

# Non-natural deaths in San Diego County: A comparison of older adults to the general population

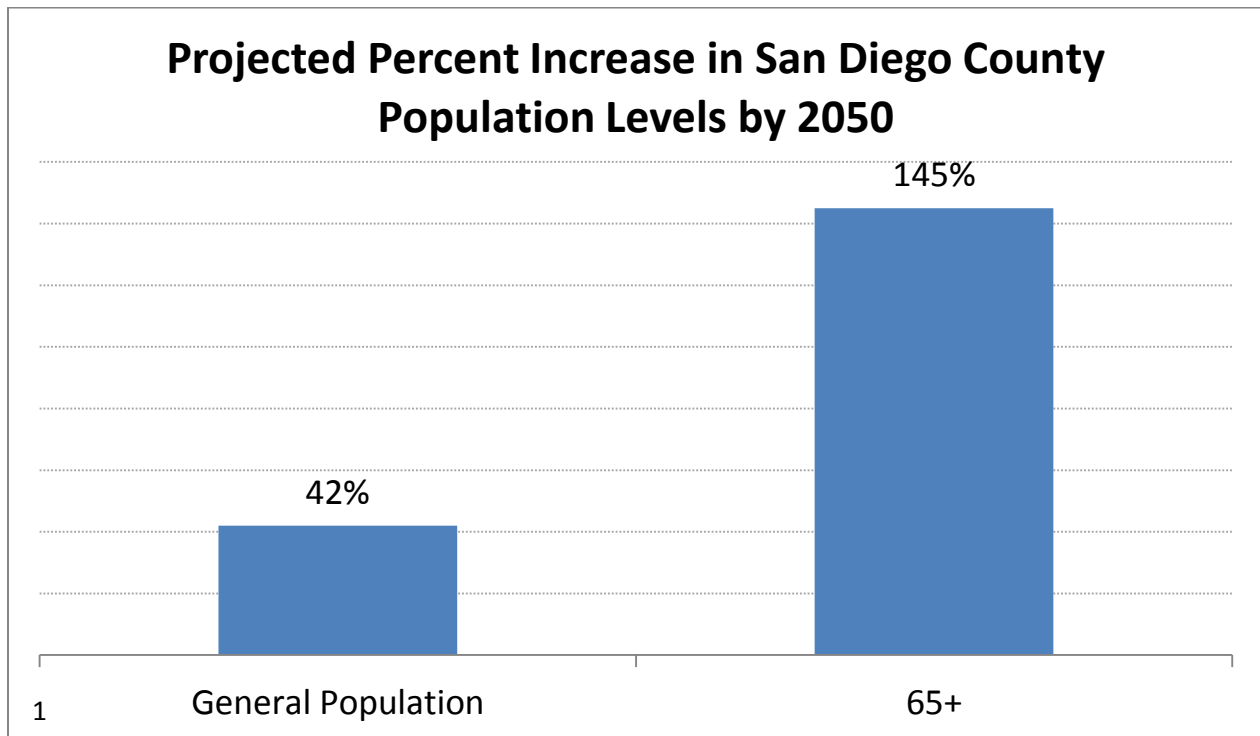
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Source: San Diego Association of Governments

## San Diego County

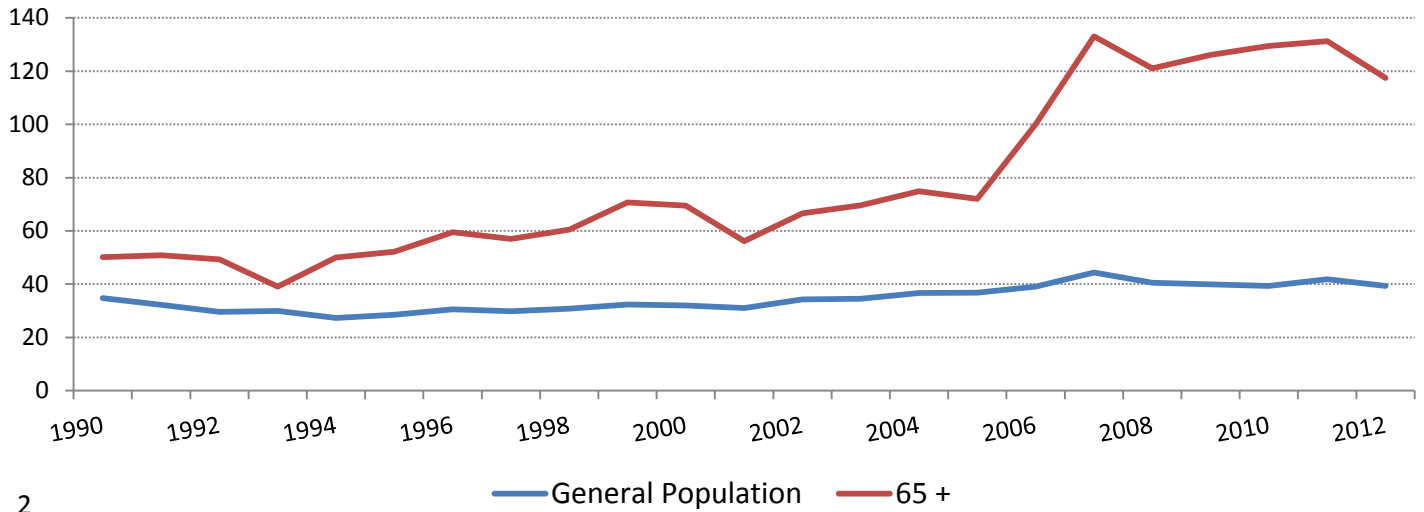
- 4,200 square miles, 90 miles of international border, 70 miles of coastline, 3.2 million people
- 19,000 – 21,000 deaths recorded each year
- Medical Examiner investigates about 10,000 cases
- Further evaluation (autopsy or external exam) performed on about 3,000 cases, including all *non-natural deaths* to determine both *manner* and *cause*

## Manner of Death:

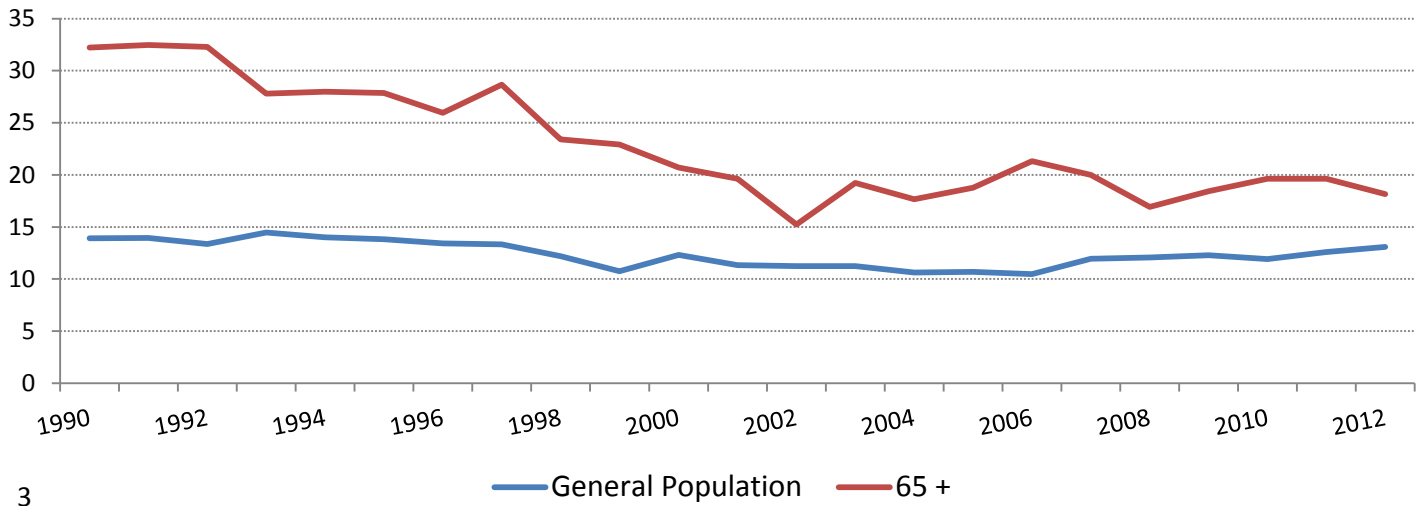
- Natural
- Unintentional (accident)
- Homicide
- Suicide
- Undetermined

“The *cause* of death can be summarized as the disease or injury that initiates the sequence of events that ultimately results in the person’s death.” (Motor vehicle crash, gunshot, drug overdose, etc.) - San Diego County Medical Examiner, 2012 Annual Report.

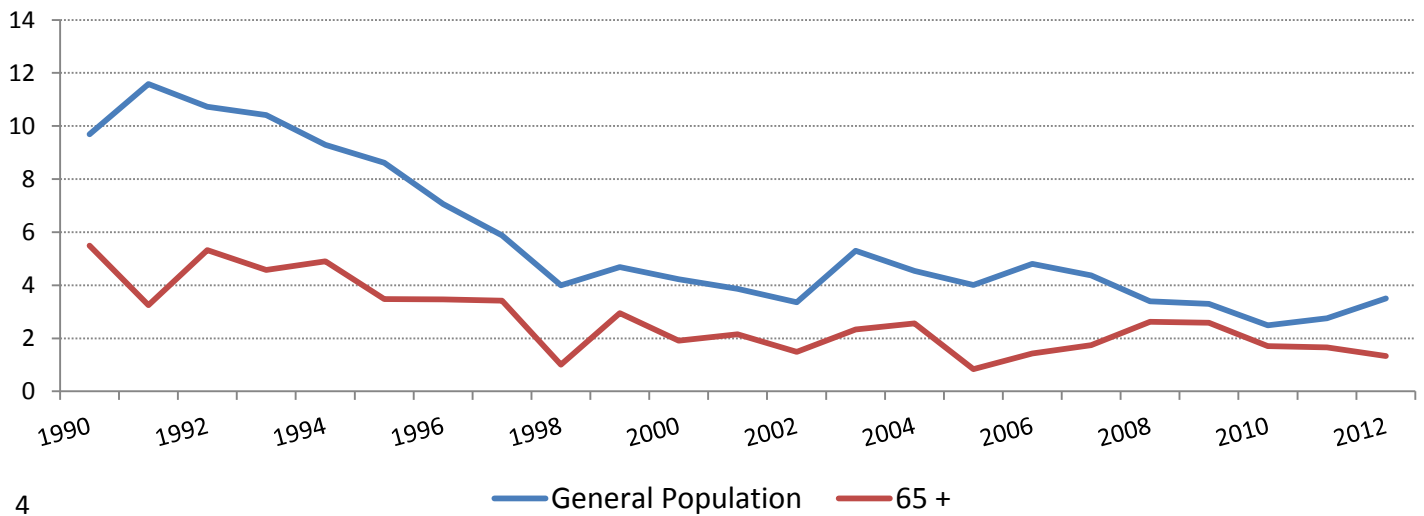
## Unintentional Death Rates in San Diego County, 1990-2012



## San Diego County Suicide Rates, 1990-2012



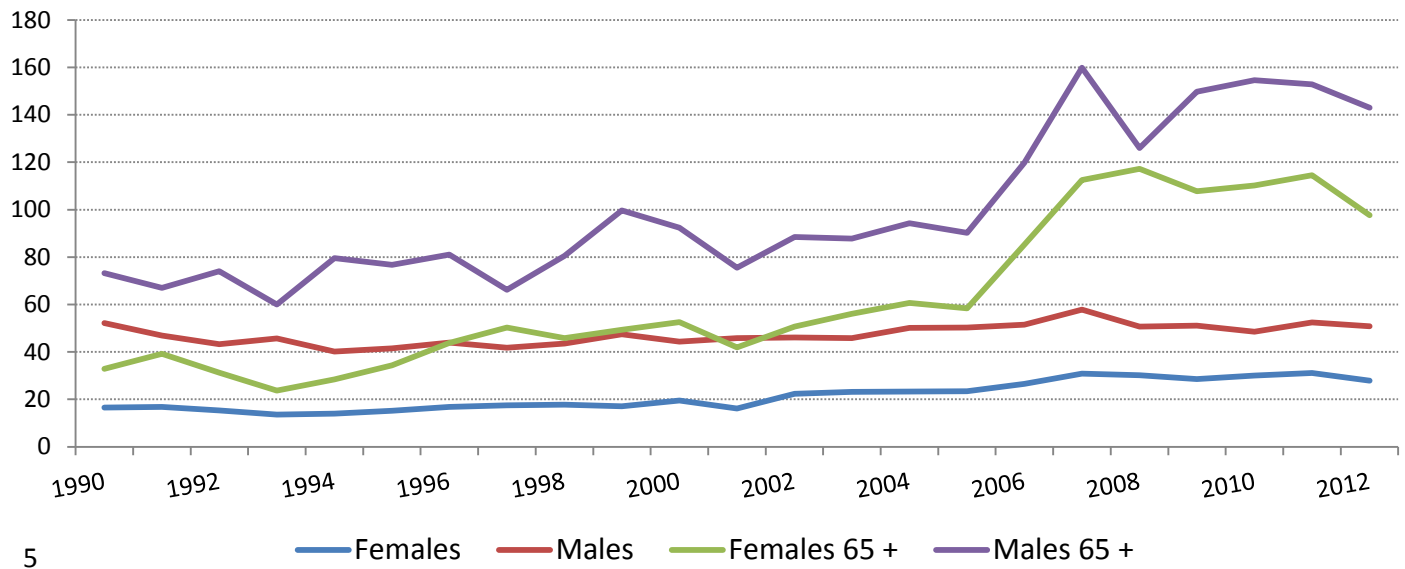
## San Diego County Homicide Rates, 1990-2012



## Deaths by Manner in San Diego County, 1990 - 2012

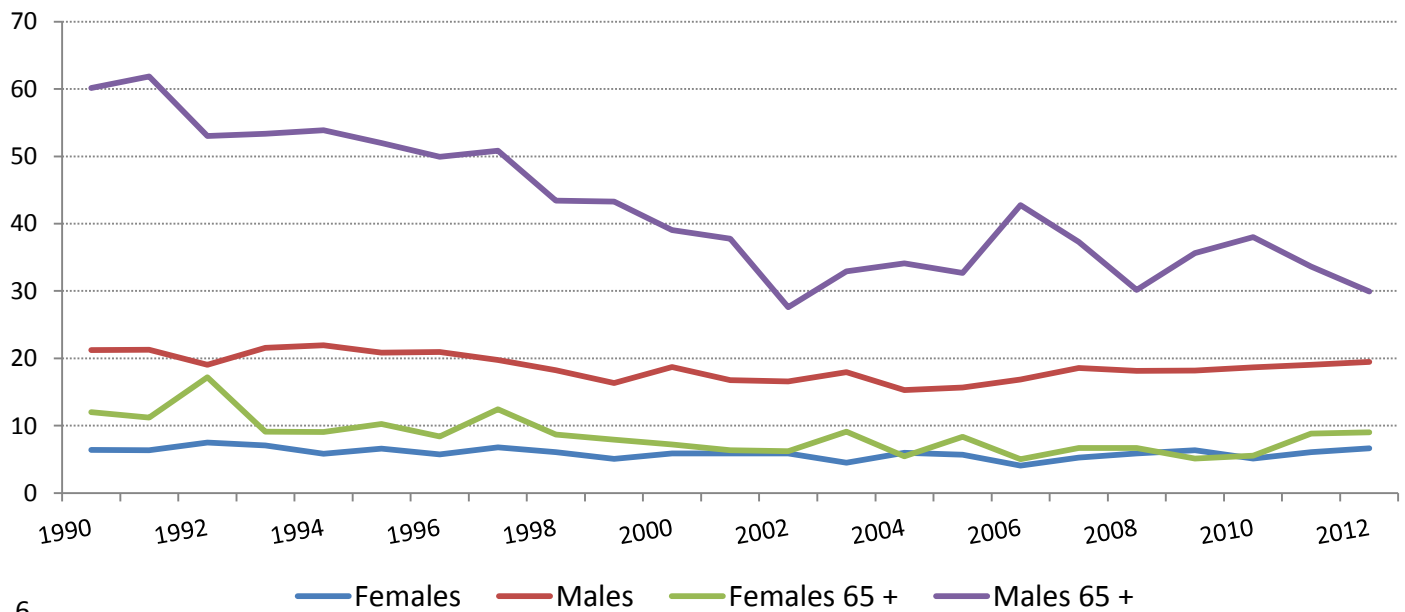
Manner	1990	2000	2012
Unintentional Deaths	867	901	1237
Unintentional Deaths 65 +	137	218	440
Suicides	348	347	411
Suicides 65 +	88	65	68
Homicides	242	119	110
Homicides 65 +	15	6	5

### Unintentional Death Rates by Gender in San Diego County, 1990-2012



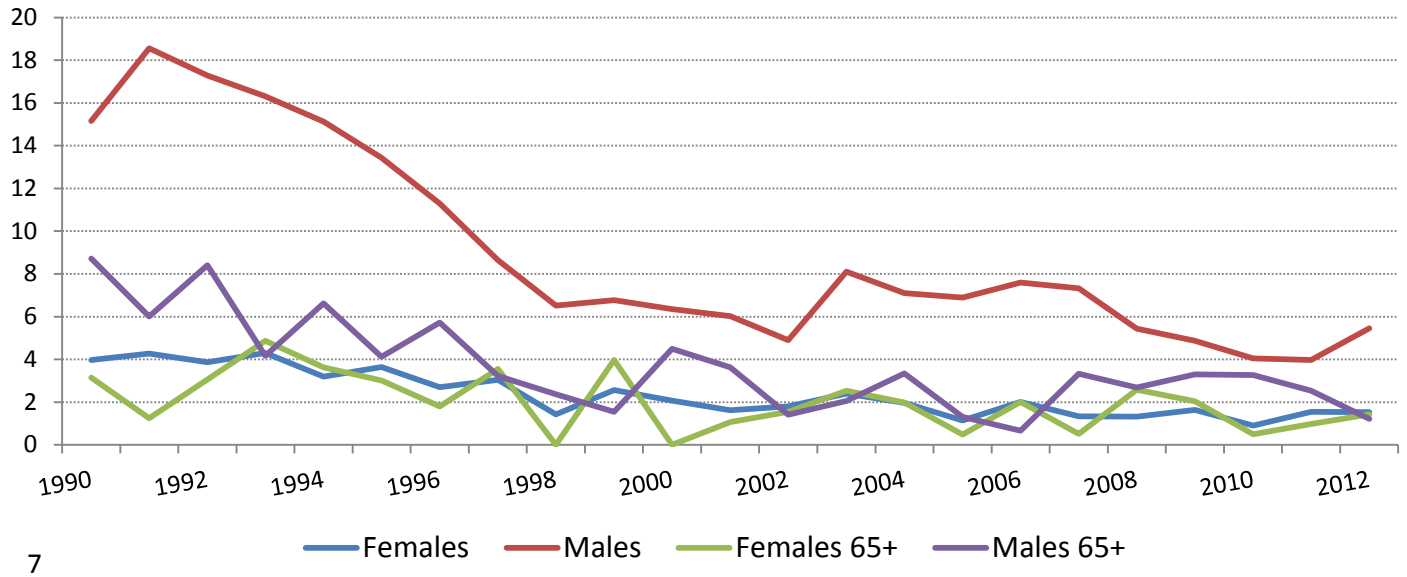
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### San Diego Suicide Rates by Gender, 1990-2012

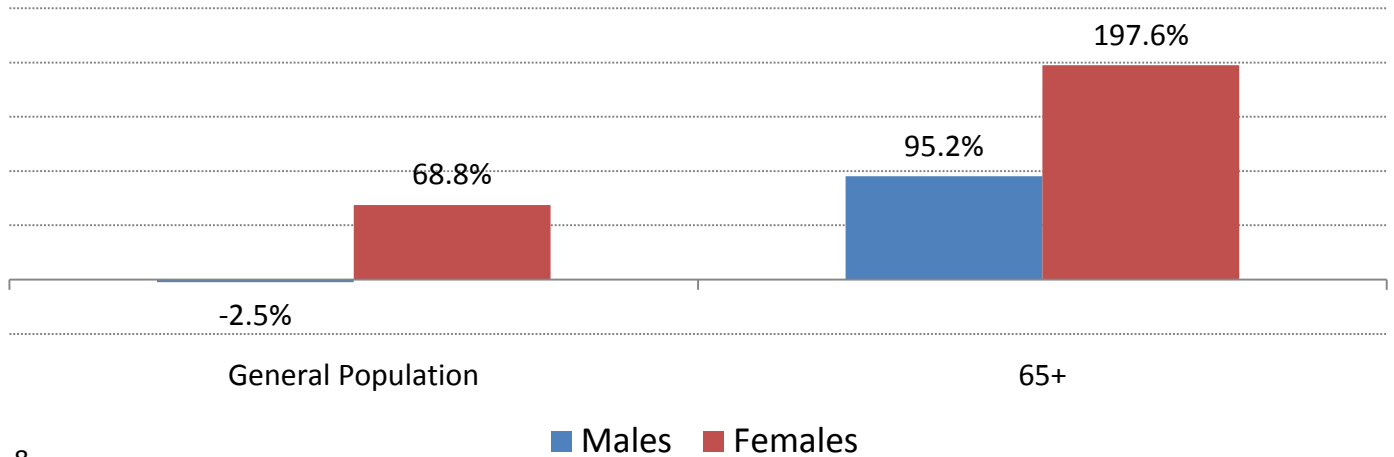


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## San Diego County Homicide Rates by Gender, 1990-2012



## Change in San Diego County Unintentional Death Rates, 1990-2012

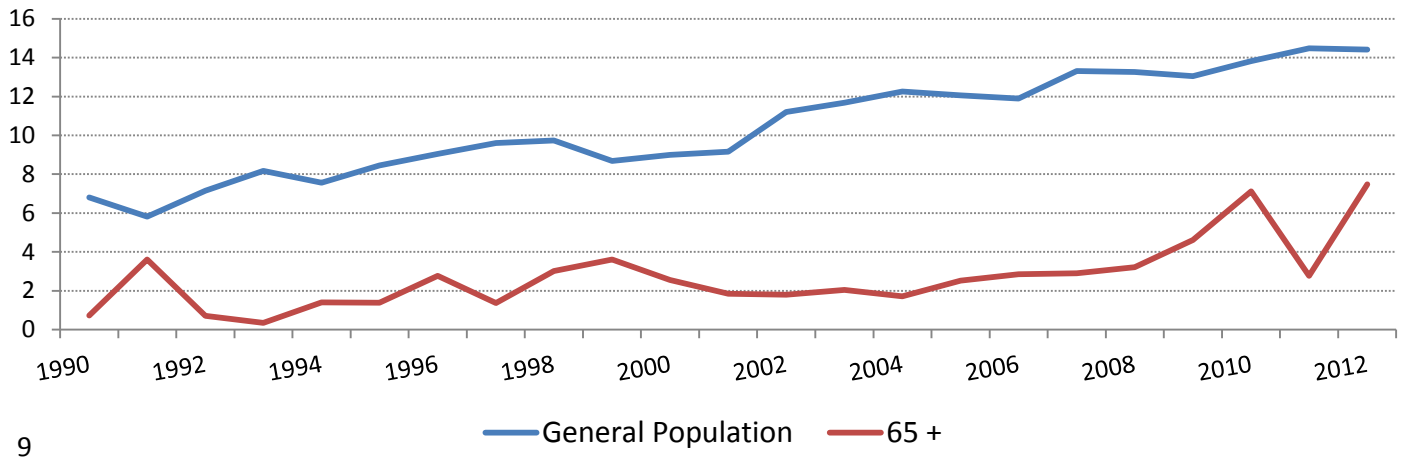


## Unintentional Deaths

In 2012, 87% of all unintentional deaths fell into one of 3 causes:

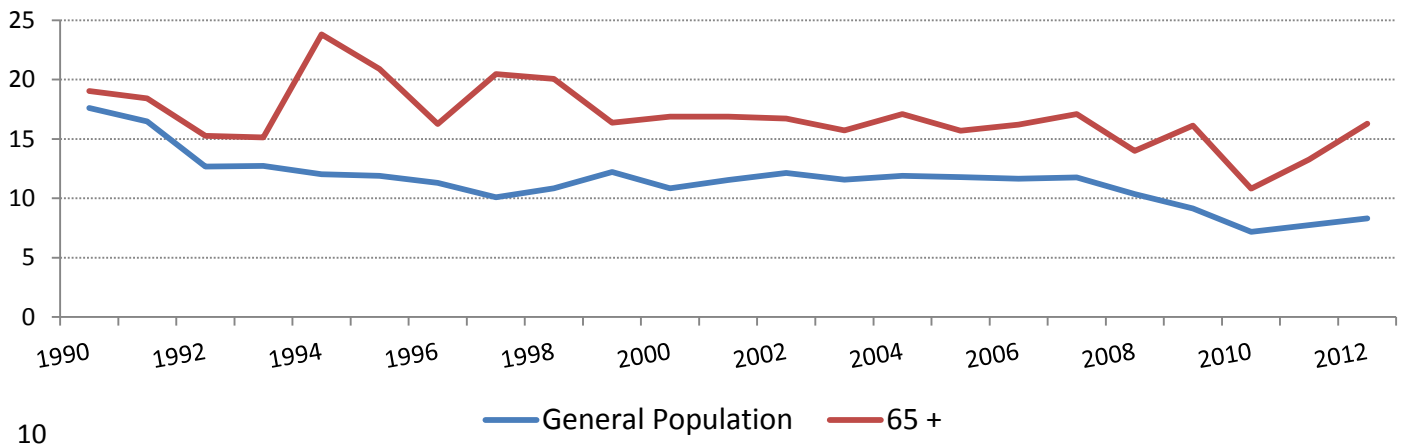
1. Drugs and Alcohol (including prescription drugs)
2. Motor Vehicle Related (including pedestrians struck by motor vehicles)
3. Falls

## Alcohol/Drug-Related Death Rates in San Diego County, 1990-2012



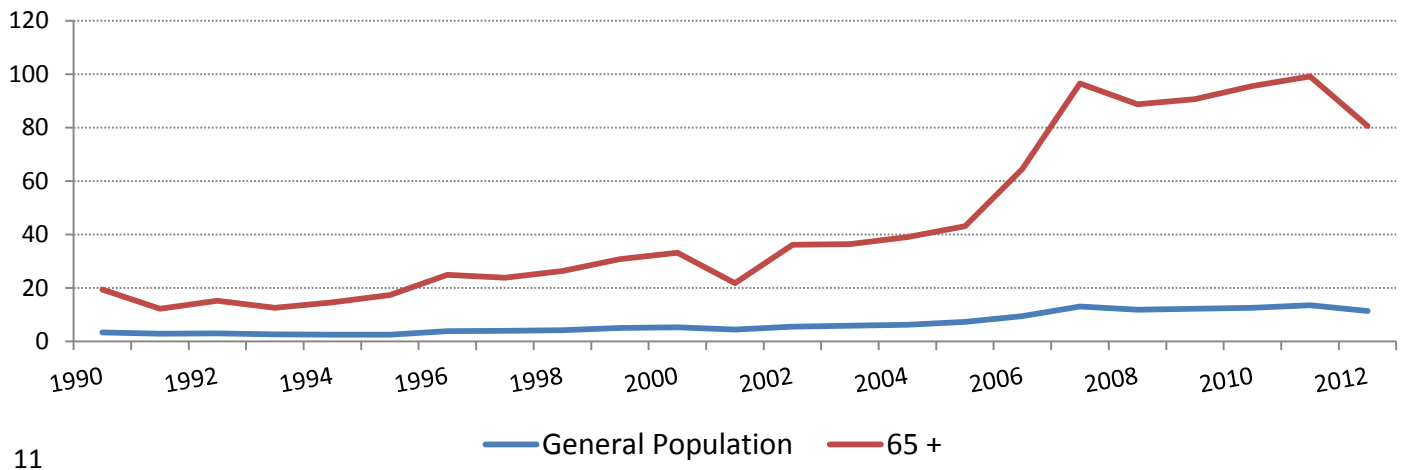
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## Motor Vehicle Related Death Rates in San Diego County, 1990-2012



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## Fall Related Death Rates in San Diego County, 1990-2012



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## Summary of Non-natural Deaths in San Diego County, 1990 – 2012

- Population-controlled unintentional deaths are increasing faster among older adults than among the general population.
- While suicide rates among older adults have decreased compared to 20 years ago, recent trends are flat.
- Homicide rates have decreased among the general population and older adults for the last two decades.
- Both older males and older females have witnessed a drastic increase in unintentional death rates over the last eight years.
- The suicide rate among older males remains substantially higher than the general population and their female counterparts.

### Unintentional Deaths

- The rate of unintentional deaths related to drugs and alcohol has increased sharply over the last decade, most likely due to prescription opioids.
- While motor vehicle crash related death rates have decreased among older adults, they remain higher than the general population.
- Fall related deaths have increased significantly among older adults over the last decade, predominantly accounting for the overall increase in unintentional deaths.

### Why are fall related deaths increasing?

1. Falls are increasing?
2. The mortality rate of falls is increasing?
3. Both?
  - San Diego County emergency department data show that there was a **35%** increase in the rate of fall related ER visits among those 65 years and older from 2006 to 2011 (EpiCenter, California Department of Public Health).
  - There was a **12%** increase in the rate of non-fatal, fall-related hospitalizations over the same time period (EpiCenter, California Department of Public Health).
  - The fall related death rate increased by **54%** over the same time period.
  - *It appears that the increase in fall related deaths is due to an increase in both factors.*

### Potential issues related to falls? (Literature Review)

- Increasing Longevity
- Mental Health / Cognitive Decline
- Impaired Balance
- Polypharmacy
- History of Falls
- Anticoagulants
- Environmental Factors
- Others?

### Notes:

- Unless otherwise noted, all data are from the County of San Diego, Health and Human Services, Emergency Medical Services, Medical Examiner Database.
- All rates are per 100,000 people.