



GRANT COUNTY HEALTH DISTRICT

The Health of Grant County
2008 Biennial Health Assessment

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Introduction

The work of the public health assessment function is to collect, analyze, and use data to identify local health issues, measure disparities and access to critical health services, develop planning priorities, create or adapt programs, and to obtain new resources.

This assessment report is intended to provide a “snapshot” of the general health status within Grant County and to identify what our health issues are locally.

Depending on the nature of the health risk observed and available resources at the given time, data is presented by quantitative and/or qualitative methods. Quantitative data, generally considered to be the more scientific method, measures, classifies, and compares numbers or counts, percentages, or rates. Qualitative data often captures such nuances as descriptions, human observations, opinions, and experiences. References and data sources within The Health of Grant County 2008 Biennial Health Assessment are available upon request.

Washington State’s Public Health Improvement Plan, was initially developed in 1994 to be reported to the legislature biennially. In 2008, key health indicators were identified as baseline information in response to more urgent needs for measurements due to severe budget reductions for public health in Washington and around the nation. The plan guides the local measurement of health status or determinants of health in Washington communities. This includes 5 key aspects of public health including:

- Communicable Disease
- Prevention and Health Promotion
- Maternal and Child Health
- Access to Care
- Environmental Health

Each of the five aspects has a core set of public health indicators, related to overall health status of the general population. There are currently 32 public health indicators identified by the Washington State Department of Health, with the most recent measurements to date integrated into this report, available online at: <http://www.doh.wa.gov/PHIP/default.htm>. The Grant County Health District monitors these and other local indicators including state-wide comparisons in order to focus program goals and activities. Public health data is shared with the Grant County Board of Health to guide local policy decisions.

Data obtained from a wide array of sources may be a year or two behind the current year. This is due to the time it takes to collect and generate large quantities of data, for multiple subjects.

Note: If you have questions about the content of this report, need data that is not included here, or are interested in data sources, please contact Joy Reese, Assessment Coordinator, at the Grant County Health District: (509) 766-7960, thank you.

Population

In the Spring of 2008, Grant County's population was estimated at 84,600 people, an increase of approximately 9,900 since the 2000 Census. This includes the population estimates of unincorporated lands and incorporated cities and towns in Grant County.

Table 1. Grant County 2008 Estimate of Population

Coulee City	600
Coulee Dam <i>partial</i>	0
Electric City	980
Ephrata	7,065
George	545
Grand Coulee	935
Hartline	145
Krupp	60
Mattawa	3,350
Moses Lake	18,310
Quincy	5,700
Royal City	1,900
Soap Lake	1,765
Warden	2,600
Wilson Creek	250
Unincorporated Total	40,395
Incorporated Total	44,205
Grant County Total	84,600

Washington State Office of Financial Management

Overall, this amounts to a 13.26% increase in population from year 2000 - 2008. This makes Grant County rank 13th among all 39 Washington Counties for percent population change. Such population increases are related to the fact that over 2,700 new jobs were created from years 2004 to 2007 in Grant County. Other possible influences that may make Grant County an attractive place to live and work may include the semi-arid climate, recreational and tourist activities, and a median commute to work time of less than 15 minutes.

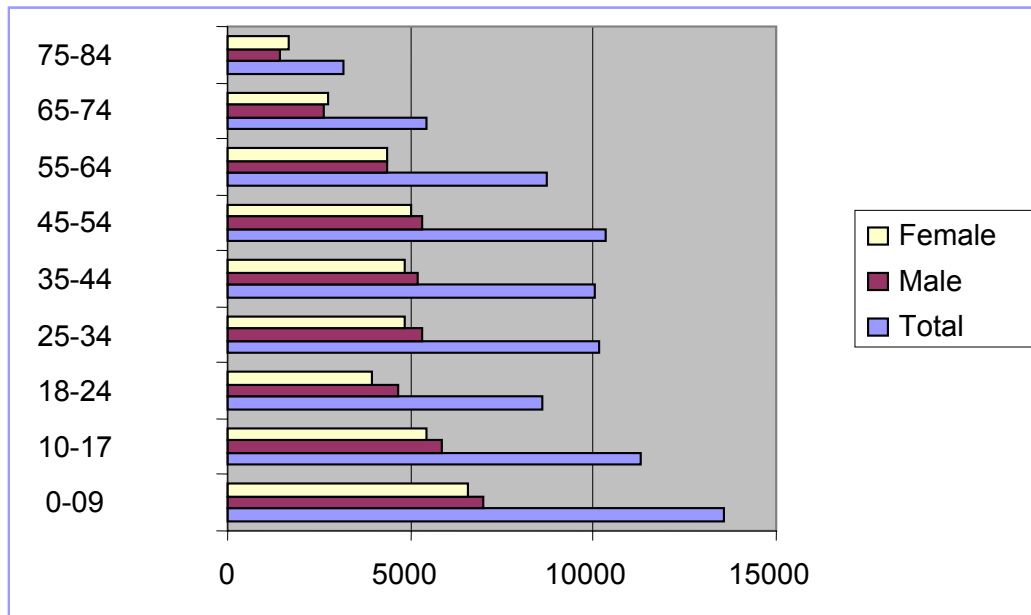
Demographics

Demographic information identifies specific characteristics of a population, which may be linked, even early in life, to factors (such as socio-economic status) that relate to health status. For example, smoking during pregnancy is most prevalent among low-income women.

Age and Gender

Below, the chart demonstrates the distribution of Grant County residents by several age groups and by sex for the year 2007. A person’s sex is what biologically indicates whether they are male or female, whereas their gender may be regarded as a social identity. Sex and gender are used interchangeably in this report for simplicity. Chart 1: Age Groups by Population and Sex shows the distribution of our population by sex in regards to age. In general the Grant County total population by sex for year 2008 is 51% male and 49% female. In Washington State the total population by sex for year 2008 is 50% male and 50% female. The 85 years and over age group is not depicted on this chart. That age group only comprises barely over 1% of our total population, but it is a fast growing segment of our national population, likely due to technological advances in healthcare settings.

Chart 1. Age Groups by Population and Sex



Source: Charted by author using Vista data output

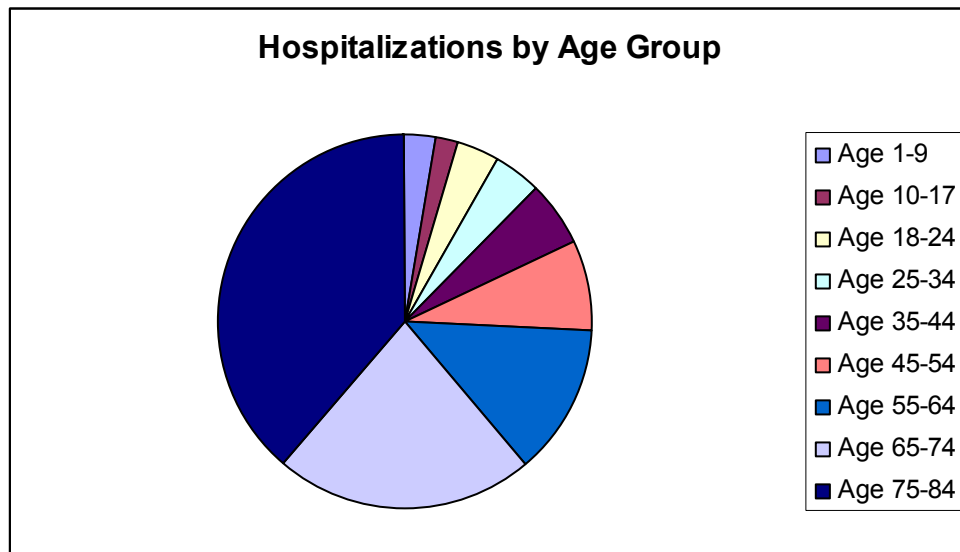
Decreases in population are observed in the 18 – 24 year old age grouping. This probably indicates the natural outflow of residents to higher education or careers outside of Grant County. Younger males outnumber younger females, especially in the 18 – 24 year old age grouping. This may be best explained by recent national trends that demonstrate a higher number of females attend higher education and degree granting institutions than males.

Gender may influence health status. For example, a recent survey demonstrates that fewer female 8th graders in Grant County report that they have not been bullied than their male peers. In another survey item, more males report that they do not feel safe at school than their female peers. In yet another survey item, more females than males in Grant County reported that they felt so sad or hopeless that they stopped doing some of their usual activities during a 12 month time frame. These are all indicators of health as they can represent both safety and mental health issues. Risk and protective factors as

identified in the Healthy Youth Survey should continue to be monitored. One issue with monitoring this data is that some question items in the Healthy Youth Survey change over time. This places some limitation on information that can be tracked over time.

Results from a 2006 health survey conducted in Grant County indicate that a higher percentage of adult women than adult men felt that their general health status was very good. This suggests that fewer men felt that their health was very good.

The following chart demonstrates that the rate of hospitalizations for Grant County residents increases as age increases. This observation is expected because of the logical progression of negative health events as people age.



Source: Charted by author using Vista data output

Race

Data on racial status are dependent upon respondents' self-identification concept of their race. The data are also somewhat limited because race definitions have changed over time. This makes race population forecasts a challenging task. In terms of the data used in this report, race and ethnicity are combined for simplicity. In a technical or sociological perspective, *ethnicity* commonly refers to a person's cultural and social background like language and religion and not necessarily the color of their skin. For example, a person of Hispanic origin may have pale skin and still be considered Hispanic. *Race* is more commonly used to describe physically genetic characteristics such as hair or skin color, but may also refer to a population which shares like activities and habits. With the preceding considerations noted, the two (race and ethnicity) may be often used interchangeably in the general population. An examination of race and ethnicity in a diverse population can be a complicated process. The following table shows estimated populations in Grant County by race.

Table 2. Grant County 2008 Population by Race

Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian / Alaska Native	Non-Hispanic Asian – Pacific Islander	Non-Hispanic 2 or more races	Hispanic Total
59.7%	.8%	.9%	.9%	1.2%	36.6%

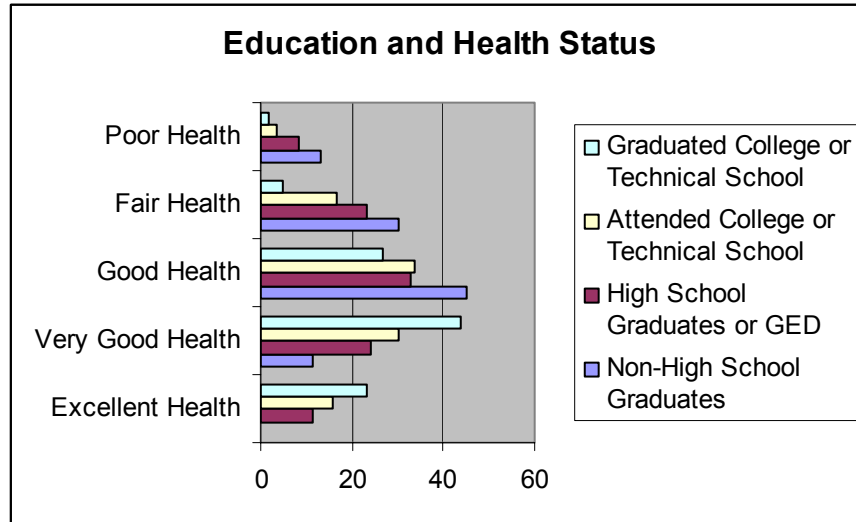
Race/ethnicity is sometimes social determinants of health status. The two dominant categories in Grant County are Caucasian and Hispanic. Some related disparities in health status are noted in the Access to Care and Health Disparities section of this report.

Health disparities are generally measured using self-reported survey data and hospitalization discharge or death certificate data.

Education

There are a total of ten public school districts in Grant County. There are two private elementary schools in Grant County, and six combined grade level private schools including elementary through high school. For post-secondary education there is one community college and two university extension programs available at the community college campus. There is at least one GED program available as well. Despite the fact that there are a number of options for education in Grant County, educational achievements appear to be lower than compared to the rest of Washington State in general. In a 2006 survey of 8th graders, 18.7% indicated that their mother did not finish high school, compared to 9.4% in Washington State. In the same survey, 16.6% of these students indicated that their father did not finish high school compared to 9.1% in Washington State. These differences are statistically significant and warrant further analysis. However, when the same students were asked how far they think they will get in school, they revealed similar results to the rest of Washington State. More than half of the 8th graders in Grant County reported that they think they will graduate from either a 4-year college or will earn an advanced graduate degree.

Education level is a social determinant of health because it often directly impacts the type of work a person does and whether or not they will have enough wages or health insurance coverage to obtain adequate medical services. Education programs often include a health education component in the curriculum. A lack of obtaining this information may produce adverse affects on a person’s health just by simply not having acquired a certain level of awareness. Ultimately, educational achievement impacts socioeconomic status which in turn, impacts health. The table shown below depicts data from the Behavioral Risk Factor Surveillance System Survey (BRFSS) within Grant County. The BRFSS is a nationwide survey that enables state and local public health agencies to monitor risk factors. It is also the largest telephone health survey in the world. The table demonstrates that as education level rises, so does a person’s general health status. The data comes from two separate, unrelated questions within the survey. In other words, the respondents are not prompted, or provided biased statements, to indicate their health status based on education level.



2006 BRFSS Data Query System, as charted by report author

Employment

Of the *largest* occupation groupings in 2008 in Grant County, retail salespersons showed the highest percentage increase in workers, a 5% increase from 2007 to 2008. Below are the 10 highest paying jobs groupings in Grant County in 2008 based on median hourly earnings, ranked in order:

Ranking	Occupation Description
1	Chief Executives
2	Physicians and Surgeons
3	Dentists
4	Airline Pilots, Copilots, Flight Engineers
5	Managers of Firefighting and Prevention
6	Education Administrators
7	Pharmacists
8	Engineering Managers
9	Marketing Managers
10	Computer / Information Systems Managers

The *fastest growing* occupation groupings in general based on percent increase from 2007 to 2008 were home health aides at 12%, then personal and home care aides at 8%, and retail salespersons and farm workers were tied at 5% growth.

Based on a 3 year average, Grant County’s unemployment rate is 6.2%, compared to Washington State at an average 4.9%, making Grant County one of 18 counties on the “distressed areas” list. To be considered a distressed area, the average unemployment rate needs to be equal or greater than 120% of the statewide unemployment rate. For 2008 alone, Grant County’s unemployment rate was 6.9% of those eligible to work in the labor force compared to 5.5% statewide.

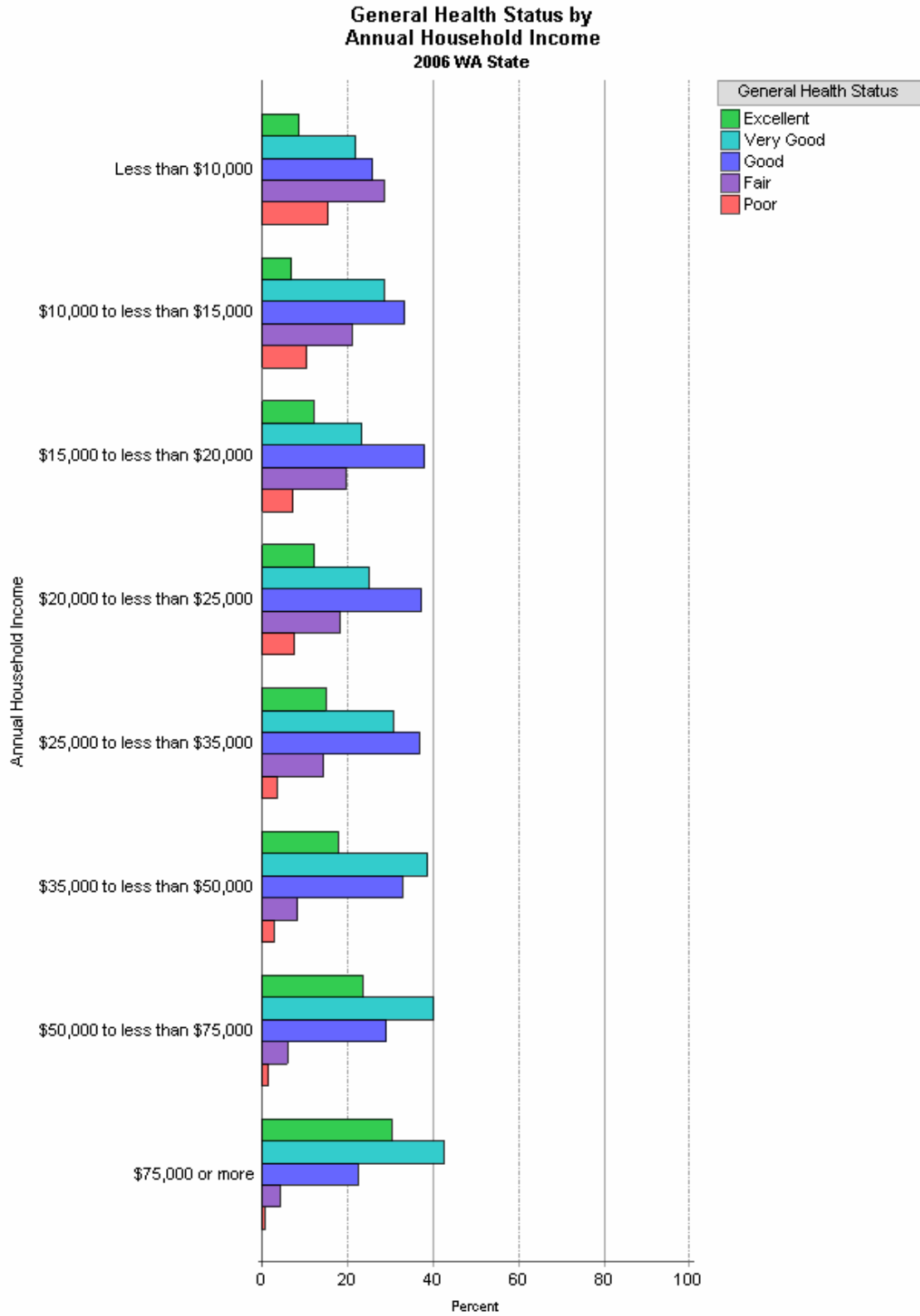
Poverty

It can generally be stated that the lower a cohort’s socioeconomic status, the greater the risk to health. For the 2008 projected median income, Grant County ranks 23rd among Washington counties. The Statewide projected median income for 2008 was about \$60,010 dollars.

Grant County Median Income by Year	
Year	Median Income (dollars)
1999	35,276
2000	36,334
2001	36,242
2002	35,764
2003	36,179
2004	36,404
2005	35,561
2006	37,688
2007 (preliminary)	43,754
2008 (projected)	43,902

Washington State Office of Financial Management

Data collected from the BRFSS survey of Washington residents indicates the correlation between lower income and higher likelihood of poor health. Lower incomes may limit a person’s ability to afford adequate health services, especially in the absence of health insurance coverage. Less money may also mean decreased access to healthy food options and perhaps less access to healthy, meaningful social support. Some research indicates that people of higher socioeconomic backgrounds have larger networks of social support and higher levels of perceived social support. The strongest correlation between social support and health is in relation to psychological health. However, a person having quality social support after a heart attack or stroke may achieve better survival odds. Please see the graphic on the following page to see the correlation between lower income and poor health status.



Behavioral Risk Factor Surveillance System (BRFSS)
Center for Health Statistics
Washington State Department of Health

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Another assessment of socioeconomic status of a population is its level of access to social and health welfare services. Among Washington counties, Grant County ranks 4th in terms of total client use rates based on percent of population within the Washington State Department of Health and Social Services. This includes the following categories: Aging and Adult Services, Alcohol and Substance Abuse, Children's Services, Developmental Disabilities, Economic Services, Juvenile Rehabilitation, Medical Assistance, Mental Health Services, and Vocational Rehabilitation.

Another measure of poverty is the percentage of school age children qualifying for free and reduced price meals in public school systems. The average taken from May 2008 data indicates that about 63.5% of school age children in Grant County qualify as compared to 37.9% for 2008 in Washington State.

Homelessness is another area of concern. There is a homeless count undertaken in Grant County in January each year that is completed on a 'point in time' or one day basis. In 2008, there were 368 individuals counted as homeless and for 2009 the numbers are projected at 320. This looks like it will be a decrease, but the numbers are limited to the one count each year so the information could be limited or influenced by a few factors including how much of the homeless population can be recognized that particular day and by the weather. When it is colder outside, the homeless population may be harder to find as other residents with homes may be more willing to take the homeless into their own homes to help protect them from the weather. The information is often based on homeless self-reporting which could be biased information. While the homeless situation could be improving, one cannot draw this conclusion at this point. Homeless individuals are at higher risk of health issues such as hepatitis, tuberculosis, or very poor dental health; such conditions may be left untreated in homeless individuals. The North Columbia Community Action Council facilitates a program to reduce/eliminate homelessness in Grant County. Plans are underway for a homeless shelter but the actual implementation and building of this shelter is currently on hold due to a lack of funding. Figures for 2009 indicate that over 40% of Grant County's homeless population are children, and of those children, the majority are under the age of 5 years old. Some Grant County social service agencies are taking a 'housing first' approach to their programs. As homeless people access more services, resolution of more of their health issues becomes more likely.

Communicable Disease

Numerous communicable diseases are notifiable conditions, and their occurrence, by law, must be reported to public health for disease surveillance and data collection. In most cases, notifiable conditions are reported at the local level to the local public health jurisdiction, which further reports to the Washington State Department of Health. Not all communicable diseases are notifiable.

The prevention of communicable disease is of high interest to public health agencies and communities. Any outbreak can easily involve unplanned, costly expenditures and potentially serious health implications for the public. Morbidity can be controlled by public health prevention activities including vaccinations, disease surveillance, treatment options, and public education. These activities help keep major expenditures due to an outbreak less likely. Grant County is located in the middle of Washington State and travel to more densely populated areas, including those with world-wide airline connections, is generally simple and convenient. The flow of people through travel may increase the risk of exposure to communicable diseases. However, some communicable disease may be more characteristic of a defined population due to different factors within the demographic attributes of a population.

Adult Immunizations

Adults receive immunizations for various reasons. Adults sometimes need updates to immunizations because some shots like pertussis and tetanus have a diminished capacity to effectively provide immunity over a long period of time. Other adults may not know what immunizations they had as children, or did not receive one or more types of immunizations as children. It is sometimes difficult for adults who have lived in several different states to locate their official immunization records unless they routinely kept updated copies. If a communicable disease outbreak occurs and an adult has been exposed to it, that adult may need to provide proof of immunity either through official public health or medical records in order to lead their regular life. If, for example, an exposure occurred at their workplace, they may not be able to return to work until they can provide proof of immunity through records or a titer which is a blood test that measures immunity to certain diseases. If immunity does not exist, or is considered to be an inadequate level of immunity, they may need to get a shot, or perhaps two, before they can return to work. This poses a problem if an adult in this position has no immunity and the particular immunization requires more than one shot, separated by a period of weeks or more.

Immunization Type - Adults	2006	2007	2008
Td: Tetanus, diphtheria	42	20	11
Tdap: Tetanus, diphtheria, pertussis	15	41	41
Hep A: Hepatitis A	26	55	36
Hep A/Hep B: Hepatitis A and Hepatitis B	47	41	73
Hep B: Hepatitis B	72	85	101
IPV: Inactivated Polio Virus	6	5	9
Influenza: Seasonal Flu	450	326	672
MMR: Measles, Mumps, Rubella	23	28	187
MCV/MPSV: Meningococcal Conjugate / Meningococcal MPSV Vaccine	5	7	3
PPSV: Pneumococcal	20	11	5
Typhoid, ViCPs and Oral: Typhoid	25	22	33
Varicella: Chicken Pox	18	6	16

The above chart depicts the total numbers per year for particular immunizations. Some of these shots are administered for foreign travel purposes. The above shots are not county wide figures, but are those administered by the Grant County Health District.

Childhood Immunizations

The following numbers are for children age birth through 18 years of age. Again, these numbers signify only those immunizations that the Grant County Health District gave, not immunizations on a county-wise basis.

Immunization Type - Children	2006	2007	2008
DTaP: Diphtheria, tetanus, pertussis	49	19	32
Td: Tetanus, diphtheria	14	3	3
Tdap: Tetanus, diphtheria, pertussis	15	119	98
Hep A: Hepatitis A	44	92	29
Hep B: Hepatitis B	52	20	23
Hib: Haemophilus influenza type B	14	10	12
IPV: Inactivated Polio Virus	57	23	32
Influenza: Seasonal Flu	46	240	156
MMR: Measles, Mumps, Rubella	47	29	126
MCV: Meningococcal Conjugate Vaccine	16	61	25
PCV: Pneumococcal Conjugate Vaccine	9	8	10
Varicella: Chicken Pox	695	64	221

One indicator that helps us determine the level of immunization activity for children in Grant County is for those students enrolled in school. School required immunizations for 6th graders in Grant County are something worth observing because these students already required certain immunizations when they entered kindergarten. Some of these immunizations require updating. There are four different immunization statuses to observe including complete, exempt, conditional, and non-compliant. Complete immunization status means that all required immunizations for public school are complete, exempt represents those students who are exempt from immunizations due to personal or religious beliefs, or have allergies which impact their ability to receive immunizations. Conditional immunization status represents students who have part of a series of shots, but need more to be complete. Non-compliant status represents students who were previously in conditional status but did not reach complete status in the time necessitated by the immunization.

2007 – 2008 School Year, 6th Graders				
	Complete	Exempt	Conditional	Non-compliant
Grant County	54.4%	3.7%	5%	37%
WA State	70.7%	5.5%	3.4%	20.3%

We would like to see the percentage of complete immunization status for 6th grade students increase. The Grant County percentages only reflect those schools that

reported their records to the Washington State Department of Health. Another impact is the accuracy of the reports that schools submit. Sometimes there are errors within databases that are discovered later. Although we have a lower percentage of complete status for 6th graders in Grant County than compared to the average of all Washington State counties, we are not alone. There are a number of counties that fair worse to much worse than our figures.

In 2009, the Grant County Health District will be working on an immunization quality improvement project focused on 6th graders, with an educational component delivered to healthcare providers in order to reduce the barriers associated with immunizations for children. The Grant County Health District would like to encourage providers to not only include *school-required* immunizations, but to also follow *recommended* immunization schedules to optimize the capacity for students to fight off communicable disease.

Rates of Vaccine-Preventable Disease

The following table shows crude rates of a few vaccine preventable diseases in Grant County. The rate is the number of persons experiencing the condition divided by the number of persons *at risk* of experiencing the condition over a specified time period. In this case, the rate is expressed as a number per 100,000 people. The numbers below do not signify individual case numbers.

Hepatitis A	2002	2003	2004	2005	2006	2007
State	2.66	1.23	1.07	1.01	.80	.92
Grant	1.31	3.89	1.28	6.32	1.24	1.21
Hepatitis B						
State	1.36	1.46	1.04	1.26	1.19	1.0
Grant	0	0	1.28	1.26	0	0
Mumps						
State	0	.18	.03	.05	.66	.85
Grant	0	12.97	0	0	0	0
Pertussis						
State	9.42	13.84	13.6	16.34	5.9	7.43
Grant	1.31	0	0	5.06	1.24	4.85
Meningitis						
State	1.26	.98	.66	.83	.71	.49
Grant	1.31	0	1.28	1.26	0	1.21

Sexually Transmitted Disease

Sexually transmitted diseases (STD's) may cause infertility; and a mother can also pass the infection to her fetus. Having one STD may make an individual more susceptible to acquiring another STD. Many STD's have few or no symptoms, thus increasing the

importance of testing for those who are at risk. Those who engage in unprotected sexual contact with multiple partners are at greater risk of contracting an STD.

Year	2002	2003	2004	2005	2006	2007
Gonorrhea – All						
State	48.4	45.16	45.56	59.81	66.37	56.44
Grant	5.23	16.86	19.16	16.43	13.66	13.33
Syphilis - All						
State	2.62	3.92	5.45	5.74	6.63	5.67
Grant	0	1.3	0	0	2.48	0
Chlamydia - All						
State	247.21	275.42	285.89	297.54	279.50	290.14
Grant	220.95	280.16	298.9	237.67	242.18	266.67
Herpes - All						
State	31.68	33.9	34.91	37.24	38.37	32.4
Grant	17.0	19.46	38.32	27.81	13.66	13.33

The rates in this chart are also expressed as crude rates in order to minimize the chance that cases are missing. The rates do not represent case numbers, they are an incidence rate expressed per 100,000 people. Compared to the rest of Washington State, Grant County appears to have lower rates of these STD's in general with the exception of Chlamydia in 2003 and 2004 and Herpes in 2004. These rates will continue to be monitored over time.

Some rates appear to be statistically significantly lower than the rest of the state. However, there is a vast difference in the actual case numbers which may make the comparison between the rates somewhat unreliable. Our lower numbers do not suggest that Grant County has avoided becoming impacted by STD's, that our residents are less sexually active, or that we should not educate the public about STD prevention. It could be that STD testing is less accessible here in general. We may see a rise in STD numbers in Grant County in the future, as our population increases.

HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immunodeficiency Syndrome) are included under the STD section of this report. HIV is often contracted sexually, but can also be acquired through other means of contact such as shared needles for recreational drugs, or other blood contact. The HIV data shown is over combined years since numbers of new cases per year in Grant County are low. Again, the data does not signify case numbers, but a crude rate expressed per 100,000 people. However, it is still an important health concern since the health outcome for those living with AIDS is quite serious.

HIV	2002 - 2007
State	9.0
Grant	2.3
Data notes: newly detected HIV, regardless of AIDS status	

AIDS data is not included here since AIDS diagnoses are no longer considered to be an accurate measure of the course or direction of the HIV epidemic in Washington. There is little value in attempting to analyze new AIDS diagnoses for trend, since we are generally unable to determine whether any given diagnosis of AIDS is the result of delays in seeking treatment, non-adherence to treatment, or treatment failure. Also, due to the widespread availability of more effective HIV therapies, meeting the clinical case definition of AIDS is much less predictive than it once was regarding a patient's individual prognosis or chances for long-term survival.

Tuberculosis (TB)

RCW 70.28, RCW 70.30, and WAC 246-170 outline tuberculosis (TB) prevention, treatment and control requirements and responsibilities. The health officer is vested with full powers of inspection, examination, treatment, and quarantine or isolation of individuals with or suspected to have active tuberculosis disease. Counties assume responsibility for expenses in providing treatment and control in the cases of active (infectious) TB cases.

The health officer can appoint a physician to oversee the TB control program, or assume those duties for himself/herself. The Grant County Health Officer maintains this oversight in Grant County.

Prevention activities include local clinic activities including nursing visits to assess patient health histories when patients have had positive TB screening results (such as a positive skin test or Quantiferon test), physician evaluation of health histories and x-rays, referral to healthcare providers for follow-up, as well as distribution of medications for latent or non-infectious TB infection.

Treatment and control of active or infectious TB is provided according to current practice standards. Public health funds can be quickly expended in providing TB treatment and control activities. This includes the delivery of “Directly Observed Therapy” (DOT), whereby the patient’s administration of medications by self or others is observed. As TB patients are isolated in their homes (or provided a home setting if they don’t have one) until deemed non-infectious, this requires home visits by nurses and other staff or community members who partner with local public health in the care of the TB patients. In 2008, even though Grant County had only 1 newly diagnosed case of active TB, local public health investigated 10 patients for active TB, including the obtaining and sending laboratory specimens.

Year	2001	2002	2003	2004	2005	2006	2007	2008
State (rate)	4.1	4.17	3.92	3.92	3.93	4.06	4.39	3.31
Grant (cases)	7	2	3	0	3	1	2	1

Prevention and Health Promotion

Prevention and health promotion activities are geared toward reducing the risk of health problems in a community. There are several indicators here that assist in adjusting the focus of these activities to the groups of people at risk in our communities.

Years of Healthy Life

One indicator of the health status of a population is its expected years of healthy life. The measure used is to determine the additional years of healthy life expected past the age of 20. The years of healthy life expected at age 20 are measured using a combination of data that is calculated by adjusting life expectancy data with health status. In Grant County, we are significantly worse in this area compared to Washington State in general. A 20 year old in Grant County may expect to live an additional 46 years of healthy life compared to additional 51 years in the rest of Washington State in general. In the United States, the additional years expected is 48.

What specific factors make Grant County worse is not clear. One issue or potential limitation to this information could be a smaller sample size related to the surveys used to collect part of the data. Other factors may include lifestyle differences, median income, and variability among data sources. This indicator should be examined for trends or patterns over time.

Tobacco Use / Cigarette Smoking

Grant County is similar to the rest of Washington State in adults who smoke or who have smoked at least 100 cigarettes in their lifetime. About 20% of Grant County residents older than age 18 currently smoke or have smoked at least 100 cigarettes in their lifetime compared to 18% for the rest of Washington State. This difference is not statistically significant, is for years 2004-2006 combined, and during this time period the U.S. estimate was also at 20%. Cigarette smoking is the most common form of tobacco use and is the single most preventable cause of disease and death in the U.S. The 2007 Behavioral Risk Factor Surveillance System survey of Grant County shows that 15.7% of adults smoke cigarettes. This is compared to the Washington State population in general in 2007 which indicates that 16.5% of adults smoke cigarettes.

The Grant County Health District's Tobacco Prevention and Control program supports community capacity and awareness for tobacco prevention activities, policy development to limit exposure to second hand smoke exposure, and offers health promotion resources including Tobacco Quitline and local cessation resources. As a part of its vigorous youth tobacco prevention efforts, youth are provided advocacy training to speak out against tobacco use, peer education programs, and youth participate in tobacco compliance checks to determine tobacco sales rates to minors. Healthy Youth Survey results show that tobacco use among youth has decreased in Grant County. Healthy Youth Survey data for 2008 indicates that 93.1% of Grant County 8th graders and 92.7% Washington State 8th graders do not currently smoke cigarettes. For more information on tobacco use as it relates to health disparities, please see the Access to Care and Health Disparities section of this report.

Physical Activity and Overweight - Adult

About 61% of Grant County adults report adequate physical activity - either moderate physical activity for at least 30 minutes a day, five days per week, or vigorous activity for at least 20 minutes a day, three days per week. In comparison to the rest of the state at 63%, this difference is not statistically significant and in fact, Grant County residents exceed the U.S. estimate where 58% of adults report adequate physical activity. The amount, type and duration of physical activity is demonstrated to have a positive impact on health in general.

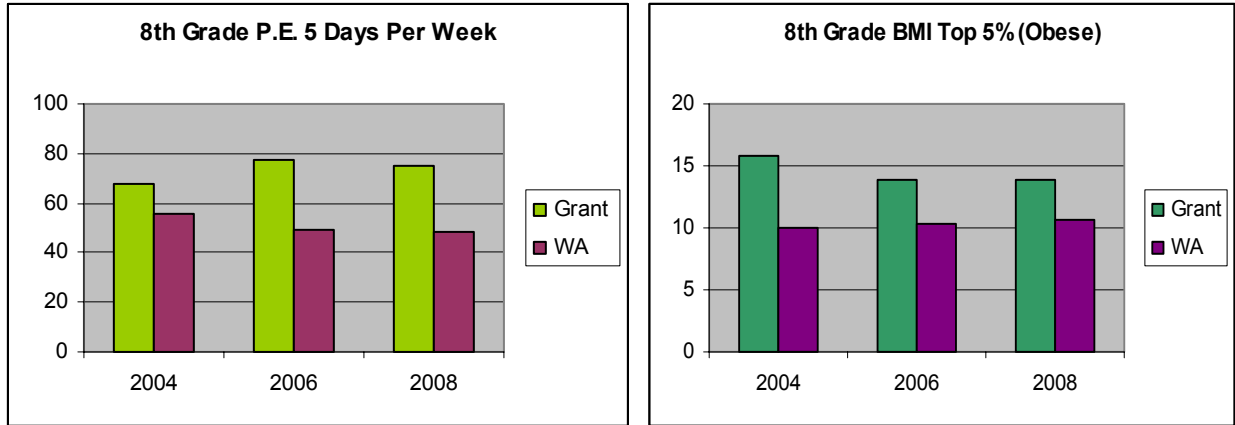
On the other hand, more Grant County adults are overweight or obese as compared to the rest of Washington. About 67% of Grant County adults are overweight or obese compared to 59% of the rest of Washington. This is a significant difference which is measured by the percent of adults age 18 and older who have a Body Mass Index (BMI) of 25 or more. BMI is determined through height and weight calculations. An adult having a body mass index of 30 or more is considered obese. However, unhealthy weight can lead to health issues such as high cholesterol, diabetes, heart disease, stroke, and certain types of cancer.

Physical Activity and Overweight - Children

The Healthy Youth Survey does not reveal significant differences between Grant County and Washington State on self-reported physical activity among years 2004, 2006, and 2008 at the 6th and 8th grade levels, based on responses regarding exercising 20 minutes for 3 days during the previous week. The 2008 survey for 6th graders used a question regarding 60 minutes, rather than 20 minutes.

In 2004, 2006, and 2008, more Grant County 8th graders report that they had Physical Education (PE) 5 days per week when compared to the rest of Washington State at a statistically significant level in all survey years. This PE question did not appear on the survey for 6th graders in 2004, 2006, or 2008 and therefore the information is only available for 8th graders.

In 2004 Grant County had significantly more 8th graders report that they were in the top 5% for Body Mass Index than the rest of Washington State. This means that more of our 8th graders reported obesity in 2004. However, this situation improved in 2006 and 2008 with our numbers going down, being more similar to the rest of Washington State. This question is not asked of 6th graders in any of the previously mentioned survey years.



The relationship between physical activity and obesity can be observed in the above charts. The more that Grant County 8th graders report having P.E. 5 days per week, the more the obesity figures start moving downward. As the amount of frequent P.E. declines for Washington State, the obesity figures start to increase.

Food and Nutrition

Adults in Grant County are similar to the rest of the state in fruit and vegetable consumption. About 22% of Grant County adults and 24% of adults in Washington State report they eat five or more servings of fruits or vegetables per day. Eating fruits and vegetables can help prevent some heart disease, stroke, and many cancers.

The City of Moses Lake became the first Healthy Communities pilot site and the Grant County Health District supported activities with this effort which helped create a few linked recreational/bike trails. The trails were studied for use for year 2003 through 2007 and data indicated that the trail counts increased during the time period. Trail use also increased on trails developed near new housing.

The Community Garden was also established in Moses Lake. Donation of harvest from the garden was given to the Food Bank. The Community Garden saw expanded partnership in 2007 and another garden site was established. The Moses Lake area experienced a significant 26% increase between years 2003 and 2007 in fruit and vegetable consumption 5 times a day among the adult population. No significant increase was detected in Grant County in general with regard to fruit and vegetable consumption. No increase was noted for Moses Lake in terms of obesity either, which stayed about the same instead of continuing to trend upward.

Another outcome of the Healthy Communities project was the Breastfeeding Coalition. Through the coalition, breastfeeding awareness was promoted by encouraging mothers to breastfeed where they feel comfortable. It also created community awareness about natural and healthy benefits of breastfeeding and a sustainable breastfeeding booth at the Grant County Fair. The promotional activities have not continued due to lack of funding.

The Grant County Health District coordinates the Basic Food and Nutrition Education Program, which promotes healthy eating and active lifestyles. Making healthy food choices have been promoted by providing educational activities for pre-school students and families. Results from 2008 reflect an 11% increase preference for fruits and vegetables for the pre-school groups that participated.

Diabetes

About 9% of adults in Grant County are estimated to have diabetes, based on self-reporting, compared to 7% in Washington State. This difference may have meaning and might be explained by certain characteristics. Considering our population has a higher percentage of overweight or obese people than the rest of Washington State, the fact that we have a higher percentage of diabetes makes sense. Hispanic individuals also have more of a tendency to developing diabetes, and our population is 36.6% Hispanic in Grant County. For more information related to the race disparity of diabetes, please see the Access to Care and Health Disparities section of this report.

Unintentional Injury and Death

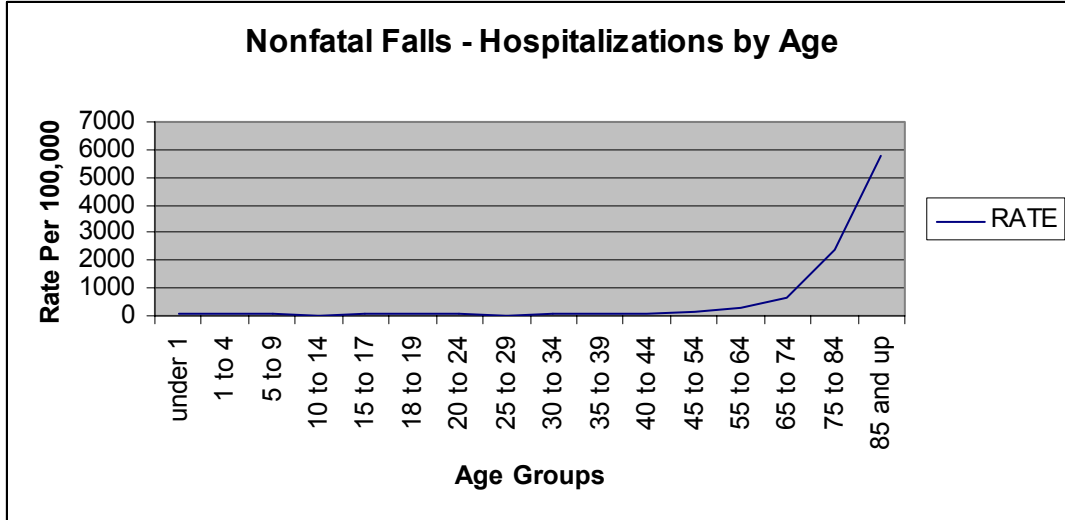
Many people in Grant County are injured or killed by accidental causes. The information which follows includes data which represents Grant County residents only, excluding residents of other counties who might be injured, killed or hospitalized in Grant County. The number one unintentional injury that results in death for Grant County residents is motor vehicle occupant accidents. This category does not include pedal-cyclist or pedestrian fatalities, it is occupant only accidents.

Rank	Fatal	Rate per 100,000	Rank	Non-Fatal	Rate per 100,000
#1	Motor-Vehicle (Occupant)	20.9	#1	Falls	305.1
#2	Poisoning	15.1	#2	Motor-Vehicle (Occupant)	70.2
#3	Falls	8.6	#3	Poisoning	35.7
#4	Drowning	4.0	#4	Struck by or against	20.4

Non-fatal injuries require a 48-hour or longer hospital stay. The above figures are for Grant County residents in general. The “struck by or against” category could be a stationary object that a person ran into, or it could be a moving object other than a vehicle such as playground equipment. The chart below depicts comparison to the rest of Washington State by ranking. In terms of rates per 100,000, local rates for motor-vehicle occupant crashes, poisoning, and drowning are higher than the rest of Washington State.

Rank	Fatal (Grant County)	Rank	Fatal (WA State)
#1	Motor-Vehicle (Occupant)	#1	Poisoning
#2	Poisoning	#2	Falls
#3	Falls	#3	Motor Vehicle (Occupant)
#4	Drowning	#4	Drowning

The rate of fatal falls is highest among the elderly population in Grant County. Fatal falls in age groups younger than 64 do not have a rate calculated due to low numbers. Non-fatal falls do, however, require many hospitalizations. Most of these hospitalizations occur in the age 45 and over category, although infants and toddlers



have more falls than children age 5 through 17 years old. In order to address the most affected population from falls, a Senior Falls Coalition was developed to reduce the number of senior falls, in which the Grant County Health District participates. For more information about unintentional injuries and death as they relate to children, please see the Maternal and Child Health section.

Maternal and Child Health

There are several indicators within maternal and child health systems that help identify health concerns in the community, including indicators related to socioeconomic status and education levels.

1st Trimester Prenatal Care

It is important for mothers to seek prenatal care in the 1st trimester of pregnancy. Mothers who have had previous children sometimes delay obtaining prenatal care past the 1st trimester, but seeking early and continuous prenatal care is important in every pregnancy in preventing adverse birth outcomes and improving maternal health. In Grant County, 73% of pregnant mothers obtain prenatal care in the 1st trimester compared to 80% in the rest of Washington in general. This is a significant difference and it may be related to social determinants of health such as education level and socioeconomic status. A lower education level has been associated with higher infant mortality rates, and although this disparity in the United States is decreasing, there is still some disparity present. Also, two conditions impacted by prenatal care are congenital anomalies and low birth weight, which are leading causes of infant death.

Smoking During Pregnancy

Smoking during pregnancy is the single most important and preventable cause of low birth weight (which could mean less than optimal health for the newborn).

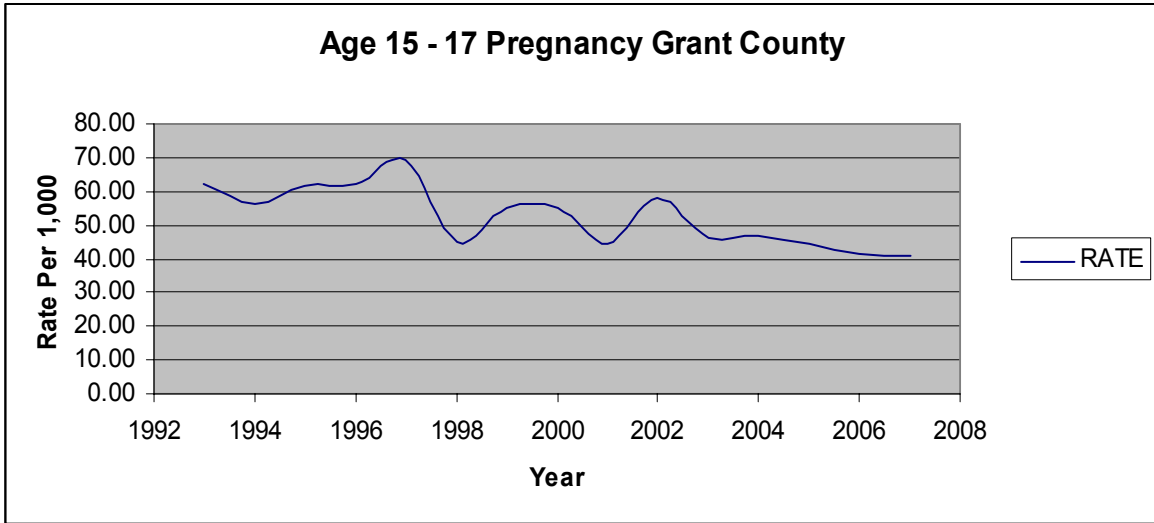
Approximately 10% of all pregnant mothers in Grant County and in Washington State smoke at any time during pregnancy, matching U.S. figures. There is a difference among Hispanic women and White women in Grant County, and the same is true for Washington State. Hispanic women tend to smoke less during pregnancy than White women.

GRANT COUNTY						
	Smoking 1st Trimester		Smoking 2nd Trimester		Smoking 3rd Trimester	
Year	Caucasian	Hispanic	Caucasian	Hispanic	Caucasian	Hispanic
2003	8.63	2.17	8.05	1.76	7.55	1.49
2004	9.90	2.17	8.83	1.91	8.55	1.78
2005	9.10	1.67	8.54	1.41	7.34	1.15
2006	9.16	2.42	8.70	2.30	8.43	2.18
2007	9.65	2.33	9.38	2.21	9.05	2.21

Teen Birth Rate

Babies born to teen mothers are more likely to be born preterm, have a low birth weight, and to die during their first year of life than children born to women who delay childbearing beyond their teen years. The teen (age 15 through 17) birth rate in Grant County (38 per 1,000) is significantly higher than the rest of Washington State (15 per 1,000). Adverse social determinants of health that children of teenage mothers face that are negative and costly include a higher likelihood of incarceration during adolescence or their early 20's, failure to complete high school, teenage childbearing, and unemployment/under-employment as a young adult. These children are also more likely to score lower in math, be victims of abuse and neglect, and be in poor health.

The graph demonstrates a downward trend in teen pregnancy rates. The data below includes pregnancies and abortions. It is unknown what is causing this trend but it is good news and should continue to be monitored over time.



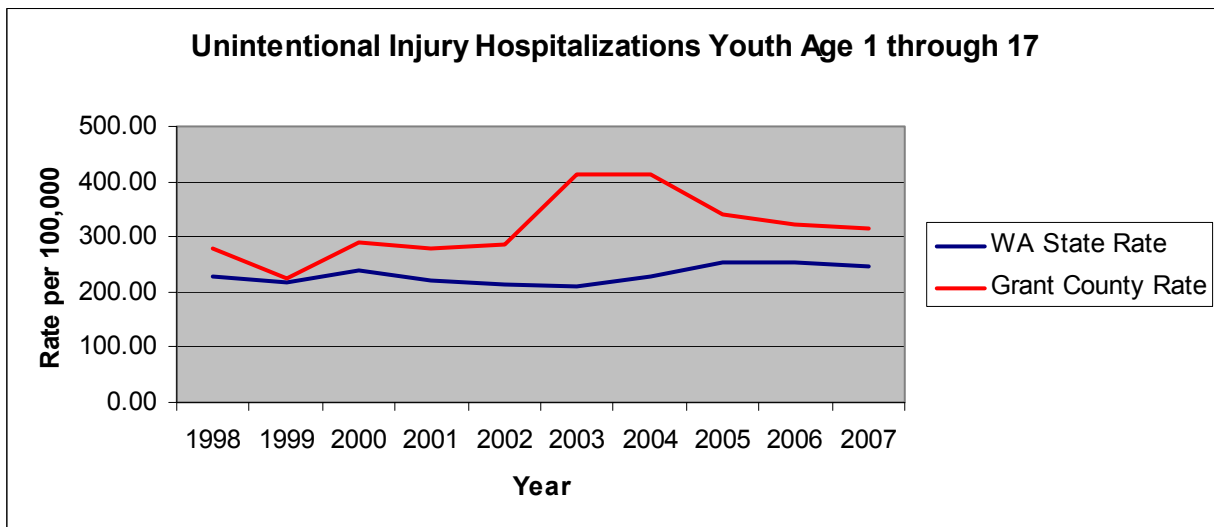
Low Birth Weight

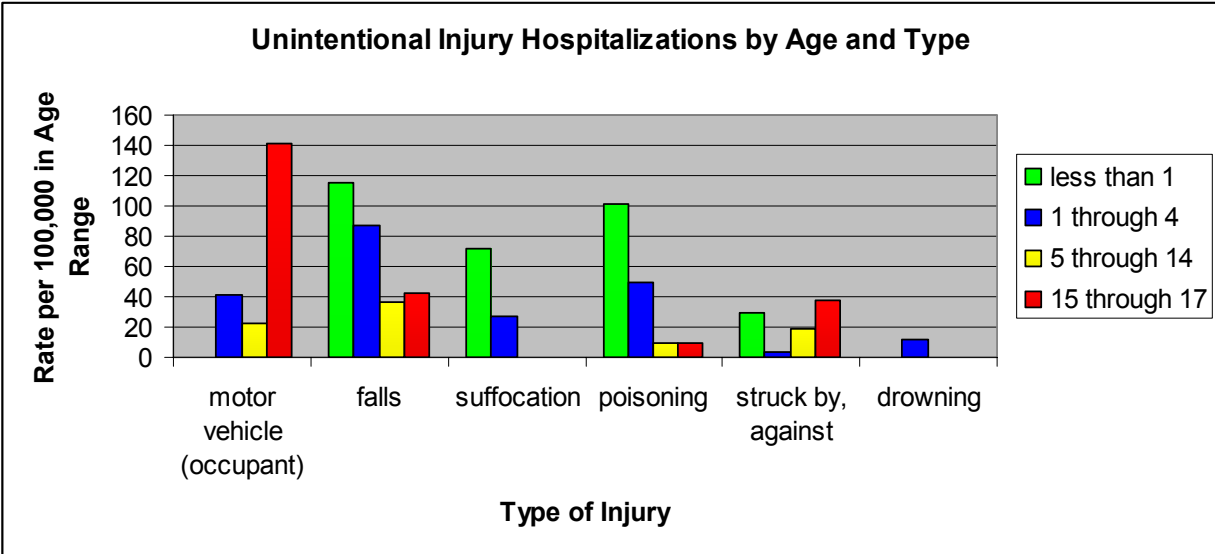
This measure is for singleton births with birth-weight less than 2,500 grams, about 5.5 pounds. Newborns in this category are at high risk for birth asphyxia, hypoglycemia, infections, circulatory problems, and temperature instability. About 5% of singleton births in Grant County are in this category, which is the same percentage as Washington State.

Childhood Unintentional Injury and Death

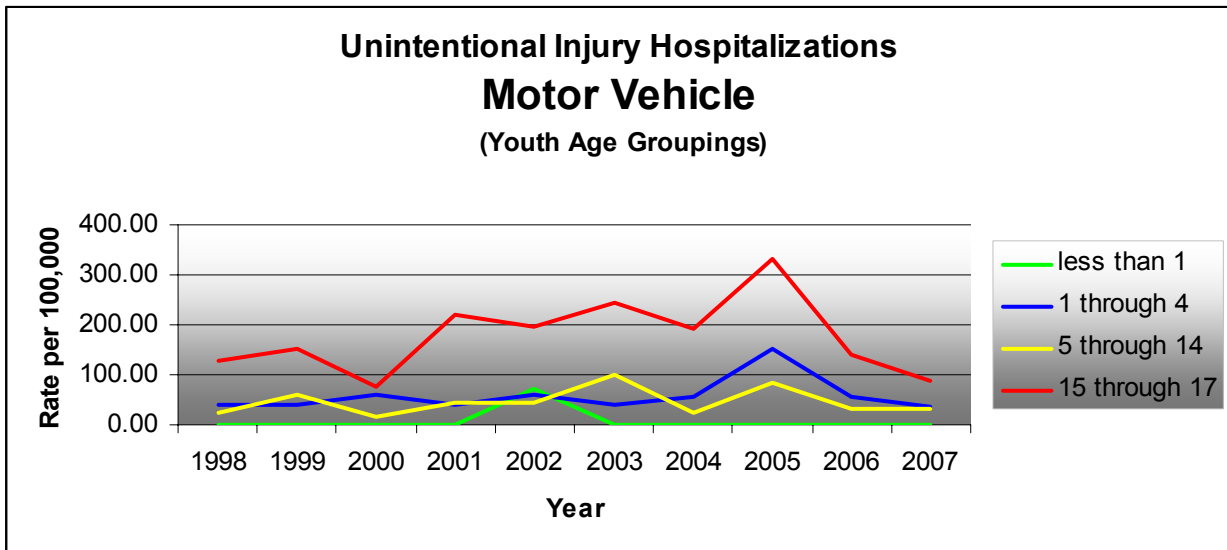
Hospitalization figures tell us that we have a much higher rate of unintentional injury hospitalizations among children in Grant County than the rest of the State. Our rate over a 3 year period (2002 through 2004) was 288 per 100,000 compared to Washington State at 199 per 100,000, a statistically significant difference.

From 1998 to 2004, unintentional injury hospitalizations for youth in Grant County demonstrated an upward trend, which is now beginning to decline as seen in the graph below.



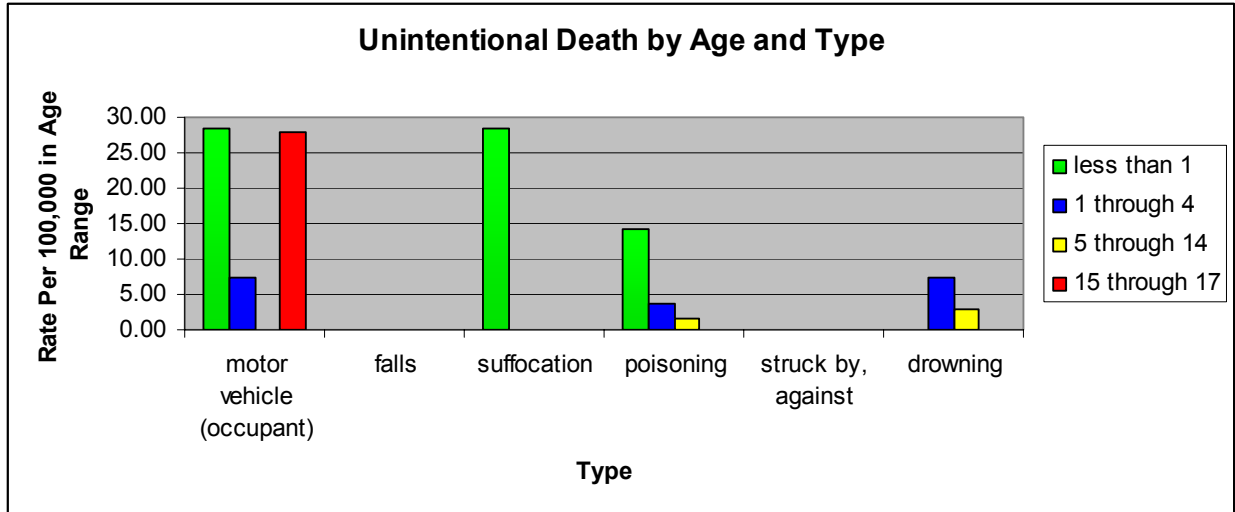


Motor vehicle crashes are the leading cause of unintentional injury death for children under the age of 17 in Grant County. According to the Washington Traffic Safety Commission driver and occupant behavior is responsible for more than 80% of all motor vehicle crashes. Since 2005 we have seen a steady decline in the number of car crash fatalities. Although no direct link can be associated, it should be noted this is the same year that Safe Kids Grant County, an injury prevention coalition was started. In 2006, the Grant County Sheriff's Office Traffic Unit was formed. In 2002, the Highway Safety Corridor project on Highway 17 was launched.



In recent years, unintentional suffocation has seen a sharp increase for children less than one year of age. Child Death Review data shows a majority of these deaths are linked to an adult co-sleeping with an infant.

While the highest death rates for unintentional poisonings occur among adults, unintentional poisonings rates are also of concern to Grant County children under the age of 5. Recent budget cuts at the Washington State Health Department have impacted the services provided by the Washington Poison Control Center, which may result in higher rates in coming years.



Children with Special Healthcare Needs

The Grant County Health District provides care coordination services for children that have or are at risk for special healthcare needs. The caseload is generated through referrals from hospitals, providers, schools, WIC (Women, Infants, and Children program), Head Start, and other entities serving infants, children, and childbearing women. With an ongoing caseload of approximately 170 families at any given time, the Children with Special Health Care Needs program served 250 clients in 2008; about one-third of these children had been diagnosed with a congenital anomaly (condition present at birth), such as cleft lip/palate or a genetically-linked condition. Other frequently noted conditions in 2008 included sensory-related conditions, such as visual or hearing deficits, or birth-related conditions such as low birth weight, premature birth, or complications during pregnancy and delivery.

The following Children with Special Health Care Needs (CSHCN) information is for rural and large town areas in Washington, and Washington overall. This is based on the Census Bureau’s definitions of Urbanized Areas and Clusters, based upon population density as further defined by Rural –Urban Commuting area codes. The suburban and urban core areas are not included. The information is not precisely specific to Grant County, but should be representative enough to make generalizations. It is therefore, valuable information to observe. The data are core outcomes and National Performance Indicators for the National Survey of Children with Special Healthcare Needs.

Washington State 2005 - 2006			
Survey Item	Overall	Large Town	Small Town / Rural
CSHCN who receive coordinated, ongoing care within a medical home	48.3%	50.4%	56.7%
Youth with special health care needs who receive the services necessary to make the appropriate transitions to adult health care, work, and independence	47.3%	50.1%	45%
Currently insured CSHCN whose insurance is inadequate	29.3%	23.2%	30.9%
CSHCN whose families pay \$1,000 or more out of pocket in medical expenses per year per child	18.6%	9.5%	12%
CSHCN whose families spend 11 or more hours per week providing or coordinating child's health care	6.3%	4.1%	13%
CSHCN whose conditions cause family members to cut back or stop working	22.7%	23%	21.6%

Grant County has a medical home team that is always working on improving access to a medical home for all Children with Special Health Care Needs in Grant County. It is encouraging to see that in large and small town areas in Washington that 50% or more have a medical home as this promotes health and quality of life. Unfortunately, there are few services available for helping these youth transition to adult care and it is sometimes difficult for parents to maneuver these systems. Private insurance often times does not cover specialized items needed for a special needs child as much as state provided insurance. Out of pocket expenses can be a financial hardship for families with private insurance.

Students with special healthcare needs such as a serious hearing impairment, mental retardation, developmental delay, or serious behavioral disability would be in a special education classroom setting. For the 2007 – 2008 school year, 11.7% of Grant County students enrolled in the public school system were enrolled in special education classes. About 12.6% of Washington State school aged children are enrolled in special education classes.

Access to Care and Health Disparities

Access to healthcare services is often a social determinant of health status. If a person does not have health insurance, lacks adequate coverage, or does not have the finances available, it may limit their ability to seek care for successful treatment or management of a health condition. Many Grant County residents experience barriers to access to care. The most recent Health Provider Shortage Area (HPSA) survey conducted in 2007 in collaboration with the Washington State Department of Health

provided shortage area designations: northern and southern portions of Grant County are considered Geographic Shortage Areas (the entire population in the area is identified as under-served and the resources are over-utilized), and central Grant County is considered a Migrant Farm Worker Shortage Area (an under-served population including the farm workers and their non-farm working family members). These are the same designations that were provided in 2003 and we should expect to see these designations continue as long as the program is sustained by policy-makers. These designations provide eligibility for local clinics to bring in new providers based on incentives provided by the federal government. The survey is conducted every four years.

Adults with Health Insurance

We are significantly lower than the rest of Washington State in general in terms of adults with health insurance coverage. About 73% of Grant County adults compared to 83% of Washington State adults have health insurance coverage. As long as the economic climate and current state of the healthcare system persist, we will likely see this issue continue.

Children with Health Insurance

Approximately 70% of children age births through 17 years receive public medical assistance through the Washington State Department of Social and Health Services in Grant County. It is not known at this time how many children are covered by private insurance or how many are underinsured.

Adults with Unmet Medical Need

The percentage of Grant County adults who self-report that they needed to see a doctor in the past year but could not due to cost was 17% compared to 13% for Washington State. While not a statistically significant difference, concerns arise regarding negative consequences of not seeking care when needed.

Adults with Personal Healthcare Provider

Around 75% of Grant County adults have a “medical home” (primary medical care provider or clinic) compared to 78% of adults in the rest of Washington State. People who have a medical home are more likely to seek care when they need it. Again, the difference is not significant, but it is an important indicator or predictor of health status. Many single untreated medical conditions can lead to other more serious health concerns.

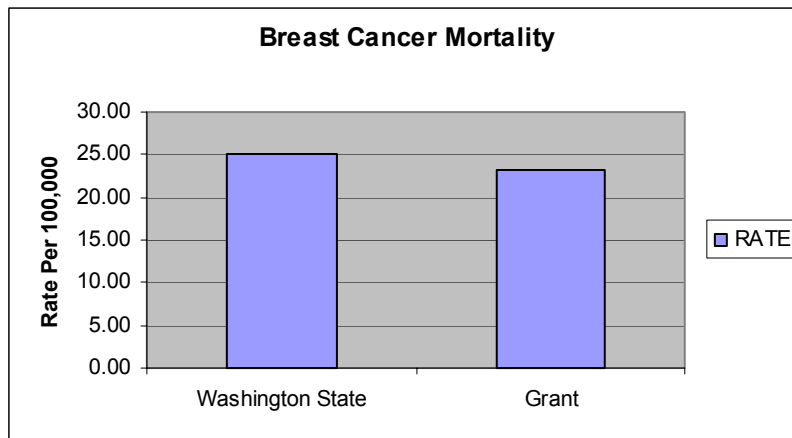
Adult Dental Care

Grant County adults report visiting a dentist, dental hygienist, or dental clinic at significantly lower percentage than Washington State. Only 62% of adults in Grant County compared to 71% of adults in the rest of Washington State have sought dental care in the past year. This may be due in part to the fact that very few dental clinics in Grant County accept medical coupons as a form of payment. Unmet dental needs have the potential to impact the rest of the body including cardiovascular health. More

information may arise about dental services in Grant County when results the next dental shortage area designation are developed. The survey is scheduled for 2009.

Mammograms

Preventive breast cancer screening is intended to detect cancers at curable stages. Approximately 80% of women age 50 or older in Grant County report receiving a mammogram within the past 2 years. A similar percentage is seen in Washington State in general. This is good news for older females in Grant County, but it would be ideal for 100% of women over age 50 to get biennial breast cancer screening.



Pap Smear Testing

Cervical cancer screening, like breast cancer screening, is intended to detect cervical cancer at curable stages. About 78% of Grant County and 79% of Washington State women age 18 or older report receiving a Pap smear test within the past 3 years.

Colorectal Screening

53% of Grant County adults age 50 and older report having a blood stool test in the past year, sigmoidoscopy in the past 5 years, or colonoscopy in the last 10 years; this is statistically significantly lower than 63% reported for Washington State. However, we are similar to the rest of Washington State in terms of actual colon cancer deaths. This does not suggest that our population should not get screened; on the contrary, early screening and detection help increase the success of cancer treatment.

Critical Access Hospitals

Three of the four hospitals located in Grant County are designated by Washington State as critical access hospitals. These include Columbia Basin Hospital in Ephrata, Coulee Community Hospital in Grand Coulee, and Quincy Valley Hospital in Quincy. These hospitals are designated this way because they are located in rural areas and have no more than 25 acute care beds at one time; the designation assures that Medicare patients have access to health care services in a rural setting.

Facilities for the Aging

There are a few different settings where an individual can get assisted living services while not living in their own home. Adult family homes are neighborhood residential homes where staff assumes the responsibility for the safety and well-being of the adult offering varying levels of care. A boarding home is a facility in the community often termed “assisted living” where staff also assumes the responsibility for the safety and well-being of the residents. Nursing homes provide for higher acuity needs with 24-hour supervised nursing care available.

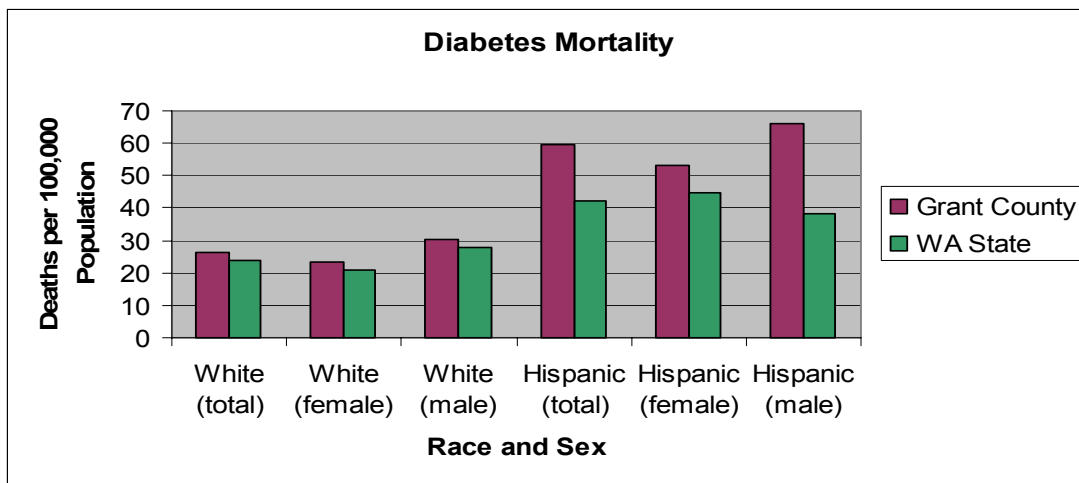
Grant County Assisted Living Capacity, 2008 Totals		
Type of Facility	Number of Facilities	Number of Beds
Adult Family Home	16	95
Boarding Home	6	342
Nursing Home	4	246

Meeting the health care needs of an aging population may become increasingly challenging as the older segment of our population grows. The chart data does not address in-home care services or retirement homes.

Race

Among Grant County’s two largest race/ethnicity populations, White/Caucasian and Hispanic, there appears to be a wide discrepancy in tobacco behaviors based on cancer data. Mortality rates for trachea, bronchus, and lung cancer are much higher in the White race category for combined years 2003 - 2007: 56.81 per 100,000 in Whites/Caucasians and only 25.15 per 100,000 in the Hispanic Category. Similar results are also found in mortalities due to lip, oral cavity, and pharynx cancer. Unfortunately, statewide budget cuts for tobacco prevention may negatively impact community capacity for tobacco prevention activities.

Another disparity among Hispanic and White races is the mortality rate associated with diabetes. Hispanics have a higher rate of death than whites in Washington State.



The same appears to be true for Grant County with no reason to assume that it is different. However, there is a relatively higher percentage of Hispanics living in Grant County compared to many other counties in Washington State which may explain the higher rates. This disparity in health is being addressed by the Grant County Health District through partnering with other agencies and conducting outreach activities at health fairs and community events. Through the Basic Food Nutrition Education Program, the Grant County Health District also provides education to parents of Hispanic migrant students. Traditional Hispanic recipes are shared, with alternative cooking methods or ingredients for a healthier version.

Environmental Health

The Public Health Improvement Partnership identified three key indicators for environmental health: 1) percentage of solid waste facilities in compliance, 2) percentage of inspected food establishments, and 3) percentage of on-site sewage failures with corrective action initiated within two weeks.

Statewide data has not yet been developed; however, baseline data at the local level for year 2008 is provided as a baseline.

Solid Waste Facilities in Compliance

Health risks associated with improperly operated solid waste facilities include resulting vector problems and impacts on ground and surface water resources. For year 2008, about 88% of solid waste facilities in Grant County are in substantial compliance.

Inspected Food Establishments

Only 7% of Grant County's food service establishments had 35 or more critical violations upon inspection by public health staff. Establishments having 35 or more critical violations pose the highest risk for causing food borne illness outbreaks, and must be re-inspected. After the first re-inspection, the fee is one half of their annual licensing fee. On the fourth time if the establishment does not come into compliance, it will be closed down until compliance is reached.

On-Site Sewage Failures (corrective action initiated within 2 weeks)

88% of identified on-site sewage failures in Grant County initiated corrective action within 2 weeks.

Consultations and Complaints by Program

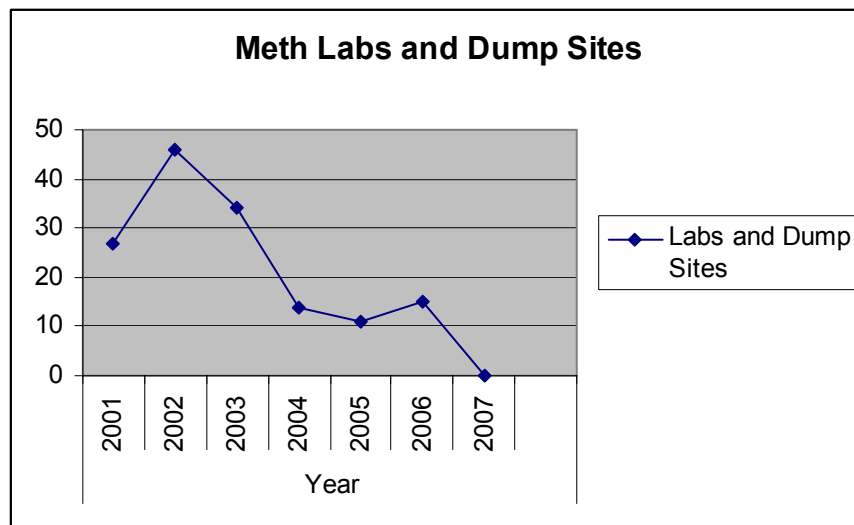
This chart shows the numbers of consultations performed by environmental health staff for the last few years by environmental health program. Consultations are a primary mechanism for insuring adherence to code and good public health practice in environmental health. Consultations may be in response to complaints or requests for information or assistance. Complaints are reports of conditions that require or request action from public health.

Consultations					
Program	2004	2005	2006	2007	2008
Water	555	429	833	837	542
Solid Waste	581	575	751	611	407
On Site Sewage	2222	1819	2858	2726	1713
Vector Control	378	359	379	289	325
Food	2212	1797	1980	2109	2021
Chemical/Physical	167	59	34	67	45
Living Environment	277	171	508	418	434

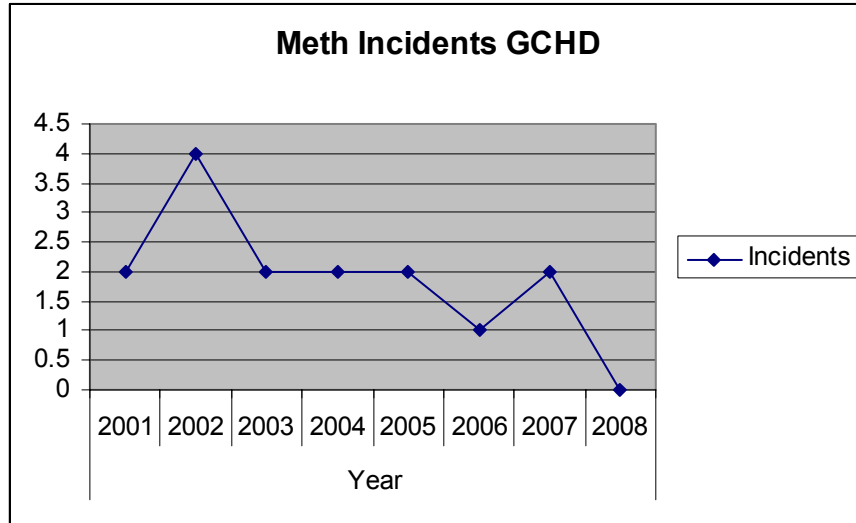
Complaints					
Program	2004	2005	2006	2007	2008
Water	25	34	30	16	11
Solid Waste	75	76	100	45	30
On Site Sewage	54	46	74	63	39
Vector Control	65	114	153	149	151
Food	83	70	75	86	80
Chemical/Physical	3	1	1	2	2
Living Environment	8	11	11	15	15

Methamphetamine Lab Information

The Washington State Department of Ecology responds for non-residential methamphetamine (meth) labs and dump sites, often found in fields and vehicles. This is the data in the below graph. In most cases, law enforcement discovers a site and reports this to the Washington State Department of Ecology. This demonstrates the downward trend in Grant County; which is also a statewide pattern.



The Grant County Health District responds to reports of residential meth labs and dump sites. Below, the meth incidents that the Grant County Health District has involvement with are also trending downward.



Although the number of labs and dump sites are decreasing, it is believed that methamphetamines continue to be brought into the area from outside sources. More research may be needed in order to eradicate this serious public health hazard. Methamphetamine is highly addictive and produces serious health risks. Some common health hazards related to meth production include burns, fetal damage, respiratory failure, leukemia, reproductive disorders, eye damage and blindness, thyroid damage, liver damage and kidney failure. Meth use causes long-term health effects such as cancer, brain damage, birth defects, miscarriages, memory loss, heart problems, aggression and violence. It may cause problems for those who are unintentionally exposed to chemicals, such as those who enter a meth lab, or children living where meth is produced. Individuals who examine or clean these sites wear personal protective suits and/or equipment. The Grant County Health District participates in the Meth Action Team, a group comprised of several community partners that focuses on meth use problems and meth prevention strategies.

Vector Control

Vector control investigates animal bites, tests for rabies, and monitors diseases like West Nile Virus through dead bird collection and testing. The chart below shows animal bites, but also includes very rare situations in which there was only exposure through physical contact and not a bite, such as when a person picks up a bat. In 2008, there was also 1 gopher, 1 squirrel and 2 mouse bites and in 2006 there was one rat bite. Gophers, squirrels, mice, and rats are not known to cause rabies in humans. The following chart includes animals that would be more likely to carry the rabies virus.

Animal Bites By Year:

	Dogs	Cats	Bats	Ferrets	Unknown Animal	Yearly Totals
2006	126	15	1	1	1	144
2007	97	14	2	1	1	115
2008	109	33	0	0	1	143

In the 3 years noted, there were a total of 4 people identified who were recommended for rabies prophylaxis due to exposure. Although this is a small number of people, rabies is very serious. By the time a person has symptoms of rabies, the outcome is normally fatal.

West Nile Virus

Surveillance for West Nile Virus (WNV) began in 2002 in Washington State. 2008 was the first year West Nile Virus was detected in Grant County, with 10 horses and two mosquito pool samples reported to be infected with the virus. Two dead birds were collected and tested in 2008, one negative and one positive for the virus. Certain birds tend to die from infection with the virus including crows, ravens, jays, and magpies. Most people infected with the virus will not have symptoms, and for those that do develop symptoms, they are usually mild. However, some people may develop more severe symptoms that may lead to paralysis and coma. The highest risk is to persons with weakened immune systems and adults over the age of 50. Surveillance for WNV in Grant County will continue to help mitigate this risk for the public.

Septic Inspection

On-site septic inspection visits are made before septic permits are issued, to discuss repair methods with the designer, to conduct final inspections for new systems, and to review proposed developments (plats).

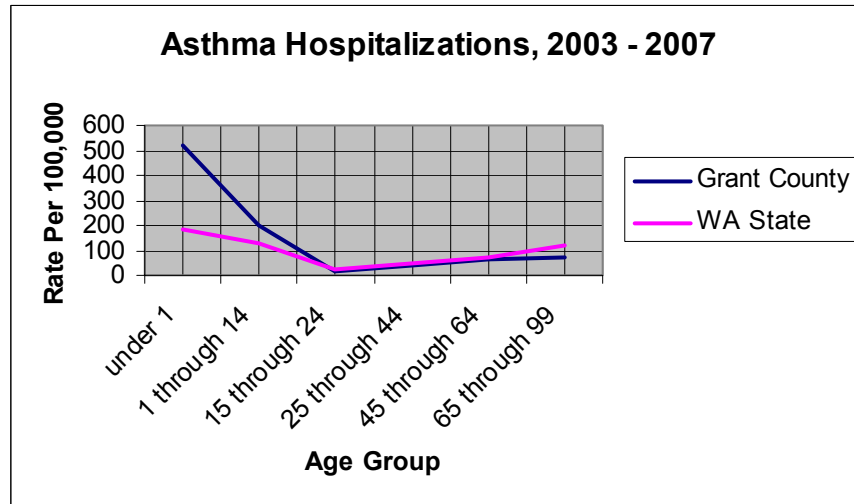
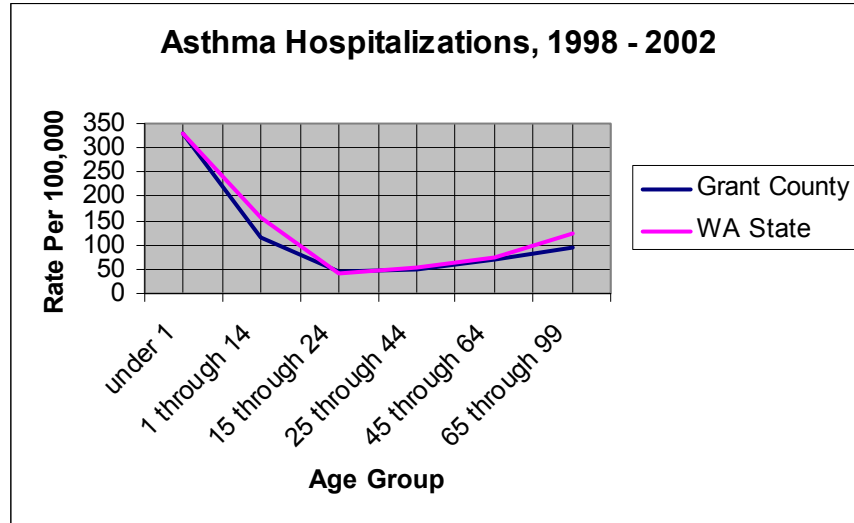
- 2006 1,162 visits
- 2007 1,194 visits
- 2008 1,042 visits

The lower number of visits in 2008 may be attributed to a slowing of land development due to the state of the national economy.

Air Quality

In addition to motor vehicle generated pollution, a significant source of particulate pollution in Grant County comes from agricultural burning; however, the acres burned have decreased from 6127 acres in 2003 to 5219 acres in 2007. Smoke from wild land fires from within or near Grant County are usually a seasonal occurrence in eastern Washington during the warm and more arid months. Another source of particulate air pollution in Grant County is seasonal windblown dust. Health risks from particulate air pollution include complications of currently existing respiratory conditions, such as asthma.

There is one air quality monitor in Grant County through the Washington State Department of Ecology. This monitor is located in Moses Lake within city limits. To see real time air quality information from this monitor, go to following web page: <https://fortress.wa.gov/ecy/enviwa/Default.htm> and click on the dot within the Grant County boundary.



As seen in the above graphs, asthma hospitalizations are fairly similar to the rest of Washington State. It is not known why the hospitalizations among the 14 and under age groupings are higher than the state for years 2003 – 2007. The good news is adults self report having asthma on the Behavioral Risk Factor and Surveillance System less than the rest of the state. In fact, Grant County is the only county that had a prevalence of current asthma at percentages lower than the rest of the state based on survey results. The difference is not statistically significant, but it is encouraging. In the graph above, the blue line representing Grant County shows that asthma hospitalizations in the age 24 and older groups are a little lower than the state. This helps support the survey data on asthma prevalence.

Food Borne Illness

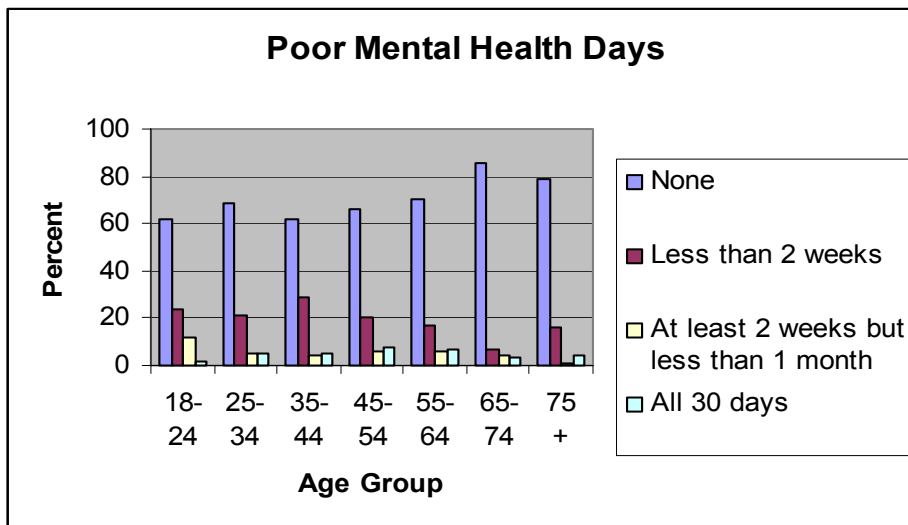
Food Borne Illness outbreaks can require costly epidemiologic case review and control measures in order to study and prevent spread of illness. During the month of June in 2006, there was an outbreak of Norovirus associated with a concession stand. The outbreak included a total of 77 cases. The investigation process concluded that people who had called to report symptoms ate a certain type of meat. The majority calling had also eaten at a concession stand during the same time period. From first case confirmation, the investigation continued for 5 days.

During the summer of 2007, the Grant County Health District responded to investigate a possible food borne illness outbreak that was found to be Salmonella, serotype Seftenberg (there are around 2,500 different serotypes of Salmonella). This is not a commonly reported serotype within the State of Washington. 18 cases were reported during the primary investigation period. 3 more cases of the Seftenberg serotype were identified in 2008. Seftenberg serotype was the most involved food borne illness investigation conducted for year 2007 in terms of staff time. Control measures which reduced disease transmission included the initiation of schedules for cleaning equipment and hand-washing, with times documented.

Mental Health and Substance Abuse

Mental Health

The chart below illustrates that poor mental health days for Grant County residents decrease with age. Similar results are found when looking at Washington State. 9% of Grant County adults age 18 or older report 14 or more days of poor mental health in the past month compared to 10% of Washington State adults in general. However, the data per age group in the chart below representing Grant County is somewhat limited due to low numbers of responses per response option and age grouping. For those that do report poor mental health, the associated risks are disability and suicide.



BRFSS Data Query System, as charted by author

Another measure of mental health is hospitalizations for mental health issues. For combined years 2005 – 2007, Grant County experienced a lower rate of hospitalizations for schizophrenia, depression, and all psychoses compared to the rest of Washington. Since hospital data is based on residence, this includes instances when a Grant County resident was hospitalized elsewhere.

Currently counseling and other mental health services are facing limitations due to funding issues. Public mental health agencies, including Grant Mental Healthcare provide services often through brief treatment counseling sessions. Access to public mental health services are now typically limited to Medicaid-only individuals and families. Regular therapy may not be available and services in general to non-Medicaid individuals and families can be very limited. Private insurance is not accepted. Ultimately, the services are less available than they once were for the working poor. Crisis services are still available to all.

Suicide

Low numbers of suicides can prevent the expression of a reliable rate. In general more males commit suicide than females and this trend can also be observed at both the Washington State and National levels. The U.S. Centers for Disease Control reports that men are 4 times more likely to die from suicide. This however, does not depict suicide attempts. Women are more likely to make attempts at suicide than men. Any event of suicide has negative impacts on the community. Those who commit suicide often surprise family members, friends, neighbors or coworkers who may not have known that a person was at risk. Suicide numbers dropped in the year 2000 in Grant County, went back up through years 2002 - 2004, then dropped again in 2005, followed by an increase in 2006 and 2007. It is important for educators and others in the community to be familiar with both the obvious and less obvious indications that a person may be suicidal and to know where to get immediate assistance and ongoing support. Immediate assistance is available through crisis line services, typically located in the yellow pages of a phone book or by contacting local emergency services.

Youth Information - Depression and Suicide

The 2008 Healthy Youth Survey indicates that 29% of 8th graders in Grant County felt sad or hopeless almost every day for 2 or more consecutive weeks so that they stopped doing some of their usual activities compared to 24% of 8th graders in Washington State in general. This does not reflect statistical significant difference. Approximately 7% of 8th graders in Grant County reported that they attempted suicide, compared to 5% in the rest of the State. Again, this is not statistically significant. However, 20% of Grant County 8th graders report that they would be *very unlikely* to seek help for a friend who they thought might be depressed or suicidal when compared to the rest of the state at 14%; this difference reflects statistical significance.

One question item on the 2006 version of the survey (not available on the 2008 version of the survey) indicates that fewer 8th graders in Grant County heard information about suicide prevention at school in the last year. The U.S. Centers for Disease Control and

Prevention recommends that schools assess suicide prevention strategies regularly and develop written policies to guide schools with suicide prevention activities.

Below are the percentages of 8th graders who felt sad or hopeless almost every day for 2 weeks or more so that they stopped doing some of their usual activities:

	Grant County	WA State
2004	29.9	29.3
2006	29.8	24.8
2008	28.8	24.2

These differences do not represent statistical significance but may be worth exploring further due to negative impacts on quality of life.

Substance Abuse

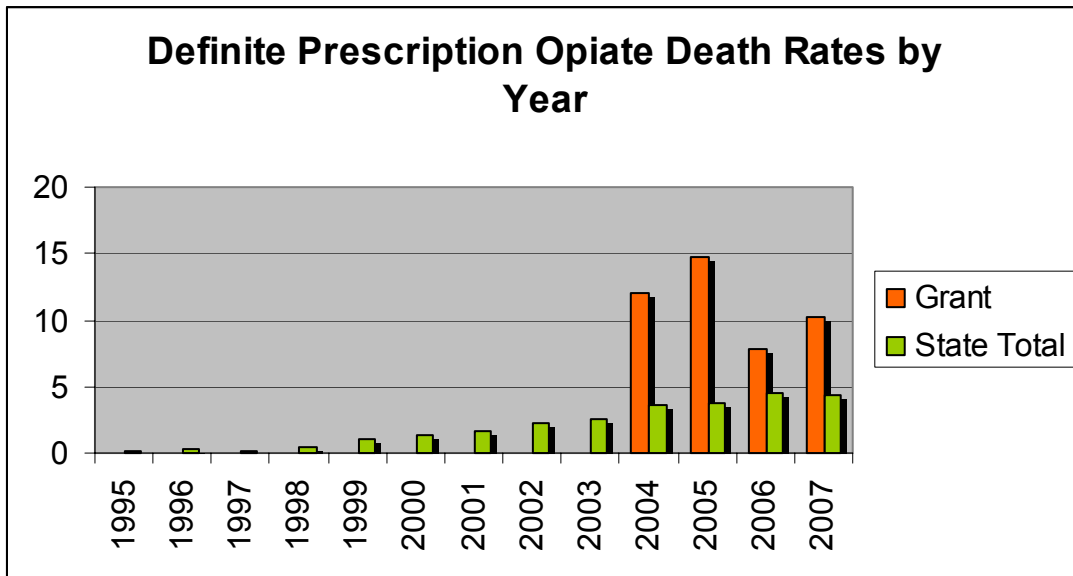
The most notable in the following numbers is the jump in illicit drug hospitalizations over time. The difference between the Grant County rate (lower) and the Washington State rate for illicit drug hospitalizations is statistically significant. Asterisks are located where rates are not available due to low numbers.

Substance Abuse Hospitalizations		
	Grant County	WA State
1999-2001		
Alcohol Related	330.59	353.99
Illicit Drug Related	163.87	248.65
Opioid Dependence/Abuse	8.21	9.71
Cocaine Dependence/Abuse	**	3.4
2002-2004		
Alcohol Related	337.93	343.53
Illicit Drug Related	208.96	277.93
Opioid Dependence/Abuse	**	3.21
Cocaine Dependence/Abuse	**	1.68
2005-2007		
Alcohol Related	330.93	359.36
Illicit Drug Related	253.65	317.75
Opioid Dependence/Abuse	**	3.47
Cocaine Dependence/Abuse	**	1.3

It is an interesting observation that opioid dependence/abuse hospitalizations are decreasing at both the state and county level since prescription opiate related deaths are on the rise all over Washington State. The figures in the table also account for heroin, a street drug form of an opiate. Unfortunately, hospitalizations for illicit drug use are increasing. The above illicit drug use category includes many types of drugs like marijuana, hallucinogens, sedatives, opioids, cocaine, amphetamine, barbiturates, and benzodiazepines.

Prescription Opiates

The chart below shows the increase in unintentional prescription opiate (painkillers) deaths by year, which is classified as poisoning. Prescription pain relievers combined with anti-anxiety and anti-depressant drugs is a common combination in overdose death which has trended upward across the state, the nation, and locally over the past several years. These figures do not include suicide, rather, they are all accidental deaths related to prescription opiates.



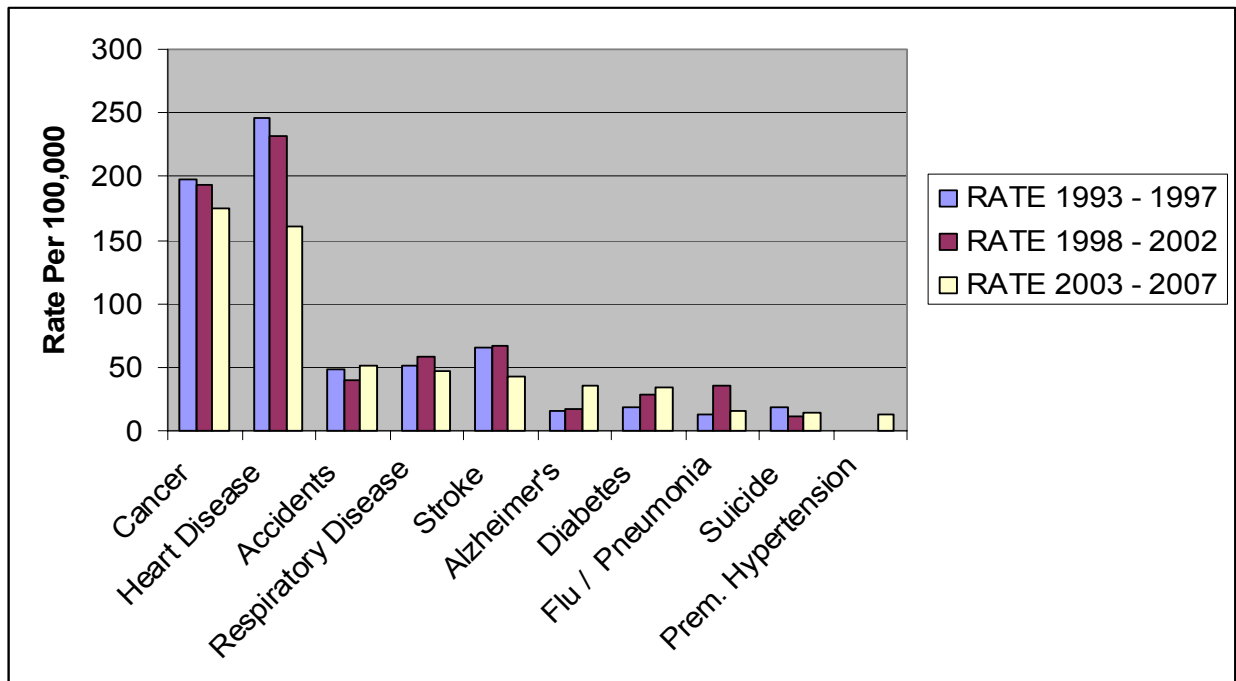
Terms such as ‘toxic’, ‘intoxication’, ‘overdose’, or ‘ingestion’ were found on the death certificates. Also, a prescription opiate or terms used to describe the opiate were reported on the death certificates. Department of Social and Health Services provides a web-based toolkit for medical providers where a patient’s pharmaceutical history over the past several months can be accessed (the patient must sign a release). The Grant County Health District does not have a prevention program for prescription opiates, but education is shared with parents and children about poisoning prevention, including prescriptions.

Binge Drinking

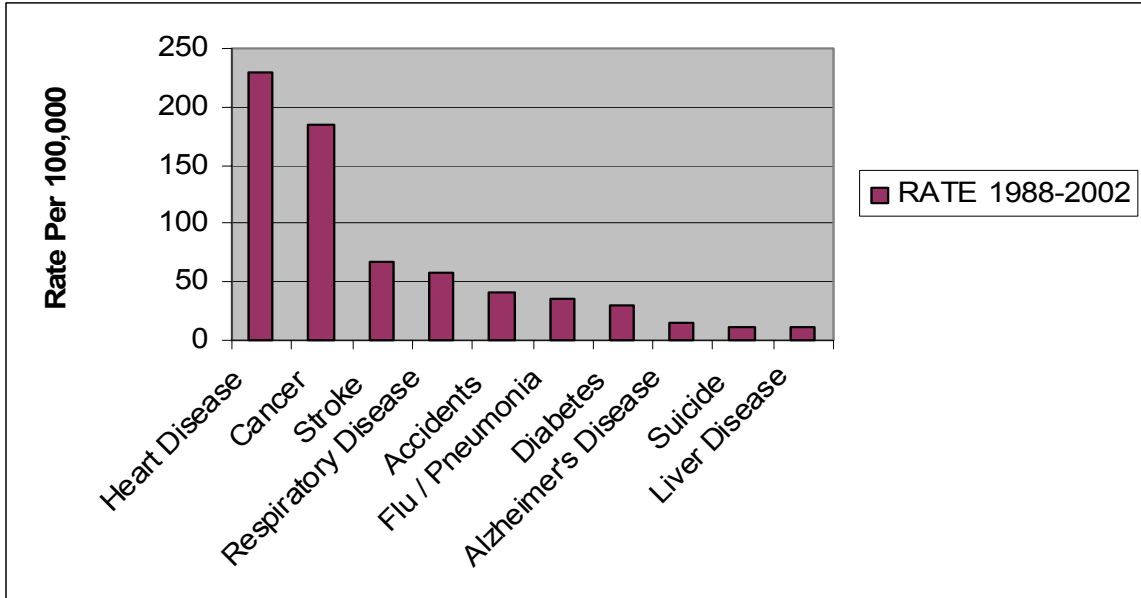
Grant County adults may be similar to Washington State adults regarding binge drinking behavior. The data is limited by a small sample size for Grant County in this survey item; about 12% of Grant County respondents reported that they had engaged in binge drinking on one or more occasion during the past 30 days. In the survey, binge drinking is defined as five or more alcoholic beverages for men and four or more alcohol beverages for women during one incident. For Washington adults, that number is 14%, but this does not reflect any significance and should not be used for comparison due to the low sampling numbers in Grant County for this question item.

Top Ten Causes of Death

The below chart shows the top ten leading causes of death in Grant County over different periods of years for comparison. Alzheimer's disease is trending upward within Grant County, when compared to the other time ranges in the graph below. Diabetes also exhibits an upward trend. In the premature hypertension category, the year ranges for 1993 to 2002 are missing since premature hypertension was not one of the top ten causes of death in those year ranges. For 1998-2002, the tenth cause not shown was chronic liver disease/cirrhosis of the liver and for 1993 – 1997, the tenth cause not shown was aortic aneurysm/dissection.



The most recent 5 year period to be concerned with is 2003 – 2007 as compared with previous years over time. This 5 year period, compared to the previous 15 years; 1988 – 2002, reveals some noteworthy findings.



While cancer and heart disease *rates* are down when compared to 1988 – 2002, cancer has surpassed heart disease for years 2003 – 2007, and is ranked the top leading cause of death. Accidents are another current area of concern as the third leading cause of death in Grant County, as discussed previously in this report. The good news is that most of the rates for the diseases and conditions in the previous charts have gone down. However, diabetes, Alzheimer’s disease, and accident rates have all increased since the 1988 – 2002 time period. It is possible that advancements in diagnostic technologies have contributed to increased detection of diabetes and Alzheimer’s. Increased consumption of sugars in the general population is also a contributing factor to the rise in the rate of diabetes.

Grant County Top 10 Leading Causes of Death Years 2003 – 2007 Compared to WA State	
Grant County	Washington State
#1 Cancer	#1 Cancer
#2 Heart Disease	#2 Heart Disease
#3 Accidents	#3 Alzheimer’s Disease
#4 Respiratory Disease	#4 Stroke
#5 Stroke	#5 Respiratory Disease
#6 Alzheimer’s Disease	#6 Accidents
#7 Diabetes	#7 Diabetes
#8 Flu and Pneumonia	#8 Suicide
#9 Suicide	#9 Flu and Pneumonia
#10 Premature Hypertension	#10 Liver Disease

Public Health Funding and Capacity

There are some considerations to make when assessing a local health jurisdiction's capacity to provide essential public health services to the community. Essential (or critical) public health services include the following 10 items:

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and assure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure a competent public health and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population based health services.
10. Research for new insights and innovative solutions to health problems.

The Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities report finds that “a small strategic investment in disease prevention could result in significant savings in U.S. healthcare costs.” This report indicates that within Washington State the return on each dollar spent in prevention programs, such as those that public health provides, is 5.5 to 1.

Public health programs must compete nationally and statewide with allocations for healthcare, and locally with government obligations such as law and justice. Counties are legislatively mandated to provide funding for public health services; other revenue sources include grants and contracts through Federal, State and private entities, as well as fees and permits. Local government contributions to public health vary across the counties in Washington State, with 2008 per capita contributions ranging from \$61.28 to \$0.35 (thirty-five cents) (<http://www.doh.wa.gov/msd/OFS/2008rs/Revsum08.htm>), with GCHD's local government per capita contribution of \$3.32 (\$2.74 without city contributions) ranking 30th among 35 local health jurisdictions. Statewide the local government per capita contribution to public health averaged \$13.34, funding 23% of expenditures.

Public health funding has not kept pace with inflation or with the needs of Grant County's growing and diverse population over the past two decades. Local cash reserves have become steadily reduced in order to balance budgets. Grant County Health District provides public health services through a limited and rudimentary staffing plan, comprised of professional and supporting employees characterized by their dedication to protecting the health of the public. GCHD personnel have been described as “doing a lot” with few resources.

Grant County cities have had the opportunity to enter into funding agreements with GCHD for the provision of special activities and services within their communities, which is not common in most Washington counties. With all but 2 of Grant County's cities and towns participating, this effort has served to provide an opportunity to maintain localization of health promotion services, and with a matching county contribution, has supported the cost of approximately 1 professional FTE.

In 2007 legislation was passed to provide public health funding to improve the public health system statewide. This funding, called "5930" (named after the legislative bill) or "Blue Ribbon" funds, providing over \$260,000 to GCHD for the biennium, focused on 3 specific performance measures for local public health across Washington State, as shown in order of priority:

- **Performance Measure #1** – Increase the uptake of new and under-used child and adolescent vaccines; specifically focusing improvement efforts and reporting on Varicella, Rota Virus, HPV and Pediatric Influenza. (Grant County has demonstrated this increase.)
- **Performance Measure #2** – Improve the timely, complete identification and standard, effective investigation of notifiable conditions per WAC 246-101. (GCHD has demonstrated the improvements.)
- **Performance Measure #3** – Develop and implement effective community and health care system interventions to address obesity and its consequent burden of chronic disease. Interventions may target worksites, schools, communities, or primary medical care. (Grant County has not been able to accomplish extensive work in this lower priority area.)

Some examples of recent expenses and funding issues follow:

At the end of the year in 2007, the public health cost for Salmonella Seftenberg was calculated at \$21,873.59, and the addition of 3 cases in 2008 cost public health a few hundred more dollars. The costs shown here represent staff time, travel, and supplies. If a more prolific food borne illness outbreak happens in the future, the cost for public health may increase.

The Grant County measles outbreak in 2008 is another example of the high costs related to controlling the spread of a communicable disease. The Grant County Health District has conservatively estimated costs at \$99,532, which includes local staffing costs related to case contacts, immunization records, supplies for vaccine, and travel costs for specimen transport to the state Public Health Laboratory near Seattle. This does not include the costs incurred by other entities' activities related to the outbreak including regional and state epidemiological costs, and those incurred by an adjacent local health jurisdiction that provided two staff that received preparedness training by their participation in the outbreak investigation.

Future assessment costs, specifically for the Behavioral Risk Factor Surveillance System (BRFSS) randomized telephone surveys, may reduce the current level of specificity with which local public health agencies can assess health status and demographics issues. The BRFSS is the world's largest ongoing health telephone survey and in many cases is the sole source of information for local public health data.

"Blue Ribbon" funds have been reduced for the coming biennium, but have been maintained at 80%, subsequent to a reduction in state-based tobacco prevention funds. These and other recent, current, and upcoming reductions in funding pose a challenging perspective to the definition of "public health", as the public health system seeks to define itself in terms of critical services that must and can be provided for the residents of each jurisdiction.

The staff at the Grant County Health District will continue to embrace ongoing work to improve the status of the public's health within Grant County in a cost-effective manner.

References

Specific reference information will be made available upon request. If you need this type of information, please contact Joy Reese, Assessment Coordinator, at the Grant County Health District at (509) 766-7960 for data source requests. There are sometimes nuances to data that may not be readily understood by the general public, and therefore explanation of the analysis or interpretation of the data may be needed. Below are a few general sources of data and information that were used in the development of this report.

- Grant County Health District, Various Reports
Online: www.granthealth.org
- Washington State Department of Health, Public Health Improvement Partnership
Online: www.doh.wa.gov/PHIP/default.htm
- Washington State Department of Health, Vista Partnership and Krupski Consulting
Online: www.doh.wa.gov
- U.S. Centers for Disease Control and Prevention
Online: www.cdc.gov
- Washington State Office of Financial Management
Online: www.ofm.wa.gov