Dear Community Partners,

The health of Snohomish County residents is a high priority for our community. The Snohomish County Public Health Advisory Council has just completed a year-long process of examining and prioritizing health issues for our county. This report outlines the results of the Community Health Assessment process we used to measure the health of our residents and to select issues for future action. The foundation of our work was an analysis of health data, and we also took input from a wide range of community partners. The Council proudly serves as the steering committee for this work. The work reported in this publication will be instrumental to fulfilling the Council’s role of advising the Board of Health on pressing health issues in Snohomish County. Our process embraced community participation to help us identify priority health issues.

The next phase is to develop Community Health Improvement Plans to address key issues. Such plans will identify effective community-based programs and policies that will have the largest impact on meeting the health needs of Snohomish County.

The goal of this Community Report Card is to raise awareness about the health of Snohomish County and encourage community partners to collaborate and take action to address priority issues. It will take the whole community to make a difference in addressing the priority issues that have been selected.

Our community has a long history of working together to develop plans and implement strategies that make Snohomish County a great place to live and work. Together we can have a positive impact on the health of Snohomish County. The future is ours to create.

Sincerely,

Terry Clark, MEd, Chair
Snohomish County Public Health Advisory Council

Gary Goldbaum, MD, MPH
Health Officer
Snohomish Health District

PS: More information is available at www.snohd.org
In the Report Card

1 Scoring
   Demographics

2 General Health
   Overall mortality
   Childhood mortality
   Fair or poor health
   Days poor health interfered with daily activities
   Disability
   Years of healthy life at age 20
   Inadequate sleep

3 Substance Use
   Youth & adult smoking
   Youth & adult binge drinking
   Adult heavy drinking
   Youth illegal drug use
   Youth prescription drug abuse

4 Mental Health
   Youth & adult depression symptoms
   Inadequate social support
   Suicide

5&6 Chronic Disease
   Diabetes
   Heart disease mortality
   Cancer mortality
   Mammogram past two years
   Pap test past 3 years
   Colorectal screening past 5 years
   Youth asthma
   Youth dental decay
   Youth & adult adequate fruits & vegetables
   Youth & adult adequate physical activity
   Youth & adult obesity

7 Environmental Health
   Impaired bodies of water
   Particulate matter
   Smoke-free homes
   Nitrate levels in public water source
   Solid waste recycled
   Illegal dumping
   Toxic releases
   Campylobacteriosis
   Shiga toxin producing E. coli
   Salmonellosis

8 Access
   Have health insurance
   Have primary care provider
   No health care exam past 2 years (adults)
   No medical visit due to cost
   Youth & adult dental visit past year
   Medical visit past year (youth)

9 Communicable Disease
   Chlamydia
   Influenza immunization & hospitalizations
   Active tuberculosis cases
   Pertussis
   Hepatitis C
   Children without full vaccines entering kindergarten

10 Maternal & Child Health
    Teen pregnancy
    No 1st trimester prenatal care
    Low birth weight
    Premature births
    Smoking during pregnancy
    Infant mortality
    No breastfeeding
    Unintended pregnancy
    Alcohol use during pregnancy
    Postpartum depression

11 Injury
    Motor vehicle crash mortality
    Fall hospitalizations & mortality
    Unintentional poisoning mortality
    Violent crime
    Households with children that contain loaded & unlocked firearm

12 Priority Issues
   Next Steps
Demographics

The 2010 U.S. Census reported the population of Snohomish County to be 713,335, an increase of 18% since 2000. Snohomish County constitutes 10.6% of the state’s population.

The population of Snohomish County is aging. In 1990, the median age in the county was 31; by 2010 it had increased to 37. Approximately 10% of the county’s population was 65 and older in 2010, and this is predicted to increase to 20% by 2030.

Race

- The proportion of the county’s population that was White fell from 83% in 2000 to 74% in 2010.
- Asians and Hispanics were each about 9% of the population.
- Hispanics were the fastest-growing racial group in the county, with a population that increased 125% between 2000 and 2010. Hispanics accounted for one-third of the county’s total population growth between 2000 and 2010.
- Whites were the oldest racial group, with a median age of 41. People of mixed race were the youngest, with a median age of 18.

Poverty

- One in 10 county residents lived below the Federal Poverty threshold during 2010. This occurrence was lower than the state average of 13%.
- 13% of children younger than 18 lived in poverty, compared to 9% of adults 18 to 64, and 6% of those 65 and older.
- Families with children were more likely to be in poverty than families with no children (12% vs. 7%).
- Families headed by a single female were the most likely to be in poverty (30%).

Scoring

All of the indicators were scored based on three criteria:
1. Comparison with Washington State and the United States
2. Snohomish County trend
3. Healthy People 2020 goal for each indicator (met or not met)

**Pass:** received a positive score of +1 or higher
**Fail:** received a negative score of -1 or lower

Snohomish County Families* in Poverty, 2010

*Related and/or married people living in the same household
General Health

The term “general health” refers to the health status of the population as a whole. It can be assessed by analyzing health outcomes of the population. These include birth, death, and disability rates; life expectancy; and peoples’ perception of their own health. These measures also reflect factors that affect health status or well-being such as economic factors and social relationships.

The mortality rate in Snohomish County decreased to a record low of 692 deaths per 100,000 in 2010. This rate was comparable to the rates for Washington and the United States. The five leading causes of death were heart disease, cancer, stroke, chronic obstructive lower respiratory disease, and unintentional injury. The decline in overall mortality reflects significant decreases in cancer, heart disease, stroke mortality, chronic obstructive lower respiratory disease, and unintentional injuries.

Snohomish County’s mortality rate for children between the ages of one and 14 declined 70% from 1990 to 2010. The childhood mortality rate in Snohomish County was lower than in Washington and the United States. Unintentional injury was the leading cause of mortality for children and accounted for 34% of deaths, mostly due to motor vehicle crash injuries and drowning. Cancer, congenital causes, and intentional injury (homicide and suicide) were other leading causes of child mortality.

About 12% of Snohomish County adults rated their overall health as fair or poor. This percentage is similar to adults statewide, but better than the nation.

An average 20 year-old in Snohomish County can expect to enjoy 52 more years of healthy life. This was more than the 48 years estimated for the United States as a whole.

County adults reported that, on average, they did not get enough rest or sleep nine nights out of the month. They also said that poor health interfered with their usual activities two days per month.

One in four adults acknowledged limitations in activities due to physical, mental, or emotional disabilities.
Substance use is related to many of the leading causes of death in Snohomish County. It can be a contributing factor in cases of cancer, heart disease, stroke, and injury.

Adult cigarette use decreased from 25% in 2000 to 14% in 2010. Cigarette use among youth (10th & 12th grade) decreased from 22% in 2002 to 16% in 2010. Although cigarette use among youth has decreased over time, the drop in cigarette use is offset by the use of other tobacco products and marijuana. Youth and adults in Snohomish County were more likely to smoke than the state average, but less likely to smoke than the United States as a whole.

Binge drinking is defined as four or more drinks during a single occasion for women, and five or more for men. The proportion of Snohomish County adults who engaged in binge drinking increased from 13% in 2000 to 16% in 2010. This proportion was similar to Washington, and better than the United States.

Youth who engaged in binge drinking decreased in Snohomish County. In 2010, nearly 15% had been binge drinking in the past two weeks, compared to 19% in 2002. County rates for youth binge drinking were similar to those of Washington and the United States.

Heavy drinking is defined as more than one drink per day on average for women, and more than two drinks per day on average for men. Six percent of county adults were heavy drinkers in 2010, higher than both Washington State and the United States. The rate of heavy drinking increased 51% from 2001 to 2010.

Drug use among youth declined from 21% in 2002 to 15% in 2010. High school youth used marijuana more than cigarettes in 2010. Prescription drug abuse among youth declined between 2006 (9%) and 2010 (7%).
Mental Health

At any given time about one-quarter of adults are suffering from some form of mental illness. Nearly half the population will experience mental illness during their lifetimes. In developed countries, mental illness causes more disability than any other group of illnesses. Mental illness is associated with greater occurrences of chronic disease, injury, and substance use.

Hospitalizations for mental health issues increased during the recession in 2009 and 2010. One-third of such admissions were for mood disorders such as depression, and 43% were substance-related (18% alcohol, 25% other substances). Females were more likely to be admitted than males. Admission rates were highest in the 15-24 year-old age group, and declined in older age groups.

Approximately 2.3% of Snohomish County adults reported having signs of serious mental illness. Those who are in poverty, unemployed, or unable to work had much higher rates of mental illness than others. People with serious mental illness were more likely than others to be disabled, obese, dissatisfied with life, or smoke.

Nearly 30% of Snohomish County students reported being depressed. Depressed youth had poorer academic performances than others and were more likely to be involved in violence. They were also more likely to smoke, drink, and use illegal drugs.

Approximately 5% of Snohomish County adults report having inadequate emotional support. People with inadequate emotional support were more likely than others to smoke, be disabled, and be dissatisfied with life.

Suicide was the ninth-leading cause of death in Snohomish County and was responsible for 29% of injury deaths. Suicide rates increased dramatically with the economic downturn in 2009. Females are more likely to attempt suicide, but males are more likely to succeed due to their tendency to use firearms (females try poison more often). Suicide rates increase with age, with males over 65 having the highest rate (38.0 per 100,000). The county’s suicide rate (14.6 per 100,000) was much higher than the Healthy People 2020 goal of 10.2 suicides per 100,000.
Chronic diseases are the primary cause of morbidity and mortality in Snohomish County, Washington, and the United States. These diseases are responsible for 70% of deaths in the United States, and cause one in 10 Americans to be limited in their activities.

Cancer (168.5 per 100,000) and heart disease (154.6 per 100,000) are two leading causes of death in Snohomish County. However, in the United States, heart disease deaths outnumbered those due to cancer, while in Snohomish County there were more deaths due to cancer.

Snohomish County’s heart disease mortality rate decreased by 41% between 1990 and 2010. The county’s rate in 2010 was similar to that of Washington, and both were significantly lower than the rate for the United States.

Diabetes was the seventh leading cause of death and the leading cause of disabling complications. Snohomish County diabetes prevalence (7%) was similar to Washington, and lower than the prevalence for the United States. The proportion of adults diagnosed with diabetes almost doubled between 1994 and 2010. The county exceeded the Healthy People 2020 goal of 5% prevalence of diabetes.

Asthma prevalence was 12% among youth in Snohomish, lower than the state and national rates. The proportion of children in the county with asthma declined over time.

Regular cancer screenings can diagnose new cases of cancer at an early stage, which may improve the prognosis of the patient.
Obesity and lack of exercise are contributors to between one-quarter to one-third of common cancers in the United States. Excess weight is associated with increased risk for cancers of the esophagus, colon, rectum, kidney, pancreas, and post-menopausal female breast cancer.

- Adult obesity in Snohomish County doubled between 1994 and 2010.
- Youth obesity in the county increased 18% between 2002 and 2010.
- Adult obesity in Snohomish County was comparable to Washington and the nation, while the youth obesity rate was similar to Washington, but better than the United States.
- Only 50% of Snohomish County adults engaged in the recommended amount of physical activity in 2010. This percentage was similar to Washington and the United States, and has not changed since 2001.
- Among youth, only 23% met the recommendation for physical activity. This rate was similar to Washington’s rate, but better than the rate for the United States.
- Snohomish County has met the Healthy People 2020 physical activity goals for both adults and youth.

Nutritional factors are associated with four of the 10 leading causes of death nationwide, and with chronic diseases and conditions such as obesity. One measure of people’s nutritional intake is how often they eat fruits and vegetables.

It is recommended that people consume five or more servings of fruits or vegetables a day. Only about one-quarter (25% of adults and youth) of county residents met this recommendation. This percentage was comparable to Washington, and there were no changes in this proportion over time.

Dental decay is the most common chronic disease of childhood; it impacts the ability to eat, sleep, and learn. Snohomish County 3rd graders were more likely to have dental caries than other 3rd graders in Washington and the United States. Nearly two-thirds (63%) of 3rd graders had dental caries in 2010. This figure was much higher than the Healthy People 2020 goal of 49%. Persons with incomes below 200% of the FPL are much less likely to have visited a dentist in the past year (51% vs. 80%).
Environmental factors can adversely affect human health by increasing the risk of heart disease, respiratory diseases, and cancer, some of the leading causes of death in Snohomish County.

Air quality in Snohomish County has improved considerably in the past decade. Particulate Matter (PM$_{2.5}$ - dust, soot, and smoke) has been decreasing steadily since data were first reported in 2001. PM$_{2.5}$ emissions are primarily due to fuel combustion and transportation. The proportion of homes in Snohomish County that were smoke-free (i.e., do not allow cigarette smoking indoors) increased from 82% in 2004 to 88% in 2010.

Water quality in the county improved from 2008 to 2010, with a slight reduction in the number of bodies of water not meeting water quality standards for fecal coliform bacteria.

Drinking water quality is improving, as shown by a steady reduction in nitrate levels in Group A water systems. Group A water systems are those that serve 15 or more households, businesses, or facilities with 25 or more customers per day.

Enteric (gastrointestinal) diseases are slowly increasing in Snohomish County. Campylobacteriosis was the leading cause of enteric disease in Snohomish County in 2010. The campylobacteriosis rate in Snohomish County was higher (worse) than in Washington and the United States. The county rate of salmonellosis was lower (better) than Washington’s rate and the rate for the United States. The shiga toxin producing E. coli rate in Snohomish County is comparable to Washington, but higher (worse) than the United States. Safe food handling, proper hand washing, and good agricultural practices are the best prevention for most enteric diseases.

Other notable environmental health indicators included:

- Snohomish County recycles almost 50% of its generated solid waste.
- The number of reported illegal dumping sites steadily decreased.
- Toxic releases into the air have been decreasing since 1988.
Access to health care is indispensable for protecting and maintaining good health. Having health insurance is a major determinant of access to care. The percentage of Snohomish County adults with health insurance decreased from 89% in 1994 to 85% in 2010, but was similar to the percentages for Washington and the United States. In general, health care access and utilization increased with age, education level, and income.

Primary care providers are the connection between individuals and the health care system. The proportion of Snohomish County residents who had a primary care provider decreased from 86% in 1994 to 79% in 2010. The nationwide shortage of primary care doctors may have contributed to this decline. Snohomish County did not achieve the Healthy People 2020 goal that 84% of adults should have a primary care provider.

Routine health care exams (check-ups) are important to discover and address conditions or behaviors that might lead to serious health issues. They complement preventive services and help build good physician-patient relationships, provide health education, and allow for monitoring of on-going health issues.

Nearly one-fourth (24%) of Snohomish County adults had not had a routine checkup within two years. This rate increased by 50% between 1994 and 2010. Adults without health insurance were three times more likely than those with insurance to have not had a routine exam. Females were more likely than males to have a primary care provider and a routine checkup. Among youth, 60% reported that they had visited a doctor in the past year.

Delaying or not receiving needed medical care may result in more serious illness, increasing complications, longer hospital stays, and possibly death. The proportion of Snohomish County adults who needed to see a doctor in the past 12 months, but could not because of cost, increased by 33% between 1997 and 2010. Cost disproportionately hindered access to care for females, young adults (age 18-29), residents who did not graduate from high school, and those in poverty.

A large proportion (71%) of Snohomish County adults and 75% of youth visited a dentist in the past year. Rates were highest among residents 45 to 64 years old, those with higher education, and those not living in poverty. Adults in Snohomish County were more likely to visit a dentist than the national average.
Communicable Disease

Communicable disease control is a core public health function. While many communicable diseases are controlled by public infrastructure (like water and sewage systems), new diseases appear constantly and older threats such as tuberculosis mutate into new forms that may be resistant to current therapies.

Communicable disease mortality has increased in Snohomish County since 1998, mostly due to enterocolitis and viral hepatitis. Hospitalizations for infectious diseases quadrupled between 2002 and 2010, due almost entirely to an increase in cases of septicemia.

Chlamydia (which can cause infertility) is the most commonly diagnosed sexually transmitted infection in females between the ages of 15 and 24. The incidence rate in Snohomish County females age 15 to 24 (2,155 cases per 100,000 in 2010) has been stable since 2001, and is well below the rates for Washington and the United States.

Influenza kills approximately 6,000 people in the United States every year. Influenza deaths and hospitalizations vary depending on the severity of annual influenza strains. Nearly 70% of Snohomish County adults 65 and older get an influenza shot each year, well below the Healthy People 2020 goal of 90%.

Tuberculosis incidence in Snohomish County has averaged 3.7 cases per 100,000 since 2005. However, new strains of drug-resistant tuberculosis have vastly increased the cost of treating new cases, with each such case costing up to $100,000 or more to quarantine and treat.

The incidence of hepatitis in Snohomish County has been low since the early 2000s. However, many cases of chronic hepatitis C are being diagnosed, mostly in people between ages 45 and 64. As a result, there have been significant increases in the rates of hepatitis hospitalizations and mortality since 1990.

Typically, there are less than 10 cases of pertussis (whooping cough) per 100,000 residents each year, but in 2011 and 2012 the county experienced an epidemic of the disease. Incidence of pertussis reached 82 cases per 100,000 in 2012. Almost all areas of Snohomish County were impacted by the recent pertussis epidemic.

The proportion of children entering kindergarten without complete immunizations increased from 10% in the 2002-2003 school years to 19% in 2006-2007. New laws that make it more difficult to obtain an exemption from vaccination have reduced this rate to 13.5% in 2011-2012.
Measures of maternal and child health are key indicators of a population’s health status. Maternal and child health has an immediate impact upon the population’s disease burden and use of health care resources.

Infant mortality is an important indicator of population health because it is associated with maternal health, quality and access to medical care, socioeconomic conditions, and public health practices. In Snohomish County, infant mortality rates fell from 5.9 deaths per 1,000 births in 1990 to 4.2 per 1,000 in 2010. The county’s infant mortality rate was similar to that of Washington and significantly lower than the national rate.

Between 1990 and 2010, Snohomish County experienced increases in premature births (10%) and infants born with low birth weight (5%). Similar increases took place in Washington, and the county’s rates were similar to those of the state. Both Snohomish County and Washington had lower rates of prematurity and low birth weight than the United States.

More than one-third of pregnancies in Snohomish County were unintended. There has been no appreciable change in the trend since 1993. Teen pregnancy (age 15-17) decreased by 70% between 1990 and 2010 to a low of 17 births per 1,000 teens.

There has been an increase in the proportion of pregnant women who did not initiate prenatal care in the first trimester (21%). Prenatal care is recommended to reduce adverse birth outcomes. The proportion of women in Snohomish County not receiving first trimester prenatal care was similar to that of Washington (20%), but significantly lower than the United States (28%).

There was a significant decline in the proportion of women who smoked during pregnancy, from 22% in 1990 to only 7% in 2010. This was lower than the proportions for Washington and the United States. Only 4% of women reported using alcohol during pregnancy in 2010. This was lower than Washington or the United States.

The proportion of women in Snohomish County who reported not breastfeeding fell from 20% in 1993 to 7% in 2009. This proportion was similar to Washington, but much better than the United States.

About one in seven new mothers in Snohomish County reported experiencing postpartum depression. This number was only slightly higher than Washington or the United States.
Injuries are the third-leading cause of death in Snohomish County, and the leading cause of death for persons between the ages of 1 and 44. They were responsible for 8% of deaths and 11% of hospitalizations in the county during 2010.

Most injuries are not random events. They are preventable because they have predictable patterns and risk factors. Injuries are either intentional (assault and suicide) or unintentional (accidents). Two-thirds of injury deaths in Snohomish County during 2010 were unintentional, and most of the intentional deaths were suicides. The most common types of unintentional injury deaths were poisonings (39%), falls (24%), and motor vehicle crashes (20%).

Mortality due to unintentional poisoning increased 450% from 1990 to 2010. Most of this increase was driven by the abuse of prescription opioid painkillers. People between the ages of 25 and 64 were the most likely to die from unintentional poisoning, and men were more likely to die from it than women. Residents of Snohomish County were more likely to die from unintentional poisoning than the average for Washington or the United States.

Mortality from motor vehicle crashes decreased by 69% between 1990 and 2010. Mortality was higher for 15-24 year-olds than average, but their rates declined as well. Motor vehicle crash mortality was much lower in Snohomish County than in Washington as a whole and the United States.

The rate of hospitalizations due to falls has been steady since the mid-1990s, but mortality due to falls has been increasing. Falls mostly affect the elderly, and so are more common among women, who live longer than men.

Firearm deaths fell by half between the early 1990s and 2008. After 2008 these rates increased, driven by an increase in suicides that coincided with the economic recession. More than three-quarters of firearm deaths in Snohomish County between 2008 and 2010 were suicides.

Rates of violent crime have been steady in Snohomish County since 2000. More than half of violent crimes in Snohomish County were assaults. Snohomish County had a lower rate of violent crimes than Washington or the United States.
Priority Issues

The Public Health Advisory Council was presented with 80 community health indicators as a first step in assessing the health of the county. Data were analyzed from a variety of sources including the 2010 Census, the Snohomish County Behavioral Risk Factor Surveillance Survey, and the 2010 Healthy Youth Survey. Data were also analyzed from a number of national, state, and local sources. Snohomish County data were compared to Washington and United States data. Trends were explored and Healthy People 2020 goals were examined. These comparisons were combined to create risk scores.

As a result of the first step, 27 indicators with the worst risk scores were then evaluated in terms of their size, seriousness, the existence of evidence-based practices and community interventions, and whether there are community values attached to the issue. Using these criteria, the members of the Council chose six health issues that need community attention and action, the first three needing immediate action:

- Youth Physical Abuse
- Youth and Adult Obesity
- Suicide (Adults and Youth)
- Youth Dental Decay
- Access to a Primary Care Provider
- No Prenatal Care During the First Trimester

Next Steps

The Council’s work is accomplished through community health assessments, prioritization of health issues, exploration and decision-making about effective interventions, and development of Community Health Improvement Plans that address the priority health issues. Health actions range from policy recommendations to the Board of Health, the Health District and other community partners; program and special project development; health planning and advocacy; and forming new community partnerships.

We invite you to join us in building a better future for Snohomish County. Our next task is to develop Community Health Improvement Plans that address priority issues, determine goals, and design evaluation plans that measure progress in addressing the issues.

If you have interest in joining the next phase of work for any of the top three issues, please call the Healthy Communities & Assessment program at 425.339.8650 or healthstats@snohd.org.
Community Health Assessment Model

Community Health Improvement Plan
1. Explore subpopulation data
2. Identify effective interventions
3. Inventory resources
4. Develop health improvement strategy
5. Develop indicator set
6. Identify accountability

Public Health Advisory Council

Chair: Terry Clark, MEd, Little Red School House
Bob Farrell, CPA, Community Health Centers
Brant Wood, PE, Snohomish County PUD
Brent Hackney, Brent Hackney Designs, Inc.
Bridget Healy, MNM, MPA, United Way of Snohomish County
Debbie Peterson, Student, Everett High School
Dennis Haddock, EdD, Lakewood School District
DW Donovan, MA, MS, BCC, Providence Regional Medical Center
Fred Worthen, Community Transit
Gabe Snedeker, AICP, Snohomish County
Helen Fenrich, Tulalip Tribes
Jiho Bryson, MD, MPH, The Everett Clinic
Jim Steinruck, FACHE, Senior Services of Snohomish County
Mark Richardson, Regional Drug Task Force
Mickie Gunderson, MEd, Pilchuck Audubon Society
Robin Fenn, PhD, LICSW, Snohomish County
Captain Shaughn Maxwell, Fire District 1

Snohomish Health District Staff Contributors
Gary Goldbaum, MD, MPH, Health Officer
Carrie McLachlan, MPA, Program Manager
Mark Serafin, MA, MS, Statistician
Patricia Yepassis-Zembrou, MD, MPH, Epidemiologist
Jamaal Parker, MPH, Epidemiologist
Wendy Burchill, BS, Program Specialist