

## **Leading Causes of Accidental Death in San Luis Obispo County**

### **Introduction**

Accidents are the leading cause of years of potential life lost (YPLL) in San Luis Obispo County. Between the years 2000-2010 (excluding 2001 due to a lack of records), over 30% of YPLL were attributed to accidental deaths. YPLL is the measurement of years of life lost between life expectancy (in this case, 75 years), and an actual age at death. This report aims to identify and analyze the leading causes of accidental death in the county over the past decade.

### **Summary**

Between the years 2000-2010 (excluding 2001), 30% of the years of potential life lost to residents of San Luis Obispo County were due to accidents. The leading cause of death was motor vehicle crashes (41%), followed by accidental poisonings (22%), and falls (18%),

There were 1,211 accidental deaths in SLO County between 2000-2010 (excluding 2001). Of these, 41% (506) were due to motor vehicle crashes, 22% (263) were due to accidental poisoning, and 18% (214) were due to falls. Men are more likely to die of an accident, while accidental drowning causes the most YPLL due to the young age of the victims. Accidental death causes varied by age group. Motor vehicle crashes were the leading cause of death in most age groups, however, persons between 40-49 died more of accidental poisonings, and for persons over the age of 70, fall related injuries or complications were the leading cause of death.

## Methods

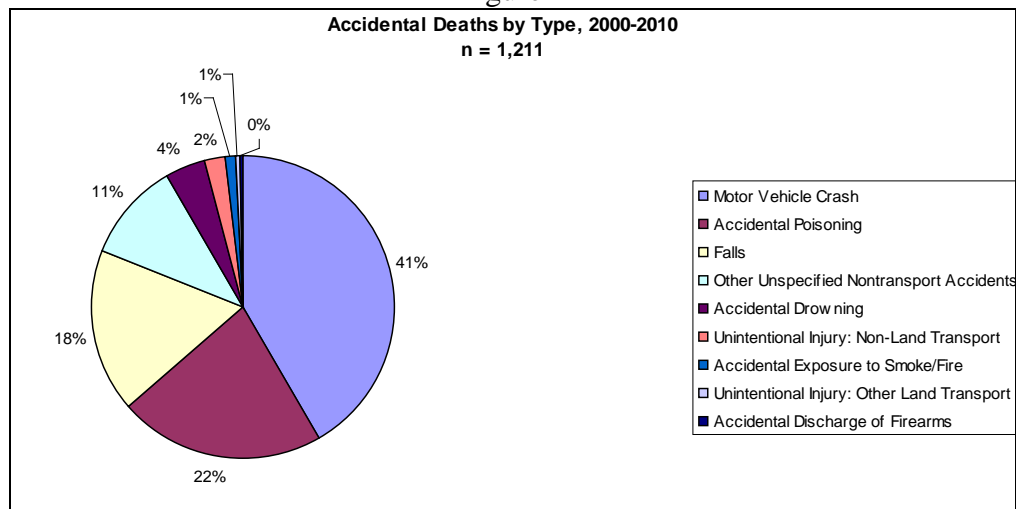
Using information from the Death Statistical Master Files for San Luis Obispo County, total numbers of accidental deaths were determined and analyzed by gender, cause of death, and age group. Total numbers of deaths were used to rank the leading causes of accidental death overall and for specific groups. In this report, nine causes of accidental deaths are examined: Motor vehicle crashes, accidental poisoning, falls, non-transport accidents (falling objects, animal attacks, choking, electric shock), drowning, non-land transport injuries, exposure to smoke/fire, transport accidents not involving motor vehicles, and the accidental discharge of firearms.

## Results

The top causes of accidental deaths in SLO County were motor vehicle crashes, accidental poisoning, and falls, which together accounted for over 80% of all accidental deaths. Motor vehicle crashes were the leading cause of death for ages 0-39 and 50-69. Accidental poisoning was the leading cause of death in the 40-49 year old age group, and falls caused the most deaths among the 70-79 and 80+ age groups. Men suffered more accidental deaths than women, and the 20-29 year old age group experienced the highest amount of accidental deaths overall.

### Accidental Deaths by Type and Gender

Figure 1



There were 1,211 accidental deaths in SLO County between 2000-2010 (excluding 2001). Of these, 41% (506) were due to motor vehicle crashes, 22% (263) were due to accidental poisoning, and 18% (214) were due to falls. A further 11% (128) were due to unspecified non-transport accidents. (This broad category includes such accidents as being struck by a moving or falling object, coming into contact with animals, contact with machinery, choking, suffocation, exposure to excessive natural heat or cold, and electric shock, among others.) A further 4% (48) of accidental deaths were due to drowning, and 2% (29) were caused by non-land transport accidents (water or air travel). Exposure to smoke/fire accounted for 1% (14) of accidental deaths in the county, and land transport accidents not involving a motor vehicle accounted for 1% (7) of deaths. The accidental discharge of firearms led to two deaths.

Figure 2

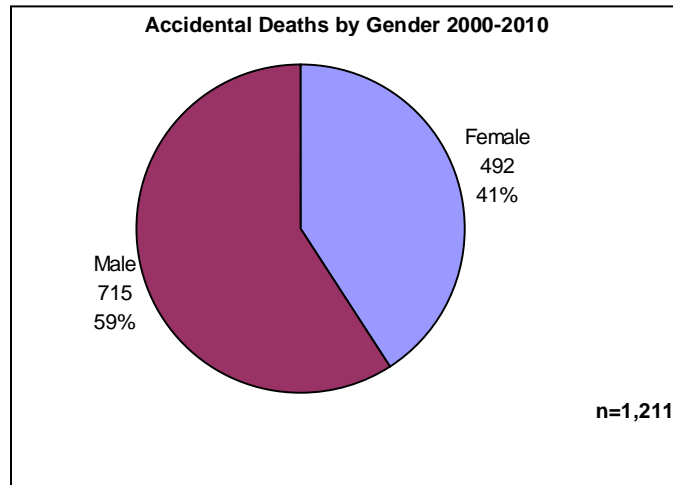
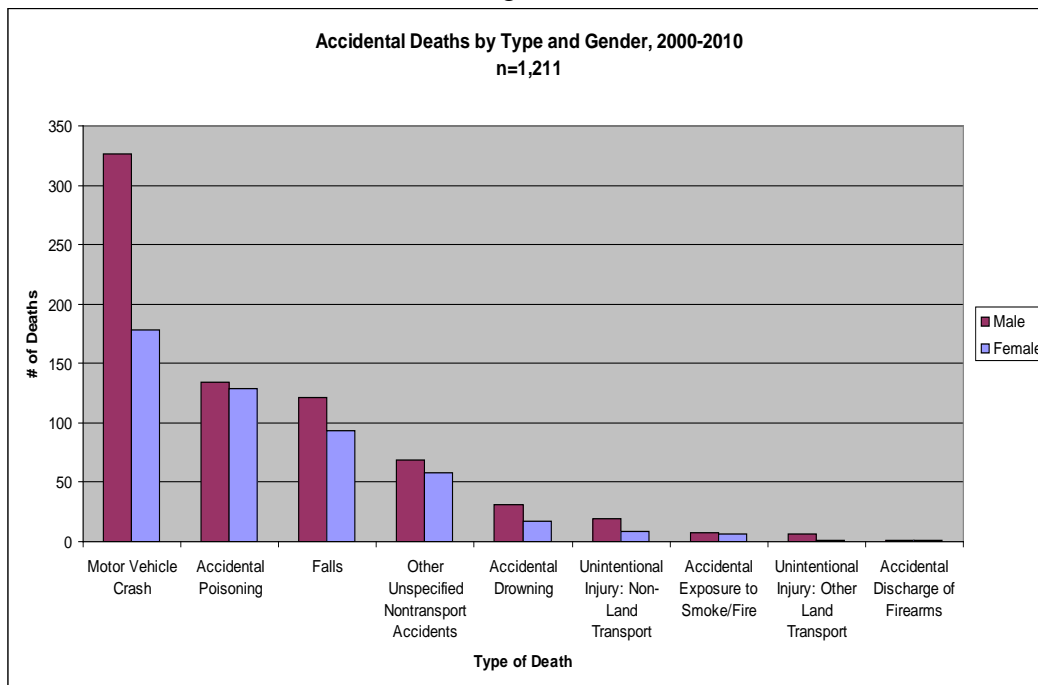
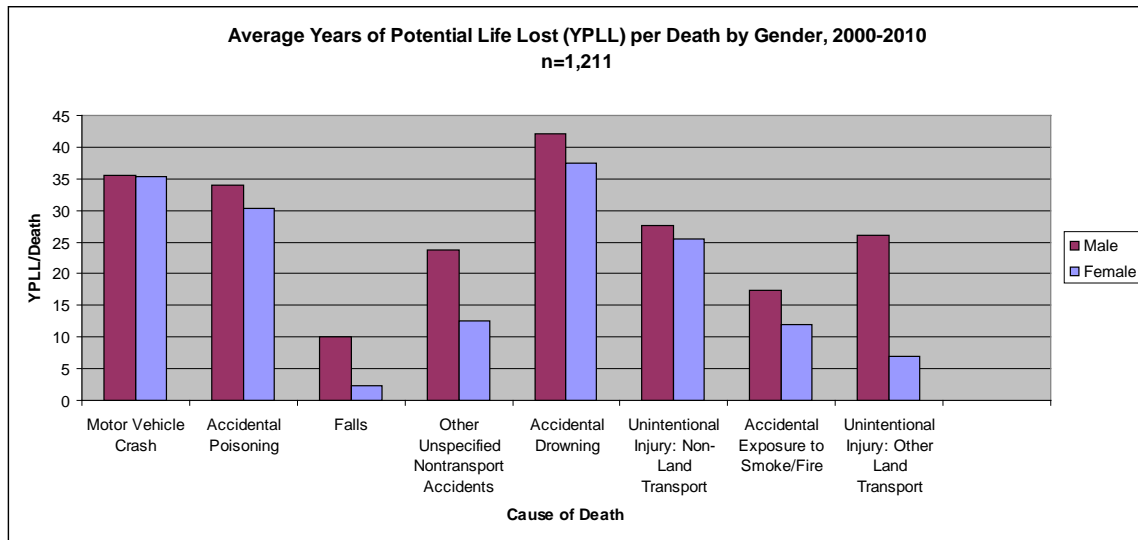


Figure 3



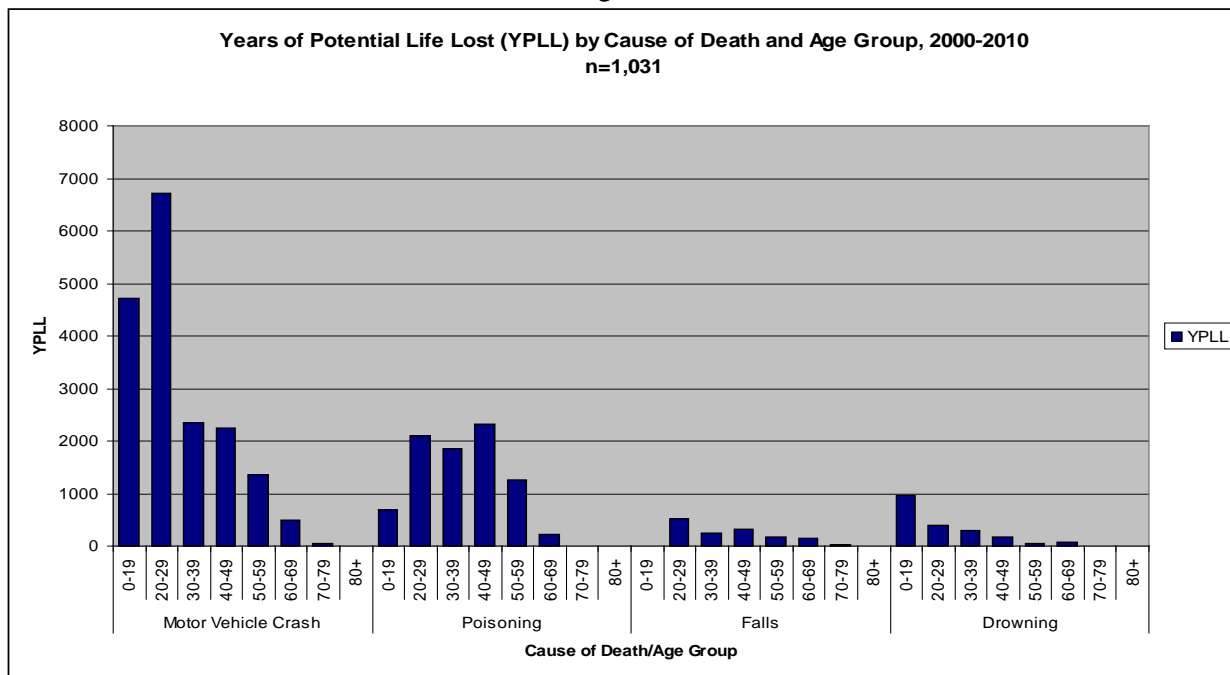
Of the 1,211 accidental deaths over the past decade, men accounted for 59% (715) while women accounted for 41% (492), as seen in Figure 2. Overall, men accounted for more accidental deaths than women in all nine accident categories (Figure 3).

Figure 4



Accidental drowning caused the most years per life lost (YPLL) per death, followed by motor vehicle crashes and accidental poisoning. Falls accounted for the least YPLL per death. Males had more YPLL per death in all accident categories (Figure 4), which suggests that men tend to die of accidental death at a younger age than women.

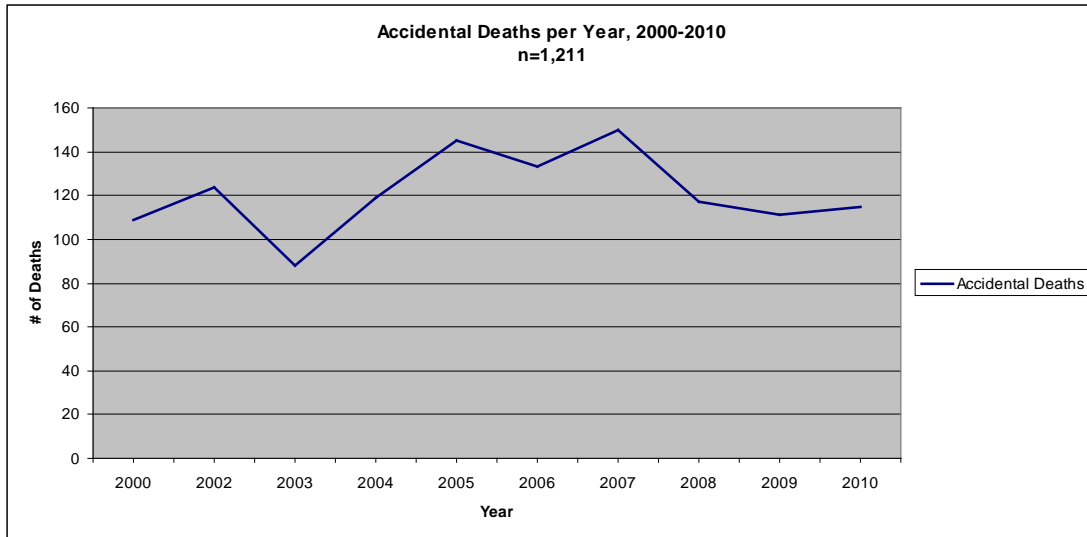
Figure 5



The primary reason for the age disparity in YPLL by age group is that drowning, motor vehicle crash and accidental poisoning victims tend to be younger, while falling victims tend to be older (Figure 5).

Accidental Deaths by Year

Figure 6

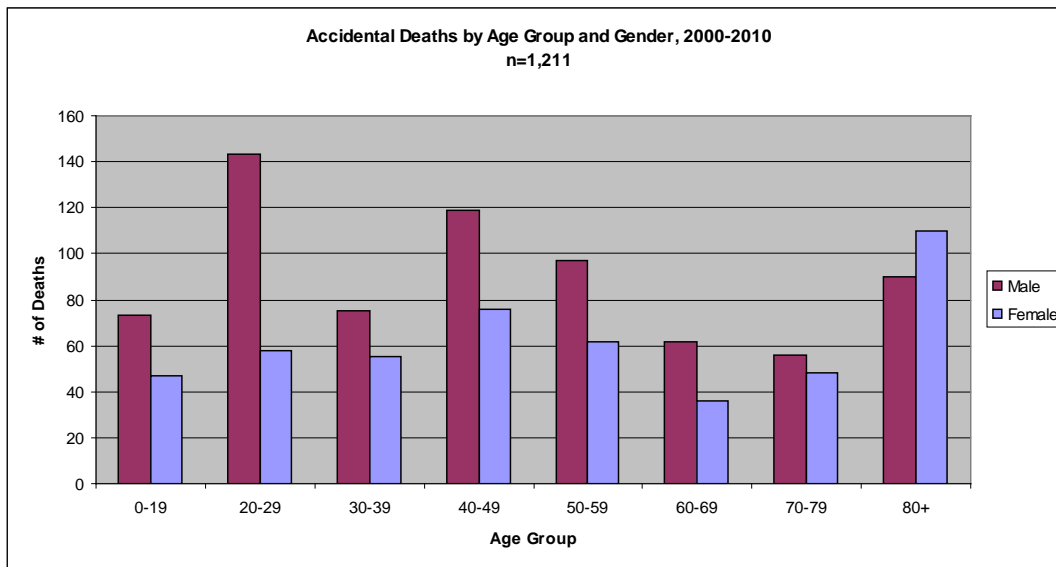


Total accidental deaths remained relatively steady throughout the past decade, with an average of 121 deaths per year.

Accidental Deaths by Age Group

Causes and incidences of accidental death varied between different age groups. Motor vehicle crashes were the leading cause of death among five out of the eight age groups examined. Falling caused more deaths in the older age groups, and accidental poisoning caused more deaths in the middle age groups.

Figure 7

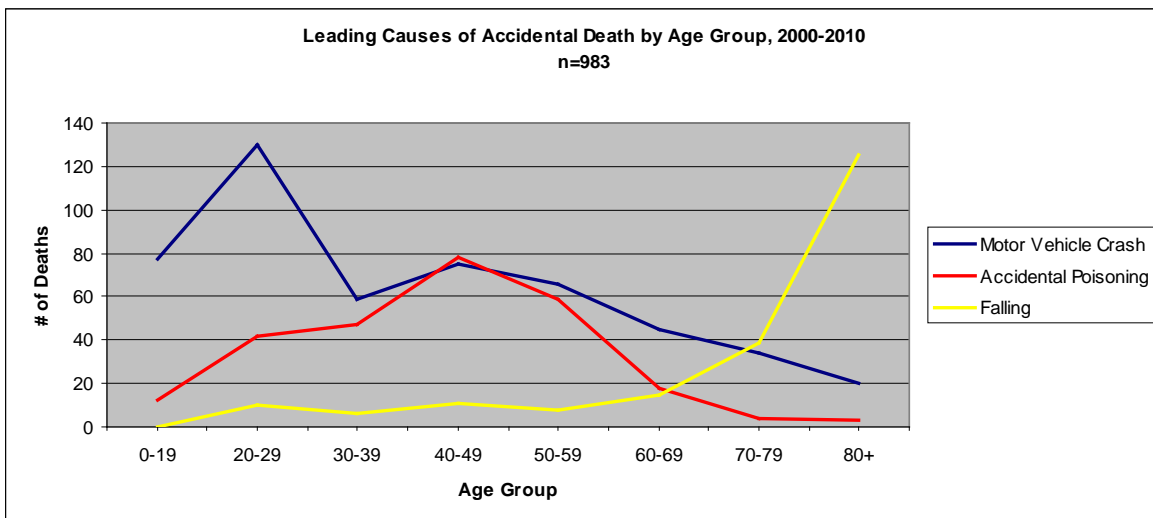


Men experienced higher rates of accidental death than women in all age groups except 80+. Men aged 20-29 experienced the highest rates of accidental death overall, and were more than twice as likely to die from an accident as their female counterparts (Figure 7).

In the 0-19 year old age group, motor vehicle crashes were the leading cause of death, followed by drowning and accidental poisoning. Motor vehicle crashes were the leading cause of death between the ages 0-39 and 50-69 for both men and women. Accidental poisoning was the second leading cause of death between the ages of 20-69, with the incidence varying between men and women. In the 30-39 age group, although motor vehicle accidents were the leading cause of accidental death overall, accidental poisoning deaths increased, with more women than men killed by accidental poisoning. In the 40-49 age group, accidental poisoning surpassed motor vehicle crashes as the leading cause of accidental death. As in the 30-39 age group, more men were killed in motor vehicle crashes, while more women were killed by accidental poisoning.

Among 50-59 year olds, motor vehicle crashes were once again the leading cause of accidental death, though accidental poisoning deaths remained high. In this group, more men than women were killed by accidental poisoning. In the 60-69 age group, motor vehicle crashes continued as the leading cause of accidental death, with three times as many men as women killed in crashes. In the 70-79 age group, falls surpassed motor vehicle crashes as the leading cause of accidental death. Among those of age 80+, falls were by far the leading cause of accidental death, with slightly more women than men killed by falls.

Figure 8



Most motor vehicle deaths occurred among the 20-29 age group, before dropping significantly among the 30-39 age group and leveling off among other age groups. Accidental poisoning deaths rose steadily and peaked among the 40-49 age group before dropping among the older age groups. Deaths caused by falls were low and remained steady throughout all age groups until spiking sharply in the 70-79 and 80+ age groups (Figure 8).

### Conclusions

Accidental deaths accounted for over 30% of years of potential life lost (YPLL) in San Luis Obispo County over the past decade. Motor vehicle crashes were the leading cause of accidental death

among residents, with 41% of all accidental deaths attributed to motor vehicles. In five out of the eight analyzed age groups, motor vehicle crashes were the leading cause of accidental death. Accidental poisoning was the second leading cause of death, with 22% of all deaths attributed to poisoning. Falls were the third leading cause of death, with 18% of deaths caused by falling. Men accounted for more accidental deaths than woman (59% to 41%) and experienced higher rates of accidental death in all nine type of death categories examined. The age group with the most accidental deaths overall was the 20-29 age group. In particular, 20-29 year old men were most at risk for accidental death, with nearly 12% of all accidental deaths occurring within this age group and gender. Of all accidental deaths among 20-29 year old men, 65% were due to motor vehicle crashes.

Benefits of this report include being able to obtain standardized cause of death information from registry data, the ability to repeat this study over time to observe changes, and the use of international ICD-10 codes making this report comparable to county, interstate, national, and international records. Most importantly, this report serves as a source for evidence-based, targeted public health intervention programs to reduce the number of accidental deaths in the county.

In the future, work could be done to further examine the specific causes of accidental death within the nine major categories. Also, the development of specific public health intervention programs to reduce the causes of accidental death, including targeting specific age groups, is an important next step. Lastly, it is important that this work is continued and that all accidental death data is reviewed and analyzed on a regular basis.