



**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	<b>40,395</b>
Incorporated Total	<b>44,205</b>
<b>Grant County Total</b>	<b>84,600</b>

*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 13<sup>th</sup> 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.

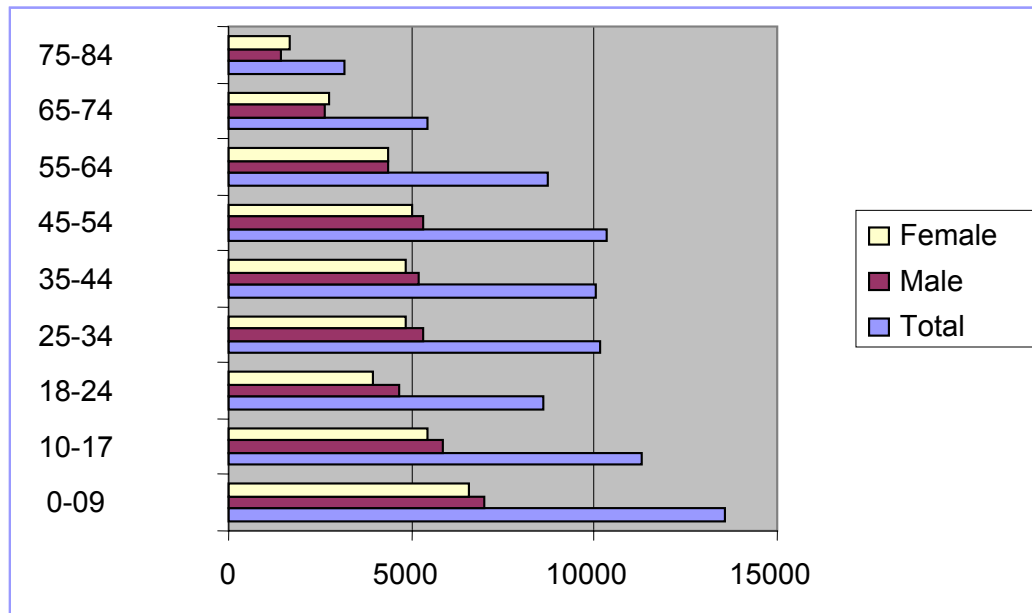
## Demographics

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

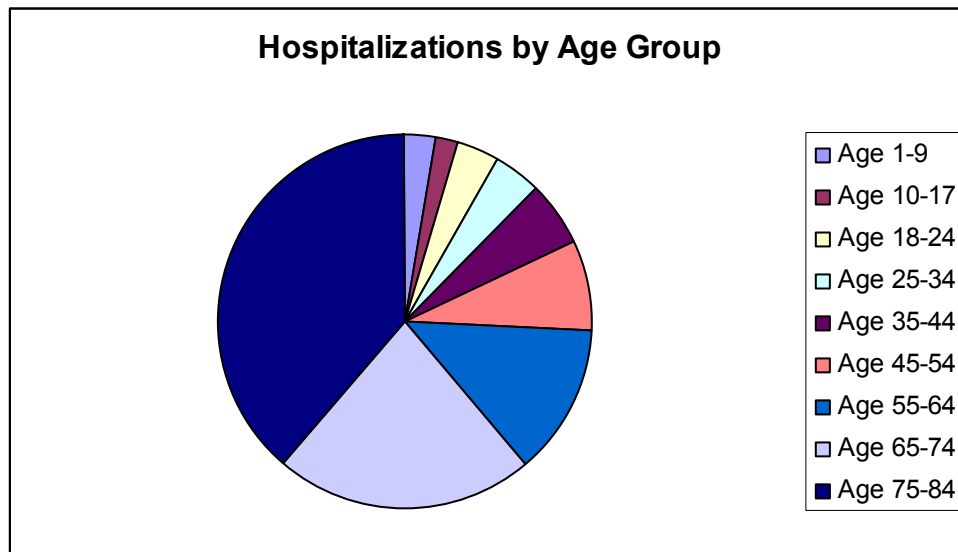
Decreases in population are observed in the 18 – 24 year old age grouping. This probably indicates the natural outflow of residents to higher education or careers outside of Grant County. Younger males outnumber younger females, especially in the 18 – 24 year old age grouping. This may be best explained 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 8<sup>th</sup> 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%

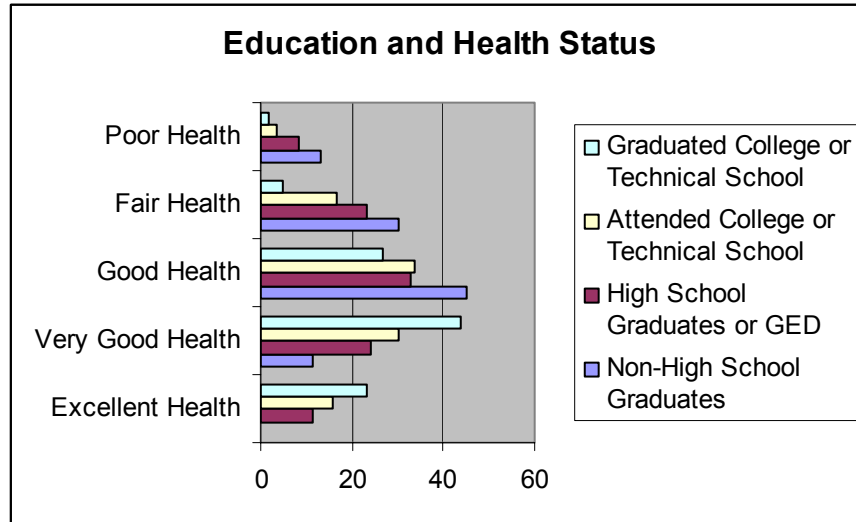
Race/ethnicity is sometimes social determinants of health status. The two dominant categories in Grant County are Caucasian and Hispanic. Some related disparities in health status are noted in the Access to Care and Health Disparities section of this report.

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 8<sup>th</sup> 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 8<sup>th</sup> 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.

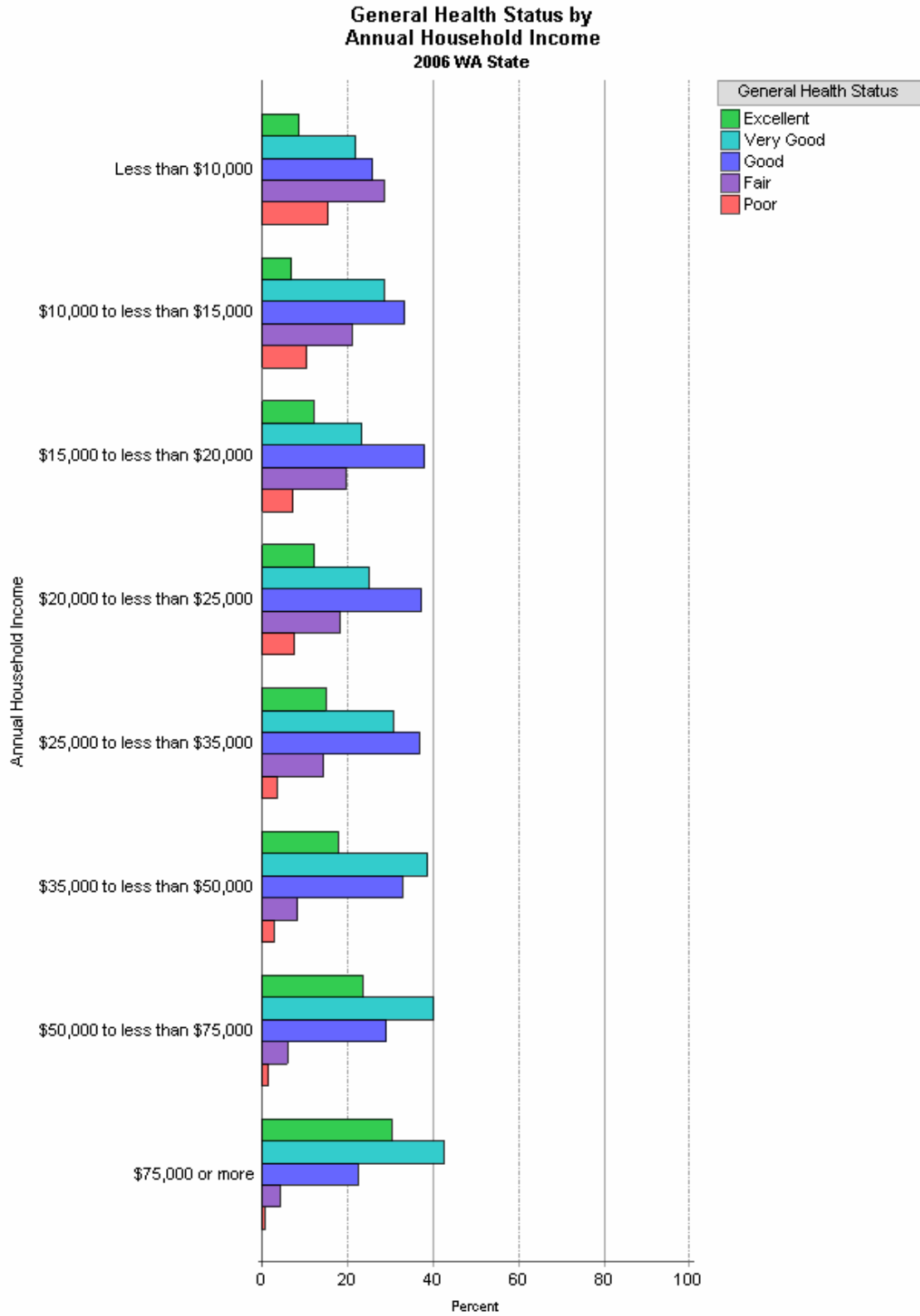
**Poverty**

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 23<sup>rd</sup> among Washington counties. The Statewide projected median income for 2008 was about \$60,010 dollars.

<b>Grant County Median Income by Year</b>	
<b>Year</b>	<b>Median Income (dollars)</b>
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 4<sup>th</sup> 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.

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

<b>Immunization Type - Children</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>DTaP:</b> Diphtheria, tetanus, pertussis	49	19	32
<b>Td:</b> Tetanus, diphtheria	14	3	3
<b>Tdap:</b> Tetanus, diphtheria, pertussis	15	119	98
<b>Hep A:</b> Hepatitis A	44	92	29
<b>Hep B:</b> Hepatitis B	52	20	23
<b>Hib:</b> Haemophilus influenza type B	14	10	12
<b>IPV:</b> Inactivated Polio Virus	57	23	32
<b>Influenza:</b> Seasonal Flu	46	240	156
<b>MMR:</b> Measles, Mumps, Rubella	47	29	126
<b>MCV:</b> Meningococcal Conjugate Vaccine	16	61	25
<b>PCV:</b> Pneumococcal Conjugate Vaccine	9	8	10
<b>Varicella:</b> 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 6<sup>th</sup> 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.

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

We would like to see the percentage of complete immunization status for 6<sup>th</sup> 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 6<sup>th</sup> 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 6<sup>th</sup> 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.

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



























































