

Injury among Residents of Yuma County, Arizona 2008

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Injury is a public health problem that impacts the lives of thousands of Arizona residents each year. Chronic pain, disability, large medical bills, changes in quality of life, and premature death are just some of the possible effects of injuries. These effects can extend beyond injured individuals to their families and communities. With non-fatal injuries, family members are often required to provide care, which can result in time away from work, loss of income, and increases in stress within the family. At the community level, the financial burden of injuries can include medical expenses, rehabilitation, lost wages, and lost productivity. Most injuries are predictable and preventable. Understanding the causes of injury is an important step toward reducing injury-related morbidity and mortality.

The following report identifies the leading causes of injury among residents of Yuma County in 2008. This report is intended to be used as a guide for strategy development, program implementation, and evaluation. The Arizona Department of Health Services Injury Prevention Program operates under the vision of reducing injuries in Arizona using integrated surveillance and evidence-based interventions. This report was generated to increase awareness of county-specific injury issues and to facilitate opportunities for effective injury prevention activities.

Figure 1. Injury Pyramid for Yuma County Residents, Arizona 2008

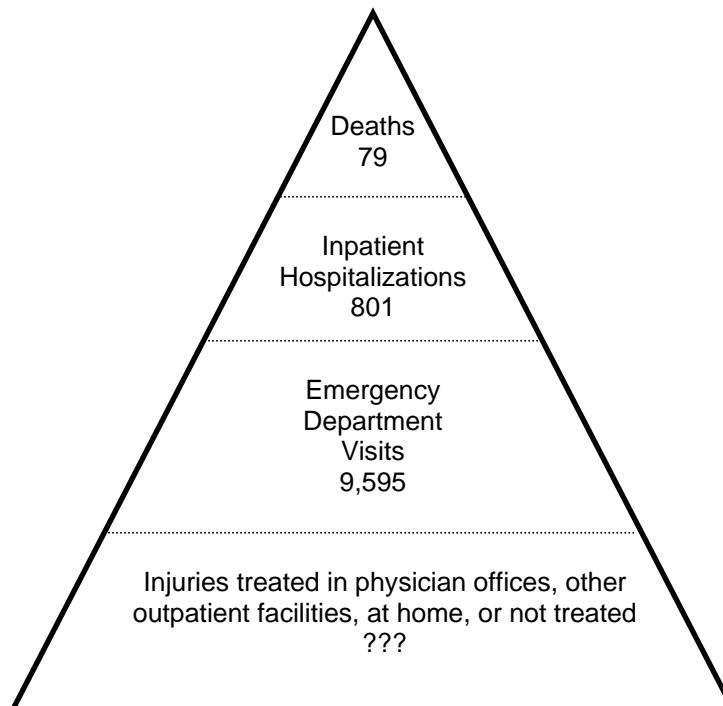
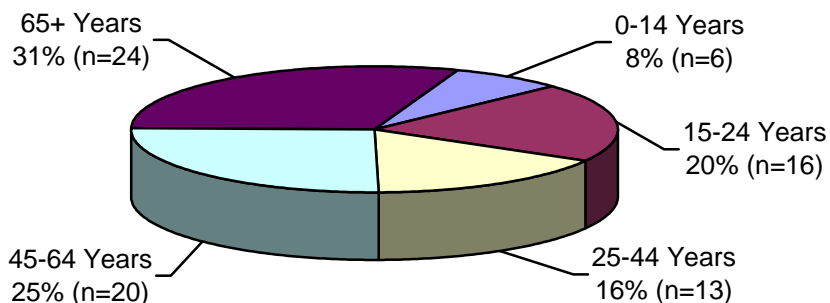


Figure 1 shows an injury pyramid for residents of Yuma County during 2008. This pyramid shows that deaths represent the smallest proportion of injuries. The proportions increase towards the foundation of the pyramid, which is comprised of hospital discharges, emergency department visits, and self care. Although injuries that do not require medical treatment may be the most numerous, no existing datasets capture these types of injuries.

Deaths

In 2008, there were 79 injury-related deaths in Yuma County. Most of these deaths were among males (78 percent, n=62), and females accounted for 22 percent (n=17). The largest percentage of deaths was among individuals ages 65 years and older (31 percent, n=24). Age distributions are shown in Figure 2.

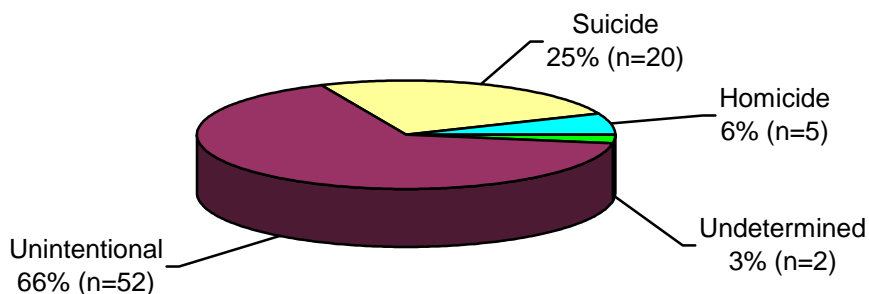
Figure 2. Injury-Related Deaths by Age Group, Yuma County, Arizona 2008 (n=79)



Non-Hispanic Whites accounted for the largest percentage of injury-related deaths in Yuma County (62 percent, n=49), followed by Hispanics (35 percent, n=28). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

For the state of Arizona, unintentional injury is the leading cause of death among all residents ages 1 to 44 years. However, for residents of Yuma County, unintentional injury is the leading cause of death for individuals ages 1 to 44 years.¹ Sixty-six percent of injury-related deaths in Yuma County were due to unintentional injuries (n=52); 25 percent were suicides (n=20); 6 percent were homicides (n=5); and 3 percent were of undetermined intent (n=2). Figure 3 shows injury-related deaths by intent.

Figure 3. Injury-Related Deaths by Intent, Yuma County, Arizona 2008 (n=79)



1. Arizona Health Status and Vital Statistics 2008.

Yuma County Injury-Related Deaths Compared to Other Arizona Counties

Table 1 shows the intent of injury-related deaths for residents of Yuma County compared to residents of the rest of Arizona. The leading intent of injury-related deaths was unintentional for both Yuma County and the remaining counties, accounting for the majority of injury-related deaths. Yuma County had lower percentages of homicides than the rest of Arizona.

Yuma County (n=79)		Arizona, excluding Yuma County (n=3,874)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	66	Unintentional	64
Suicide	25	Suicide	22
Homicide	6	Homicide	11
Undetermined	3	Undetermined	2

Suicide

Males accounted for the majority of suicides in Yuma County (80 percent, n=16), while females accounted for 20 percent (n=4). Twenty percent of suicides were among individuals ages 15 to 24 years (n=4); 25 percent were among individuals ages 25 to 44 years (n=5); 25 percent were among individuals ages 45 to 64 years (n=5); and 30 percent were among adults 65 years and older (n=6). There were no suicides among children 14 years and younger. The most common cause of suicide was firearms (50 percent, n=10).

Unintentional Injury

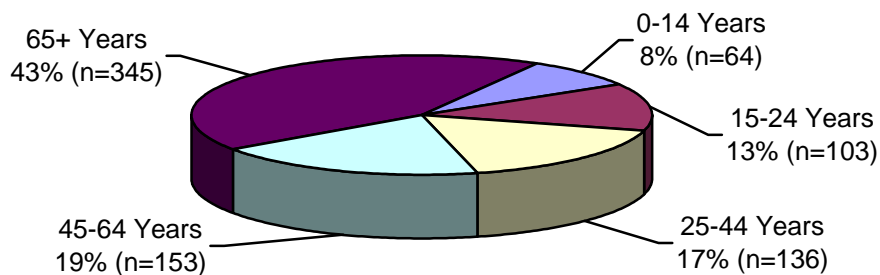
The most common causes of unintentional injury-related deaths in Yuma County were motor vehicle traffic crashes (35 percent, n=18) and poisoning (19 percent, n=10). The causes of unintentional injury-related deaths during 2008 in Yuma County are shown in Table 2.

Cause	Number	Percent
Motor vehicle traffic	18	35%
Poisoning	10	19%
Fall	9	17%
Other/unspecified	5	10%
Drowning	3	6%
Suffocation	3	6%
Nature/environment	2	4%
Other land transport	2	4%
Total	52	100%

Non-Fatal Inpatient Hospitalizations

In 2008, there were 801 non-fatal inpatient hospitalizations due to injury among residents of Yuma County. Fifty-three percent were among males (n=424) and 47 percent were among females (n=377). Forty-three percent of the hospitalizations were among individuals 65 years and older (n=345). Figure 4 shows injury-related inpatient hospitalizations by age group among residents of Yuma County.

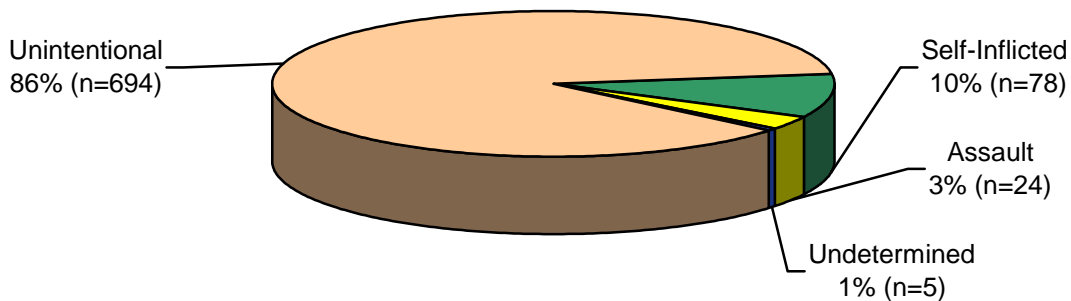
Figure 4. Injury-Related Inpatient Hospitalizations by Age Group, Yuma County, Arizona 2008 (n=801)



There were 494 injury-related hospitalizations among White, Non-Hispanic residents of Yuma County (62 percent). The second highest number was among Hispanics (35 percent, n=277). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

Eighty-six percent of the inpatient hospitalizations were due to unintentional injuries (n=694); 10 percent were due to self-inflicted injuries (n=78); 3 percent were due to assaults (n=24); and 1 percent were of undetermined intent (n=5). There were no inpatient hospitalizations due to legal intervention. Figure 5 shows injury-related hospitalizations by intent.

Figure 5. Injury-Related Inpatient Hospitalizations by Intent, Yuma County, Arizona 2008 (n=801)



Yuma County Injury-Related Hospitalizations Compared to Other Arizona Counties

Table 3 shows the intent of injury-related hospitalizations for residents of Yuma County compared to residents of the rest of Arizona. **The leading intent of injury-related hospitalizations was unintentional for both Yuma County and the remaining counties, accounting for the majority of injury-related hospitalizations.** Yuma County had a smaller percentage of hospitalizations due to assault (3 percent) than the rest of Arizona (6 percent).

Yuma County (n=801)		Arizona, excluding Yuma County (n=32,308)	
Intent	Percent of Total	Intent	Percent of Total
Unintentional	86	Unintentional	82
Self-Inflicted	10	Self-Inflicted	10
Assault	3	Assault	6
Undetermined	1	Undetermined	2

The most common causes of unintentional injury-related hospitalizations in Yuma County were falls (56 percent, n=388) and motor vehicle traffic crashes (10 percent, n=70). Table 4 shows the causes of unintentional injury-related hospitalizations among residents of Yuma County.

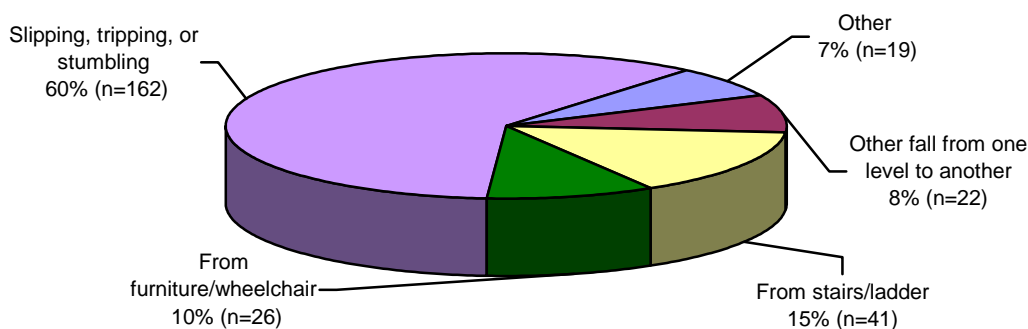
Cause	Number	Percent
Fall	388	56%
Other/unspecified	73	11%
Motor vehicle traffic	70	10%
Poisoning	49	7%
Transport	35	5%
Nature/environment	27	4%
Struck by/against	20	3%
Overexertion	18	3%
Fire/hot object	14	2%
Total	694	100%

Falls

Males accounted for 42 percent of unintentional fall-related hospitalizations (n=162) and females accounted for 58 percent (n=226). Five percent of fall-related hospitalizations were among children 14 years and younger (n=20); 1 percent were among individuals ages 15 to 24 years (n=4); 20 percent were among individuals ages 25 to 64 years (n=79); and 73 percent were among individuals 65 years and older (n=285).

For 30 percent of unintentional fall-related inpatient hospitalizations, information regarding contributing event was not specified in the hospital discharge database (n=118). Among the hospitalizations for which contributing event was specified, 60 percent were due to slipping, tripping, or stumbling (n=162). Figure 6 shows unintentional fall-related hospitalizations by contributing event.

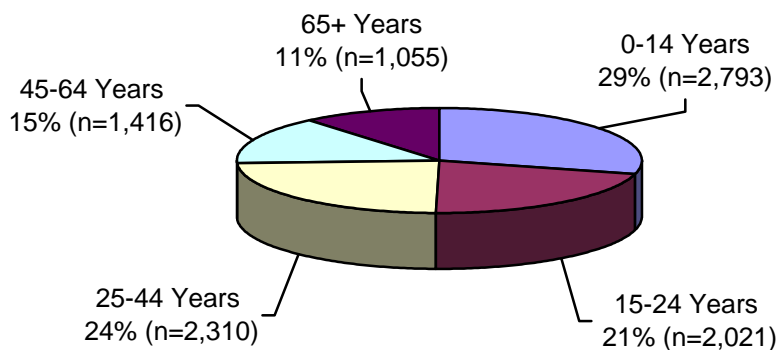
Figure 6. Inpatient Hospitalizations due to Unintentional Falls by Contributing Event, Yuma County, Arizona 2008 (n=270)



Non-Fatal Emergency Department Visits

In 2008, there were 9,595 injury-related emergency department visits among residents of Yuma County. Males accounted for 54 percent of these visits (n=5,155) and females accounted for 46 percent (n=4,440). The largest percentage of visits was among children 14 years and younger (29 percent, n=2,793). Figure 7 shows injury-related emergency department visits by age group.

Figure 7. Injury-Related Emergency Department Visits by Age Group, Yuma County, Arizona 2008 (n=9,595)

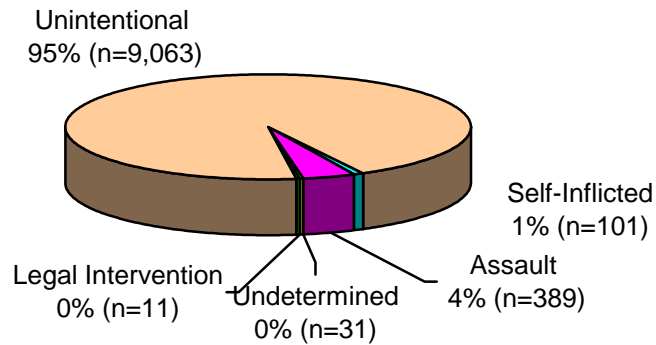


There were 4,971 injury-related hospitalizations among Hispanic residents of Yuma County (52 percent). The second highest number was among Non-Hispanic Whites (43 percent, n=4,091). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

Ninety-five percent of the emergency department visits were due to unintentional injuries (n=9,063); 4 percent were due to assaults (n=389); and 1 percent were due to self-inflicted injuries (n=101). Thirty-one emergency department visits were of

undetermined intent and 11 visits were due to legal intervention. Figure 8 shows emergency department visits by intent.

Figure 8. Injury-Related Emergency Department Visits by Intent, Yuma County, Arizona 2008 (n=9,595)



Yuma County Injury-Related Emergency Department Visits Compared to Other Arizona Counties

Table 5 shows the intent of injury-related emergency department visits for residents of Yuma County compared to residents of the rest of Arizona. The leading intent of injury-related visits was unintentional for both Yuma County and the remaining counties, accounting for the majority of injury-related visits. Yuma County and the rest of Arizona had similar percentages of visits due to self-inflicted injuries and assaults.

Table 5. Intent of Injury-Related Emergency Department Visits, Yuma County Compared to Other Arizona Counties, 2008			
Yuma County (n=9,595)		Arizona, excluding Yuma County (n=365,108)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	95	Unintentional	93
Self-Inflicted	1	Self-Inflicted	2
Assault	4	Assault	5
Undetermined	0	Undetermined	1

The most common cause of unintentional injury-related emergency department visits in Yuma County was falls (29 percent, n=2,632). Table 6 shows the causes of unintentional injury-related emergency department visits for Yuma County residents in 2008.

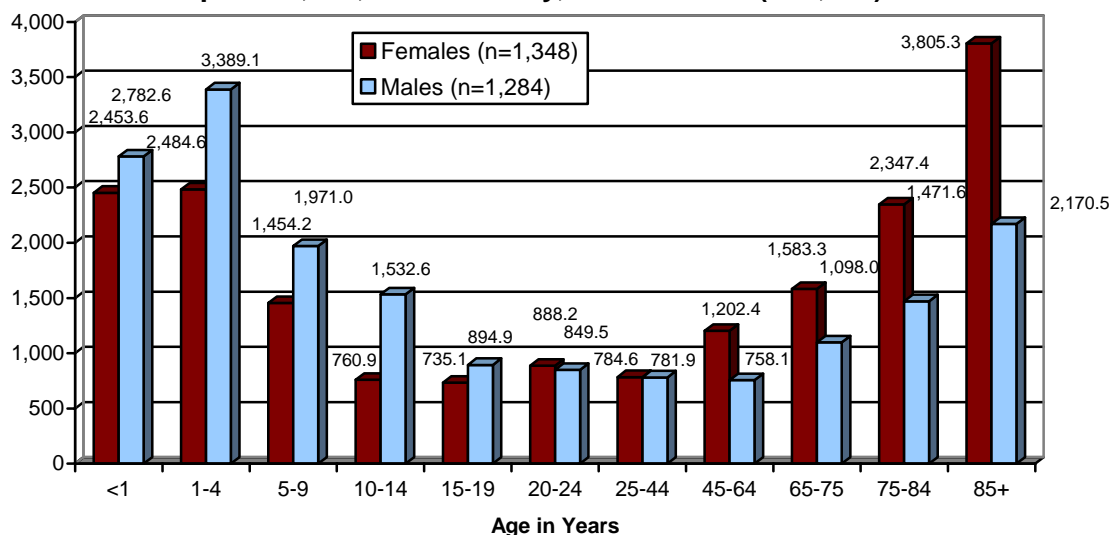
Table 6. Causes of Unintentional Injury-Related Emergency Department Visits among Yuma County Residents, Arizona 2008		
Cause	Number	Percent
Fall	2,632	29%
Other/unspecified	1,567	17%
Struck by/against	1,189	13%
Motor vehicle traffic	1,061	12%
Overexertion	716	8%
Cut/pierce	714	8%
Nature/environment	532	6%
Transport	198	2%
Other pedal cycle	170	2%
Poisoning	150	2%
Fire/hot object	134	1%
Total	9,063	100%

Falls

There were 2,632 emergency department visits due to unintentional falls. Males accounted for 49 percent of these visits (n=1,284) and females accounted for 51 percent (n=1,348). Thirty-seven percent of fall-related emergency department visits were among children 14 years and younger (n=966); 10 percent of visits were among individuals ages 15 to 24 years (n=255); 29 percent were among individuals ages 25 to 64 years (n=770); and 24 percent were among individuals 65 years and older (n=641).

The highest rate of unintentional fall-related emergency department visits was among older adult females. Females 85 years and older had a rate of 3,805.3 fall-related emergency department visits per 100,000 residents. Figure 9 shows emergency department visit rates of unintentional falls by age group and sex.

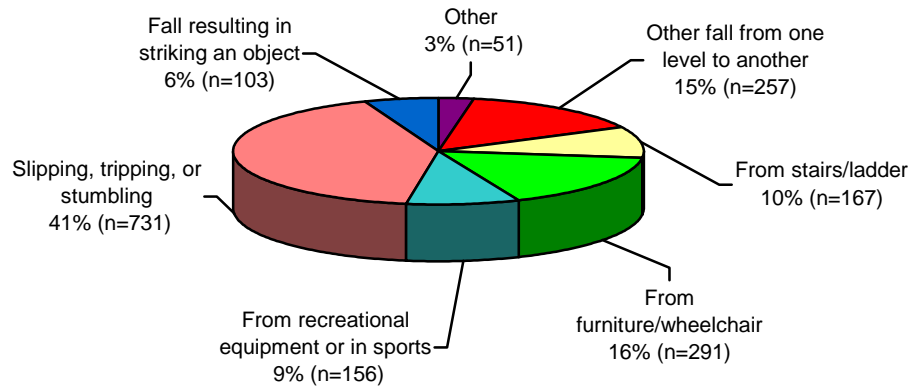
Figure 9. Unintentional Fall-Related Emergency Department Visit Rates per 100,000, Yuma County, Arizona 2008 (n=2,632)



For 33 percent of the unintentional fall-related emergency department visits, information regarding contributing event was not specified in the emergency department database

(n=876). Among the emergency department visits for which contributing event was specified, 41 percent of unintentional falls were due to slipping, tripping, or stumbling (n=731). Figure 10 shows emergency department visits due to unintentional falls by contributing event.

Figure 10. Emergency Department Visits due to Unintentional Falls by Contributing Event, Yuma County, Arizona 2008 (n=1,756)



Summary

In 2008, there were 79 injury-related deaths in Yuma County, and the largest percentage of deaths was among adults ages 65 years and older (30 percent, n=24). The majority of these deaths were due to unintentional injuries (66 percent, n=52). The most common cause of unintentional injury deaths was motor vehicle traffic crashes (35 percent, n=18). For residents of Yuma County, unintentional injury is the leading cause of death for individuals ages 1 to 44 years.¹ Twenty-five percent of injury-related deaths in Yuma County were suicides (n=20); 6 percent were homicides (n=5); and 3 percent were of undetermined intent (n=2).

There were 801 non-fatal inpatient hospitalizations due to injury among residents of Yuma County. Forty-three percent of the hospitalizations were among adults 65 years and older (n=345). Eighty-six percent of the hospitalizations were due to unintentional injuries (n=694); 10 percent were due to self-inflicted injuries (n=78); 3 percent were assaults (n=24); and 1 percent were of undetermined intent (n=5). There were no inpatient hospitalizations due to legal intervention. The most common cause of unintentional injury-related hospitalizations was falls (56 percent, n=388).

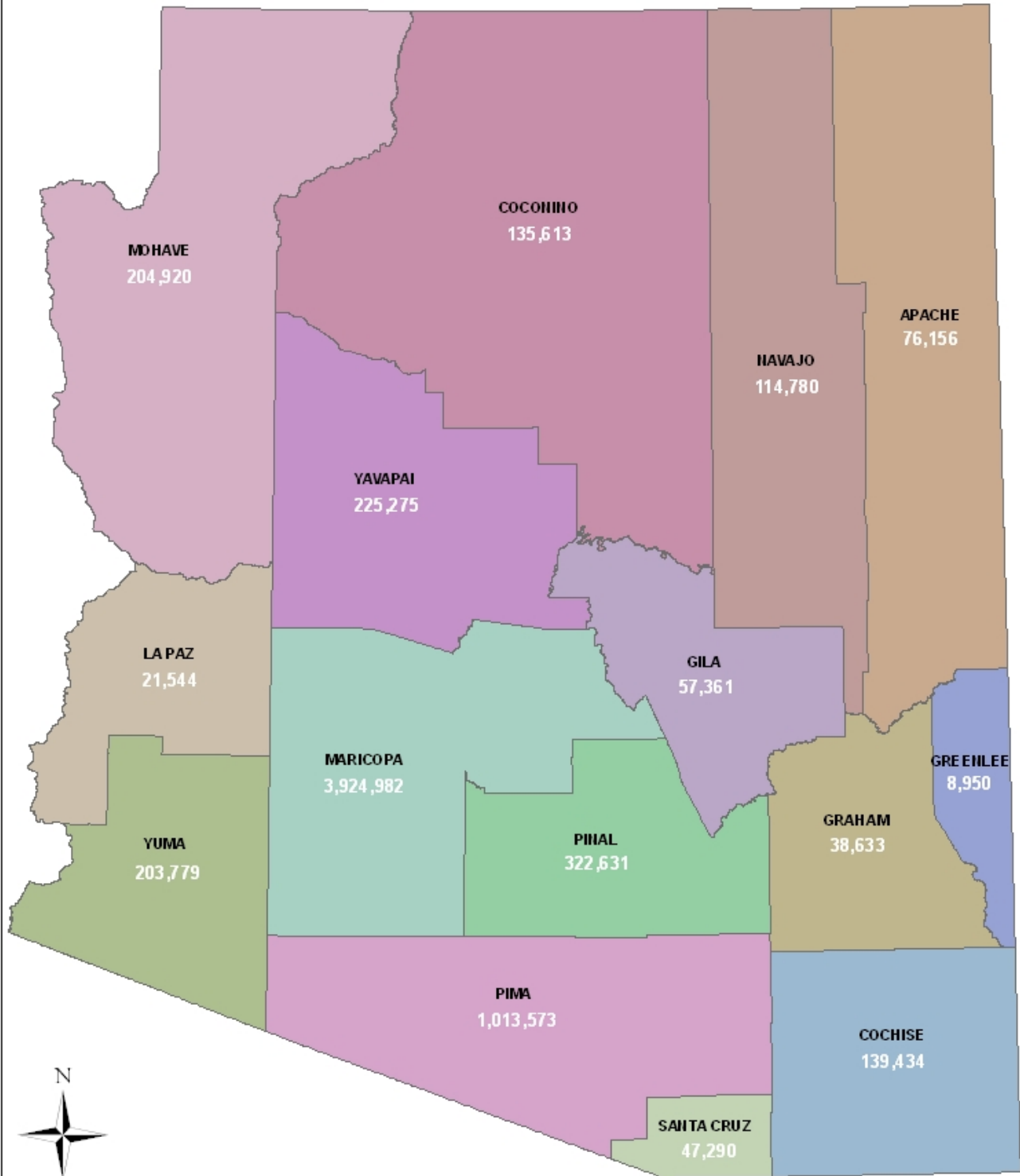
There were 9,595 injury-related non-fatal emergency department visits among residents of Yuma County in 2008. The largest percentage of visits was among children 14 years and under (29 percent, n=2,793). Ninety-five percent of the emergency department visits were due to unintentional injuries (n=9,063); 4 percent were due to assaults (n=389); and 1 percent were due to self-inflicted injuries (n=101). Thirty-one injury-related emergency department visits were of undetermined intent and eleven visits were due to legal intervention. The most common cause of unintentional injury-related emergency department visits was falls (29 percent, n=2,632).

Source for deaths: 2008 Death Certificate Database

Source for hospitalizations: 2008 Inpatient Hospital Discharge Database

Source for emergency department visits: 2008 Outpatient Emergency Department Database

Arizona Counties with Population, 2008



1 in = 44 miles

Source: Arizona Health Status and Vital Statistics 2008