

Injury among Residents of Gila County, Arizona 2007

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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 Gila County in 2007. 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 Gila County Residents, Arizona 2007

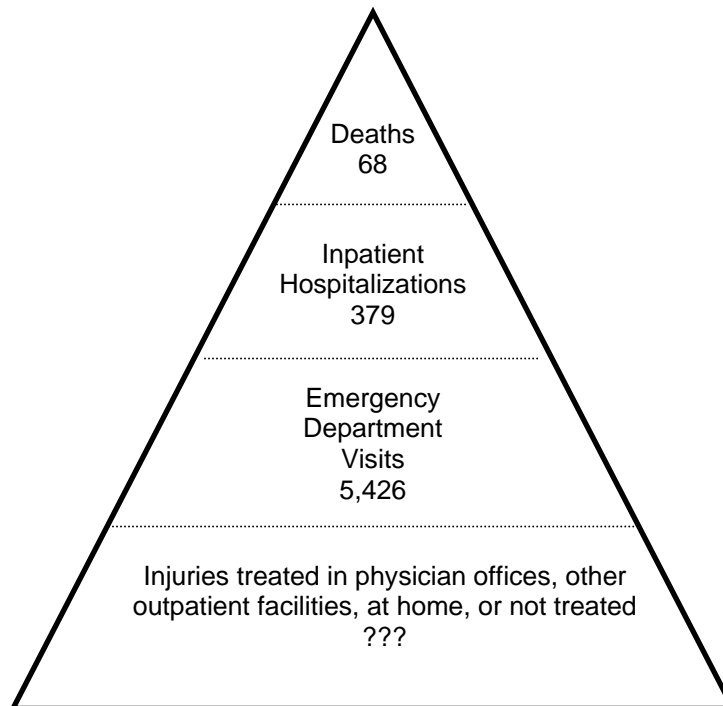
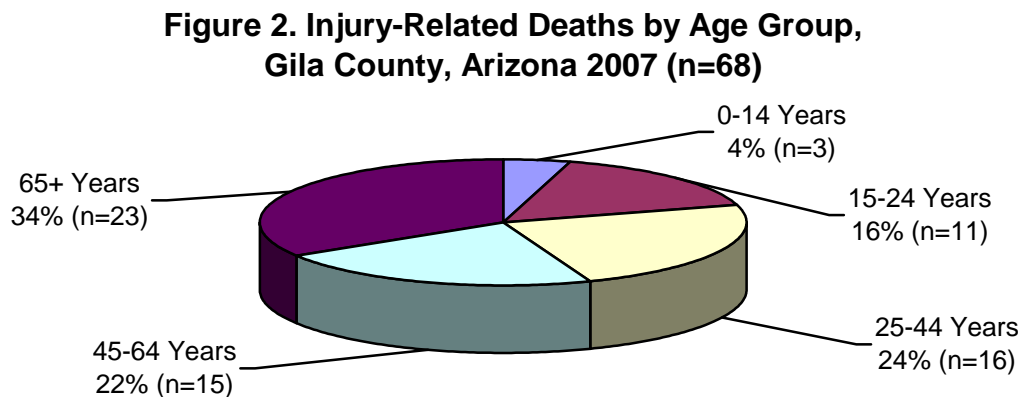


Figure 1 shows an injury pyramid for residents of Gila County during 2007. This pyramid shows that deaths represent the smallest proportion of injuries. The proportions increase towards the foundation of the pyramid, which is comprised of

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 2007, there were 68 injury-related deaths in Gila County. Most of these deaths were among males (69 percent, n=47), and females accounted for 31 percent (n=21). The largest percentage of deaths was among individuals age 65 years and older (34 percent, n=23). Age distributions are shown in Figure 2.

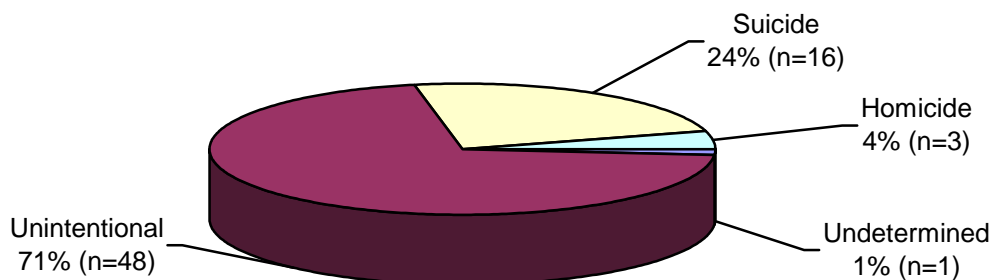


Non-Hispanic Whites accounted for the majority of injury-related deaths in Gila County (71 percent, n=48), followed by Hispanics (16 percent, n=11) and American Indians (12 percent, n=8). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

Unintentional injury is the leading cause of death among residents ages 1 to 44 years in Gila County and in the state of Arizona as a whole.¹ Seventy-one percent of injury-related deaths in Gila County were due to unintentional injuries (n=48); 24 percent were suicides (n=16); 4 percent were homicides (n=3); and 1 percent were of undetermined intent (n=1). Figure 3 shows injury-related deaths by intent.

1. Arizona Health Status and Vital Statistics 2007.

Figure 3. Injury-Related Deaths by Intent, Gila County, Arizona 2007 (n=68)



Gila County Injury-Related Deaths Compared to Other Arizona Counties

Table 1 shows the intent of injury-related deaths for residents of Gila County compared to residents of the rest of Arizona. The leading intent of injury-related deaths was unintentional for both Gila County and the remaining counties, accounting for the majority of injury-related deaths. Overall, Gila County and the rest of Arizona had similar percentages of suicides, but very different percentages of homicides.

Gila County (n=68)		Arizona, excluding Gila County (n=4,465)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	71	Unintentional	65
Suicide	24	Suicide	21
Homicide	4	Homicide	11
Undetermined	1	Undetermined	3

Suicide

Nearly all of the suicides in Gila County were males (94 percent, n=15). Nineteen percent of suicides were among individuals ages 15 to 24 years (n=3); 25 percent were among individuals ages 25 to 44 years (n=4); 13 percent were among individuals ages 45 to 64 years (n=2); and 44 percent were among individuals 65 years and older (n=7). The most common cause of suicide was firearms (81 percent, n=13).

Unintentional Injury

The most common cause of unintentional injury-related deaths in Gila County was motor vehicle traffic crashes (31 percent, n=15). Nineteen percent of unintentional injury deaths were due to poisonings (n=9). The causes of unintentional injury-related deaths during 2007 in Gila County are shown in Table 2.

Table 2. Causes of Unintentional Injury-Related Deaths among Gila County Residents, Arizona 2007		
Cause	Number	Percent
Motor vehicle traffic	15	31%
Poisoning	9	19%
Fall	8	17%
Other/unspecified	5	10%
Suffocation	4	8%
Drowning	2	4%
Other transport	2	4%
Fire/hot objects	1	2%
Nature/environment	1	2%
Other pedestrian	1	2%
Total	48	100%

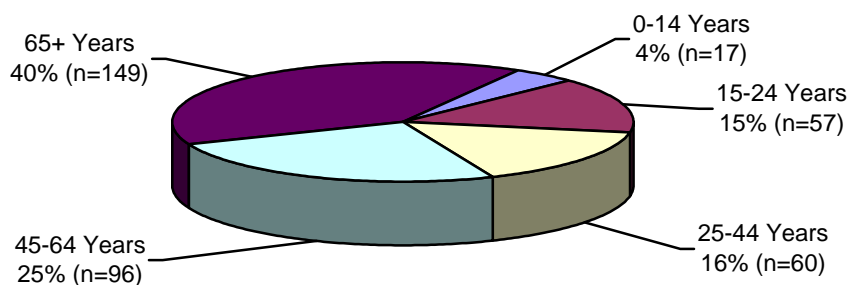
Motor vehicle traffic crashes

Males accounted for 60 percent of unintentional motor vehicle traffic-related deaths (n=9) and females accounted for 40 percent (n=6). Fifteen percent of these deaths were among individuals ages 15 to 24 years (n=3); 67 percent were among individuals ages 25 to 64 years (n=10); 20 percent were among individuals 65 years and older (n=3); and 13 percent were among individuals 14 years and younger (n=2). For most of the motor vehicle traffic-related deaths, the location of the injured person was not specified on the death certificate (53 percent, n=8).

Non-Fatal Inpatient Hospitalizations

In 2007, there were 379 non-fatal inpatient hospitalizations due to injury among residents of Gila County. Fifty-two percent were male (n=197) and 48 percent were female (n=182). Forty percent of the hospitalizations were among individuals 65 years and older (n=149). Figure 4 shows injury-related inpatient hospitalizations by age group among residents of Gila County.

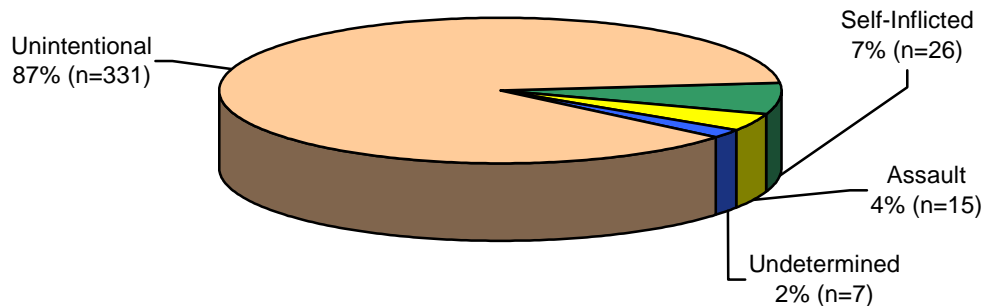
Figure 4. Injury-Related Inpatient Hospitalizations by Age Group, Gila County, Arizona 2007 (n=379)



There were 307 injury-related hospitalizations among White, Non-Hispanic residents of Gila County (81 percent). The second highest number was among Hispanics (10 percent, n=38), followed by American Indians (7 percent, n=28). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

Eighty-seven percent of the inpatient hospitalizations were due to unintentional injuries (n=331); 7 percent were due to self-inflicted injuries (n=26); 4 percent were due to assaults (n=15); and 2 percent were of undetermined intent (n=7). Figure 5 shows injury-related hospitalizations by intent.

Figure 5. Injury-Related Inpatient Hospitalizations by Intent, Gila County, Arizona 2007 (n=379)



Gila County Injury-Related Hospitalizations Compared to Other Arizona Counties

Table 3 shows the intent of injury-related hospitalizations for residents of Gila County compared to residents of the rest of Arizona. **The leading intent of injury-related hospitalizations was unintentional for both Gila County and the remaining counties, accounting for the majority of injury-related hospitalizations.** Gila County had a smaller percentage of hospitalizations due to assaults (4 percent) than the remainder of Arizona (7 percent).

Table 3. Intent of Injury-Related Inpatient Hospitalizations, Gila County Compared to Other Arizona Counties, 2007			
Gila County (n=379)		Arizona, excluding Gila County (n=32,196)	
Intent	Percent of Total	Intent	Percent of Total
Unintentional	87	Unintentional	83
Self-Inflicted	7	Self-Inflicted	9
Assault	4	Assault	7
Undetermined	2	Undetermined	2

The most common cause of unintentional inpatient hospitalizations in Gila County was falls (51 percent, n=168). Table 4 shows the causes of unintentional injury-related hospitalizations among residents of Gila County.

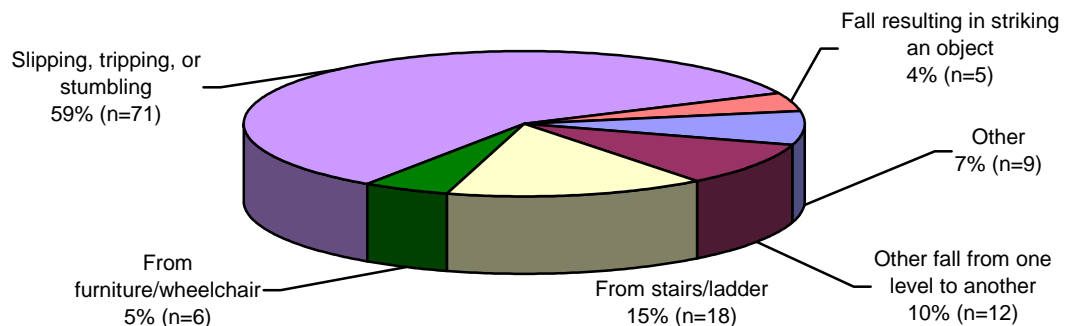
Cause	Number	Percent
Fall	168	51%
Motor vehicle traffic	69	21%
Other/unspecified	39	12%
Motor vehicle, non-traffic	22	7%
Poisoning	17	5%
Overexertion	8	2%
Struck by/against	8	2%
Total	331	100%

Falls

Males accounted for 37 percent of unintentional fall-related hospitalizations (n=62) and females accounted for 63 percent (n=106). Two percent of fall-related hospitalizations were among children 14 years and younger (n=3); 2 percent were among individuals ages 15 to 24 years (n=3); 27 percent were among individuals ages 25 to 64 years (n=45); and 70 percent were among individuals 65 years and older (n=117).

For 28 percent of unintentional fall-related inpatient hospitalizations, information regarding contributing event was not specified in the hospital discharge database (n=47). Among the hospitalizations for which contributing event was specified, 59 percent were due to slipping, tripping, or stumbling (n=71). Figure 6 shows unintentional fall-related hospitalizations by contributing event.

Figure 6. Inpatient Hospitalizations due to Unintentional Falls by Contributing Event, Gila County, Arizona 2007 (n=121)

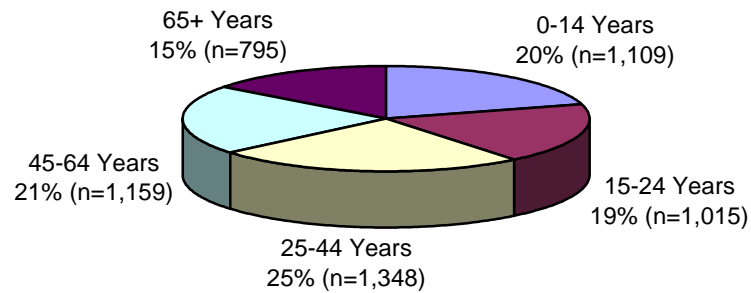


Non-Fatal Emergency Department Visits

In 2007, there were 5,426 injury-related emergency department visits among residents of Gila County. Males accounted for 52 percent of these visits (n=2,844) and females accounted for 48 percent (n=2,581). One individual was of unknown sex.

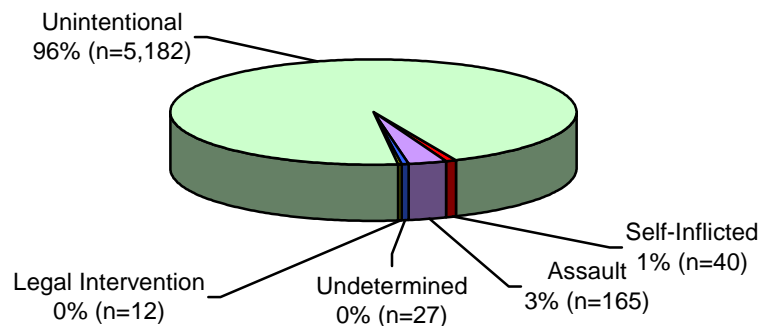
The largest percentage of visits was among individuals ages 25 to 44 years (25 percent, n=1,348). Figure 7 shows injury-related emergency department visits by age group.

Figure 7. Injury-Related Emergency Department Visits by Age Group, Gila County, Arizona 2007 (n=5,426)



Nearly all of the emergency department visits were due to unintentional injuries (96 percent, n=5,182); 3 percent were due to assaults (n=165); and 1 percent were due to self-inflicted injuries (n=40). Twelve emergency department visits were due to legal intervention, and 27 injury-related visits were of undetermined intent. Figure 8 shows emergency department visits by intent.

Figure 8. Injury-Related Emergency Department Visits by Intent, Gila County, Arizona 2007 (n=5,426)



Gila 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 Gila County compared to residents of the rest of Arizona. The leading intent of injury-related visits was unintentional for both Gila County and the remaining counties, accounting for the majority of injury-related visits. Overall, Gila 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, Gila County Compared to Other Arizona Counties, 2007			
Gila County (n=5,426)		Arizona, excluding Gila County (n=379,561)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	96	Unintentional	93
Self-Inflicted	1	Self-Inflicted	2
Assault	3	Assault	5
Undetermined	0	Undetermined	1

The most common cause of unintentional injury-related emergency department visits in Gila County was falls (27 percent, n=1,390). Table 6 shows the causes of unintentional injury-related emergency department visits for Gila County residents in 2007.

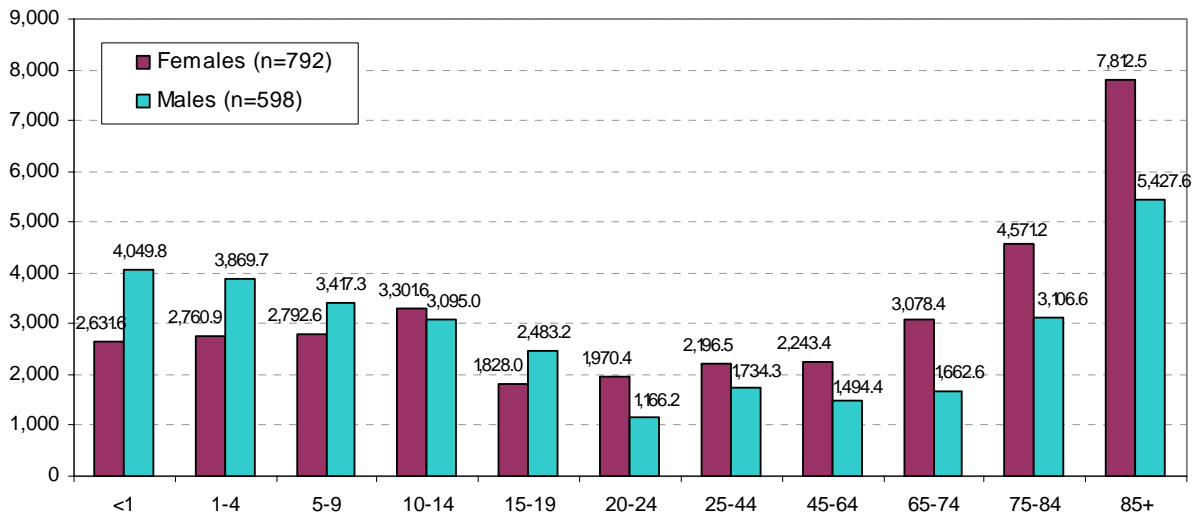
Table 6. Causes of Unintentional Injury-Related Emergency Department Visits among Gila County Residents, Arizona 2007		
Cause	Number	Percent
Fall	1,390	27%
Struck by/against	860	17%
Other/unspecified	824	16%
Overexertion	702	14%
Cut/pierce	473	9%
Motor vehicle traffic	404	8%
Nature/environment	322	6%
Motor vehicle non-traffic	127	2%
Fire/hot object	80	2%
Total	5,182	100%

Falls

There were 1,390 emergency department visits due to unintentional falls. Males accounted for 43 percent of these visits (n=598) and females accounted for 57 percent (n=792). Individuals ages 25 to 64 years had the highest percentage of unintentional fall-related emergency department visits (36 percent, n=505). Twenty-four percent of visits were among children 14 years and younger (n=340); 10 percent were among individuals ages 15 to 24 years (n=134); and 30 percent were among individuals 65 years and older (n=411).

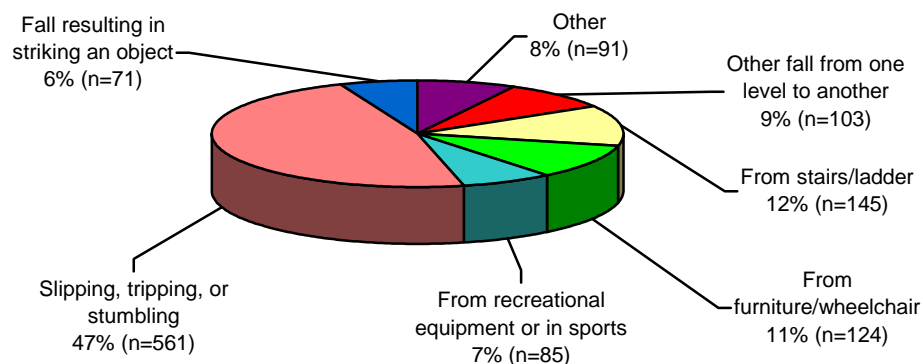
The highest rates of unintentional fall-related emergency department visits were among older adults. Females 85 years and older had a rate of 7,812.5 fall-related emergency department visits per 100,000 residents. Figure 9 shows emergency department visit rates of unintentional falls by age group and sex.

Figure 9. Unintentional Fall-Related Emergency Department Visit Rates per 100,000, Gila County, Arizona 2007 (n=1,390)



For 15 percent of the unintentional fall-related emergency department visits, information regarding contributing event was not specified in the emergency department database (n=210). Among the emergency department visits for which contributing event was specified, 47 percent of unintentional falls were due to slipping, tripping, or stumbling (n=561). 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, Gila County, Arizona 2007 (n=1,180)



Summary

In 2007, there were 68 injury-related deaths in Gila County, and the largest percentage of deaths was among individuals 65 years of age and older (34 percent, n=23). The majority of these deaths were due to unintentional injuries (71 percent, n=48). The most common cause of unintentional injury deaths was motor vehicle traffic crashes (31 percent, n=15). For residents of Gila County, unintentional injury is the leading cause of death for individuals ages 1 to 44 years.¹ Twenty-four percent of injury-related deaths in Gila County were suicides (n=16); 4 percent were homicides (n=3); and 1 percent were of undetermined intent (n=1).

There were 379 non-fatal inpatient hospitalizations due to injury among residents of Gila County. Forty percent of the hospitalizations were among individuals 65 years and older (n=149). Eighty-seven percent of the hospitalizations were due to unintentional injuries (n=331); 7 percent were due to self-inflicted injuries (n=26); 4 percent were assaults (n=15); and 2 percent were of undetermined intent (n=7). The most common cause of unintentional injury-related hospitalizations was falls (51 percent, n=168).

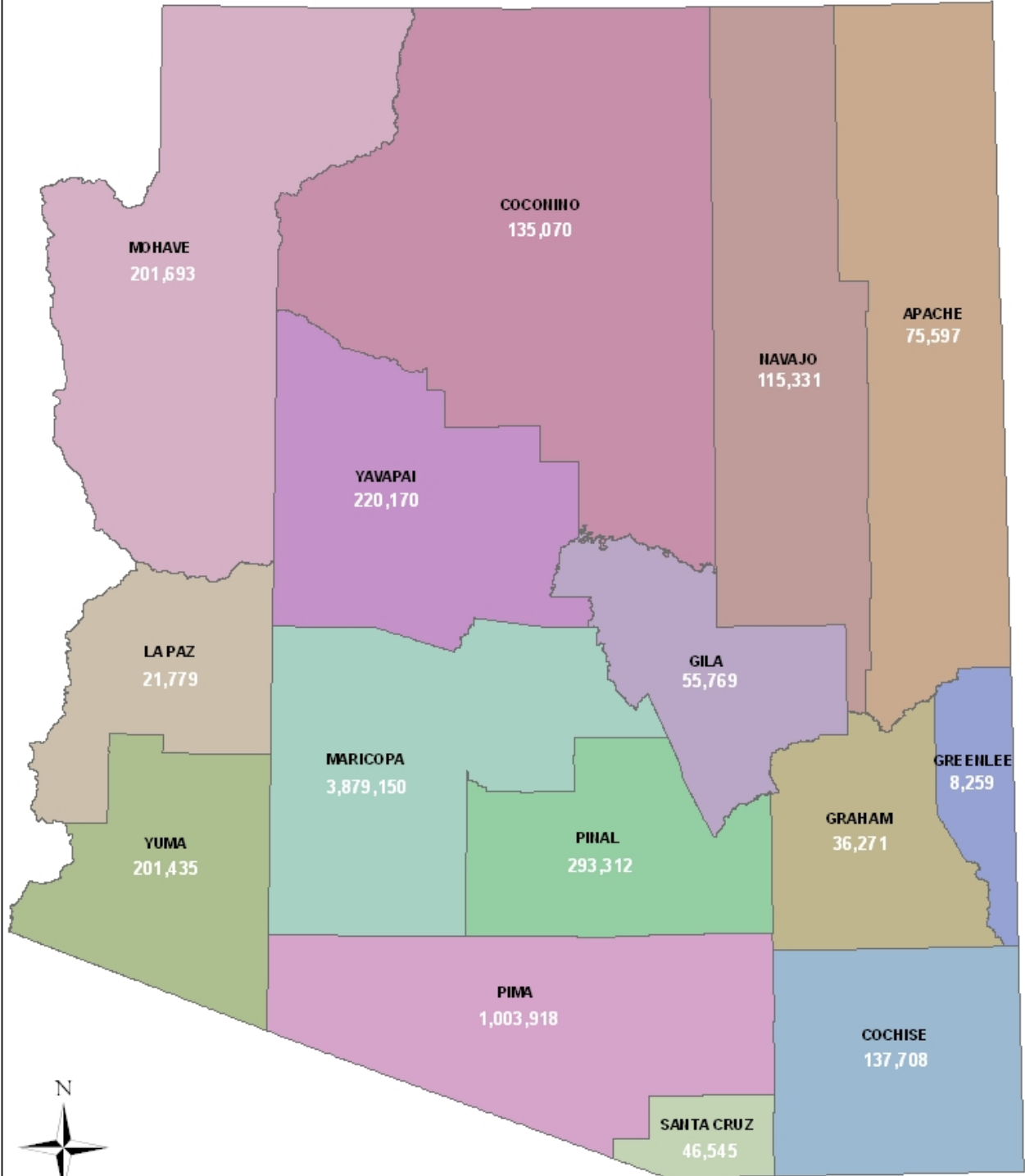
There were 5,426 injury-related non-fatal emergency department visits among residents of Gila County in 2007. The largest percentage of visits was among individuals ages 25 to 44 years (25 percent, n=1,348). Ninety-six percent of the emergency department visits were due to unintentional injuries (n=5,182); 3 percent were due to assaults (n=165); and 1 percent were due to self-inflicted injuries (n=40). The most common cause of unintentional injury-related emergency department visits was falls (27 percent, n=1,390).

Source for deaths: 2007 Death Certificate Database

Source for hospitalizations: 2007 Inpatient Hospital Discharge Database

Source for emergency department visits: 2007 Outpatient Emergency Department Database

Arizona Counties with Population, 2007



1 in = 44 miles
Source: Arizona Health Status and Vital Statistics 2007