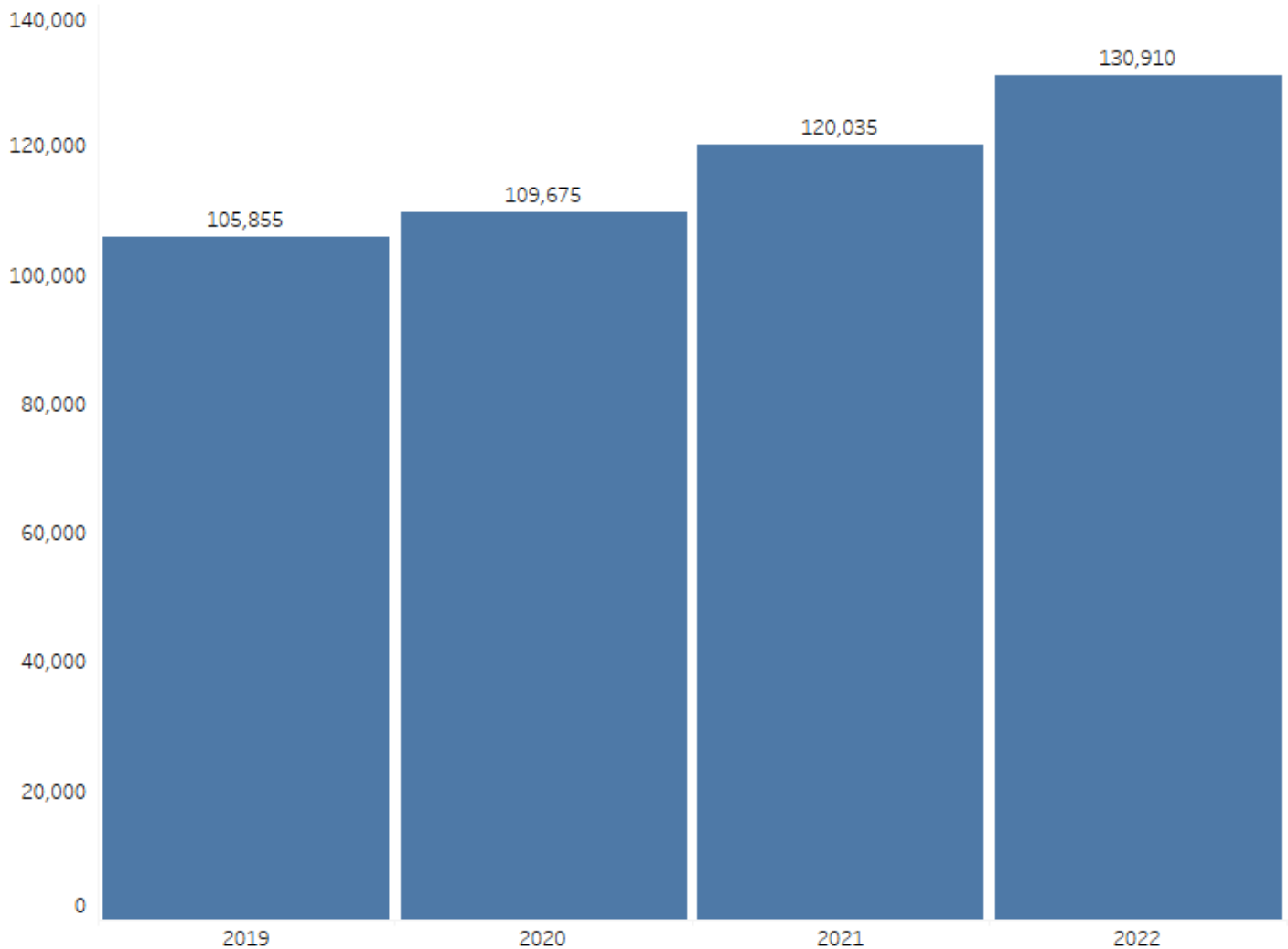
Data in this report are from both the Wisconsin Ambulance Run Data System (WARDS) as well as the National Fire Incident Reporting System (NFIRS).





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Falls That EMS Responded to in WARDS by Year



There were 25,055 more falls that EMS responded to in 2022 than in 2019. **The number of falls that EMS responds to are increasing by nearly 10,000 a year statewide**, with an average increase of 7.4% a year since 2019.

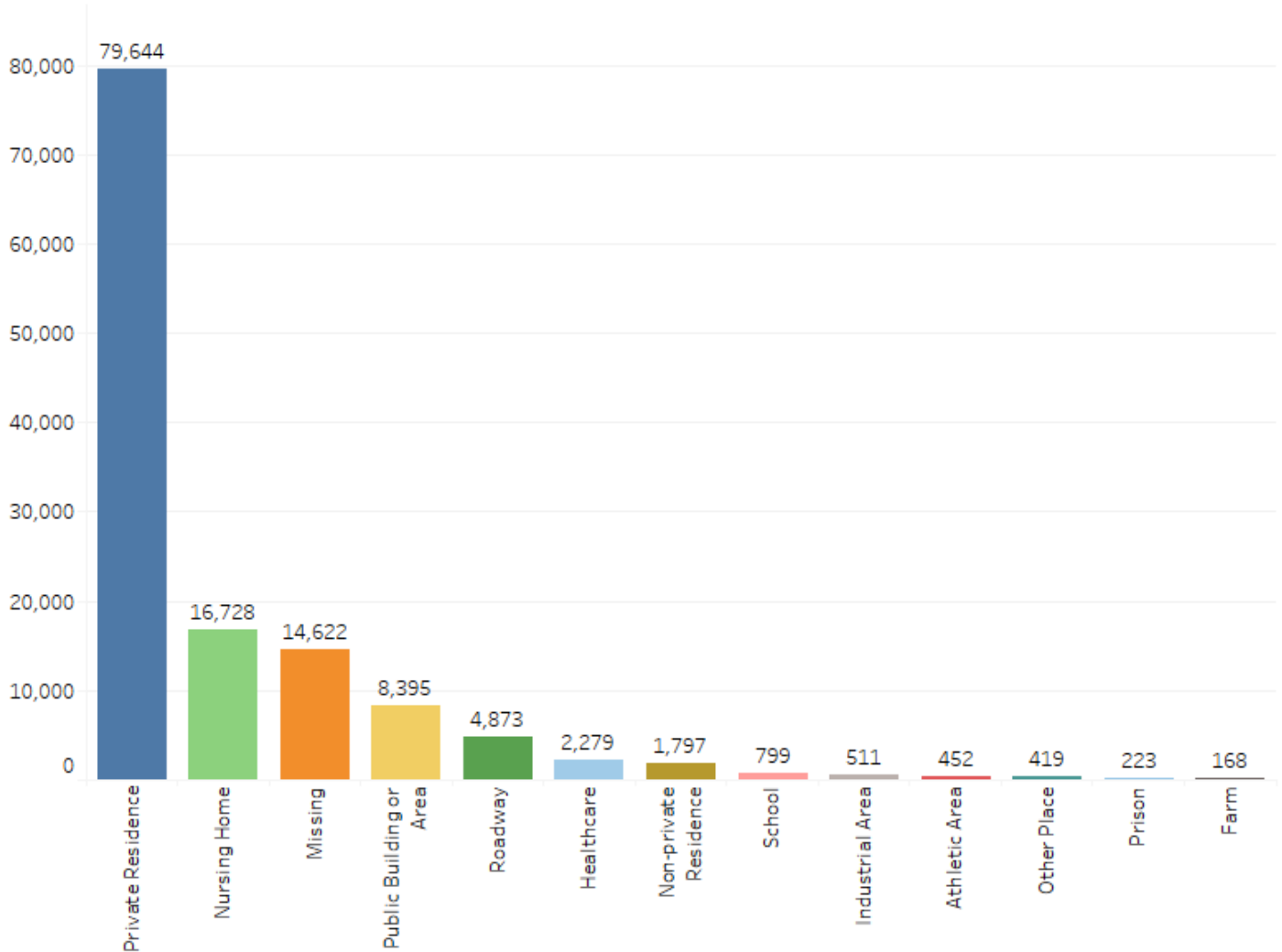
Falls made up 18% of 911-related ambulance runs in 2022 and according to the CDC, Wisconsin has the highest fall death rate among older adults in the nation. As the number of falls and fatal falls continue to increase, more efforts to address and prevent falls will be needed.

As Wisconsin's population ages, without changes to how we work to prevent or treat fall injuries, injury and death will continue to increase further straining EMS and our health care system.



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Locations of Falls that EMS Responded to in 2022



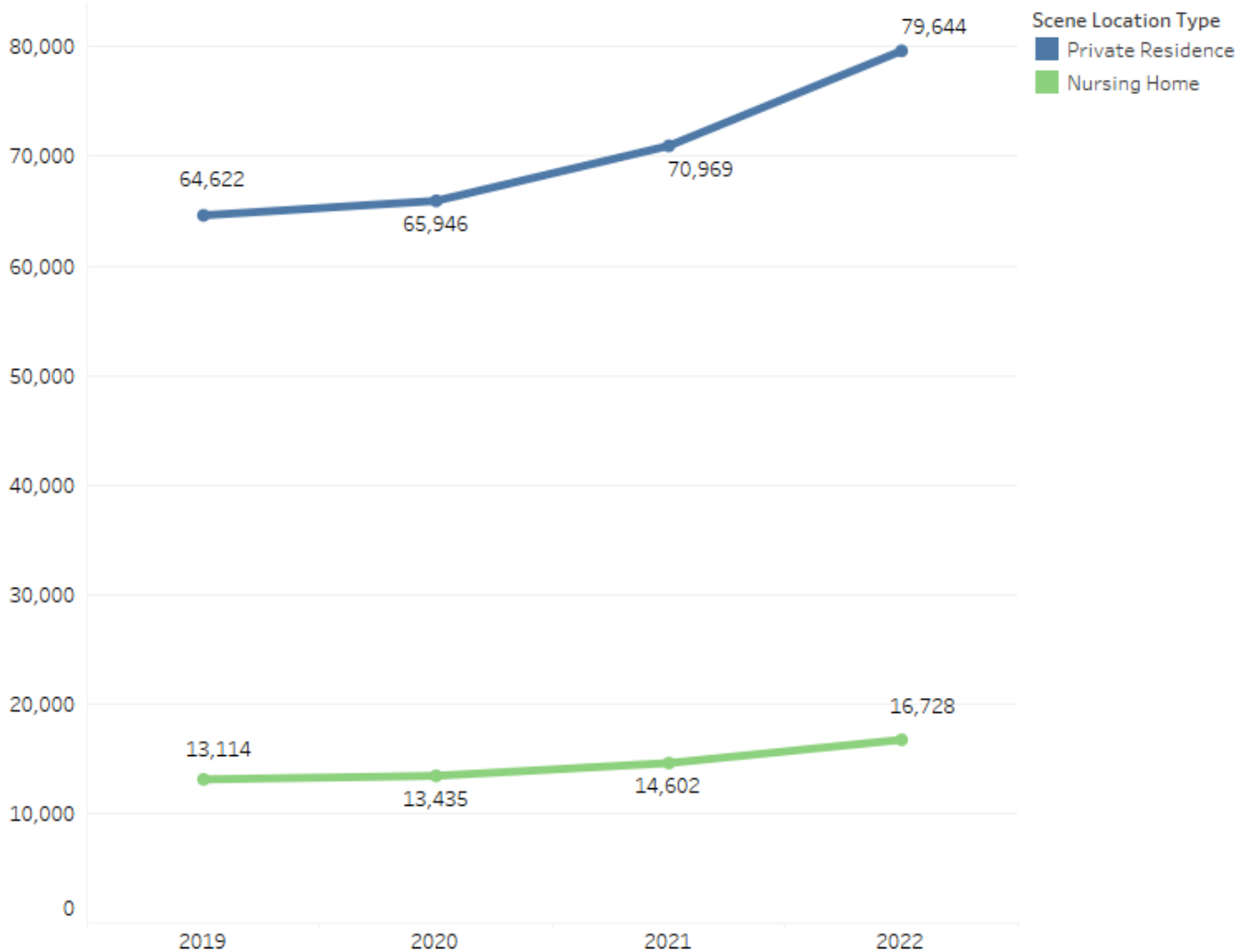
Private residences are the most common place that EMS responds to falls or fall-related injuries while nursing homes are also common locations. Public areas, such as stores, make up some of the total fall runs as do falls on roadways or sidewalks, but these are generally less common locations. Efforts to prevent falls at home could have the largest impact on reducing the number of fall injuries and the number of ambulance runs for falls.

While training around falls and prevention efforts in nursing homes and assisted living facilities may help reduce the number of falls occurring in these locations, nursing home policies may impact the number of EMS responses for falls. Some facilities may require a medical examination to be conducted by EMS after every fall, or they may have implemented “no lift” policies, and require EMS to assist their patient back to their feet, chair, or bed.



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Private Residence and Nursing Home Falls



Over four years, **falls in private residences increased by about 5,000 falls a year**, an average increase of 7.3% each year. **Nursing home falls increased by about 1,200 a year** over the four year period with an average increase of 8.6% per year. Fall ambulance runs at both private residences and at nursing homes are increasing at a higher rate than all other non-transporting ambulance runs.

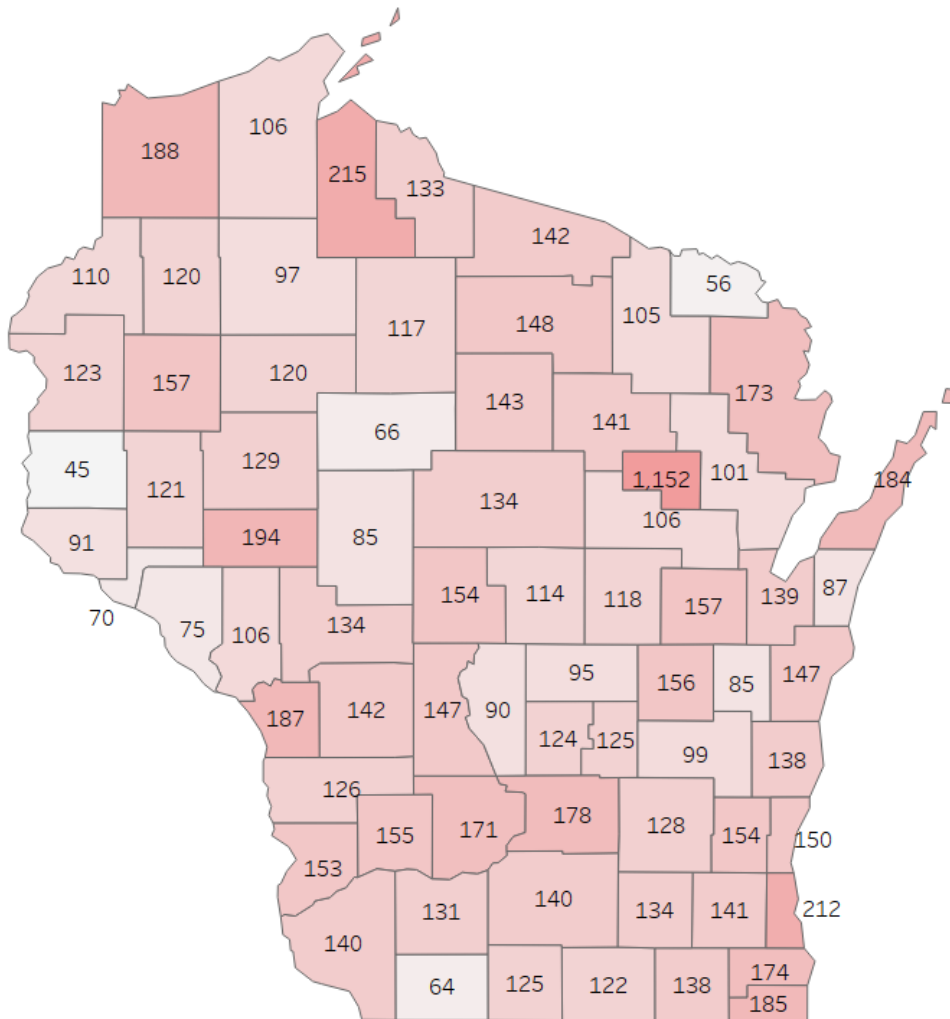
In 2018, among falls with location information, falls at private residence locations made up **67%** of falls and nursing home locations an additional **13.5%** of fall calls. In 2022, private residences were the location of **68%** of all fall calls and nursing home locations **14.4%** of all fall calls.

The number of falls that EMS responds to continues to increase at an accelerated pace.



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Age Adjusted of Falls by 10,000 County Residents in WI in 2022



This map was created utilizing WARDS data only as NFIRS does not collect data on patients' age. This may result in an underestimation of age adjusted fall responses in some counties, especially those that are more rural.

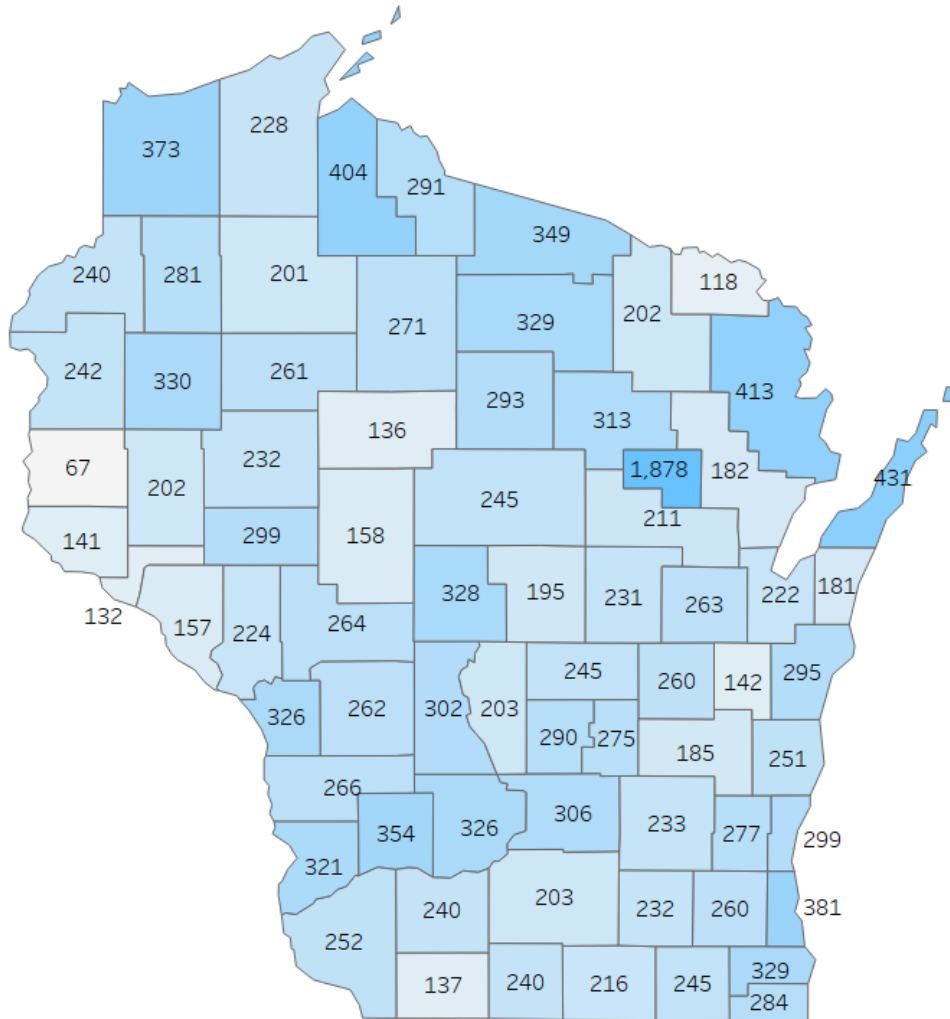
Counties with older population distributions will often have a higher number of falls than counties with younger populations. Age adjustment takes into account different age distributions and shows what rates a county would have if all counties had the same age distribution.

Counties that have high age-adjusted falls rates compared to their neighbors may be good candidates for falls-related interventions as they have more falls than their age distribution would indicate they should have.



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Crude Rate of Falls by 10,000 County Residents in WI in 2022



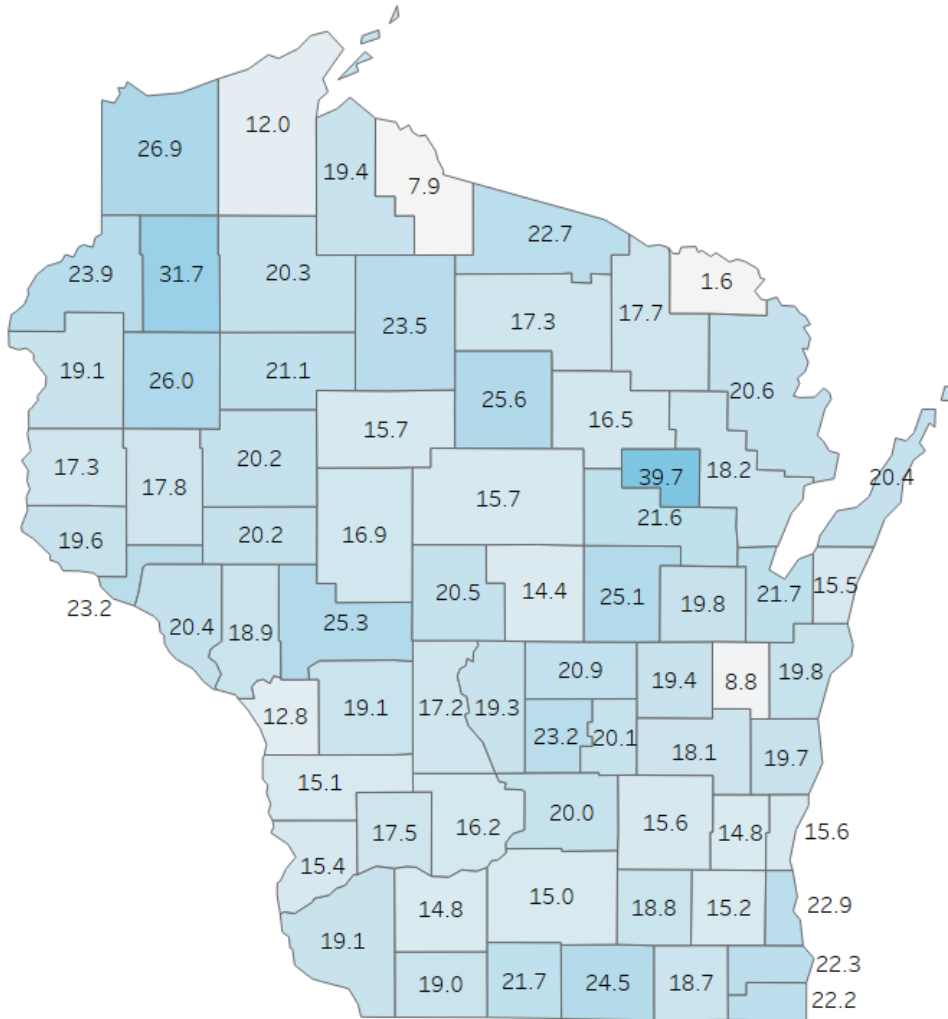
This map shows the rate of falls that EMS and fire departments responded to without any additional adjustments. Counties with higher crude rates of falls could likely benefit more from interventions aimed at preventing falls. Factors that impact the rate of falls at the county level include

- Age and health of the population
- Types of housing and age of housing
- Community programs and resources available and accessible
- Access to health care
- The number of visitors to the county that are injured



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Age Adjusted Emergency Department Visits for Fall Injuries per 10,000 County Residents in WI in 2021



This final graphic shows age adjusted emergency department visits due to falls. Different sources of data can be used to answer different questions, such as the frequency of falls in a community in general, the severity of fall injuries, and the additional burden preventable falls create for individuals, families, and specific parts of the health care system.

The rates of EMS responses to falls and emergency department visits for falls vary because people are transported to the emergency department without calling EMS, different settings may classify causes of injury differently, and because EMS sometimes responds to falls that do not require patient transport, or the patient refuses transport.

The age adjusted emergency department visit data has been supplied by the [Wisconsin Interactive Statistics on Health \(WISH\) Query System](#). We recommend that those interested in more falls data examine WISH emergency department and mortality data, as well as the [2022 Yearly Trauma Report](#) which has a "Focus on Falls" section.



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Ideas for partnering with EMS agencies

The National Council on Aging lists action steps for partnering with EMS and Fire services to prevent falls in their article [Partnering with Fire and Emergency Medical Services to Prevent Falls](#). Among some of the steps are:

- Providing community data or requesting data from them to understand falls in the community.
- Providing responders with resources to provide to patients with a focus on fall prevention activities and information on enrolling in falls prevention community programs.
- Helping EMS and Fire serve as a referral source to community services.
- Working with EMS or Fire to provide programming such as the National Fire Protection Association's [Remembering When A Fire and Fall Prevention Program for Older Adults](#).

Another great way to partner with EMS services is to foster [Community Emergency Medical Services \(CEMS\)](#) in your community. CEMS works collaboratively with partners within their health care system to address the unique needs of their community, including fall prevention.

Data included in this report

Data in this report are from the Wisconsin Ambulance Run Data System (WARDS) and the National Fire Incident Reporting System (NFIRS). Ambulance runs from WARDS were included if the complaint reported to dispatch or recorded by the EMS crew was a fall, if the cause of injury ICD-10 code was a fall from the same level, or if the complaint reported to dispatch was recorded as a traumatic injury and the patient care narrative indicates the injury was a fall. Ambulance runs with certain primary impressions such as stroke, cardiac issues, or self harm are excluded. NFIRS data was included if the incident type was recorded as "assist physically disabled" or "assist invalid." Fall-related ambulance runs for the same individual that occur within 16 hours of each other, or fire responses to the same address as another fire response or EMS response within one calendar day, are considered part of one episode, or one fall for the purposes of this report.

For more questions about this report or EMS in Wisconsin, please contact dhsemssmail@dhs.wisconsin.gov