



# Wisconsin Trauma Report

## 2024 Year in Review: Updates and Statistics

In support of the Wisconsin Trauma Care System

### About this report

The purpose of this report is to inform key partners, including the Wisconsin public, on the trends of traumatic injury throughout Wisconsin. For more information on this report, or to request Wisconsin Trauma Registry data, contact the Wisconsin Department of Health Services (DHS) [Trauma Team](#). All data for this report is from Wisconsin's Trauma Registry and meets the Trauma Registry Inclusion Criteria as found in the [Wisconsin State Trauma Registry Data Dictionary](#). Only hospitals with trauma level classifications are required to submit data to Wisconsin's Trauma Registry.

### Key findings

- In 2024 there were 40,466 unique injuries treated by trauma centers in Wisconsin, an increase of 5.6% over last year.
- Falls made up a majority of traumatic injuries, numbering at 25,542 injuries, 63% of all injuries seen at trauma centers, and the number of fall injuries seen continues to increase.
- A majority of pediatric trauma patients (58%) receive initial care at a hospital that is not designated as a Level I or Level II Pediatric Trauma Center, highlighting the importance of pediatric readiness at hospitals across the state, not just at pediatric trauma centers.
- Injuries from some common causes of injuries increased from 2023 to 2024, primarily self-harm and ATV or UTV crashes.

### A message from the trauma team

2024 saw a 5.6% increase in the number of traumatic injuries treated by classified trauma hospitals in Wisconsin. As we see traumatic injuries increase, our trauma hospitals and their staff are becoming more important than ever. We are grateful for the quality of care provided and dedication to performance improvement shown by the Wisconsin Trauma Care System.

If you have any further questions or suggestions for information that should be included in future editions, please email us at [DHSTrauma@dhs.wisconsin.gov](mailto:DHSTrauma@dhs.wisconsin.gov).

*Margaret Wogahn (state trauma coordinator), Katie Prather (trauma registry data manager), and Will Koehne (epidemiologist)*

[www.dhs.wisconsin.gov/trauma](http://www.dhs.wisconsin.gov/trauma)





# 2024 Data in Review

Analyses include patients admitted between January 1 and December 31, 2024

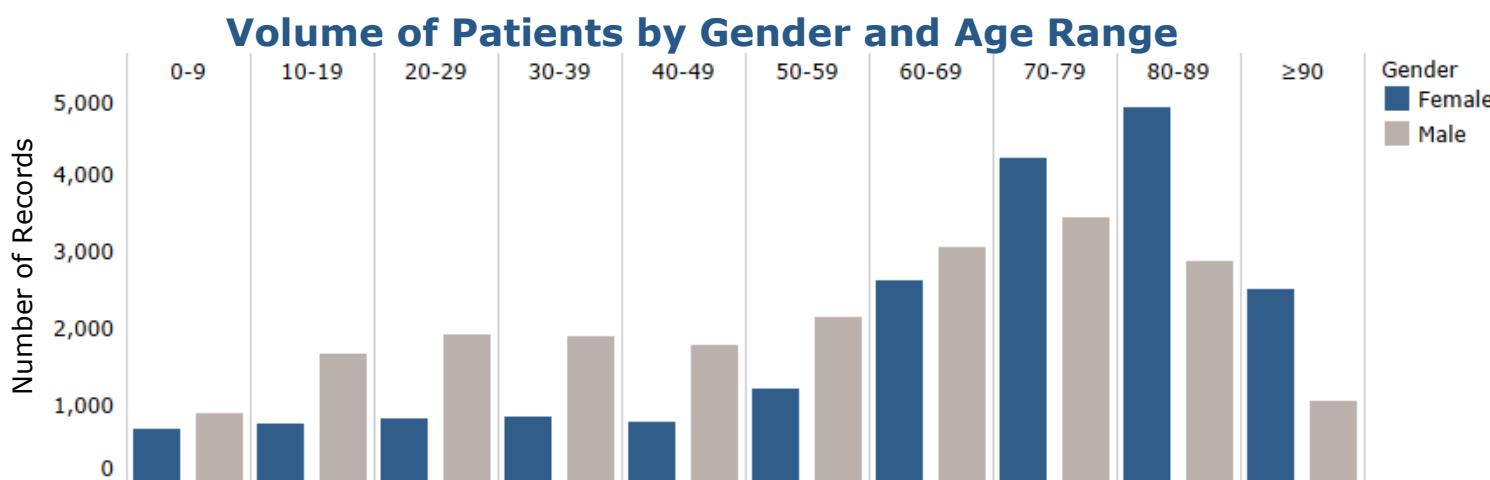
## 2024 Trauma Summary

**46,612 Trauma System Entries**

**40,466 Unique Injury Events**

All data for this report were exported from Wisconsin's Trauma Registry on May 30, 2025.

Patients may have multiple injury events or may be transferred to multiple facilities. As a result, they may have more than one entry in the Trauma Registry or more than one medical record ID. For much of the visualizations and statistics presented, only data from the final trauma system hospital a patient was seen at are included to ensure that patients are only counted once. These will be referred to as "Unique Injury Events." The codes and number found in parentheses throughout this report are used for coding and classifying medical diagnoses.



### Top Five Injury Categories by Age Range

(ICD-10 Code) Mechanism of Injury	0	1-4	5-9	10-14	15-17	18-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
(W00-W19) Slipping, tripping, stumbling, and falls	142	336	394	200	103	79	178	472	731	1081	2710	5301	7278	7075
(V40-V59) Occupant car, pick-up truck, or van injured in transport accident	3	27	51	98	253	258	459	729	539	421	487	467	368	141
(W20-W49) Exposure to inanimate mechanical forces	5	64	60	88	72	51	117	220	230	202	230	231	104	58
(X92-Y08) Assault	3	6	8	31	101	80	173	386	341	204	143	60	20	7
(V80-V89) Other land transport accidents	3	13	69	106	127	75	152	182	169	148	197	123	50	17

Exposure to inanimate mechanical forces includes ICD-10 codes for accidental injuries from intimate objects such as falling objects, sports equipment, power and non-power tools, machinery, firearms, sharp objects, and fireworks.

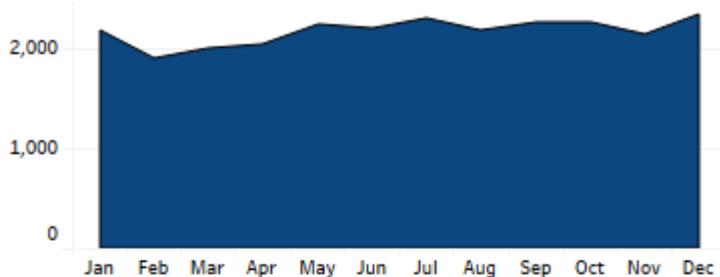


# 2024 Data in Review

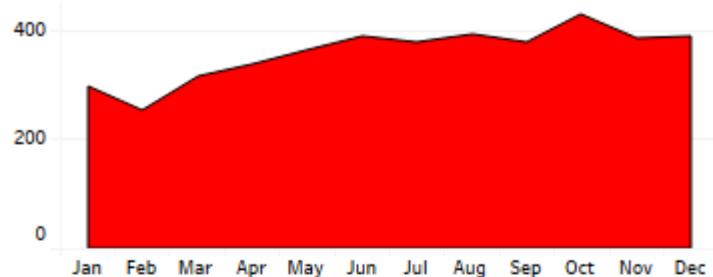
Analyses include patients admitted between January 1 and December 31, 2024

## Top 8 Injury Mechanism Categories (and ICD-10 Codes) for 2024

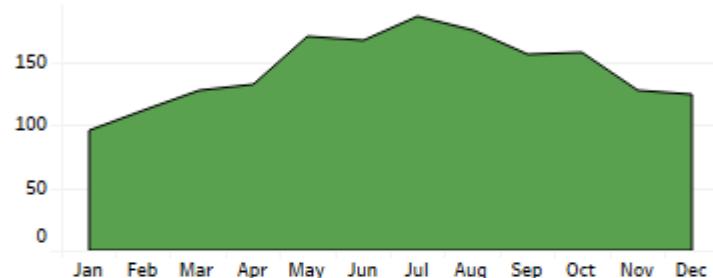
### 1. (W00-W19) Slipping, tripping, stumbling and falls



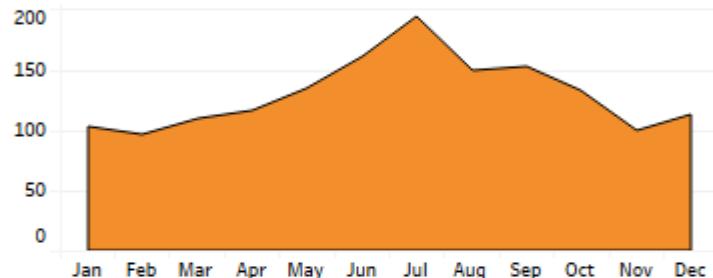
### 2. (V40-V59) Occupant of car, pick-up truck, or van injury



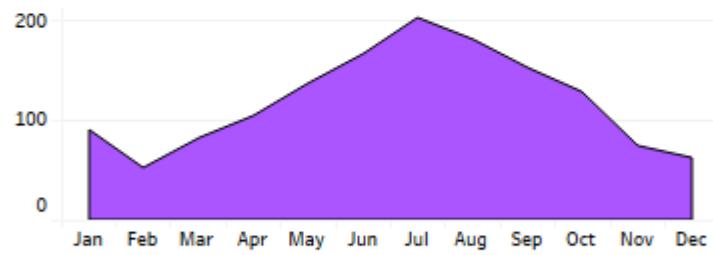
### 3. (W20-W49) Exposure to inanimate mechanical forces



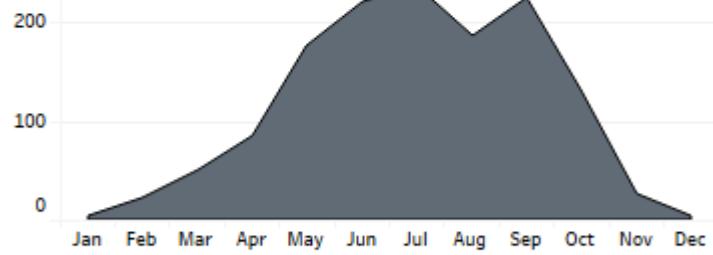
### 4. (X92-Y08) Assault



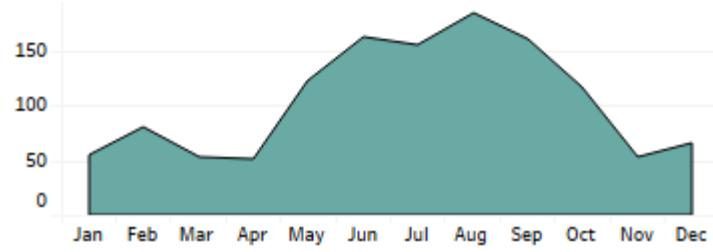
### 5. (V80-V89) Other land transport accidents (ATVs, snowmobiles, agriculture vehicles, etc)



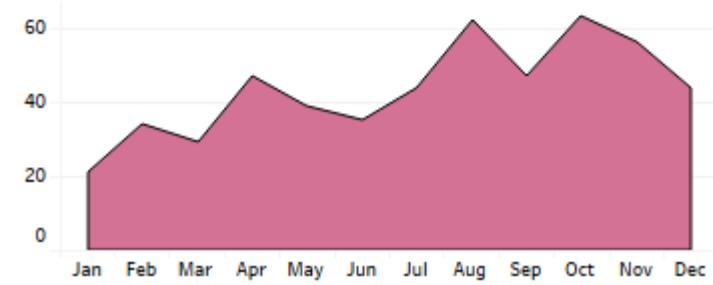
### 6. (V20-V29) Motorcycle rider injury



### 7. (V00-V02, V10-V13, and V17-V19) Recreational Transport (bicycle, skis, rollerblades, etc)



### 8. (V03-V09) Pedestrian injured by vehicle

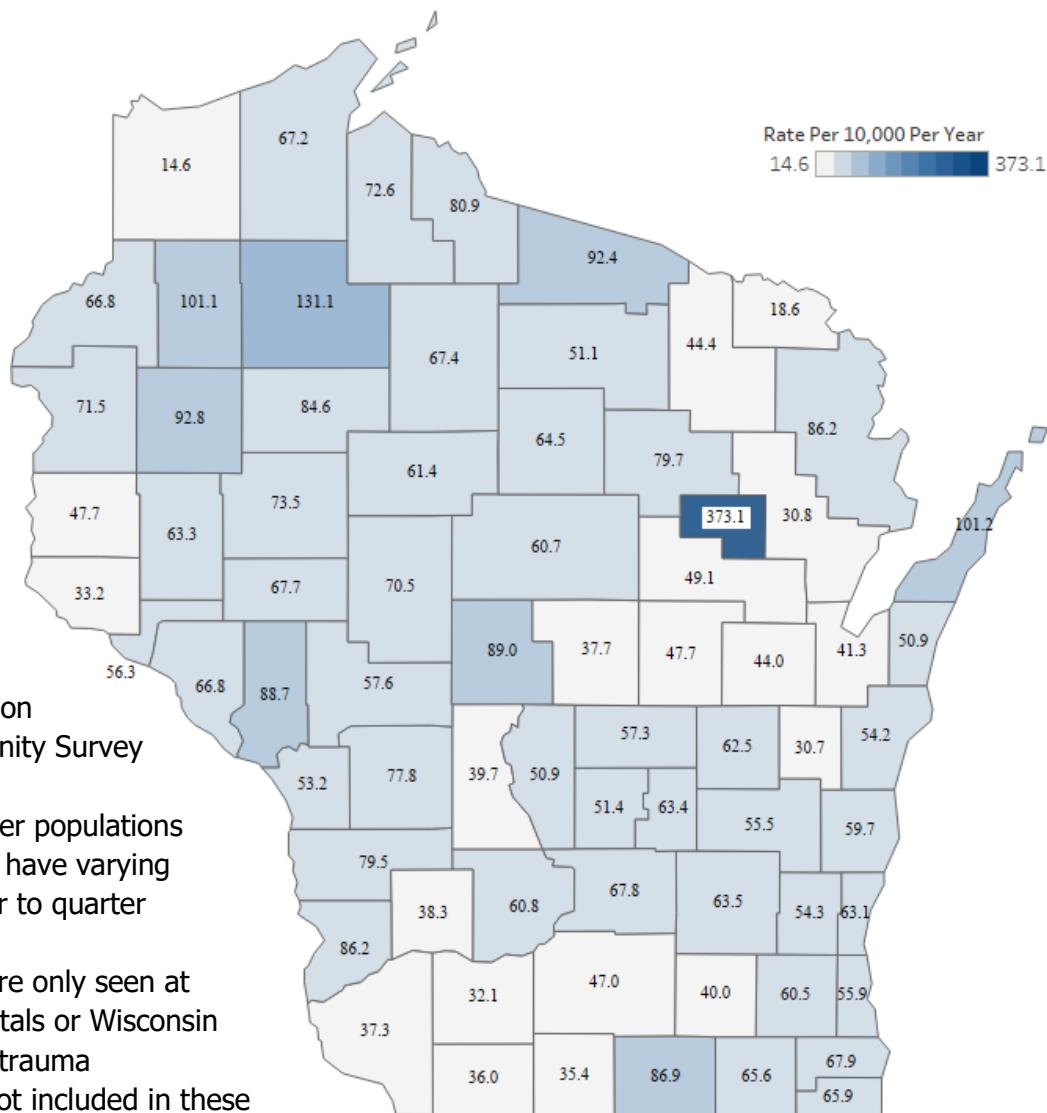




# 2024 Data in Review

Analyses include patients admitted between January 1 and December 31, 2024

## Crude Rate of Traumatic Injuries per 10,000 by Incident County



- Population based on American Community Survey 2022 estimates.
- Counties with lower populations are more likely to have varying rates from quarter to quarter or year to year.
- Individuals who are only seen at out-of-state hospitals or Wisconsin hospitals without trauma certification are not included in these rates.
- Menominee County stands out as having a high rate of injuries. The age distribution of injuries is similar to other counties, but there is a much higher incidence of fall injuries and vehicle-related injuries, as well as a somewhat above-average incidence of other injuries. Most of Menominee County's population resides in the Menominee Reservation. Historical trauma and historic and current discrimination can lead to higher rates of poor health outcomes, including injury. [According to the U.S. Indian Health Service](#), unintentional injuries are the third leading cause of death among American Indians and Alaskan Natives in the U.S., and the leading cause among ages 1–44.

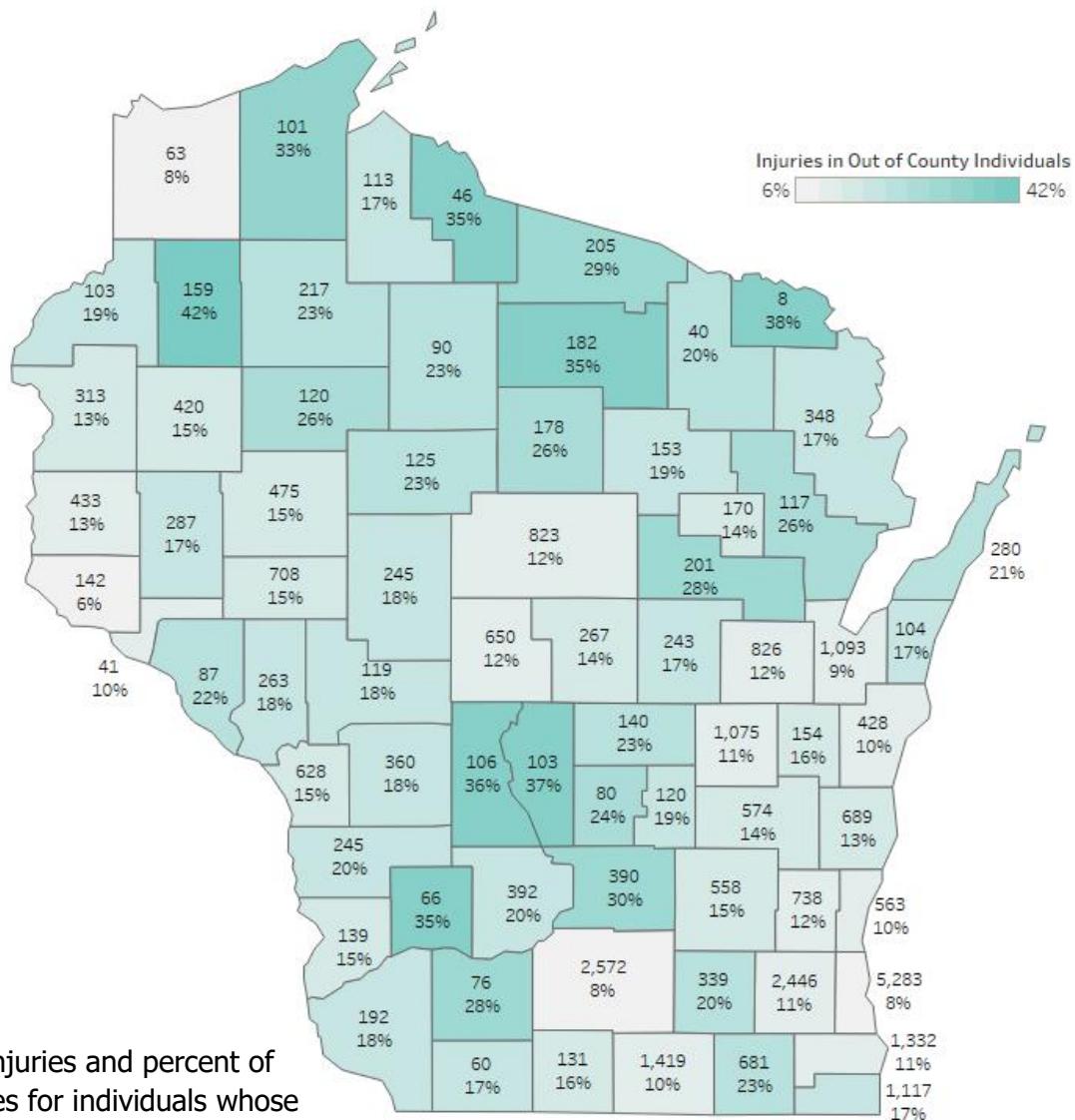




# 2024 Data in Review

Analyses include patients admitted between January 1 and December 31, 2024

## Injuries Count and Proportion of Total Injuries for Out-of-County Individuals by County



The total injuries and percent of total injuries for individuals whose home is in another county are shown on this map.

- Counties with a high proportion of injuries occurring for out-of-county individuals may want to target prevention efforts with this in mind.
- Counties with lower injury counts are more likely to have varying counts and percentages from quarter-to-quarter or year-to-year.



## WISCONSIN DEPARTMENT *of* HEALTH SERVICES

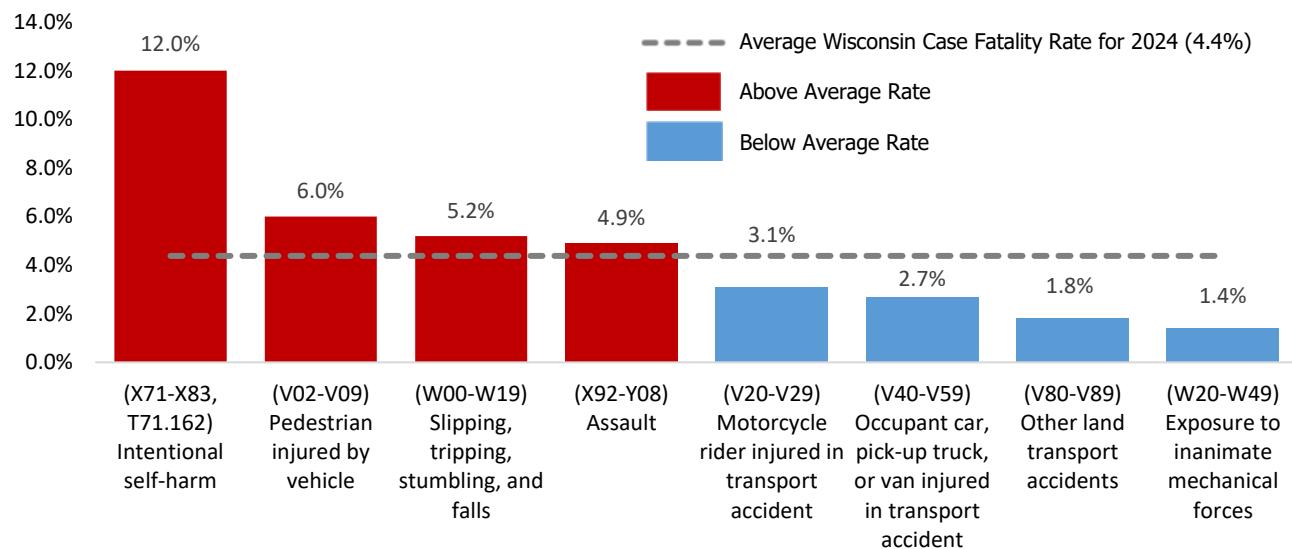


# 2024 Data in Review

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## Case Fatality Rate by Mechanism Category (Top 8 Causes of Mortality)

Incident ICD-10 Injury Category	Total Cases	Percent of All Injuries	Deaths	Case Fatality Rate
(X71-X83, T71.162) Intentional self-harm	448	1.10%	54	12.0%
(V02-V09) Pedestrian injured by vehicle	518	1.30%	31	6.0%
(W00-W19) Slipping, tripping, stumbling, and falls	25542	63%	1339	5.2%
(X92-Y08) Assault	1556	3.80%	76	4.9%
(V20-V29) Motorcycle rider injured in transport accident	1356	3.40%	42	3.1%
(V40-V59) Occupant car, pick-up truck, or van injured in transport accident	4255	11%	116	2.7%
(V80-V89) Other land transport accidents	1381	3.40%	25	1.8%
(W20-W49) Exposure to inanimate mechanical forces	1658	4.10%	24	1.4%



Case Fatality Rate by Mechanism Category only includes patients who were not transferred to out-of-state or non-trauma hospitals, as their final disposition at those hospitals is not recorded in the Trauma Registry. The high intentional self-harm mortality rate is mainly due to injuries caused by firearms. You can find more details on these injuries in this report in the section on self-harm injuries on page 12. "Events of undetermined intent" is a group of ICD-10 codes for injuries where it is unclear if the injury was intentional self-harm or accidental. The mortality rate of these is likely because many are self-harm. Patients transferred to hospice care are included in the count of deaths. This mainly affects the mortality rate of falls and the overall rate.





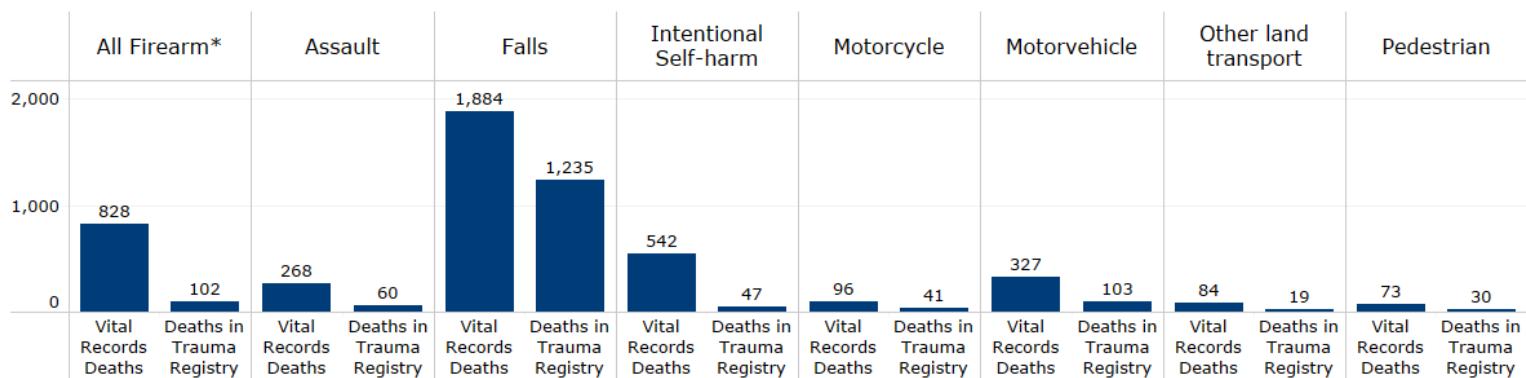
# 2024 Data in Review

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## Injury mortality outside the Trauma System

While injury mortality seen at trauma hospitals is an important measure, there are many deaths caused by injuries where the individual is not seen at a hospital (for example, being pronounced dead on the scene). There is also injury-related mortality that occurs after discharge that is not recorded in the Trauma Registry. Additionally, differences in coding between the Trauma Records and in the death certificate may lead to mismatches. Here we look at [Vital Records](#) data for fatal injuries occurring in Wisconsin compared to injury mortality seen in the Trauma Registry. Because of the time it takes to finalize cause of death data, 2023 data are used here. Values may differ slightly from analysis of cause of death that examines death among Wisconsin residents regardless of the state the injury occurred in.

## Injury Mortality in Vital Records and the Trauma Registry in 2023



Firearm injuries are not mutually exclusive to other groups including assaults, intentional self-harm, and other injuries.

Intentional self-harm traumatic injury deaths have the highest ratio of those in the trauma registry compared to in vital records. There are a large number of these injuries not seen at trauma hospitals, and hospitals may also decline to attribute an injury as self-harm, instead classifying it as an injury with undetermined intent. Additionally, are other self-harm injuries and deaths that are not considered trauma injuries, such as intentional overdose and hanging. See WI DHS's new [Self-Harm Data Dashboard](#) for more information.

Mortality rates of injuries beyond the number treated in hospitals is important to injury prevention work. For more data on injury mortality, please see the [WISH \(Wisconsin Interactive Statistics on Health\) Query System](#).

## Injury Mortality Rate per 10,000 Residents in 2023



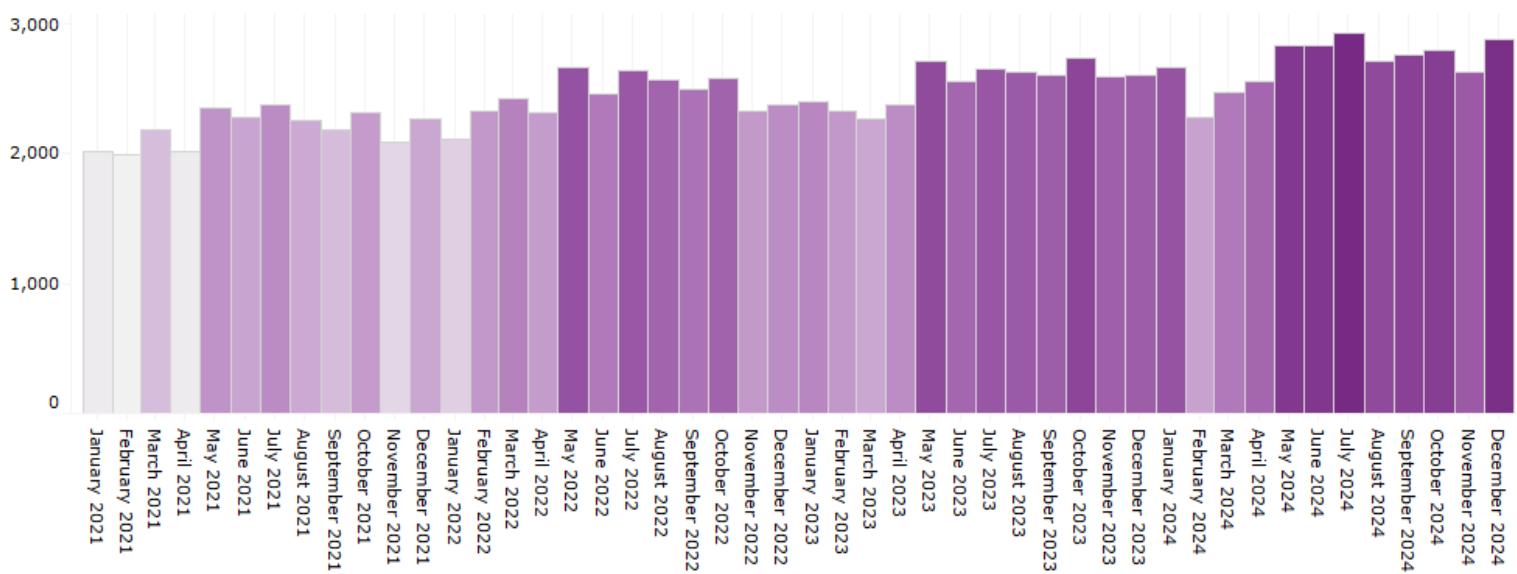


# Focus on Falls

## Focus on falls in Wisconsin

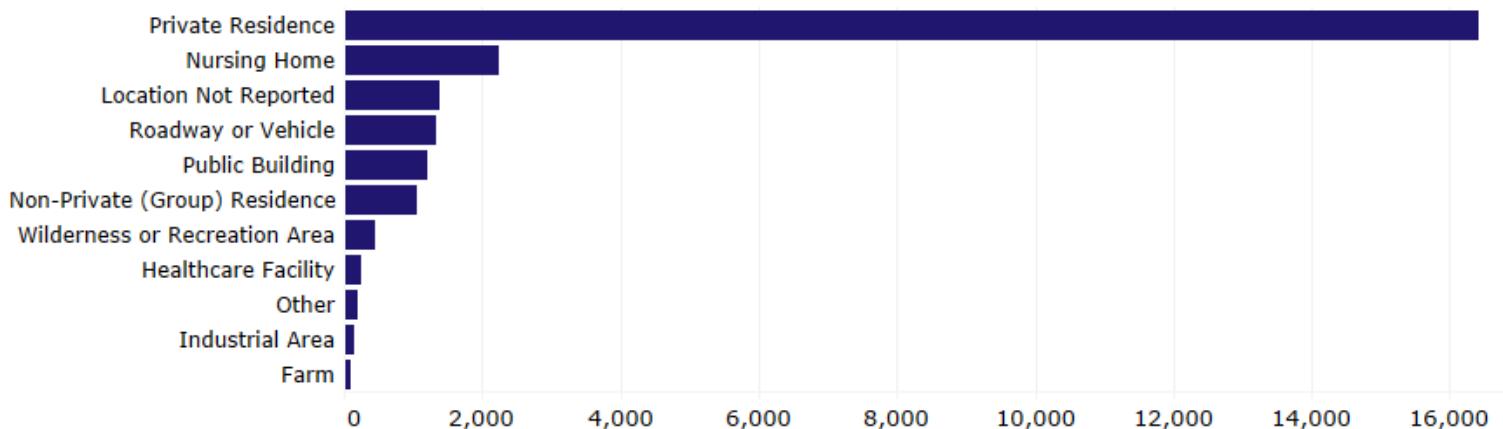
Fall injuries make up a significant number of the injuries treated by Wisconsin's Trauma Care System. Falls can be caused by medical conditions, difficulties with walking and balance, and home hazards such as uneven steps or rugs and objects that can be tripped over. All figures in the "Focus on Falls" section include only injuries in adults 20 years of age or older.

### Adult Falls by Month over Time



Falls injuries seen in the trauma care system have been increasing the last few years with 2024 seeing a 6% increase over 2023. Most falls occur in or around individuals' private residences, but nursing homes and other group residences are also common locations.

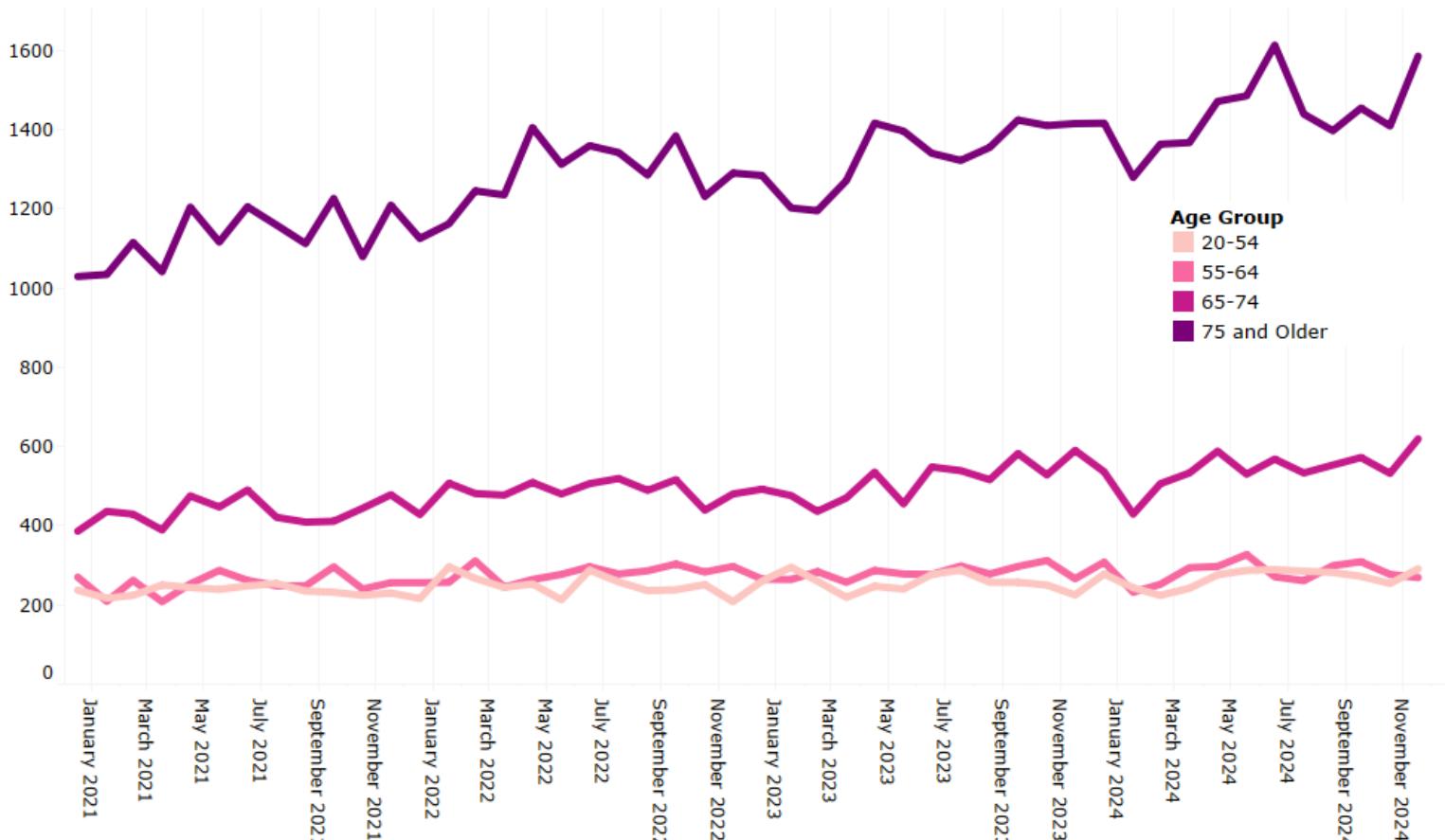
### Fall Injury Locations in 2024





# Focus on Falls

## Falls By Age Group



Older age groups are at higher risk for falls and at higher risk for incurring injuries from falls. According to the Centers for Disease Control and Prevention (CDC), Wisconsin's rate of older adult falls is about the same as the national average, but [Wisconsin has a higher rate of deaths from falling compared to the national average](#).

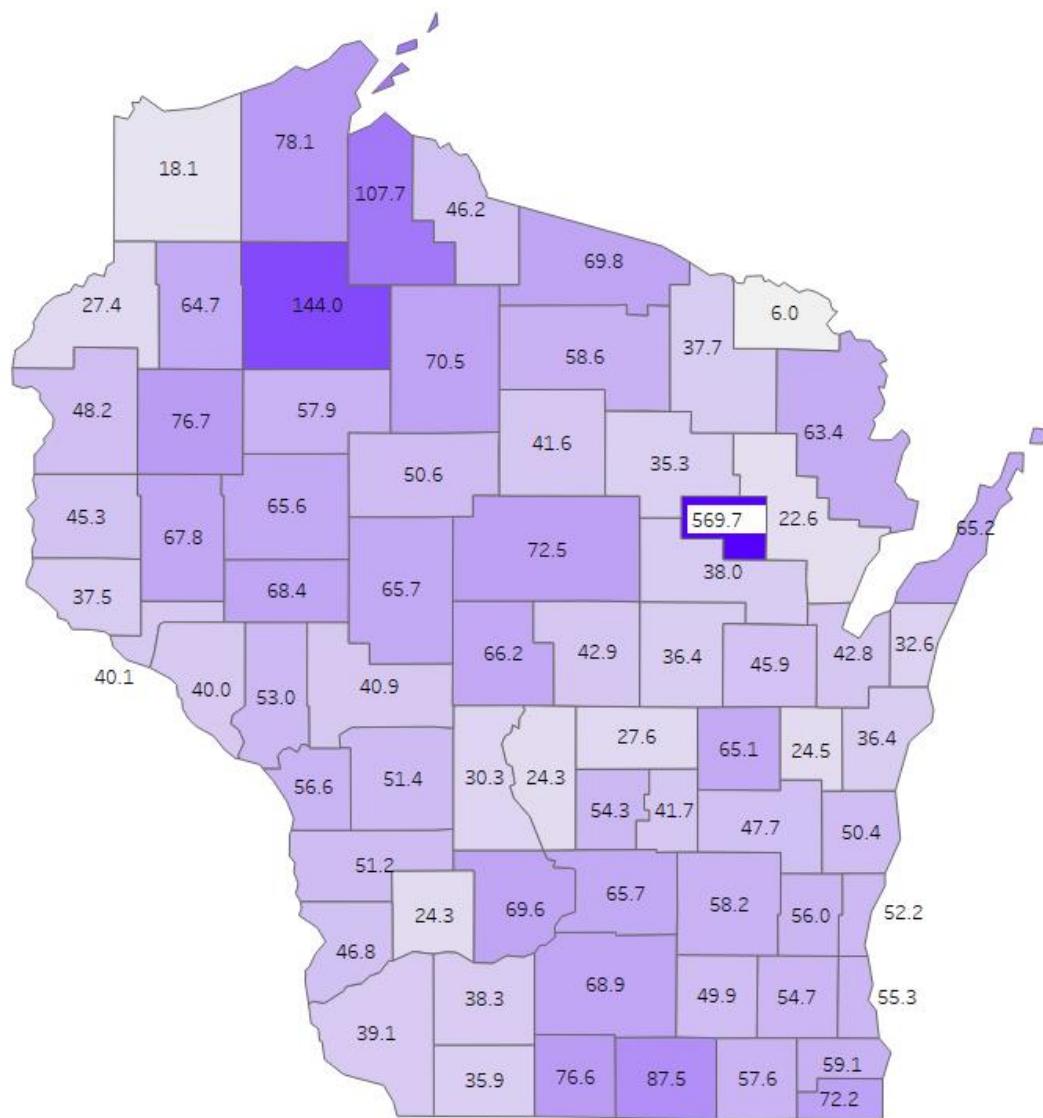
There are a variety of steps that people can take to reduce their chance of falling. These include improving lighting, reducing clutter, and making commonly used items easily accessible. People should also consider working with an occupational therapist, their local [aging and disability resource center](#), or other specialists for more advice.

You can find more resources on preventing falls on [CDC's Stopping Elderly Accidents, Deaths & Injuries website](#) or on [Wisconsin Institute for Healthy Aging's website](#).



# Focus on Falls

## Age Adjusted Fall Rate by county in 2024



Age adjustment shows us what the rates of disease or injury might be if all populations had the same age distribution. Crude rates are useful to compare the overall number of incidents but can be very sensitive to differences in ages by geography. By adjusting for age, we can control for differences in each county's underlying age. We know that older populations are more likely to suffer injuries from falls, so age adjusting can help us highlight counties with higher rates of fall injuries than would be expected based on their age distribution. There might be differences within counties that put individuals at higher risk of fall injuries and a higher age-adjusted rate may indicate that a county might benefit more from fall prevention interventions.





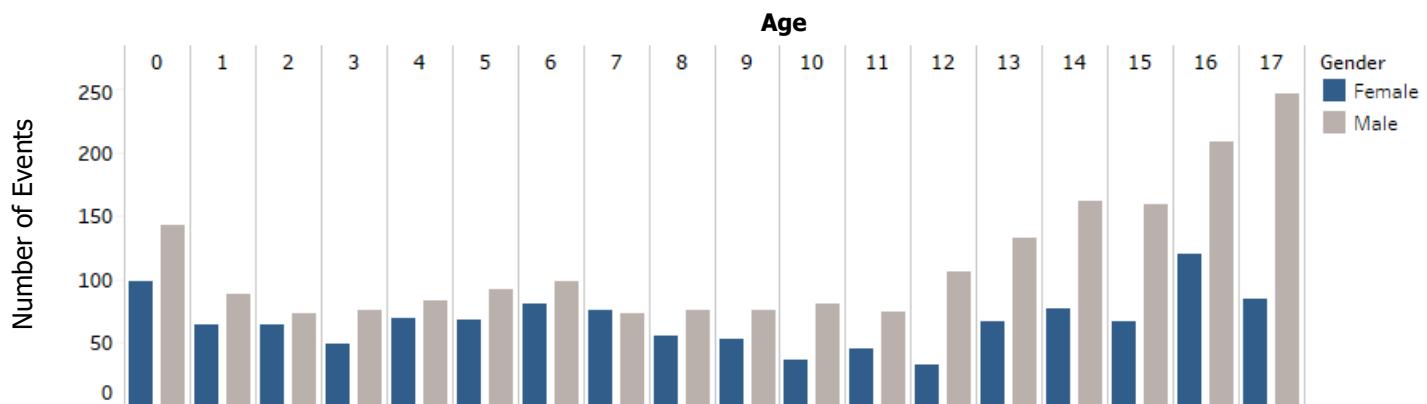
# 2024 Pediatric Trauma Data

Analyses include patients admitted between January 1 and December 31, 2024

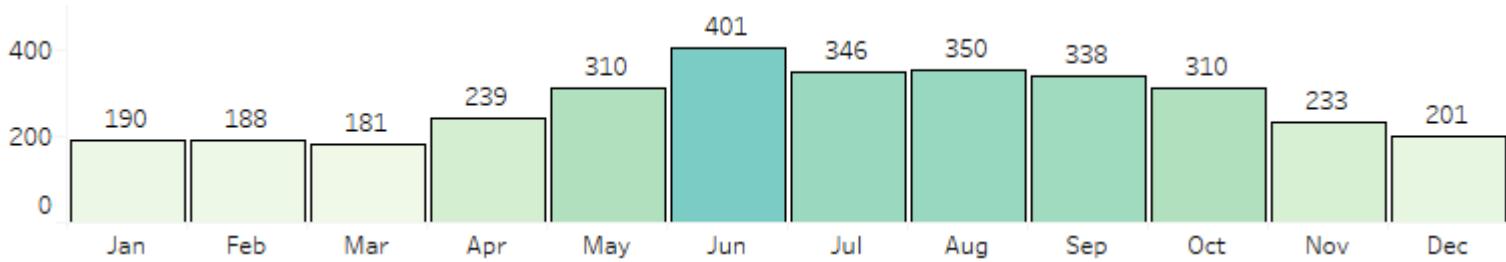
## 2024 Pediatric Trauma Data

4,166 Pediatric Records  
3,268 Unique Injury Events

### Volume of Pediatric Patients by Gender and Age Range



### Volume of Pediatric Trauma Patients by Emergency Department Admission Month



### Top 5 Pediatric Injury Categories by Age Group

(ICD-10 Code Category) Mechanisms of Injury	0-4	5-9	10-14	15-17
(W00-W19) Slipping, tripping, stumbling, and falls	478	394	200	103
(V40-V59) Occupant car, pick-up truck, or van injured in transport accident	30	51	98	253
(V80-V89) Other land transport accidents	16	69	106	127
(W20-W49) Exposure to inanimate mechanical forces	69	60	88	72
(V00-V02, V10-V13, and V17-V19) Recreational transport injury (bike, ski, skateboard, etc) not caused by a vehicle	18	75	121	65

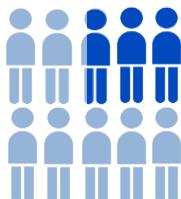




# 2024 Pediatric Trauma Data

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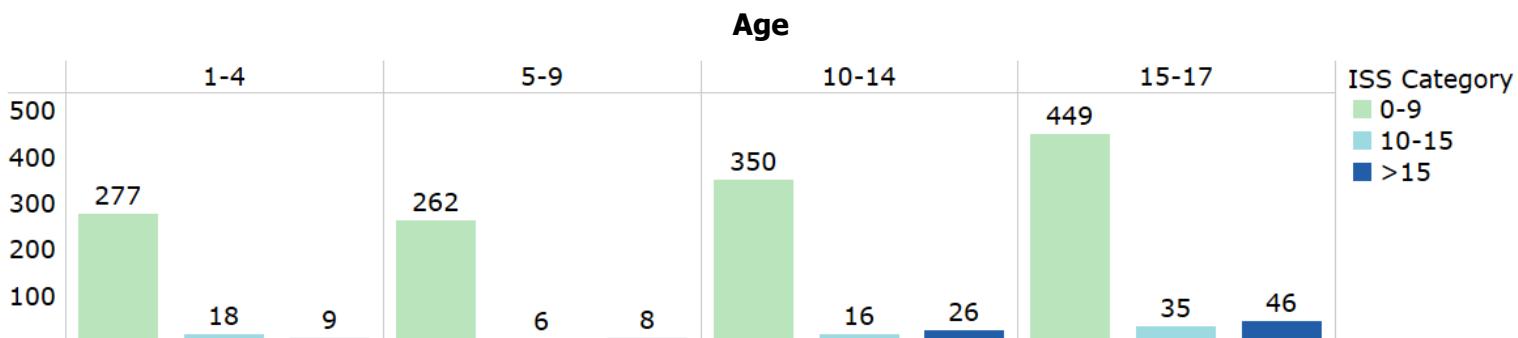
## The importance of non-pediatric trauma care centers



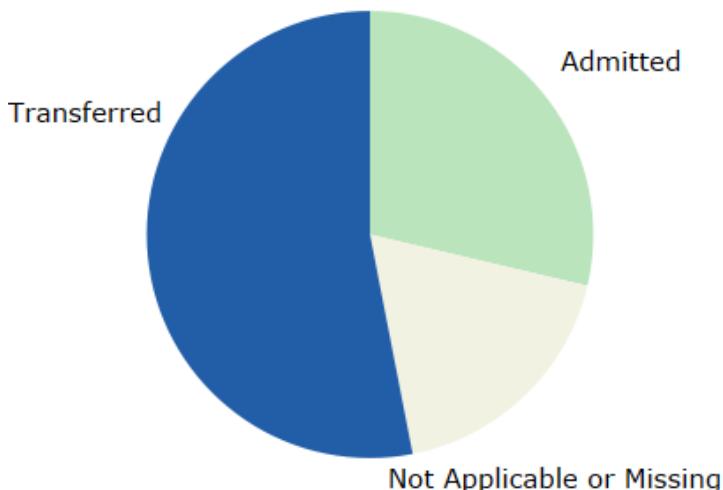
Almost **6 of 10** pediatric patients (57%) whose injuries met inclusion criteria received their initial care at a hospital that is not designated as a Level I or Level II Pediatric Trauma Center. This highlights the role that non-pediatric trauma centers play in caring for our sick and injured pediatric trauma patients in Wisconsin.

In the state, seven non-pediatric trauma hospitals are recognized as [Pediatric Ready by Wisconsin EMS for Children](#). These hospitals meet additional requirements for training, resources, and staffing that ensure they provide high-quality care for pediatric patients. High levels of pediatric readiness are associated with lower mortality rates for injured and ill children.

## Volume of Pediatric Trauma Patients Initially Seen at Non-Pediatric Trauma Care Centers by Age and Injury Severity Score (ISS)



## Admission and Transfers Among Major Trauma (ISS >15) Pediatric Patients Seen at Non-Pediatric Trauma Care Centers for Initial Care



**29%** of major trauma patients aged 17 and under that were initially seen at a non-pediatric trauma care center were admitted to that hospital.

**53%** of these patients were transferred to another hospital.

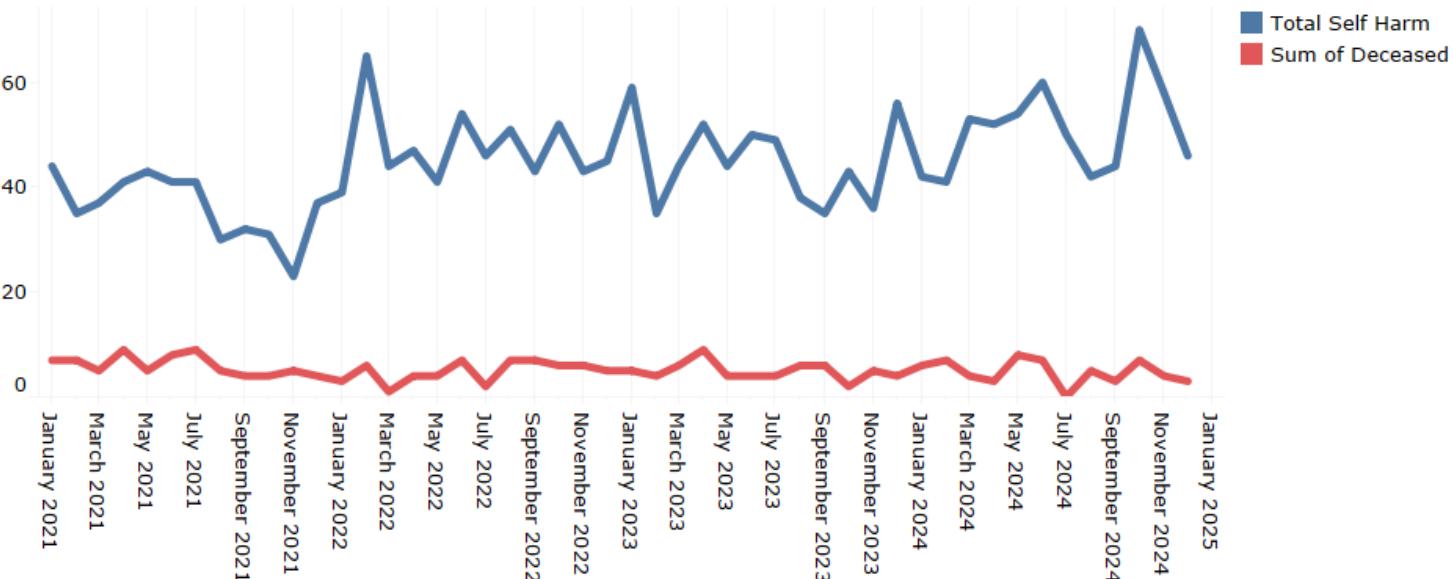
The remaining 18% is made up those who were not transferred or admitted or for whom this information was missing.





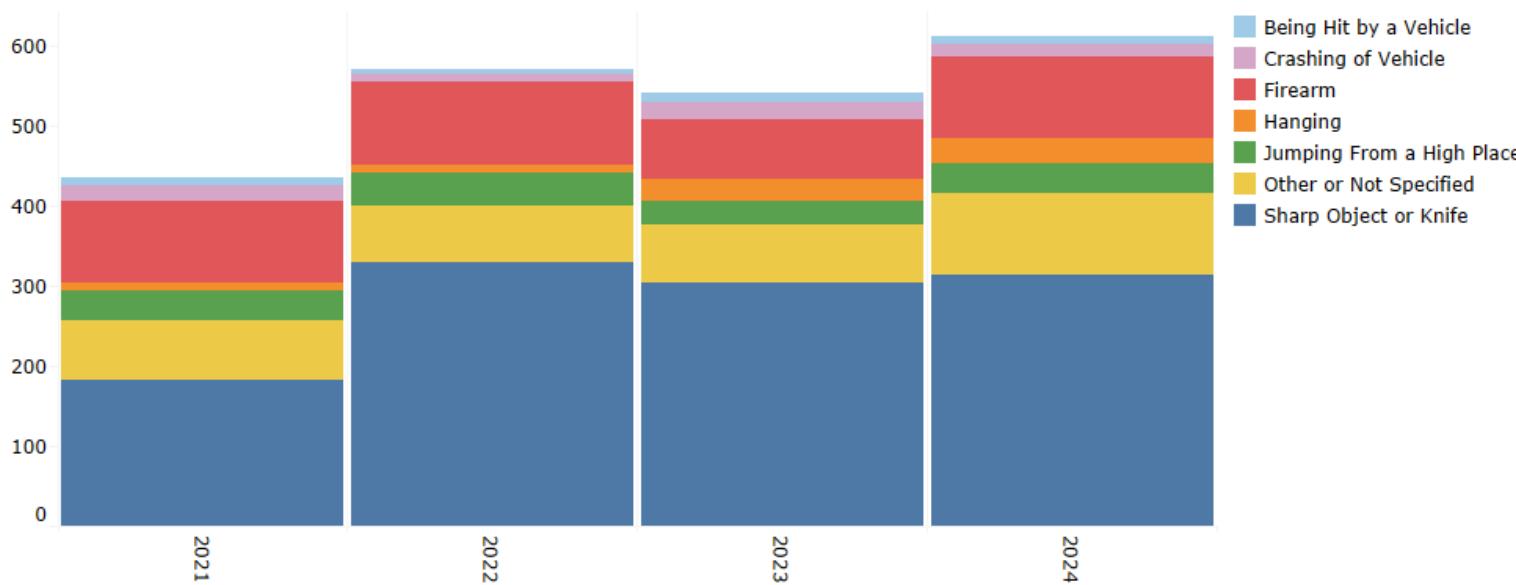
# Intentional Self Harm Injuries

## Intentional Self-Harm Trauma Injuries by Month



Injuries due to intentional self-harm have the highest mortality rate of any type of injury treated by the Wisconsin Trauma System. The number of injuries due to intentional self-harm recorded by the trauma system increased in 2022 due to a change in the Trauma Registry inclusion criteria. 2024 saw an increase in the number of intentional self-harm trauma injuries.

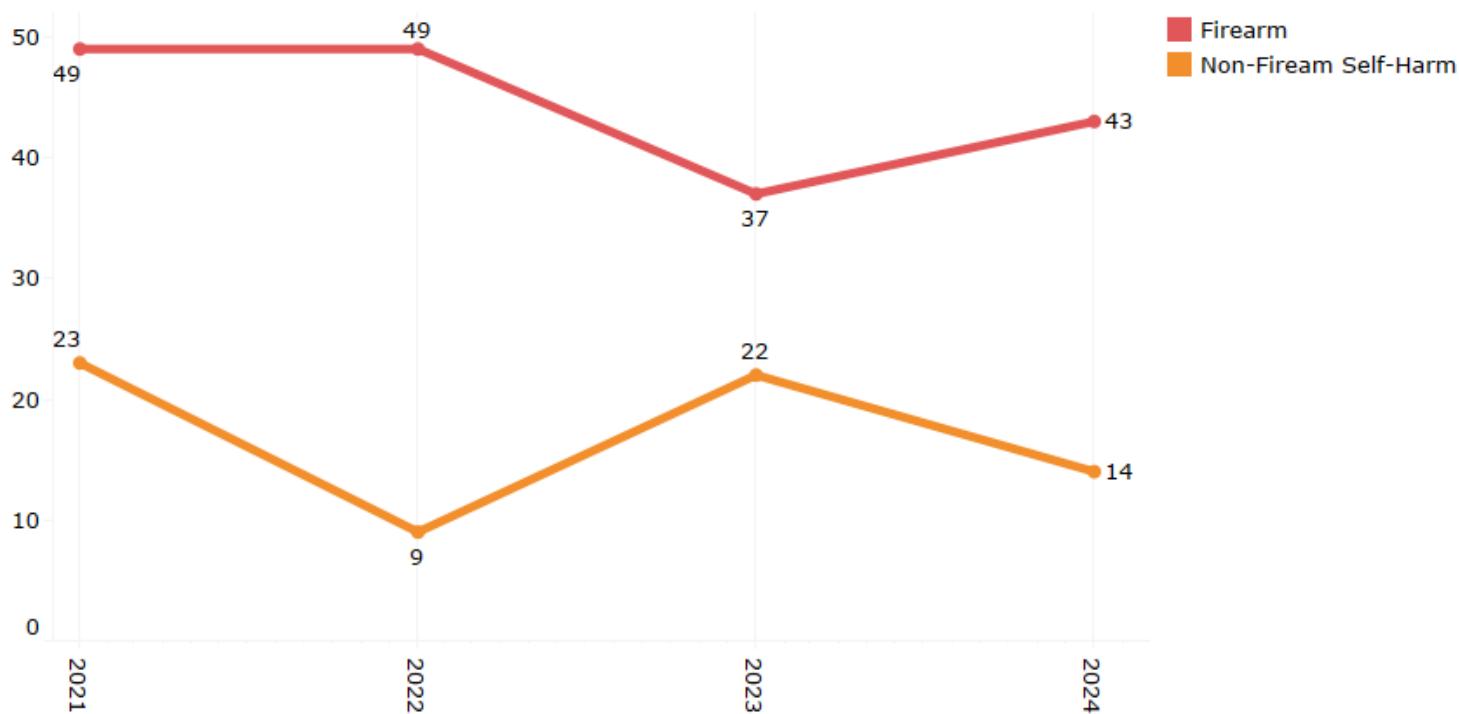
## Intentional Self-Harm Trauma Injuries by Type





# Intentional Self Harm Injuries

## Fatal Intentional Self-Harm Trauma Injuries by Type



Self-harm caused by firearms accounts for most of the fatal injuries due to self-harm. The mortality rate of self-harm injuries in the Trauma Registry that do not involve firearms is 4.7%, close to the average across all traumatic injuries. However, the mortality rate for self-harm injuries due to firearms was 49%.

### Notes on intentional self-harm injuries in the trauma registry

There are important caveats to keep in mind regarding self-harm and trauma data. For some types of injuries, intent may be more difficult to determine so those injuries may not be classified as intentional self-harm, and some self-harm injuries may be classified as "injuries of undetermined intent."

Additionally, data contained in this report represent only incidents reported into the Wisconsin Trauma Registry that meet inclusion criteria. There may be injuries where patients are not seen at trauma hospitals, and injuries that do not meet inclusion criteria. Poisoning or overdose, for example, are not reported to the Trauma Registry, but are important to addressing intentional self-harm more broadly. See the new [Self-Harm Data Dashboard](#) for more information on non-trauma self-harm injuries and self-harm overall in Wisconsin.



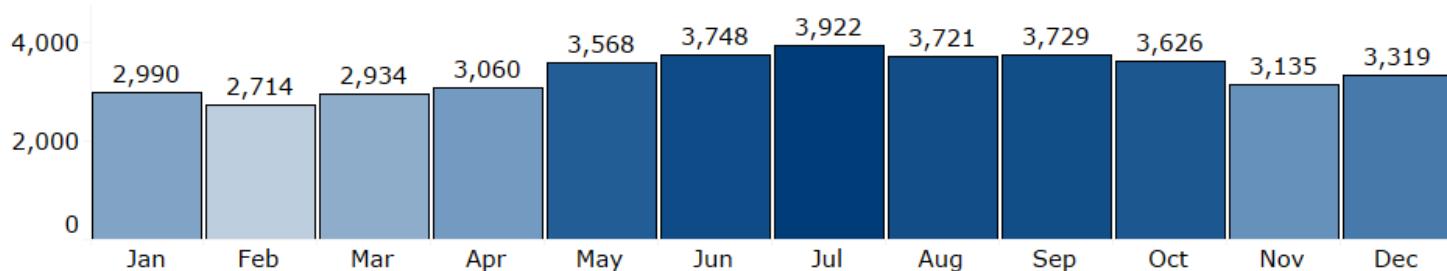


## 2024 and 2023 Comparison

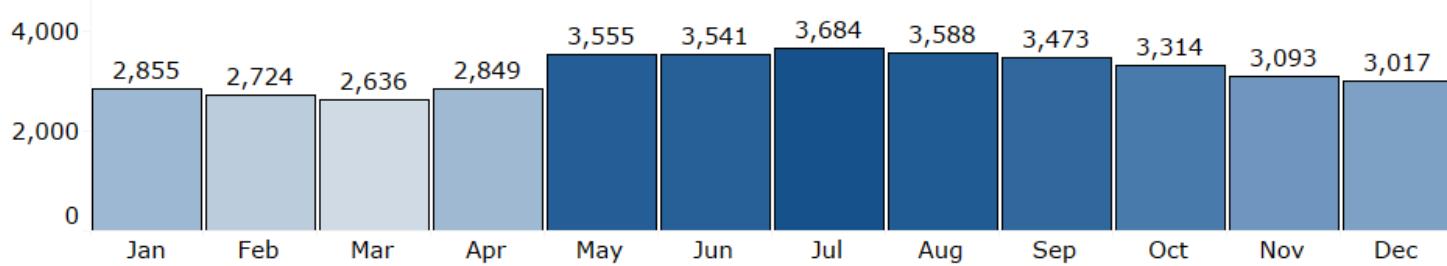
### Trauma incidents by month for 2024 and 2023

The number of trauma injuries seen in Wisconsin trauma hospitals increased by 5.6% when compared to the prior year (40,466 in 2024 versus 38,329 in 2023) and the distribution of Injury Severity Scores (ISS) was similar. The rates of some types of traumatic injuries, such as assault and motor vehicle crash injuries, did not change much from 2023 to 2024. However, falls injuries and ATV/UTV related injuries increased a notable amount in 2024.

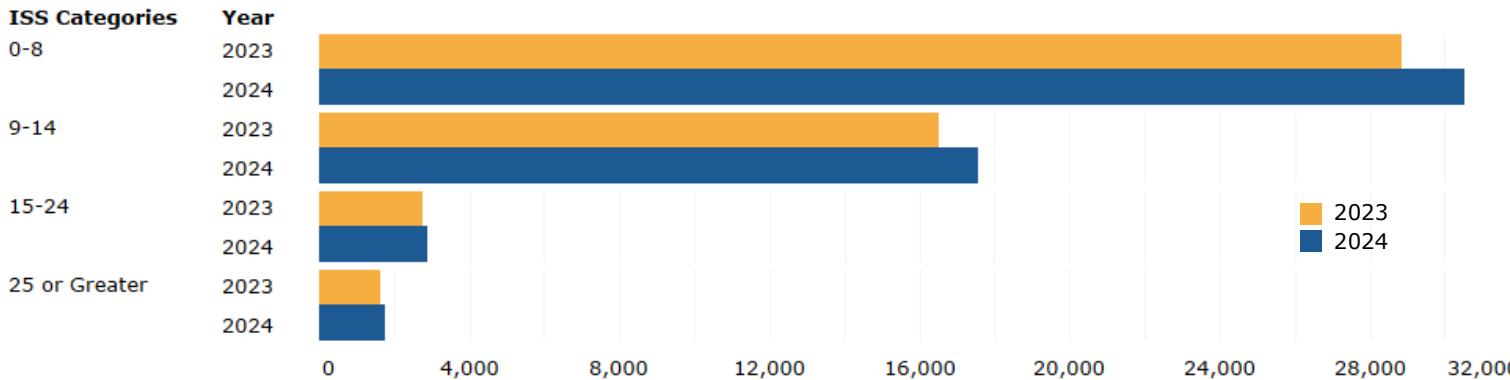
#### Trauma Incidents by Month, 2024



#### Trauma Incidents by Month, 2023



#### ISS Score Distribution

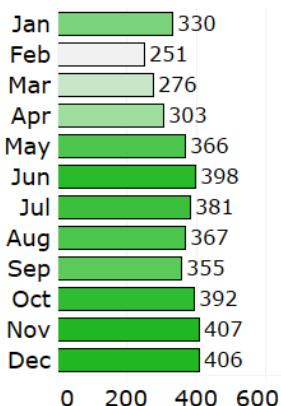
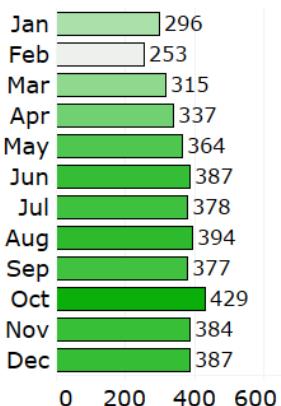




# 2024 and 2023 Comparison

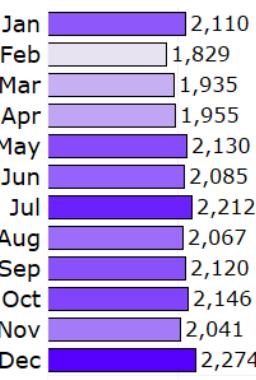
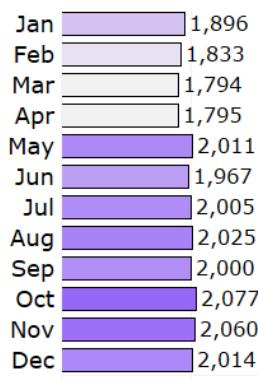
## Car, truck, and van trauma

The number of traumas associated with car, pickup truck, and van accidents stayed steady from 2023 (4,323 injuries) to 2024 (4,301 injuries), a less than 1% change.

**2023 Vehicle Trauma****2024 Vehicle Trauma**

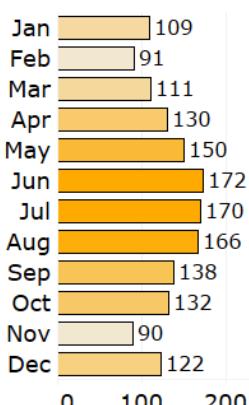
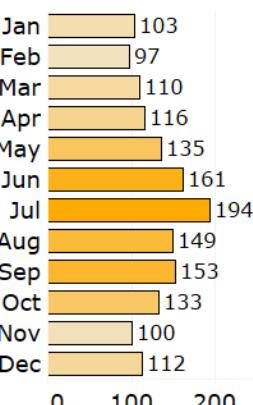
## Adult falls

Fall injuries increased by 6% from 2023 to 2024, going from 23,477 fall injuries in 2023 to 24,904 in 2024.

**2023 Adult Falls**

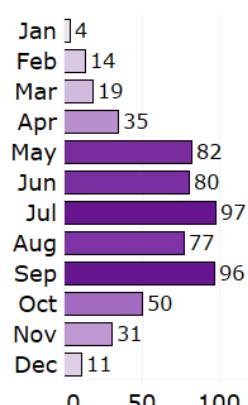
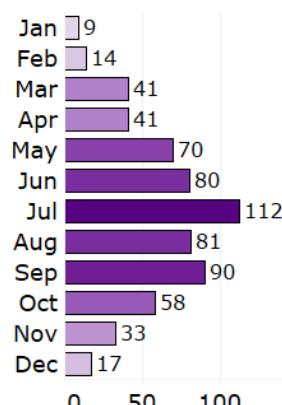
## Assault trauma

There were slightly fewer traumatic injuries due to assault in 2024 than in 2023 (1,581 in 2023 versus 1,563 in 2024, a 1% decrease).

**2023 Assaults****2024 Assaults**

## ATV/off-road vehicle trauma

Trauma occurring during the use of ATVs or other off-road vehicles increased by 8% between 2023 (596 trauma injuries) and 2024 (646 injuries).

**2023 ATV Traumas****2024 ATV Traumas**



# Recognition of Your Work

Analyses include patients admitted between January 1 and December 31, 2024

## Recognition for timeliness of data reporting in 2024

The below facilities completed records with exceptional timeliness. Only hospitals that directly enter trauma data into the Wisconsin Trauma Registry were included. Hospitals that import their data (typically Level I and Level II trauma centers) are excluded. Additionally, only incidents meeting inclusion criteria were evaluated.

### Platinum: 100% of Records Closed Within 60 Days of Patient Discharge



Amery Hospital & Clinic	Marshfield Medical Center—Minocqua
Aspirus Stanley Hospital	ProHealth Oconomowoc Memorial Hospital
Aurora Medical Center Bay Area	ProHealth Waukesha Memorial Hospital—Mukwonago Campus
Aurora West Allis Medical Center	ProHealth Waukesha Memorial Hospital
Froedtert Menomonee Falls Hospital	Western Wisconsin Health
Froedtert West Bend Hospital	

### Gold: 99.9%–99.0% of Records Closed Within 60 Days of Patient Discharge



Aspirus Stevens Point Hospital	Marshfield Medical Center - Rice Lake
Aspirus Wisconsin Rapids Hospital	Mayo Clinic Health System - Northland
Aurora Medical Center Oshkosh	River Falls Area Hospital
Aurora St. Luke's Medical Center	UnityPoint Health - Meriter

### Silver: 98.9%–98.0% of Records Closed Within 60 Days of Patient Discharge



Aspirus Medford Hospital & Clinics
Beloit Memorial Hospital
SSM Health Ripon Community Hospital
SSM Health St Agnes Hospital - Fond Du Lac

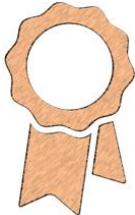




# Recognition of Your Work

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**Bronze:** 97.9%–95.0% of Records Closed Within 60 Days of Patient Discharge



AdventHealth Durand

Vernon Memorial Hospital

Marshfield Medical Center—Beaver  
Dam

SSM Health Waupun Memorial  
Hospital



WISCONSIN DEPARTMENT  
*of* HEALTH SERVICES

18

Division of Public Health  
Office of Preparedness and Emergency Health Care  
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