



# Maternal and Child Health in Snohomish County 1990 -1999

**Series I** : A report on the health of women of childbearing age

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## **Contacts and Acknowledgements**

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# **Introduction & Objectives**

## **Maternal and Child Health in Snohomish County, a Series of Four Reports**

Maternal and child health (MCH) is a key program area in public health. Many public health programs focus on the health of at-risk and underserved women and children. Through education, policy development, and services, public health can help this target population enjoy better health and decreasing morbidity and mortality.

Public health services include a variety of community-based programs. Tobacco programs provide education on hazards of tobacco use, encourage smoke-free policies to limit exposure to environmental tobacco smoke, and sponsor smoking cessation classes. Community health programs assist clients in making informed choices about contraceptive methods and family planning. Public health nurses make home visits to pregnant and parenting women to educate them about smoking, breastfeeding, parenting, and child development. Childhood immunizations and dental sealants are provided in clinics. These are a few of the many programs available.

### **OBJECTIVES**

A variety of data resources are currently available about populations of women and children and their health. However, information is not compiled in a single location or not presented specific to MCH needs.

The objectives of the data included in these reports were to:

- Provide information for outcomes or indicators applicable to existing programs or activities;
- Provide estimates to assist in the evaluation of program effectiveness;
- Assist health care providers and agencies in identifying, planning, and developing future programs; or
- Identify gaps in existing data measures or surveillance activities.

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## **Four Part Series**

To effectively manage the magnitude of data, the Health Statistics and Assessment program at Snohomish Health District is preparing a series of four reports. Each report focuses on a different subset of women or children in Snohomish County. This approach will potentially provide more meaningful results for service agencies and providers. Each report addresses important indicators for mothers and children living in Snohomish County with comparison data of Washington State along with national Health People 2000 or 2010 goals.

The following descriptions provide an overview of the content for each report:

### **Series I: Women of Childbearing Age (15-44 years)**

- ◆ Demographics—age, race, income
- ◆ Family structure – marital status, education, insurance, parenting
- ◆ Health and prevention – birth control, check ups
- ◆ Hospitalizations—rates and leading causes
- ◆ Domestic violence
- ◆ Tobacco use
- ◆ Alcohol use
- ◆ Mortality—rates and leading causes

### **Series II: Children (1-17 years)**

- ◆ Demographics—age, race
- ◆ Family—poverty, foster care, child abuse
- ◆ Health and prevention – immunization, check ups, overweight
- ◆ Teen tobacco use
- ◆ Teen alcohol use
- ◆ Oral health
- ◆ Hospitalization – rates and leading causes
- ◆ Mortality—rates and leading causes

### **Series III: Infants (Younger than one year)**

- ◆ Demographics—sex, race
- ◆ Mortality—rates and leading causes, SIDS, congenital anomalies
- ◆ Birth outcomes – low birth weight, prematurity
- ◆ Infant care—breastfeeding, sleeping position, well baby checks, car seat use

### **Series IV: Pregnant Women**

- ◆ Demographics—age, race
- ◆ Pregnancy outcomes – abortions, birth
- ◆ Health and prevention – prenatal care, folic acid
- ◆ Tobacco use
- ◆ Pregnancy experiences – unintended pregnancies, violence

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## **GEOGRAPHY**

Snohomish County is the third most populous county in Washington State. It is preceded in size by King County and Pierce County. In 1999, 51.5% of the state's population resided in these three counties. Snohomish County is located north of King County and the Seattle metropolitan area. Most of the urban areas are in the southwestern part of the county between Everett and the King County line along Interstate 5 and Highway 99. North of Everett is the Tulalip Indian Reservation. Only 5.5% of Snohomish County is used for farmland, which is located in the western part of the county. Eastern Snohomish County is largely mountainous wilderness.

## **SUMMARY OF DATA SOURCES**

Data in this report came from multiple sources. The following sources were used (detailed references are provided within the report):

- ◆ Birth and death certificates
- ◆ The US Census Bureau, 1990 and 2000
- ◆ Behavioral Risk Factor Surveillance Survey (BRFSS)
- ◆ Pregnancy Risk Factor Assessment Monitoring System (PRAMS) survey
- ◆ Local Health Jurisdiction Immunization Assessment Capacity Building Project
- ◆ National Immunization Survey
- ◆ Risk and Protection for Substance Abuse Prevention Planning in Snohomish County
- ◆ Healthy People 2000 and Healthy People 2010
- ◆ Youth Risk Behavior Survey (YRBS)
- ◆ Comprehensive Hospital Abstract Reporting System (CHARS)

## **METHODS**

When possible, all pertinent data were included. However, there were some areas where appropriate data were not available or were lacking. Measures of prevalence and incidence were based on 1999 data as these were the most current data available consistently across topics and populations. In addition to the 1999 data, time trends are also presented. Except where noted, information provided in this report represents population-based estimates. Where appropriate the denominators used in calculations are presented and are noted by "N=" followed by the population count. Numerator counts are identified using an "n=".

Confidence intervals (CI) are ranges of numbers that indicate the accuracy of the statistics reported. This series uses 95% as the level of probability, which means the "true" population value will be within the CI 95% of the time. Washington State values are compared to Snohomish County CIs. If the state value is within the CI of Snohomish County, there is no statistically significant difference between Snohomish County and Washington State.

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# Summary of Major Findings for Women of Childbearing Age in Snohomish County

## DEMOGRAPHICS

- ◇ Between 1990-1999 the largest increases in childbearing women were in Asian and Pacific Islander women age 15-44 years.
- ◇ 57% of women age 18-44 years were married.
- ◇ 65% of women age 18-44 years had a child living with them.
- ◇ Of women age 18-44 years, 86% had health insurance and 4.3% were covered by Medicaid.
- ◇ A greater proportion of younger women, age 18-24 years, lived below 200% of poverty levels compared to women between 25-44 years.

## HEALTH AND PREVENTION

- ◇ Domestic violence rates were highest among young women in high school.
- ◇ Nearly 1 in 4 women age 18-44 years smoked cigarettes.
- ◇ Women age 25-34 years were most likely to smoke cigarettes.
- ◇ More than 60% of women age 18-44 years reported drinking alcohol in the month preceding the survey.
- ◇ Leading causes of hospitalization for women age 15-44 years were childbirth and pregnancy complications.
- ◇ Rates of hospitalization for pregnancy-related conditions in women age 20-34 years were significantly higher in Snohomish County than in Washington State. However, Snohomish County also had a significantly higher pregnancy rate for this age group compared to Washington State.
- ◇ Death rates declined from 1990 to 1999 for women age 15-19 and 20-34 years.
- ◇ Leading causes of death for women age 15-44 years were cancers and accidents.

## Demographics Data Source

To calculate county-wide rates and age- and sex-specific rates, preliminary 2000 US Census data estimates were used. Census data are used to estimate population counts between censuses. Because of unexpected changes in the 2000 Snohomish County population, interim census estimates based on 1990 provide inaccurate counts. Because final data for 2000 were not available at the time analysis for this report was done, it was believed that the preliminary 2000 interim estimates would be more accurate than the 1990-based estimates.

Calculations of the population by race, however, were not yet available from the 2000 US Census. In addition, the methods and categorization of race categories changed in the 2000 US Census. Thus, rates for race are based on the estimates of the 1990 US Census. Race was categorized as White, Black, Native American, and Asian/Pacific Islander. Hispanics were considered an ethnicity and may be of any race.



## Age

In 1999, Snohomish County had 591,590 residents representing 10.1% of Washington State's total population. About half of the population was female. Of the female population in Snohomish County, 45.3% were between the ages of 15-44 years. In Washington State, 43.9% of women were between 15-44 years of age. Women age 20-34 years comprised the largest percent of women of childbearing age, followed by those age 35-44 years (Figure 1).

Over the last 10 years the age distribution of the population of women age 15-44 years has changed (Figure 2). There was a decrease in the percent of women age 20-34 years, while the proportions of women age 15-19 and 35-44 years increased. Women age 35-44 years had a greater increase (+4.7%) than did women age 15-19 years (+2.8%). This was also the trend in Washington State.

### Key Findings

- ◆ Women age 20-34 years comprised the largest percent of women of childbearing age, followed by those age 35-44 years.
- ◆ Over the last 10 years the age distribution of the population of women age 15-44 years has changed.

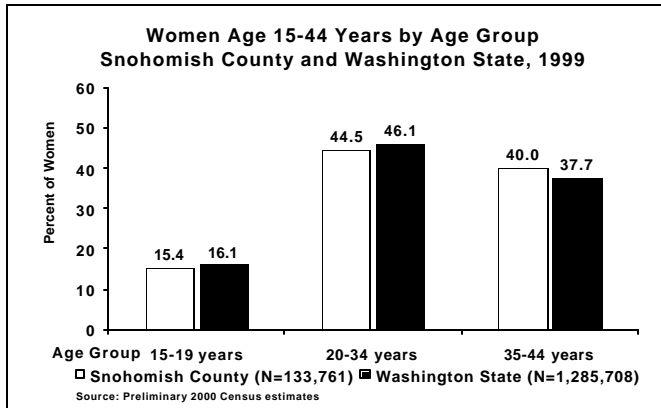


Figure 1

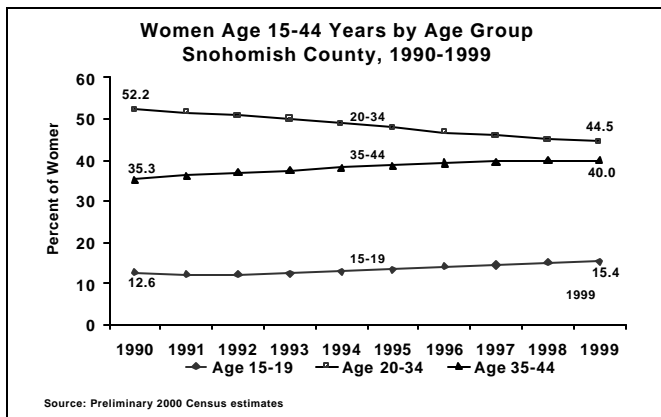


Figure 2

# Race

The majority of the population in Snohomish County and Washington State was White. In 1999, White women represented 91.5% of women 15-44 years in Snohomish County (N=127,652) and 87.5% in Washington State (N=1,245,309). Of non-White women age 15-44 years in both Snohomish County and Washington State, Asian and Pacific Islanders made up the largest proportion: 5.6% in Snohomish County and 6.8% in Washington State (Figure 3).

Between 1990-1999 the proportion of the White population in both Snohomish County and Washington State decreased slightly. Asian and Pacific Islanders had the greatest increase (Figure 4).

Hispanics as an ethnic group represented 3.2% of the childbearing population in Snohomish County and 6.4% in Washington State. Hispanic women age 15-44 years in Washington State increased by 2.1% over the last 10 years, while in Snohomish County the increase was only 0.8%.

**Key Finding**

- ◆ The majority of the female population in Snohomish County and Washington State was White.

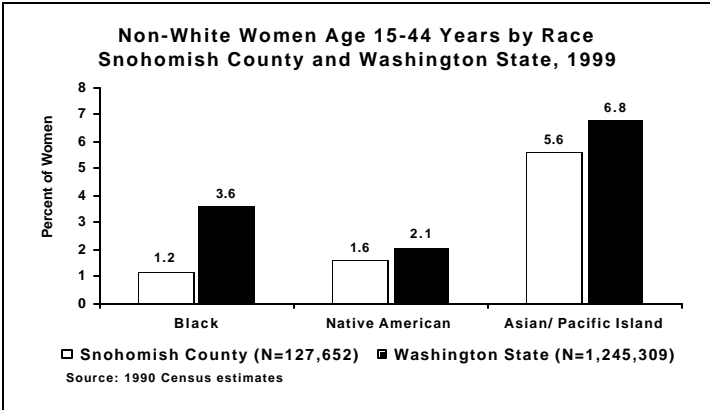


Figure 3

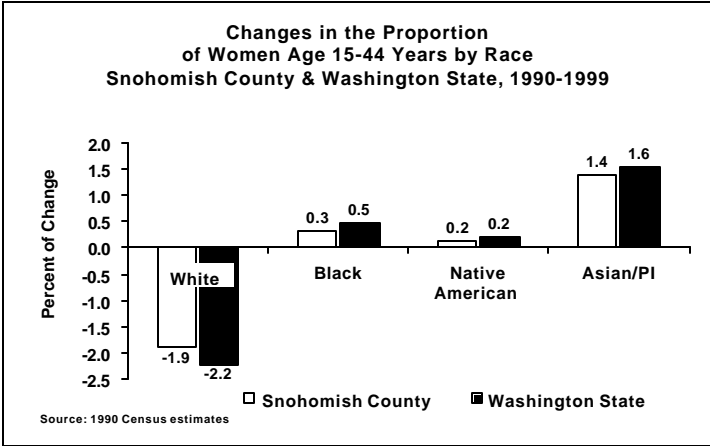


Figure 4

## Family Structure Data Source

Each year, the Snohomish Health District surveys health behaviors among county residents. This survey is based on the Behavioral Risk Factor Surveillance System (BRFSS) coordinated by Centers for Disease Control (CDC) in collaboration with the Washington State Department of Health. This is a population-based telephone survey of adults 18 years and older. The 1999 BRFSS, the most recent survey report for Snohomish County, was used in this report. The sample of 800 Snohomish County residents in the 1999 survey provided a margin of error of  $\pm 5\%$  for each sex. Of the sample, 54% were women. Of the women, 55%, or 240 were of childbearing age. Because this survey was of adults age 18 and older, any results for women with BRFSS as the data source use the age range of 18-44 years compared to the 15-44 age group for other results. To provide county-representative information, results were weighted to adjust for differences in age distribution between the sample and the total county population. It should be noted that the margin of error would increase when only childbearing-age women were selected because their numbers are smaller. When appropriate, 95% CI were calculated to provide a range in the prevalence estimates. Also, when possible Washington State data were provided as a comparison. *Snohomish County Behavioral Risk Factor Surveillance Report, 1999* is available on our web site at [www.snohd.org/hlthstats](http://www.snohd.org/hlthstats).



## Marital Status

In 1999, 71% of female BRFSS survey respondents age 18-44 years (N=240) in Snohomish County reported they had been married. Of those that had been married, 56.5% (95% CI=49.4%, 63.2%) were currently married. Nearly a quarter of all women had never been married and 5.4% (95% CI=2.9%, 10.0%) were a member of an unmarried couple (Figure 5). Older women (25-34 and 35-44 years of age) had a higher proportion of married women (approximately 66%). Of women age 18-24 years only 19.1% (95% CI=9.5%, 34.8%) were married. There were no survey respondents age 18-24 years who were divorced. Twelve percent of the other age groups were divorced. The proportion who were separated increased with age. Women age 25-34 years were most likely to be a member of an unmarried couple (Figure 6; Table 1, Appendix).

According to the 1999 Washington State BRFSS, 69% of women in Washington State age 18-44 years had ever been married and 55.4% were currently married. Overall, women in Washington State had a similar marital status pattern to those in Snohomish County. A quarter of respondents had never been married. Marriage, divorce, and widowhood all increased with age. However, in Washington State, the highest proportion of separation was among women age 25-34 years (6.1%), while it was 35-44 years (6.7%) in Snohomish County.

### Key Finding

◆ In 1999, 71% of females age 18-44 years in Snohomish County reported they had been married. Of those that had been married, 56.5% were currently married.

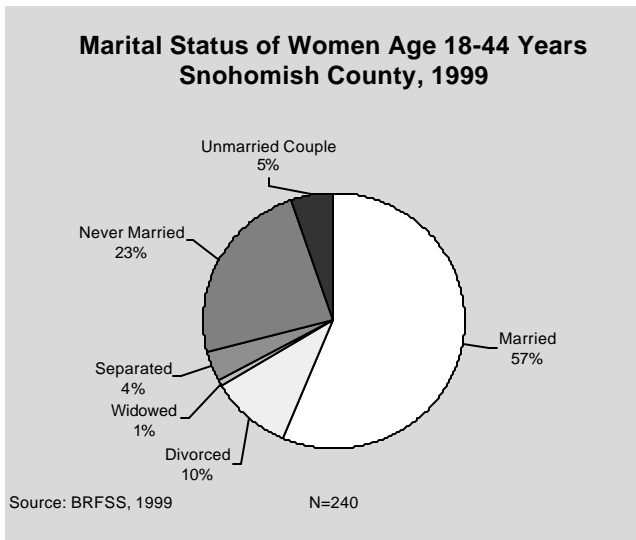


Figure 5

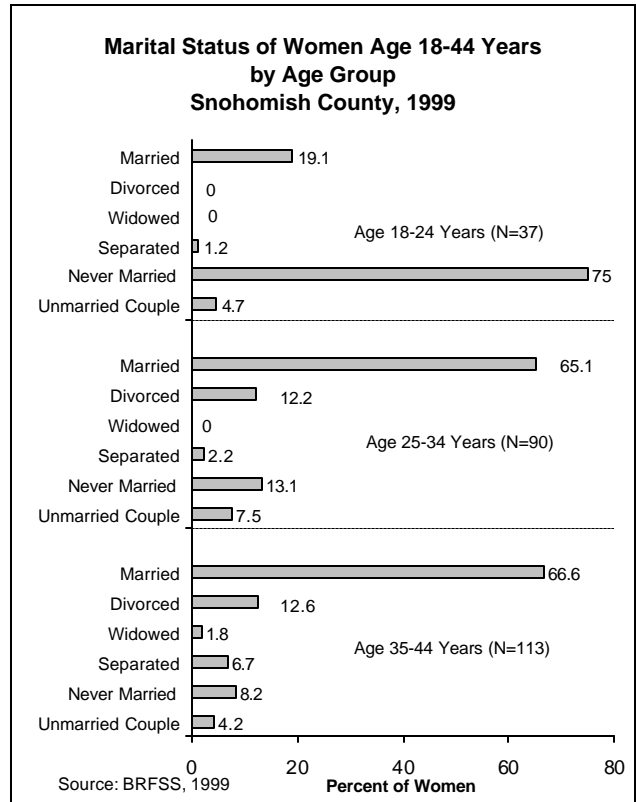


Figure 6

## Education

From BRFSS, a small proportion of women age 18-44 years in Snohomish County had less than a high school education (4.4%, 95% CI=2.3%, 8.2%), while 35.0% (95% CI=28.6%, 42.1%) graduated from high school and 24.9% (95% CI=19.7%, 31.1%) of women held a college degree. The remaining 35.7% (95% CI=29.4%, 42.6%) had some education beyond high school, but did not earn a college degree.

There was no significant difference between education levels of women in Snohomish County and Washington State. Eight percent of women age 18-44 years in Washington State had less than a high school education and 28.6% graduated high school. One third (33.3%) had some education beyond high school, but did not graduate from college. Thirty percent of women held a college degree.

Healthy People 2010<sup>1</sup> set a target goal of 90% of people age 18-24 years to complete high school. Snohomish County women age 18-24 years had a high school completion rate of 93.8%. The Washington State high school completion rate was 92.1%.

1. US Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2<sup>nd</sup> ed. Washington, DC: US Government Printing Office, November 2000.



## Health Insurance

In 1999, 86.5% (95% CI=80.7%, 90.7%) of Snohomish County women age 18-44 years had some form of health insurance. In Washington State, 83.7% of women age 18-44 years had health insurance. The target goal of Healthy People 2010<sup>1</sup> is that 100% of individuals are insured, which was an increase from the Healthy People 2000<sup>2</sup> goal of 90%. The proportion of women with insurance increased with age in both Snohomish County and Washington State. In Snohomish County, 71.7% (95% CI=52.3%, 85.4%) of women age 18-24 years, 84.8% (95% CI=75.8%, 90.9%) of women age 25-34 years, and 94.1% (95% CI=87.1%, 97.5%) of women age 35-44 years had health insurance. Statewide, 72.5% of women age 18-24 years and 87% of both women age 25-34 and 35-44 years had health insurance (Figure 7).

Employers supplied most of the insurance, 81.5% (95% CI=74.4%, 86.9%) in Snohomish County and 77.1% in Washington State. Another 10.0% (95% CI=6.1%, 15.8%) purchased their own insurance in Snohomish County, while the proportion statewide was 9.3%. Medicaid provided coverage for 4.3% (95% CI=2.0%, 9.1%) of women age 18-44 years in Snohomish County and 7.5% in Washington State. The remaining women with insurance had other types of insurance including military.

2. US Department of Health and Human Services, Public Health Service. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Washington DC: US Government Printing Office, DHHS Publication No. (PHS) 91-50212.

**Key Findings**

- ◆ In 1999 among women age 18-44 years, 86.5% in Snohomish County and 83.7% in Washington had health insurance.
- ◆ Employers supplied most of the insurance.

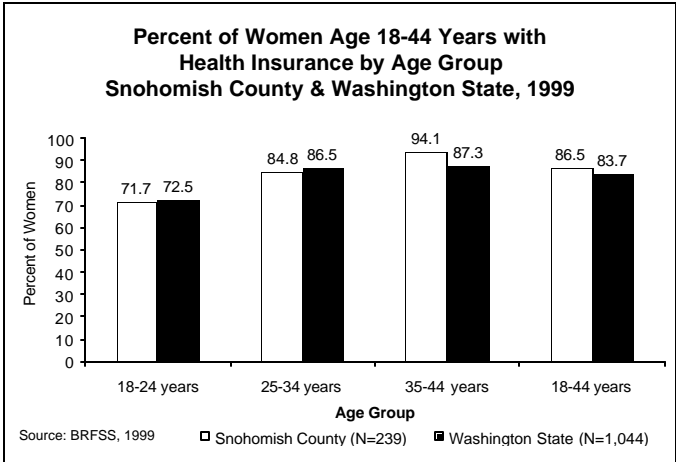


Figure 7

## Employment

Of childbearing age women in Snohomish County, 74.6% (95% CI=68.0%, 80.2%) were employed. An additional 6.2% (95% CI=3.6%, 10.4%) were out of work, and the remaining women were not seeking employment. There were 70.2% of women age 18-44 years employed in Washington State. Another 5.5% were unemployed, and the remainder were not seeking employment. The difference between Snohomish County and Washington State was not statistically significant.

In Snohomish County, women age 18-24 years had the highest proportion of unemployment (11.4%, 95% CI=4.1%, 27.6%). Unemployment among these women was nearly twice the proportion of women age 25-34 years (6.4%, 95% CI=2.9%, 13.6%) and three times that of women age 35-44 years (3.7%, 95% CI=1.3%, 9.7%) (Figure 8). However, they also had the highest percent of students, 16.4% (95% CI=6.7%, 35.1%) compared to 3.6% (95% CI=1.2%, 10.0%) for women age 25-34 years and 1.7% (95% CI=0.4%, 7.4%) for women age 35-44 years.

Washington State women age 18-44 years showed a similar pattern to Snohomish County for employment status by age group. Unemployment among women age 18-24 year (8.4%) was 1.6 times higher than women age 25-34 years (5.31%) and twice that of women age 35-44 years (4.2%). Women age 18-24 years had the highest proportion of students (21.8%) compared to older age groups (5.2%, age 25-34 years) (2.3%, age 35-44 years).

### Key Finding

- ◆ A quarter of women age 18-44 years in Snohomish County were not employed in 1999.

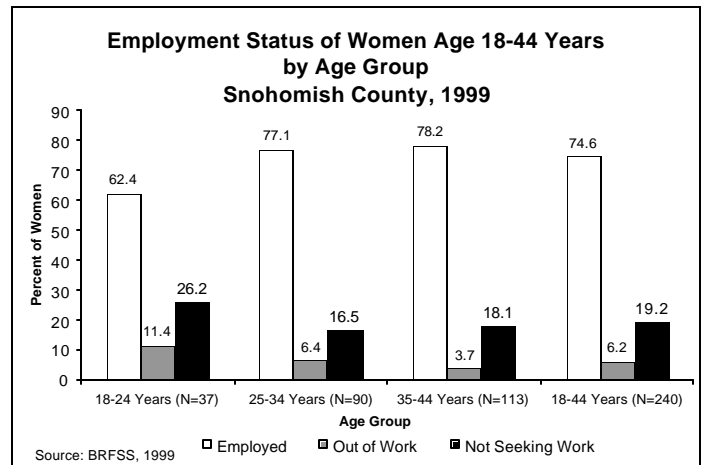


Figure 8

## Poverty & Hunger

### POVERTY

Poverty levels in BRFSS were defined as incomes below 200% of the Federal Poverty Level (FPL). This is based on the number of household members and household income. In Snohomish County, 26.6% (95% CI=19.9%, 33.2%) of women age 18-44 years lived below 200% of the FPL. Younger women, age 18-24 years, were more likely to live below this poverty level than other women (Figure 9; Table 2, Appendix). This difference was close to statistical significance (p=0.06).

### HUNGER

In BRFSS, another measure of poverty is the ability to pay for food. Among women age 18-44 years, 6.3% in Snohomish County (95% CI=3.8%, 10.4%) and 5.4% in Washington State reported skipping a meal because they lacked either food or money. The proportion decreased with age. Women age 18-24 years had the highest proportion that skipped a meal, 9.9% in Snohomish County (95% CI=3.1%, 27.4%) and 10.2% in Washington State (Table 3, Appendix).

**Key Finding**

- ◆ Younger women were more likely to live below the poverty level.

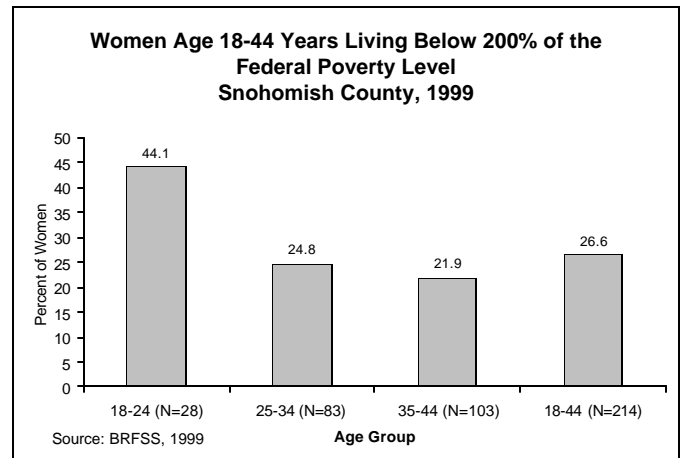


Figure 9

## Parenting & Pregnancy

Sixty-five percent of women age 18-44 years in both Snohomish County (95% CI=58.1%, 71.5%) and Washington State reported at least one child under the age of 18 years living in their home. Younger women were less likely to have children living with them. Among women age 18-24 years, 38.3% (95% CI=22.8%, 56.7%) in Snohomish County and 52.9% in Washington State had a child living with them. Seventy-two percent (95% CI=60.8%, 80.4%) of women age 25-44 years in Snohomish County and 69.3% in Washington State had a child living in their house. The differences between Snohomish County and Washington State were not statistically significant.

Among women age 18-44 years at the time of the survey, 5.1% (95% CI=2.8%, 9.1%) in Snohomish County and 8.9% in Washington State were pregnant. Of those women, 45.1% (95% CI=16.9%, 76.8%) in Snohomish County and 62.3% statewide had a child younger than 18 years old living with them.

### Key Finding

- ◆ **Sixty-five percent of women age 18-44 years had at least one child living with them.**



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## Health & Prevention Data Source

The 1999 BRFSS (see Family Structure section, pg. 12) collected information about preventive health measures and mental health in Snohomish County. Nearly all of the women age 18-44 years surveyed provided information on the time since their last medical and dental checkups, if they received a flu shot within the last year, the number of bad mental health days experienced in the last 30 days, and Pap smear testing. Half of the women age 18-44 years supplied information about the type of birth control used.



## Birth Control Methods

Only 120 women age 18-44 years in Snohomish County provided information on the type of birth control they used. Of these, 41.8% (95% CI=32.5%, 51.8%) reported using birth control pills and another 27.2% (95% CI=19.2%, 36.9%) relied on their partner to provide the birth control method. The remaining women used various other methods. The distribution of birth control method varied by age group. Women age 25-34 years were least likely to rely on their partner for birth control (14.9%, 95% CI=6.5%, 30.3%). It was less than half of that for those age 18-24 years (33.3%, 95% CI=15.8%, 57.0%) and 35-44 years (36.2%, 95% CI=23.1%, 51.7%).

Because the sample of women 18-44 years was small, the estimates of birth control methods are quite variable, i.e. the CIs are wide.

### Key Finding

- ◆ **Women age 25-34 were least likely to rely on their partner to provide a birth control method.**

## Pap Test

Ninety-five percent (95% CI=89.9%, 97.6%) of women age 18-44 years in Snohomish County during 1999 reported they had ever had a Pap test. Most Pap tests were for routine reasons (93.2%, 95% CI=88.7%, 95.9%) for all age groups. The proportion of women who had a Pap test increased with age. Women age 18-24 years were least likely to report ever having a Pap test (77.9%, 95% CI=59.1%, 89.6%). This proportion increased to 98.6% (95% CI=90.6%, 99.8%) for women age 25-34 years and 100% for women age 35-44 years.

Washington State women showed a similar pattern. Of women age 18-44 years, 91.6% had a Pap test at some time. When examined by age group those age 18-24 years had the lowest proportion (85.1%). Nearly all of the remaining women had a Pap test, 98.2% among women 25-34 years old and 98.8% among those age 35-44 years. Ninety-two percent of Pap tests statewide were for routine reasons.

The target goal for Healthy People 2010<sup>1</sup> is for 97% of women age 18 years and older to have a Pap test. Both Snohomish County and Washington State are below the target goal.

### Key Finding

- ◆ **Both Snohomish County and Washington State fell below the Healthy People 2010 goal of 97% of all women receiving a pap test.**

## Medical Check Ups

In 1999, 73.9% (95% CI=67.1%, 79.6%) of Snohomish County women age 18-44 years had a checkup within the year prior to the survey. The proportion increased slightly to 77% for women age 25-34 (95% CI=66.6%, 84.8%) and 35-44 years (95% CI=67.8%, 84.2%). Only 61.2% (95% CI=42.0%, 77.4%) of women age 18-24 years received a checkup in the prior year (Figure 10).

Seventy percent of Washington State women age 18-44 years had a medical checkup within a year. The proportion of women having a checkup did not change much when examined by age group, 71.0% for women age 25-34 years and 68.8% for both women age 18-24 years and 35-44 years. There were no significant differences between Snohomish County and Washington State.

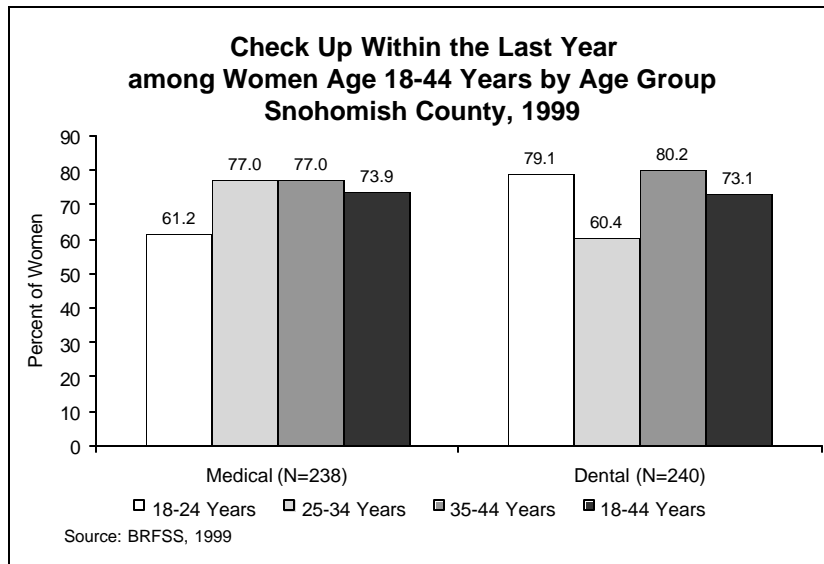


Figure 10

## Dental Check Ups

In 1999, 73.1% (95% CI=66.6%, 78.8%) of Snohomish County women age 18-44 years and 71.1% of Washington State women visited a dentist in the last year for a check up. Women age 25-34 years had the lowest proportion seeing a dentist (60.4%, 95% CI=49.2%, 70.5%), which was statistically different from Washington State (72.3%). Among the 18-24 and 35-44 year age groups in Snohomish County, 80% of each reported visiting a dentist for a check up in the last year (95% CI=60.7%, 90.3% and 95% CI=71.0%, 87.0%, respectively) (Figure 10). In Washington State, 69.5% of women age 18-24 years and 71.0% of women age 35-44 years reported seeing a dentist in the last year.



## Mental Health

The 1999 BRFSS asked a question about the number of bad mental health days a person experienced out of the last thirty, which included stress, depression, and problems with emotions. Forty percent (95% CI=33.0%, 46.5%) of women age 18-44 years in Snohomish County and 43.8% of Washington State women reported no bad mental health days.

Among women age 18-44 years, 45.2% in Snohomish County (95% CI=38.4%, 52.2%) and 40.8% in Washington State reported between 1-7 bad mental health days. However, by age group, in Snohomish County the proportion increased with age while in Washington State it decreased with age. In Snohomish County, women age 18-24 years reported the lowest proportion of 1-7 bad mental health days (35.3%, 95% CI=20.5%, 53.7%). The proportion increased to 46.8% (95% CI=36.0%, 57.8%) among women age 25-35 years and 48.6% (95% CI=38.7%, 58.6%) for those age 35-44 years. The remaining 15.3% (95% CI=10.8%, 21.2%) had 8-30 bad mental health days in a month. This proportion increased to 24.3% (95% CI=12.0%, 42.9%) among women age 18-24 years. Thirteen percent of women age 25-34 years (95% CI=7.3%, 22.2%) and 35-44 years (95% CI=7.3%, 21.5%) reported 8-30 bad mental health days.

In Washington State, women age 18-24 years had the highest proportion (52.9%) with 1-7 days bad mental health days. Among women age 25-34 years and 35-44 years, the proportion was 39.2% and 36.0% respectively. Those reporting 8-30 bad mental health days represented 15.4% of women age 18-44 years. This proportion changed very little when examined by age group.

Compared to Washington State, Snohomish County had a significantly higher proportion of women age 35-44 years that reported 1-7 bad mental health days and less that reported no bad mental health days. Other differences by age group were not statistically significant.

### Key Finding

- ◆ In the last 30 days, approximately 60% of women age 18-44 years reported having one or more bad mental health days.



## Intimate Partner Violence Data Source

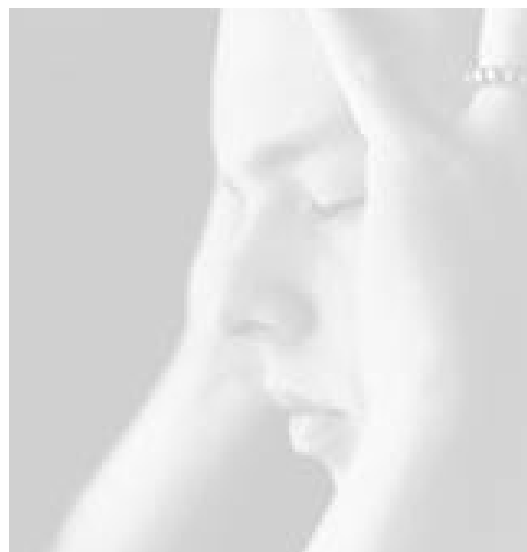
Accurate estimates of the prevalence of intimate partner violence are difficult to obtain. Abused people may be reluctant to admit it, individuals are seen by multiple agencies, and information is not collected in a systematic or reportable manner. Thus, estimates probably underestimate the true prevalence. Also, because methods for collecting information and definitions vary, comparisons are difficult.

The 1999 BRFSS (see Family Structure section, pg. 12) collected information on whether a person had been the victim of intimate partner violence. Of those surveyed in Snohomish County, 230 women age 18-44 years answered the domestic violence question. Since these numbers are small, estimates may have wide CIs.

The Centers for Disease Control (CDC) Youth Risk Behavior Survey (YRBS) was completed in schools that volunteered to participate. This survey collected information on health risk behaviors of youths such as smoking, alcohol use, and violence. Participation in the survey was voluntary in Snohomish County, not randomly selected, and is not likely to be a representative sample. Only seven schools in Snohomish County participated in 1999 for a total of 9,922 students from grades 6, 8, 10, and 12. High school students represented 42% of the survey respondents. Of female high-school students, 1,927 answered the question about intimate partner violence.

Washington State Department of Health also completed a *Youth Risk Behavior Survey* in 1999. Eight hundred and sixty-nine female high-school students in grades 10 and 12 answered the intimate partner violence question<sup>4</sup>.

Another source of data was the Washington State Department of Social and Health Services (DSHS), which reported the number of domestic violence arrests per 1,000 people 18 years and older. Because the information was acquired from a document prepared by another agency, the results could not be limited to women between the ages of 15-44 years<sup>5</sup>.



<sup>3</sup> Snohomish Health District. *Snohomish County Youth Risk Behavior Survey 1999*. March 2000.

<sup>4</sup> Washington State Department of Health. *Washington State Youth Risk Behavior Survey: 1999*. July 2000.

<sup>5</sup> Research and Data Analysis, Washington State Department of Social and Health Services. *1999 County Profile on Risk and Protection for Substance Abuse Prevention Planning In Snohomish County*, August 1999. DSHS Publication #4.33-31.

## Intimate Partner Violence

Information on partner abuse of women for 1999 in Snohomish County and Washington State was collected through the BRFSS and YRBS surveys. Although the data collection methodology is different for these surveys, the domestic violence question was nearly identical. Intimate partner violence was defined as being hit, slapped, shoved, choked, kicked, shaken or otherwise physically hurt by a partner. Washington State had a slightly higher proportion of women age 18-44 years reporting partner abuse in the last year, (3.4%) compared to Snohomish County (2.8%, 95% CI=1.1%, 6.8%). This difference was not statistically significant. When examined by age groups, the proportion reporting abuse decreased as age increased for both Snohomish County and Washington State. A much higher proportion of school age females reported domestic violence in Snohomish County (17.0%, 95% CI=15.3%, 18.7%) and Washington State (13.8%) than women age 18-44 years (Figure 11; Table 4, Appendix).

### Key Finding

- ◆ More school age females reported domestic violence than older women.

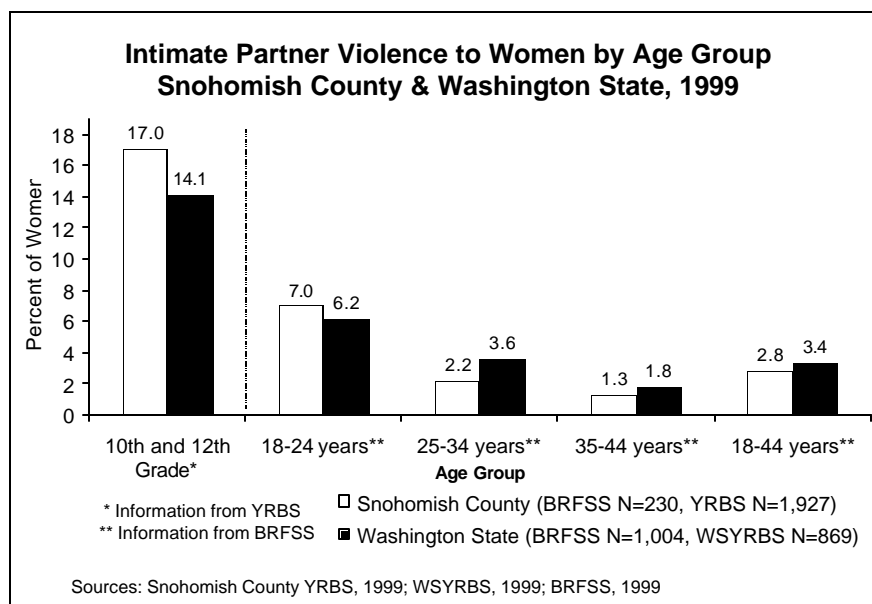


Figure 11

## Intimate Partner Violence

The targeted goal of Healthy People 2000<sup>2</sup> for domestic violence was 27 physical assaults per 1,000 adults. The goal for Healthy People 2010<sup>1</sup> changed the age of the population to include people 12 years and older and increased the goal to 3.3 physical assaults per 1,000.

A report from Washington State DSHS provided information on domestic violence by determining the rate of arrests for domestic violence in the population age 18 years and older. These rates were not limited to women and underestimate domestic violence because the rates are only for domestic violence that ends in an arrest. Snohomish County decreased slightly from a rate of 7.4 per 1,000 in 1990 to 7.1 per 1,000 in 1998. Washington State increased from a rate of 4.6 per 1,000 people in 1990 to 7.3 per 1,000 in 1998 (Figure 12).

### Key Finding

- ◆ **Snohomish County domestic violence arrest rates decreased slightly between 1990 and 1998.**

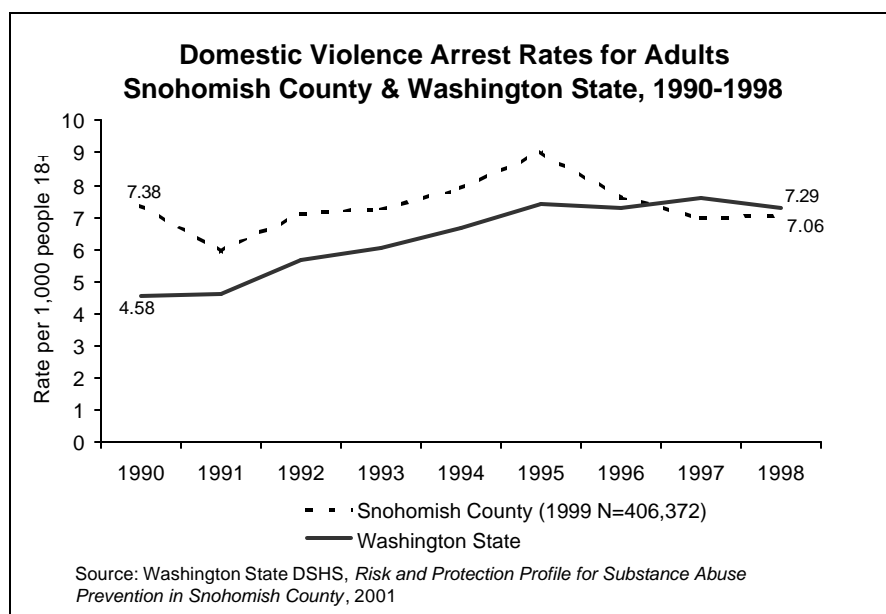


Figure 12

## Tobacco & Alcohol Use Data Source

The 1999 BRFSS (see Family Structure section, pg. 12) provided information on tobacco and alcohol use. Among women age 18-44 years, 238 in Snohomish County and 1,045 statewide answered the questions about tobacco use. Two hundred and forty Snohomish County women in this age group and 1,046 statewide answered questions pertaining to alcohol use. Six years of BRFSS data were combined to analyze the prevalence of smoking by race among Snohomish County women age 18-44 years. From 1994-1999 there were 1,828 women in that age group that answered both race and tobacco use questions.



## Current Smokers by Age

For adults age 18 years and older, Healthy People 2010<sup>1</sup> set a target goal of 12% for cigarette smoking (30-day use). In 1999, nearly one in four women age 18-44 years smoked cigarettes in Snohomish County and Washington State.

The highest rates in Snohomish County were among women in the 25-34 age group. Among this group, 35.1% (95% CI= 25.3%, 46.4%) smoked cigarettes, which is significantly higher than women of the same age group in Washington State (22.0%). In Washington State, the highest proportion of smokers was among women age 18-24 years (28.8%). For Snohomish County women age 35-44 years, a significantly lower proportion of women smoked (14.1%, 95% CI=8.4%, 22.9%) compared to Washington State (26.5%) (Figure 13; Table 5, Appendix).

### Key Finding

- ◆ The highest smoking rates in Snohomish County were among women age 25-34.

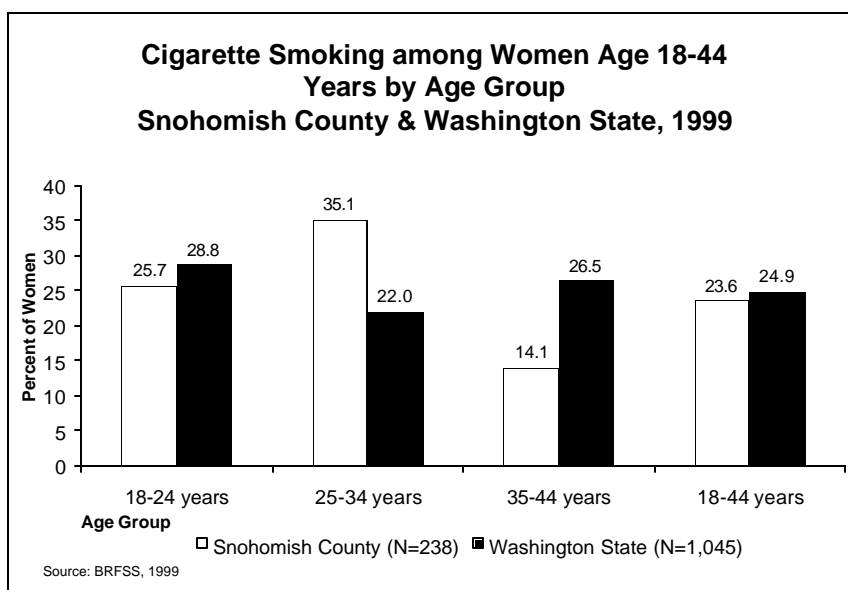


Figure 13

## Current Smokers by Race

For the years 1994-1999, the proportion of women who smoked cigarettes in Snohomish County varied by race and ethnicity. The results represent the percentage of women age 18-44 years within each racial or ethnic group that smoked cigarettes. Native Americans had the highest smoking incidence (43.5%, 95% CI=25.1%, 63.9%) and Asian/Pacific Islanders the lowest (12.8%, 95% CI=6.4%, 23.8%) (Figure 14; Table 6, Appendix).

Even though six years of data were combined for this analysis, the numbers for non-Whites were still small, which produced large variations in the proportion of smokers.

### Key Finding

- ◆ Native Americans had the highest smoking incidence in Snohomish County.

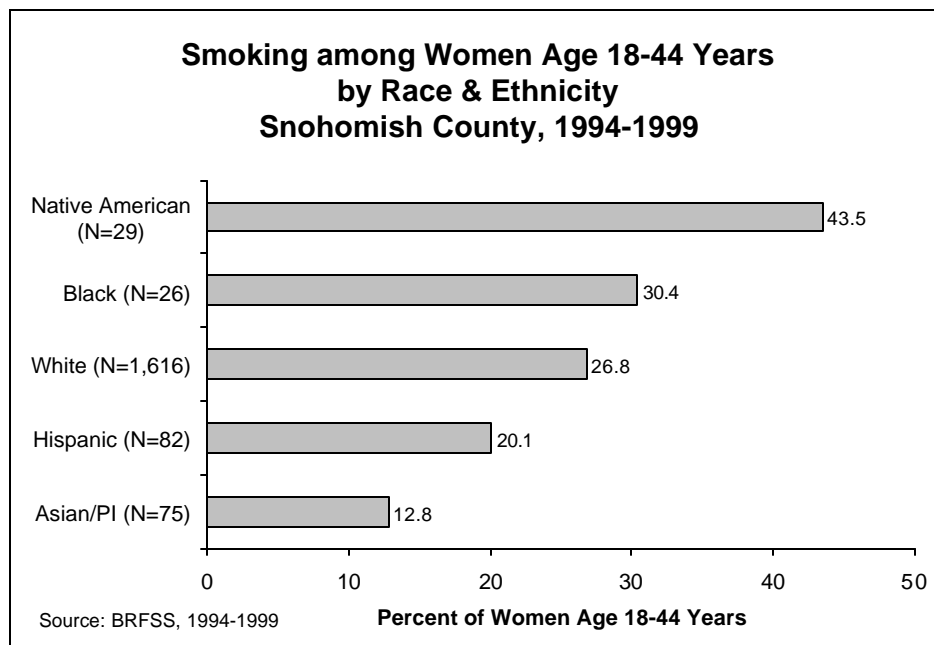


Figure 14

## Current Smokers by Marital Status, Education, & Smokers with Children

### MARITAL STATUS

The incidence of smoking cigarettes varied by marital status for women age 18-44 years. In Snohomish County, women who were members of a non-married couple had the lowest proportion (10.8%, 95% CI=2.4%, 37.8%) of smokers, while in Washington State married women had the lowest proportion (18.4%). In Snohomish County, the highest proportion smoking was found among divorcees (55.4%, 95% CI=35.6%, 73.7%). In Washington State, widowed women had the highest percent of smokers (51.5%) followed by divorced women (42.2%). Of Snohomish County women age 18-44 years who were widowed, there were no smokers (Figure 15). However, the sample size of widows was very small.

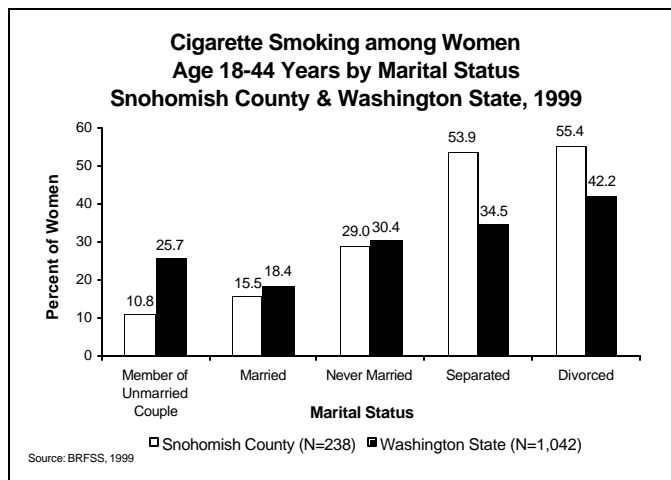


Figure 15

### EDUCATION

Cigarette smoking among women age 18-44 years was inversely proportional to education level. Nearly half (48.1%, 95% CI=20.1%, 77.4%) of the women in Snohomish County who had not completed high school smoked cigarettes. The proportion was higher in Washington State (54.9%), but was not a lot different. The lowest proportion of smokers was among women with a college degree, 8.2% in Snohomish County (95% CI=3.5%, 18.0%) and 10.1% in Washington State (Figure 16).

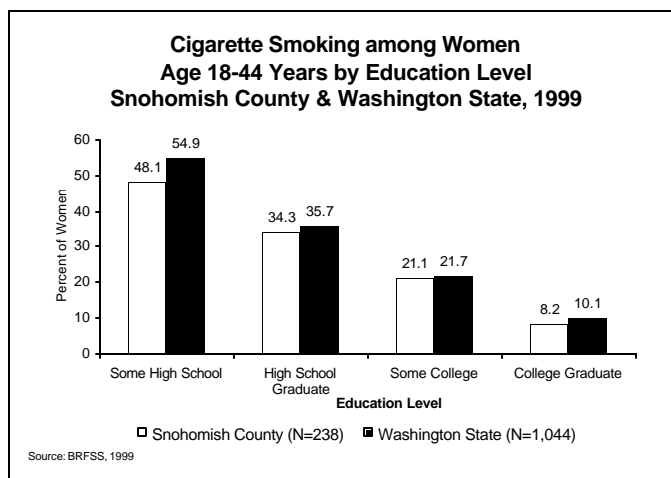


Figure 16

### SMOKERS WITH CHILDREN

Since secondhand tobacco smoke is an important risk factor for children, women age 18-44 years who had children living with them were compared to those who did not have children. Although fewer women with children in Snohomish County smoked cigarettes (21.4%, 95% CI=15.4%, 28.8%) compared to women without children (27.8%), the results were not statistically significant. Similarly, 23.7% of Washington State women with children living with them smoked cigarettes, while 27.2% of women without children living with them smoked cigarettes.

## Alcohol Use by Age

In 1999, 62.3% (95% CI=55.2%, 68.8%) of women age 18-44 years in Snohomish County reported using alcohol in the month prior to the survey. In Washington State this proportion was 60.2% (95% CI=56.6%, 63.8%). The lowest proportion of alcohol use in both Snohomish County and Washington State was in 18-24 year old women. However, there were no significant differences between Snohomish County and Washington State by age group (Figure 17; Table 7, Appendix).

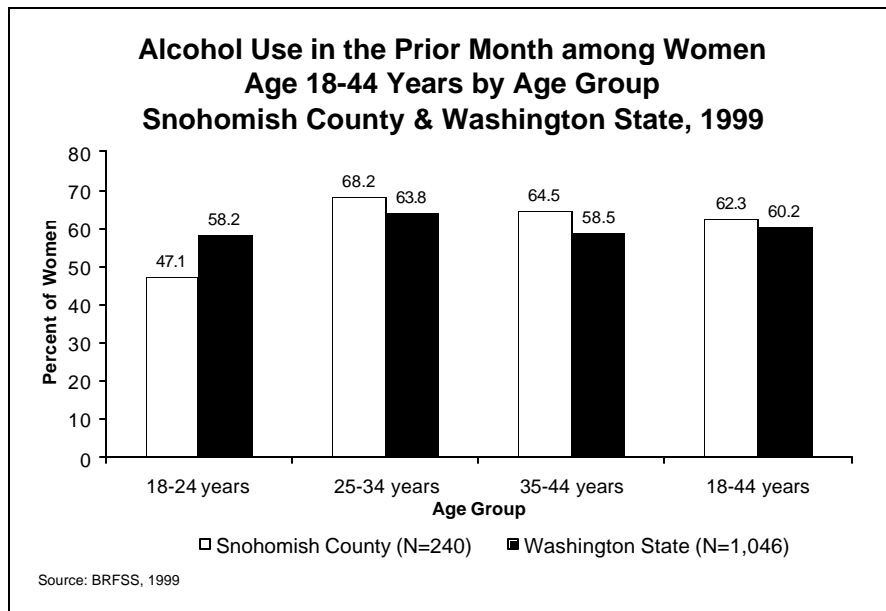
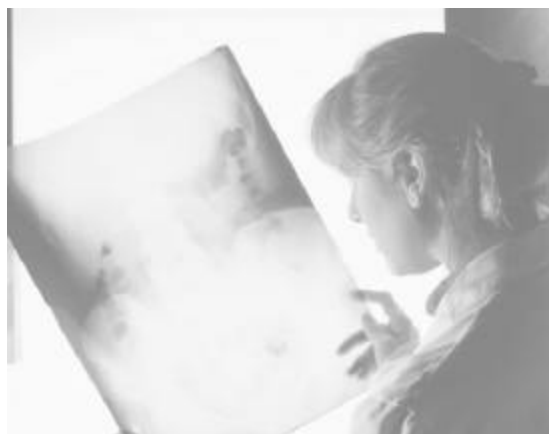


Figure 17

## Hospitalization Data Source

Counts of hospitalizations and underlying causes of the hospitalization were collected in the Comprehensive Hospital Abstract Reporting System (CHARS). This database, maintained by Washington State Department of Health, provided information about the disposition of inpatients.



# Hospitalizations

## Hospitalizations

During 1999, there was a total of 52,547 hospitalizations in Snohomish County and 530,438 in Washington State. Of those, 25.5% and 23.3% were for women age 15-44 years in Snohomish County and Washington State, respectively. The distribution of hospitalizations by age group was similar for Snohomish County and Washington State. The largest proportion of hospitalizations was in women 20-34 years of age (Figure 18).

The 1999 hospitalization rate for women age 15-44 years was significantly higher in Snohomish County (10,460 per 100,000, 95% CI= 10,284, 10,639, N=128,104) than Washington State (9,917 per 100,000, 95% CI=9,862, 9,972, N=1,245,309). Compared to Washington State rates by age group, Snohomish County women age 20-34 years had a significantly higher hospitalization rate (Table 8; Appendix).

### Key Findings

- ◆ The largest proportion of hospitalizations was in women 20-34 years of age.
- ◆ In Snohomish County, women age 20-34 years had a significantly higher hospitalization rate than in Washington State.

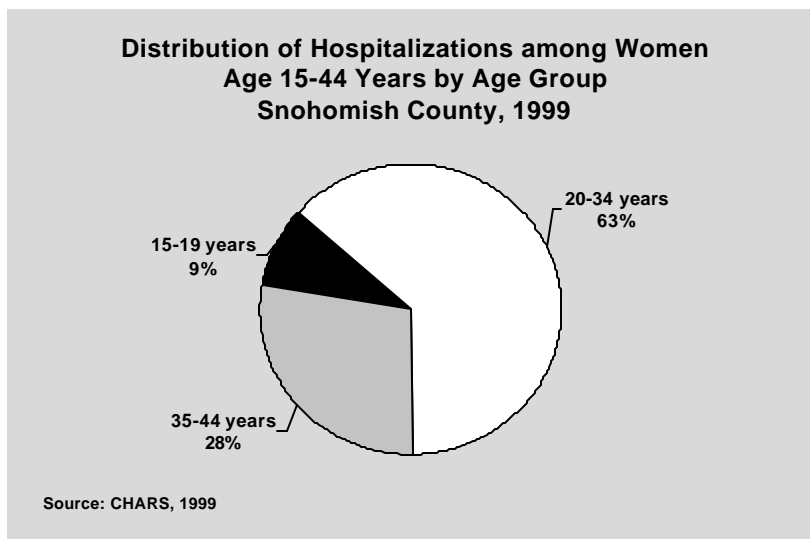


Figure 18

## Hospitalizations

Pregnancy is the main cause of hospitalization among women age 15-44 years. The differences between Snohomish County and Washington State hospitalization rates may be due to differences in fertility rates. Snohomish County had significantly higher fertility rates for women age 15-44 years (63.4 births per 1,000 women, 95% CI=62.0, 64.7) and women age 20-34 years (110.0 births per 1,000 women, 95% CI=107.3, 112.6) compared to Washington State (61.7 and 100.8, respectively). Young women age 15-19 years in Snohomish County had lower fertility rates (35.4 births per 1,000 women, 95% CI=32.9, 38.1) than Washington State women of the same age group (40.7). There was no difference among those age 35-44 years.

Between 1990-1999 for all age groups there were statistically significant decreasing trends ( $p < 0.001$ ) in hospitalizations for both Snohomish County and Washington State (Figures 19 and 20).

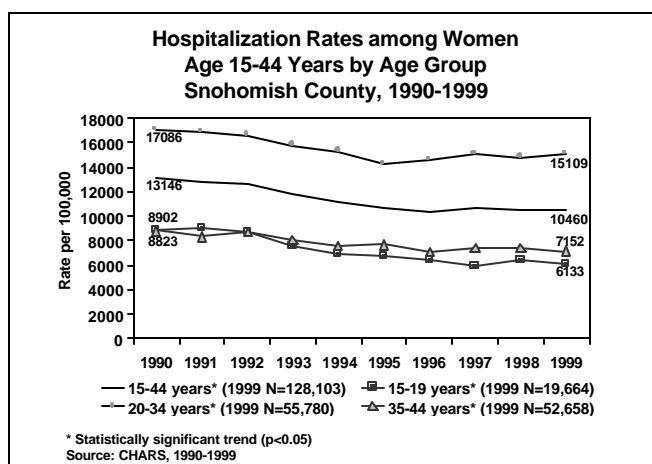


Figure 19

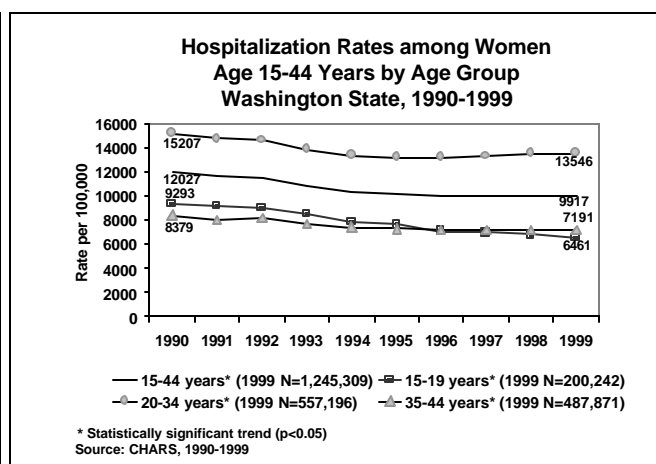


Figure 20

## Leading Causes

The 10 leading causes of hospitalization among women age 15-44 years were the same in both Snohomish County and Washington State, although in different orders (Figures 21 and 22). Not unexpectedly, during 1999 the leading causes of hospitalization of women age 15-44 years in both Snohomish County and Washington State were childbirth and pregnancy related complications. Sixty-one percent of hospitalizations in Snohomish County were for childbirth. Another 13.4% were for pregnancy complications. In Washington State, 57.5% of hospitalizations were for childbirth and 12.2% for pregnancy complications. Pregnancy complications included health problems such as pelvic infections, hemorrhage, premature separation of the placenta, pre-eclampsia, and metabolic disorders. Snohomish County rates for its leading five causes of hospitalization were significantly higher than Washington State rates. The leading five causes in Snohomish County were childbirth, pregnancy complications, genitourinary disease, unintentional injuries, and pregnancy induced hypertension. Rates of hospitalization were significantly lower in Snohomish County compared to Washington State for psychoses, illicit drug related illness, and alcohol related illness.

### Key Finding

- During 1999, the leading causes of hospitalization of women age 15-44 years in both Snohomish County and Washington State were childbirth and pregnancy complications.

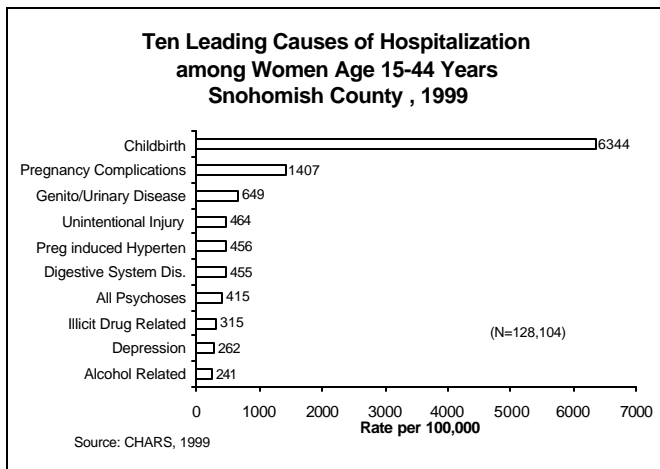


Figure 21



Figure 22

## Leading Causes

When leading causes of hospitalization were examined by age group, women age 15-19 years in Snohomish County were not significantly different from Washington State. Snohomish County women age 20-34 years had higher rates of hospitalization for childbirth, pregnancy complications, and pregnancy induced hypertension. Only among women age 35-44 years was pregnancy complications not the second leading cause of hospitalization (for these women it was genitourinary disorders). Women age 35-44 years in Snohomish County had higher rates for genitourinary disease and pregnancy complications compared to Washington State statistics (Figures 23 and 24). These rate differences were statistically significant (Table 8, Appendix).

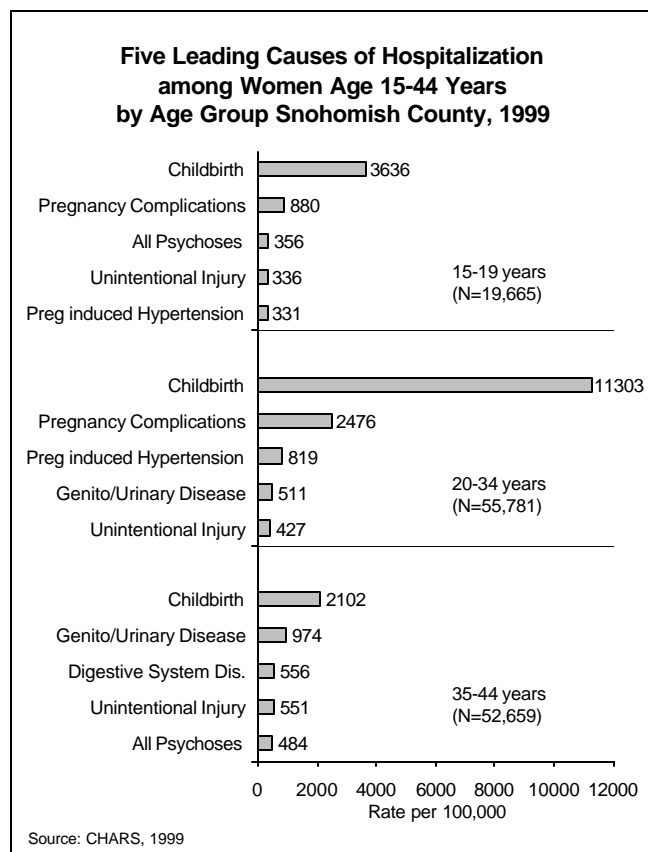


Figure 23

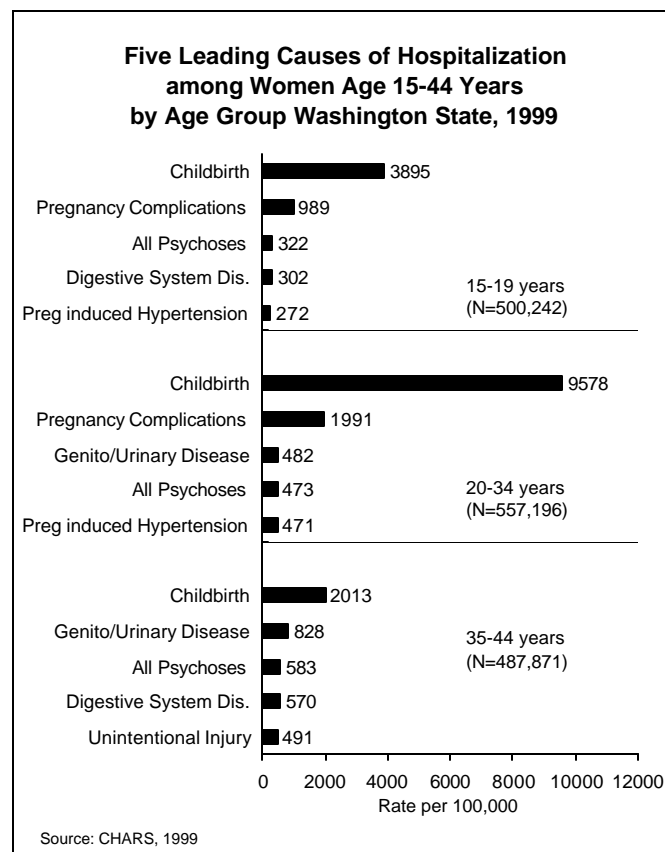


Figure 24

## Pregnancy Complications

Within the cause “pregnancy complications” the leading category of hospitalization for pregnancy complications in women age 15-44 years in Snohomish County was the presence of hypertension. The second category was pre-existing conditions that included conditions such as diabetes, anemia, drug dependence, and cardiovascular disease. The other leading categories of pregnancy complication hospitalizations in Snohomish County were early onset of delivery, pre-eclampsia, and threatened premature labor. For women age 15-44 years, Snohomish County had a significantly higher rate than Washington State for hypertension as a pregnancy complication leading to hospitalization (Sno Co 272.1 per 100,000, 95% CI=244.9, 301.6; WA State 216.0 per 100,000, respectively). Rates of the other four leading categories of pregnancy complication hospitalizations in Snohomish County were significantly lower than Washington State. Washington State women age 15-44 years had the same five leading categories of pregnancy complications leading to hospitalization (Table 9, Appendix). When Snohomish County was examined by age group, the same five causes were the leading causes of pregnancy complication hospitalizations.



## Mortality Data Source

Death counts were obtained from the Washington Department of Health, Center for Health Statistics. Death certificates were used to count deaths and their causes.

In 1999, International Classification of Diseases (ICD) codes used to classify causes of death changed from ICD-9 to ICD-10. Comparability ratios were applied to convert ICD-10 1999 causes of death to ICD-9. The adjustment made a minimal difference and the order of leading causes of death was not affected.



## Mortality

Snohomish County had a significantly lower death rate for women age 15-44 years (53.1 per 100,000, 95% CI= 41.5, 66.9) than Washington State (70.5 per 100,000) in 1999. As expected, the death rate increased with age. When examined by age group, only Snohomish County women age 20-34 years had a significantly lower death rate compared to the Washington State rate in 1999. Even though Snohomish County death rates were lower in women age 15-19 and 35-44 years compared to those state-wide, the differences were not statistically significant (Tables 10 and 11, Appendix).

Trends in the death rates between 1990 and 1999 for women age 15-44 years were not significant (Figure 25). There was, however, a statistically significant decrease in death rates for women age 15-19 years in both Snohomish County ( $p=0.001$ ) and Washington State ( $p=0.001$ ). While the death rate for Snohomish County women age 35-44 years did not change between 1990-1999, Washington State women age 35-44 years had a statistically significant ( $p=0.017$ ) increase. Trends for the remaining age groups did not change (Figures 26-28).

### Key Findings

- ◆ When examined by age group, only Snohomish County women age 20-34 years had a significantly lower death rate compared to Washington State.

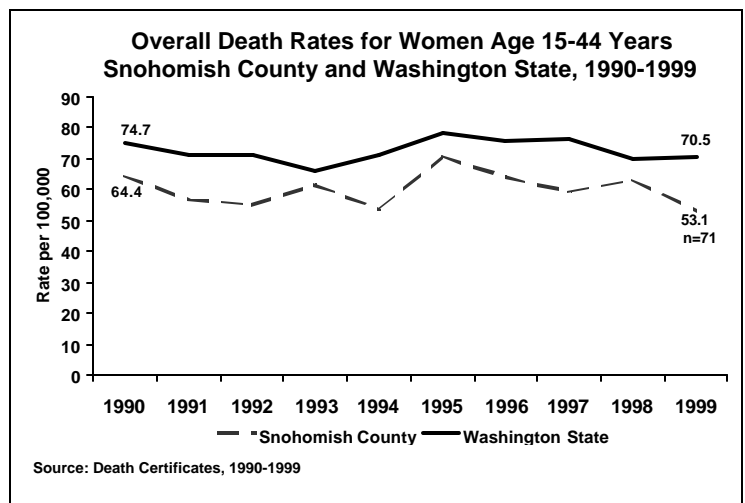


Figure 25

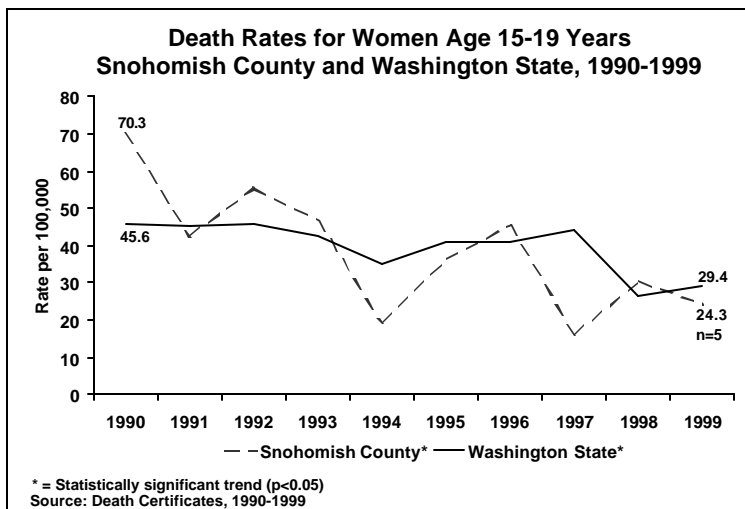


Figure 26

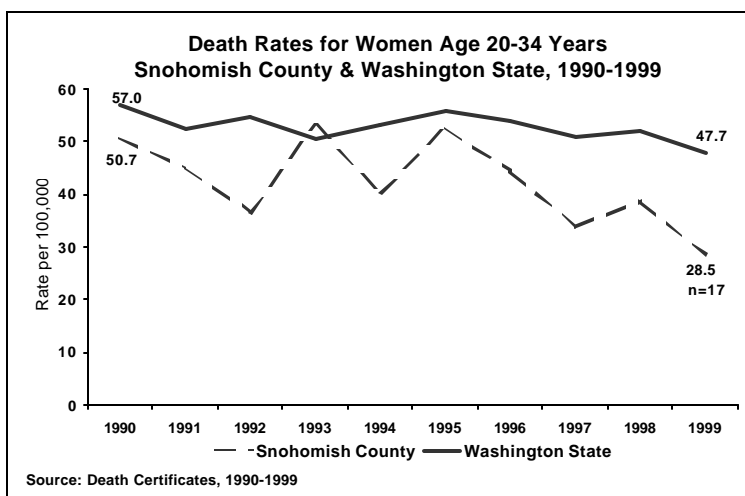


Figure 27

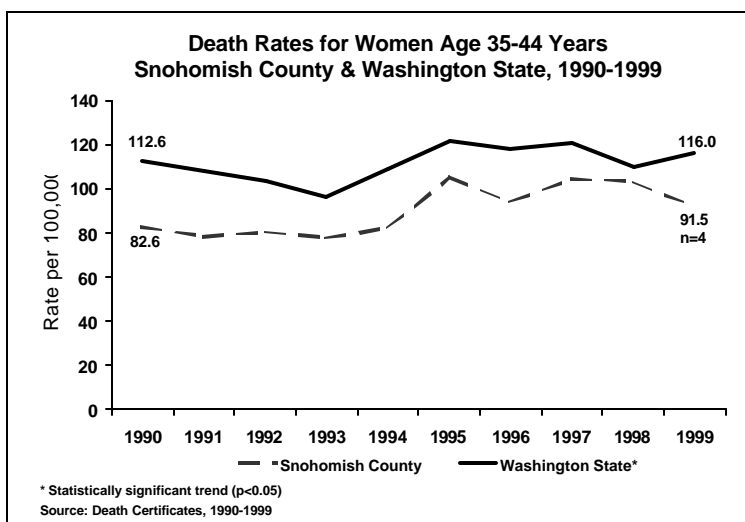


Figure 28

## Leading Causes

In 1999, the top two leading causes of death among all women age 15-44 years in both Snohomish County and Washington State were malignant neoplasms (cancers) and accidents (Figure 29). Snohomish County was not significantly different from Washington State. By age group, accidents were the number one cause of death for women under 35 years of age, but ranked as the second leading cause in women age 35-44 years (Tables 10 and 11, Appendix).

Five years of data were compiled to examine the types of cancer and accidents that caused deaths in Snohomish County. Even though these aggregate data were used, the deaths by specific causes were small. From 1995-1999 breast cancer was the leading cause of death from cancer (3.5 per 100,000, 95% CI=2.2, 5.2, deaths=22). Cancer of the brain, meninges, or central nervous system was second (1.7 per 100,000, 95% CI=0.8, 3.0, deaths=11) followed by cancer of the trachea, bronchus or lung (1.5 per 100,000, 95% CI=0.7, 2.8, deaths=10). All other types of cancer had fewer than 10 occurrences in the combined five-year period.

### Key Finding

- ◆ The leading causes of death in both Snohomish County and Washington State were cancer and accidents.

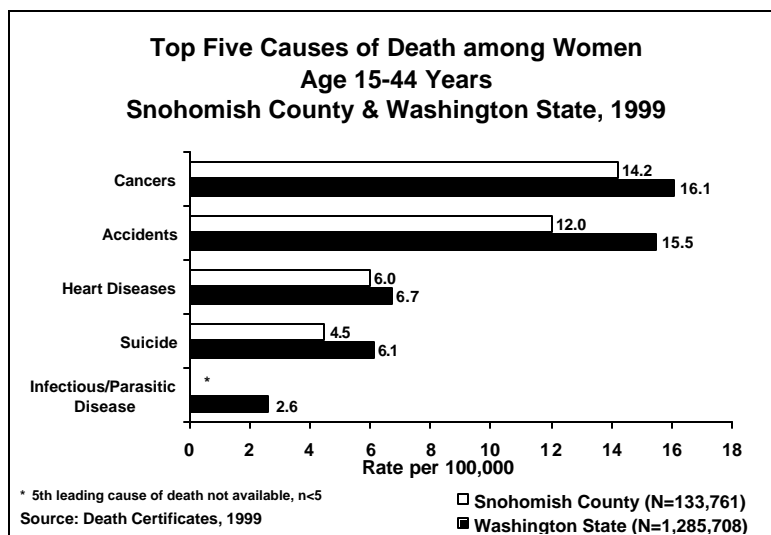


Figure 29

## Leading Causes

The leading cause of death from accidents in 1995-1999 was motor vehicle accidents (6.5 per 100,000, 95% CI=4.7, 8.8, deaths=42). Accidental poisoning or exposure to a noxious substance was the second leading cause (3.6 per 100,000, 95% CI=2.3, 5.4, deaths=23). All other specific types of accidents had five or fewer occurrences during the five-year period.

Among women age 15-44 years in Washington State during 1999, cardiovascular disease was the leading cause of death in Blacks (31.0 per 100,000, 95% CI=17.0, 52.0, deaths=14) and Asian/Pacific Islanders (7.1 per 100,000, 95% CI=2.6, 15.3, deaths=6). It was the second leading cause of death for Native Americans (30.4 per 100,000, 95% CI=13.1, 59.5, deaths=8). The number one cause of death among Native Americans was accidents (53.2 per 100,000, 95% CI=29.2, 89.1, deaths=14). Causes and rates of death by race in Snohomish County were not presented due to the small number of occurrences (Tables 12 and 13, Appendix).





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# Appendix

**Table 1. Marital Status among Women Age 18-44 Years by Age Group, Snohomish County, 1999**

Marital Status	18-44 Years (N=240)		18-24 Years (N=37)		25-34 Years (N=90)		35-44 Years (N=113)	
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
Married	56.5	49.4, 63.2	19.1	9.5, 34.8	65.1	54.0, 74.8	66.6	57.0, 75.0
Divorced	9.9	6.7, 14.4	0		12.2	6.9, 20.6	12.6	7.4, 20.6
Widowed	0.8	0.2, 3.5	0		0		1.8	0.4, 7.6
Separated	4.0	2.1, 7.4	1.2	0.3, 4.8	2.2	0.5, 9.8	6.7	3.2, 13.2
Never Married	23.4	17.7, 30.3	75.0	57.8, 86.8	13.1	7.4, 22.0	8.2	4.5, 14.3
Unmarried Couple	5.4	2.9, 10.0	4.7	0.7, 27.0	7.5	2.9, 17.9	4.2	1.8, 9.5

\* 95% Confidence Interval  
Source: BRFSS, 1999

**Table 2. Federal Poverty Level Status among Women Age 18-44 Years by Age Group, Snohomish County, 1999**

Age Group	Number Living Below 200% of Poverty	N	% Living Below 200% of Poverty	95% CI*
18-44 Years	56	214	26.6	19.9, 33.2
18-24 Years	13	28	44.4	23.0, 65.3
25-34 Years	22	83	24.8	14.6, 35.0
35-44 Years	21	103	21.9	13.0, 30.8

\* 95% Confidence Interval  
Source: BRFSS, 1999

**Table 3. Skipping a Meal Because of Lacking Food or Money among Women Age 18-44 Years by Age Group, Snohomish County and Washington State, 1999**

Snohomish County					Washington State
Age Group	Number Skipped a Meal	N	% Skipped a Meal	95% CI*	% Skipped a Meal
18-44 Years	19	237	6.3	3.8, 10.4	5.4
18-24 Years	4	37	9.9	3.1, 27.4	10.2
25-34 Years	8	89	6.9	3.2, 13.8	5.1
35-44 Years	7	111	4.2	2.0, 9.0	3.2

\* 95% Confidence Interval  
Source: BRFSS, 1999

**Table 4. Intimate Partner Violence among Women by Age Group, Snohomish County and Washington State, 1999**

Snohomish County					Washington State
Age Group	Number Who Reported Domestic Violence	N	Percent	95% CI*	Percent
10 <sup>th</sup> and 12 <sup>th</sup> Grade <sup>†</sup>	327	1927	17.0	15.3, 18.7	14.1
18-44 years	7	230	2.8	1.1, 6.8	3.4
18-24 years	3	36	7.0	1.5, 26.8	6.2
25-34 years	3	88	2.2	0.7, 7.4	3.6
35-44 years	1	106	1.3	0.2, 8.9	1.8

\* 95% Confidence Interval  
† Female students in 10<sup>th</sup> and 12<sup>th</sup> grade who completed the YRBS.  
Source: BRFSS, 1999 and YRBS, 1999

**Table 5. Current Smoking among Women Age 18-44 Years by Age Group, Snohomish County and Washington State, 1999**

Age Group	Snohomish County				Washington State
	Number Who Smoked in the Last Month	N	% Who Smoked a Cigarette in the Last Month	95% CI*	% Who Smoked a Cigarette in the Last Month
18-44 years	56	238	23.6	18.2, 30.1	24.9
18-24 years	9	36	25.7	12.6, 45.4	28.8
25-34 years	30	89	35.1	25.3, 46.4	22.0
35-44 years	17	113	14.1	8.4, 22.9	26.5

\* 95% Confidence Interval  
Source: BRFSS, 1999

**Table 6. Current Smoking among Women Age 18-44 Years by Race and Ethnicity, Snohomish County, 1994-1999**

Race	Number Who Smoked in the Last Month	N	% Who Smoked in the Last Month	95% CI*
White	430	1616	26.8	24.4, 29.3
Black	8	26	30.4	13.7, 54.8
Native American	12	29	43.5	25.1, 63.9
Asian/PI <sup>†</sup>	9	75	12.8	6.4, 23.8
<b>Ethnicity</b>				
Hispanic	15	82	20.1	11.0, 33.7

\* 95% Confidence Interval  
† Pacific Islanders  
Source: BRFSS, 1999

**Table 7. Current Alcohol Use among Women Age 18-44 Years by Age Group, Snohomish County and Washington State, 1999**

Age Group	Snohomish County				Washington State
	Number Who Used Alcohol in the Last Month	N	% Who Used Alcohol in the Last Month	95% CI*	% Who Used Alcohol in the Last Month
18-44 years	154	240	62.3	55.2, 68.8	60.2
18-24 years	118	37	47.1	29.5, 65.5	58.2
25-34 years	61	90	68.2	57.0, 77.7	63.8
35-44 years	75	113	64.5	54.5, 73.4	58.8

\* 95% Confidence Interval  
Source: BRFSS, 1999

**Table 8. Leading Causes of Hospitalization among Women by Age Group\*, Snohomish County and Washington State, 1999**

Age Group	Snohomish County				Washington State	
	Cause of Hospitalization	Number Hospitalized	Rate per 100,000	95% CI†	Cause of Hospitalization	Rate per 100,000
15-44 years	Total (N=128,104)	13,400	10,460	10,284, 10,639	Total (N=1,245,309)	9,917
	Childbirth	8,127	6,344	6,207, 6,484	Childbirth	5,700
	Pregnancy Complications	1,802	1,407	1,343, 1,473	Pregnancy Complications	1,211
	Genitourinary Disorder	831	649	605, 694	Genitourinary Disorder	572
	Unintentional Injury	594	464	427, 503	Psychoses	492
	Pregnancy Induced Hypertension	584	456	420, 494	Digestive Disorder	461
15-19 years	Total (N= 19,665)	1,206	6,133	5,792, 6,489	Total (N= 200,242)	6,460
	Childbirth	715	3,636	3,375, 3,913	Childbirth	3,894
	Pregnancy Complications	173	880	734, 1,021	Pregnancy Complications	989
	Psychoses	70	356	278, 450	Psychoses	321
	Unintentional Injury	66	336	260, 427	Digestive Disorder	301
	Pregnancy Induced Hypertension	65	331	255, 421	Pregnancy Induced Hypertension	271
20-34 years	Total (N= 55,781)	8,428	15,109	14,788, 15,435	Total (N= 557,196)	13,546
	Childbirth	6,305	11,303	11,026, 11,586	Childbirth	9,578
	Pregnancy Complications	1,381	2,476	2,347, 2,610	Pregnancy Complications	1,991
	Pregnancy Induced Hypertension	457	820	746, 898	Genitourinary Disorder	482
	Genitourinary Disorder	285	511	453, 574	Psychoses	473
	Unintentional Injury	238	427	374, 485	Pregnancy Induced Hypertension	471
35-44 years	Total (N= 52,659)	3,766	7,152	6,925, 7,384	Total (N= 487,871)	7,191
	Childbirth	1,107	2,102	1,980, 2,230	Childbirth	2,013
	Genitourinary Disorder	513	974	892, 1,062	Genitourinary Disorder	828
	Digestive Disorder	293	556	495, 624	Psychoses	583
	Unintentional Injury	290	551	489, 618	Digestive Disorder	570
	Psychoses	255	484	427, 548	Unintentional Injury	491

\* Denominator determined using 1990 US Census statistics

† 95% Confidence Interval

Source: Comprehensive Hospital Abstract Reporting System: WA State Department of Health

**Table 9. Leading Causes of Pregnancy Complication Hospitalizations, Snohomish County and Washington State\*, 1999**

Snohomish County				Washington State	
Cause of Pregnancy Complication	Number Hospitalized	Rate per 100,000	95% CI†	Cause of Pregnancy Complication	Rate per 100,000
Total (N=133,761)	1,221	912.8	832.5, 965.2	Total (N=1,285,708)	912.8
Hypertension	364	272.1	244.9, 301.6	Current Conditions	380.0
Current Conditions	344	257.2	230.8, 285.8	Hypertension	216.0
Early Delivery	135	100.9	84.6, 119.5	Early Delivery	158.8
Pre-eclampsia	121	90.5	75.0, 108.0	Premature Labor	125.2
Premature Labor	81	60.6	48.1, 75.3	Pre-eclampsia	118.2

\* Denominator determined using preliminary 2000 US Census statistics

† 95% Confidence Interval

Source: Comprehensive Hospital Abstract Reporting System: WA State Department of Health

**Table 10. Leading Causes of Death among Women by Age Group\*, Snohomish County, 1999**

Age Group	Cause of Death	Number of Deaths	Rate per 100,000	95% CI <sup>†</sup>
15-44 Years <sup>‡</sup> (N= 133,761)	Total	71	53.1	41.5, 66.9
	Malignant Neoplasms	19	14.2	8.6, 22.2
	Accidents	16	12.0	6.8, 19.4
	Heart Disease	8	6.0	2.6, 11.7
	Suicide	6	4.5	1.6, 9.6
15-19 years <sup>‡</sup> (N= 20,615)	Total	5	24.3	7.8, 55.7
20-34 years <sup>‡</sup> (N= 59,575)	Total	17	28.5	16.6, 45.6
	Accidents	5	8.4	2.7, 19.3
35-44 years <sup>‡</sup> (N= 53,571)	Total	49	91.5	67.7, 121.0
	Malignant Neoplasms	16	29.9	17.1, 48.4
	Accidents	10	18.7	9.0, 34.2
	Heart Disease	5	9.3	3.0, 21.4

\* Denominator determined using preliminary 2000 US Census statistics

† 95% Confidence Interval

‡ Unable to provide further causes of death because n<5, rates cannot be calculated

Source: Death certificates: WA State Department of Health

**Table 11. Leading Causes of Death among Women by Age Group\*, Washington State, 1999**

Age Group	Cause of Death	Number of Deaths	Rate per 100,000	95% CI <sup>†</sup>
15-44 years (N= 1,285,708)	Total (N=1,285,708)	907	70.5	66.0, 75.3
	Malignant Neoplasms	207	16.1	14.0, 18.4
	Accidents	199	15.5	13.4, 17.8
	Heart Disease	86	6.7	5.4, 8.3
	Suicide	78	6.1	4.8, 7.6
	Infectious/Parasitic Dis.	34	2.6	1.8, 3.7
15-19 years <sup>‡</sup> (N= 207,214)	Total	61	29.4	22.5, 37.8
	Accidents	21	10.1	6.3, 15.5
	Suicide	14	6.8	3.7, 11.3
	Homicide	6	2.9	1.1, 6.2
20-34 years (N= 593,197)	Total	283	47.7	42.3, 53.6
	Accidents	83	14.0	11.2, 17.3
	Malignant Neoplasms	36	6.1	4.3, 8.4
	Suicide	31	5.2	3.6, 7.4
	Heart Disease	27	4.6	3.0, 6.6
	Homicide	14	2.4	1.3, 4.0
35-44 years (N=485,297)	Total	563	116.0	106.6, 126.0
	Malignant Neoplasms	167	34.4	29.4, 40.0
	Accidents	95	19.6	15.8, 23.9
	Heart Disease	58	12.0	9.1, 15.4
	Suicide	33	6.8	4.7, 9.6
	Infectious/Parasitic Dis.	23	4.7	3.0, 7.1

\* Denominator determined using preliminary 2000 US Census statistics

† 95% Confidence Interval

‡ Unable to provide further causes of death because n<5, rates cannot be calculated

Source: Death certificates: WA State Department of Health

**Table 12. Leading Causes of Death among Women Age 15-44 Years by Race\*†, Snohomish County, 1999**

Race	Cause of Death	Number of Deaths	Rate per 100,000	95% CI‡
White§ (N=50,833)	Total	65	55.6	43.0, 70.9
	Malignant Neoplasms	18	15.4	9.1, 24.3
	Accidents	15	12.8	7.2, 21.1
	Cardiovascular Disease	9	7.7	3.5, 14.5
	Suicide	6	4.3	1.9, 11.0
Asian/ PI§¶ (N=7,170)	Total	5	69.7	22.6, 160.1

\* Denominator determined using 1990 US Census statistics

† Unable to calculate rates for Black, Native American, and Hispanic, n<5

‡ 95% Confidence Interval

§ Unable to provide further causes of death because n<5, rates cannot be calculated

¶ Pacific Islanders

Source: Death certificates: WA State Department of Health

**Table 13. Leading Causes of Death among Women Age 15-44 Years by Race\* and Ethnicity\*, Washington State, 1999**

Race	Cause of Death	Number of Deaths	Rate per 100,000	95% CI <sup>†</sup>
White (N=1,089,427)	Total	760	69.8	64.9, 74.9
	Malignant Neoplasms	184	16.9	14.5, 19.5
	Unintentional Accidents	169	15.5	13.3, 18.0
	Cardiovascular Disease	88	8.1	6.5, 9.9
	Suicide	69	6.3	4.9, 8.0
	Homicide	24	2.2	1.4, 3.3
Black <sup>‡</sup> (N=45,092)	Total	61	135.3	103.5, 173.7
	Cardiovascular Disease	14	31.0	17.0, 52.0
	Malignant Neoplasms	13	28.8	15.4, 49.2
	Unintentional Accidents	9	20.0	9.1, 37.7
	Homicide	5	11.1	3.6, 25.5
Native American <sup>‡</sup> (N=26,295)	Total	46	174.9	128.2, 233.5
	Accidents	14	53.2	29.2, 89.1
	Cardiovascular Disease	8	30.4	13.1, 59.5
Asian/ PI <sup>¶</sup> (N=84,495)	Total	39	46.2	32.9, 63.1
	Malignant Neoplasms	6	7.1	2.6, 15.3
	Cardiovascular Disease	6	7.1	2.6, 15.3
	Unintentional Accidents	6	7.1	2.6, 15.3
	Infectious/Parasitic Dis.	5	5.9	1.9, 13.6
	Suicide	5	5.9	1.9, 13.6
<b>Ethnicity</b>				
Hispanic <sup>‡</sup> (N=80,283)	Total	57	71.0	53.8, 91.9
	Unintentional Accident	12	14.9	7.7, 26.0
	Malignant Neoplasms	9	11.2	5.1, 21.2
	Cardiovascular Disease	7	8.7	3.5, 17.8
	Infectious/Parasitic Dis.	6	7.5	2.7, 16.1

\* Denominator determined using 1990 US Census statistics

† 95% Confidence Interval

‡ Unable to provide further causes of death because n&lt;5, rates cannot be calculated

¶ Pacific Islanders

Source: Death certificates: WA State Department of Health

