

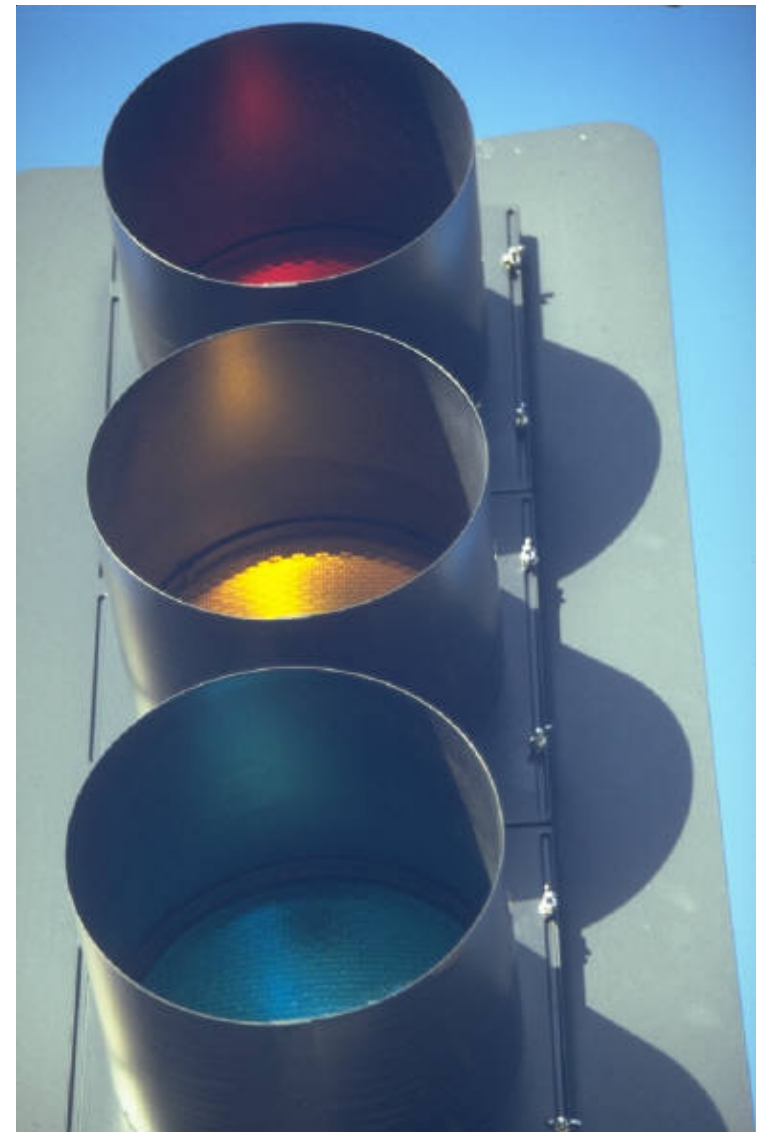
Signals

Public Health Indicators of Snohomish County

Please take 5 minutes to provide feedback on this document.

The link to the survey is:

[SHD Public Health Indicators Survey](#)



Snohomish Health District Health is pleased to present this summary of public health indicators.

The purposes of the set of public health indicators are to:

1. Monitor the health status of Snohomish County;
2. Help guide Health District policy and activities; and
3. Assist the public in understanding our role in providing public health services.

The primary purpose of the public health indicators is to monitor the health of the resident population of Snohomish County over time and to identify health areas where our county is doing well and those that need to be improved. The information serves as a tool to educate, inform, and assist the Health District and the community in selecting prevention activities that could make Snohomish County a healthier community. While the Health District has a broad range of programs that address some of the public health needs in our county, our capacity is limited. Many other community agencies and organizations are also engaged in efforts to improve the health of our community. The reality of limited resources makes it critical to use data to drive decisions when prioritizing prevention activities. Agencies, organizations, and individuals working together can be more effective in creating a healthier community.

Indicator Development

In 2005 a team of Health District staff met to develop the set of public health indicators that would address current and future issues. Indicators were chosen based on a set of criteria developed by the workgroup. (See "Criteria for Selection of Indicators", Technical Notes, page 22). Indicators are intended to be broad, long-term, and population-based measures.

The public health indicators are grouped into seven categories, plus a demographic description of the county's population. For each indicator, the most recent data available are used to calculate rates over time in Snohomish County and to make comparisons to Washington State and the national Healthy People 2010 goals. To provide an alternative perspective, the number of Snohomish County residents affected is also shown for each indicator. Disparities in age, sex, poverty, and education are identified when data were available. Race is not included because of small numbers and frequent lack of availability. To provide a visual interpretation, colors are used to display the status of Snohomish County's health based on trends, numbers affected, and comparisons, i.e., **green=good**, **yellow=caution**, **red=danger**. More details about the methods and data sources are found in the Technical Notes section on pages 22-23.

The intent of this document is to provide an overview of the public health indicators. The Health Statistics and Assessment Program anticipates a full report later in 2006. This full report will contain more details including specific data points in graphic displays of the trends and disparities found for group comparisons of age, gender, poverty, and education, plus textual descriptions and explanations. In the interim until the full report is produced, Health Statistics and Assessment welcomes questions.

We hope this summary document of indicators will trigger more interest and questions about health data for our county. We look forward to preserving, sustaining, and improving the health of Snohomish County's population.


M. Ward Hinds, MD, MPH
Health Officer

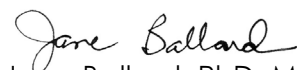

Jane Ballard, PhD, MS
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“What gets measured tends to get done. If you don’t measure results, you can’t tell success from failure. If you can’t recognize success, you can’t reward it. If you can’t recognize failure, you can’t learn from it.”

***- Reinventing Government,
David Osborne and Ted Braebler***

Acknowledgements

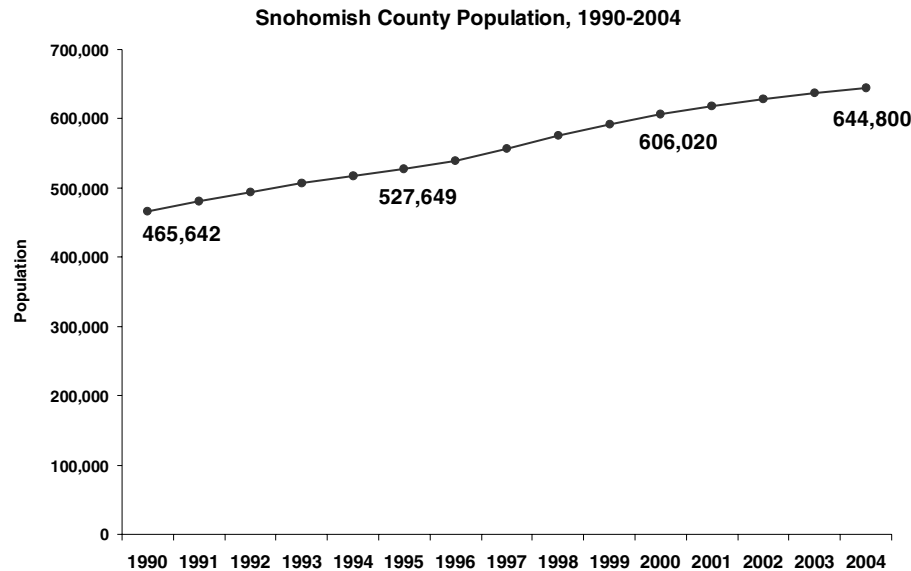
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Executive Leadership Team - for their guidance and support

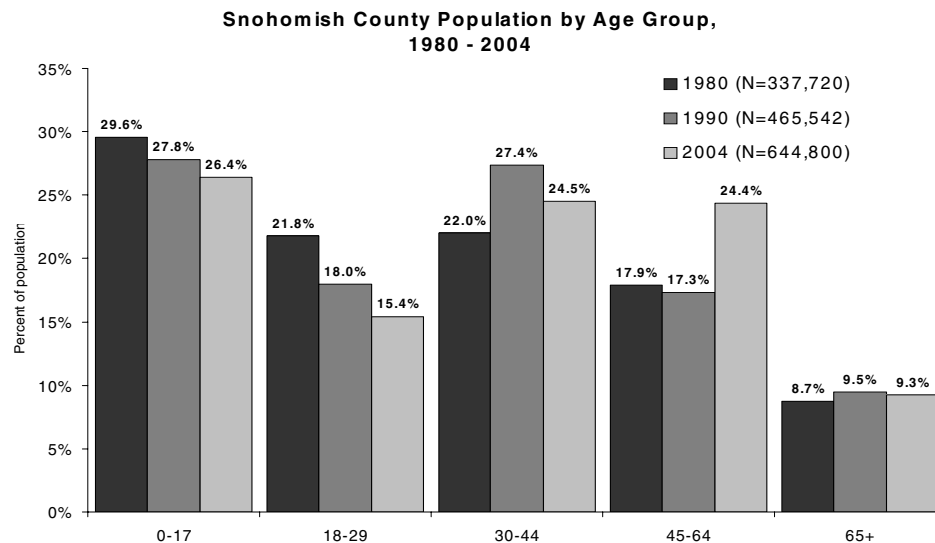
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Population Growth



- The population of Snohomish County is estimated to have grown by 179,000 people between 1990 and 2004, an increase of 38.5%.
- The county's population grew faster than the state. The state's population increased by 25% during this period.

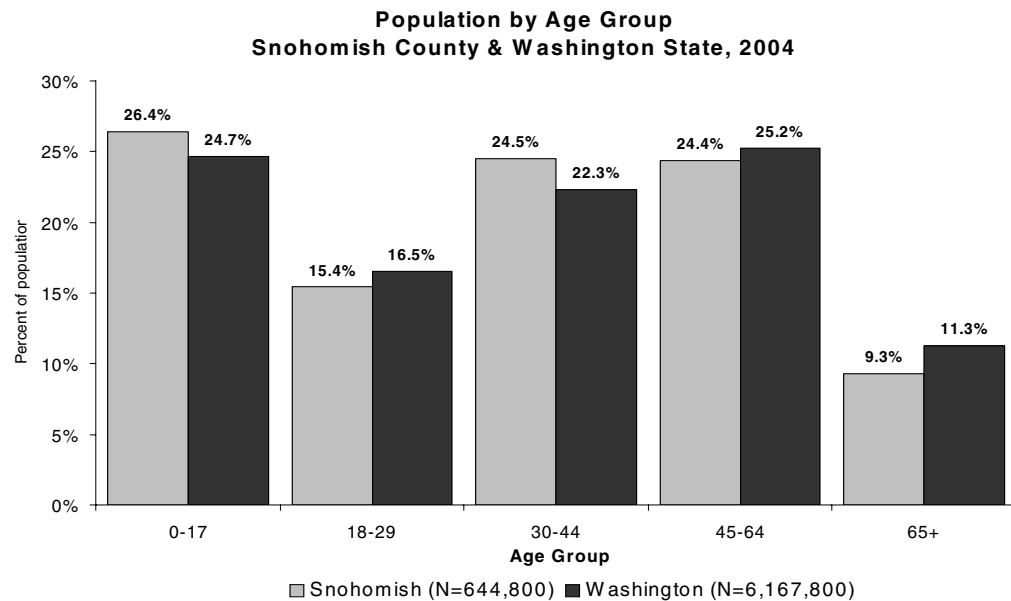
Age Groups



- The largest proportions of the county's population consisted of children younger than 18 and adults between 30 and 64.
- Between 1980 and 2004, the proportion of the population that is middle-aged (45-64) grew from 17.9% to 24.4%.

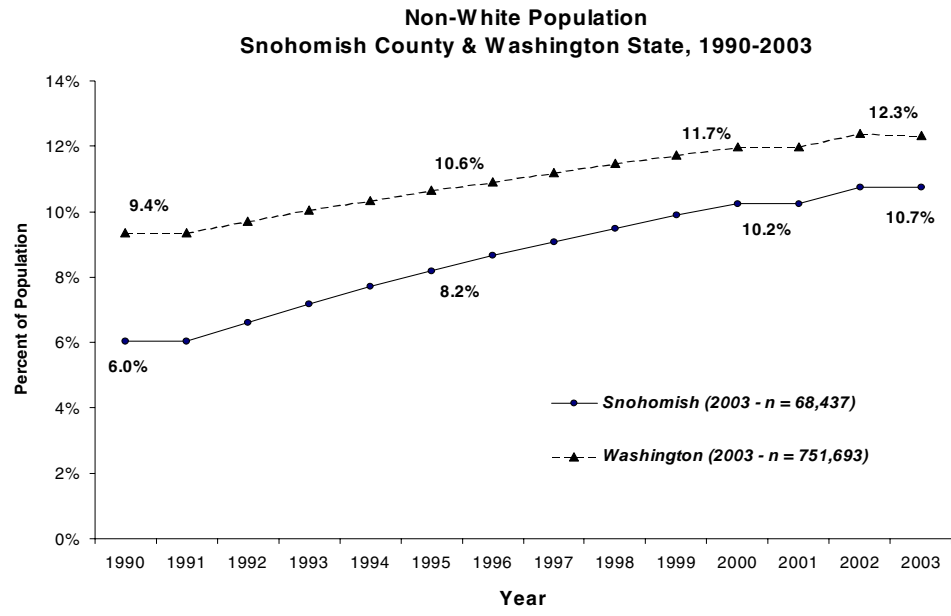
N = Denominator; total population
 n = Numerator; number of individuals or cases

Age Groups, Cont.

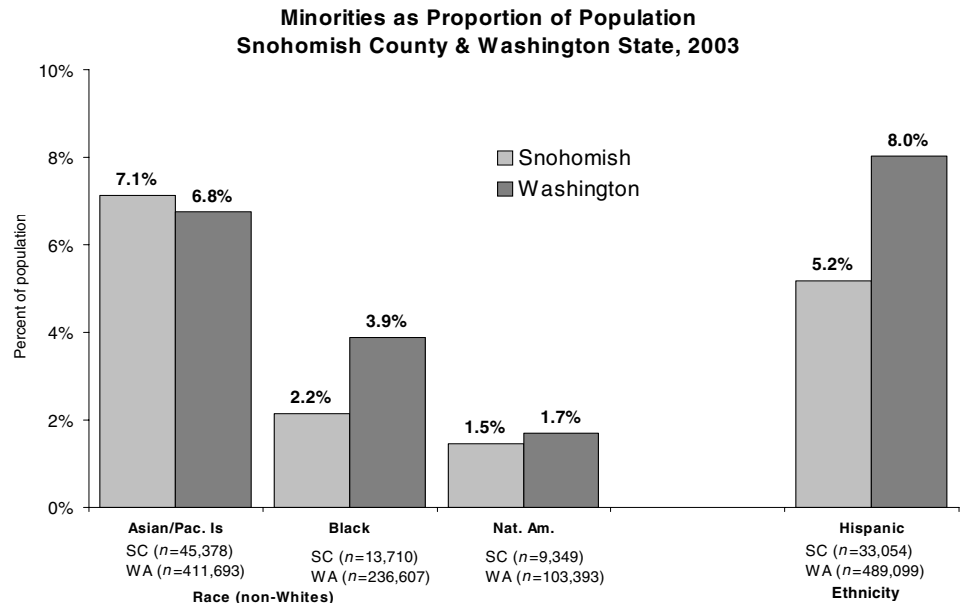


- The county's population was generally younger than that of the state. The median age of county residents was 35.8 years in 2004 compared with 36.4 for the state.
- The county's population had higher proportions of children younger than 18 and adults between 30 and 44 than the state.

Racial and Ethnic Composition



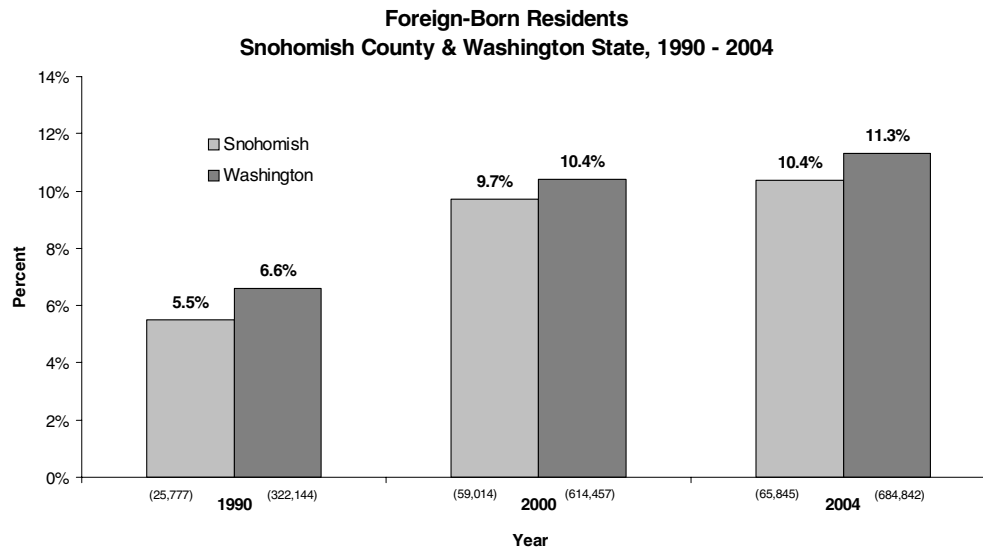
- The county has a smaller proportion of non-White residents than the state.
- The non-White proportion of the county's population grew from 6.0% in 1990 to 10.7% in 2003. This was an increase of 40,000 people or 144%.



- Hispanics as an ethnicity were the fastest growing population group increasing by 210%.
- The county has lower proportions of Blacks, Native Americans, and Hispanics than the state.

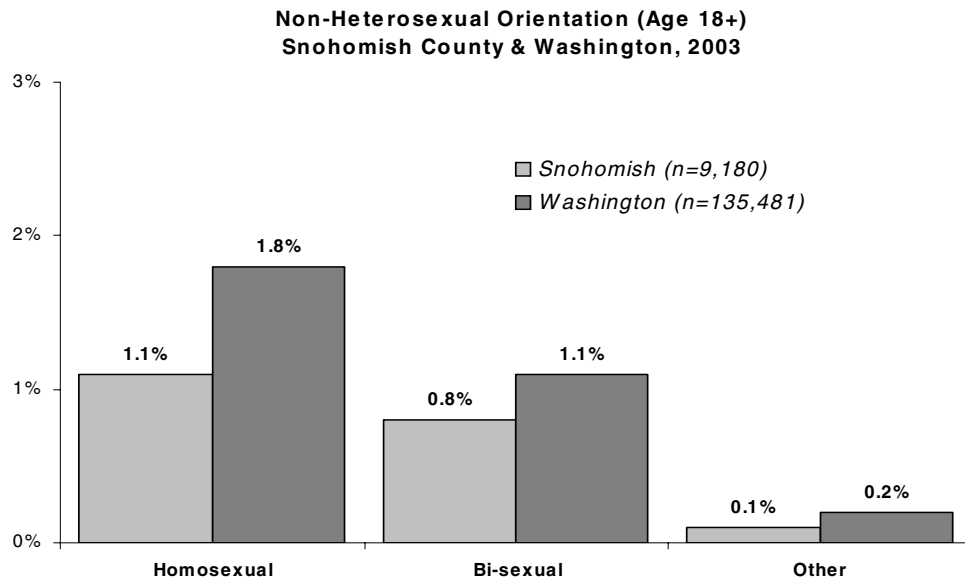
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Immigrants



- The proportion of the county's population that was foreign-born doubled between 1990 and 2004 from 5.5% to 10.4%.
- The county consistently had a smaller proportion of foreign-born residents than the state.

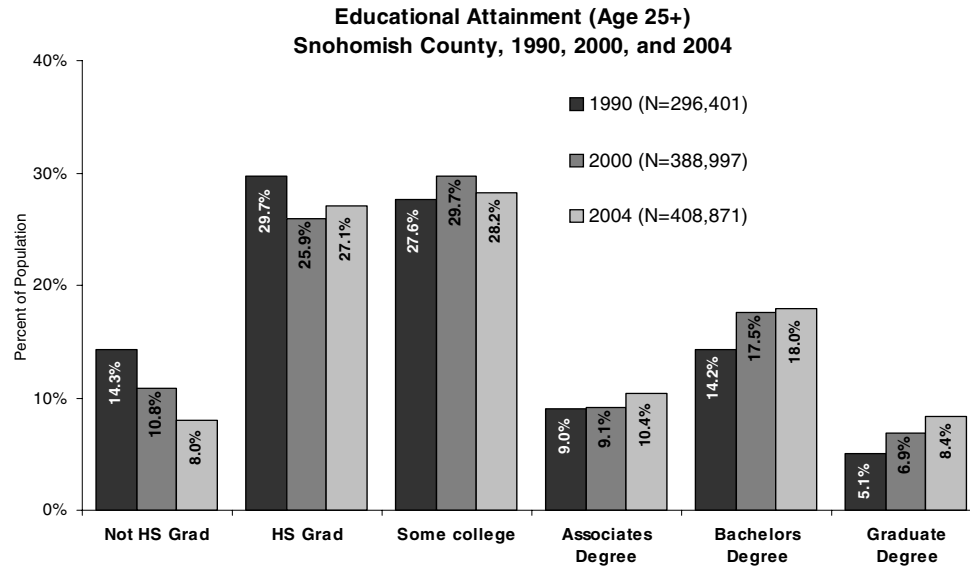
Sexual Orientation



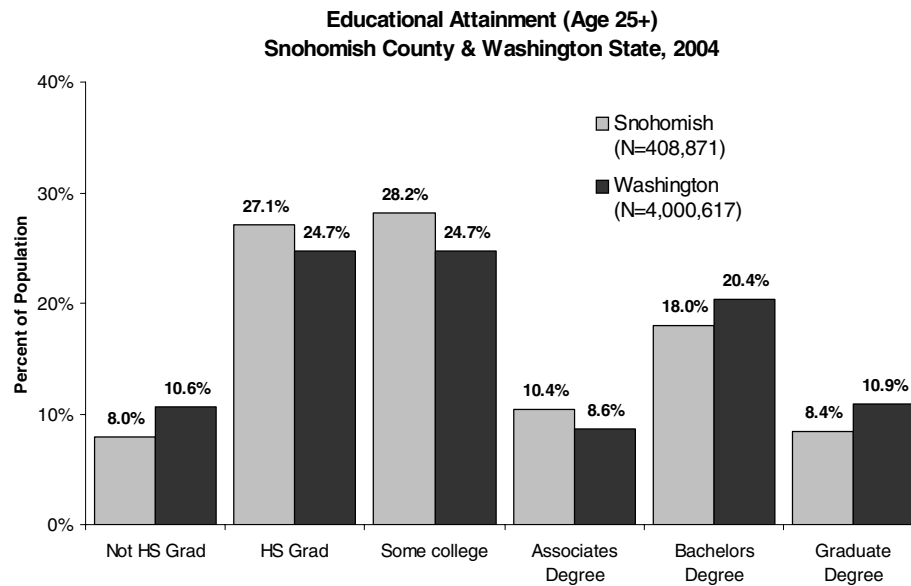
- About 2% of the county's residents identified their sexual orientation as something other than heterosexual.
- A lower proportion of people in Snohomish County identified themselves as not heterosexual than in the state.

N = Denominator; total population
n = Numerator; number of individuals or cases

Education



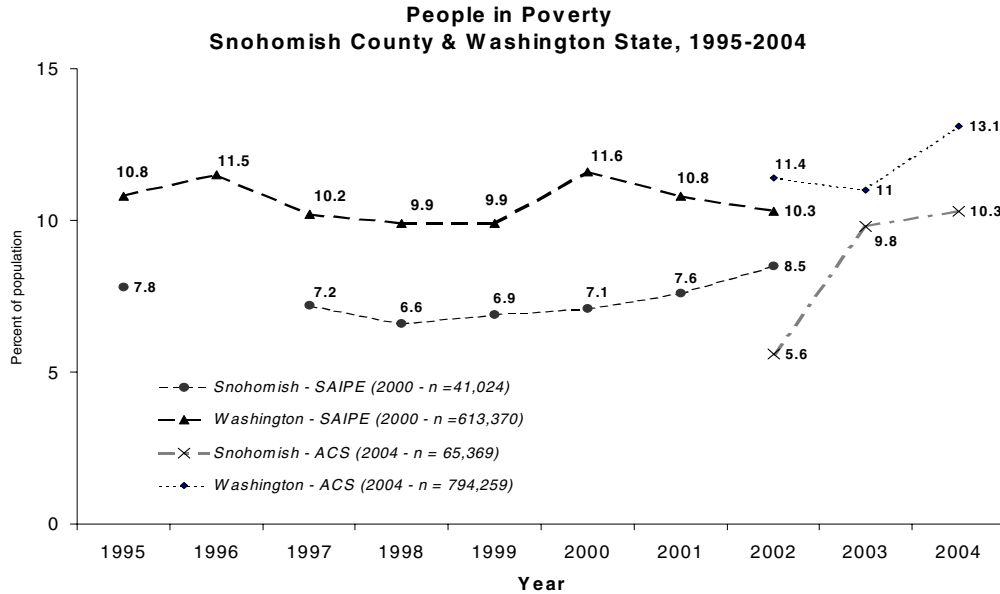
- The proportion of the population with associate, bachelors, or graduate degrees increased from 28.3% in 1990 to 36.8% in 2004.
- The proportion of the population without a high school diploma (or equivalent) declined from 14.3% to 8.0% during the same period.



- Snohomish County has a lower proportion of people with some type of college degree than the state (36.8% vs. 40.0%).
- The county also has a lower proportion of people without a high school diploma than the state.

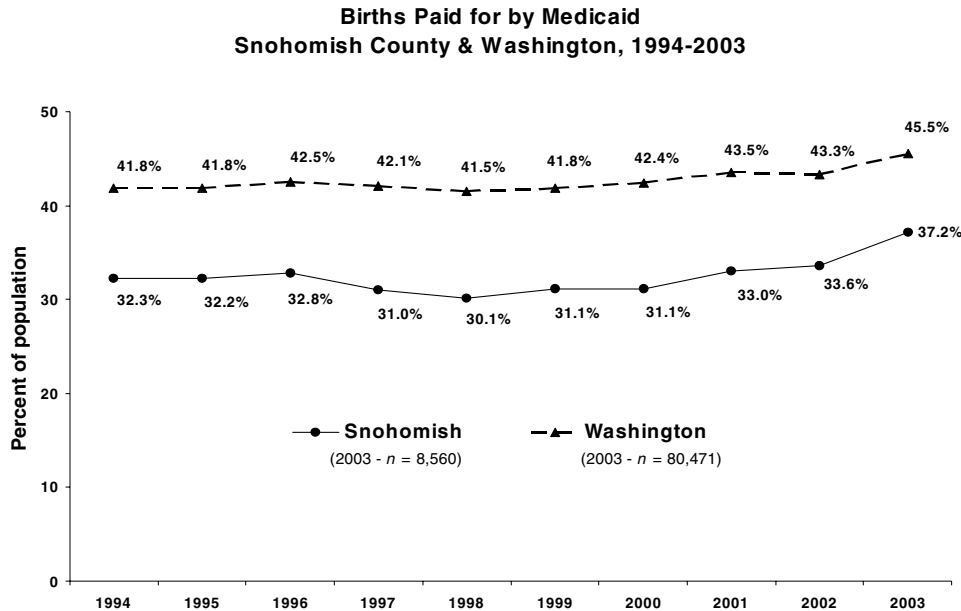
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Poverty



SAIPE = Small Area Income Poverty Estimate
ACS = American Community Survey

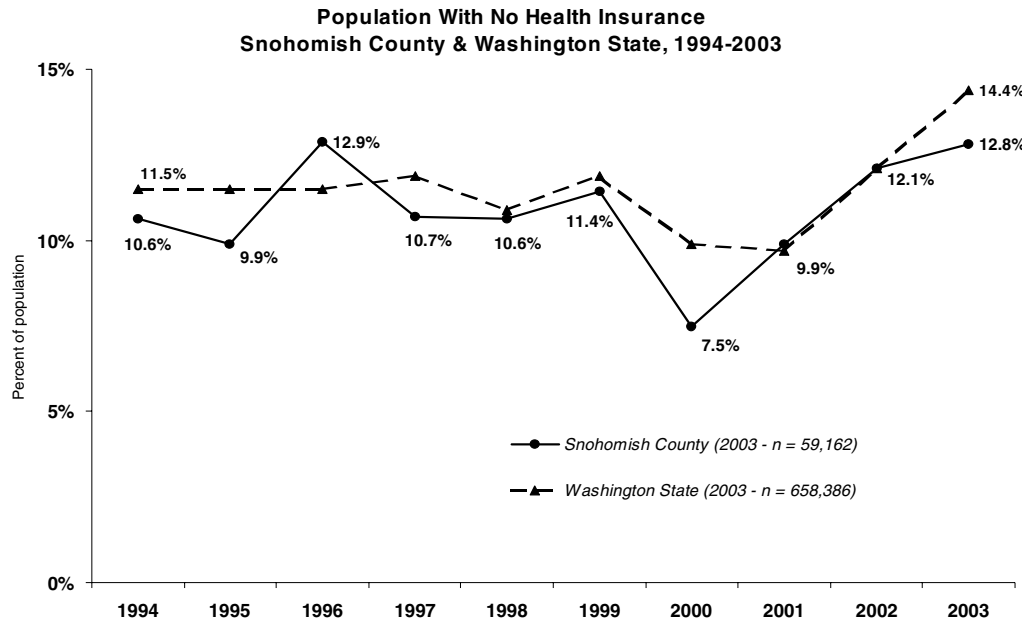
- The county has been experiencing an increase in the rate of poverty since the year 2000.
- Snohomish County has consistently had a lower proportion of its population living in poverty than the state.



- 37.2% of Snohomish County births are paid for by Medicaid.
- The proportion of Snohomish County births paid for by Medicaid increased 15.2% between 1994 and 2003.
- Fewer Snohomish County births were paid for by Medicaid than was the ten year average for the state (32.5% vs. 42.6%).

N = Denominator; total population
n = Numerator; number of individuals or cases

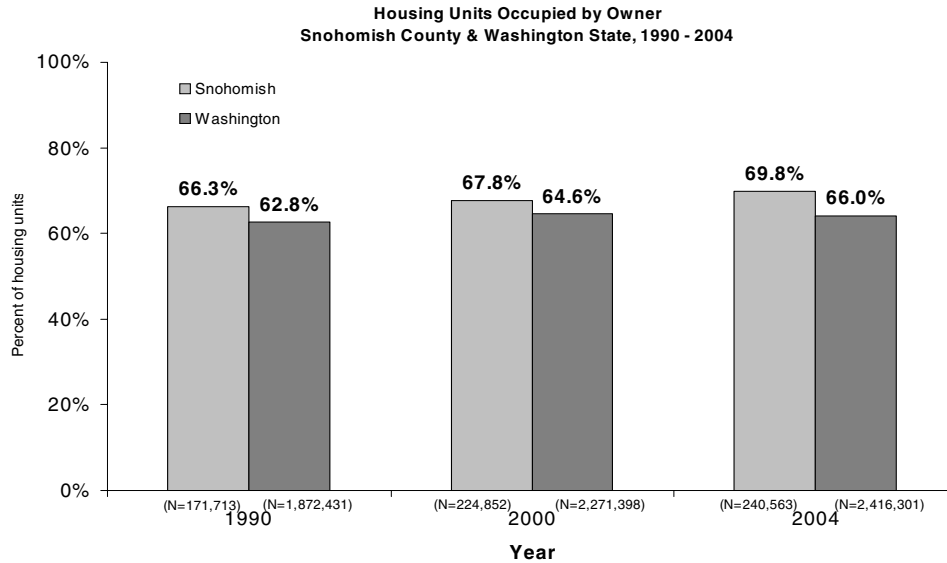
Access to Health Care



- An average of 11% of Snohomish County citizens have been without health insurance between 1994 and 2003.
- The county generally has a lower proportion of uninsured citizens than the state.
- The percent of uninsured has increased in both the county and state since 2000.

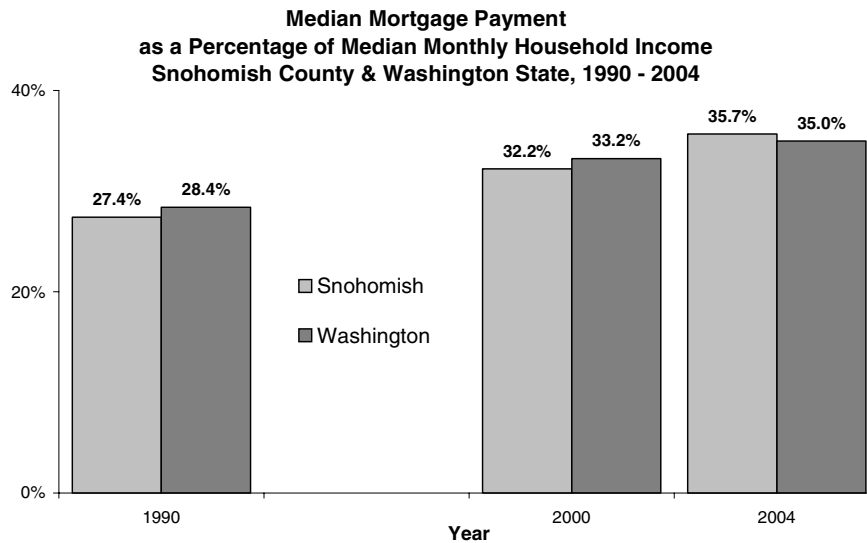
N = Denominator; total population
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Housing



- About two-thirds of Snohomish County residences were owner-occupied.
- There was a slight increase in the proportion of residences that were owner-occupied since 1990.
- Snohomish County has consistently higher rates of home ownership than the state.

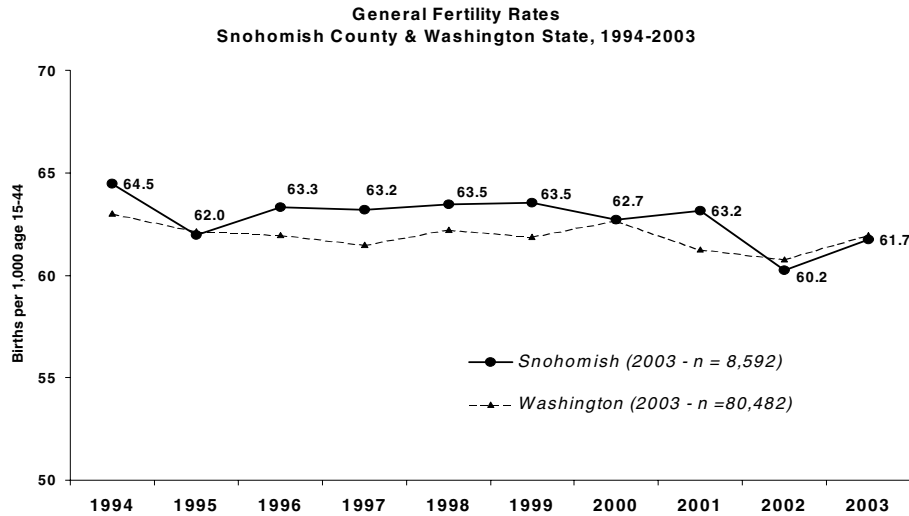
Housing Affordability



- Monthly mortgage payments have increased as a proportion of household income since 1990.
- The ratio of monthly mortgage payments to monthly household income in Snohomish County was comparable with that found statewide.

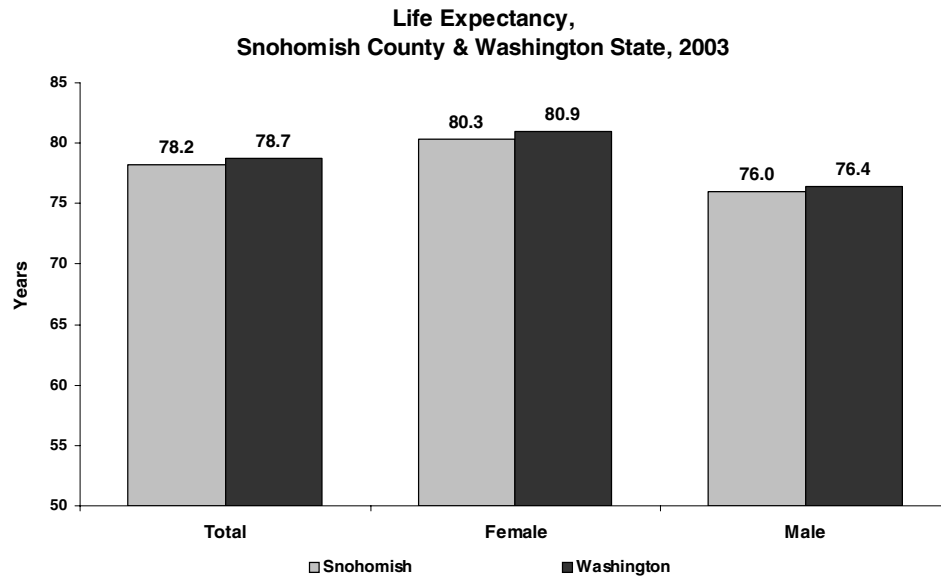
N = Denominator; total population
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Fertility



- Between 1994 and 2003, there were an average of 62.8 births per 1,000 women age 15-44 in Snohomish County.
- The county's fertility rate declined over the prior decade from 64.5 (per 1,000 women age 15-44) in 1994 to 61.8 in 2003.

Life Expectancy



- Life expectancy in Snohomish County was generally lower than for the state.

N = Denominator; total population
n = Numerator; number of individuals or cases

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12 How healthy are we overall?

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend				
	few <6,448 (<1%)*				 SC better		 SC better	 rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆ No significant difference			
	more >64,448 (>10%)*				 SC worse		 SC worse	 rates going up	Age	Gender	Education	Poverty
No health care exam in prior 2 years - Adults	70,367	(%)	15.7	18.4		.			❖	❖	◆	◆
Did not meet rec.for fruit & veg consumption - adults	339,291	(%)	77.6	76.7		.		.	❖	❖	❖	◆
Did not meet rec.for fruit & veg consumption - youth	58,467	(%)	76.5	76.4	NS	.		.	❖	❖	.	.
Did not meet rec. for mod or vig physical activity - adults	206,131	(%)	46.9	45.6	NS	.		.	❖	❖	◆	◆
Did not meet rec. for mod or vig physical activity - youth	12,871	(%)	16.5	14.6		.		.	❖	❖	.	.
Obesity - adult	98,257	(%)	21.9	21.7	NS	15.0			❖	◆	◆	❖
Obesity - youth	7,063	(%)	9.0	7.4		5.0		.	❖	❖	.	.
* % of total SC 2004 population (N=644,800)		. not available										
= Good		= Caution			= Danger							

How healthy are we overall? (continued)

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend	Age	Gender	Education	Poverty
	few <6,448 (<1%)*				👍 SC better		👍 SC better	↓ rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆ No significant difference			
	more >64,448 (>10%)*				👎 SC worse		👎 SC worse	↑ rates going up	Age	Gender	Education	Poverty
Asthma current - adults	40,999	(%)	8.9	9.1	NS	.		----	❖	❖	◆	❖
Asthma current - youth	12,478	(%)	15.9	15.8	NS	.		.	❖	❖	.	.
Diabetes - self-reported-adults	28,528	(%)	6.2	6.6	NS	2.5	👎	↑	❖	◆	◆	❖
Cancer incidence	2,931	per 100,000	548.1	538.2	👎	.		↑	❖	◆	.	.
Heart Disease Deaths	1,064	per 100,000	210.6	190.5	👎	.		↓	❖	❖	.	.
Overall Death Rate	4,257	per 100,000	823.0	782.6	👎	.		↓	❖	❖	.	.
* % of total SC 2004 population (N=644,800)		. not available										
= Good		= Caution			= Danger							

14 How safe and supportive are our surroundings?

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend				
	few <6,448 (<1%)*				👍 SC better		👍 SC better	↓ rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆ No significant difference			
	more >64,448 (>10%)*				👎 SC worse		👎 SC worse	↑ rates going up	Age	Gender	Education	Poverty
Food & Water-borne Diseases +	244	per 100,000	38.3	37.2	NS	.		↓	❖	◆	.	.
Population with sub-optimal fluoride in water ++	153,803	(%)	26.6	41.4	👍	25.0	👎	.	.	.	.	.
Known meth labs	101+++	per 100,000	15.7	22.0	++++	.		.	.	.	.	.
+ Food & water-borne diseases: E.coli 0157:H7, Campylobacteriosis, Giardiasis, Salmonellosis, Shigellosis, Listeriosis, Vibriosis, Yersiniosis												
++ Group A public water systems with either "mixed" systems, or sub-optimal fluoride levels <0.7ppm												
+++ Number of meth labs												
++++ Statistical tests not done because of data inconsistencies.												
* % of total SC 2004 population (N=644,800) . not available												
= Good			= Caution			= Danger						

How well are we protected against communicable disease?

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend	Age	Gender	Education	Poverty
	few <6,448 (<1%)*				 SC better		 SC better	 rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆ No significant difference			
	more >64,448 (>10%)*				 SC worse		 SC worse	 rates going up	Age	Gender	Education	Poverty
Immunizations not complete, kindergarten	1,014	(%)	11.4	12.3	+	.	.	.	.	.	.	.
Vaccine preventable diseases ++	109	per 100,000	17.1	17.0	NS	.			❖	◆	.	.
Did not receive flu shot >=65 yo	14,659	(%)	25.2	26.6	NS	10.0			.	◆	.	◆
Chlamydia	1,468	per 100,000	230.3	275.4		.			❖	❖	.	.
Gonorrhea	139	per 100,000	21.8	45.1		19.0			❖	❖	.	.
New active TB	12	per 100,000	1.9	4.1		1.0			❖	◆	.	.
New HIV infection	13	per 100,000	2.0	5.5		.		.	❖	❖	.	.
+ Statistical tests not done because of data inconsistencies.												
++ Vaccine preventable diseases: Diphtheria, Tetanus, Pertussis, Polio, Measles, Mumps, Rubella, Haemophilus Influenza type b, Hepatitis A & B												
* % of total SC 2004 population (N=644,800)		. not available										
= Good		= Caution			= Danger							

16 How healthy are our pregnant women and families?

Category	# of pop affected annually	Rates or Percentages							Group Comparisons				
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs HP 2010	SC Trend					
	few <6,448 (<1%)*				👍 SC better		👍 SC better	↕ rates going down	❖	Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆	No significant difference			
	more >64,448 (>10%)*				👎 SC worse		👎 SC worse	↑ rates going up		Mother's Age	Gender	Education	Poverty
Who's Getting Pregnant													
Teen pregnancy rate	342	per 1,000 women age 15-17	24.5	28.7	👍	43.0	👍	↕	.	.	.	.	.
Unintended pregnancy rates	5,833	(%) of births & abortions	55.7	53.9	NS	30.0	👎	----	❖	.	.	.	.
Pregnancy Outcomes													
Infant mortality	40	per 1,000 live births	4.7	5.6	NS	4.5	NS	----	❖	.	.	❖	❖
Premature births	770	(%) of live births	9.1	10.0	👍	7.9	👎	↑	◆	.	◆	❖	❖
Prenatal Behavior													
No prenatal care in the first trimester +	1,044	(%)	17.2	18.5	NS	10.0	👎	----	❖	.	❖	❖	❖
Any alcohol use during pregnancy	438	(%)	5.1	6.0	NS	6.0	NS	----	◆	.	❖	❖	❖
Any tobacco use during pregnancy	871	(%)	10.2	10.9	NS	1.0	👎	↕	❖	.	❖	.	.
+ Either no prenatal care or care only in the 2nd and/or 3rd trimester													
* % of total SC 2004 population (N=644,800) . not available													
= Good			= Caution			= Danger							

How healthy are our pregnant women and families? (continued)

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs HP 2010	SC Trend				
	few <6,448 (<1%)*				SC better		SC better	rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	no sig change	◆ No significant difference			
	more >64,448 (>10%)*				SC worse		SC worse	rates going up	Mother's Age	Gender	Education	Poverty
Parenting behaviors												
Self-reported mod/poor postpartum mental health	1,220	(%)	14.2	19.8	SC better	.		no sig change	◆	.	◆	◆
No breastfeeding at birth	937	(%)	10.9	9.8	NS	25.0	SC better	no sig change	◆	.	◆	❖
No well child check ups at 2-3 months postpartum	850	(%)	9.9	10.8	NS	.		no sig change	◆	.	❖	◆
Untreated dental decay in 2nd graders	1,427	(%)	26.1	21.7	NS	.		.	.	.	.	❖
CPS accepted referrals	5,621	unduplicated per 1,000	33.0	29.8	+	.		.	(child's age) ❖	.	.	.
+ Statistical tests not done because of data inconsistencies.												
* % of total SC 2004 population (N=644,800) . not available												
= Good			= Caution			= Danger						

18 How often do we experience injury?

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend				
	few <6,448 (<1%)*				👍 SC better		👍 SC better	↓ rates going down	❖	Significant difference		
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆	No significant difference		
	more >64,448 (>10%)*				👎 SC worse		👎 SC worse	↑ rates going up	Age	Gender	Education	Poverty
Hospitalization Rates												
Falls + - unintentional	1,426	per 100,000	267.5	291.5	👍	.		↓	❖	❖	.	.
Motor vehicle injury ⁺⁺ - unintentional	384	per 100,000	61.0	72.1	👍	.		↓	❖	❖	.	◆
Firearm injury ⁺⁺⁺ - intentional & unintentional	28	per 100,000	4.2	5.0	NS	8.6	👍	.	◆	❖	.	.
Mortality Rates												
Drowning* - unintentional	8	per 100,000	1.3	1.4	NS	0.9	NS	.	❖	❖	.	.
Motor vehicle ^{**} - unintentional	61	per 100,000	10.2	11.6	NS	9.2	NS	.	❖	❖	.	.
Firearm ^{***} - intentional & unintentional	51	per 100,000	8.4	9.2	NS	4.1	👎	↓	❖	❖	.	.
+ Falls: ICD 9 codes: E880-888; # of hospitalizations ++ MV: ICD 9 codes: E810-825; # of hospitalizations												
+++ Firearm: ICD 9 codes: E922, E955.0-955.4, E965.0-965.4, E985.0-985.4; # of hospitalizations												
* Drowning ICD10 codes: W65-74												
** MV ICD10 codes: V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2												
*** Firearm ICD10 codes: W32-34, X72-74, X93-95, Y22-24, Y35.0												
* % of total SC 2004 population (N=644,800) . not available												
= Good			= Caution			= Danger						

How often do we experience injury? (continued)

Category	# of pop affected annually	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend				
	few <6,448 (<1%)*				👍 SC better		👍 SC better	↓ rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆ No significant difference			
	more >64,448 (>10%)*				👎 SC worse		👎 SC worse	↑ rates going up	Age	Gender	Education	Poverty
Prevention												
Never wear seatbelt - adult	33,124	(%)	7.1	++++	.	.	.	.	◆	❖	◆	◆
Don't always wear seatbelt - youth - grades 6,8,10,12	19,070	(%)	24.3	25.4	NS	.	.	.	❖	❖	.	.
Don't always wear bike helmet - youth - grades 6,8,10,12	46,098	(%)	75.0	75.1	NS	.	.	.	❖	❖	.	.
++++ 2003 WA State data not available in oversample.												
* % of total SC 2004 population (N=644,800) . not available												
= Good		= Caution			= Danger							

20 How often do we use tobacco, alcohol and other drugs?

Category	# of pop affected annually	Rates or Percentages											
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend	Group Comparisons				
	few <6,448 (<1%)*				👍 SC better		👍 SC better	↓ rates going down	❖	Significant difference			
	moderate 6,448-64,448 (1.0-10%)*				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆	No significant difference			
	more >64,448 (>10%)*				👎 SC worse		👎 SC worse	↑ rates going up	Age	Gender	Education	Poverty	
Tobacco													
Adults who currently smoke	87,795	(%)	19.1	19.5	NS	12.0	👎	↓	❖	❖	❖	❖	
Youth who currently smoke - grades 10&12	4,107	(%)	26.0	22.4	👎	16.0	👎	.	❖	◆	.	.	
Smoke exposed youth - grades 6,8,10,12	37,591	(%)	47.9	43.8	👎	.		.	❖	❖	.	.	
Deaths attributed to smoking	566	per 100,000	216.8	208.5	NS	.		.	.	❖	.	.	
Non-compliant retail stores with tobacco sales	.	(%)	19.2	9.6	👎	20.0	NS	↑	.	.	.	.
Alcohol													
Binge drinking - in past 30 days - HS Seniors	2,181	(%)	29.0	27.3	NS	11.0	👎	.	.	❖	.	❖	
Alcohol-induced deaths	58	per 100,000	9.6	10.0	NS	.		----	❖	❖	.	.	
Illegal Drugs													
Youth - any use past 30 days - grades 6,8,10,12	11,458	(%)	14.6	13.1	👎	.		.	❖	❖	.	.	
* % of total SC 2004 population (N=644,800) . not available													
= Good		= Caution			= Danger								

How often do we suffer from poor mental health?

Category	# of pop affected annually*	Rates or Percentages							Group Comparisons			
		Units of measure	SC Rate	WA Rate	SC vs WA	Healthy People 2010	SC vs Health People 2010	SC Trend	Age	Gender	Education	Poverty
	few <6,448 (<1%)				 SC better		 SC better	 rates going down	❖ Significant difference			
	moderate 6,448-64,448 (1.0-10%)				NS SC no sig dif		NS SC no sig dif	---- no sig change	◆ No significant difference			
	more >64,448 (>10%)				 SC worse		 SC worse	 rates going up	Age	Gender	Education	Poverty
Suicide death rate	78	per 100,000	12.4	13.0	NS	5.0		----	❖	❖	.	.
Adult - experience any days of poor mental health in past 30 days	184,555	(%)	40.7	37.5		.		----	❖	❖	◆	❖
Youth depressed in past year - grades 8,10,12	21,739	(%)	27.7	27.9	NS	.		.	◆	❖	.	.
* % of total SC 2004 population (N=644,800)		. not available										
= Good		= Caution			= Danger							

22 Technical Notes

Criteria for Selection of Indicators

Minimum Criteria for Measures:

1. Quality Data – available or measurable, reliable, & valid
2. Relevant to Snohomish County
3. Understandable

Additional Criteria of Measures:

1. Can be changed with prevention efforts over time
2. Are impacted by public health services, realizing that some effect is beyond public health's control
3. Are associated with scientific or research-based health practices or prevention
4. Are health outcomes, health behaviors or risks that influence health status in our community
5. Are population-based. Do not include measures of service utilization or work related activities as measures, e.g., not use the number of immunizations given in the clinic, but instead use the immunization rate in the county

Data Sources

Demographics

- Behavioral Risk Factor Surveillance Survey System (BRFSS)- 1994-2003 (access to health care), 2003 (sexual orientation)
- Population estimates for Public Health Assessment, WA State DOH, VISTA Partnership and Krupski Consulting and Washington State OFM - 1980-2004 (population estimates, age groups)
- Small Area Income and Poverty Estimates (SAIPE) - 1995-2002 and US Census Bureau's American Community Survey - 2002-2004 (poverty)
- WA State, First Steps Database, trend 1994-2003 (Medicaid births)
- U.S. Census 1990 & 2000 and U.S. Census Bureau's American Community Survey 2004 (foreign-born, education, housing, affordability)

Indicators

- BRFSS - trends 1993-2003 (adult behaviors) (2001 for health exams)
- CHARS - trend 1994-2003 (hospitalizations)
- Communicable Disease, Washington State DOH - trend 1994 – 2003
- CPS - Washington State DSHS - rate 2004 (no trend)
- Healthy Youth Survey – rates 2002 (youth behaviors)
- Kindergarten Immunizations, Washington State DOH - rate 2003 (no trend)
- Pregnancy Risk Assessment Monitoring System (PRAMS) - rates 2001-2003, trend 1996-2003 (pregnancy)
- DASA, WA State DSHS, - rate 2005 (no trend) (tobacco retail compliance)
- Smile Survey – rate 2000 (no trend) (children's oral health)
- WA State Birth Certificates - trend 1994-2003
- WA State Death Certificates - trend 1994-2003 (Alcohol-induced deaths, other death rates)
- WA State Death Certificates, 2003 BRFSS, and CDC SAMMEC software (smoking attributable risk)
- WA State Dept of Ecology - rate 2004 (no trend) (meth lab clean up)
- Office of Drinking Water, WA State DOH; CDC National Oral Health Surveillance System, WA data – rate 2006, (fluoride)

Data Descriptions and Definitions

Rates are based on the most recent year of data available (usually 2003 or 2004). A rate is the number of individuals or cases in a specified time period divided by the population at risk in that same period and multiplied by a constant such as “per 1,000” or “per 100,000”. (For example, teen pregnancy = number of pregnant teens 15-17/ total number of women 15-17 multiplied by 1000.) Death and hospitalizations are age-adjusted to compare with state rates. Communicable diseases rates, however, are not age-adjusted. When annual sample sizes are small, three years of data were combined, e.g., PRAMS.

The number of cases or estimates of the population affected for each indicator provide another perspective for evaluating the magnitude of the population impacted. When the data source is the total population (i.e., births, deaths, communicable diseases, and hospitalizations), the number is the actual number of cases. When the source of the data is from a survey the estimate is calculated using the appropriate county population, i.e., adults, youth. For example, the numbers for BRFSS are estimates calculated by applying the weighted percentage of adults participating in a given behavior to the adult county population 18 years and older.

Healthy People 2010 are health-related objectives developed under the aegis of the United States Department of Health and Human Services incorporating input from federal, state, and local agencies and extensive public comment.

Comparisons of Snohomish County to Washington State rates use a chi-square test. To determine if the Snohomish County rate is significantly different from the Healthy People (HP) 2010, the 95% confidence interval for the county rate is used. If the HP 2010 rate is outside of the Snohomish County 95% confidence interval, it is considered significantly different

Group comparisons identify significant disparities within groupings of age, sex, poverty, and education. The groupings used vary by indicator based on the data sources available. Poverty comparisons were defined at 185% or 200% of the Federal Poverty Level (FPL). The information on poverty in the demographic summary uses 100% of FPL. Race was considered, but is not included because of the small proportion of non-Whites in our population or non-availability of racial information.

Trends are calculated to determine whether rates or percentages were statistically increasing or decreasing over time. Trends are based on ten years of data when available. Trend analyses are done using the chi-square test for trend or logistic regression.



Our Mission

To improve the health of individuals, families, and communities through disease prevention, health promotion, and protection from environmental threats.

Please take 5 minutes to provide feedback to this document.

The link to the survey is:

[SHD Public Health Indicators Survey](#)