

Wisconsin EMS and Falls Report

EMS and Falls in Wisconsin, 2024 Report

Falls are a leading cause of injury and death in Wisconsin. In 2024, emergency medical services (EMS) in Wisconsin responded to over 140,000 falls. This update to the Wisconsin EMS and Falls Report last published in 2023 offers new information on falls in Wisconsin. EMS agencies continue to be an important partner in addressing falls in Wisconsin.

According to the Centers for Disease Control and Prevention (CDC), <u>Wisconsin has the highest fall death</u> <u>rate among older adults in the United States</u>. 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.

Fortunately, 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.
- Engaging in evidence-based workshops such as <u>Stepping On.</u>

People should consider working with an occupational or physical therapist, their local <u>Aging and Disability Resource</u> 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 which can strain the EMS system.
- EMS most often responds to falls at home.

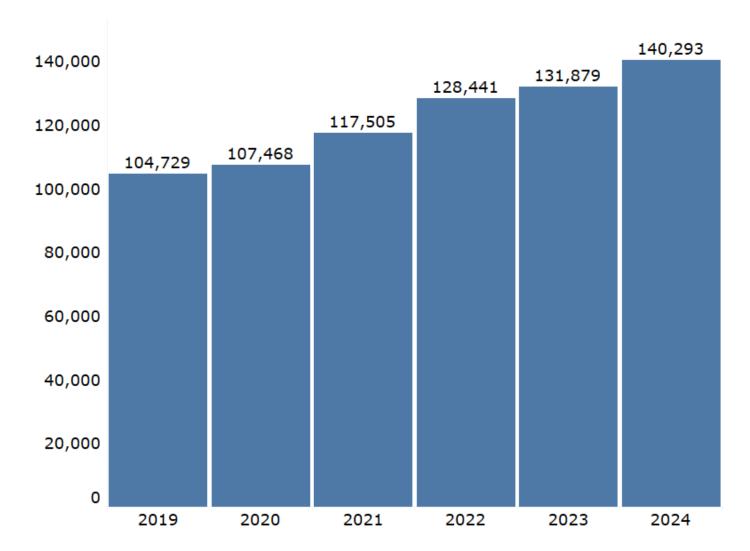
Resources

You can find more resources on preventing falls on <u>CDC's Stopping Elderly Accidents</u>, <u>Deaths & Injuries</u> <u>website</u>, on <u>Wisconsin Institute for Healthy Aging's website</u>, and on the <u>Stepping On program's website</u>. Community-based organizations (CBOs) can use Falls Free WI's <u>EMS-CBO Toolkit</u> to learn strategies to work with EMS agencies to address older adult falls.

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



Falls That EMS Responded to in WARDS by Year

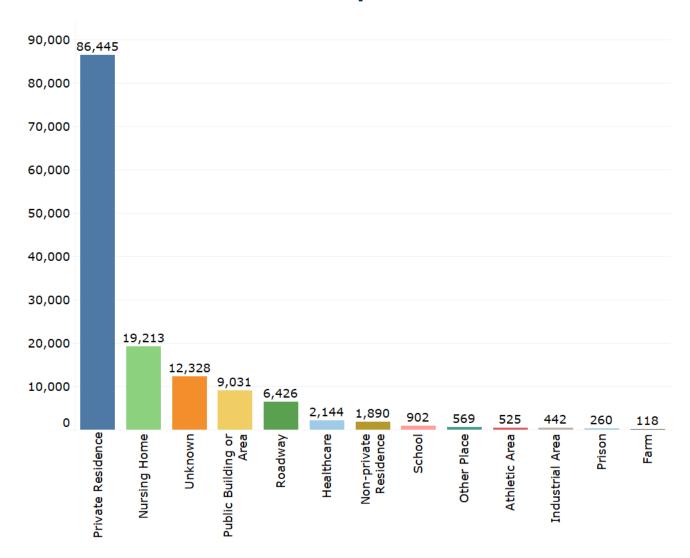


There were 35,564 more falls that EMS responded to in 2024 than in 2019. **The number of falls that EMS responds to are increasing by nearly 10,000 a year statewide**, with an average increase of 6.1% a year since 2019.

Falls made up 21% of 911-related ambulance runs in 2024 where patient contact was made, 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.

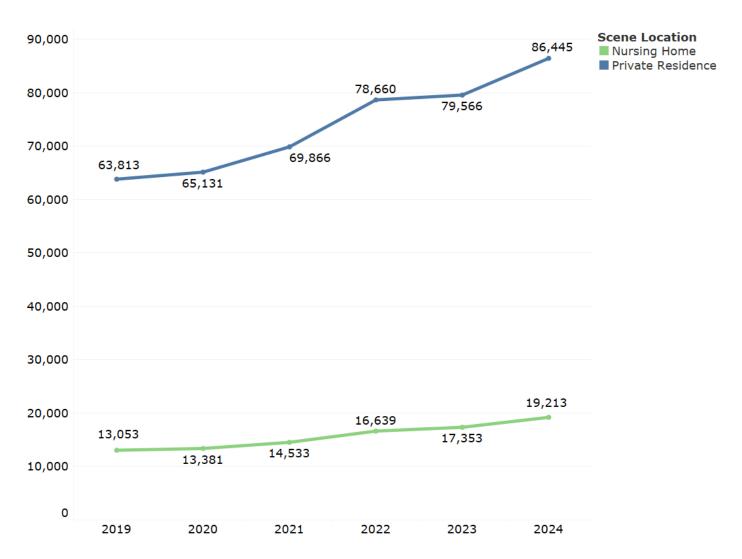
Locations of Falls that EMS Responded to in 2024



Private residences are still 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.

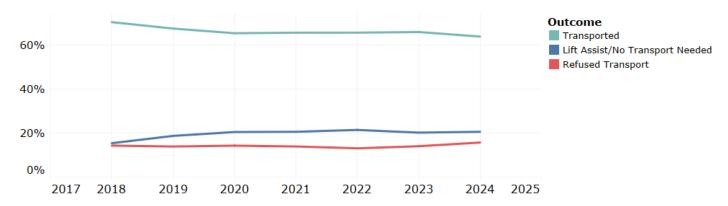
Private Residence and Nursing Home Falls



Over five years, **falls in private residences increased by about 4,500 falls a year**, an average increase of 6.3% each year. **Nursing home falls increased by about 1,200 a year** over the four-year period with an average increase of 8.1% 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 2024, private residences were the location of **62%** of all fall calls and nursing home locations **13.7%** of all fall calls.

Lift Assists and other Non-Transports as a Percentage of all Fall-Related EMS Calls



Not all patients require transport to hospitals after falling, and some patients do not wish to be transported to the emergency department. As these individuals are not seen at hospitals, there are often not opportunities for these individuals to be connected to fall-prevention resources. Additionally, some nursing homes and assisted living facilities 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.

The proportion of non-transports have only increased a small amount in the past few years, but as fall-related EMS responses increase, the number of non-transports increases as well.

Lift Assists and other Non-Transports by Fall Location

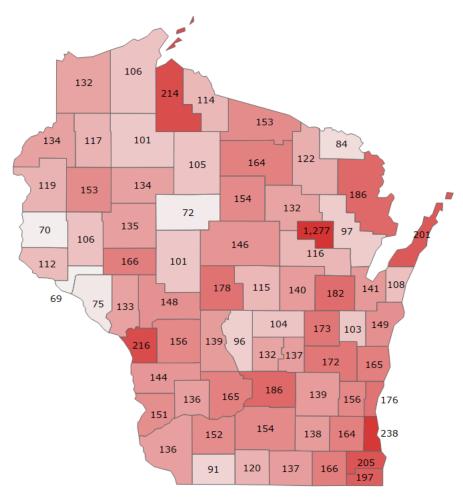


The largest increases in non-transports are for responses to private residence. These have increased by 16,000 runs a year since 2018, an 86% increase. **Non-transport EMS runs for falls at nursing homes have increased by 2,933 a year since 2018, a 285% increase.**

These numbers may not capture the full story. Sometimes simple lift assist responses are not recorded by EMS agencies or are not reported into WARDS. It is important that EMS report every fall response to WARDS, even those that do not require medical treatment or where the patient is not billed.



Age-Adjusted of Falls by 10,000 County Residents in Wisconsin in 2024

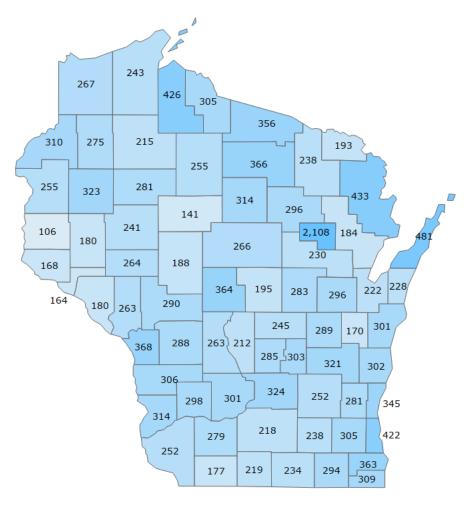


This map was created utilizing WARDS data only as NFIRS does not collect data on patient's age. This may result in an underestimation of age-adjusted fall responses in some counties, especially those that are more rural.

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

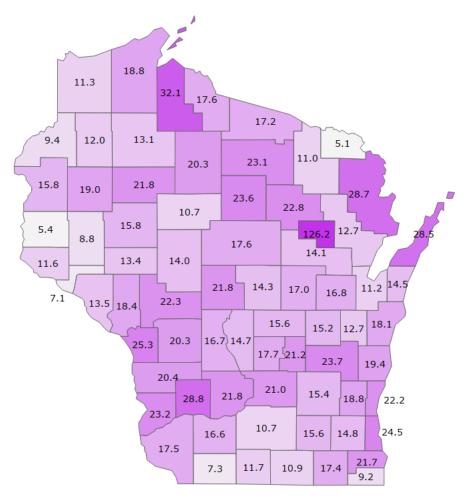
Crude Rate of Falls by 10,000 County Residents in Wisconsin in 2024



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.

Private Addresses with Repeated Fall Ambulance Runs per 10,000 County Residents in Wisconsin in 2024

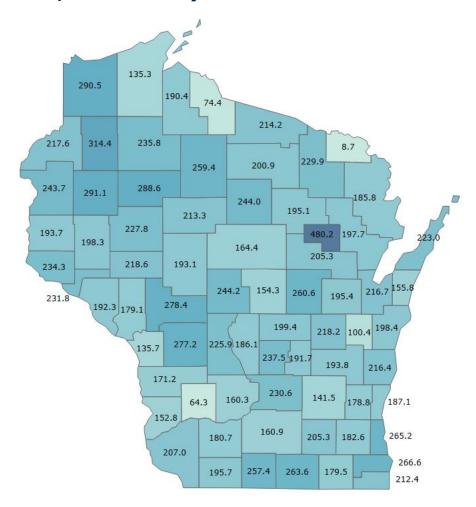


EMS often respond to the same addresses for repeated injuries or emergencies. Repeat calls indicate that an individual may not have access to the resources to prevent their falls or to address the underlying cause behind their fall, or they are not using the resources available to them. These repeated calls are not only an indicator of poor access to prevention systems and unique events that could result in injury or death for the patient, but they also can create strain on EMS and health care resources in the community.

An upstream approach to prevent people from falling is to increase programs aimed at preventing falls in the home and to increase access to health care services to treat underlying conditions, monitor individual's health, and assess fall risk.

Finding different ways to get these patients connected with resources such as through referrals to other organizations through EMS, and calming potential concerns about receiving these resources, could go a long way to preventing these patients from falling more.

Age-Adjusted Emergency Department Visits for Fall Injuries per 10,000 County Residents in Wisconsin in 2023



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 <u>Wisconsin Interactive Statistics</u> on <u>Health (WISH) Query System</u>. We recommend that those interested in more falls data examine WISH emergency department and mortality data, as well as the <u>2024 Annual Trauma Report</u> which has a "Focus on Falls" section.



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 <u>Partnering with Fire and Emergency Medical Services to Prevent Falls</u>. Falls Free WI has also recently published a toolkit titled <u>Addressing Older Adult Falls Through Coordinated Collaboration Between Community-Based Organizations and Emergency Medical Services.</u>

Some of the strategies that partner organizations can use to collaborate with EMS on falls prevention include:

- Providing responders with resources to provide to patients with a focus on fall prevention activities and information on enrolling in fall prevention community programs.
- Helping EMS and Fire serve as a referral source to community services.
- Providing community data or requesting data from them to better address falls in the community.
- Working with EMS or Fire to provide fall prevention programming

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

