

Supplemental Indicators

Public Health Indicators of Snohomish County



Introduction

The Snohomish Health District (SHD) recently embarked on a strategic planning process. To inform the process, the Health Statistics and Assessment Program and the Health Officer identified supplemental public health indicators for Snohomish County. These indicators augment the indicators published in *Signals 2 - Public Health Indicators of Snohomish County*. The same criteria used to select indicators in the first edition of *Signals* were applied to select the supplemental indicators. Details about the initial development process of the indicators, selection criteria, methods, and definitions for the data may be found in *Signals 2* (www.snohd.org/snoHealthStats).

This supplement contains one demographic description and ten supplemental indicators grouped into four categories: overall health, environmental health, crime and safety, and injury.

Single-parent households are an important risk factor for poor early childhood learning and development. In Snohomish County the proportion of single-parent households with children younger than 18 years increased 43%, from 19% in 1990 to 28% in 2006.

Data comparisons and trends are provided for each indicator. Depending on the purpose for using these supplemental public health indicators, a specific comparison or combination of comparisons may be important. The following summary includes only those comparisons that were statistically significant.

Snohomish County compared with Washington State

- The Snohomish County rates for overall crime, domestic violence, and homicide were significantly lower than the corresponding Washington State rates.
- In 2006 a greater percentage of Snohomish County youth rode in a car with an alcohol-impaired driver (23%) compared with Washington State youth (21%).

Ten-year trends

For six of the ten supplemental indicators, there were enough years of data to calculate a trend, but a significant trend was observed for only one indicator.

- The rate of unintentional poisoning deaths increased 142%, from 5 per 100,000 residents in 1997 to 13 per 100,000 in 2006.

Even though the supplemental indicators were identified for strategic planning purposes, we hope these data along with the data in *Signals 2* provide a broad view of the health of Snohomish County to aid in determining priority health issues and directing preventive interventions and policies.

Acknowledgments

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This document is available on-line at www.snohd.org/snoHealthStats.

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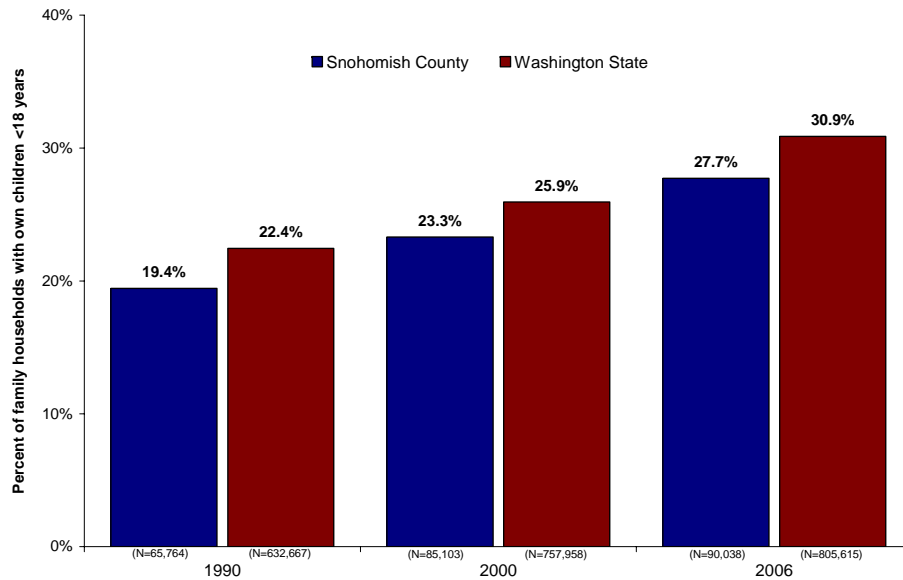
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Who are we?

Single-Parent Households

**Single-Parent Households
Snohomish County & Washington State, 1990-2006**



- The proportion of single-parent households in Snohomish County significantly increased from 19.4% of all households with children younger than 18 years to 27.7% of households with children younger than 18 years.
- The percentage of single-parent households in Snohomish County was consistently lower than the percentage in Washington State.

Data Source: 1990 and 2000 US Census, 2006 American Community Survey (ACS)

Supplemental Indicator Table by Category—Overview of Rates, Comparisons, & Trends

Category	Total Number		Rates or Percentages								Group Comparisons			
	No. Affected Annually	Units of Measure* (rates or %)	SC Rate	SC Rate from Previous Report	Current vs Previous Report	WA Rate	SC vs WA	Healthy People 2010	SC vs Healthy People 2010	SC Trend	Age	Gender	Education	Poverty
How healthy are we overall?														
Physical, mental, or emotional disabilities	122,717	(%) adults	24.7	.	.	24.0	NS	.	.	----	◆	◆	◆	◆
Low health-related quality of life	90,920	(%) adults	18.3	.	.	17.4	NS	.	.	----	◆	◆	◆	◆
How safe and supportive are our surroundings?														
Restaurant inspections with >35 critical points	318	(%) inspected restaurants	7.4	.	.	7.0	NS	.	.	.	.	.	.	.
How well protected are we from crime and violence?														
Overall crime	26,965	rate per 100,000	4,065	.	.	4,368	👍	.	.	----	.	.	.	.
Domestic violence	4,067	rate per 100,000	662	.	.	752	👍	.	.	----	.	.	.	.
Homicide	13	rate per 100,000	1.9	.	.	3.4	👍	3.0	👍	----	.	.	.	.
Gang involvement	4,581	(%) youth grades 6,8,10,12	8.3	.	.	8.9	NS	.	.	.	◆	◆	.	.
Bullying	20,577	(%) youth grades 6,8,10,12	25.7	.	.	25.1	NS	.	.	.	◆	◆	.	.
How often do we experience injury?														
Rode in a car with alcohol-impaired driver	12,605	(%) youth grades 8,10,12	22.8	.	.	21.4	👎	.	.	.	◆	◆	.	.
Unintentional poisoning deaths	89	per 100,000 population	12.8	.	.	11.3	NS	1.5	👎	↑	◆	◆		

* See Summary of Data Sources at the end of the publication for more information
 SC = Snohomish County

Legend		
👍 Better	↓ Rates going down	Good
NS No sig difference	— No sig change	Caution
👎 Worse	↑ Rates going up	Danger

- Data not available
- + Statistical tests not done because of data inconsistencies
- ◆ Significant difference
- ◇ No significant difference



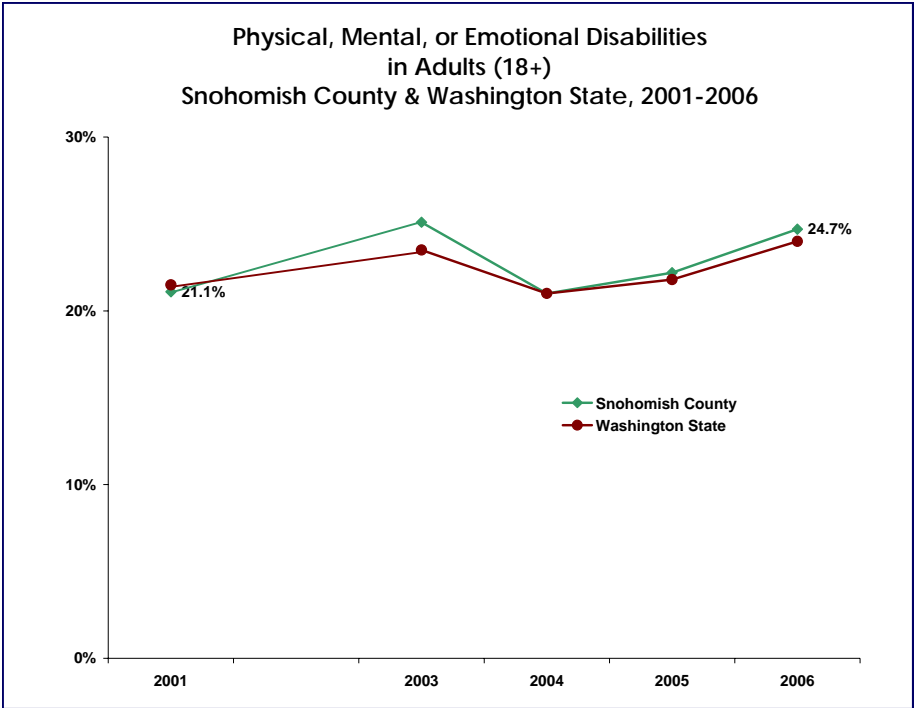
Snohomish County Supplemental Indicator Fact Sheets

How healthy are we overall?

Physical, Mental, or Emotional Disabilities in Adults (18+)

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Physical, Mental, or Emotional Disabilities in Adults		NS		—
	122,717	24.7% vs 24.0%	NA	No sig change

Data from the Behavioral Risk Factor Surveillance System indicate that nearly one-quarter of Snohomish County adults (24.7%) suffered from some sort of disability (physical, mental, or emotional) that limited their activities. People with disabilities suffer from lower quality of life and are often challenged socio-economically. The large number of adults in the population with a disability indicates a need for public health programs that serve this population.

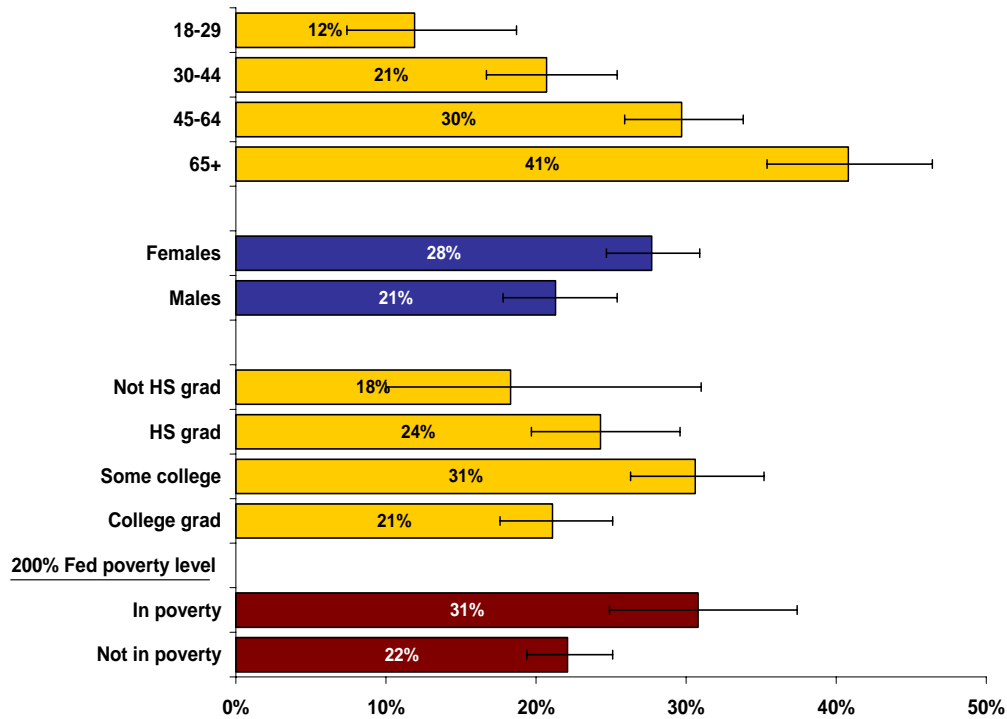


- About one-quarter of Snohomish County adults (24.7%, 95% CI = 22.4-27.3) suffered from a disability during 2006.
- The proportion of adults with a disability did not change significantly from 2001 to 2006.
- Snohomish County and Washington State had similar proportions of adults who had a disability.

Data Source: Behavioral Risk Factor Surveillance System

Group Comparisons

Physical, Mental, or Emotional Disabilities in Adults (18+) by Demographic Factors
Snohomish County, 2006



Data Source: Behavioral Risk Factor Surveillance System

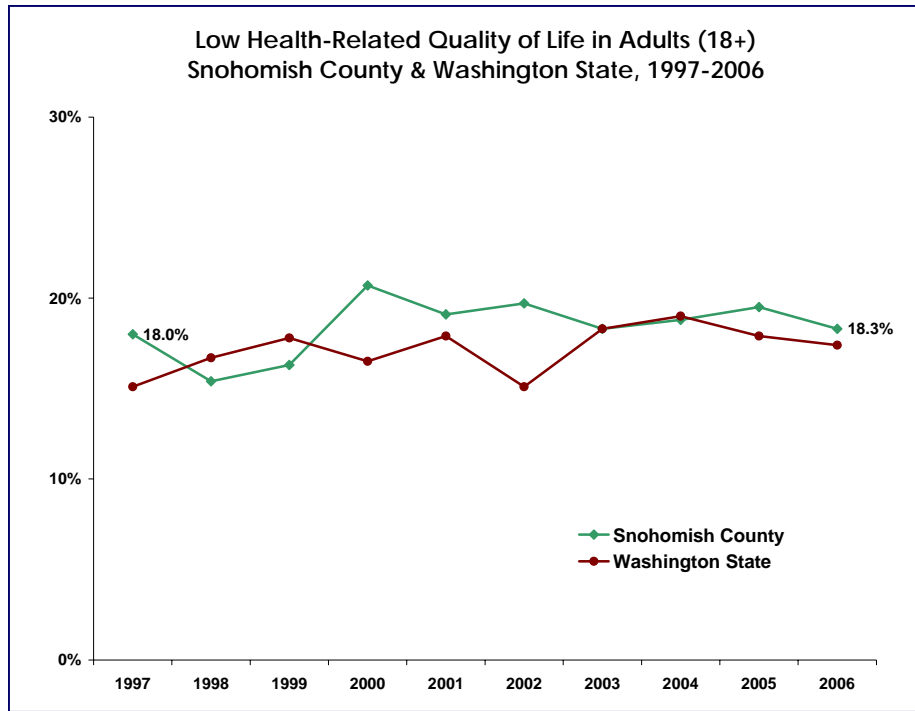
- The proportion of adults who had a disability increased with age.
- Females were more likely than males to have a disability.
- The proportion of adults with a disability varied by education level, with people having some college being most likely to have a disability.
- People living in poverty were more likely than those not living in poverty to have a disability.

How healthy are we overall?

Low Health-Related Quality of Life in Adults (18+)

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Low Health-Related Quality of Life in Adults		NS		—
	90,920	18.3% vs 17.4%	NA	No sig change

Health-related quality of life is determined by the number of days during a month on which a person suffered from poor physical or mental health. Those who experienced 14 or more days of poor health were determined to have low health-related quality of life. Estimates of the number of days of poor health adults experience in a month are available from the Behavioral Risk Factor Surveillance System. Such measures can serve as proxies for the perceived burden of both acute and chronic health conditions. In Snohomish County during 2006, 18.3% of adults met the criteria for low quality of life.

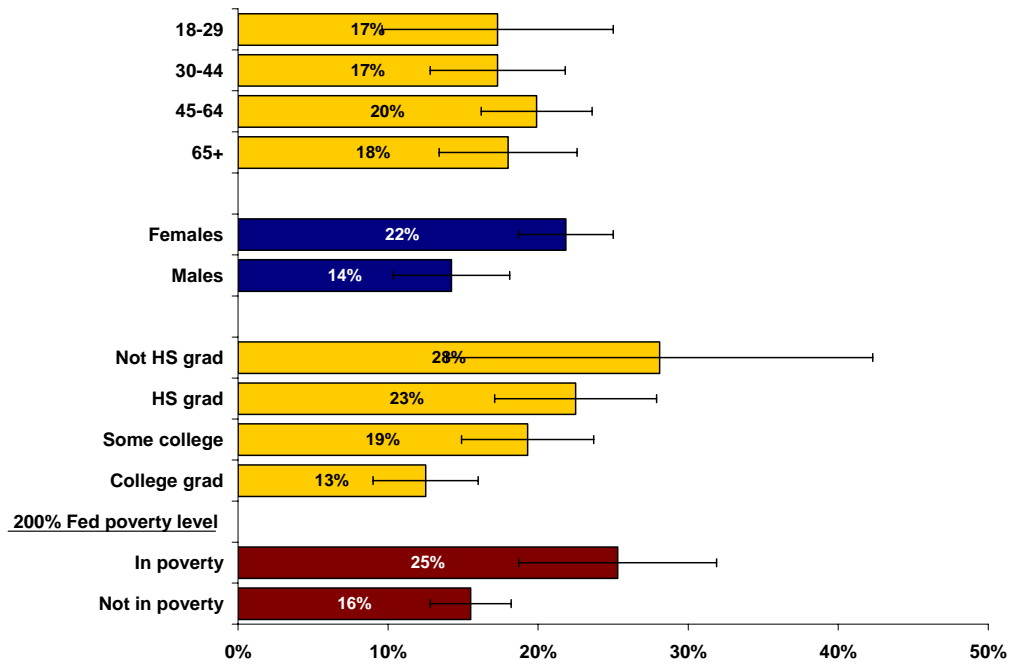


- About one in five Snohomish County adults (18.3%, 95% CI = 16.1-20.7) reported low quality of life during 2006.
- The proportion of adults with a low quality of life did not vary significantly between 1997 and 2006.
- Snohomish County and Washington State had similar proportions of adults who reported low quality of life.

Data Source: Behavioral Risk Factor Surveillance System

Group Comparisons

Low Health-Related Quality of Life in Adults (18+) by Demographic Factors
Snohomish County, 2006



Data Source: Behavioral Risk Factor Surveillance System

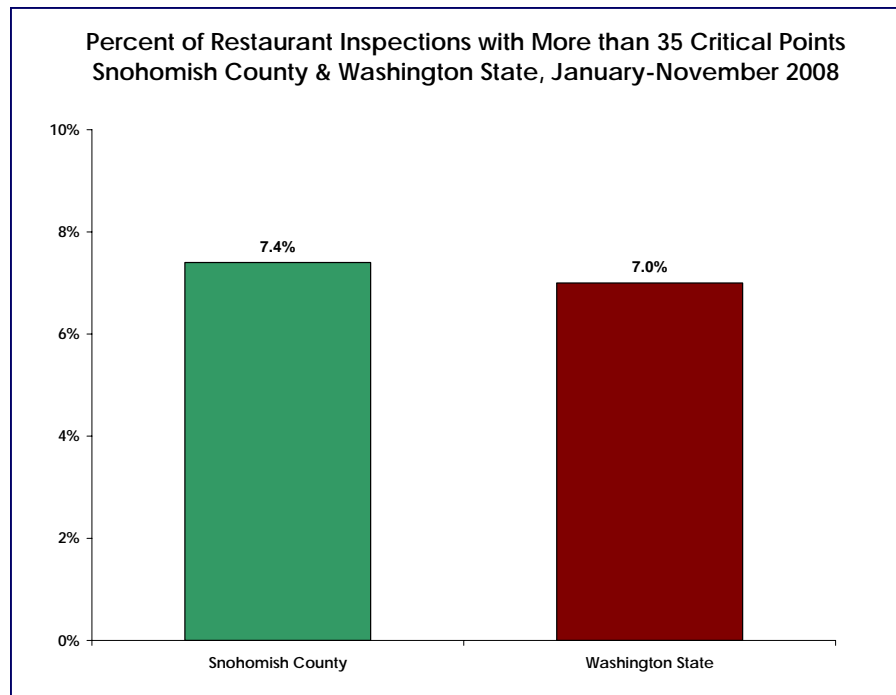
- The proportion of adults who experienced low quality of life did not vary significantly by age.
- Females were more likely than males to report low quality of life.
- The proportion of adults experiencing low quality of life decreased as their education level increased.
- People living in poverty were more likely to experience low quality of life than those not living in poverty.

How safe and supportive are our surroundings?

Restaurant Inspections with More than 35 Critical Points

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Restaurant Inspections with More than 35 Critical Points	318	7.4% vs 7.0%	NA	NA

Regulations for food establishments are divided into “Red” critical items (e.g., employees washing hands as required) and less critical (“Blue”) items. Restaurants are checked for compliance with all regulations during routine restaurant inspections. Data on restaurant inspections was obtained from statistics collected by the Division of Environmental Health at the Washington State Department of Health from January to November 2008. In Snohomish County 7.4% of restaurants inspected reported more than 35 critical points. Restaurants scoring above 35 critical points during an inspection pose the greatest threat for causing foodborne outbreaks.



- In Snohomish County 7.4% (95% CI = 6.7-8.3) of restaurants inspected had more than 35 critical points.
- The county and statewide rates of restaurant inspections with more than 35 critical points were similar.

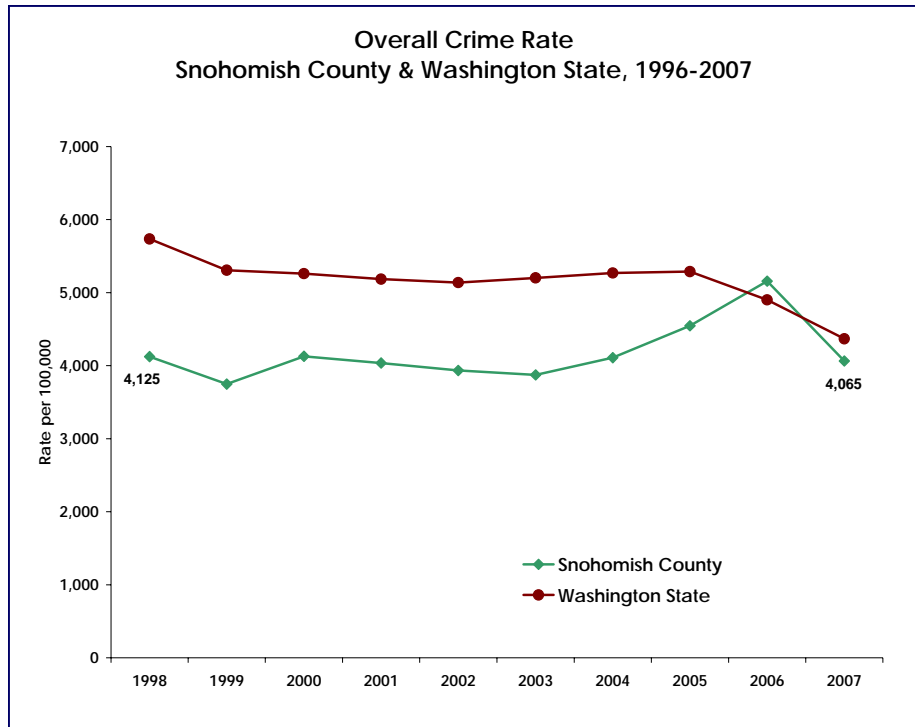
How well protected are we from crime and violence?

How well protected are we from crime and violence?

Overall Crime

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Overall Crime	26,965	4,065 vs 4,368 per 100,000	NA	No sig change

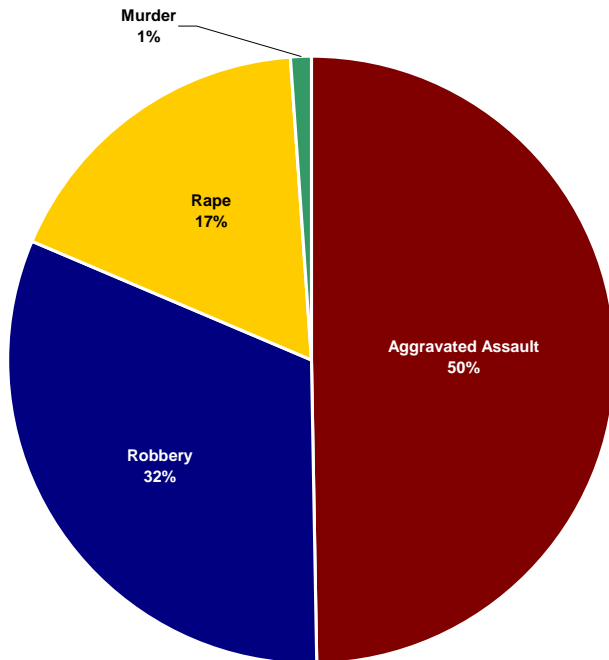
The Washington Uniform Crime Reporting System (WUCR) classifies crimes into two major categories – Part I and Part II crimes. The Federal Bureau of Investigation (FBI) crime index and Washington State crime index are both calculated using only Part I crimes. Part I offenses are grouped into violent and property crimes. Violent crimes include murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Property crimes include burglary, larceny-theft, motor vehicle theft, and arson. In 2007 the crime rate was 4,065 offenses per 100,000 residents. Crime and violence can severely affect the individuals involved, but they often also have a lasting impact on the communities in which they occur.



- In Snohomish County there were 26,965 crimes, or 4,065 crimes per 100,000 residents (95% CI = 4,017-4,113) in 2007.
- The crime rate has not changed significantly during the past 10 years.
- The Snohomish County rate has been consistently lower than the state rate during the last 10 years, except in 2006.

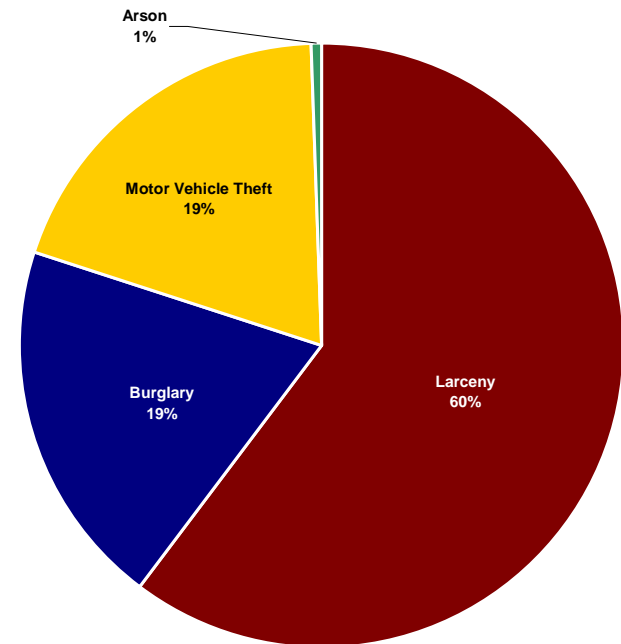
Data Source: Uniform Crime Reporting System, Washington Association of Sheriffs and Police Chiefs

Violent Crimes by Type
Snohomish County, 2007
(n=1,567)



Data Source: Data Source: Uniform Crime Reporting System, Washington Association of Sheriffs and Police Chiefs

Property Crimes by Type
Snohomish County, 2007
(n=25,398)



Data Source: Data Source: Uniform Crime Reporting System, Washington Association of Sheriffs and Police Chiefs

- Violent crimes accounted for 5.8% of all Part I crimes.
- Half (50%) of violent crimes in Snohomish County were aggravated assaults.

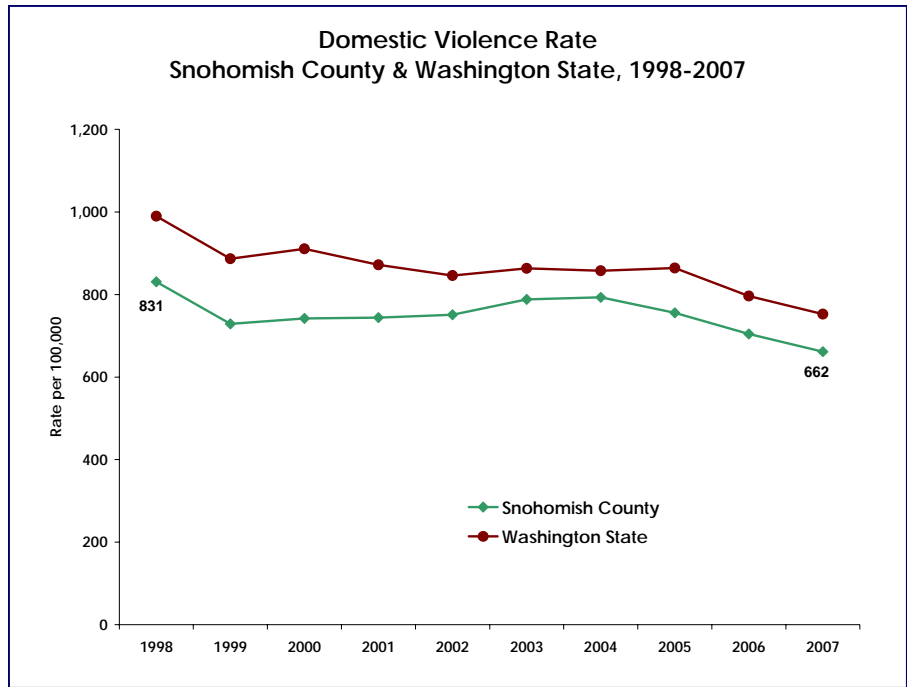
- Property crimes accounted for the largest proportion (94.2%) of all Part I crimes.
- Theft (larceny and motor vehicle theft) accounted for more than three-quarters (79%) of property crimes.

How well protected are we from crime and violence?

Domestic Violence

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Domestic Violence	4,067	👍 662 vs 752 per 100,000	NA	— No sig change

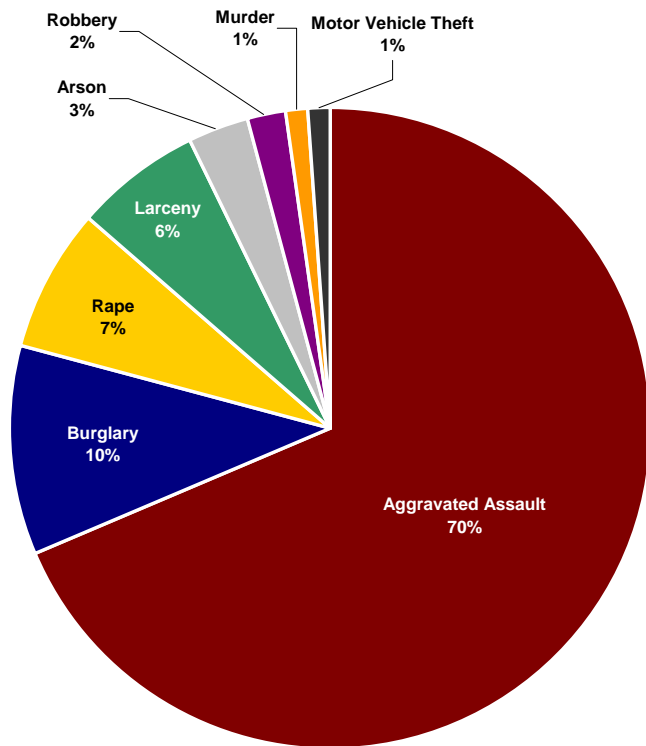
Domestic violence crimes were identified from reports to the Washington Uniform Crime Reporting System (WUCR). The Revised Code of Washington (RCW) 10.99.020 defines “domestic violence” as “crime committed by one family or household member against another.” The domestic violence crime rate is calculated by applying this definition to all Part I (murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, arson) and some Part II (simple assault, violation of a protection order) crimes. In 2007 the domestic violence crime rate was 662 offenses per 100,000 residents. Most offenses considered domestic violence are non-fatal, but they may cause severe physical or emotional damage to the victim.



- In Snohomish County there were 4,067 domestic violence crimes, or 662 crimes per 100,000 residents (95% CI = 641-682) in 2007.
- The domestic violence crime rate in Snohomish County was consistently lower than the statewide domestic violence crime rate in the past 10 years.
- Although the domestic violence crime rate in Snohomish County decreased during the past 10 years, this change was not statistically significant.

Data Source: Washington Uniform Crime Reporting System, Washington State Association of Sheriffs and Police Chiefs

Domestic Violence Part I Crimes by Type
Snohomish County, 2007



Data Source: Washington Uniform Crime Reporting System, Washington State Association of Sheriffs and Police Chiefs

Part II

Part II domestic violence crimes (simple assault, violation of a protection order) are less serious than Part I crimes, and they are not included in the graph.

- Nine of every ten domestic violence crimes in Snohomish County were Part II crimes (n = 3,676).

Part I

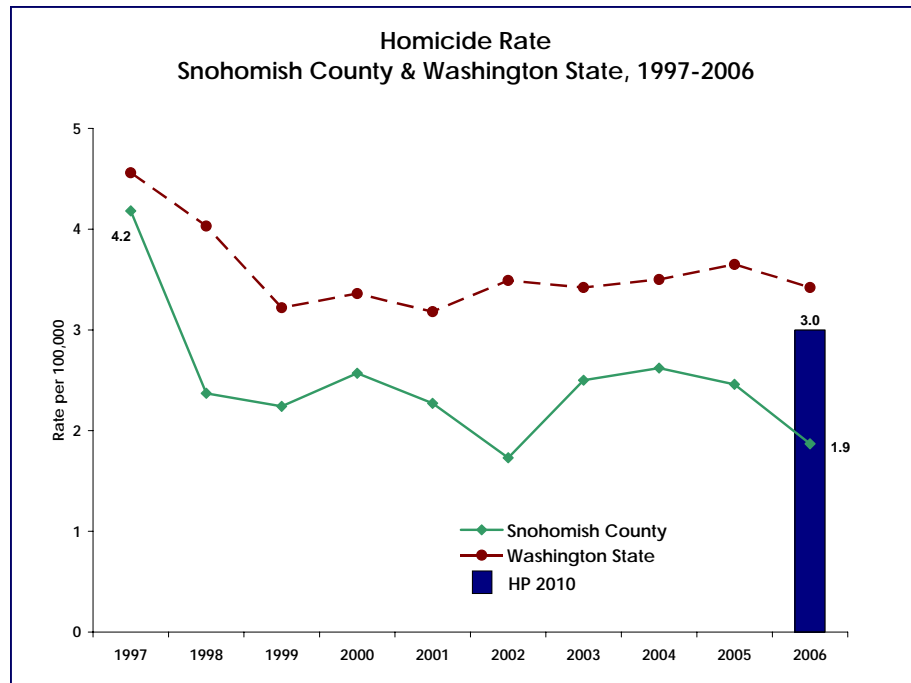
- Part I domestic violence crimes (n=391) are serious offenses, but they accounted only for 10% of all domestic violence crimes.
- More than two-thirds (70%) of all Part I domestic violence crimes in Snohomish County during 2007 were aggravated assaults.
- Property crimes (burglary, larceny, motor vehicle theft, arson) accounted for 20% of all domestic violence crimes in Snohomish County.

How well protected are we from crime and violence?

Homicide

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Homicide	13	1.9 vs 3.4 per 100,000	1.9 vs 3.0 per 100,000	No sig change

Homicides were identified from death certificates when “injuries inflicted by another person with the intent to kill” was listed as the underlying cause of death.¹ The homicide rate in Snohomish County during 2006 was 1.9 deaths per 100,000 residents, or 13 homicides. This rate is a measure of community safety.



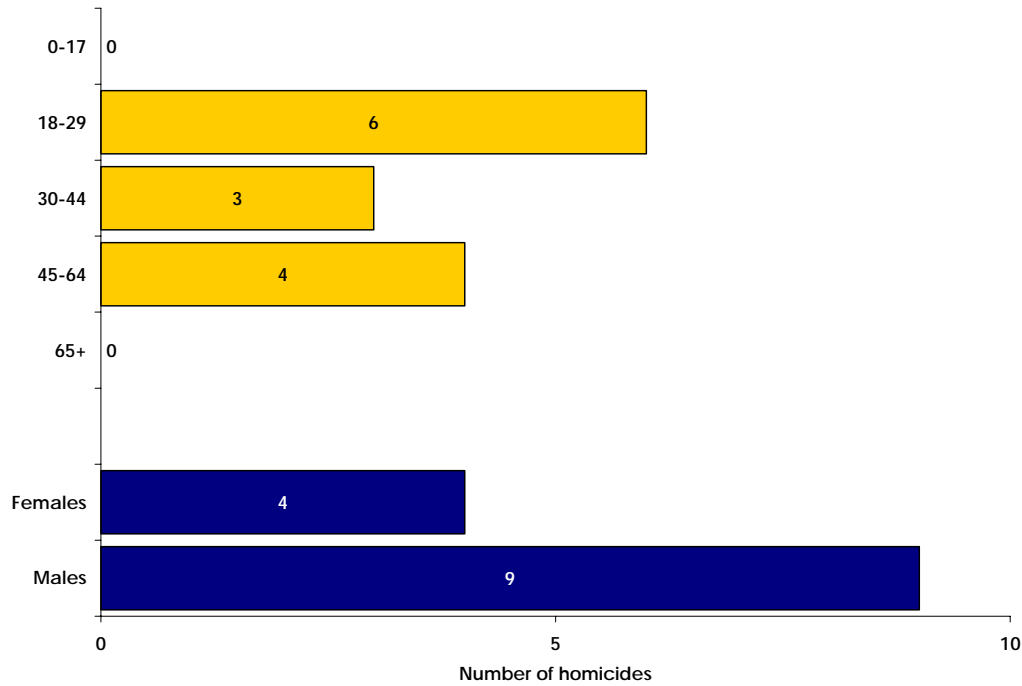
Data Source: Washington State Death Certificates

- In Snohomish County 1.9 deaths per 100,000 residents (95% CI = 1.0-3.3) were homicides.
- In 2006, 7 of 13 (53.9%) homicides were the result of an assault with a firearm.
- Although the homicide rate in Snohomish County appears to have decreased during the past decade, this change was not statistically significant probably because of the small number of homicides each year.
- The homicide rate in Snohomish County has been consistently lower than the state rate during the last 10 years.
- We have achieved the Healthy People 2010 goal of having no more than 3.0 homicides per 100,000 residents.

¹ 1997-1998 (ICD-9): E960-969; 1999-2006 (ICD-10): X85-Y09, Y87.1

Group Comparisons

Number of Homicides by Demographic Factors
Snohomish County, 2006



Data Source: Washington State Death Certificates

The graph displays the number of deaths due to homicide in each subgroup because the small number of deaths in several subgroups would render calculated rates unreliable.

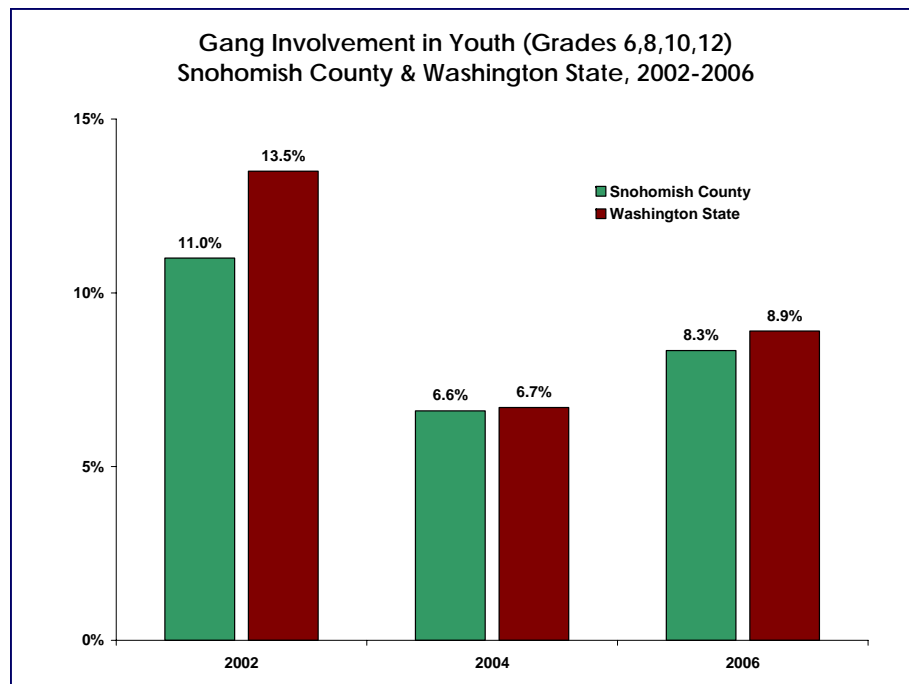
- Almost half (46%) of all homicides occurred in persons between the ages of 18 and 29. No homicides occurred in children (0-17 years) or older adults (65+ years).
- More than twice as many males as females were victims of homicide.

How well protected are we from crime and violence?

Gang Involvement in Youth (Grades 6,8,10,12)

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Gang Involvement in Youth		NS		
	4,581	8.3% vs 8.9%	NA	NA

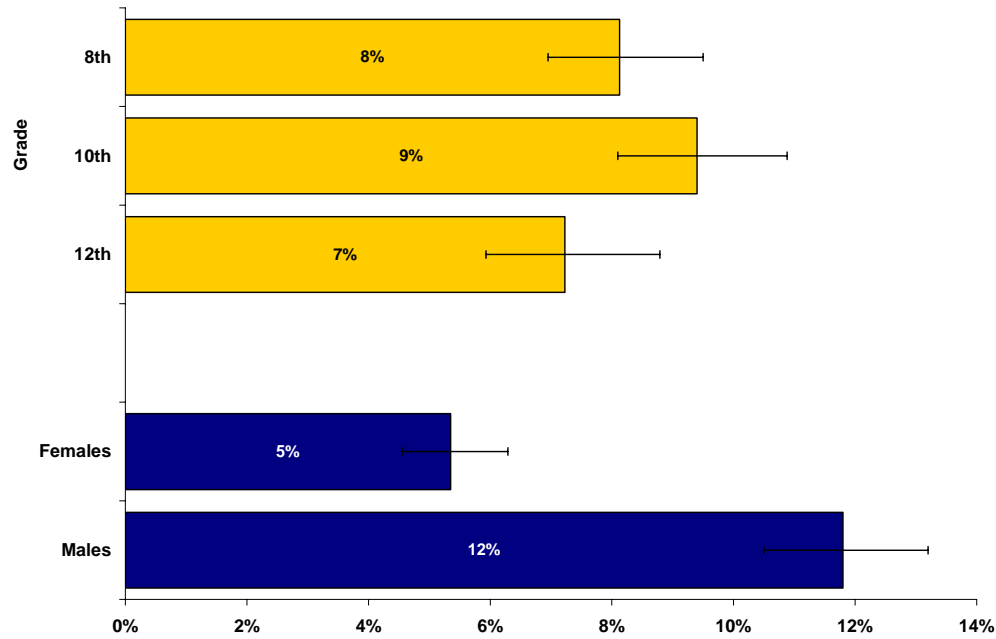
Gang involvement is a risk factor for a number of unhealthy behaviors. Youth who are members of gangs are more likely to be involved in violent incidents, use drugs, and engage in high-risk sexual behaviors. The Washington Healthy Youth Survey asks students if they have been a member of a gang in the previous year. In Snohomish County 8.3% of youth reported that they had been involved with a gang.



- About 1 in 12 Snohomish County youths (8.3%, 95% CI = 7.6-9.2) were involved in a gang during 2006.
- The proportion of youth involved in gangs was significantly lower in 2006 than in 2002.
- Similar proportions of Snohomish County and Washington State youth were involved in gangs during 2006.

Group Comparisons

Gang Involvement in Youth (Grades 6,8,10,12) by Demographic Factors
Snohomish County, 2006



Data Source: Washington State Healthy Youth Survey

- Gang involvement did not vary significantly by grade.

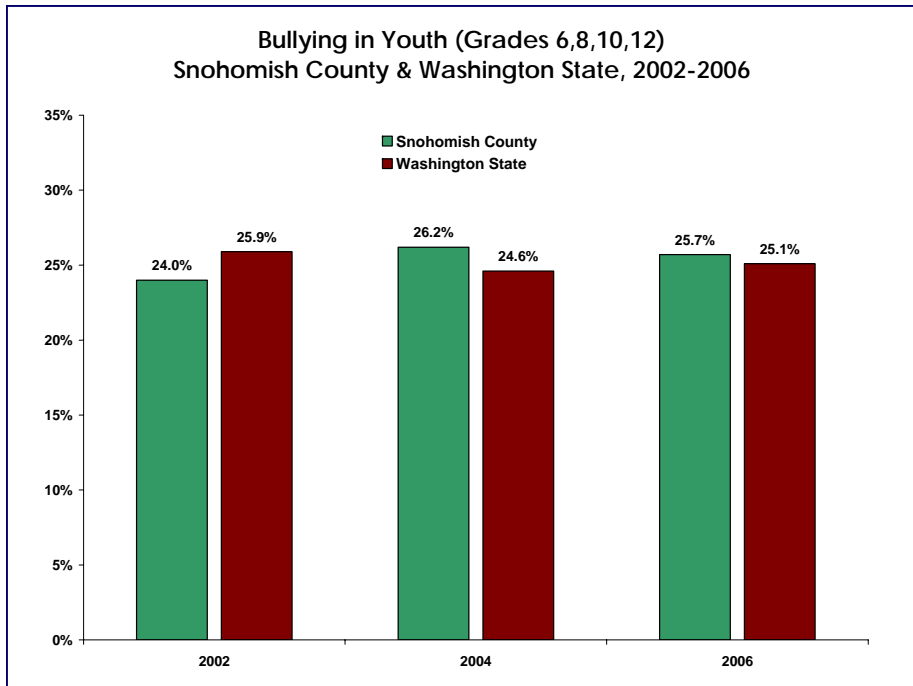
- More than twice as many males as females were involved in a gang.

How well protected are we from crime and violence?

Bullying in Youth (Grades 6,8,10,12)

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Bullying in Youth		NS		
	20,577	25.7% vs 25.1%	NA	NA

In addition to experiencing physical harm, youth who experience bullying are at risk of developing a number of stress-related conditions similar to those experienced by people suffering from Post Traumatic Stress Disorder. Physical effects of chronic stress include reduced immunity to infection, chronic fatigue, and loss of appetite. Psychological and behavioral effects include panic attacks, reactive depression, thoughts of suicide, and lowered self-esteem. In Snohomish County 25.7% of youth reported having been bullied in the 30 days prior to taking the Healthy Youth Survey. The potential long-term health effects of bullying on such a large proportion of youth suggest a need for programs aimed at its prevention.

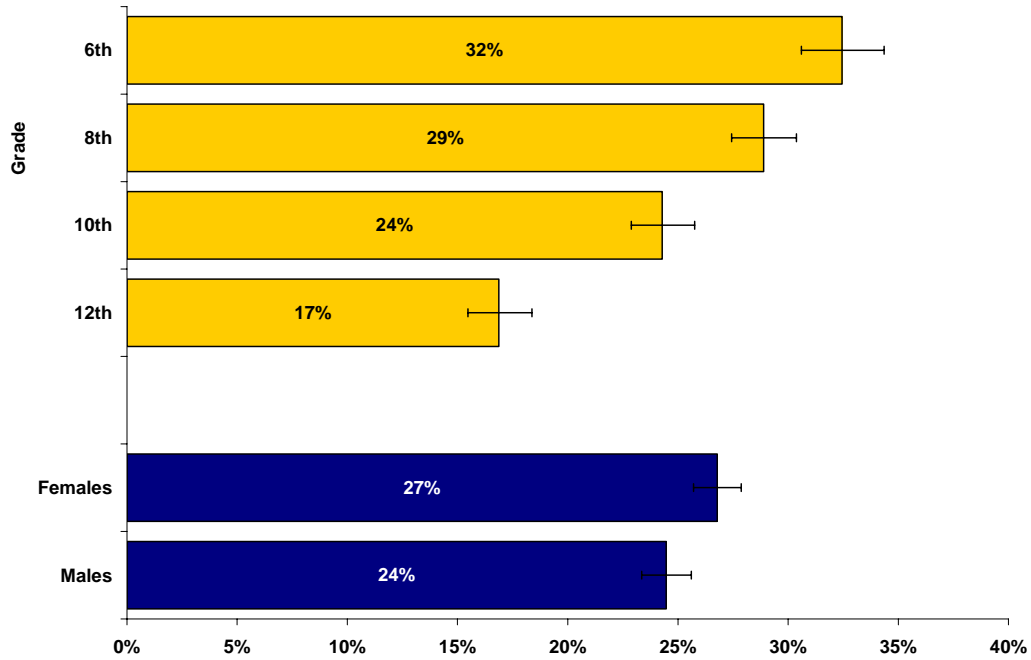


- About one-quarter of Snohomish County youths (25.7%, 95% CI = 24.9-26.5) said they were bullied during 2006.
- The proportion of youth who had been bullied was in 2006 was not significantly different than in 2002.
- The proportion of youth in Snohomish County and Washington State who were bullied was similar.

Data Source: Washington State Healthy Youth Survey

Group Comparisons

Bullying in Youth (Grades 6,8,10,12) by Demographic Factors
Snohomish County, 2006



Data Source: Washington State Healthy Youth Survey

- The proportion of youth who were bullied decreased as age increased.

- Females were more likely than males to be bullied.

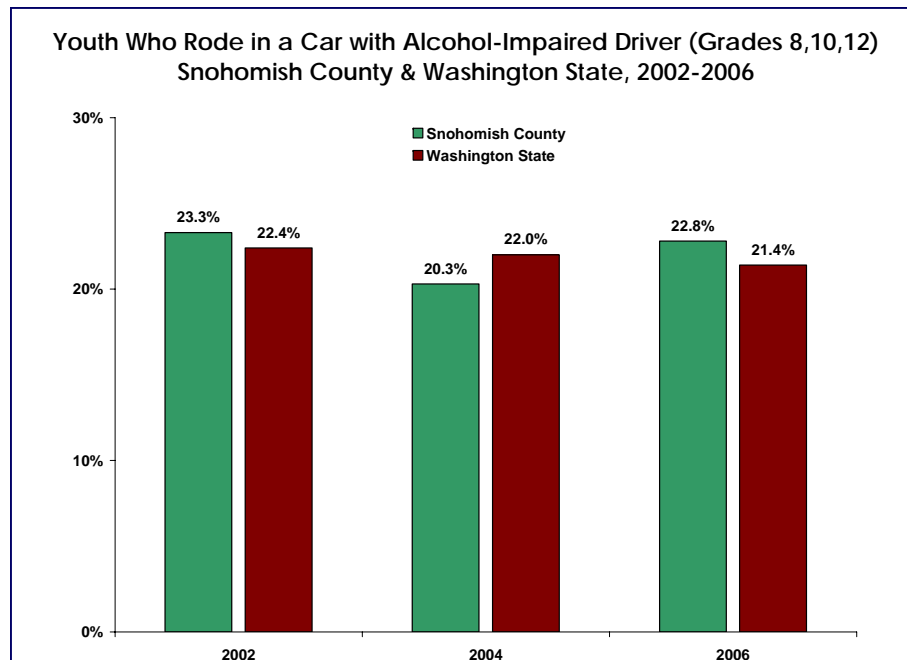
How often do we experience injury?

How often do we experience injury?

Youth Who Rode in a Car with Alcohol-Impaired Driver (Grades 8,10,12)

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Youth who Rode in a Car with Alcohol-Impaired Driver	12,605	22.8% vs 21.4%	NA	NA

Riding in a car with a driver who has been drinking is as dangerous as driving a car after drinking. Nationally, passengers in cars driven by alcohol-impaired drivers comprised 18% of all fatalities in alcohol-related crashes during 2006 (these data include all ages, not just youth). In Snohomish County 22.8% of youth reported in the last 30 days they have been in a car with a driver of any age who had been using alcohol. Programs targeted at reducing alcohol-impaired driving should point out the dangers of being a passenger in a car driven by someone who has been using alcohol.

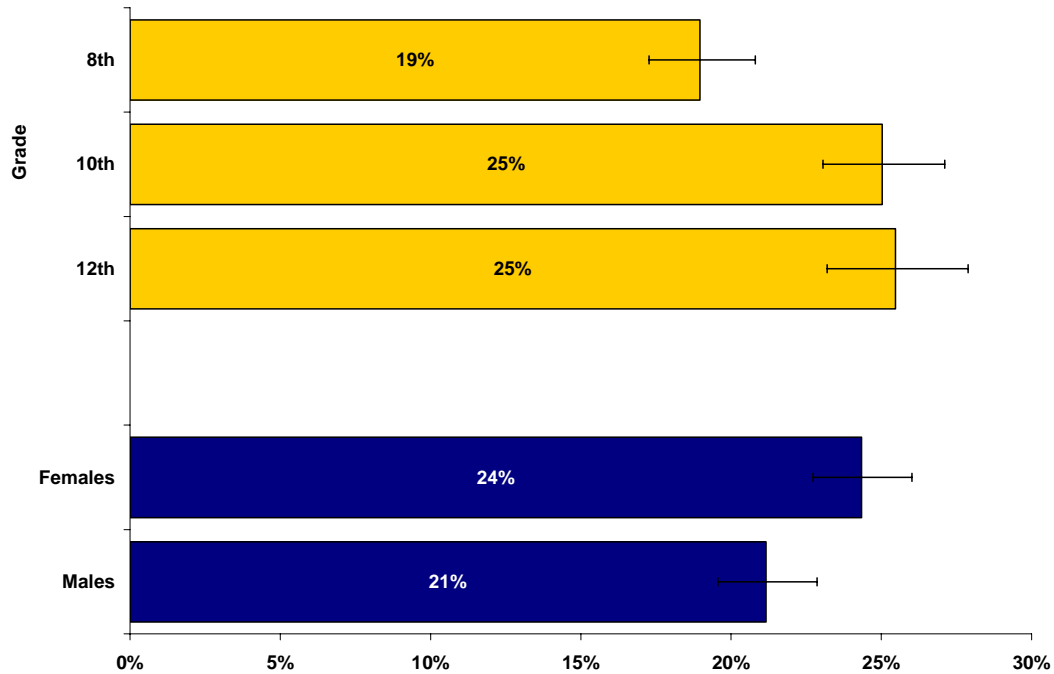


Data Source: Washington State Healthy Youth Survey

- In 2006 approximately one in five Snohomish County youth (22.8%, 95% CI = 21.7-24.0) said they were a passenger of a vehicle where the driver had been using alcohol.
- The proportion of youth who rode with a driver who was using alcohol was not significantly different in 2006 than in 2002.
- A significantly higher proportion of youth in Snohomish County rode with a driver who was using alcohol compared with the proportion in Washington State.

Group Comparisons

Youth Who Rode in Car with Alcohol-Impaired Driver (Grades 8,10,12)
by Demographic Factors
Snohomish County, 2006



Data Source: Washington State Healthy Youth Survey

- The proportion of youth who were passengers of a vehicle where the driver was using alcohol increased with age.

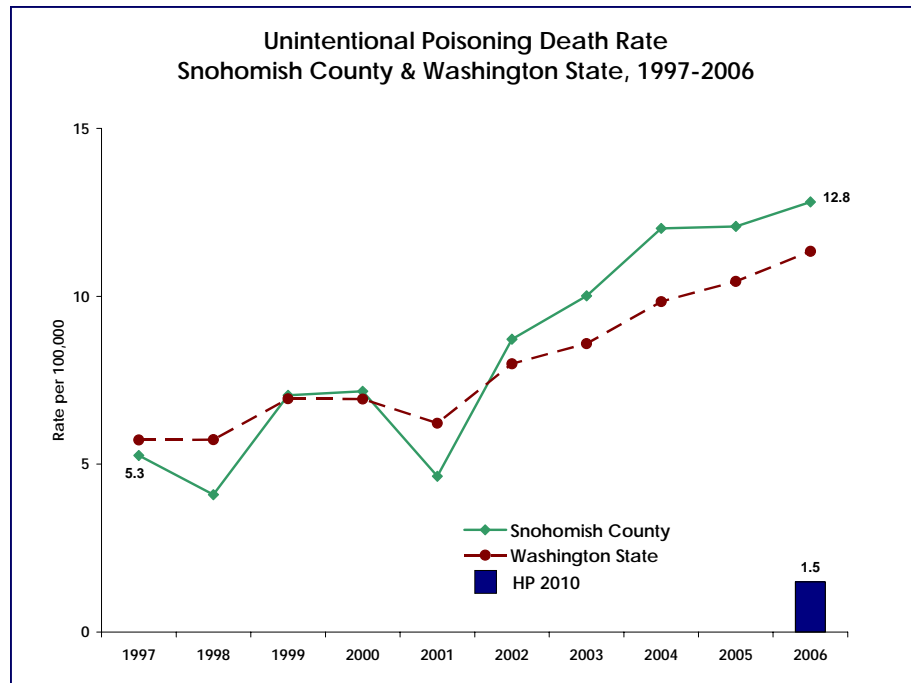
- Females were more likely than males to have been passengers of a vehicle where the driver was using alcohol.

How often do we experience injury?

Unintentional Poisoning Deaths

	No. Affected Annually	SC vs WA	SC vs HP 2010	Trend
Unintentional Poisoning Deaths		NS	👎	↑
	89	12.8 vs 11.3 per 100,000	12.8 vs 1.5 per 100,000	142% increase

Unintentional poisoning deaths were identified from death certificates where the underlying cause of death was listed as unintentional poisoning from medicinal substances¹ (prescription, over the counter and illicit drugs), alcohol, and other solids or liquids (e.g., carbon monoxide). The unintentional poisoning death rate in 2006 was 12.8 deaths per 100,000 residents, or 89 deaths. The unintentional poisoning death rate is a measure of serious unintentional injury in our county.



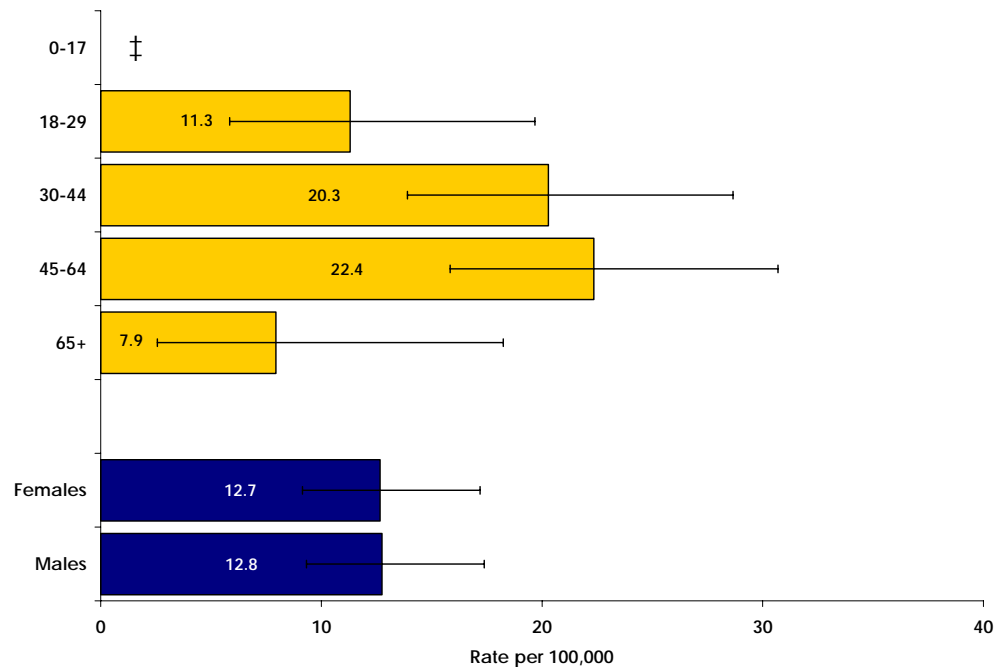
Data Source: Washington State Death Certificates

- In Snohomish County unintentional poisoning resulted in 12.8 deaths per 100,000 residents (95% CI = 10.3-15.9).
- The unintentional poisoning death rate more than doubled since 1997.
- In 2006 the Snohomish County and Washington State unintentional poisoning rates were similar.
- Snohomish County has not yet achieved the Healthy People 2010 goal of having no more than 1.5 poisoning deaths per 100,000 residents.

¹ 1997-1998 (ICD-9): E850-859, E924.1; 1999-2006 (ICD-10): X40-49

Group Comparisons

Unintentional Poisoning Death Rates by Demographic Factors
Snohomish County, 2006



‡ Rate could not be calculated because of the small number of occurrences
Data Source: Washington State Death Certificates

- The unintentional poisoning death rate significantly increased between ages 18 and 64.

- Males and females were equally likely to die of unintentional poisoning.



Summary of Data Sources

Indicator	Definition	Population at Risk	Years of Data		Years of Trend	Data Source
			Current Report	Previous Report		
How healthy are we overall?						
Physical, mental, or emotional disabilities	Suffered from a physical, mental, or emotional disability that limited their activities	Adults (18+)	2006	NA	2001-2006	WA Behavioral Risk Factor Surveillance System
Low health-related quality of life	14 or more days of poor physical or mental health in the past month	Adults (18+)	2006	NA	1997-2006	WA Behavioral Risk Factor Surveillance System
How safe and supportive are our surroundings?						
Restaurant inspections with >35 critical points	Routine restaurant inspection with more than 35 points of critical ("Red") violations	All	January-November 2008	NA	NA	Department of Environmental Health, WA DOH
How well protected are we from crime and violence?						
Overall crime	Part I crimes: murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, arson	All	2007	NA	1998-2007	Uniform Crime Reporting System, Washington Association of Sheriffs and Police Chiefs
Domestic violence	Part I or Part II crimes committed by one family or household member against another. Part I crimes: murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, arson. Part II crimes: simple assault, violation of a protection order	All	2007	NA	1998-2007	Uniform Crime Reporting System, Washington Association of Sheriffs and Police Chiefs
Homicide	ICD-9: E960-969 ICD-10: X85-Y09, Y87.1	All	2006	NA	1997-2006	WA State Death Certificates
Gang involvement	Member of a gang in the previous year	Youth in grades 6, 8, 10, 12	2006	NA	NA	WA Healthy Youth Survey
Bullying	Being bullied in the past 30 days	Youth in grades 6, 8, 10, 12	2006	NA	NA	WA Healthy Youth Survey
How often do we experience injury?						
Rode in a car with alcohol-impaired driver	Being in a car in the previous 30 days with a driver who had been using alcohol	Youth in grades 8, 10, 12	2006	NA	NA	WA Healthy Youth Survey
Unintentional poisoning deaths	Unintentional poisonings from medicinal substances ICD-9: E850-859, E924.1 ICD-10: X40-49	All	2006	NA	1997-2006	WA State Death Certificates

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