Whatcom County
Community Health Assessment

Report of Findings

July 2012

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I. Acknowledgements

Funded by:
PeaceHealth St. Joseph Medical Center and the Whatcom County Health Department

CHA Core Leadership Team
Laurie Brockmann
Michael Massanari
Astrid Newell
Chris Phillips

CHA Project Management
Critical Junctures Institute
Michael Massanari, PI
Laurie Brockmann
Bonnie Drewes

Community Leadership Group
Laurie Brockmann
Gib Clarke
Regina Delahunt
Susan Given-Seymour
Rosalinda Guillen
Mauri Ingram
Michael Massanari
Liz Mogford
Astrid Newell
Chris Phillips
Sue Sharpe
Peter Theisen
David Webster
Greg Winter

Organizations and Entities informing the Community Health Assessment:

ACHIEVE Community Health Action Response Team (CHART)
City of Bellingham
Community to Community Development (Communidad a Communidad)
Interfaith Community Health Center
Northwest Indian College
Northwest Indian Health Board
Northwest Regional Council
Opportunity Council/ Prosperity Project
Pain Management and Opiate Dependence Task Force
PeaceHealth St. Joseph Medical Center
- Community Benefit Board

SeaMar Community Health Centers
St. Luke's Foundation
Western Washington University (WWU)
- Student Health Center
- Physical Education, Health, and Recreation
- Psychology

Whatcom Alliance for Healthcare Access (WAHA)
Whatcom Community Foundation (WCF)
Whatcom Council of Governments
Whatcom County Council on Aging
Whatcom County Health Department
Whatcom County
- Health Board/County Council
- Mental Health Advisory Board
- Public Health Advisory Board

Whatcom County Medical Society
Whatcom Family and Community Network (WFCN)
WSU Whatcom County Extension
United Way of Whatcom County
Community members and/or professionals from the following groups:
- Hispanic / Latino community
- Lummi Nation
- Nooksack Tribe
- Pregnant and parenting teens and chemically dependent mothers
- Substance use treatment providers

II. Executive Summary

Overview

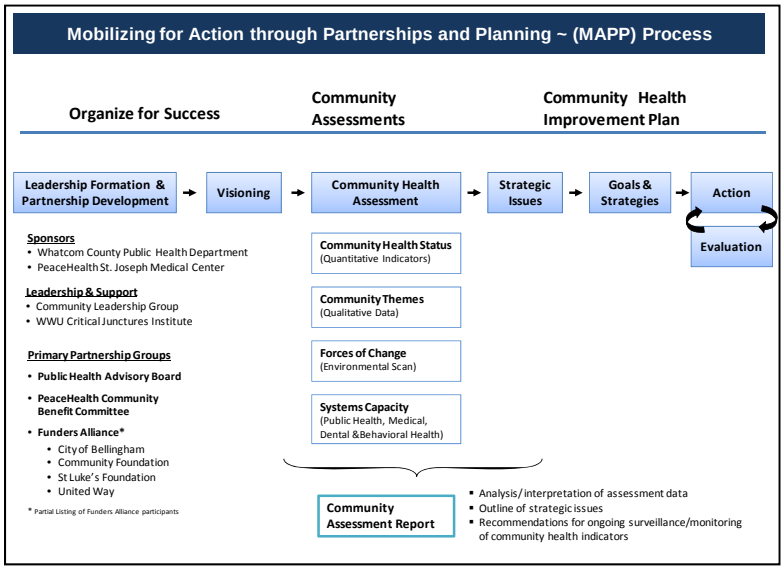
In the fall of 2010, Whatcom County Health Department and PeaceHealth St. Joseph Medical Center launched a comprehensive community health assessment and planning process. Undertaken in collaboration with a wide range of community partners, the overall aim of this work was to identify key areas where the community can take action to improve community health and reduce health disparities and inequities. The assessment also fulfills public health accreditation and health care regulatory requirements.

This report includes findings from the assessment phase of the project. The second phase of the project includes development of a *Community Health Improvement Plan* that will focus on strategic issues emerging from the assessment. The desired outcome is *not* necessarily to create new health or social programs or initiatives, rather to seek community consensus as to priorities and opportunities for channeling our collective energy into a few strategic areas for community health improvement.

Methodology

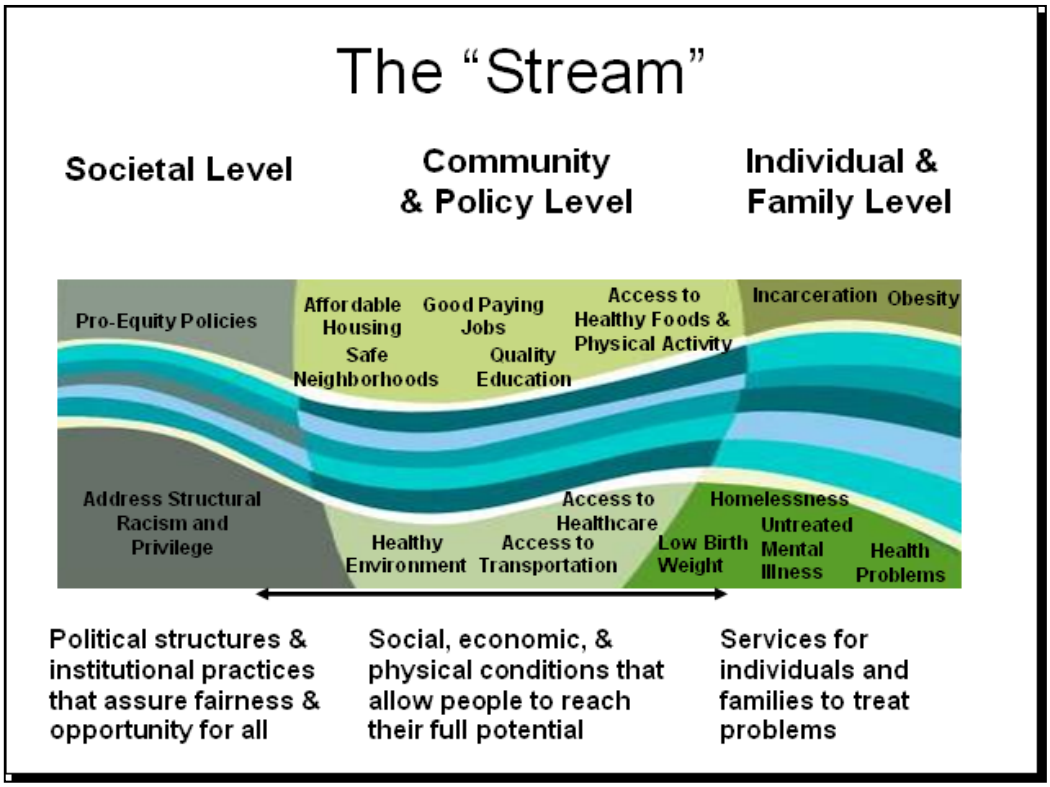
The overall assessment process is based on the national *Mobilizing for Action through Planning and Partnerships* (MAPP) model, an evidence-based community-wide strategic planning process for improving community health.

The process has included partnership and leadership group development, a community visioning process, and four assessment components. Next steps include identifying strategic issues with community partners, formulating goals and strategies, and implementing actions and evaluation. The goal is to complete the assessment and planning phases by the end of 2011.



Throughout the process of examining strengths and challenges, we have intentionally looked "upstream" at social and environmental factors that impact community health, rather than focusing exclusively "downstream" on health behaviors, diseases or health care services. An upstream approach includes examining social and physical environments and structures that give people opportunities to be healthy—access to educational opportunities, availability of living wage jobs, community cohesion and inclusion, being able to thrive without discrimination. This approach also acknowledges the importance of the early childhood period in establishing a solid foundation for good health across the lifespan.

Given the wealth of initiatives and recent assessment activities within the community, we purposely aimed to build on existing data, information and community efforts rather than start from scratch or duplicate past work. In carrying out this project, we also realized that there are many gaps in available information as well as missing voices and perspectives. The Community Leadership Group's hope is that we, as a community, will continue to fill in those gaps and hear those critical voices as we move forward from assessment to action.



King County, 2011

Vision

The shared vision for community health, which grew out of conversations with a group of community stakeholders in December 2010, provides a lens through which we can understand information gleaned in the assessment process. The vision is bold, and inclusive, and a call to the best of who we are and seek to be

We are Whatcom County, a people and a place,
culturally and geographically diverse,
united in our vision for a healthy and vibrant future where:

- **Every child** grows in a safe and nurturing environment
- **Every person** has access to comprehensive and integrated health services and social supports across the lifespan and spectrum of needs;
- **Every population** shares in the abundance of opportunities for healthy active living, outstanding education, satisfying employment, and meaningful community participation;
- **We all** flourish through our connections and commitments to each other and to the air, land and waters that surround and sustain us.

Key Assessment Findings

1. **People in Whatcom County are generally healthy.**

2. **Whatcom County's rich natural environment is highly valued.**

3. **Despite overall good health, disparities and challenges are hidden among the averages.**

4. **Poverty threatens the health of our children, families and community.**

5. **Growing needs are taking a toll on those who need assistance as well as on those who provide services.**

6. **Communities that are disproportionately impacted by health and social issues have limited voice in community decisions, yet critical perspectives.**

7. **The health and well being of children is a central concern for community members.**

8. **Mental health and substance use are frequently identified as high priority community issues.**

9. **Food and nutrition are a focus of community interest and attention.**

10. **Housing and the built-environment are increasingly recognized as key contributors to good health.**

11. **Health care access and organization of the health care delivery system remain areas of ongoing community need.**

12. **Maintaining a strong well-connected public health system is critical to protecting and improving the health of the community**

Finding Details

1. People in Whatcom County are generally healthy.

Whatcom County ranks as the 6th healthiest county in Washington State. The County does as well or better than other counties on many health indicators including overall health status and life expectancy. A beautiful natural environment; abundant recreational opportunities; availability of healthy, local foods; strong non-profit, business and government sectors; good schools and higher education opportunities; quality medical facilities and services; a strong public health system; civic engagement and pride; and a collaborative community spirit contribute to good health.

2. Whatcom County's rich natural environment is highly valued, but a dynamic tension exists between environmental protection and human interests.

Community residents believe that planning for land use and growth is very important to assure a high quality of life for residents. Concerns exist about water and air quality and environmental toxins such as pesticides. Addressing contaminants in Lake Whatcom, the main drinking source for the city of Bellingham, continues to be a primary community challenge. Passionate community debates related to land use proposals (such as Fairhaven Highlands, Galbraith Mountain, coal shipping terminal) and other environmental issues (such as on-site sewage system inspection and repair requirements) reflect strongly held and sometimes opposing views on environmental protection, quality of life, property rights, and economic growth issues.

3. Despite overall good health, disparities and challenges are hidden among the averages.

The Whatcom County population is primarily White and middle class, though diversity is growing. Within the County, those who are non-White or Hispanic, have a low household income or limited education, are unemployed, and/or live in geographically isolated areas are more likely to have worse health status and/or less opportunities to achieve good health. In general, these populations have less access to healthy foods or safe environments to walk or bike, less access to health care services, and higher levels of personal or family stress. Socio-economic indicators show that Whatcom County has lower high school graduation rates and lower median household income than comparable counties. Non-White minority groups (Hispanic and Native American/American Indians) are disproportionately impacted by these socio-economic factors.

4. Poverty and economic instability threatens the health and well-being of our children, families and community.

Poverty affects 1 of every 6 people living in Whatcom County. Racial and ethnic minority groups and women are disproportionately impacted. Single mothers and their young children are particularly vulnerable. Nearly one third of all single mothers and nearly two thirds of single mothers with young children under 5 years of age live in poverty. Education, living wage jobs, and social supports are

identified as key to addressing poverty issues. The *Whatcom Prosperity Project* represents a community effort to better understand and address the needs of people living in poverty.

5. **Growing needs are taking a toll on those who need assistance as well as on those who provide services.**

During this time of economic recession and cutbacks, many people, even those living above poverty level, have difficulty making ends meet. Lack of affordable housing, coupled with the high costs of gas, food and health care are creating challenges for many individuals and families. Service providers experience high levels of stress due to dwindling resources and inability to meet needs. Escalating costs and demands for accountability are driving efforts to transform public health, health care, education, and social service systems. Some services are simply being discontinued. Despite these challenges, the community has made good progress in targeted areas such as reducing homelessness, addressing hunger and food insecurity, or increasing health care access by strategically focusing resources.

6. **Communities that are disproportionately impacted by health and social issues have limited voice in community decisions, yet hold critical perspectives and important ideas to address challenges.**

In general, people in our community feel a sense of connection and belonging, but this is not true for everyone. Common sentiments shared by members of disenfranchised groups include: fear and mistrust of large institutional systems such as health care or government and feelings of stigmatization, disrespect and shame. Past experiences with the majority culture as well as current challenges related to immigration contribute to fear and isolation for some groups. At the same time, individuals who experience social disparities have valuable insights into community challenges and demonstrate a desire and willingness to identify and participate in solutions that build on their respective communities' strengths.

7. **The health and well being of children is a central concern for community members and an area of opportunity for community health investment and improvement.**

While the majority of children in Whatcom County are healthy, data suggest room for improvement in many areas related to childhood health, well-being, school readiness and academic success. Growing awareness of the impact of adverse childhood experiences and family dysfunction on long term health and social outcomes provide impetus for focusing additional community attention on emerging families with young children who are in critical stages of brain development, as well as youth and young adults who will eventually become parents of the next generation. Stable and nurturing parenting, good nutrition, a safe and healthy environment free of tobacco smoke and other environmental toxins represent the foundation of healthy child development. Prevention-oriented services and supports such as early prenatal care, breastfeeding promotion, developmental screening, immunizations, dental hygiene/fluoride treatment, and literacy promotion all contribute to good health in childhood and into the future. Opportunities exist to build on community interest in early childhood and the work of numerous groups and entities such as the *Whatcom Early Learning Systems Network*, *Whatcom Community and Family Network*, *Opportunity Council Early Learning and Family Support Services, Brigid Collins*, *United Way of Whatcom County*, school districts, health care providers, tribes and others.

8. **Mental health and substance use are frequently identified as high priority concerns that have wide-reaching implications for community health.**

Rates of alcohol and other substance use by youth and young adults are concerning. Evidence suggests increasing prescription drug and IV drug abuse, particularly heroin. Rates of drug associated health and social problems such as hepatitis C and property crime are growing. Increasing rates of drug-affected newborns and high rates of child abuse and neglect referrals associated with parental heroin addiction are particularly disturbing and require immediate response. Depression rates in pregnant and parenting women and youth are also worrisome. Successful passage of the local behavioral health tax ("*One tenth of one percent tax*"), targeted work of the *Whatcom Prevention Coalition* at high risk schools, a medical community task force on prescription drugs and opiates, as well as several other local initiatives reflect community interest and concern about these problems.

9. **Food and nutrition are a focus of community interest and attention.**

Growing rates of obesity and diabetes among adults and children are a particular concern for a number of population groups, including lower income, Hispanic and tribal populations. While some populations are more impacted, overweight is an issue for all age and income groups and most racial/ethnic groups including Whites. Local obesity trends follow national and global trends and are related to unhealthy food environments and sedentary lifestyles. In addition to overweight and obesity, local food issues include concern about equitable access to healthy and culturally appropriate and affordable foods, hunger and food insecurity, foodworker and farmworker health and safety, impacts of agricultural practices on water-borne and food-borne illness, and other related issues. A recent *Community Food Assessment*, the Whatcom *ACHIEVE* chronic disease prevention initiative, the new *Whatcom Food System Network*, the *Coalition to End Hunger*, and numerous other efforts demonstrate widespread community interest in food issues.

10. **Housing and the built-environment are increasingly recognized as key contributors to good health.**

Safe, healthy homes and neighborhoods provide a foundation for healthy living. Local efforts to reduce homelessness and connect people to housing resources have made important strides, though affordable quality housing remains a continuing need for many families. Local government leaders have made access to healthy, safe environments a priority including abundant hiking trails, parks, bicycle lanes, and pedestrian improvements. Issues of equity and underlying social factors that influence people's ability to access opportunities for healthy active living are not always considered in public policy deliberations and decisions. The Whatcom *ACHIEVE* initiative and other community efforts are now working to integrate health and equity principles into community planning.

11. **Health care access and organization of the health care delivery system remain areas of ongoing community need.**

Despite abundant health care resources and a number of existing initiatives focused on health care and health care access, access remains a challenge for some people. Access issues include financial, geographic and cultural barriers**.** Dental care for adults and behavioral health care for children and adults are frequently identified as particular problems. Lack of primary care resources in rural and

isolated areas such as East County and Lummi Island are also on the radar. Care coordination and integration of health and social support services for children and adults with complex health needs are recognized as a key community need, but existing reimbursement structures create barriers to building integrated systems. The community is fortunate to have the *Whatcom Alliance for Healthcare Access (WAHA)*, which serves as a community hub for addressing access issues and creating more integrated and outcome focused health care systems in response to federal health care reform legislation. *Whatcom Taking Action for Children and Youth with Special Health Care Needs* represents dedicated providers and families who are working to address the need for a more integrated system to support children and youth with special health care needs, particularly those with developmental and behavioral health issues.

12. Maintaining a strong well-connected public health system is critical to protecting and improving the health of the community.

Whatcom County's public health system includes the local health department and the many partners and entities (other governmental departments and agencies, health care, social service, education, non-profit, business, advocacy and faith-based sectors) who contribute to good health in the community. While the current system has many strengths, key challenges include maintaining adequate infrastructure for core public health services such as ensuring food and water safety, preventing and responding to communicable diseases, and preparing and responding to public health emergencies, as well as addressing broader community health issues and priorities including social and environmental factors that impact community well-being. Increasing engagement of community leaders and policymakers, expanding partnerships with non-traditional partners, building relationships with communities that experience disparities, enhancing the availability and use of data and metrics for community health improvement, improving communication within the public health system and with the community are areas of possible focus for strengthening the public health system and improving community health.

Next Steps

Though the assessment process purposely aimed to create a broad and comprehensive picture of health in Whatcom County, the data are not complete. In particular, better information about health disparities and populations that experience disparities could help us focus our attention more clearly. At the same time, collecting and analyzing information about various population groups must be done carefully, respectfully and collaboratively to prevent the furthering of harmful stereotypes, mistrust and fear.

Though we are a community with diverse political and cultural perspectives, we have a history of making progress by working together to address community issues. Our hope is that this assessment will serve as a foundation for additional discussion and community engagement, as well as concentrating some resources on areas where we can have a meaningful impact on the long-term health of our community.

Over the next several months of 2011, the Community Leadership Group will consider the information gathered during the assessment process as well as community input and perspectives on that information. We will identify a small number of strategic issues and will create a Community Health Improvement Plan to address these issues. In creating the plan, we will look for innovative ways to share organizational resources, build on community strengths and assets, and measure results.

III. Introduction

Overview of the Project

In the fall of 2010, Whatcom County Health Department and PeaceHealth St. Joseph Medical Center established a public-private partnership to complete a comprehensive community health assessment and planning process. Undertaken in collaboration with a wide range of community partners, the overall aim of this work was to identify key areas where the community can take action to improve community health and reduce health disparities and inequities.

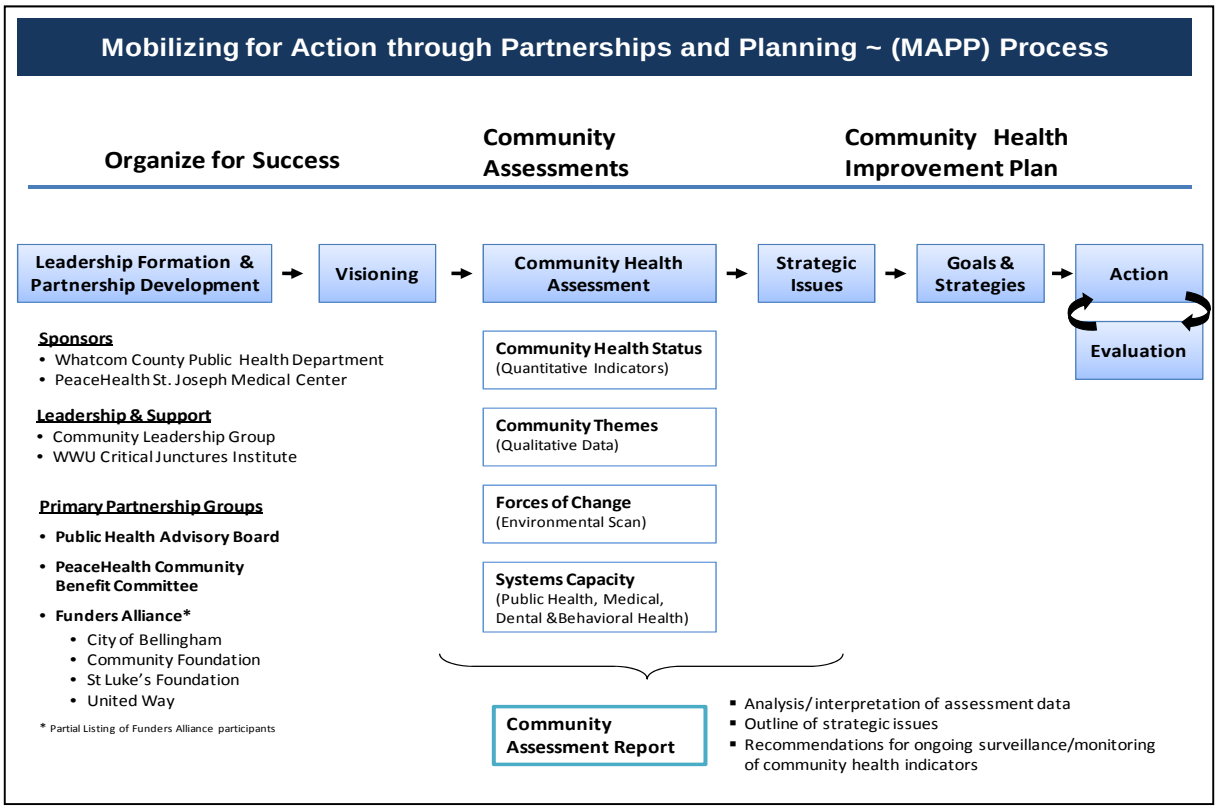
The purpose of the assessment and planning process was also to fulfill public health accreditation and health care regulatory requirements. New national accreditation standards for public health (PHAB, 2011) require that accredited health jurisdictions complete periodic community health assessments and develop Community Health Improvement Plans with public health system partners. The Affordable Care Act (federal health care reform legislation) that became law in March 2010 requires that non-profit hospitals participate in community health assessment and planning processes in collaboration with local health departments and other community partners. Resultant health improvement plans are meant to guide community benefit allocations and initiatives.

Methodology

The Health Department and PeaceHealth chose to build the assessment and planning process on an existing planning framework, referred to as the *Mobilizing for Action through Planning and Partnerships* (MAPP) model. This model is an evidence-based community-wide strategic planning process for improving community health that is supported by national public health organizations (National Association of County and City Health Officials, Centers for Disease Control and Prevention). The Health Department and PeaceHealth contracted with the Critical Junctures Institute at Western Washington University for data collection, analysis and project support.

The process has included partnership and leadership group development, a community visioning process, and four assessment components. Next steps include identifying strategic issues with community partners, formulating goals and strategies, and implementing actions and evaluation.

Throughout the process, project leadership has worked to build on existing or recent initiatives and assessment projects in the community to avoid duplication and to highlight the many strengths of the Whatcom County community.



The project to date has included the following steps:

- Partnership Development
  - Create public-private partnership between Whatcom County Health Department, PeaceHealth St. Joseph Medical Center
  - Contract with Western Washington University (Critical Junctures Institute) for technical assistance and data collection/analysis-*Summer 2010*
  - Establish Community Leadership Group-*October 2010*
- Visioning
  - Convene partners and interested community members to create vision for community health-*December 2010*
- Assessments
  - Community Health Status Assessment
    - Compile and review MAPP core indicators plus additional indicators of interest. Review County Health Rankings. Intentionally focus on social and economic factors that impact health. (*November 2010-March 2011*)
  - Community Themes and Strengths Assessment
    - Review reports and findings from a variety of recent assessment activities in the community.
    - Convene Themes and Strengths Forum. Include presentations by groups and entities involved community initiatives and assessments-*March 2011*
    - Conduct key informant interviews.
    - Convene several focus groups.
    - Participate in community meetings/events.

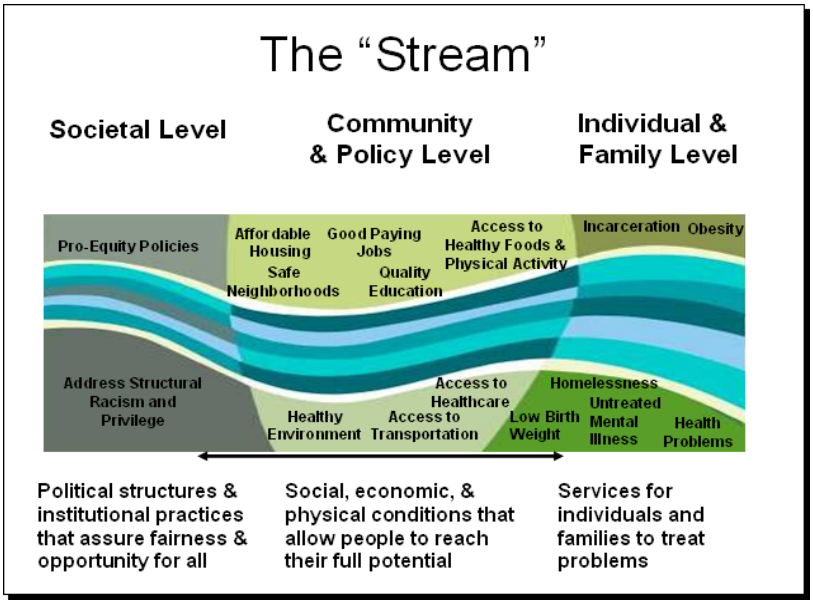
- Forces of Change Assessment
  - Brainstorm and discuss factors, trends, and events that impact or potentially impact community health at Community Leadership Group meeting-*April 2011*
- Health Systems Capacity Assessment
  - Public health capacity/standards indicators
  - Health care capacity/quality indicators

Social Determinants of Health and Health Equity Focus

A range of factors influence and determine health status: personal, social, economic and environmental. Throughout this assessment project, we have considered data and information about our communities through the lens of determinants of health and attempted to identify populations that experience worse health status due to these determinants.

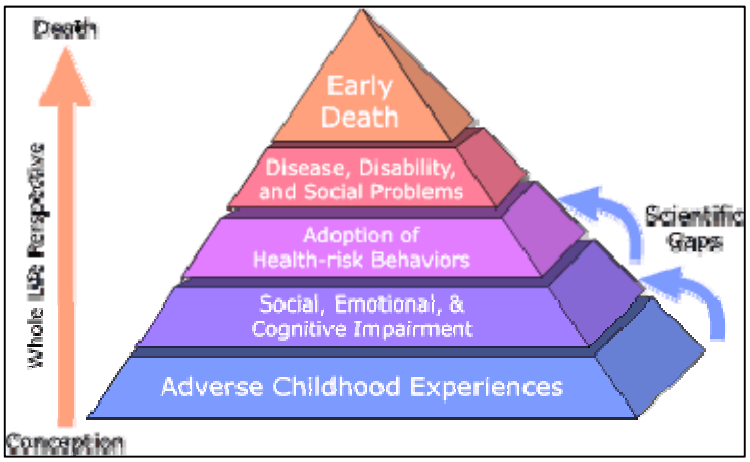
A growing understanding of the "determinants of health" worldwide has helped refine the ways we think about health and inform the strategies we take to improve health in our community. Organizations such as the CDC, Healthy People 2020, and the World Health Organization place determinants of health at the heart of discussions about health. This approach to thinking about why some people are healthier than others addresses the relationships between health status, policy, social factors, health services, individual behavior, and biology.

The following images provide graphic representations of how policies and social factors can flow into the "downstream" experiences of individual health conditions and problems that lead to poor health status. For example, while obesity may be a problem experienced by an individual, that individual's access to healthy foods and physical activity may be shaped by social and environmental factors such as income or housing. Social and environmental factors put some populations at greater risk for negative health outcomes, leading to health disparities –differences in health status due to race, ethnicity, sex, socioeconomic status, and sexual orientation.



(King County, 2011)

An upstream approach to health also recognizes the critical importance of early life experience in developing good health across the lifespan. Mounting evidence points to factors such as the health of mothers prior to pregnancy, in-utero exposures during the prenatal period, and social and physical environments during a child's first years of life as key contributors to long term health. The landmark Adverse Childhood Experiences Study (Felliti et al., 1998) demonstrates compelling associations between a child's social environment (family dysfunction, mental illness, substance use, abuse and neglect, divorce and other stressors) and future health behaviors (substance use, risky sexual behavior) and health outcomes (depression, diabetes, heart disease, obesity).



(*ACE Pyramid, CDC*)

Acknowledging the social determinants of health and the fact that certain populations are more likely to experience poor health due to contribution of these factors across the lifespan helps us set a course for community change and a healthier future for everyone. The vision statement in the following section highlights our community's aspirations for just such as future.

IV. Shared Vision and Values for Community Health

We are Whatcom County, a people and a place,
culturally and geographically diverse, united in our vision for a healthy and vibrant future where:

- **Every child** grows in a safe and nurturing environment;
- **Every person** has access to comprehensive and integrated health services and social supports across the lifespan and spectrum of needs;
- **Every population** shares in the abundance of opportunities for healthy active living, outstanding education, satisfying employment, and meaningful community participation;
- **We all** flourish through our connections and commitments to each other and to the air, land and waters that surround and sustain us.

To accomplish our vision, we will act with these guiding values:

- **Collaborate** to connect and maintain health and social support systems that are accessible, efficient, accountable, and culturally relevant;
  - **Strive** for equity, fairness, and justice in all that we do;
  - **Work** with one another with integrity, humility, compassion and respect;
  - **Invest** effectively to improve our community with careful planning and evaluation;
  - **Build** on community assets and strengths;
  - **Honor** diversity and inclusiveness, fostering a sense of place and belonging for everyone;
  - **Risk** being innovative, action-oriented, and resourceful;
  - **Address** past and present issues that divide us with openness and a spirit of healing;
  - **Promote** shared leadership and collective responsibility for the health of our community;
  - **Preserve**, protect, and replenish our wealth of shared natural and social resources for future generations.

Key resources needed include:

- Leadership and commitment;
- Community engagement that is intergenerational and cross-cultural;
- Public and private funding sources collaborating in unprecedented ways;
- Shared, accurate data and information exchange;
- People's time, talent, creativity, wisdom and flexibility.

The types of involvement needed include:

- Engagement of people across all walks of life;
- Sustained leadership of people in government, business, health, education and the nonprofit sectors, as well as professional, labor and social associations, communities of faith and neighborhood associations;
- Engagement of established and new media to carry messages and help give voice to people and communities in Whatcom County.

V. Community Health Status Assessment

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Introduction and Methods

This assessment component analyzes data about health status and risk factors in the community. The purpose is to paint a comprehensive picture of current health needs and issues in Whatcom County.

Methods

This assessment was informed by multiple data sources. Data indicators were reviewed and organized into categories for discussion.

Selection of indicators included review and use of:

- MAPP Core Indicators (as a starting point for determining key health status indicators)
- Existing reports and compilations of indictors
    - *County Health Rankings 2009 and 2010 (RWJF and University of Wisconsin)*
    - *Local Public Health Indicators 2009 (WA-DOH)*
    - *MAPP Core Indicators-DRAFT 2010 (prepared by S. Sloan, WCHD)*
    - *City of Bellingham Strategic Legacies (COB)*
    - *Whatcom Counts website (www.whatcomcounts.org) (WCF)*
- Additional indicators of interest from Community Leadership Group
    - *United Way National Performance Measures*
    - *Healthy People 2020*

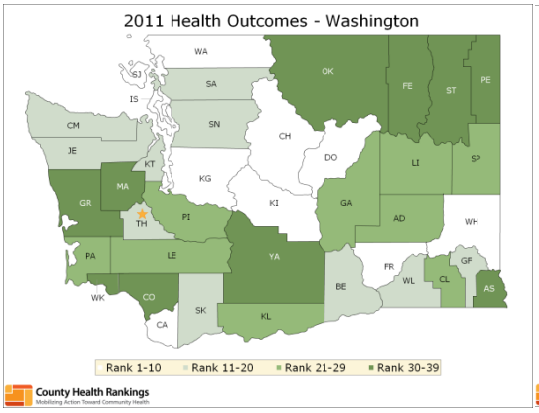
Data sources included:

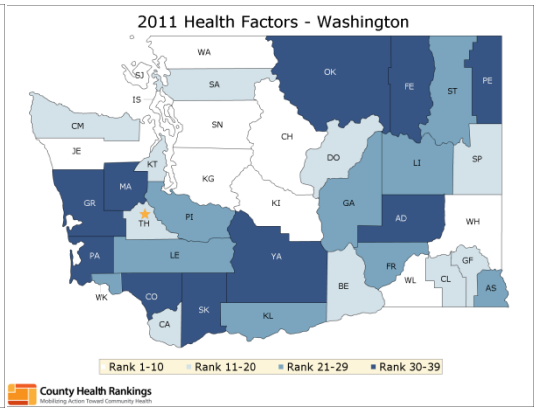
- US Census 2010
- American Community Survey 2005-2009
- Washington Department of Health
    - Birth and pregnancy
    - Death
    - Hospitalization
    - HSPA designation
- Whatcom County Surveys
    - Behavioral Risk Factor Surveillance System (Whatcom County 2007 and *Whatcom County 2010: Adverse Childhood Experiences Module -not yet available*)
    - Healthy Youth Survey (Whatcom County 2010)
- Washington Department of Social and Health Services data
    - First Steps/Medicaid data 2008
    - Risk and Protection Profile for Substance Abuse Prevention 2010
- Washington State Office of Superintendent of Public Instruction
    - Whatcom School Districts 2009-2010
- Peace Health St Joseph Medical Center Hospital data
- City of Bellingham
    - Drinking Water Quality Report 2010
- Washington State Department of Ecology
    - Water Quality
    - Air Quality
- Whatcom County Community Food Assessment 2008-2009
- Washington State Employment Security Department 2011

Overview of Health Status

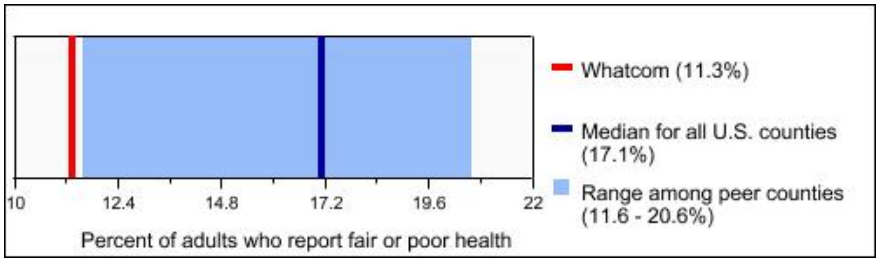
General Health Status

- **Overall healthy community.** In 2011, Whatcom County was ranked the sixth healthiest county among 39 counties in Washington State in the Mobilizing for Action Toward Community Health annual County Health Rankings, a project of the Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute. (County Health Rankings, 2011) The County ranked in the top 10 best counties for health outcomes and health factors.

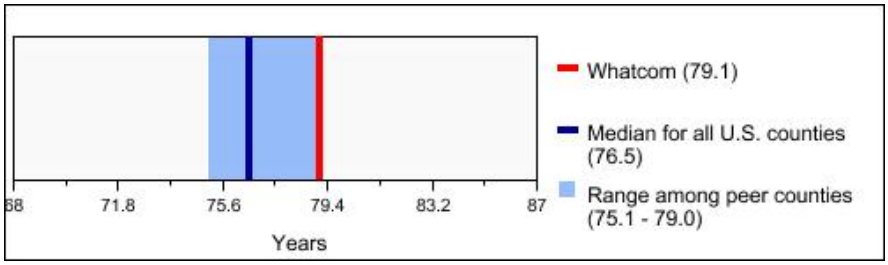




- **Perception of good health**. Residents of Whatcom County perceive themselves to be healthier than residents in comparable counties across the nation. The following graphic demonstrates the proportion of respondents who consider their general health 'fair' to 'poor.' Note rates that are well below those reported for the nation (County Health Rankings, 2011).



- **Life expectancy well above that of the nation.** Positive personal assessment of health is affirmed by objective measures of life expectancy that indicate residents, on average, outlive residents in comparable counties in the nation.



- **Less disease and death.** Measures of the frequency of specific diseases and mortality rates for many diseases in Whatcom County are similar to or below those of the state of Washington and the nation.

- **Some health challenges and disparities.** The overall good health of the community, however, belies several conditions and disparities that are cause for concern and are highlighted in this report. Socioeconomic factors (such as low income and limited education), community environmental conditions, and mental health and substance use are primary challenges impacting the health of Whatcom County residents.

- The following table lists health indicators that were used in determining the annual County Health rankings in 2011. "Strengths" reflect health indicators that were better than the state and national averages or benchmarks. Indicators listed under "Room for Improvement" were similar to the state averages, but may be areas of concern for some population groups. "Challenges" reflect areas where Whatcom County is worse than state and national averages and benchmarks, and where additional focus is likely warranted.

County Health Rankings: Summary of Indicators for Whatcom County (2011)

	Strengths	Room for Improvement	Challenges
Mortality	• Low rate of premature death		
Socioeconomics		• Unemployment • Affordable housing • Children in poverty • Inadequate social support • Single parent households • Violent crime rate	• Median income (low) • High school graduation (low)
Environment			• Liquor store density • Access to healthy foods (grocery stores) • Air pollution (particulate matter)
Health Behaviors and Outcomes	• Adult physical activity • Smoking • Obesity • Diabetes • Teen birth rate • Low birth weight • Motor vehicle crash rate	• Teen physical activity • Influenza vaccination • Childhood immunization • STDs (Chlamydia rate)	• Poor mental health days • Excessive drinking/binge drinking
Clinical Care	• Preventable hospital stays • Diabetic screening • Colorectal cancer screening	• Uninsured adults • Adults with unmet medical need • Adult dental care • First trimester prenatal care • Availability of primary care providers • Availability of mental health providers • Breast and cervical cancer screening (mammograms and Pap smears)	

Demographics and Health

Synopsis: Whatcom County is the 9th most populous county in Washington State, with approximately 3% of the state population. The county is growing steadily, both in its cities as well as rural areas. Diversity is expanding, as populations of older adults and racial and ethnic minorities are increasing. A significant percentage of the County population speaks a language other than English as a first language. A tenth of the County population was born in another country. The unique geography of the county presents barriers for access to services and promotes isolation of some population groups.

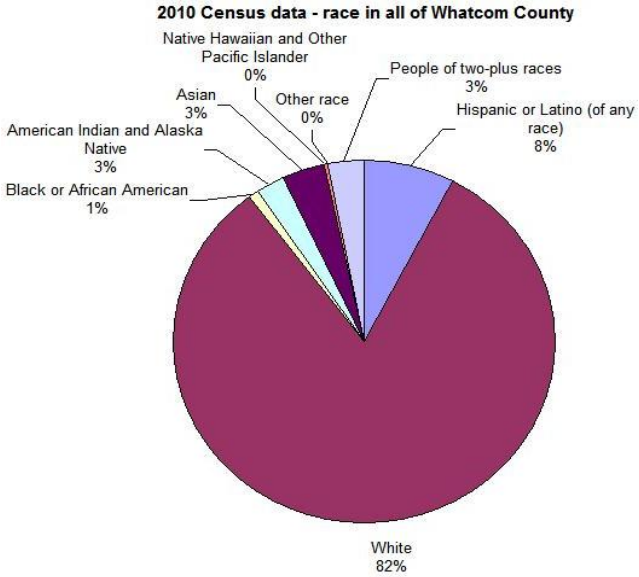
Why is this important?
Population trend information helps communities identify and meet current and future health needs, including culturally appropriate and geographically accessible health services and social supports as well as adequate community infrastructure. Older adults often have greater needs for health care services.

General Demographics

- **A growing population**. The population of Whatcom County has been increasing, faster than the state as whole. There has been a 21% increase in total population from 2000 to 2010 (from 166,814 to 201,140), compared to 14% for Washington State (U.S. Census, 2010).
    - Forty percent of the population lives in Bellingham (80,885).
    - All cities have increased in population size in past decade, except Acme.
    - Whatcom County has more than tripled in population since 1950.
    - Population increases are due to both births as well as inward migration.

- **An increasing older population.** The population of adults aged 65 and older is increasing, from 11.6% of population (19,400) in 2000 to 12.5% of the population (25,899) in 2009 (ACS, 2009). Median age was 36.1 years old in 2010, up from 34 in 2000. Children younger than 5 were 5.8% population in 2009.

- **Growing racial and ethnic minorities.** Racial and ethnic minorities are increasing in Whatcom County. The Hispanic population is growing particularly rapidly compared to other populations (ACS, 2009).
    - The Hispanic population is now 8% of the total population (2010), compared to 5% in 2000.
    - Approximately 4.7% of the population speaks Spanish at home (8,904 people over age 5 years).
    - One percent of the population speaks Slavic languages at home (1,773 people).
    - Approximately 3% of the total population is Native American. Most are affiliated with one of two federally recognized local tribes (Lummi Nation and Nooksack Tribe).



Source: U.S. Census Data, 2010

- **An international mix.** 10% of the Whatcom County population (19,906) was born in a country other than the United States (ACS, 2009).

- **Speaking many languages.** English is not the first language for 11% of population. Nearly 5% of Whatcom County population is non-English speaking (speaks English less than "very well"). 2.2% of Whatcom County households are linguistically isolated: no one age 14 or older in the household speaks English "very well" (ACS, 2009).

- **Many enrolled in school.** 29% of the population (57,724 people) was enrolled in school in 2009 including pre-school. 25,002 of those were in college or graduate school (ACS, 2009).

Geographic Distribution

Whatcom County is a large county with prominent geographic features including water (Puget Sound to the west and several large lakes), mountains to the east, and the southern Canadian border to the north. Bellingham is the largest population center with the majority of health and social services.

- **Geographic Isolation and separation.** Geographic barriers, including Puget Sound, the southern Canadian border, and distance isolate some Whatcom County communities. Point Roberts, Lummi Island, and eastern Whatcom County (Kendall/Maple Falls) are particularly isolated. Nooksack and Lummi reservation lands are distinct geographic areas, though include primary access routes to other areas of the county (e.g., Lummi Island and Mt Baker recreation areas). Transportation and access to services becomes a challenge for those living in isolated areas.

- **Pockets of vulnerable populations.** A greater percentage of older adults live in Lynden than other parts of the county. Russian speaking immigrant populations are concentrated in eastern Whatcom County. Hispanic populations are concentrated in agricultural areas of Lynden and Everson/Nooksack as well as in north Bellingham. Pockets of poverty are distributed throughout the county, however percentages of families living in poverty are higher in eastern county (Mt. Baker and Nooksack areas) as well as Ferndale and some areas in Bellingham.

Populations with Special Needs

- **Many people with special needs.** There are several populations in Whatcom County that are more likely to have special health needs and vulnerabilities (ACS, 2009). These include:
    - **Veterans**
        - Nearly 10% of Whatcom County population (15,435 veterans)
    - **People with a disability**
        - 13.0% of population (25,815 persons with a disability)
    - **Seniors**
        - 13.0% of population (25,899 adults over age 65)
    - **Children with special health care needs**
        - 12.8% of children (3463 children ages 3-21) enrolled in Whatcom County public schools receive school services for one or more disability--health, emotional/behavioral, developmental, learning disorder (OSPI, 2010)
        - Approximately 150 children ages birth to 3 years are served by County early intervention services each month (WA ESIT, 2011)
    - **Caregivers**
        - 14% of the adult population provides care for another person, either on a part-time or full-time basis. Caregiving can be associated with high levels of stress and lack of rest (BRFSS, 2007)

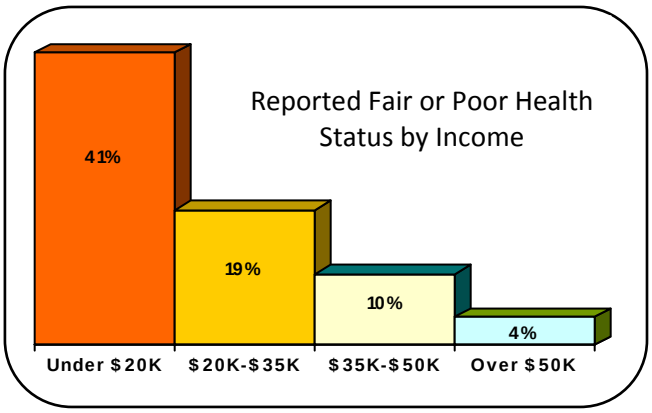
Social Factors and Health

Synopsis: In Whatcom County, as in other communities, health status is closely correlated with a number of social factors including income, poverty, employment status, education level and race/ethnicity. These factors are sometimes referred to as ***social determinants of health***. Individuals who have lower incomes, less education, are unemployed and/or who are Native American, Black or Hispanic are more likely to experience poorer health status, have higher rates of health conditions such as obesity and diabetes, and lower life expectancy compared with individuals who have higher income, higher education levels, stable employment and are White. Individuals at lower socio-economic levels are also less likely to have health insurance coverage, making access to health services more challenging. Women are more likely than men to be impacted by poverty and low socio-economic status.

Why is this important?
Efforts to improve the social determinants of health (e.g., increasing family economic stability, increasing educational attainment, and reducing racial and ethnic discrimination) have the potential to positively impact many health outcomes for individuals and families, especially children.

Income and Health

- **Income correlates with health status.** Whatcom county data demonstrate strong associations between income level and self-reported health status of adults, with significantly greater percentage of people in households at lower income levels reporting poorer health status than those with higher household income.

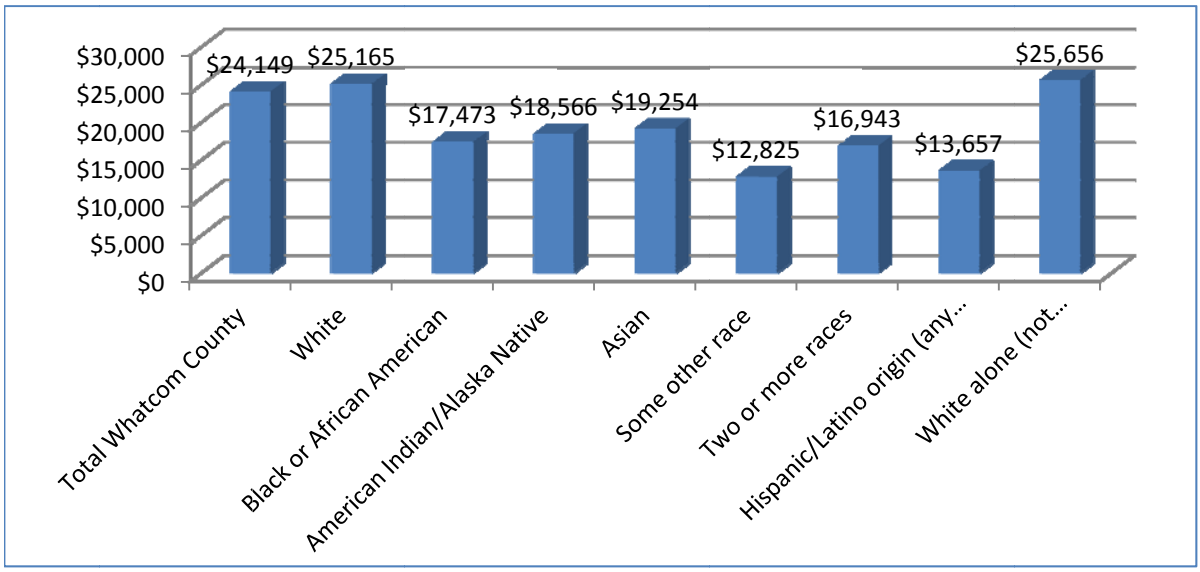


Whatcom County
BRFSS, 2007

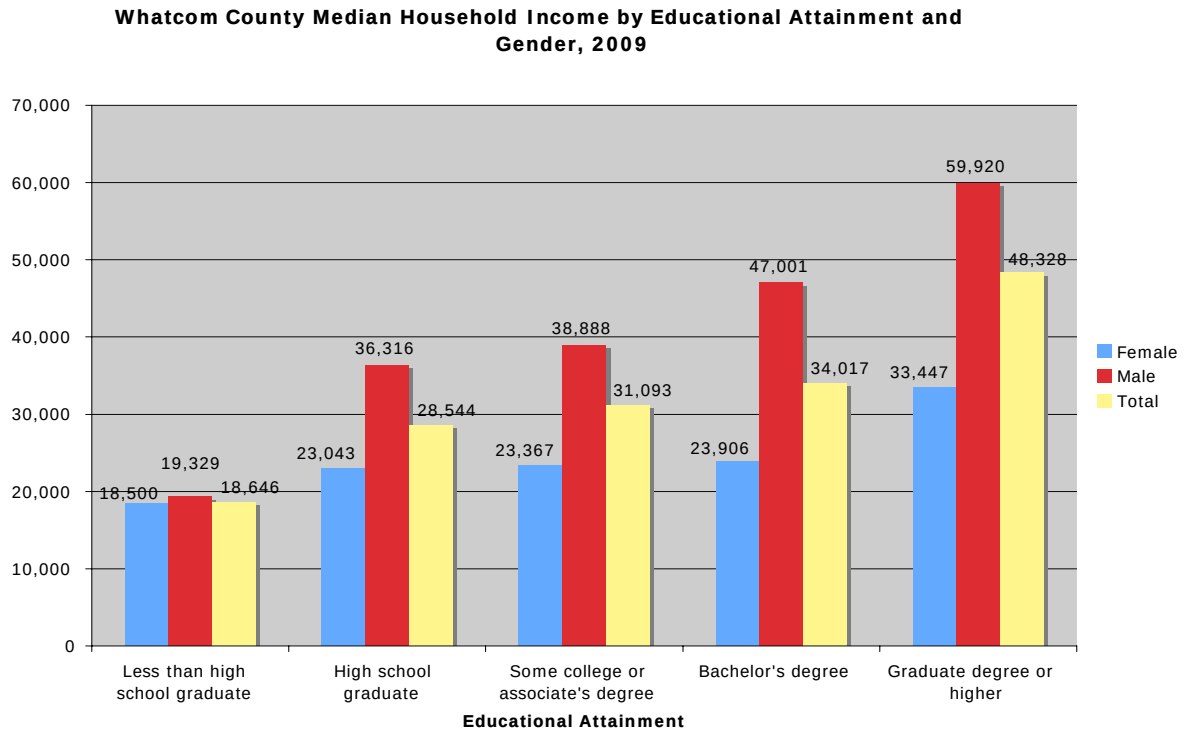
- **Lower median income.** Overall, Whatcom County has a significantly lower median income than the Washington State median (ACS, 2009).
    - **Whatcom County=**$46,490
    - **Washington State=**$56,548

- **Significant income disparities by race and ethnicity.** Per capita mean income is highest for people defined in U.S. Census as White (by race and not of Hispanic/Latino origin). Hispanic/Latino origin individuals in particular have considerably less income than any other race or ethnicity in Whatcom County. (ACS, 2009).

Per Capita Mean Income



- **Earnings vary significantly by gender and education.** Median earnings for the Whatcom County population 25 years and older in 2009 was $39,885 for men and $23,044 for women (ACS, 2009).
    - For men, having less than a high school education means the difference in median earnings of $19,329, compared to male high school graduates median earnings of $36,316.
    - The difference is much less striking for females because their earnings stay comparably low: $18,500 for less than high school education compared to females with high school degree: $23,043. Having a bachelor's degree increases median earnings of males to $47,001 compared to a very slight increase among females to $23,906.



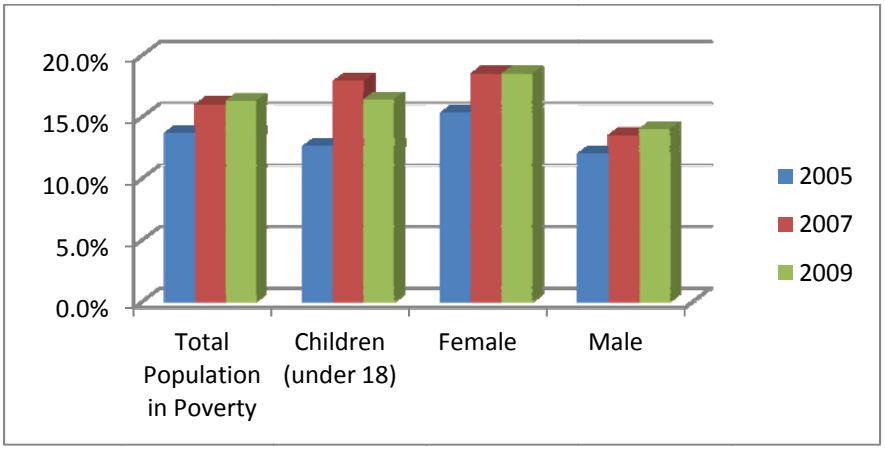
Poverty

Poverty is a condition defined by relative lack of social and economic resources. Low income is a proxy for poverty. Poverty is a concern in Whatcom County, particularly for children, women and a number of ethnic and racial groups. Families with single mothers are most at risk. Poverty and related issues such as not having enough food are persistent conditions for many individuals and families, not tied only to the recent economic downturn.

- **One in every six people in Whatcom County below the poverty line.** Many of them are children. More of them are women. In 2009, 16.3% of people in Whatcom County had income levels below the poverty line in the past year. 16.4% of children under 18 (more than 6000 children and youth) were living in poverty; 18.5% of women. Federal Poverty level in 2009 was $10,830 for one person, $22,050 for a household of 4 people (ACS, 2009).

  These poverty rates have been fairly persistent over time, with general increasing trends over the past five years (ACS, 2005-2009).

People Living Below Poverty Level



- **Families with single mothers most at risk.** Nearly a third of all families with single mothers live in poverty (27.9% of families with single mothers in 2009). Nearly two-thirds of female headed households with young children live in poverty (62.6% of families with single mothers and children under age 5 in 2009). Non-white families have higher rates of poverty among families with a female householder and no husband present. Families with single mothers who are American Indian/Alaska Native, Asian, or of Hispanic/Latino origin, have the highest rates of poverty in Whatcom County (ACS, 2005-2009).

Families with a householder who is…	Female householder, no husband present (5-year estimates)	Percent of population living in poverty in past year (5-year estimates)
One race	6,144 families	27.8%
White	5,331	27.4%
Black or African American	130	0.0%
American Indian and Alaska Native	437	**41.4%**
Asian	87	**40.2%**
Some other race	152	21.7%
Two or more races	95	36.8%
Hispanic or Latino origin (of any race)	379	**43.8%**
White alone, not Hispanic or Latino	5,142	26.2%

Jobs and Work Environment

Employment status and work environment including availability of benefits such as health insurance and sick/family leave are linked to health status.

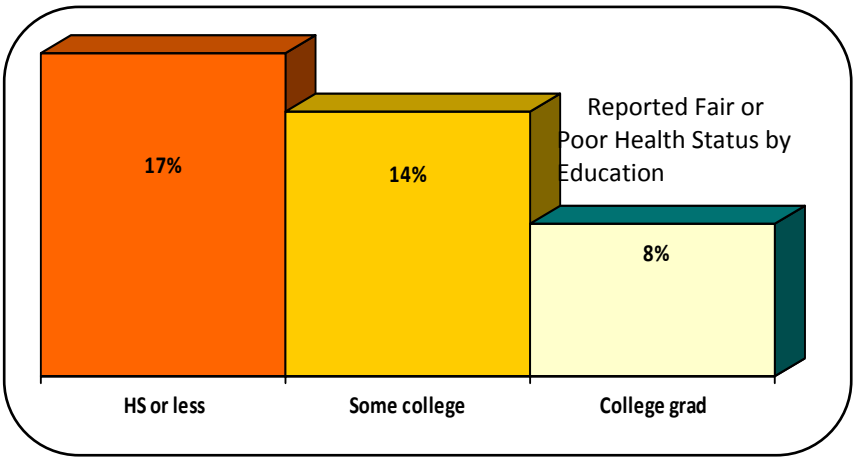
- **People who are unemployed more likely to have no health insurance and to have health problems.**
    - In 2007, 22% of adults who were unemployed had no health insurance, compared with 14% of all adults.
    - In 2007, adults who were unemployed were more likely to report fair/poor health status (20.4% compared to7.3% for those who are employed and not retired) and to have unmet health needs (20% compared to 16% overall). (BRFSS, 2007)

- **Signs of recovery but unemployment still high.** Whatcom County's jobless rate is continuing to trend downward, but there is a lack of job growth. July 2011 showed a local unemployment rate of 8.4%, compared to 8.5% in June and 9.3% in January-March 2011 (although 8.1% in April and May). More jobs have not been created, however, and Whatcom County's workforce continues to contract. Whatcom County's jobless rate is lower than the state rate of 9% in July, and the U.S. rate of 9.3% (ESD, 2011). Historical comparison is a rate of 5.0% three years ago in 2008.

- **Low-paying service sector jobs dominate Whatcom County economy.** The service sector has experienced the most growth in recent years in Whatcom County. The industry categories with the most workers in Whatcom County in the first quarter of 2011 were 1) government, 2) health care and social assistance, 3) retail trade, 4) manufacturing, and 5) accommodation and food services (ESD, 2011). Retail, accommodation and food service jobs tend to be lower paid (near minimum wage) and without benefits such as health insurance.

Education and Academic Achievement

- **Educational attainment is associated with health status.** In Whatcom County, individuals who have a high school diploma or less are more likely to have fair or poor health status than individuals with a college degree who report better health status.



Whatcom County BRFSS, 2007

- **Nearly 10% of the Whatcom County adult population have not completed high school.**
  - 9.5% of the population age 25 or older does not have a high school diploma or GED.
  - 23.5% have finished high school, but not college.
  - About 43% hold a college degree---associate's, bachelor's or graduate/professional. (ACS, 2009).

- **High school graduation rates are lower than other communities.** Only 78% of the total students in Whatcom County graduated high school on time in 2009-2010. Whatcom County does worse than many other counties in Washington State on graduation rates.

- **High school completion, on-time graduation, and drop-out rates vary based on race/ethnicity and income level.** Drop-out rates are high, especially for students who are American Indian/Native Alaskan, Hispanic, and special education status. Less than 60% of Hispanic and American Indian/Native Alaskan students graduated high school on-time in 2009-2010 (OSPI, 2011).

2009-2010 Whatcom County High School Graduation Rates, Grades 7-12								
	Total	**White**	**Asian/ Pacific Islander**	**Hispanic**	**American Indian/Native Alaskan**	**Black**	**Special Ed**	**Low Income**
On-Time Graduation	77.9%	81.4%	77.7%	59.7%	58.9%	80.4%	47.4%	74.2%
All Graduation	83.3%	86.1%	83.4%	69.2%	69.0%	83.0%	60.8%	80.3%

(OSPI, 2011)

- **High school graduation rates also vary significantly by school district.** On-time graduation rates vary from 72.4% in Bellingham to over 90% in Blaine.

OSPI 2010-2011 School Report Card - Student Demographics by School District							
District:	**Bellingham**	**Blaine**	**Ferndale**	**Lynden**	**Meridian**	**Mt. Baker**	**Nooksack**
Enrollment:	10,919	2,200	5,299	2,833	2,287	2,120	1,598
Ethnicity							
American Indian/Alaskan Native	1.37%	1.14%	13.23%	0.6%	0.57%	5.57%	4.26%
Asian	5.85%	0.73%	2.47%	2.79%	2.84%	0.9%	1.06%
Pacific Islander	0.27%	2.27%	0.08%	0.07%	0.26%	0.14%	0.06%
Asian/Pacific Islander	6.12%	3.0%	2.55%	2.86%	3.1%	1.04%	1.13%
Black	3.14%	2.23%	0.85%	1.02%	1.14%	0.52%	0.63%
Hispanic	13.82%	8.59%	14.63%	21.64%	12.07%	9.06%	27.28%
White	75.5%	79%	63.82%	70.84%	80.45%	80.42%	60.89%
Free-Reduced Lunch Eligibility Rates							
Average	39.48%	34.23%	51.27%	36.83%	9.89%	53.07%	53.98%
Annual Drop-out Rates							
Average	4.2%	2.4%	4.1%	2.1%	4.0%	4.6%	4.0%
On-time graduation rate	72.4%	90.7%	81,6%	86.5%	73.6%	81.6%	82.8%

(OSPI, 2011)

- **Academic performance and health behaviors are correlated**. Poor academic performance (mostly Cs, Ds and Fs in high school) is associated with higher rates of substance use, mental health concerns, and other health issues (HYS, 2010). Students with lower grades are more likely to drink alcohol, smoke cigarettes, use marijuana, be depressed and be overweight or obese.

Academic Performance (Grades Last Year)	**Health Behaviors and Conditions**				
	Current Alcohol Drinking (past 30 day use)	Current Cigarette Smoking (past 30 day use)	Current Marijuana Use (past 30 day use)	Depression (past 12 months)	Obese/Overweight
Good (Mostly A's and B's)	26.7%	8.8%	17.1%	24.8%	21.8%
Poor (Mostly C's, D's, and F's)	46.0%	25.8%	36.1%	38.2%	30.9%

HYS, 2010 (Whatcom 10th grade students)

- **Academic progress and achievement in younger students vary.** In the past few years, Whatcom County has had a consistently higher percent of students in grades 4, 7, and 10 with good academic performance as indicated by the Washington Assessment of Student Learning (WASL), in comparison to similar counties and Washington as a whole. However, trends in Whatcom County have decreased (more students doing poorly) since 2008 and 2009 for 4th and 10th graders (OSPI, 2009).

  Overall, Whatcom County students in grades 3rd-8th and 10th grade generally were equal to or often greater than the state's percent of students meeting standards in reading and writing as measured by the Measurements of Student Progress (MSP). There is greater variability in meeting state standards for math and science (OSPI, 2010). There is also significant variability between Whatcom County districts on some scores.

- **Many children may not be ready for kindergarten.** Children who enter elementary school ready to learn are more likely to do well academically and socially, and ultimately to be healthier. In a statewide pilot of the Washington Kindergarten Inventory of Developing Skills (WaKIDS), more than one third of kindergarten children assessed were below expected skill levels as revealed by the three different assessment instruments. In the area of language, communication, and literacy, nearly half of all children had skills below the expected grade level (WaKIDS Preliminary Report, January 2011). One Whatcom County school participated in the pilot. WaKIDS kindergarten assessments are now being implemented across the state, including several Whatcom County districts (Bellingham, Blaine, Mt. Baker and Nooksack Valley). In 2012-2013, kindergarten assessments will be required for all schools with state-funded full-day kindergarten programs.

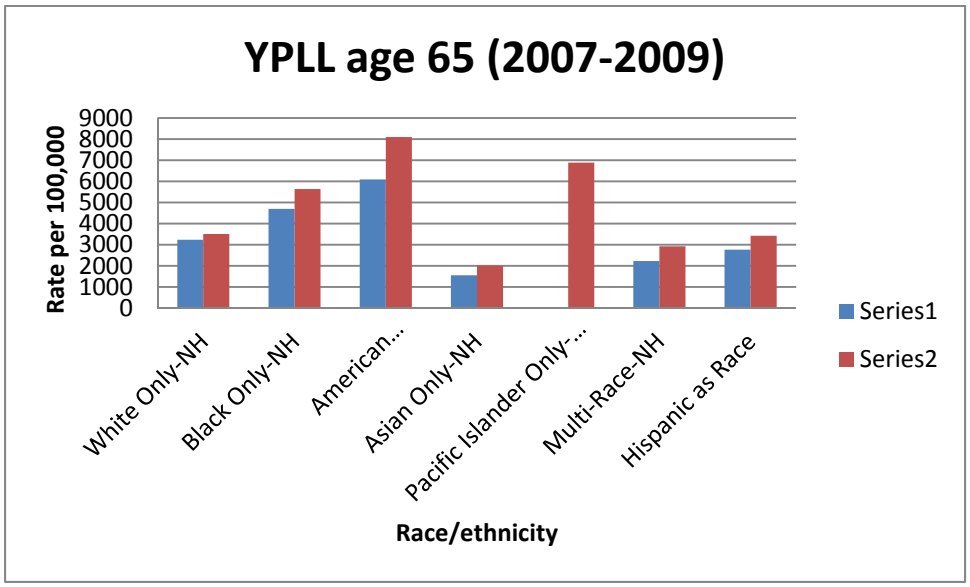
- **Health literacy affects health outcomes.** *Health literacy* refers to a set of skills that are necessary to function successfully in the context of health care and healthcare delivery systems. The skills include (i) the ability to read and understand text and ability to find and interpret information; (ii) the ability to use quantitative information such as interpreting blood glucose levels or interpreting labels on food packages; and (iii) the ability to speak and listen carefully. In a recent systematic review of published scientific evidence, authors reported that low health literacy was associated with poorer health outcomes and poorer use of health care resources. (Beckman ND, et al., 2011) While evidence is accumulating for the association of low health literacy and health status, few providers systematically assess literacy in their patients and there are no standard health literacy assessment tools on a population-basis. Information on health literacy in Whatcom County or other local geographic areas is not yet available.

Race and Ethnicity

Race and ethnicity is correlated with many health disparities among U.S. populations. Disparities exist in the burden of illness and death experienced by Hispanics/Latinos, American Indians and Alaskan Natives, Blacks/African-Americans, and Native Hawaiian and Other Pacific Islanders compared to the general U.S. population. Health disparities among racial and ethnic groups are believed to be a result of complex interrelationships between genetic variability, environmental factors, and specific health behaviors (OMHD, 2011).

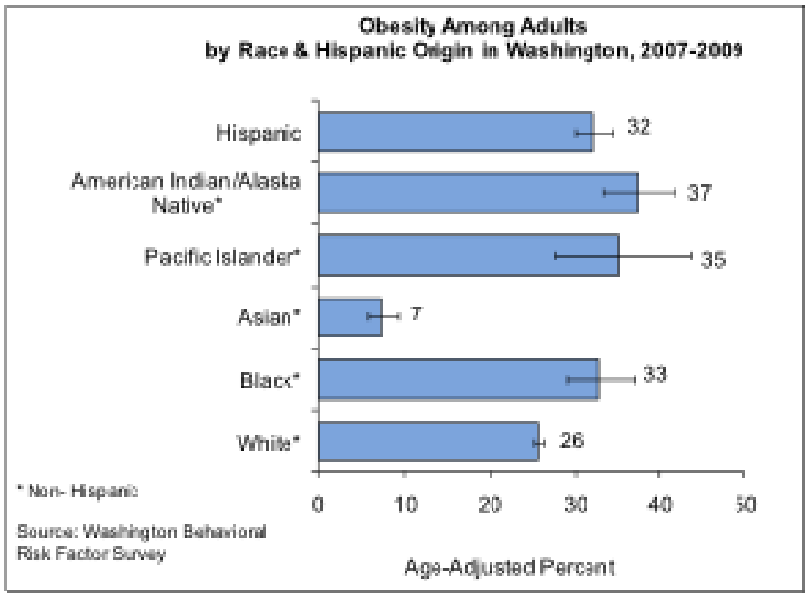
- **Local data on racial/ethnic health disparities are limited** due to relatively small population sizes within the County. However data that does exist point to areas for concern.

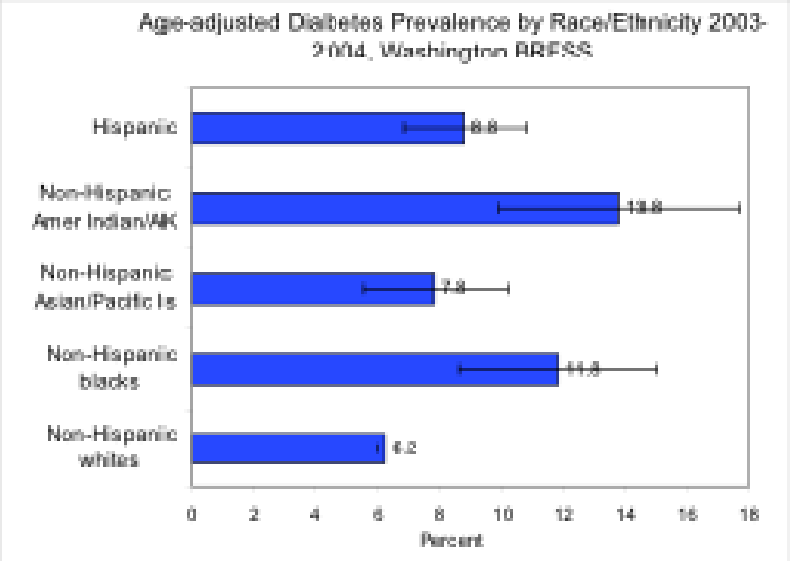
- **American Indians and Blacks in Whatcom County more likely to die early**. Years of potential life lost (YPLL) is a measure of premature death. The younger someone is when they die, the more years of potential life lost. Data from Whatcom County demonstrate that American Indian/Alaskan Natives and Blacks have significantly more years of potential life lost than Whites, Asians, Hispanics. These trends follow similar patterns to the state.



(CHAT, 2011) Series 1=Whatcom, Series 2=WA State

- **Hispanic and American Indians have high rates of obesity and diabetes**. Washington state data demonstrate significant racial/ethnic disparities for certain health conditions including obesity and diabetes. Statewide rates of obesity and diabetes are highest in American Indian/Alaskan Native , Black, Hispanic and Pacific Islander populations. Hispanic and American Indian tribal communities in Whatcom County confirm that these conditions are of particular concern to local populations.


Obesity Among Adults
by Race & Hispanic Origin in Washington, 2007-2009
Hispanic
American Indian/Alasta Native*
Pacific Islander*
Asian*
Black*
White*
32
37
35
7
33
26
* Non- Hispanic
Source: Washington Behavioral Risk Factor Survey
0
10
20
30
40
50
Age-Adjusted Percent


Age-adjusted Diabetes Prevalence by Race/Ethnicity 2003-
Hispanic
Non-Hispanic Amer Indian/AK
Non-Hispanic Asian/Pacific Is
Non-Hispanic blacks
Non-Hispanic whites
8.8
13.8
7.9
11.8
6.2
0
2
4
6
8
10
12
14
16
18
Percent

- **Mental health and substance use issues are also more prevalent in some racial/ethnic minority populations**. Locally, the American Indian/Alaskan Native population is particularly hard hit by substance use issues, as demonstrated by a disproportionate number of American Indian/Alaska Natives receiving public drug treatment services, as well as higher rates of Child Protective Services (CPS) involvement related to substance use.

    - In 2008, 2790 DSHS clients in Whatcom County received publicly funded Alcohol and Substance Abuse services. Of those, 59.5% were White, 28.4% were American Indian/Alaskan Native, and 9.4% were Hispanic. (DSHS, 2009)

    - In the same year, 3819 clients received CPS case management. Of these clients, 55.3% were White, 26.2% were American Indian/Alaskan Native and 14.6 % were Hispanic. (DSHS, 2009)

      For comparison purposes, 82% of the overall County population is White, 3% American Indian/Alaskan Native, and 8% Hispanic. (US Census, 2010)

- **Children from racial/ethnic minority groups have disproportionate exposure to adverse childhood experiences**

    - In 2008, 17,098 youth in Whatcom County received one or more service from the state Department of Social and Health Services (DSHS), such as medical assistance or child protective services. The following table demonstrates that two-thirds (66%) of American Indian/Alaska Native youth who received DSHS services in 2008 were exposed to three or more Adverse Childhood Experiences (such as parental arrest/incarceration, mental illness or substance use, domestic violence, child abuse/neglect referral), compared with 28% of White and 29% of Hispanic youth. The table also shows that 44% of DSHS youth are from minority/non-White populations, compared with only 18% of the general population.

DSHS Youth with Various Levels of Adverse Childhood Experiences (Whatcom County 2008)

	White # clients (proportion of White clients with ACE levels)	**Hispanic** # clients (proportion of Hispanic clients with ACE levels)	**American Indian/ Alaska Native** # clients (proportion of AI/AN clients with ACE levels)	**Other**	**Total**
0 ACEs	3332 (35%)	1099 (31%)	150 (8%)		5751
1-2 ACEs	3531 (37%)	1353 (40%)	513 (26%)		6139
3 or > ACEs	2734 (28%)	988 (29%)	**1307 (66%)**		5208
Total	9597	3440	1975	2086	**17098**
	(56%)	(20%)	(12%)	(12%)	

Source: *Trends in Social Service Use: Whatcom County for State Fiscal Year 2008* (DSHS)

Basic Needs and Health

Synopsis: Basic needs include housing, food, social support, rest, transportation and access to health care. Many individuals and families in Whatcom County, especially those with limited economic resources, special health needs, or who live in isolation have challenges meeting basic needs. A significant number of individuals rely on assistance programs to meet needs.

Why is this important? Meeting basic needs is critical for good health. Individuals with limited resources other have to choose between the most pressing needs (i.e., paying for housing at the expense of paying for healthy food or medical care.)

Housing

Affordable housing is a challenge for many to obtain in Whatcom County, especially those with lower incomes. While progress has been made towards decreasing homelessness, many individuals across the County are without stable housing.

- **Affordable housing out of reach for many.** Housing is considered affordable when households spend no more than 30% of their income on housing. By this standard, almost half of all Whatcom County residents do not have affordable housing. Fifty-five percent Whatcom County renters spend more than a third of their income on housing. Forty-four percent of owners with mortgages in Whatcom County spent 30 percent or more of their household income on housing**.** (US Census Bureau, ACS, 2010)
    - In 2010, an estimated 50 percent of renters were unable to afford the Fair Market Rent for a two-bedroom rental--$814 per month, equaling a housing wage equivalent of 1.3 full-time minimum wage jobs (HUD, 2011).
    - The large college student population can have an impact on the accessibility of affordable housing in the City of Bellingham.
    - More affordable housing can often be found outside of Bellingham compared to within the city limits. This means that Whatcom County residents may locate themselves further from jobs, community resources, health care, and social opportunities in order to find affordable housing. This creates a need for accessible transportation for those living outside city limits, as many become more isolated due to transportation limitations.
- **Some have no homes at all.** The 2011 Point-in-Time Homeless Count indicated at least 1,311 people in Whatcom County are homeless (PIT, 2011). Nearly 40% of all homeless persons in Whatcom County are under 18 years. This amounts to more than 500 children and youth. Forty-six percent are female.

- The top five reasons that people report being homeless in Whatcom County are inability to pay rent or mortgage (34%), lost job (32%), alcohol or drug abuse (28%), mental illness (24%), and family break-ups (20%).

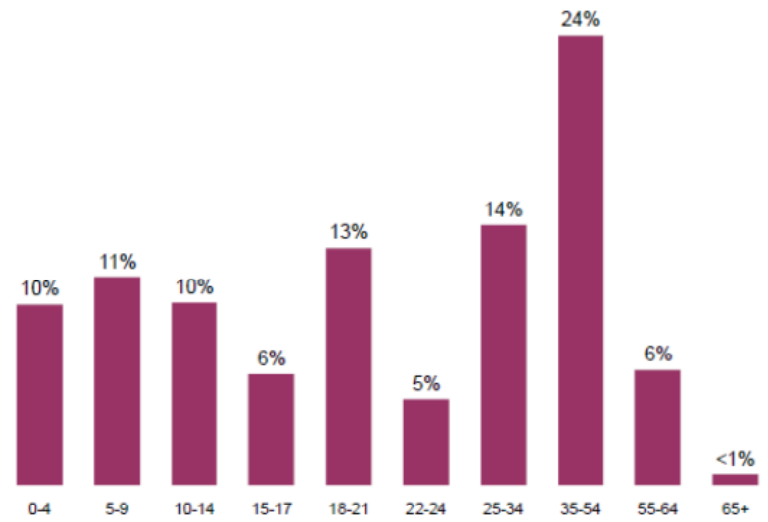


Figure 1 Age distribution of homeless persons

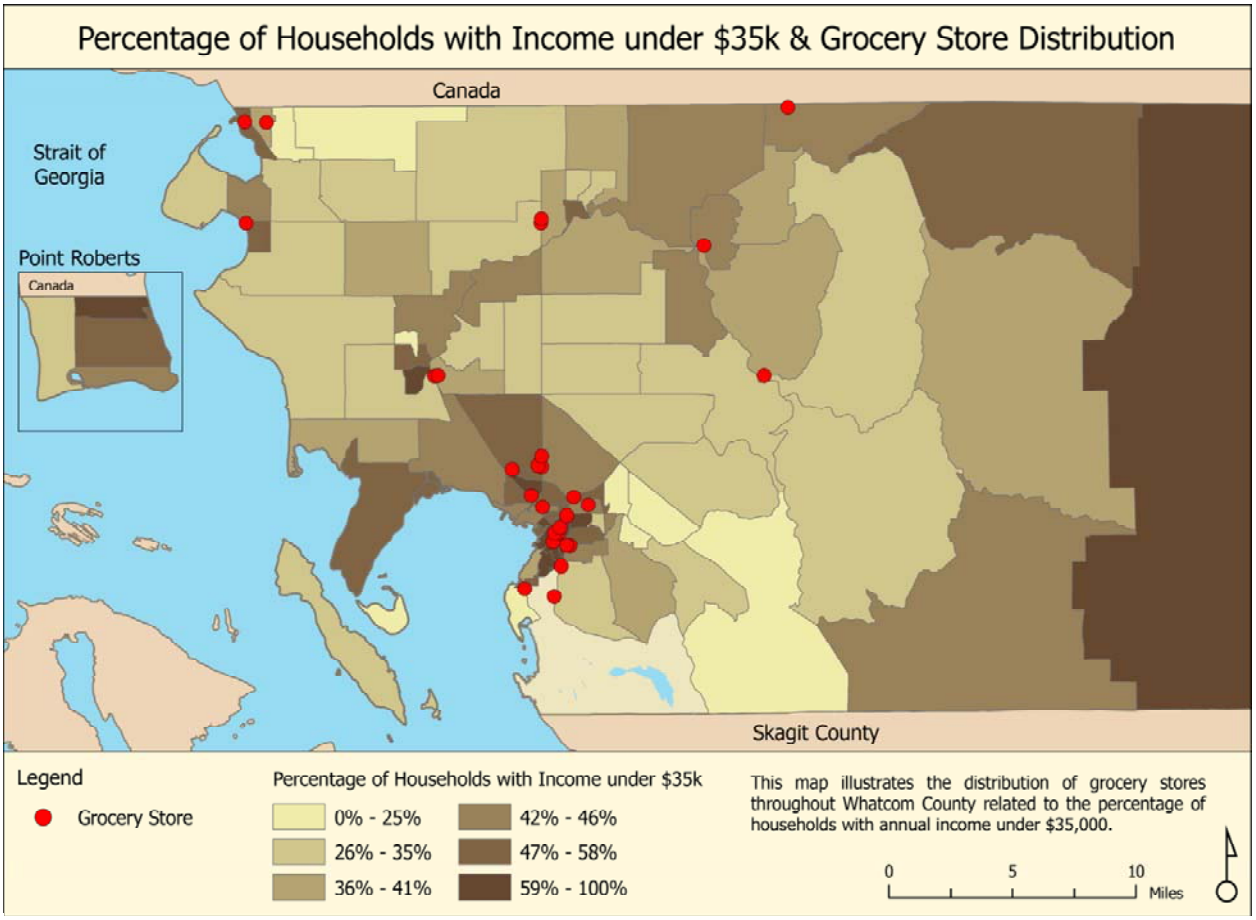
- **Progress made in ending homelessness**. Chronic homelessness dropped nearly 50% in Whatcom County since 2008. Based on the U.S. Department of Housing and Urban Development definition of chronic homelessness, 82 persons, or 10% of all homeless households are chronically homeless in Whatcom County. This represents a 48 percent decrease from 158 persons counted in 2008 (PIT, 2011).

Food and Nutrition

Hunger and not having enough food to eat are a reality for many in Whatcom County. Poor nutrition is common. While healthy fresh food is available in many venues in Whatcom County, geography, transportation, and cost are all barriers to accessing this food, particularly for low income and rural residents.

- **Hunger and food insecurity common.** In 2007, one in six (15%) households said they sometimes or often did not have enough food to eat during the past 12 months. Fourteen percent said they sometimes or often could not afford to eat balanced meals. Nine percent of households said that during the past year they had to cut the size of their meals or skip meals because there wasn't enough to eat (BRFSS, 2007).
    - People more likely to be affected by hunger included people who were unemployed, had a high school education or less, had no health care coverage, said their health was fair or poor, incomes less than $35,000/year, and younger than 40. Up to 30% of those with incomes less than $20,000/year reported hunger (BRFSS, 2007).
    - More recent data point to increasing hunger and food insecurity, with 11.3% of Whatcom County households receiving food assistance (Basic Food Program) in 2009, up from 7.8% in 2008 (ACS, 2009). In 2010, there were 188 Basic Food recipients per 1,000 people, up from 162 per 1,000 in 2009. This rate is also slightly higher than the state rates.
    - There were significant increases in client visits to Whatcom County and Bellingham Food Banks in 2008 and 2009 (ACHIEVE, 2011).

- **Access to healthy foods is uneven.** In 2011, the Washington State University Whatcom County Extension published a Community Food Assessment, a "snapshot of Whatcom County food system from 2008 to 2009." A series of maps assess how some segments of the Whatcom County population have limited access to food sources to meet recommended nutritional intake (CFA, 2011).
    - Rural residents (living in unincorporated Whatcom County – approximately 44% of County residents) are most likely to have convenience stores, rather than grocery stores as the closest place to buy food.
    - The map below shows the distribution of grocery stores across the county related to the percentage of households with incomes under $35,000/year. The map demonstrates the lack of access in rural areas, as well as the lack of access in certain impoverished areas such as Lummi Reservation.


Percentage of Households with Income under $35k & Grocery Store Distribution
Canada
Strait of Georgia
Point Roberts
Canada
Skagit County
Legend
Grocery Store
Percentage of Households with Income under $35k
0% - 25%
26% - 35%
36% - 41%
42% - 46%
47% - 58%
59% - 100%
This map illustrates the distribution of grocery stores throughout Whatcom County related to the percentage of households with annual income under $35,000.
0
5
10
Miles

Social Support

Adequate social support is closely connected to health and well-being. Individuals who lack social support are more likely to experience psychological stress and poor health status.

- **Most but not all with good support.** The majority of adults in Whatcom County indicate that they always or usually receive the support they need, however certain sub-populations are more likely not to have support.

	Adults (age 18 +)
Receive social and emotional support when needed:	
• Always	46%
• Usually	36%
• Sometimes	12%
• Rarely/Never	6%

BRFSS 2007

- Individuals who are more likely to say they *rarely* or *never* receive needed support include respondents who have incomes of less than $20K (12%), were retired (9%), were unemployed (8%), and had lower education level (high school diplomas or less) (8%).

Rest

Sleep is an essential and often overlooked ingredient for good health. Currently we do not have population measures to determine adequacy of sleep and rest for populations in Whatcom County, though insufficient sleep has been identified as a health risk factor by the Centers for Disease Control and Prevention (CDC). Some states have included sleep questions on the annual Behavioral Risk Factor Surveillance System (BRFSS) survey. Inadequate rest is a common issue for individuals and families with caregiving responsibilities (i.e., families of children with special health care needs) or who must work multiple jobs to provide for their families).

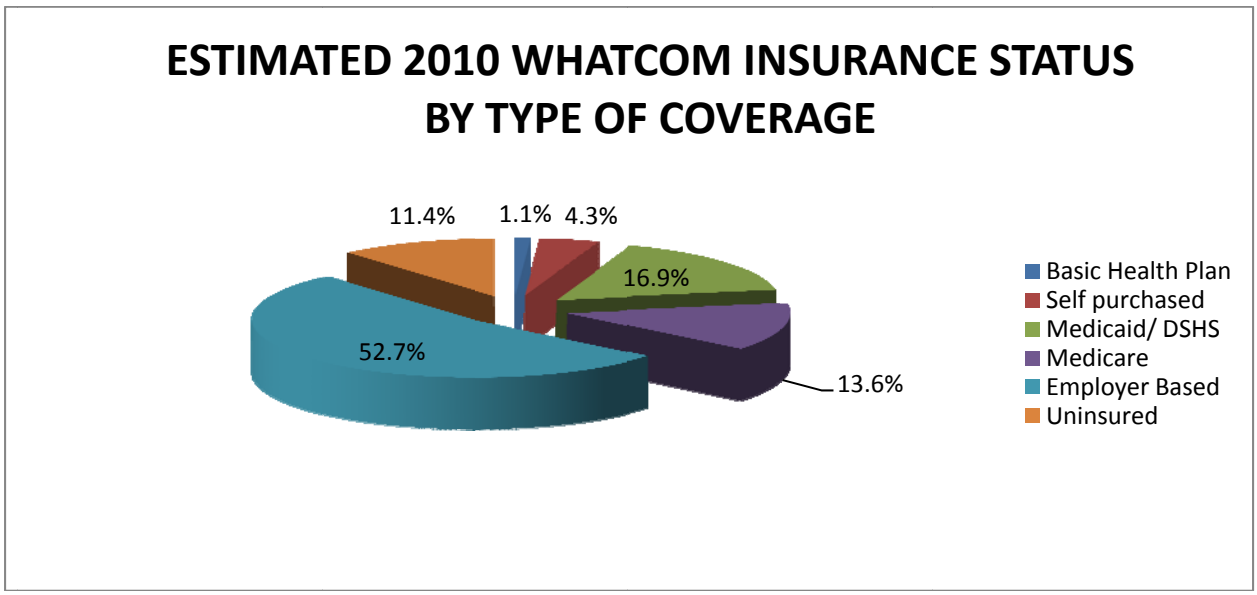
Health Care Access

Access to health care is important for maintaining good health and obtaining needed preventive and treatment services. In Whatcom County, individuals who have lower income, less education, are unemployed or underemployed are more likely to have challenges accessing health care. Cost is a primary barrier, though other barriers such as geographic distance to services also play a role. Dental care and behavioral health care are particular challenges. (Additional information about health care access is located in the Health Systems Capacity Assessment section).

- **Lack of health insurance coverage is a challenge for some people, though most have some coverage**. Approximately 16 % of adults in Whatcom County lack health insurance (CHAT, 2009). Results from the 2007 BRFSS survey suggest similar percentages (14% lacked medical coverage). In 2007, 37% of adults did not have dental insurance coverage.
    - In 2007, those who lacked health care coverage were more likely to earn less than $35,000 per year (23%), be unemployed (22%), have a high school education or less (21%), be under age 30 (21%).
    - The majority of Whatcom County children (estimated 95%) are covered by health insurance.

- **Health insurance coverage does not necessarily lead to health care access,** as some providers may not accept various insurance plans, there may be limitations on coverage (plans that only cover certain services or costs), or co-payment requirements may exceed an individual's ability to pay (particularly for expensive long-term treatments such as cancer treatment).

- **Many people rely on publicly funded medical assistance programs.** Approximately 31% of county residents rely on public insurance programs including Medicaid and Medicare (WA-OFM 2011)



- **Unmet health care needs are increasing**. In 2007, 16% of adults indicated they needed health care in the past year but were unable to see a doctor due to cost, compared with 8% in 1996 and 9% in 2002. (BRFSS 2007)
    - In 2007, respondents who were more likely to be unable to afford to go to the doctor included:
        - Those who have no health care coverage (48%)
        - Those who earn less than $20,000 per year (32%)
        - Respondents who report their health status as *fair/poor* (28%)
        - 18-29 years olds (23%)
        - Those with a high school education or less (22%)
        - The unemployed (20%)

- **Most adults have a personal health care provider**. In 2007, 85% of adults indicated that they had one or more personal doctors. In 2002, 79% indicated they had a personal health care provider (BRFSS 2007).
    - In 2007, subgroups more likely to say they <u>have no personal doctor</u> or health care provider include those without health care coverage (46%), those aged 18-29 (28%), respondents with incomes of $50,000 or less (22%), and non-retirees: employed and unemployed (18%).

Community Environments and Health

Synopsis: Whatcom County has a beautiful and vibrant natural environment, however environmental health indicators suggest several areas of challenge. Water quality of the primary drinking source for half the County population has been on a continuing declining trend. Air quality is variable. Potential exposure to environmental contaminants (such as agricultural pesticides) and to naturally occurring hazards (such as asbestos) may also be a concern for some populations. Lack of fluoridated water is an issue for dental health. Though the county has abundant recreational areas and opportunities, all populations do not have equal access. Some areas of the county, particularly rural and outlying areas are less likely to have access to health promoting built environments. In general the social environment in Whatcom County is good with active neighborhood associations, relatively low crime rates, and above average community engagement and civic participation. Some populations, however, are more likely to experience fear, isolation, and disconnection in their communities. Pockets of crime and social unrest are present within the county.

Why is this important? Community environments include the natural environment (water, air, land), the built environment (buildings, roads, parks), and social environments (neighborhood relationships, community safety, crime). Environments have a significant impact on health and play an important role in producing and maintaining health disparities. Having access to clean water and clean air and preventing exposure to environmental toxins are essential for good health. The built environment influences health by providing or limiting opportunities for healthy active living, including access to safe areas to be physically active, access to nutritious foods, and access to community gathering spaces for social connections. Ability to get places without cars has an impact on air quality as well as physical activity and quality of life. Access to tobacco and alcohol retailers can influence substance use. The social environment also has a significant impact on health and well-being, as social connections, inclusion, and sense of safety are important for good health.

Natural Environment

- **Water quality is deteriorating.** The health of Lake Whatcom, the main drinking water source for nearly 100,000 Whatcom County residents (about half the County population) continues to decline.
    - In 2010, trihalomethane contaminant level was 35.4 mg/Liter in the City of Bellingham's water supply. This level was above the levels in 2006 (28.4), 2007 (34.1) and 2009 (31.7). This continues the general upward trend of THM levels since 1998. Chlorophyll levels (an indirect indicator of phosphorus) have been on a general increasing trend since 1996. Excess phosphorus contributes to algae growth, which increases levels of chemicals needed to treat the water to make it safe for drinking as well as harming fish and wildlife (City of Bellingham, 2011).
    - Eleven tributaries flowing into Lake Whatcom have fecal coliform levels that are too high, typically caused by pet waste and faulty septic systems (Department of Ecology, 2011, 2008).
- **Air quality varies across the County.** Compared to some urban counties with larger populations, Whatcom County is considered to have good air quality. However, air quality is measured in very few locations across the County and can be variable. For example, there can be "pockets" of poor air quality in Whatcom County such as how the Kendall area has higher concentrations of particulate matter in the winter months when wood stoves are used extensively as a chief source of heat.

Air Quality Indicators	2007	2008	2009
Number of moderate* days in year: measuring Particulate Matter at Bellingham Station	17 days	5 days	18 days

*Air quality is categorized on a four point scale with ranges of Particulate Matter concentrations: good, moderate, unhealthy for sensitive groups, and unhealthy (Northwest Clean Air Agency and DOE, 2007-2010).

- **Pesticide use and contamination is a concern.** In Whatcom County, pesticide exposure and health risks are disproportionately experienced by the Hispanic population who comprise the majority of agricultural workers. Quantifying pesticide exposure and related illness in Whatcom County is difficult due to lack of tracking and regulation of pesticide use, non-recognition of pesticide-related illnesses, and limited health care access of farm workers and their families. In addition to direct exposure, pesticide use is a serious concern for run-off into the watershed.

- **Few people have access to fluoridated water systems.** When added to community water systems, fluoride is a safe and effective tool to prevent tooth decay and promote optimal oral health. In Whatcom County, only people who live in Lynden and those who receive water through the Lummi Tribal Sewer and Water District (974 water meters) benefit from flouridated water.

Built Environment

- **Access to safe walking and biking variable.** There is great variation in Whatcom County between geographic areas in terms of potential "walkability" or "bikeability"– the ability to live reasonably well without a car. Bellingham is rated as a "Walker's Paradise," Ferndale is considered "very walkable", Lynden is "somewhat walkable," and all other areas were "car-dependent" (ACHIEVE, 2011).

- **Retail alcohol and tobacco too accessible.** Whatcom County has a higher number of retail alcohol and tobacco licenses that are active during the year compared with other similar counties and the state (RPP, 2010).

    - In 2009, 2.21 active alcohol licenses per 1000 Whatcom County population compared to 1.70 in similar counties and 1.99 in the state.

    - In 2009, 1.08 tobacco retail and vending licenses compared to 0.88 for similar counties and 1.00 in the state.

- **Access to grocery stores that carry fresh foods variable.** Rural and remote areas are less likely to have access to full-service grocery stores selling fresh fruits and vegetables, which creates a barrier to healthy eating for those living in these areas (CFA, 2011). *See map on page 37.*

- **Many still exposed to second-hand smoke in homes and public areas.** Despite state laws limiting tobacco use in businesses and worksites, a significant number of people including children are exposed to second-hand smoke in home and community environments.

    - An estimated 29% of Whatcom households with children under age 18 have at least one smoker in the home (BRFSS, 2007).

    - The PeaceHealth St. Joseph Medical Center campus and all public school (K-12) campuses are smoke-free, however other large campuses (Western Washington University, Whatcom Community College, County government) are not. There are no designated smoke-free parks or play areas in the County.

Social Environment

- **Civic participation above average.**
  - **Active neighborhood associations**: In 2011, there were 25 designated Bellingham neighborhoods. Twenty-three Neighborhood Associations participate in the City of Bellingham's Mayor's Neighborhood Advisory Commission.
  - **Good voter participation**: Whatcom County has higher rates of voter registration and participation compared to similar counties and the state. 76% of the population is registered to vote, compared with 70.68% in similar counties and 70.46% in Washington State. (Office of the Secretary of State, Elections Division, Registered Voters)
  - **Active involvement in community events**: Whatcom County has active community involvement in countywide annual events, such as the Ski to Sea festival, the Scottish Highland Games in Ferndale, and the Northwest Fair in Lynden.

- **Many give back to the community through charitable donations and volunteerism.**
  - In 2002, Whatcom County tax filers gave over $65 million to charities, up 29% since 1997. More than 80% of individuals who itemized tax returns reported charitable giving. (Whatcom Community Foundation)
  - In 2010, the Whatcom Volunteer Center reports more than 1,652 individuals/groups volunteered 410,457 hours with 125 different organizations in the community. (Whatcom Volunteer Center, 2011)
  - More than 300 volunteers and 200 health and social service providers served over 472 adults and youth at the third annual Project Homeless Connect event in March 2011.

- **Most have a positive perception of community safety, though safety is a common concern.**
  - In a survey of City of Bellingham residents, 57% reported feeling safe walking alone at night in their neighborhoods (COB, 2011).
  - In a community prioritization process conducted through the Whatcom ACHIEVE initiative, enhancing community and perceived safety (traffic and crime) was identified as the top priority for improving physical activity among children and families. (ACHIEVE, 2010)

- **Violent crime, domestic violence and child abuse rates concerning**; **substance use plays a role.**
    - Overall arrest rates of adults are higher in Whatcom County than similar counties but lower than in Washington State. Drugs and/or alcohol are involved in 85-90% of all criminal arrests in Whatcom County (RPP, 2009)
    - Between 2009 and 2010, total crimes in the County went down 3.4%, while violent crime (rape, robbery and aggravated assault) went up 22.3%. (WASPC, 2010)
    - In 2009, Whatcom County's domestic violence per capita rate was 6.5 offenses for every 1000 residents (compared to 7.2 for the state). 13.5% of all reported criminal offenses in 2009 were domestic violence related; 60% of all domestic violence offenses were assaults (WCDVC, 2009)
    - In 2008, the rate of accepted referrals to child welfare case management was 54.9/1000 children, significantly higher than the rate for Washington was 44.4/1000 children. (DSHS, 2009) Parental substance use is a common contributing factor. (DSHS, Personal Communication)

Health Across the Lifespan

Synopsis: Overall Whatcom County has a healthy population, which starts with a foundation of good health in early life. The health and well-being of most mothers and young children in Whatcom County is good, however a substantial minority of mothers and children who, because of limited resources and/or compromised social circumstances, are at risk of not achieving their full potential. Maternal obesity, substance use and depression are particular concerns. Children, in general, are healthy, though a significant number of children live in poverty, experience abuse, neglect and other adversity, are not adequately immunized for childhood diseases, and have preventable dental health problems. The majority of youth and adults are also healthy, but mental health concerns, substance use, poor nutrition and physical inactivity are areas for further exploration and improvement. Older adults often have chronic health conditions requiring increased use of health services. Falls and dementia are two areas that particularly impact seniors in Whatcom County. Disparities in health status are noted across the lifespan.

Why is this important? Considering health across the life course is important as mounting evidence demonstrates the connections between early life experience and health in later life. Adversity and challenges in early childhood are reflected in health behaviors and health outcomes later in life. Recognizing health needs at various life stages helps communities plan for needed services and supports.

Maternal and Infant Health

- **Birth numbers remain fairly stable.** Every year, approximately 2200 babies are born to Whatcom County mothers (WA DOH, 2009).
    - 2201 (2007) → 2181 (2008) → 2207 (2009)
    - The majority of these births occur in the hospital, though out of hospital births (home or birthing center) have grown in recent years.

- **Teen pregnancy and teen birth rates are low.** Births to adolescents aged 15-17 years represented only 2.3% of births from 2007-2009 compared with 2.4% of births for the State of Washington (WA DOH, 2009). There were no births to adolescents under age 15 years during that same period.
    - Teen Births: 49 (2007) → 57 (2008) →49 (2009)
    - Pregnancies: 97 (2007) →103 (2008) → 91 (2009)
    - Pregnancy Rate (15-17 y/o): 24.3 (2009) vs. 24.0 (2009-state)

  Significant numbers of births are to lower income mothers. Nearly half of all births (46.8%) are to lower income women who qualify for Medicaid (185% FPL). These proportions have remained stable over past several years (DSHS, 2010).

Births with Medicaid-paid Maternity Care (%)	2005	2006	2007	2008
Whatcom County	48.4	47.0	46.7	46.7
Washington State	47.9	47.1	47.2	47.8

- **Lower income women are less likely to get early prenatal care.** Women on Medicaid are less likely than non-Medicaid recipients to get care during the first trimester of pregnancy, and more likely to have late or no prenatal care during pregnancy. This increases risk of preventable pregnancy complications (CHAT, 2009).

Births in Whatcom County (%)	2005	2006	2007	2008	State
First Trimester Prenatal Care					
Medicaid	64.1	63.2	63.8	63.0	66.6
Non-Medicaid	85.5	87.6	86.2	87.1	87.0
Late or no Prenatal Care					
Medicaid	6.8	6.3	5.9	7.8	8.4
Non-Medicaid	1.6	2.6	2.2	3.3	3.1

  - Delayed entry into prenatal care is more frequent:
    - Among non-Whites than Whites;
    - Among Hispanic women than non-Hispanic women;
    - Highest among American Indians and Alaskan natives.

- **High Caesarean Section rates.** Relative to national goals and recommendations, pregnant mothers in Whatcom County are more likely to undergo primary and secondary C-sections at the time of delivery. This increases risk for maternal complications from surgery (WA-DOH, 2009).

C-section Rates (%)	2005	2006	2007	2008	National Goals
Primary C-section Rates					**15%**
Whatcom County	**28.4**	**30.5**	**31.9**	**30.3**	
Washington State	**26.0**	**26.3**	**26.5**	**26.6**	

- **Low birth weight and other poor birth outcomes are relatively infrequent** (WA DOH, 2009).
    - Infant mortality=3.2/1000 (2008)
    - Low birth weight=5.3% (2008)

- **Pre-pregnancy maternal obesity is significant.** In 2008, 16.5% of mothers were obese (Body mass index>30). (WA DOH, 2009)

- **Maternal substance use is a growing concern.** The majority of pregnant women do not use alcohol or other illicit drugs during pregnancy, but the community has seen an increase in the number of pregnant women using heroin (or in methadone treatment) and a concomitant increase in drug-affected infants born at the hospital over the past 2-3 years.

Frequency of Drug Affected Neonates Admitted to PeaceHealth SJMC Between 0 and 28 Days of Age					
Births by Payer	**2006**	**2007**	**2008**	**2009**	**2010**
Total Number Births at SJMC	2728	2498	2277	2387	2478
Number Affected	10	10	15	25	34
Rate Affected (%)	.37	.40	.66	1.05	1.37
Medicaid Number Births	1174	1078	968	1057	1128
Number Drug Affected	9	10	13	22	33
Rate Drug Affected (%)	.77	.93	1.3	2.1	2.9

    - In 2008, 17.4% of mothers who received coverage for prenatal care from DSHS (Medicaid) required treatment for substance abuse. The rate of treatment for substance abuse in Washington was 12.6%. (DSHS, 2010)

- Most women do not smoke during pregnancy, but rate is significantly higher in lower income populations: Medicaid rate=13.3% compared with non-Medicaid rate=7.4% (DSHS, 2010)

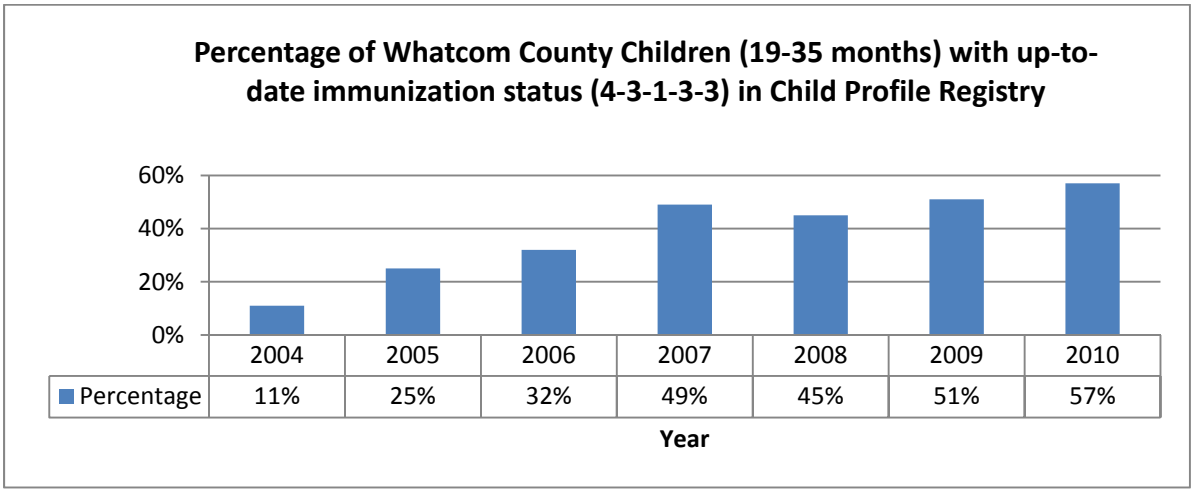
- **Maternal depression is common.** Maternal depression (during and after pregnancy) is commonly reported, though actual rates of this condition in Whatcom County are unknown. Depression significantly impacts ability to bond with one's infant and influences the infant's brain development.
    - Informal review of Maternity Support Services charts from pregnant women on Temporary Assistance for Needy Families (TANF) demonstrates 50% experiencing depression. (Personal communication, WCHD)

- **Breastfeeding initiation is high for mothers in Whatcom County, but many women discontinue breastfeeding earlier than recommended**, many within the infant's first month of life. (Maternity Care Practices Report, WCHD, 2010) Data from Whatcom County WIC Programs demonstrate that 88.5% of WIC mothers initiate breastfeeding, but only 73.8% are breastfeeding at 4 weeks. (WA DOH, WIC Breastfeeding Statistics Report, 2010)

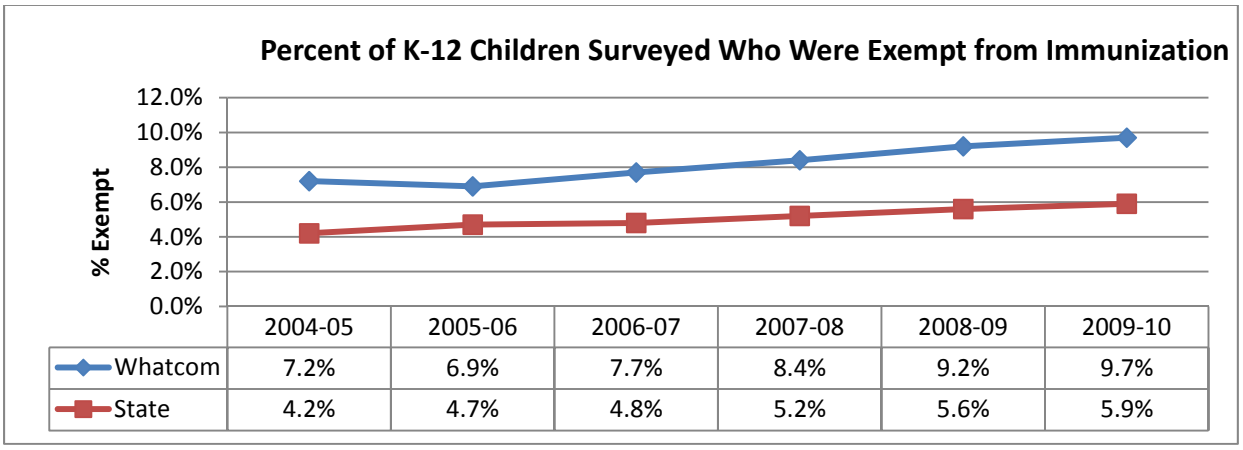
  In the first 10 months of 2010, 31% of neonatal hospital readmissions were attributed to jaundice, dehydration, or feeding problems. (PHSJMC, 2011) For a comparable time period in years 2007-2009, the proportion was only 19%. This may be related to decreased availability of maternity support services (i.e., home visiting nurses) and breastfeeding support in the community that coincided with this time period.

Child Health

- **Childhood immunization rates are significantly below national goals.** In 2007-2008, approximately 68.8% (+/-8.4) of 2-year-olds (19-35 months) in Whatcom County had received the full-series of recommended immunizations (4:3:1:3:3:1:4). (National Immunization Survey, MMWR, 2011) Overall, 67.4% of 2-year-olds in the US were up-to-date. Nationally, the proportion of fully immunized 2 year olds ranged from 50.9% to 80.1%. The Healthy People 2010 goal is 80% vaccination coverage. The following graph demonstrates that 57% of 2-year-olds were up-to-date in the state registry, which is likely to under-represent the proportion of children who have received recommended vaccinations.



- **School immunization exemption rates are high**. Over the past several years, Whatcom County has consistently had one of the highest school immunization exemption rates in Washington State with continued upward trends. In 2009-2010 school year, 9.7% of children in Whatcom schools were exempt for one or more vaccine compared to 5.9% for the state.



- **Childhood dental disease is common.** By 3rd grade, the majority of children (61%) in Whatcom County public schools have dental decay experience. (Smile Survey 2010)

Oral Health Categories	Head Start Preschoolers		Public School Kindergartener		Public School Third Grade	
	Whatcom	**Washington**	**Whatcom**	**Washington**	**Whatcom**	**Washington**
Decay Experience	**43%**	**40%**	**42%**	**39%**	**61%**	**58%**
Untreated Decay	**28%**	**13%**	**16%**	**14%**	**13%**	**15%**

  - Children in low-income families were more likely to experience tooth decay and to have been untreated.
  - Hispanic or Asian children were more likely than white, non-Hispanic children to experience decay and to have been untreated.
  - Over 56% of third graders have preventive dental sealants. This exceeds Healthy People 2010 objectives (28%), and is likely the result of targeted school based sealant programs.

Youth and Young Adult Health Behaviors

- **Bullying behavior is common.** Approximately 25% of student in the 8th and 10th grades report being bullied at school (HYS, 2010).

- **Nearly one quarter of all middle and high school students are overweight or obese, and greater than one third of Hispanic youth are overweight.**
    - In 2010, the prevalence of obesity or overweight was 22.6% among 8th graders (compared to state rate of 27%) and 24.8% among 10th graders (compared to state rate of 23.8). These rates are staying fairly stable over the past several years.
    - In 2010, 37.3% of Hispanic youth in 8th grade were overweight or obese (in top 5% for body mass index by age and gender) compared with 20.3% of non-Hispanic youth in 8th grade. (HYS, 2010)
    - The prevalence of obesity on WWU campus is 8.8%, slightly lower than the national prevalence of 10%. Source????

- **More than half of teens do not receive enough physical activity or eat a healthy diet.** Greater than 50% of teens report inadequate physical activity, spend 3 or more hours in front a screen each day, and partake of poorly balanced diets (HYS, 2010).

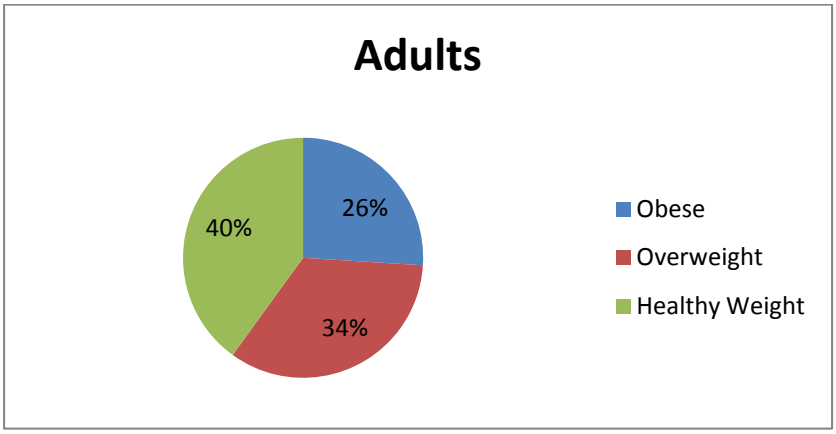
- **Majority of youth do not use illicit substances,** however by the end of high school, a substantial proportion of students are using substances, particularly alcohol and marijuana. Illicit prescription drug use (pain meds, stimulant meds) is increasing.
    - In 2010, Whatcom County students in 12th grade reported the following:
        - Current tobacco use (18.3%)
        - Current alcohol use (40.5%)
        - Current marijuana use (24.1%)
        - Prescription drug use
            - Pain meds (8.1%)
            - Ritalin (6.5%)

SUBSTANCE USE	GRADE IN SCHOOL				
	6th	8th	10th	12th	College (WWU**)
	(n=1319; 66% participation rate*)	(n=1411; 70% participation rate*)	(n=1564; 70% participation rate*)	(n=1163; 55% participation rate*)	
Cigarettes in past 30 days					
Whatcom County	***0.9%***	***6.4%***	***13.8%***	***18.3%***	
Washington State	1.7%	6.4%	12.4%	19.1%	
Marijuana use in past 30 days					
Whatcom County	***0.9%***	***8.8%***	***22.5%***	***24.1%***	***46%***
Washington State	1.6%	9.2%	19.0%	26.2%	
Alcohol use in past 30 days					
Whatcom County	***2.3%***	***13.7%***	***32.3%***	***40.5%***	
Washington State	3.8%	14.0%	27.5%	39.9%	
Binge Drinking (5 or more drinks at one sitting, past two weeks)					***35.9%***
Prescription Painkillers (used past 30 days without prescription)					
Whatcom County	***N/A***	***3.9%***	***10.1%***	***8.1%***	
Washington State	N/A	4.2%	8.2%	7.8%	
Ritalin (used past 30 days without prescription)					
Whatcom County	***N/A***	***3.1%***	***4.8%***	***6.5%***	
Washington State	N/A	1.8%	3.6%	4.1%	
Hallucinogens and other recreational drugs					***17%***

*HYS 2010-Participation rate of 70% or greater considered to be *probably* representative of the students in this grade. 40-69% participation *may* be representative of the students in this grade.
** WWU-Student Health Survey (2010)

Adult Health Behaviors

- **Obesity rate is rising.** As in other areas of the state and nation, obesity rates continue to increase, even though the county is better off than other communities. In 2007, 26% of County residents had a Body Mass Index (BMI) calculation of obese which is a significant increase from 17% in 2002.
- **Three of every 5 Whatcom County adults are overweight or obese.** Only about 40% of Whatcom County adults are calculated to have a healthy weight. Thirty-four percent are overweight (BMI of 25-29.9), and 26% considered obese (BMI of 30 or more) (BRFSS, 2007).
    - Obesity was associated with having low incomes (under $20,000/year), a high school education or less, residing in rural areas, and a fair/poor health status (BRFSS, 2007)
    - Being overweight was associated with age (those aged 50-64, and 65 and older), being male, having incomes over $50,000/year (BRFSS, 2007).



BRFSS, 2007

- **Poor nutrition is common among adults.**
    - In 2007, only 31% of adults in Whatcom County ate the recommended 5 or more servings of fruits and vegetables per day. Similar decreases were seen for adults eating 3-4 servings per day. However, there was a significant increase in the proportion of adults consuming some fruits and vegetables (1-2 servings): 23% in 2007 compared to 21% in 2002 and 17% in 1996 (BRFSS, 2007).
    - Those more likely to eat no or few fruits and vegetables are those with a high school education or less, and men. Women and those 65 or older are most likely to consume five or more servings a day (BRFSS, 2007).

- **Physical activity varies.** In 2007, 85% of Whatcom County adults indicated they engaged in some sort of physical activity in the past month, with a range of intensity levels and time spent exerting reported. Those less likely to have participated in physical activity include those with lower incomes, health status of fair or poor, and those with less than a college degree (BRFSS, 2007).
- **Tobacco use is more common in lower income and lower education groups**. In 2007, 18% of all adults in Whatcom County were current smokers compared with 36% of adults with household income less than $20K.

Senior Health

- **Chronic health issues are common among older adults.**
    - Nationallly, 80% of older adults live with at least one chronic condition and 50% have two or more.
    - Reported conditions and utilization of services by local seniors are similar to seniors across the nation. (Northwest Regional Council, 2009)
    - Twenty-nine percent of local seniors report disabilities.

- **Falls are a significant cause of morbidity for local seniors.**
    - Falls are the leading cause of injury related hospitalizations in Washington (WA-DOH 2007). The rate of hospitalizations for falls in Whatcom County is 1738/100,000 population, similar to the state (1701/100,000) but higher than rates for the nation (776/100,000). Washington State has a higher proportion of White females in the population which probably explains the higher rates of hospitalization. Rates of hospitalization are higher for White women than for other minority groups.
    - Almost 40% of local seniors report physical inactivity. Inactivity is associated with increasing risk of falls which are the leading cause of accidental injuries and death among older people.

- **Dementia takes a toll on many Whatcom seniors and their families.**
    - In 2008, Alzheimer's Disease was the third most frequent cause of death in Whatcom County accounting for 53.9 deaths per 100,000 (Washington Alzheimer's Disease mortality rate – 47.1 per 100,000). (CHAT 2009) The prevalence of Alzheimer's disease doubles every 5 years after age 65 (MMWR 2003). By age 85, 47% of the cohort suffers from varying stages of the degenerative disorder. Based on changing demographics in the county, the prevalence of Alzheimer's disease will increase.

Selected Health Conditions

Synopsis: Selected health conditions have significant impacts on the health of Whatcom County residents. The leading causes of morbidity and mortality are chronic diseases, such as cardiovascular disease, cancer, and Alzheimer's dementia. Behavioral health conditions, such as depression and substance abuse, communicable diseases such as influenza and food borne illnesses, and trauma and injuries also have major influences on the community.

Why is this important? In addition to addressing broad social and economic issues to improve health outcomes**,** targeted and focused interventions and prevention strategies may be needed to reduce specific health conditions**.**

Leading Causes of Morbidity and Mortality

- **Major causes of death and disability are associated with risk behaviors**. Three of the top four leading causes of death (cardiovascular disease, cancer and chronic lower respiratory disease) are conditions that develop over time and are associated with health behaviors such as obesity, poor nutrition, physical inactivity and tobacco use.

2008 TOP TEN LEADING CAUSES OF DEATH

Cause of Death	Whatcom Count	Whatcom Rate per 100,000	Washington Rate per 100,000
Cardiovascular disease	420	**219.9**	224.0
Malignant neoplasms (cancer)	326	**170.7**	176.0
Alzheimer's disease	103	**53.9**	47.1
Chronic lower respiratory diseases	82	**42.9**	44.5
Accidents	63	**33.0**	41.2
Diabetes mellitus	44	**23.0**	24.1
Suicide	33	**17.3**	13.4
Influenza & pneumonia	24	**12.6**	11.9
Parkinson's disease	15	**7.9**	7.8
Chronic liver disease & cirrhosis	14	**7.3**	10.3

Data Source: CHAT 2009/Death Certificate Data, WA-DOH, Center for Health Statistics

Note: Differences between Whatcom and Washington rates are not statistically significant at the 95% confidence level.

Mental Health

Depression and Suicide

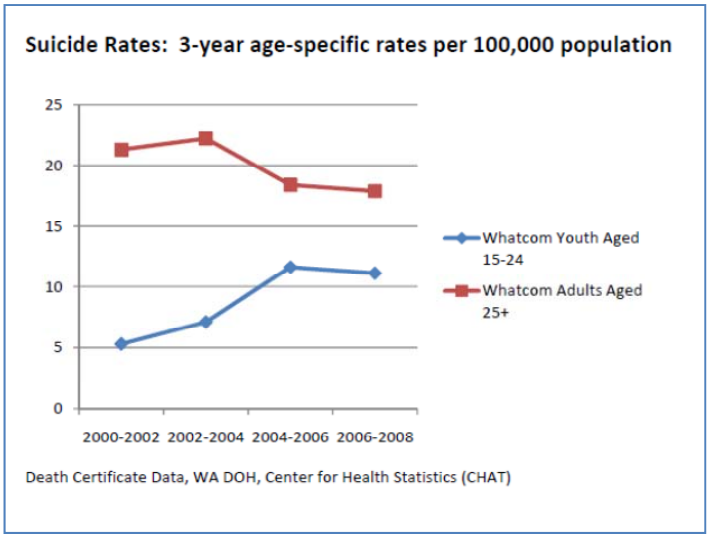
- **Ten percent of Whatcom County adults reported poor mental health** of two weeks or more in the past month (BRFSS 2007). Maternal depression (during and after pregnancy) is common.
- **Depression is also common among high school and university students** in Whatcom County. One out of four (27-28%) high school students and one out of five (18.8%) of WWU students report depression symptoms or history of depression diagnosis (HYS 2010). High school rates are similar to the state. The depression prevalence at WWU is higher than rates reported nationally (14.9 %) (NCHA 2008).
- **Suicide attempts and suicidal ideation (thoughts of committing suicide) are also prevalent** in youth and young adults attending college (HYS 2010). Approximately 7% of high school students report suicide attempts and 9.9% of WWU students report serious consideration or attempt at suicide (NCHA 2008).

Mental Health	GRADE IN SCHOOL			
	6th	8th	10th	12th
	(n=1319; 6% participation rate*)	(n=1411; 70% participation rate*)	(n=1564; 70% participation rate*)	(n=1163; 55% participation rate*)
Depression				
Whatcom County	***N/A***	***22.6%***	***28.6%***	***27.3%***
Washington State	N/A	24.9%	29.7%	28.4%
Seriously considered attempting suicide				
Whatcom County	***N/A***	***13.8%***	***17.4%***	***12.4%***
Washington State	N/A	14.4%	17.7%	13.8%
Attempted suicide				
Whatcom County	***N/A***	***5.8%***	***7.4%***	***6.9%***
Washington State	N/A	7.1%	7.2%	5.8%

HYS, 2010

*Participation rate of 70% or greater considered to be *probably* representative of the students in this grade. 40-69% participation *may* be representative of the students in this grade.

- **Suicide rate is higher in Whatcom County than the state and nation**. The suicide rate for Whatcom County is 19.3 /100,000. The rate exceeds the state rate of 13.3/100,000 and is significantly higher than peer counties across the nation (CHAT 2009). Suicide (attempts and completed) is a particular issue in the Native American/American Indian communities.



Substance Abuse

Emerging evidence indicates a growing opiate addiction problem in Whatcom County, with heroin and misuse of prescription painkillers.

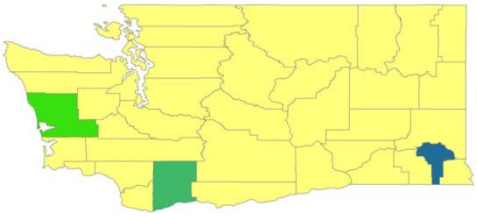
- Whatcom County Needle Exchange reports exponential increases in client need, and notably younger clients. (WCHD, 2011)

- In the state of Washington visits for substance abuse in federally qualified community health centers has increased 27.8% from 2007 to 2009 (HRSA 2009). An estimated 70.5% of adults eligible for treatment for substance abuse do not receive care (2008). The problem is even more acute among low-income families.
- Drugs or alcohol were related to cause of death in over 12 of every 100 deaths in Whatcom County in 2009; over forty percent of traffic fatalities were alcohol-related (CHAT 2009)

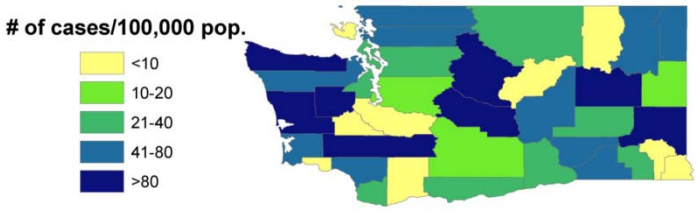
Drug Trends 2000-2009

The following graphics prepared by the Alcohol and Drug Institute at University of Washington demonstrate the significant increases in prescription opiate and heroin use (as measured by police evidence data) over the past decade. Heroin use is particularly high in Whatcom County.

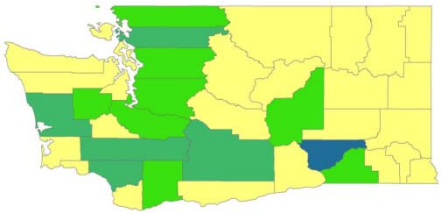
Opiate RX 2000



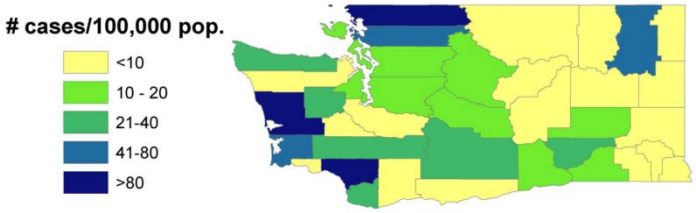
Heroin 2000



Opiate RX 2009



Heroin 2009



Chronic Health Conditions

Diabetes Mellitus

The prevalence of diabetes mellitus has been increasing and is now 6% (BRFSS, 2007). While the prevalence in Whatcom County ranks in the lowest quartile across the nation, morbidity imposes a significant demand on health care resources. The prevalence of diabetes among American Indians is higher than any other ethnic group. Rates are also higher in Hispanics than non-Hispanic Whites. Diabetes is also more common in lower income populations.

- Diabetes prevalence: Low household income (<$20,000 per year)=10%, higher household income (>$50,000 per year)=4%

Cardiovascular Disease

Cardiovascular disease is the major cause of mortality in Whatcom County. In 2007, 3% of adults reported having had a heart attack , 3% having angina or coronary heart disease, and 2% have had a stroke. (BRFSS, 2007) These proportions are comparable to 1996. Cardiovascular disease is challenging because first symptoms may occur during a fatal event, such as a massive heart attack or stroke. Clinical prevention services (cholesterol and blood pressure monitoring, blood glucose testing, knowledge of family history) are particularly important in reducing cardiovascular events.

Cancer

Three common cancers occur more frequently among residents in Whatcom County than in the State of Washington (Washington State Cancer Registry 2010).

- Breast cancer in women
- Prostate cancer in men
- Melanoma (cancer of the skin) among both genders

The elevated incidence rates have never been evaluated or explained.

Disparities in incidence rates of cancer for racial and ethnic minorities have been reported at the state and national levels. While specific data for Whatcom County are not available, these disparities are also likely to exist in ethnic minorities living in Whatcom County.

- Cervical cancer occurs more frequently among American Indians and Hispanics. This may reflect issues with access to health care and inability to obtain timely screening for cancer.
- Colorectal cancer occurs more frequently among males and among American Indians.
- Lung cancer occurs more frequently among American Indians. This may reflect higher rates of smoking among American Indians.

Communicable Diseases

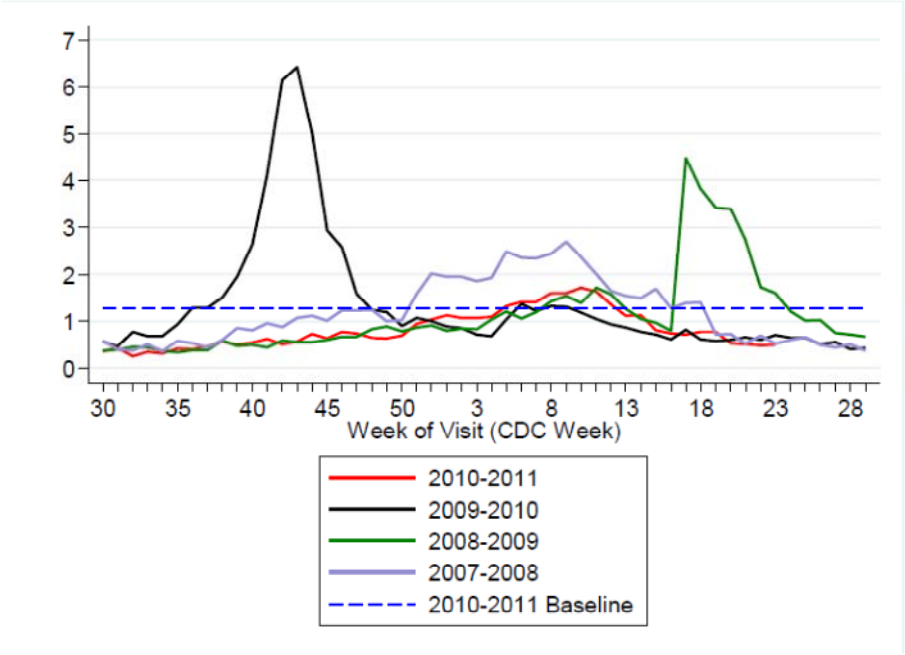
Communicable diseases are diseases caused by bacteria, viruses or other biological agents. They are usually transmitted through person-to-person contact or by shared use of contaminated equipment or materials. Many of these diseases can be prevented with proper precautions that include immunizations, hand-washing, safe sexual practices, or other preventive measures. The following are highlighted because of special interest to the community.

Vaccine Preventable Illnesses

Influenza

Influenza is a seasonable, communicable respiratory illness that may be prevented with immunizations. Because of the morbidity and mortality associated with the disease, the CDC conducts continuous surveillance for influenza and influenza-like (ILI) illnesses (WA-DOH 2011-Communicable Diseases Epidemiology]. The graph below illustrates one method of surveillance that reports the relative frequency of ER visits due to ILI over the past four years. In Western Washington influenza in 2010-2011 was relatively mild relative to previous years. The spike in influenza illness during 2009-2010 occurred during the H1N1 pandemic.

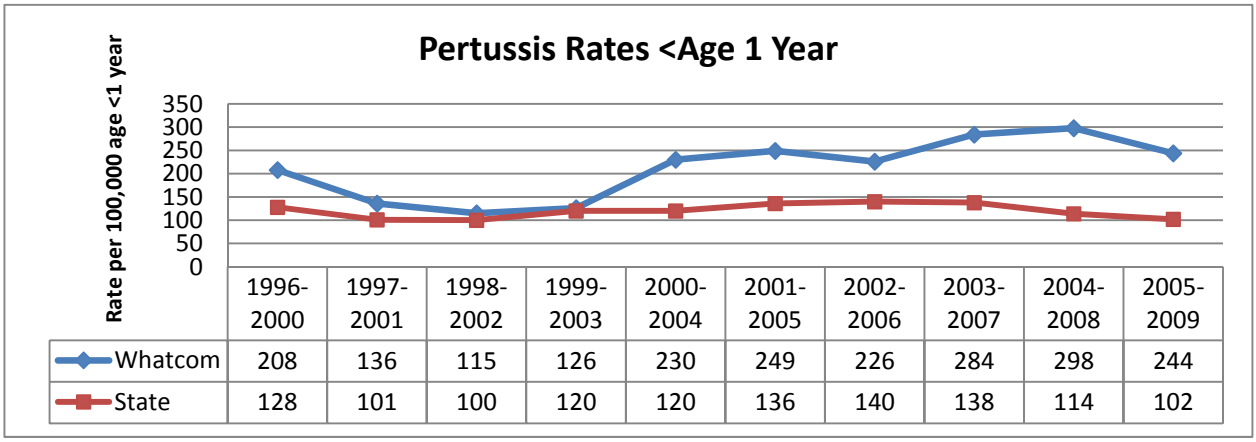
Percentage of ER Visits for ILI by CDC Week, Western Washington, 2007–2011



The influenza immunization rate for Whatcom County for people 65 years and older is 70% (BRFSS 2007). The rate is well below the Healthy Person 2010 goal of 90% for people in that age range.

Pertussis

Pertussis (or whooping cough) is a preventable, but potentially lethal disease for young children. The pertussis infection rate among children in Whatcom County is 4-5 times greater than the state infection rate (CHAT 2009). In 2009, 17 of 34 cases in Whatcom County occurred in children, seven in children less than one year of age. The latter include children who are most likely to die of the disease. Low community immunization rates and waning immunity in older children and adults contribute to spread of this disease.

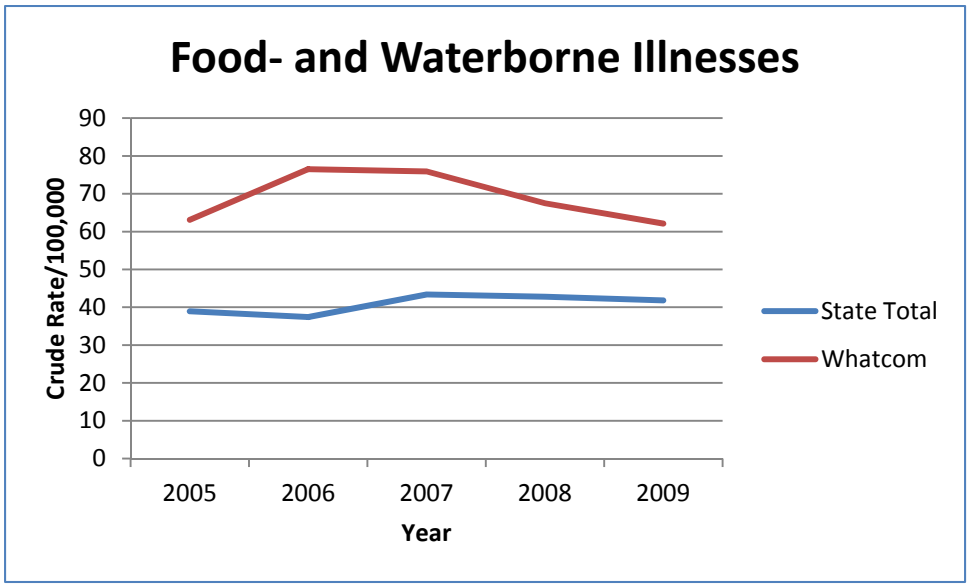


	1996-2000	1997-2001	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009
Whatcom	208	136	115	126	230	249	226	284	298	244
State	128	101	100	120	120	136	140	138	114	102

(CHAT, 2009)

Food- and Waterborne Illnesses

Food and waterborne illnesses include communicable diseases that are contracted by ingestion and include E coli, Salmonella, vibrio, Giardiasis and other infections. The graph below highlights the consistently elevated incidence rates of diseases in Whatcom County relative to the state.



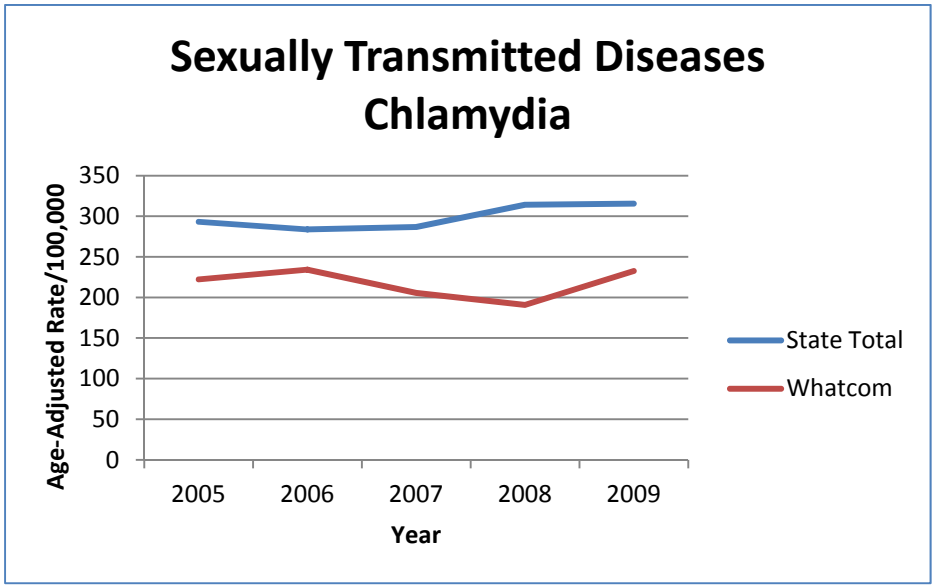
(CHAT, 2009)

Two specific infectious diseases account for most of the differences between Whatcom County and the state.

- Campylobacter infections – Campylobacter produce moderate to severe gastroenteritis. Potential sources for infection might include ingestion of unprocessed foods, i.e. dairy products.
- Giardiasis – Giardiasis is a waterborne illness that produces chronic diarrhea. The illness is often contracted by drinking water from lakes and streams that are contaminated by wild animal wastes.

Sexually Transmitted Diseases – Chlamydia

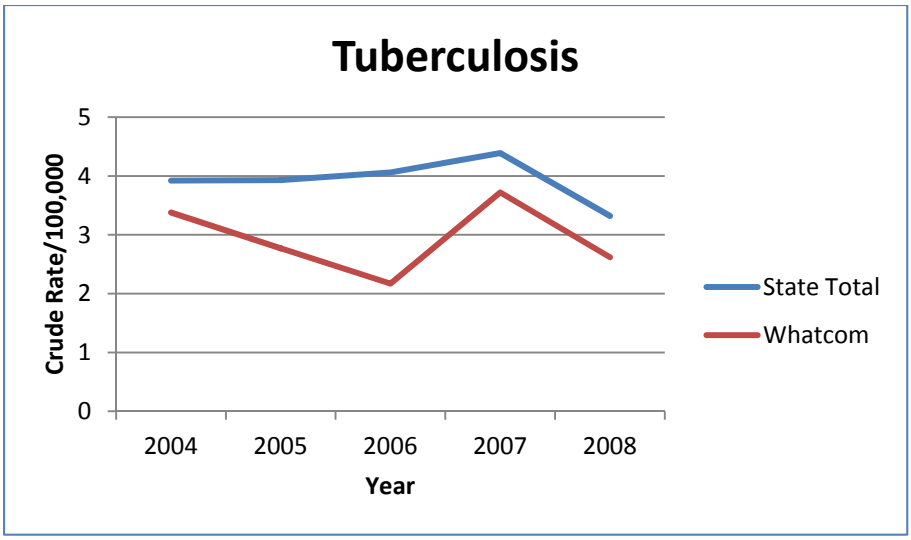
Chlamydia is one of several sexually transmitted diseases that are contracted through unprotected sexual contact. Sexually transmitted diseases include gonorrhea, syphilis, chancroid, and HIV. Chlamydia infections are among the most frequently sexually acquired infections. The age-adjusted incidence of Chlamydia infections in Whatcom County is consistently below rates for the state. Rates of other sexually transmitted diseases in Whatcom County are similarly below state rates.



(CHAT, 2009)

Tuberculosis

Tuberculosis is a chronic respiratory infection that for the most part has been well controlled in the US. The incidence of new cases of tuberculosis is consistently below rates for the state.

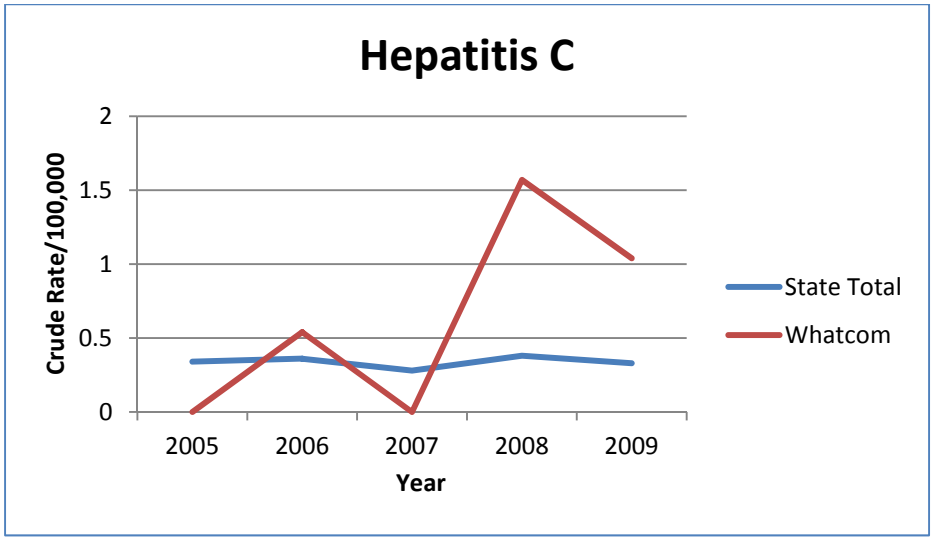


(CHAT, 2009)

- The incidence of tuberculosis is higher among blacks, American Indians, Asians, and Pacific Islanders.
- Only 3-7 new cases of tuberculosis are reported each year in Whatcom County and new cases are usually seen among those sub-populations most at risk for the disease.

Hepatitis – Hepatitis C

Hepatitis C is a systemic viral infection of the liver that may produce chronic, persistent infection associated with cirrhosis, hepatic failure, and death or hepatoma. Hepatitis C is contracted from exposure to contaminated blood (blood from infected patients) and/or sexual contact (recently documented). The striking increase in incidence of Hepatitis C in Whatcom County is consistent with an epidemic and likely related to increasing IV drug abuse in the county.



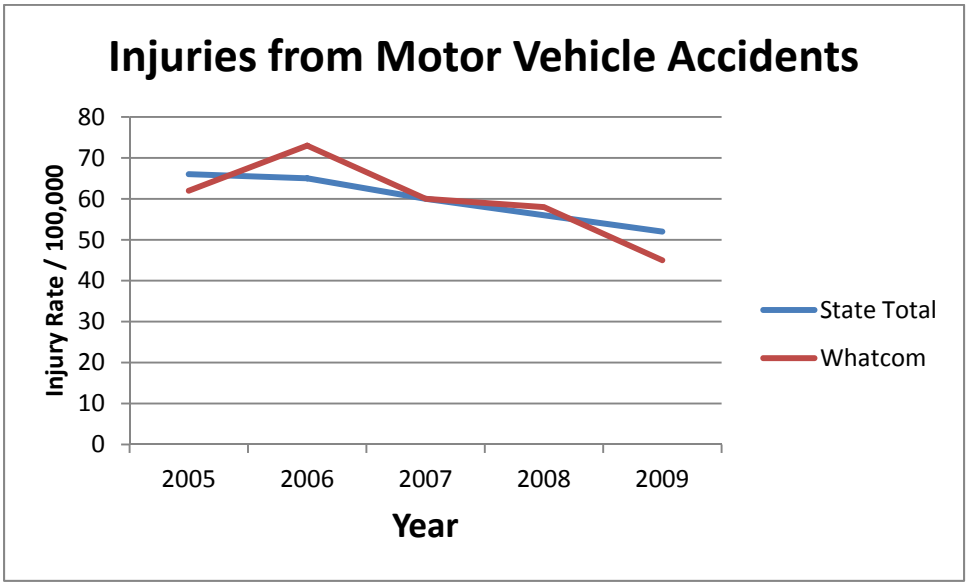
(CHAT, 2009)

Trauma and Injuries

Accidental injuries are a frequent source of morbidity and mortality in a community. Accidents account for a disproportionate amount of mortality among young people and result in substantial loss of productive life. Because many accidents are preventable, promoting effective injury prevention strategies is in the community's interest. In this section we highlight selected common sources of injury. Information is abstracted from CHAT 2009.

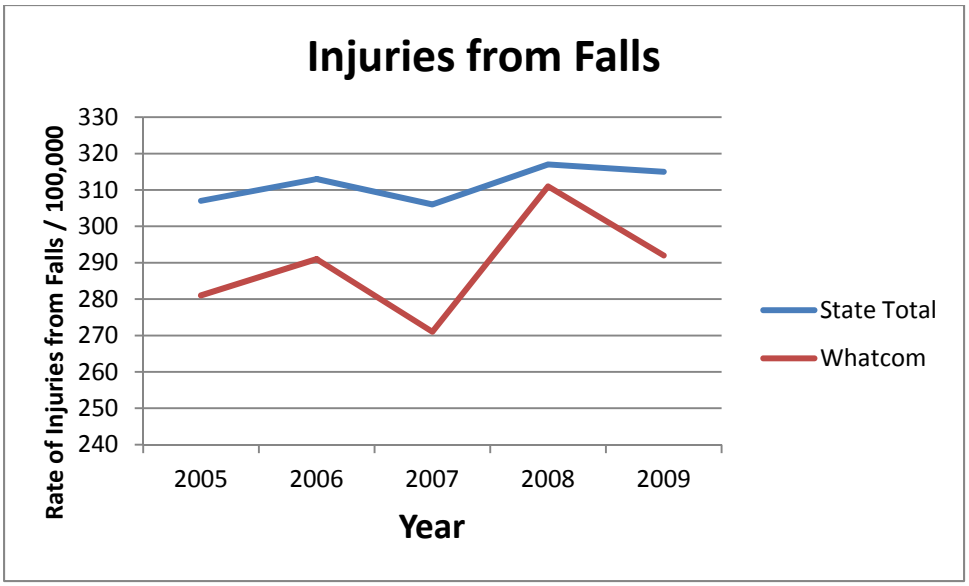
Injuries Associated with Motor Vehicle Accidents

Motor vehicle accidents (MVA) are a frequent cause of serious personal injury and accidental death. The graph below reports rates of injuries from MVA per 100,000 population. The rates of injuries associated with MVA in Whatcom County are comparable to injury rates for the state. Over the past five years, rates of injuries from MVA in the county and state have been declining.



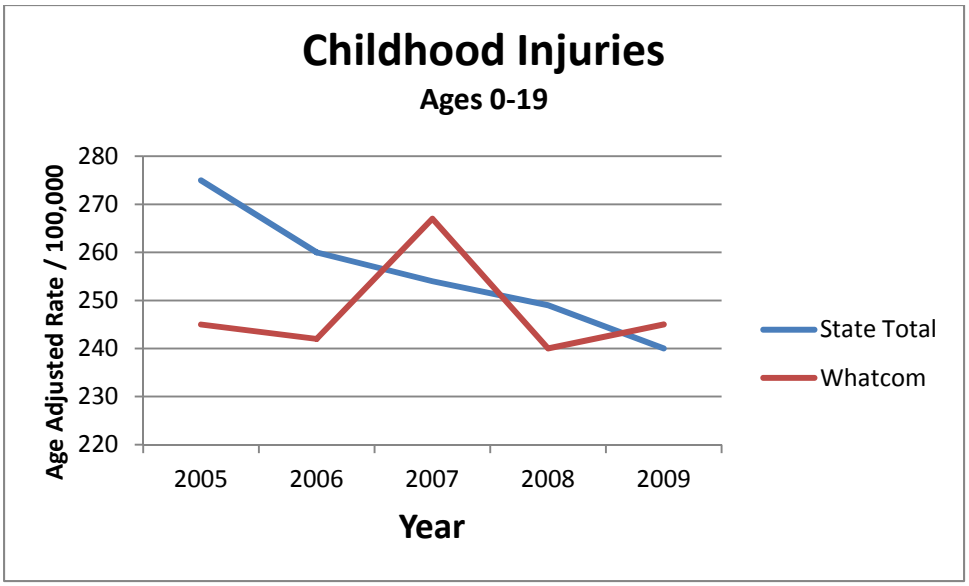
Injuries from Falls

Falls are one of the most frequent causes of personal injury. The rates of injuries due to falls per 100,000 population for the past five years are illustrated in the following graph. The frequency of fall related injuries in Whatcom County are lower than rates for the state.



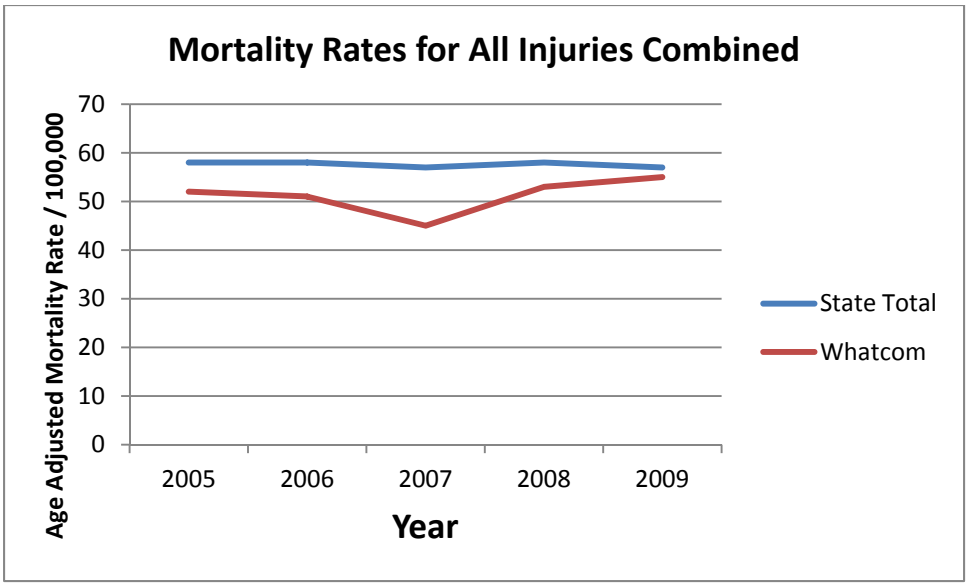
Childhood Injuries

The rates of childhood injuries (in children ages 0-19 years) have not changed significantly over the past five years and are not significantly different from rates for the state. It is noteworthy that rates of injuries in the state have significantly declined during this same time period.



Mortality Rates for Injuries

Mortality rates for all injuries combined are summarized in the graph that follows. Age adjusted mortality rates in Whatcom County have remained relatively constant over the past five years and are similar to the state.



To measure the potential impact of premature death due to injuries, The Center for Diseases Control and the state department of health report a measure entitled *Years of Potential Life Lost 65 (YPLL65)*. The YPLL65 for Whatcom County has exceeded measures for the state in 3 of the past 5 years. For two of those years, the YPLL65 was significantly greater than that for the state. While the explanation for these differences is not immediately apparent, it might be explained by higher mortality among younger adults in Whatcom County resulting in higher loss of potentially productive years of life.

VI: Community Themes and Strengths Assessment

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Introduction and Methods

Overview

The purpose of this assessment is to understand what is important to our community, how is quality of life perceived by our community, and what assets are available to improve community health. This assessment includes community themes and strengths identified from multiple sources through Whatcom County. This process and the section below illuminate the diversity of issues that are important to Whatcom County residents and the variety of assets and strengths we possess to address community health challenges.

Methods

This assessment reports general perceptions of our community, particularly as related to community health. These perceptions were derived from a wide variety of sources and venues and reflect subjective generalizations. This assessment is informed by multiple events convened as part of the Community Health Assessment process, as well as other events and projects occurring within the community.

- A large group session to formulate a community health vision. In December 2010, 44 community leaders came together at the St Luke's Education Center at the invitation of the Whatcom County Health Department and PeaceHealth St. Joseph Medical Center to formulate a vision of community health.

- Three discussions with distinct community populations. Three community focus groups were conducted during April and May 2011. The structured discussion groups were held with the following Whatcom County community members:
    - members of the Hispanic/Latino community from across the county
    - pregnant or parenting adolescent mothers
    - pregnant or parenting mothers with chemical dependent concerns

- A community forum to highlight findings of projects and studies conducted locally in recent years. This forum occurred in March 2011. Twelve organizations or community coalitions that had conducted ad hoc assessments on relevant issues to community health were invited to present a summary of their findings and observations. Participants in the forum included the Community Leadership Group, other interested residents from the community, faculty (members of the Technical Advisory Group) and students from WWU.
    - Whatcom County Stakeholders' Forum (1/10th of 1 percent) (2009)
    - Whatcom Prosperity Project (2007/2011)
    - Community Engagement Research/Whatcom Prosperity Action Team (2008)
    - Whatcom Community Food Assessment (2008)
    - Non-profit Assessment Survey (2010)
    - Whatcom County Point in Time Homeless Count (2010/2011)
    - Whatcom County Land Use (Values and Beliefs) Survey (Whatcom Legacy Project; 2009)

- City of Bellingham Legacies and Strategic Commitments (2009)
- Interviews with Elected Officials gathered by WWU/Health Department (2010)
- Community Health Public Input gathered by Health Department (2007)
- Children with Special Health Care Needs Plan (Taking Action) (2007)
- Whatcom County ACHIEVE Project Community Action Plan for Healthy and Active Living (2010)

- Multiple key informant interviews. Over fifteen key informant interviews with community leaders and individuals with expertise about factors influencing community health were conducted. Many individuals guided project staff to data and resources for further information, which are included in the assessments.

The findings reflect observations that emerged from multiple observers and participants. Observations are the result of examination and analysis of written reports, presentations, and notes or transcripts from discussions and interviews to identify community themes and strengths. The MAPP process defines community themes and strengths as what is important to the community, how quality of life is perceived, and what assets are available to improve community health. The *Statement of Community Vision and Values creates a framework for synthesis* of community themes and assets. A list of individuals and their organizations who participated in key informant interviews or discussions completes this section.

Community Strengths and Challenges

Strengths

Whatcom County has many strengths that provide a strong foundation for good health. The items listed below represent a sample of commonly identified community strengths.

Environment

- Natural beauty of the environment
- Agricultural base (fishing and farming; local healthy foods; contribution to local economy)
- Recreational opportunities (bay, lakes, mountains, forests, parks and trails)
- Environmental consciousness (interest in water quality and air quality; commitment to recycling, reusing, reducing energy use; sustainability movement)
- Close proximity to amenities in British Columbia, San Juan Islands, Seattle metro area, North Cascades.

People

- Many caring and collaborative people
    - Genuine interest and willingness to come together to address issues as a community
    - Strong cooperation and collaboration
- Growing cultural diversity (esp., Hispanic population, Slavic population, two tribes)
- Strong non-profit sector and foundations
    - Commitment to helping people despite diminishing resources
    - Funders Alliance
- Strong small business community and several larger employers with interest and involvement in community health efforts
- Quality health care services, including a local community hospital
- Variety of social support and human services
    - Housing and food assistance
    - Veterans support
    - Senior centers
- Good schools and educational resources
    - Early childhood programs (including Head Start and Early Head Start)
    - Seven local school districts
    - Several private K-12 schools (primarily faith-based)
    - Four colleges/universities (Bellingham Technical College, Whatcom Community College, Northwest Indian College, Western Washington University)
- Active community involvement in local events and preservation of community traditions (e.g., Ski-to-Sea, Northwest Fair, Scottish Highland games, other)
- Spirit of volunteerism and charitable giving

Community Health Initiatives

- History of forming partnerships, networks, coalitions, alliances, and other groups to take collective action on community needs.
    - Examples: *Community Health Assessment Leadership Team, Whatcom Family and Community Network, Funders Alliance, Whatcom Council of Nonprofits, Whatcom Alliance for Healthcare Access, Whatcom Oral Health Coalition, Community Resource Networks, Whatcom Taking Action, Coalition to End Homelessness, Whatcom Coalition for Healthy Communities, many others.*

- A number of model programs, community initiatives, and entities that are successfully addressing key health needs identified by the community. (The following list is not exhaustive.)
    - Poverty: *Whatcom Prosperity Project*
    - Housing/Homelessness: *Homeless Service Center, Offender Re-Entry Housing Case Management*
    - Hunger/Food Insecurity: *Hunger Coalition*, *Food Banks*
    - Health Care: *Project Access (specialty care), Behavioral Health Access Program, Donated Adult Dental (DAD), Access to Baby and Child Dentistry (ABCD)*
    - Chronic Disease: *Whatcom ACHIEVE Initiative*
    - Mental Health and Substance Use: *Behavioral Health Tax (1/10th of 1 percent tax)*
    - Children with Special Health Care Needs: *Whatcom Taking Action for Children and Youth with Special Health Care Needs*
    - Nutrition
        - *Community Food Assessment*
        - *Northwest Indian College Traditional Foods Program*-American Indian population
        - *Cocinos Santos*-Latina population
    - Physical Activity/Safety
        - *Safe Routes to School*
        - *Safe Streets* (Lummi)
    - Youth Development
        - *Lummi Cedar Project*
        - *Lummi Youth Build*

Community Challenges

While community members recognize many strengths, a number of areas are also noted as challenges that impact the community's health and may benefit from additional community attention.

Socio-economics and Basic Needs

- **Poverty and economic instability**
  - Concerns about women, children, and families living in poverty and social isolation
  - Recognition of racial/ethnic groups living in poverty (tribes, migrant workers)
- **Education**
  - Concerns about school readiness and student academic success, high school graduation.
  - Limited availability of educational supports for lower income children and those with diverse cultural backgrounds (access to computers, bilingual teachers, etc)
  - Budget woes of K-12 and higher educational systems impacting available services and supports
- **Work**
  - Job instability and concern about unemployment/layoffs related to the economic recession
  - Perceived lack of vocational training opportunities/entry level work-especially for young people
  - Limited availability of living wage jobs with benefits
- **Housing**
  - Lack of affordable housing options
  - Poor housing quality and stability for some young families
  - Limited housing supports for special needs--individuals with substance use and mental illness, offenders re-entering community after incarceration, low income seniors
- **Food**
  - Lack of access to affordable healthy foods (fruits, vegetables, whole grains) for some groups (low income) and geographic areas (rural)
  - High availability of unhealthy foods (high calorie, high fat, processed foods) throughout the community (stores, restaurants, worksites, etc)
- **Transportation**
  - Difficulty getting from outlying areas to services and work opportunities in Bellingham (limited public transportation options)
  - Concerns about traffic/pedestrian safety in some community areas, limited ability of children to walk to school safely (e.g., Kendall/Maple Falls, others)
- **Health care access**
  - Financial barriers -- lack of health care insurance coverage or underinsurance (e.g., high co-payment requirements or catastrophic only), lack of providers accepting various insurance plans particularly public plans (Medicaid, Medicare)
  - Cultural barriers -- fear, distrust of health care system; feelings of stigmatization and lack of respect; limited literacy/health literacy
  - Geographic barriers -- Lummi Island (ferry), East County (distance), Point Roberts (Canadian border)
  - Lack of availability of some health care services in Whatcom County--specialty medical services and supports for children and seniors, dental care for low income adults

    - Lack of care coordination/integration of health care service delivery especially for those with complex health needs—behavioral health, chronic disease, social needs
    - Challenges with navigating complex systems--non-English speaking, low literacy, complex needs
- **Special needs**
    - Lack of respite care for children and adults with special needs
    - Social isolation of seniors
    - Need for additional social supports for veterans (*Note: new programs have been recently implemented in this area*)

Environmental issues

- **Water Quality**
    - Deteriorating water quality (Examples: Lake Whatcom, Drayton Harbor/Puget Sound)
- **Community Development**
    - Proposed projects with possible environmental and health impacts (Examples: coal shipping terminal in North County, Galbraith Mountain, Chuckanut Ridge, Bellingham waterfront redevelopment, building site for a new jail)
- **Agricultural Practices**
    - Exposure of farmworkers and their families to pesticides and other harmful working/living conditions
- **Natural Hazards**
    - Earthquakes and floods
    - Asbestos (Swift Creek)

Social issues

- **Politics**
    - Political discord and negative politics
- **Social cohesion**
    - Community inclusion, for individuals with disabilities and special needs
    - Cultural divides leading to fear, mistrust, misunderstanding
    - Stigmatization of groups based on race/ethnicity, sexual orientation, substance use/mental illness, disability status
- **Crime**
    - Increasing presence of gangs within the community and gang violence/drug-related issues
    - Perceived increases in severity of domestic violence offenses
- **Immigration**
    - Strained relationships with border patrol/immigration officials—infringement on rights of residents/property owners living near border
    - Immigration fears in migrant community

Specific Health issues

- **Mental health and substance use**
  - Growing concern about dangerous substance use behaviors and substance abuse disorders among young people, college students, Native Americans, adults of all ages, and women of child-bearing age
  - Increasing prescription pain medicine misuse/heroin use
  - Adverse impacts of parental substance use and mental illness on children including drug-affected infants and child abuse and neglect
  - Lack of access to mental health and substance use services including supportive recovery programs and care management, especially for those with co-occurring disorders
- **Developmental and behavioral issues in children**
  - Family, school, and health care provider challenges with managing difficult behaviors and developmental challenges
  - Lack of supportive services such as respite care and therapeutic interventions locally
- **Obesity and related chronic diseases**
  - Concern focused on children and perceived increases in childhood obesity
  - Particular concern in communities (i.e., tribal and Hispanic communities) that experience high rates of diabetes and other diseases associated with obesity.
- **Dental/oral health**
  - High rates of childhood dental disease
  - Lack of access to dental services for adults
  - Vocal opposition to fluoridation of community water systems
- **Immunization/communicable disease prevention**
  - High levels of parental vaccine hesitancy, including ongoing concerns about childhood autism

Community Themes and Assets

The community vision provides a valuable framework for describing overarching community themes and areas of interest for community health improvement. Concerns related to poverty and health disparities and inequities among population groups cross all of these areas.

- **Children, youth and families**
    - Young children and emerging families (mothers, fathers, and babies)
    - Youth and young adults
- **Health care and social support system**
    - Access to health care services (medical, dental, behavioral, support)
    - Coordination and integration of health care/social services
- **Opportunities for good health**
    - Food and nutrition
    - Housing and built-environment
    - Education and jobs
- **Healthy social and physical environments**
    - Social connections/cohesion
    - Natural environment

Children, Youth, and Families

"Every child grows in a safe and nurturing environment"

Synopsis: The importance of protecting the health, well-being and future of our children emerges as a consistent theme in our communities. There is a growing recognition of the central role of early childhood experience in shaping a child's future and how formative events from birth through adolescence have a lasting effect on health. Current economic times and social changes make this a challenging period to raise children. In Whatcom County, mental health and substance use issues are having a profound and concerning impact on our families. A safe and nurturing environment includes access to high quality educational opportunities including early learning supports, health care resources such as disease prevention and treatment, secure housing, adequate food and clothing, and protection from the effects of adverse childhood events. There are a number of community groups and existing initiatives around these issues to build upon for improved community health and well-being.

- **Growing recognition of the central role of adverse childhood experiences and impact on health.**
    - In the past several years, community awareness of the long term physical and mental health impacts of adverse childhood experiences has grown in response to national level speakers, scientific information, and cross-sector community discussions. Persistent childhood psychological or physical trauma and stressors related to family dysfunction decreases readiness for school and educational attainment, increases behavioral/mental health disorders, heightens youth health risk behaviors (tobacco, alcohol, drugs, risky sex), and has lasting health effects observed across the life span (depression, obesity, heart disease). Infants and children under the age of three are at the greatest risk due to increased vulnerability of their developing brains.
- **Difficult and challenging time for young families.**
    - The lingering recession permeates discussions and observations across Whatcom County. The economic crisis has aggravated the levels of poverty, unemployment, food insecurity, and foreclosures. The instability threatens the health and well-being of children as many parents may be forced to change living situations, jobs, and roles creating significant family stress.
    - Social structures and service delivery systems are in flux with national and local reorganization and system transformation. The economic crisis has also contracted both public and donor funding for service organizations whose mission is to serve the marginalized in the community including women, children and young families.

- **Substance abuse and mental health problems undermine family stability.**
    - People across the county raised concerns of growing dangerous substance use behaviors and substance abuse disorders among young people, women of child-bearing age, and parents of young children.
    - Mental illness (often co-occurring with substance use) is a serious concern among children and youth, pregnant and post-partum women.
    - Unmet treatment need and few prevention resources contribute to these problems. Growing up in a home with substance abuse or mental illness is an adverse childhood event.
- **Other maternal health issues (breastfeeding support, dental health) also identified as priority issues.** (Emerging Families community meeting, 2010; Whatcom Oral Health Coalition, 2011-2012)

- **Further work to improve the health and well-being of young children, youth, and families can build on the efforts of existing community partners**. The following tables list a number of community organizations and groups that have an interest or stake in issues related to young children, youth, and families. These lists are likely to miss key individuals or groups and will be updated as needed.

Assets and Initiatives: Young Children and Emerging Families	
Organizations/Entity	Focus
Health Care Services	
Mt. Baker Planned Parenthood	Family planning/pregnancy testing/options counseling
Whatcom Pregnancy Center	Pregnancy testing
OB/Pediatric/Family Practice Providers (BOGA, PeaceHealth, Family Care Network, other smaller practices)	Family planning Prenatal care Labor and delivery Postpartum care Pediatric care
Community Health Centers (SeaMar, Interfaith)	Primary Care Behavioral Health Dental Care (pregnancy/early childhood)
Tribal Health Centers (Lummi, Nooksack)	Primary Care
PHSJMC Child Birth Center	Labor and delivery Lactation consultation Special care nursery
Birthing Center	Labor and delivery (midwives)
WCHD Specialty Outreach Clinics (*to be discontinued at WCHD in 2012*)	Developmental Pediatrics Child Psychiatry Genetics Rehabilitation Medicine
Maternity Support/Nutrition	
Nooksack Tribe	WIC
Lummi Nation	WIC and Maternity Support Services (First Steps) Teen Parent Program
SeaMar	WIC Maternity Support Services (First Steps)
Whatcom County Health Department	WIC/MSS (First Steps) GRADS Teen Parent Program consultation Breastfeeding promotion Child care health consultation Early Intervention Program-CPS/WorkFirst (DSHS)
Answers Counseling	Maternity Support Services (First Steps) Behavioral Health Services (pregnant women)
Walgreen's (Option Care)	Home nursing care (including medical home visits for new mothers/babies)
LaLeche League	Breastfeeding support
Teen Parent Support	
Bellingham School District: -GRADS Program	Teen parent support/high school completion program
Lummi -Teen Parent Program	
Nooksack SD -Teen Parent Program	
Social Services/Family Support	
DSHS	Medicaid/Pregnancy Medical TANF/Work First Child Protective Services (CPS)
Brigid Collins	Child abuse/neglect prevention and response Foster family support Growing Together/ Safe Mothers-Safe Babies-parenting support/ substance use group Child Advocacy Center-child sexual assault
Catholic Community Services	Behavioral health services (children, families)

Opportunity Council	Housing assistance
Domestic Violence and Sexual Assault	DV support
Lydia Place	Housing
Early Learning/Child Development	
Opportunity Council (Early Learning and Family Support Services)	Lead Agency for Infant/Toddler Early Intervention (Birth-3) Child care resource and referral Head Start/Early Head Start
Whatcom Center for Early Learning (Birth-3)	Early intervention services for young children
Migrant Head Start	
Lummi Early Head Start	
Child Care Centers/Providers	
School Districts -Bellingham School District -Nooksack Valley School District -Others	Child Find (for identifying developmental delay)
Bellingham Technical College	Parenting/child development Child birth classes
Whatcom Community College	
Western Washington University	
Bellingham Library	Storytelling/early literacy promotion
Non-Profits/Foundations/Funders	
United Way of Whatcom County	Early learning/literacy (2011)
ARC of Whatcom County	Special needs/developmental and physical disabilities
Blue Skies for Children	
Coalitions/Networks/Advisory Groups	
Whatcom Family and Community Network	Adverse childhood experiences
Whatcom Early Learning Systems Network	Early childhood/early learning
First Steps Coalition	Maternity support services providers and partners
Oral Health Coalition	Oral health promotion- priority focus on young children and pregnant women (2010-2012)
Whatcom Taking Action for Children with Special Health Needs	Coordination/integration of health and social supports for children and families impacted by special needs
Women and Children's Advisory Group (PHSJMC Hospital)	Hospital maternity/pediatric care practices
Breastfeeding Promotion Task Force (TBD)	*In process (2011)*- community breastfeeding supports
Others	

Assets and Initiatives: Youth and Young Adult Health	
Organizations/Entity	Focus
Youth services	
Northwest Youth Services	Youth support/housing
Big Brothers, Big Sisters	Mentoring
Boys and Girls Clubs (Whatcom County)	After school activities/youth development
Amy's Place	Homeless youth
Rebound of Whatcom County	
Lummi Nation	Youth Academy Youth Build Lummi Cedar Project
Nooksack Tribe	SAMSHA substance use prevention grant (new)
Community to Community Development	Raices Culturales Youth Mentoring/ Empowerment
Youth Sports Leagues (soccer, swimming, other)	
Educational Initiatives	
K-12 Schools/School Districts	
Compass-to-Campus (WWU)	College and career promotion for underprivileged children
Communities in Schools	Mentoring
Coalitions/Networks/Advisory Groups	
Whatcom Family and Community Network/ Whatcom Prevention Coalition	-Community Mobilization Against Substance Use -Substance use prevention (targeted work at high risk schools-Bellingham, Ferndale)

Health and Social Support Services

"Every person has access to comprehensive and integrated health services and social supports across the lifespan and spectrum of needs."

Synopsis: Whatcom County possesses high quality health care services. The theme of lack of equal access to health services was reported by multiple observers in a variety of venues. The issue was reported by consumers, providers, and administrators of health services. Areas of concern for health care access include primary health care, insurance, preventive services (medical/dental/behavioral), availability of specialty services and therapies, coordination and connection of services, and geographic access barriers. Access to dental care and behavioral health care services, including substance abuse treatment, were particularly highlighted as a critical need for low-income individuals, including those underinsured or lacking insurance. Those with complex needs and mental health and substance abuse issues would benefit from coordinated care and integrated services.

- **Excellent health services are an advantage enjoyed by many, but a significant portion does not receive basic services.**
    - Whatcom County has a "haves and have-nots" situation with many health and social services. The community is the beneficiary of public health and health care systems that provide quality services for most conditions that are prevalent in Whatcom County, but a small but significant portion do not receive basic adequate services, including primary care, dental and behavioral health services.
- **Some populations report unequal ability to access adequate services.**
    - Patients with Medicare or Medicaid insurance find it increasingly difficult to locate providers who provide care for new patients.
    - Teenage mothers indicated barriers to receiving prenatal care included physicians not accepting new patients on Medicaid (and "coupons"), lack of external support in obtaining referral to physician, transportation (especially rural residents), and fear of informing their family about the pregnancy.
    - Members of the Hispanic/Latino community indicated access barriers to accessing care included language barriers, disrespectful providers and staff, inadequate or poor quality treatment, impossibly long waiting lists for dental care, and significant bureaucratic or paperwork barriers to accessing care made more complicated by immigration status or lack of documentation.
    - Low-income adults reported that access to dental services is the health access issue of greatest concern.
    - While providers in federally funded community health centers are typically able to provide primary care services to almost all consumers regardless of insurance, challenge exist in referring patients for specialty consultation and for expensive technological diagnostic procedures such as CT or MRI scans.

- **Care coordination and integrated services are needed.**
    - Complex patients, including children with special health care needs, the elderly, and others need coordinated care and less fragmentation of their many service needs and providers.
    - Integration of services would be advantageous for many patients, particularly those with mental health and substance abuse issues, as well as those with other co-occurring illnesses.
- **Dental care is top service need for low income adults in Whatcom County**. (Whatcom Prosperity Project, 2011)
- **A number of initiatives and groups are interested in improving access to health care, health care delivery and behavioral services in Whatcom County.** The following lists of assets break out health care access and behavioral health.

Assets and Initiatives: Health Care Access and Organization of Delivery System	
Organizations/Entity	Focus
Community Health Centers -SeaMar -Interfaith	Primary care Dental Behavioral health
Tribal Health Centers -Lummi -Nooksack	Primary care
PeaceHealth St. Joseph Medical Center	Inpatient/outpatient care Charity Care/Bridge Assistance
Whatcom Hospice	End of life/palliative care
Private health care providers (medical/dental) -PHMG -Family Care Network -MBPP -Others	
Non-Profits/Foundations/Funders	
St. Luke's Foundation Whatcom Community Foundation St. Joseph Hospital Foundation	
Coalitions/Networks/Advisory Groups	
Whatcom Alliance for Health Care Access (WAHA)	Health Insurance Connection -SHIBA -Medicaid Enrollment Health Care Reform -Accountable Care Organization development Access Projects: -Project Access (specialty care) -Behavioral Health Access Program -Access to Baby and Child Dentistry (ABCD) -Project Dental Access (new)
Oral Health Coalition	Dental access
Whatcom Taking Action for CYSCHN	Access/availability/coordination of services for children with special needs
Lummi Island Health Committee	Access to primary care services/urgent care on the island

Assets and Initiatives: Mental Health and Substance Use Services	
Organizations/Entity	Focus

Behavioral Health Providers	
Whatcom County Detox Catholic Community Services Pioneer Advanced Choices Westcoast Counseling Whatcom Counseling and Psychiatric SeaMar Visions Lummi, SeaMar, Interfaith Health Centers Sendan Center (child psychiatry/autism) Private mental health therapists and psychiatrists	Mental and substance use treatment
Suboxone providers Methadone clinic (Arlington, WA)	Opiate treatment
Oxford houses	Substance use recovery support
PeaceHealth St. Joseph Medical Center	Inpatient mental health
Employee Assistance Programs -PeaceHealth (Vince Foster) -Others	Employee support (mental health counseling)
Schools/College	
K-12 Schools	Prevention/ Intervention Specialists, Mental Health
WWU	Student Health and Counseling Services Prevention and Wellness Services
Government Services	
WCHD -Human Services (Mental Health and Substance Use, Veterans, DD) -Needle Exchange Program	County behavioral health system leadership/ contracts for service provision Harm reduction for IV drug users
Whatcom County Drug Court	
Initiatives	
Behavioral Health Access Program (WAHA)	Funding and connection services for individuals needing behavioral health treatment/counseling
Taking Action for Children and Youth with Special Health Care Needs	Improving system for children with developmental and behavioral health needs
Coalitions/Networks/Advisory Groups	
Behavioral Health Revenue Advisory Committee (1/10th of 1% tax)	Community oversight on use of tax revenue
Mental Health Advisory Board	
Substance Use Advisory Board	
Substance Use Providers Group	
Lummi Drug Task Force	
National Alliance on Mental Illness (Whatcom Chapter)	Support for individuals and families impacted by mental illness
Whatcom Prevention Coalition (WFCN)	Drug/substance use prevention Gang prevention
Pain Management/ Opiate Task Force (WCMS)	Address pain medication prescription practices

Opportunities for Good Health

"Every population shares in the abundance of opportunities for healthy active living, outstanding education, satisfying employment, and meaningful community participation."

Synopsis: Many opportunities for healthy living exist in Whatcom County, including a wide variety of recreational opportunities and local nutritious foods. Residents and organizations are motivated to enhance these opportunities as well as create communities with strong education, sustainable employment opportunities and positive community connections. The ability and opportunity for all to meet their basic needs appeared consistently across the assessment of critical importance. Unmet basic needs play a key role in quality of life and health risks and challenges. The County has numerous initiatives to improve housing, safe neighborhoods and streets, and local food access.

- **Growing interest county-wide for increased access to local sources of healthy, affordable foods.**
    - Growing demand and interest in supporting local agriculture and accessing local and sustainable food sources is a theme in institutions (schools, hospital) and individuals in Whatcom County.
    - Affordable access to adequate and nutritious food on a daily basis is a significant challenge for many, particularly populations that are low-income, rural or do not have reliable and affordable transportation.
- **A safe place to live and adequate food on the table is a constant concern and stress for many.**
    - Security of many Whatcom County residents is threatened by lack of access to affordable and safe housing, housing insecurity, unsafe or unhealthy home environments, expensive housing, and homelessness.
    - People sometimes have to choose between paying for housing and paying for food, health care and other basic needs.
    - People end up having to live in unsafe neighborhoods or in isolated areas because the housing is more affordable. This limits access to healthy, affordable food, jobs, health care, and social services and supports.
    - Having a safe environment to walk, exercise or recreate is important but not equally available to all. Safe neighborhoods, roads, sidewalks, and trails for pedestrians and cyclists vary substantially across the county. Many lower income residents in particular have less access to safe environments, contributing to disparities in health related to exercise and toxic exposures.
    - Whatcom County is doing a good job in developing food assistance programs to meet food needs as well as addressing housing needs. (*Whatcom Prosperity Project, 2011)* County-wide, organizations and coalitions are also making notable progress toward the goals of affordable housing, ending homelessness, and safe streets. These include the Whatcom

County Coalition for the Homeless, Project Homeless Connect, and the Lummi Cedar Project/Safe Streets.

- **Opportunities for a good education and good jobs impact quality of life across generations.**
    - School success and achieving educational milestones such as graduating from high school is harder for Native Americans, Hispanic/Latinos, non-English speaking individuals, and lower income individuals and families. Racial or ethnic discrimination, lower income, language barriers, and disabilities restrict quality educational experiences for many Whatcom County children and youth.
    - Poorer educational attainment means worse employment opportunities and poorer health and well-being for life. This maintains a cycle of poverty for many families. As parents struggle with stable employment and making ends meet, it affects their ability to keep children in school and support their education.

Assets and Initiatives: Food and Nutrition	
Organizations/Entity	Focus
Food and Nutrition Assistance	
Basic Food Program (SNAP-Ed)-DSHS	Food stamps
WIC Programs (SeaMar, Lummi, Nooksack, WCHD)	Low income pregnant/postpartum breastfeeding and children 0-5 years -Nutrition education -Supplemental food vouchers -Farmers market vouchers
NW Regional Council	Senior meals
Food Banks (Bellingham, Ferndale, Lynden, other)	Food assistance (low income)
Free and Reduced Lunch (School districts-all)	Free or reduced priced meals (low income)
FoodSense (WSU Extension)	Nutrition education in schools
Cultural Foods	
Community to Community Development/Communidad a Communidad (C2C)	Hispanic/Farmworker Community Outreach Food Sovereignty Cocinos Santos (healthy kitchens)
Northwest Indian College (NWIC)	Traditional foods
Food Production/Distribution/Service	
Farms and fisheries	Berries, dairy, seafood, shellfish, other
Local food production (Erin's Baked Goods, Chuckanut Cheesecakes, Mallard Ice Cream, etc)	
Farmer's markets	
Grocery stores/food coops (Community Food Co-ops, Haggen, Markets LLC, Safeway, IGA, others)	
Restaurants/food service establishments	
Healthy Foods Promotion	
Community Gardens	
School Gardens	
Farm-to-School Initiatives (F2S)	Fresh local foods in school meals
Community Supported Agriculture (CSA)	
Food Safety	
WCHD Food Program	Food service inspections Beach/shellfish monitoring
Initiatives	
WSU Cooperative Extension	Community Food Assessment
Coalitions/Networks/Groups	
Whatcom Food System Network (new)	Access to safe and healthy foods Food justice (food and farmworkers) Economic development (local agriculture/food business) Sustainability/environmental protection
ACHIEVE Advisory Group/Community Health Action and Response Team (CHART)	Nutrition and physical activity
Sustainable Whatcom/Convergence Partnership (WCF)	Funding for nutrition and other projects
Sustainable Connections	Local foods, sustainable economy

Assets and Initiatives: Housing and Built-Environment	
Organizations/Entity	Focus
Housing/Homelessness Support	
WCHD (Human Services)	Housing Program Point-in-Time Homeless Count Veterans Housing Support
Opportunity Council	Homeless Service Center
Bellingham Housing Authority	Low income housing
Sterling Meadows	Migrant worker housing
Healthy Homes	
NW Clean Air Agency	Indoor air
Opportunity Council	Healthy Homes/ weatherization
Home Construction	
Habitat for Humanity	Volunteer/building affordable homes
Lummi Youth Build	Youth development/vocational skill building
Community Planning/Transportation	
Whatcom County	Planning department Public Works department Parks and Recreation Planning Commission
City of Bellingham	Planning Transportation Options Parks and Recreation
Smaller Cities	Planning departments Parks and recreation
Whatcom Council of Governments (COG)	Regional transportation planning
Whatcom Transit Authority	Bus/mass transit
FutureWise Whatcom	Local chapter of statewide land-use advocacy organization
Special Community Initiatives (Housing and Community Planning)	
City Gate Appts-York neighborhood, Bellingham	Offender Re-entry housing and case management
Project Homeless Connect	Health care and social services for homeless (annual event in March)
Lummi Safe Streets	Safe lighted trails/paths for walking/biking (Haxton Way, Lummi Reservation)
Safe Routes to School	Walking/biking routes for schools, engineering improvements
Complete Streets Planning	“Pedestrian-first” planning
Smart Trips/Commute Trip Reduction	Bus/bike/ride-share promotion
Whatcom Legacy Project	Long-range county planning
Coalitions/Networks/Advisory Groups	
Homeless Coalition	Homeless housing
ACHIEVE CHART	Community planning (safe/active community environments) Tobacco free environments (homes, parks, public venues)
Community Transportation Advisory Group	
County Bike/Ped Citizens Advisory Group	
Bellingham Bike/Ped Steering Committee	

Assets and Initiatives: Education and Jobs	
Organizations/Entity	Focus
Early Learning	
Opportunity Council ELAFS	Early learning/early intervention for special needs
Child Care/Preschools	School readiness
Whatcom Early Learning Systems Network	Early learning/early childhood
School/Educational Supports	
School Districts	Pre-K-12
Northwest Educational Service District 189	
Parent Teacher Student Associations (PTSA)	
School Boards and Parent Advisory Groups	
College and Career	
Northwest Indian College	
Bellingham Technical College	
Whatcom Community College	
Western Washington University	
Employment and Economic Development	
Worksource	Job training/connection services
NW Economic Council	Economic development
Chambers of Commerce	
Nonprofits/Foundations	
Bellingham School District Foundation	Support for schools/special initiatives
Communities in Schools	Mentoring
Initiatives	
WWU Compass-to-Campus Program	Pipeline to college/career for disadvantaged children
AVID Program (Shuksan MS)	Academic success for high risk populations
GRADS Teen Parent Program (Squalicum HS)	HS graduation for teen parents
Others??	

Assets and Initiatives: Community Participation and Voice	
Organizations/Entity	Focus
Whatcom Family and Community Network	Neighborhood/community connections "Conversations that matter"
Community to Community Development	Latino/Hispanic community
Lummi Cedar Project	Lummi youth
Northwest Indian College (Traditional Foods)	Tribes
Whatcom Prosperity Project	People living in poverty
WCHD (Housing Program)-Voices of Homeless	People who are homeless
Others???	

Connections to People and Place

"We all flourish through our connections and commitments to each other and the community, and to the air, land and waters that surround and sustain us."

Synopsis: Themes of social cohesion, connection and commitment to the community emerged frequently. The opportunity to build connections and social support within groups is valued. Accessing, protecting, and sustaining a healthy environment emerged as a theme important to quality of life and a strong asset of living in Whatcom County. Those communities who live with disparities have many assets and ideas about addressing problems. These groups are eminently qualified to identify major issues that result in marginalization and disparities, and to be central to building long-term solutions.

- **Many distinct communities live within Whatcom County, each valuing their community and social connectedness.**
    - People are perceived as engaged and active, that Whatcom County is a place "where people contribute to the community." Neighborhood, community (such as a church or college), or cultural identity can be defining and a source of social support.
    - Citizens are very engaged in community efforts as well, whether donating money, time, or other tangible resources.
    - Minority communities including Native American tribes and Hispanic/Latinos are among those most likely to experience poverty, unemployment, and health disparities. These populations are also the most likely to be disenfranchised from power structures in the community that determine public policy.
    - Developing community consensus around strategies to address disparities will be a challenge in this context. For the tribes there is a long history of suspicion and mistrust that emerges from failure to uphold past commitments and promises. For Hispanic/Latinos, increasing fear and suspicion emerges from failed national immigration policies and local punitive policies for those who lack proper immigration status or citizenship.
- **A healthy environment is valued as crucial to quality of life.**
    - Numerous environmental assets contribute to good health in Whatcom County. The ocean and lakes, mountains, forests, farmland, and islands combine to form a beautiful and unique natural environment. A wide range of outdoor recreational opportunities exist in access to parks, trails, bodies of water, mountains, and other opportunities.
    - Protecting and preserving the natural environment is highly valued. Concerns exist about clean water and clean air. Planning for land use and growth is seen as very important to assure a high quality of life for residents. The City of Bellingham's *Legacies and Strategic Commitments* has made health and safety a priority including attention to water quality, health environment, and public safety.

- The leaders in local governments have made access to healthy, safe environments a priority including abundant hiking trails and bicycle lanes. Generally missing from the public leadership dialogue, however, are issues of inequitable access to the many recreation opportunities available in Whatcom County and the underlying social and structural factors that influence people's opportunities to lead healthy lives, For example, the issues that contribute to why some population groups may be less likely or able to use trails.

- **Communities living with social disparities bring insights and inform potential solutions.**
  - The discussion groups with Hispanic/Latino community members, and mothers facing social and health barriers represent direct voices of those who live with disparities. These groups, results of the Prosperity Project, community work with homeless individuals to share their stories, the Prosperity Action teams, digital stories by Lummi youth all show the considerable strengths and incredible resourcefulness within marginalized groups.
  - While local public officials (mayors, councilmen) give serious consideration to selected community health concerns such as environmental health, walking trails, or bicycle lanes, almost none of those interviewed included issues of health disparities among priorities for public policy intervention.

Strengths and Assets

Long-term solutions can be found and built within the communities in need. People living with social disparities were often willing to take responsibility and "own" ways in which their community may contribute to their own problems. Many expressed willingness and motivation to develop interventions to address social and health problems. The interventions did not appear to necessarily require a significant investment of resources.

Regardless of lack of resources, nonprofits throughout the community have kept their services the same and tried their best to keep their doors open in order to help, which shows a great sense of care and community. Non-profit organizations reported in 2010 that they expected increased demand for their services over the next year, although 80% planned to decrease or keep their staffing the same over the next year.

Key Informant Interviews, Discussions, and Events

Community Health Assessment

- NW Indian Health Board – Don Vesper, Gloria Point
- Prosperity Project – Greg Winters
- WWU Student Health – Emily Gibson, MD, Medical Director
- SeaMar – Ione Adams, MD, Medical Director
- Interfaith – Gib Clarke, Director
- Nooksack Tribe – Frank James, MD
- WAHA – Larry Thompson, Executive Director
- Whatcom County Health Department, Astrid Newell, MD
- Mental Health Advisory Board – (Michael Massanari, MD is member)
- Pain Management and Opiate Dependence Task Force – Vince Foster, PhD
- Community to Community Development– Erin Thompson, Director of Food Sovereignty Programs
- City of Bellingham, David Webster
- United Way, Peter Theisen
- Whatcom County Human Services, Anne Deacon
- Whatcom County Housing Programs, Gail de Hoog
- Discussion with Substance Abuse Treatment Providers
- Discussion with Hispanic/Latino community members
- Discussions with Pregnant/Parenting mothers
- Adverse Childhood Experiences training event
- Camden Report presentation

VII: Forces of Change Assessment

Summary

Overview

In this component of the assessment, we identify forces of change that influence the health and quality of life of the community and the local health system.

Methods

We conducted a brainstorming session with the Community Leadership Group in April 2011 during which participants developed a list of forces of change, such as events, trends and factors in various categories. These categories included social, political, economic, ethical, medical, scientific, geographic, environmental, legal, and technological. Participants then grouped the forces and attempted to identify potential threats and opportunities for each force. The Core Group then reviewed these findings, added further information, interpretation, and synthesis. A synthesis of the forces of change is provided below. A table providing a complete listing of identified forces and possible impacts follows.

Synthesis of the Findings

1. **Communities within Community**
   Whatcom County is comprised of a number of distinct communities, each with unique history, identity, culture and values.

   - These communities include the City of Bellingham, six incorporated cities (Blaine, Everson, Ferndale, Lynden, Nooksack, and Sumas), and "the County" (unincorporated Whatcom County), as well as the Lummi Nation and Nooksack Indian Tribe, the Hispanic community, the Russian-speaking community, and Western Washington University, among others.
   - When identifying forces of change we must consider who are "we" and "where is home"? The answer to these questions shape how we see, experience and interpret the forces of change.
   - This rich social, economic and cultural mix carries both opportunities (for economic strength and cultural diversity) and threats of inequitable distribution of resources, uneven access to services, unequal power and political representation in policy and decision-making.

2. **Changing Demographics**
   There is an increase in the population of older adults, increasing ethnic and racial diversity, and an overall continuing trend of population growth in Whatcom County.

   - This provides new opportunities for increased financial and intellectual resources and more perspectives for problem-solving.
   - This trend also places increasing demands on health, social service and educational resources to adapt to the changing needs of the populations that they serve.

3. Transformation of Health and Social Services Systems

There are significant changes in the way in which health care entities, social service providers, and schools are organizing, funding, and delivering services.

- Funding streams are shifting, with a growing role of non-profit and philanthropic organizations shoring up the diminished public funding support for health and social services.
- Information exchange and the proliferation of personal communication devices are changing the way that services are provided, and will be provided.
- There is an awakening to consumer oriented services or "patient centered" care
- Health care reform is happening, and will happen over a five to ten year period. The systems we have now are changing, and are likely going to become more consolidated (i.e. more employed physicians) and clinically integrated across organizational boundaries.
- Threats of system delivery transformation are that changes can leave some organizations and individuals disconnected or "fallen through the cracks" as systems go through adjustments and evaluation/improvement cycles. Learning to coordinate and negotiate new systems takes time and energy for all stakeholders. Decreasing resources can simply mean less services provided, particularly for most in need. Patient/consumer and provider satisfaction can possibly diminish if changes are unwelcome or unfamiliar, regardless of outcomes. Potentially more volatile funding streams and organizational instability exist.

4. Dynamic between economic development and environmental preservation

There is an ever-shifting balance in Whatcom County between encouraging sustainable economic development and an ethos of preserving the natural environment.

- The Gateway Pacific Terminal proposal (a giant facility proposed north of Ferndale to ship coal to China) is an example of a project that could bring high-wage jobs to Whatcom County as well as long trains and coal dust pollution. Real estate development around Lake Whatcom, the County's primary source of drinking water, provides another example of this tension between economic vitality and preserving the environment. Food production and agricultural practices around pesticides, irrigation, equipment and workers is another important example in Whatcom County. A robust sustainable economy brings job security and financial stability, with opportunities for large and small businesses, entrepreneurs, and workers. The local natural environment provides essential human needs, including air, water, and food. The Whatcom County environment is also greatly valued for its beauty, outdoor recreation opportunities, and attraction to new residents and tourists.
- This dynamic compels active and broad civic involvement in public policy, and provides the opportunity for long-range planning and setting priorities about land use and economic development.
- The threat of this dynamic is that stakeholders may begin to believe the extremes of their own perspectives, forgetting how the choice is not between the two ends of the spectrum as much as the choice is about what kind of balance we are going to strike.

5. Persistent poverty threatens community stability

There are portions of the Whatcom County population, including many children, living in persistent poverty.

- Poverty imposes many threats on the health and well-being of both the individual and the community. Poverty makes the negative impacts of larger economic forces such as recession or shifts to service sector jobs even more devastating. Cycles of poverty and unemployment can affect educational attainment, family stability and functioning, access to health care and health insurance, and mental health. The effects of growing up poor include being more likely to have low earnings as an adult, having poor health later in life, and being more likely to engage in crime (a small minority). The impact of lower workforce productivity, higher healthcare expenditures due to illness and early mortality, and higher costs resulting from crime and maintaining the criminal justice system all threaten the collective quality of life for our community.
- There are opportunities to make a difference in many people's lives, particularly children's, by working to reduce the effects of poverty and create a more stable financial foundation for all members of the Whatcom County population.

6. Tension between individualism and a communal spirit in Whatcom County

There seems to be two counter forces that that one can see as being each side of the public face coin: the pioneer spirit of individualism and a community spirit of belonging.

- This community embraces individualism in many political and social behaviors, with notable portions of the population making choices such as preventing vaccination of their children or voting against fluoride in the public water supply. This value crosses traditional political boundaries. For example, the sizeable home schooling community in Whatcom County includes politically conservative families with strong religious beliefs as well as politically liberal families with strong anti-government beliefs. Whatcom County also supports a communal spirit in many events and coalitions. Diverse organizations build collaborations and task forces across sectors. One example is the Whatcom County Coalition to End Homelessness, a group with a 10-year plan to end homelessness in Whatcom County and reports significant decreases in homelessness since they implemented their plan (despite the current economic lows).
- The opportunities of channeling these collective strengths of the community can make for strong and effective action and pooling of resources. The time and effort it can take to work collectively with divergent views and organizational goals can potentially hinder efficiency and ability to act decisively and respond quickly.

Summary of Community Leadership Group
Forces of Change Brainstorming Session

Social

Forces	Threats Posed	Opportunities Created
• Increased poverty/joblessness	• Lack of employment opportunities • Increased demands on health and social resources	
• Increased older population o Death and dying as cultural issue o Retirement destination • Population growth o County as a whole o Certain places o Changing demographics o Increasing diversity (still majority Caucasian) • Growing number immigrant families o Increased Hispanic population • College/University large proportion of population	• Increased demands on health and social resources • Lack of alignment of resources and services with demographic shifts • Denial of forces/shift • Isolation of populations	• Influx of intellectual and financial resources • Embracing the change and new opportunities • Special population based/targeted resources • More voices/perspectives for solutions
• Increased pressure on schools to serve more functions • Shift/increase in social role of schools at the time of decreased resources • Lack of family support • Increased stress/decreased resources for education system	• Increased behavior/substance abuse problems • Adverse effect on educational process • Turns schools into political battleground • Educational system becomes outmoded	• School = safe place • Nondiscriminatory place for all kids • Where kids in need are and can be reached • Have the place to partner with service providers
Increased drug use (IV/Rx) and increased drug trade		
County / tribe relationship (Lummi Nation is sovereign nation)		
Large number of Vista/AmeriCorps volunteers		

Legal

Forces	Threats Posed	Opportunities Created
• Old jail • New jail proposal • Closing prisons and early releases • Increased cost of criminal justice system		
Impact of mental illness substance abuse		
Increased immigration		

Summary of Community Leadership Group Forces of Change Brainstorming Session (continued)

Geographic

Forces	Threats Posed	Opportunities Created
• Canadian border o Growth of militarization at border	• Increased drug trade • Use of profiling at border/Hispanic population • Increased deportation impact on families • Increase of criminals arrested in Whatcom County • Increased cost of law enforcement	• Increased tax revenue • Increased opportunities for collaboration with Canada • Cultural/quality of life opportunities related to proximity to Vancouver
• Rural/urban split of the county	• Inequitable distribution of resources	• Diverse culture • Markets for agriculture in nearby population centers
County covers large land mass; geographically distinct		

Economic

Forces	Threats Posed	Opportunities Created
• Ongoing budget challenges (crisis) in all sectors o State, federal, city • Shrinking and threatened public and private funding	• Dwindling safety net resources (everywhere) • Government budget issues impacting public services • Decreased funding for behavioral health programs	• Think about new ways to collaborate/share resources
• Capitalism • Recession 2009--? • Recovery	• Increased unemployment • Increase in employed but without health insurance • Stagnant multi-family residential development	• Rethink safety net
• New EDC direction • Gateway terminal (coal trains)	• Income inequality • Coal dust • Noise • Accidents • Contributing to environmental problems	• Jobs/employment • Define values/stand up for what is right • Opportunity to conduct Health Impact Assessment
• Waterfront development o Emphasis on local economy	• Continual bickering • Exclusive, high-end o Lack of access for everyone	• Jobs • Recreation/physical activity • Environmental clean-up • Social gathering
Shift from an economy based around natural resources to an economy based on services		
Absence of long-term land use plan (also Environmental)		

Summary of Community Leadership Group Forces of Change Brainstorming Session (continued)

Medical

Forces	Threats Posed	Opportunities Created
• Shrinking services/Closures o Mother Baby Center o Chemical Dependency Inpatient Unit (St. Joseph's)	• Unmet need	• Reconfigure health care system to meet needs in a new way
• Emerging models of care o Focus on population based medicine and prevention o Home-scale technology can empower patients o Clinical integration/medical home coordinator & HIE o Increased hospice and palliative care o Patient/consumer centered care o Accountable Care Organization (ACO) development o National trends of consolidation	• Timing for success • Focus on profit over quality • Increase number of competing players • Disintermediation of health care industry; e.g., home as new doctor's office (threat and opportunity) • Model flaw of ACO: should be focused on wellness & prevention	• Redesign end of life care • Decrease costs • Increase access • Increase quality • Assure care for underserved population • Disintermediation of health care industry; e.g., home as new doctor's office (threat and opportunity)
• Increased costs o Need to align costs with reduced reimbursements	• Access to medical care o East county	
• Consolidation of services/strengthening of PeaceHealth System (purchase of Madrona, North Cascade Cardiology)	• Current equilibrium disrupted • Physician/provider satisfaction (threat and opportunity) • Patient satisfaction (threat and opportunity) • Changed practice environment (threat and opportunity) • Lack of competition	• Physician/provider satisfaction (threat and opportunity) • Patient satisfaction (threat and opportunity) • Changed practice environment (threat and opportunity)
High collaboration between Public Health and Medical/Hospital		
Health Care Reform		
Top-notch medical care and professionals		

Technological

Forces
Increased use of social media
Reliance on sound-bite level communication for information
Digital divide limiting access to information

Summary of Community Leadership Group Forces of Change Brainstorming Session (continued)

Political

Forces	Threats Posed	Opportunities Created
• Health care reform (legislation) or not?	• If dismantled o Death spiral o No reform for a generation	
Reduced funding Centralization at state and federal Reduced capacity/ civic engagement	• Lack of higher calling of a vision	
• Polarizing forces • City of Bellingham/County governments	• Pending elections • City and county governments not always working together	
• Sales and property taxes fund services • No income tax (regressive tax-greater burden on poor than rich; impacted by economy)		
Public Health Board is County Council		
State legislation affecting immigrants		

Environmental

Forces
• Impacts of development o Water quality (Lake Whatcom) – deteriorating water quality of primary source of drinking water o Agricultural impact on air, water, and environment o Gateway terminal o Water resource allocations o Absence of long-term land use plan (also Economic)
Swift Creek (asbestos)
Live in beautiful and rich landscape; attracts people
Previous sites of industry leave environmental legacy
Climate change
Non-fluoridated water
Energy costs

Scientific

Forces	Threats Posed	Opportunities Created
• Scientific evidence of early brain development	• Adverse childhood experiences	• Use evidence to promote effective interventions/allocate resources
• Vaccine hesitancy (worry about autism)	• Disease outbreaks	• Health education
Increased diagnoses of autism		
Research funding prioritizes profitable enterprises		
Using reliable data to identify health issues		
Researchers forced into studying what people will fund (in a box…)		
Lots of new, good research on interventions		

Summary of Community Leadership Group Forces of Change Brainstorming Session (continued)

Ethical

Forces	Threats Posed	Opportunities Created
• Increased gap between "haves" and "have nots" o Greater attention on individual welfare than community welfare	• Unstable society • Reinforcing cycle • Loss of safety net	
• Shared value of care and compassion (everyone deserves basic needs met)	• Limits with volunteerism • Burn-out	• Harnessing volunteerism/ philanthropy
• Scarcity of resources (e.g., health care)		• Opportunity to identify what is important/ how do we create system that meets basic needs • Social justice
Reluctance to address highly charged, yet important, issues in a proactive, even-handed manner		

Other

Forces
• Community collaboration o Collaborations among organizations and sectors
• Community work to provide access to fresh, local food o Interest in food/farming
Committed, passionate individuals driving community initiatives (e.g., Vanessa Cooper with Northwest Indian College)
Fear-based popular media
Returning veterans with complex needs
Emerging diseases

VIII: Health Systems Capacity Assessment

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Introduction and Methods

Introduction

This assessment component reviews the capacities of the local public health department and the health care delivery system. The assessment attempts to address questions of organizational structure, activities, competencies, and capacities of the system.

Methods

Assessment of the Public Health System

The Whatcom County Health Department utilized the National Public Health Performance Standards Local Instrument to conduct an internal review of the organization and programs. The results and conclusions from that review are summarized below.

Assessment of the Health Care System

The health care system, in particular the hospital, is subject to routine tri-annual scrutiny, e.g. JCAHO. For information regarding these evaluations, the reader is referred to the respective regulatory / accrediting agencies. For purposes of this assessment, we focused on the assessment of domains that are of particular concern for community health including *access to care* and the *quality of services* provided by the health system.

Methods for gathering data / information and analysis included:

- Review of published quality indicators
- Review of survey data on access to care published by WA DOH.
- Abstraction and analysis of specific data generated by the health system, i.e. emergency room admission.
- Focus groups including pregnant women or new mothers on Medicaid, representatives from the Hispanic community.
- Key informant interviews.

Data sources included: (Complete references available in bibliography)

- 'Hospital Compare' – published by Center for Medicare and Medicaid Services
- Washington Department of Public Health
- PeaceHealth / St Joseph Medical Center
- Smile Survey -2010
- Dartmouth Atlas (2007)
- Focus groups
    - Young women who are pregnant or recently pregnant and insured under Medicaid
    - Representatives from the Hispanic community of Whatcom County
- Key informant interviews with
    - Administrators in local federally funded community health centers
    - Medical Director of Student Health, WWU
    - Selected providers of behavioral health services

Public Health System Capacity

Synopsis: Overall, Whatcom County has a strong, well-connected public health system that includes the local public health agency and numerous community partners. Particular strengths of the system include a collaborative Unified Incident Command structure for emergencies. Opportunities exist to enhance the effectiveness of the system, though resource limitations make this challenging.

Currently WCHD has close working relationships (technical assistance and mutual support) with health, social service, and other government sectors. However, relationships of the health department with some sectors, such as businesses, largely revolve around regulatory functions (i.e., food service inspections). There may be additional opportunities to expand partnerships and connections with education, business, media, community advocacy, faith-based groups and other groups to address public health issues. There may also be opportunities to increase involvement and engagement of the Health Board and other boards and coalitions in proactive public health efforts.

As with other service systems, the public health system has experienced significant impacts due to the economic recession. The WCHD budget has decreased leading to program staff reductions. Additional reductions are anticipated in 2012. Progress on key operational improvement areas such as communications, use and support of information technology, data collection and epidemiology is limited by lack of staffing capacity, and will likely continue to be limited without additional resources

In addition to WCHD impacts, the overall public health system has experienced significant reductions in the availability of health services and social supports during the past several years. This trend is ongoing

Why is this important: The public health system has the responsibility to protect, promote and improve the health of residents and visitors in the community. A strong public health system is critical to address current and emerging health issues, including public health emergencies—such as disease outbreaks, natural disasters, bioterrorism, and mass casualty events.

Local Public Health System Components

The local public health system includes the local health jurisdiction (Whatcom County Health Department), the Health Board, the Public Health Advisory Board, multiple additional advisory boards and community groups, as well as many community partners and service providers in health care, social services, education, nonprofit, business, advocacy, and other sectors.

Whatcom County Health Department (WCHD)

WCHD is a department within local county government overseen by an elected County Executive and an elected County Council. The Health Department:

- Serves as the lead agency for public health and human services in Whatcom County.
- Has jurisdiction for public health matters over the entire county, including City of Bellingham and small cities. Does not have jurisdiction over activities occurring on tribal lands, Lummi and Nooksack.
- Is responsible for protecting and promoting the health of county residents and visitors. Primarily focuses on population health rather than individual health.
- Specific mandated functions relate to controlling communicable disease (infections, food borne illness) and environmental health threats, as well as overseeing public resources for mental health, substance use, developmental disability, veterans, and other human services.
- Plays a leadership role in responding to community health emergencies (e.g., pandemic flu) and emerging diseases.
- Also serves in a pro-active role addressing broad community health issues, including maternal and child health, chronic disease, and health disparities.

Health Board

The Whatcom County Health Board includes the seven elected County Council members, representing districts throughout the county. The Health Board:

- Is responsible for developing and adopting health related policy, responding to community health needs, and prioritizing resources.
- Meets on a quarterly basis. A smaller group (3 members) occasionally meets as a "Health Committee". One County Council member is officially appointed to the Public Health Advisory Board.
- Currently (2011), no council members have significant health background. WCHD typically creates the Health Board agenda.

Public Health Advisory Board

The Public Health Advisory Board (PHAB) is a group of community representatives from specific sectors (health care, education, environment, business, tribes, etc) that are appointed by the County Executive to serve as advisors for the Health Board and the WCHD on health policy and program matters.

- Meet every one to two months.
- Currently, undergoing modification of meeting format to better utilize expertise and guidance of advisory board members.

Other Advisory Boards

Several programs within the Health Department (primarily human services programs) have advisory boards made up of community representatives appointed by the County Executive to provide advice for specific topics or programmatic areas. These include:

- *Mental Health and Substance Use Advisory Boards*
- *Behavioral Health Revenue Advisory Committee* (1/10th of 1% mental health sales tax)
- *Developmental Disabilities Advisory Board*

Project Specific Community Groups

Specific health department-sponsored projects and initiatives often rely on ad hoc community advisory groups or other teams of community representatives from diverse sectors. Examples include:

- *Community Health Assessment and Improvement Plan Project*
    - Community Leadership Group
- *ACHIEVE Chronic Disease Prevention Initiative*
    - Community Health Action and Response Team (CHART)/ACHIEVE Advisory Group
- *Whatcom Taking Action for Children with Special Health Care Needs*
    - Leadership Team, Development Team, Coordinating Council, Action Groups

Community Boards/Coalitions

Staff from the WCHD sit on (and often serve in leadership roles for) a number of local community boards and coalitions that address public health issues including:

- *Whatcom Alliance for Health Care Access (WAHA)*
- *Homeless Coalition*
- *Whatcom Family and Community Network* (*WFCN*)-public health and safety network
- *Domestic Violence and Sexual Assault Services Commission*
- *Whatcom County Medical Society*
- *Community Transportation Advisory Group*-technical advisor role

State and Regional Partners/Groups

WCHD staff also coordinate with regional and state public health partners on public health issues and participate in a variety of state and regional committees and groups.

- *Washington State Department of Health*
- *Washington State Department of Ecology*
- *Washington State Association of Local Public Health Officials (*and associated forums including *Community Health Leadership Forum, Public Health Executive Leadership Forum, Environmental Health Directors, and Health Officer forums.)*
- *Washington State Public Health Association*
- *North Sound Mental Health Administration*

Unified Incident Command (for emergency response)

WCHD and other departments within county government actively participate in a unified incident command/emergency response system for the county. Key partners include:

- *Whatcom County (Sheriff-Division of Emergency Management, Public Works, IT, Finance, other)*

- *City of Bellingham (Fire, Police, IT, other)*
- *PeaceHealth St. Joseph Medical Center*
- *School districts*
- *Whatcom Transit Authority*
- *Port of Bellingham*
- *Western Washington University*
- *Whatcom Community College*
- *Lummi Nation*
- *Nooksack tribe*
- *Others*

Community Partners

The public health system relies on contributions from multiple community entities to ensure the health and well-being of the community. Sectors and partners include (but are not limited to):

- **Health Care**
  - Hospital
    - *PeaceHealth St Joseph Medical Center*
  - Community Health Centers
    - *Interfaith, SeaMar*
  - Tribal Health Centers
    - *Lummi, Nooksack*
  - Private Health Care Providers
    - *Family Care Network, Peace Health Medical Group, Planned Parenthood, smaller providers*
  - Specialty Centers
    - *Bellingham Surgery Center, Pacific Rim Surgery Center, smaller specialty specific centers (urology, ENT, opthalmology), PeaceHealth St. Joseph Cancer Center, PeaceHealth Center for Senior Health, others*
  - Naturopathic/Chiropractic Practitioners
  - Ancillary Services (*Pharmacy, Home Health, Laboratory, Radiology, etc.)*
- **Government**
  - State (*Dept of Health, Dept of Social and Health Services, Dept of Early Learning, Dept of Ecology, Dept of Behavioral Health and Recovery*)
  - Regional *(Regional partners: Snohomish, Skagit, San Juan, Island, Whatcom*)
  - County (*County departments*: *Administration, Finance, Information Technology, Planning, Public Works, Parks, Courts, Sherriff--Emergency Management, County Jail*)
  - City level (*City of Bellingham: Mayor/Deputy Mayor, Planning, Parks and Recreation, IT, other; smaller cities-Ferndale, Lynden, Blaine, Everson, Sumas, Nooksack*)
  - *Whatcom Council of Governments-Community Transportation Advisory Group*
- **Education**
  - Child Care Centers/Providers
  - K-12 Schools (*7 school districts and small number of private schools*)
  - Higher Education and Vocational Schools (*Western Washington University, Whatcom Community College, Bellingham Technical College, Northwest Indian College)*

- **Social Services/Non-profits**
    - Community Action: *Opportunity Council* (child care resource and referral, early learning, Head Start/Early Head Start, Early Support for Infants and Toddlers/Birth-to-3 program, Homeless Housing Center, rental/housing assistance, other)
    - Low Income Housing: *Bellingham Housing Authority*
    - Disability: *ARC of Whatcom County, Max Higbee Center*
    - HIV/AIDS: *Evergreen AIDS Foundation*
    - Child Abuse/Child Advocacy: *Brigid Collins*
    - Teens: *Northwest Youth Services*
    - Seniors: *Northwest Regional Council, Meals on Wheels, Senior Centers*
    - Homeless: *Lighthouse Mission*
- **Community Advocacy Groups/Faith-Based Organizations**
    - *Whatcom Family and Community Network* (youth, drugs, gangs, neighborhoods, community)
    - *Community to Community Development /Communidad a Communidad* (Hispanic families, farmworkers)
    - *Community Resource Networks (*Bellingham CRN and Ferndale CRN*)*
    - Local churches
- **Business**
    - *Chambers of Commerce*
    - *Sustainable Connections*
    - Food service establishments
    - Other businesses
- **Media**
    - Print/online*: Bellingham Herald, other newspapers/weeklies*
    - Radio: *KAFE 104.1, KGMI*
- **Funders/Foundations**
    - *Whatcom Community Foundation*
    - *United Way of Whatcom County*
    - *St. Luke's Foundation*
    - *St. Joseph Hospital Foundation*

Local Health Jurisdiction Capacity

Health jurisdiction capacity includes the staffing and resources available to carry out public health functions. In 2010-2011, the Health Department lost staff and programs in multiple areas: Oral Health, Tobacco Prevention and Control, Adult Immunizations, Nutrition, Environmental Health, Administration/Clerical Support.

Administration and Management

The current structure of the WCHD includes 5 divisions (Administration, Environmental Health, Community Health, Communicable Disease and Epidemiology, and Human Services). Managers and administrators are all experienced, each with more than 10 years in public health.

Professional and Support Staff

WCHD staff capacity reached a peak in 2008, but has been decreasing over the past several years due to County budget challenges.

- Total Authorized FTE: **80.5 (2005) →90.7 (2008)→ 75.2 (2011)**

Education and ongoing training are essential to maintain a well-prepared public health workforce. Currently WCHD staff has the following qualifications:

- Doctoral level training (MD): 2.6 FTE
- Master in Public Health (MPH): 3.0 FTE
- Additional Qualifications: Public Health/Community Health Nurse certifications, Masters in Nursing, IBCLC lactation certification, environmental health certification

Funding/Financial Sustainability

Public health in Whatcom County receives funding from a number of different sources including federal, state, and local sources.

One measure of financial stability is the total County general fund contribution, as this represents the capacity of local government to support local public health services. The total general fund contribution decreased significantly from the 2007-2008 biennium to the 2009-2010 biennium. Current funding in the 2011-2012 cycle is in flux due to reduced revenues (state and local funds).

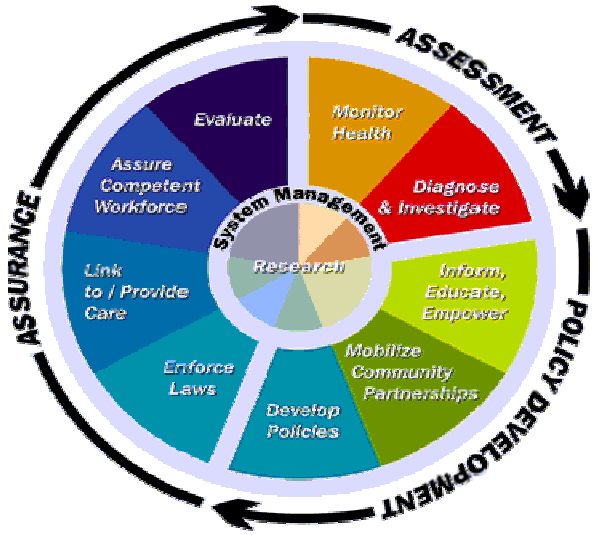
Total County General Fund Contribution to Health Department Budget

2006	$2,129,499
2007	$2,284,847
2008	$2,467,490
2009	$1,610,183
2010	$1,656,798

- Funding Sources
    - County General Fund-local tax dollars
    - Federal funds-typically passed through state DOH (i.e., *WIC, MCH Block Grant*)
    - State funds-designated public health funds from state legislature (*5930-Immunization, Communicable Disease, Obesity; Local Capacity Development funds*)
    - Medicaid Administration Match-federal and state funds for services that connect people to Medicaid or improve Medicaid services
    - Grants-competitive applications (*ACHIEVE Chronic Disease Prevention, GRADS Teen Parent, Community Transformation Grant*)
    - Contracts for service (*DSHS Work First, DSHS Early Intervention Program*)
    - Fee-for-service/insurance billing (Medicaid Maternity Support Services, clinical services)
    - Fees (permit fees, food inspection fee, child care consultation fees)
- Pass Through Funds/Contracts
    - Health Department manages several large Human Services funds (tax revenue).
    - Examples include: *Veteran Relief Fund, Behavioral Health Tax Revenue (1/10th of 1%), Developmental Disabilities Millage Funds*

Core Functions and Essential Services of Public Health

The local public health system is responsible for assuring the health of the population through three core functions (assessment, assurance, and policy development) and ten essential services. The following review assesses both health department and community assets and strengths in relation to each of the ten essential services.



Core Function 1: Assessment

- Monitor health status to identify community health problems
- Diagnose and investigate health problems and hazards

Core Function 2: Policy Development

- Inform, educate and empower people about health issues
- Mobilize partnerships to identify and solve health problems
- Develop policies and plans that support individual and community health

Core Function 3: Assurance

- Enforce laws and regulations that protect health and ensure safety
- Link people to personal health care services and provide healthcare when otherwise unavailable
- Assure competent public health and personal health care workforce
- Evaluate effectiveness, accessibility and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems

Monitor Health Status to Identify Community Health Problems	
Health Department	Community
WCHD plays a leadership role in collecting, analyzing and distributing health data in the community. The HD coordinates with state DOH to obtain local data (including state comparisons) Key WCHD assets include: • Communicable disease surveillance (influenza, etc) • Data collection for specific program areas: Immunization, Oral Health, Chronic Disease (ACHIEVE), Substance Use/Mental Health • Access to data sources: birth, death, BRFSS (county oversample every 5 years), DOH (HYS, CHAT, Child Profile), DSHS (DDD, DBHR), OSPI, Local Public Health Indicators, County Health Rankings Key challenges include: • Lack of trained assessment staff (position slated to open in 2012) • Lack of data sources to identify and monitor health disparities and health issues associated with socioeconomic status. • Lack of information technology support. • Limited development and dissemination of health data reports to the community and to policy makers.	The community has an interest in using data and information to improve community health, however we lack a coordinated approach to metrics. Additional opportunities exist to tap into non-traditional health data sources, e.g., schools, businesses (grocery stores, etc.), health insurance, and others. Community assets include: • City of Bellingham: Results Accountability metrics • PeaceHealth: Hospital metrics, quality improvement (Hospital Compare) • United Way: National measures • WWU: Student health data. Resources (faculty and students) for assisting with data collection, GIS mapping, other • Whatcom Coalition for Healthy Communities/Whatcom Community Foundation: www.whatcomcounts.org (Healthy Communities Institute) • Schools: student health and achievement data

Diagnose and Investigate Health Problems and Hazards	
Health Department	Community
WCHD plays a leadership role in diagnosing and investigating health problems. Environmental Health staff, in particular, has experience in environmental impact studies to investigate potential and actual impacts of health hazards. Examples: Swift Creek Asbestos, Pacific Gateway Terminal (and coal trains). Investigations are typically done in collaboration with other state and local agencies with additional expertise. Additional WCHD/community needs include training and capacity to conduct Health Impact Assessments (HIAs) that proactively explore broad health impacts of built-environment and development projects as well as policy changes.	Numerous agencies contribute expertise or lead efforts to diagnose and investigate health hazards in Whatcom County, including: • State Dept of Ecology • City of Bellingham • Whatcom County Planning/Public Works

Inform, Educate and Empower People About Health Issues	
Health Department	Community
WCHD provides health education resources, maintains a website, develops media releases or other information in print media/radio, attends community fairs and events, and leads community events (largely focused on community leaders). Additional capacity needs include enhanced use of social media and other electronic information sharing platforms.	Community has a number of health education services/programs. Examples include: Community projects • Community to Community Development- Cocinos Santos • Lummi Cedar Project • Traditional Foods (NWIC) Health Related Courses/Information • PeaceHealth: LifeQuest classes, hospital discharge classes (OB, etc) • Other health care providers: SeaMar, etc • Schools: K-12 schools (health curriculum), Bellingham Technical College (childbirth classes, parenting, etc), Northwest Indian College, Whatcom Community College, WWU • Mini-medical school (WCMS) Health Professional Training Programs • Health Careers Program (School Districts) • St. Luke's Foundation (scholarships) • WWU, BTC, WCC, NWIC

Mobilize Partnerships to Identify and Solve Health Problems	
Health Department	Community
WCHD plays a leadership role in convening, facilitating, leading and maintaining community partnerships to address community health issues. Recent initiatives include ACHIEVE chronic disease prevention project, Community Health Assessment and Improvement Plan project, and Taking Action for Children with Special Health Care Needs. Aligning multiple groups and initiatives can be challenging.	The Whatcom County community has a history of forming successful and innovative collaborative partnerships, coalitions, and alliances to address health and social issues. Multiple existing examples include: • Community Leadership Group (CHA/CHIP) • Whatcom Alliance for Healthcare Access • Oral Health Coalition • Homeless Housing Coalition • Whatcom Funders Alliance • Whatcom Taking Action for CYSHCN

Develop Policies and Plans that Support Individual and Community Health	
Health Department	Community
WCHD has a key role in facilitating the development of plans (such as the Community Health Improvement Plan and ACHIEVE Community Action Plan), and developing and advocating for health policies that promote good health. Additional staff and leadership (Health Board, Public Health Advisory Board) training and practice in policy development are needed.	Local and state partners from multiple sectors participate in community health policy development and planning. Sectors include: • Government • Health care • Education • Social Service • Business • Advocacy • Others

Enforce Laws and Regulations that Protect Health and Ensure Safety	
Health Department	Community
WCHD has significant strengths in regulation particularly in environmental health areas, such as food inspections/food safety, onsite septic systems, and living environment protections. Other areas of strength include: enforcing communicable disease mandates and managing requirements for community behavioral health resources. Health department challenges include providing technical assistance and support to community members on compliance with laws/regulations, especially individuals/businesses with staff who speak languages other than English and those with other cultural, financial or educational barriers. Some regulatory areas may also benefit from additional attention, e.g., tobacco and alcohol sales/marketing to kids.	Community assets include strong law enforcement (City Police, County Sherriff, Lummi Tribal Police, WWU Security), safety and emergency preparedness functions (Fire, Emergency Medical Services (Whatcom Medic One), City and County Emergency Management.

Link People to Personal Health Care Services & Provide Healthcare When Otherwise Unavailable	
Health Department	Community
WCHD has specific programs including Children with Special Health Care Needs, WIC/MSS, Immunizations (children), TB, HIV, and Needle Exchange that provide linkage and direct care services. (*State and local budget cuts may result in losing these resources*). Challenges include budget and staffing reductions as well as the overall direction of public health is moving away from providing direct healthcare services.	The Whatcom Alliance for Health Care Access (WAHA), a community supported non-profit, serves as a hub for access and linkage issues. PeaceHealth, WCHD and other major community health and business leaders play important leadership roles. Other community assets include: • Community Health Centers (Interfaith and SeaMar) • Tribal Health Centers (Lummi and Nooksack) • Multiple community health care providers that donate time and services to provide care for those who need it.

Assure Competent Public Health and Personal Health Care Workforce	
Health Department	Community
WCHD provides technical assistance and training for community health care providers on issues such as: • Immunizations (esp. vaccines for children) • Notifiable Conditions • Tuberculosis Opportunities exist to enhance health care workforce competency and practices in caring for children with special health care needs, addressing behavioral health needs, chronic disease management, primary preventive services, maternal and early childhood health care practices (breastfeeding, immunizations, developmental screening, oral health) Other opportunities include just-in-time training and coordination with providers during a public health emergency situation (i.e., pandemic influenza)	The community offers provider continuing education opportunities (PeaceHealth, Whatcom County Medical Society, others), hospital privileging requirements. Challenges include increasing health care provider competency in systems change and population-based health approaches.

Evaluate Effectiveness, Accessibility and Quality of Personal and Population-Based Health Services	
Health Department	Community
WCHD has some capacity to evaluate program effectiveness, but needs additional resources in this area, including evaluating public health policies and partnerships. The department participates in a tri-annual public health standard review to evaluate operations. Recent Program Evaluations include: • CSHCN (2007) • Immunization Program (2010-11)	The Whatcom Alliance for Healthcare Access (WAHA) and new Accountable Care Organization (ACO) working groups are key community assets for evaluating effectiveness and accessibility of health services. WWU Critical Junctures Institute is another current resource (though limited operation at the current time due to funding).

Research for new insights and innovative solutions to health problems	
Health Department	Community
WCHD periodically participates in community health research projects. Recent examples include the Environmental Risk Reduction through Nursing Intervention and Education (ERNNIE) Program. Staff desire additional training and participation in Community-based participatory research methods.	Community resources for research include the WWU Critical Junctures institute and faculty affiliates with an interest in health issues.

Whatcom County Health Department Performance Standards (May 2011)

WCHD participated in the tri-annual state standards review process in 2010-2011. This process includes an extensive review of health department operations by outside reviewers. The Health Department opted to assess organizational performance against the highest level of standards that are comparable to new national accreditation standards. The following outlines strengths and opportunities for improvement:

Strengths

- WCHD demonstrated **91% of standards** in the 2010-2011 Standards for Public Health in Washington (which included all of the national Public Health Accreditation Board standards and several Washington only measures). Six percent of the standards were partially met and only 3% were not demonstrated.
- Key areas of strength included collaborative relationships with community partners and exemplary documentation in many areas.

Opportunities for Improvement (from the Standards Review and previously recognized needs)

- **Data collection/interpretation/use**
    - Performance management and quality improvement
        - Internal data systems (tracking services and outcomes)
    - Community assessment and planning (in progress)
    - Epidemiology and surveillance systems (this was not called out in the standards review, but is recognized as an internal need)
    - Use and dissemination of data to community and policy makers (e.g. Board of Health)
- **Communication**
    - Risk communication, including a risk communication plan
    - Use and support of new technologies and platforms (social media, internet, website)
    - Communication with special populations (immigrant/migrant, non-English language speakers, others)
- **Policy development/analysis/advocacy**
    - Policymaker outreach and awareness
    - Staff development
        - Policy development and analysis
        - Health impact assessment
- **Emergency response planning (and ongoing community preparedness)**
    - Ongoing planning and coordination with partners
    - Staff development
        - Incident Command Structure
- **Cultural competency and equity focus**
    - Staff development
        - Community engagement/participatory processes
    - Internal equity/workplace relationships
    - Outreach with special populations
    - Equity focus in community health assessment processes
- **Sustainable funding/maximizing fiscal health**
    - Grants and contracts

Health Care Delivery System Capacity

Synopsis: Whatcom County is served by abundant health services resources including primary care providers, medical specialists, and a community hospital that provide quality services. Whatcom County is, however, designated a Health Professional Shortage Area as defined by the Federal Government. Selected census tracts are also designated Medical Under -Served Areas. These designations are based on a shortage of primary care providers, particularly in rural communities and in communities where poverty and homeless rates are highest. Structural needs in the delivery system include in addition to primary care providers selected subspecialty providers.

The more critical issue for community health is access to those health services. Barriers to care include lack of or inadequate health insurance, mal-distribution of primary care providers, and the limited number of current providers accepting new patients. Barriers are particularly acute for residents who lack or have limited public funded insurance, who live in rural communities, and who are poor and less well-educated. Access to dental care is particularly acute for the underinsured and for those with limited resources. These barriers to care are expected to increase with continuing reductions in the state budget.

Based on national performance reporting requirements, the quality of health services provided in Whatcom County is highly variable. There is a striking disparity between the quality of the processes of care that are on par with best practices in the nation and people's perception of that care that ranks below average for the nation and below that of other community hospitals in the region.

Why is this important? While only a minority of residents in a community experience significant disease, access to affordable quality care is essential for these residents to maximize health status and quality of life. Barriers to access result in missed screening opportunities, delayed diagnoses, and poorer prognoses. Without access to appropriate primary care, consumers are more likely to utilize the emergency room for care and to require hospitalization for conditions that are avoidable. These circumstances result in an inappropriate utilization of health care resources and drive up the costs of care.

Structural Health Care Resources in Whatcom County

- Whatcom County is served by a JCAHO accredited, 253 bed, Trauma Level III acute care hospital, PeaceHealth St Joseph Hospital, located in Bellingham, WA.
- Twenty-seven different medical and surgical subspecialty services provide secondary and most tertiary care services in the community. Pediatric specialty services are limited.
- Whatcom County is designated a Health Professional Shortage Area as defined by the Federal Government (population to primary care physician ratio > 3000:1). Several census tracts in the county where poverty and homelessness are concentrated (Downtown Bellingham, Sumas, and Pt Roberts) are designated Medical Underserved Areas/Populations. The ratio of the population to

primary care providers serves as a measure for access to primary care providers. The ratio of population to primary care providers in Whatcom County is 1784:1 which approaches 'stress levels' (ideal level is 1200:1) (WCHD 2004). The shortage of primary care providers is critical in rural Whatcom County where the ratio is 4000:1. Geographic access to care is a particular problem for low-income residents with limited access to transportation.

- Based on projections of changing demographics in Whatcom County, the Camden Report of 2011 concluded that the most immediate need for additional health services resources will be primary care providers that include family care providers, internists, and pediatricians and that accept Medicare and Medicaid patients into their practices.

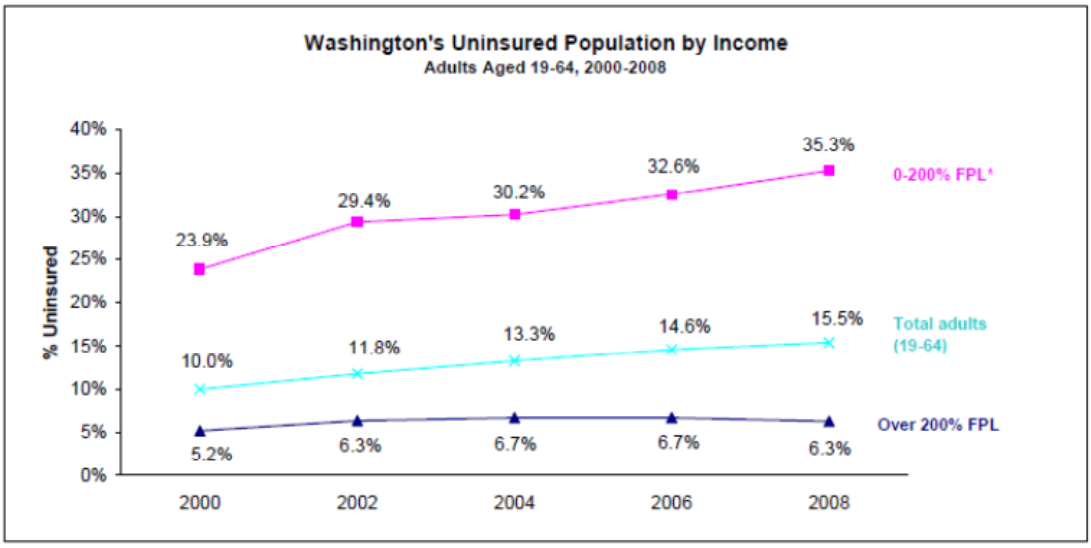
Access to Health Services in the Community

Medical Care

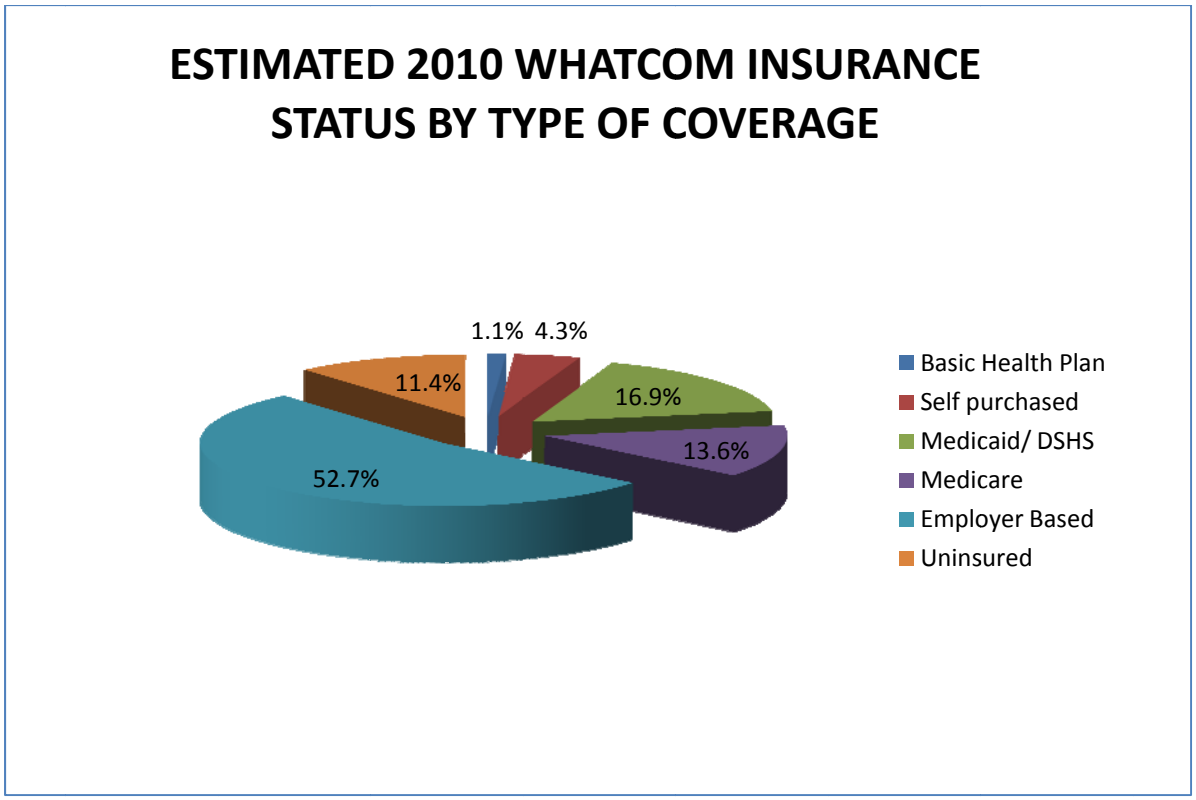
Access to health services is determined by several factors including demand for and supply of services, ability to pay for services, geographic distribution of services, and availability of transportation. Inability to pay for services is an increasing barrier to health care in our community.

- Rates of uninsured and the resulting barriers to care are increasing in the state. As illustrated below, the problem is most critical among low-income residents. The problem is also more acute among residents 19-64 years of age (WA-OFM 2011).

Washington State Trends in Health Insurance

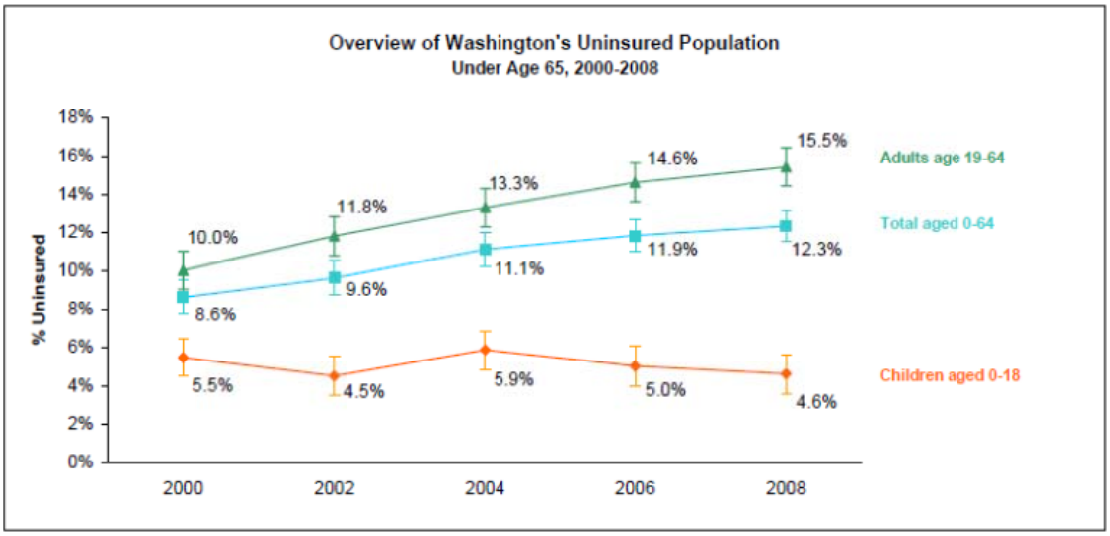


- In Whatcom County access to health insurance among residents is illustrated in the figure below that reports proportional distribution of health care coverage (WA-OFM 2011). These data estimate the uninsured rate at 11.4% for 2010. Other reports suggest that the rate may be considerably higher for adults (15.5% - see below). Approximately 31% of residents rely on some form of public insurance that includes Medicaid and/or Medicare.



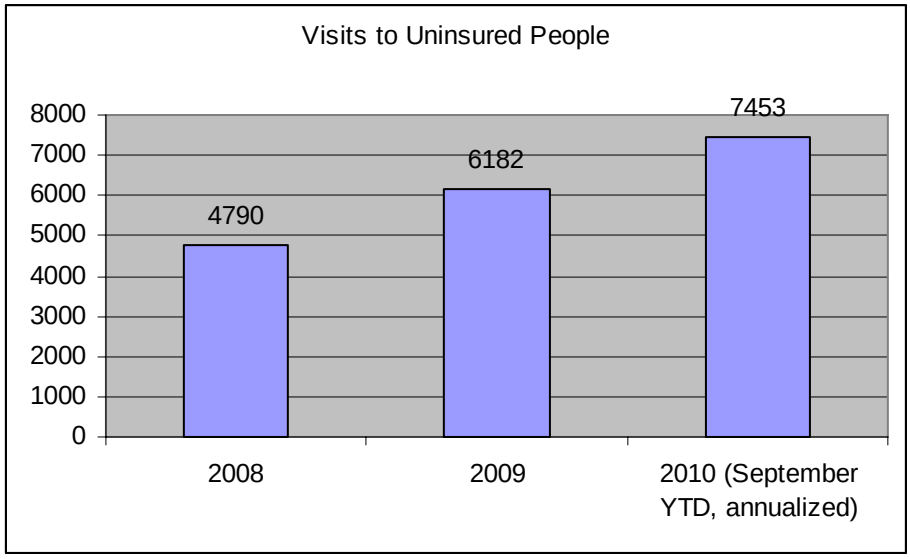
- Access to care varies by age and is noted in the graph below. Less than 5% of children ages 0-16 were uninsured in 2008 while 15.5% of adults aged 19-64 were uninsured.

Washington State Trends in Health Insurance



- The figure below illustrates the impact of increasing rates of uninsured on demand for care at one local federally funded community health center (Provided by Interfaith CHC).

Increase in Uninsured Visits at Interfaith Community Health Center



- Even when residents have access to public insurance (Medicare, Medicaid) they are not ensured access to medical care as illustrated below. The table below illustrates that a large proportion of physicians in the community provide care for patients with publicly funded insurance. However, less than one-half accept new patients when covered only by public insurance.

Providers in Whatcom County Accepting New Patients - with restrictions (%)

Public Insurance	Currently provide care	Accept new patients
Medicare	83%	44%
Medicaid	93%	41%

WA- DOH Primary Provider Survey, 2010

Emergency Room Care

- The table below summarizes the volume of annual emergency room visits relative to insurance coverage. Of note is that 17% of residents in the Whatcom County are insured under Medicaid, yet they account for 27-29% of ER visits per annum (PeaceHealth SJMC, 2011). This disparity suggests that a substantial proportion of ER visits may be inappropriate and preventable if Medicaid patients have access to primary care, dental care, and behavioral health services (see respective sections below).

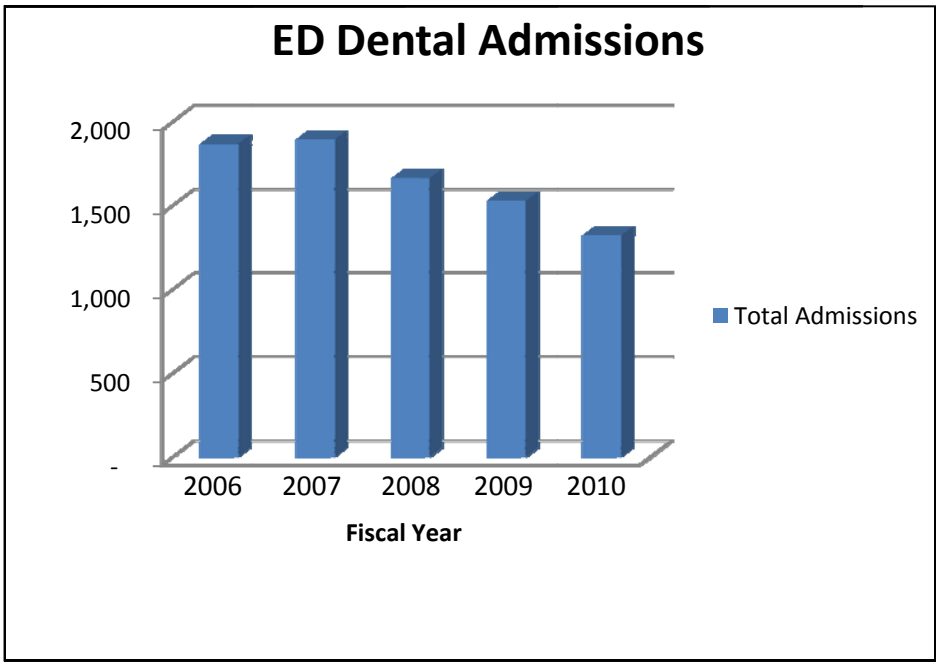
Number of ER Visits per Annum

Insurance Provider	FY 06	FY 07	FY 08	FY 09	FY 10
Commercial	16,590	17,129	17,797	17,425	16,372
Medicaid (DSHS)	15,789	15,209	15,531	15,481	16,634
Medicare	12,681	12,958	13,519	13,880	14,660
Other	3,831	3,988	3,612	3,469	3,016
Private Pay	6,905	7,064	6,629	6,452	6,721
Total	55,796	56,348	57,088	56,707	57,403

Dental Care

- Access to affordable dental care is widely recognized as a critical issue and source for disparities in dental health among residents who are under insured and low income.
    - Using *frequency of dental visits during the past year* as a measure of access:
        - 29.7% of Washington State residents did not see a dentist during the past year. This was similar to the nation with a frequency of 28.8% (BRFSS 2008).
        - 33.1% of Whatcom residents failed to see a dentist during the past year (BRFSS 2004). Current objective data regarding access to dental care in Whatcom County are not available.
        - In 2009, 48% of 2-3 year olds and 40% of 5-6 year olds failed to see a dentist during the previous year. The problem is more significant among low-income residents. In 2009 only 43.8% of Medicaid eligible children five years and under visited a dentist during the year (DSHS, 2010).
    - Access to dental care ranks as the highest priority need among low-income residents in the community (Whatcom Prosperity Project 2007, 2011).
- Access to affordable dental care is particularly important in Whatcom County where children are subject to increased risk of tooth decay due to lack of fluoride in the public water system. Dental providers routinely offer dental sealants to children that reduces the risk of tooth decay.
- The graphic below reports the volume of dental visits to the emergency department by fiscal year (PeaceHealth SJMC, 2011). While the overall number of visits per year is decreasing, most of the

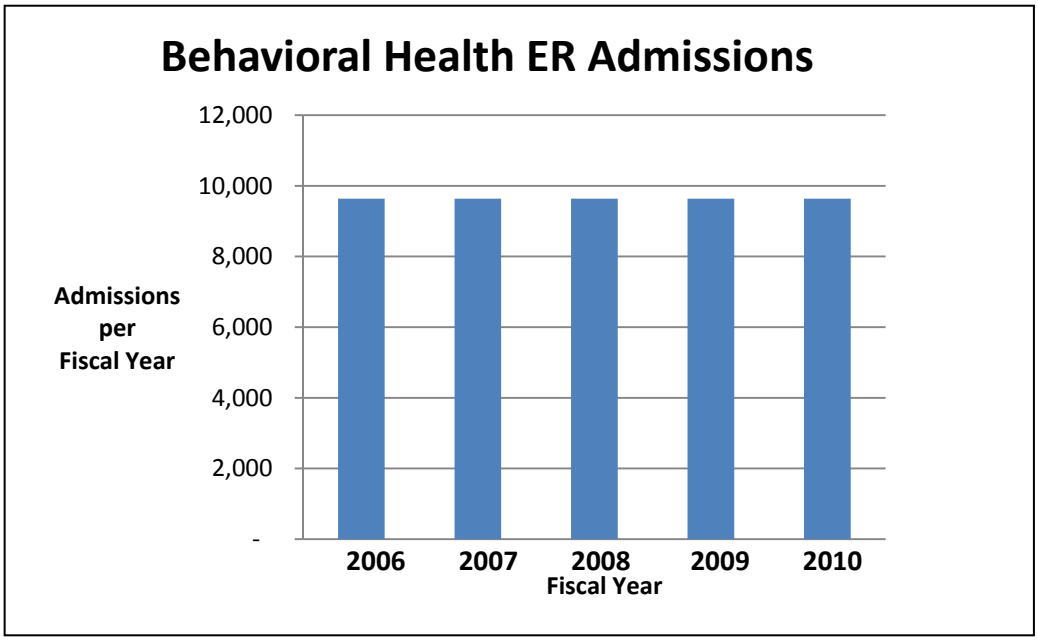
visits are probably avoidable and would be better managed by dentists in ambulatory visits. Dental visits account for approximately 2.5% of ER visits per year.



Behavioral Health Care

Problems with access to behavioral health care for people with mental illness and with access to services for children and adults with special needs are widely recognized. Quantifying this need and demand for services is challenging, however. An estimated 2800 adults in the community need subsidized behavioral health services but do not receive it.

The graphic below summarizes the number of visits (over 9000 per year) to the emergency department for behavioral health care (PeaceHealth SJMC, 2011). Many of these visits may be avoidable and could be prevented if people had ready access to affordable services in the community.



Quality of Health Services

Health care providers are under increasing scrutiny to report information on quality of care and utilization of resources to a variety of governmental and regulatory agencies. Currently mandatory requirements for reporting apply primarily to the hospital. Recent reported data are available online (Hospital Compare-CMS, 2011). Data were also obtained from PeaceHealth SJMC, 2011. A summary of these measures is described below.

- ***How do patients at St Joseph Hospital view their care?*** When patient perceptions of care are compared with performance of comparable hospitals nationally and with other hospitals in northwest Washington, performance is ranked below average.

Patient Experience HCAHPS Survey

	SJH	National Percentile	National 90 Percentile
Do you recommend this hospital? (%)	72%	63	82%
Overall Hospital Rating (%)	59%	19	78%

- When patients were asked to score the quality of care on a scale of 1-10, only 59% of respondents assigned the hospital a score of 9-10. When compared with the nation, the hospital ranks at the 19th percentile.

- ***What is the quality of clinical care provided at St Joseph Hospital?***
  - Measures of processes of clinical care indicate that providers and the hospital perform on par with the best providers and hospitals in the nation (selected examples).

i. Appropriate and timely administration of pre-operative antibiotics – the process achieves national standards of care for 98% of procedures (state average is 95%).
ii. Appropriate assessment of left ventricular function for patients with congestive heart failure - the process achieves national standards of care for 99% of patients (state average is 98%).

- Measures of outcomes of clinical care reflect greater variation (selected examples).
  i. Post-operative deep sternal wound infections following cardiac surgery – the hospital ranks in the 51st to the 90th percentile relative to hospitals performing cardiac surgery in the US. The higher the percentile ranking, the lower the risk of post-operative infection.
  ii. Composite adverse outcomes following cardiac catheterization (death, stroke, emergency CABG, or repeat target vessel revascularization) – the hospital ranks between the 51st and 75th percentile relative to hospitals performing cardiac catheterization in the US. The higher the percentile ranking, the lower the risk of adverse outcomes.

- ***What is the cost and effectiveness of care when compared with other hospitals?***
  The medical care industry consumes an inordinate amount of community resources. How appropriate is that utilization of scarce resources?
  - Per capita spending for Medicare patients in Whatcom County ranks in the lowest quartile for the nation. This suggests appropriate utilization of health care resources and is consistent with best practices in the nation.
  - On the other hand relative to national standards, care providers in the community over-utilize MRI in the early diagnosis and assessment of acute low back pain. Standards of care recommend against the use of MRI in the management of acute low back pain prior to a 30-day trial of symptomatic therapy. In this community 36% of patients presenting with acute low back pain undergo an MRI reflecting over utilization of an expensive technology.

End-of-Life Care

Medicare expenditures during the final year of life account for a major proportion of healthcare costs covered under this federal program. When measured as average expenditures per individual covered life, the cost of care during the final year of life varies 3-4-fold across different hospital market areas. The unexplained variation in costs raises questions regarding the appropriateness of care at the end of life. Coupled with consumer surveys that report that a majority of older people are dissatisfied with 'intensive' medical care, this information has motivated reflection and re-evaluation regarding care at the end of life. The following observations from the Dartmouth Atlas 2007 are pertinent to end of life care in Whatcom County.

- **Utilization of services per Medicare beneficiary by service area.** Compared with the average utilization of services per Medicare beneficiary across the nation (Miami, FL, the highest utilizer in the nation utilizes 140% of average services per beneficiary while La Crosse, WI the lowest utilizer in the nation utilizes only 75% of average services per beneficiary), Whatcom County utilizes 85% of average services suggesting relatively prudent use of medical resources when caring for older patients.

- **Utilization of hospice services at the end of life.** Whatcom County is the beneficiary of excellent hospice care services. In areas of the nation where hospice services are well utilized, more than 66% of patients with cancer spend their final days in hospice care, many receiving care for more than two weeks before death. Utilization of hospice care improves patient and family satisfaction with care at the end of life while reducing inappropriate utilization of high-tech medical resources. In Whatcom County, approximately 50% of patients with cancer are admitted to hospice care, but spend only one week in care. There is opportunity to improve the utilization of hospice services at the end of life in Whatcom County.

Several initiatives in the community focus on improving end of life care and reducing inappropriate use of high-tech medical resources. These initiatives include the recent establishment of an inpatient palliative care consultation service at PeaceHealth St Joseph Hospital and the development of a community-based Advance Care Planning program to engage residents and professional providers in discussions and planning for care at the end of life.

Complementary and Alternative Medicine

Information describing the practice and utilization of Complementary and Alternative Medicine (CAM) in Whatcom County is not available. Because this is an unregulated industry, available information comes from occasional national surveys of consumers of CAM. One of the more recent publications describes data gathered in 2002 from the National Health Interview Survey (Graham et al. 2002). The following highlights selected results from which we might make inferences regarding practice and utilization in Whatcom County.

- An estimated 34% of adults in the US have utilized CAM. The prevalence of CAM utilization is increasing in the US; however, utilization varies across geographic areas. Prevalence of CAM utilization in the western US is higher than other sections of the nation.
- Residents in the US spend more than $ 34 billion out-of-pocket annually for CAM medications and services.
- Approximately 44% of respondents report using prayer and/or some form of faith healing for personal care.
- Aside from prayer, the most prevalent forms of CAM are herbal medicines (19%), relaxation techniques (14%), and chiropractic care (7%).
- Non-Hispanic whites utilize CAM more frequently than Hispanics and blacks. Women (56%) utilize CAM more frequently than men (44%).
- Prevalence of utilization is higher among people 45-64 years of age, people who are college graduates, and people with higher incomes.
- Hispanics were more likely to use CAM because conventional care is too expensive. This observation was confirmed among the Whatcom Latino community.

Health Information Technology

- **Utilization of Health Information Technologies** (Personal Communication, HINET 2011)
  - **Use of electronic medical records (EMRs).** There is widespread diffusion of EMR technologies in Whatcom County. The hospital has 100% adoption of EMRs. Among primary care providers in the county, 94% utilize EMRs. More than 80% of all providers in Whatcom County utilized EMRs.
  - **Health Information Exchange.** Using broadband technologies, HINET connects the local hospital, all local physician offices, all skilled nursing facilities, the local health department, community health services, and payers with confidential information exchange. The service does not yet provide for easy exchange of consumer information between providers, however.
  - **Child Profile Immunization Registry.** More than 90% of clinical providers utilize web-based links with the state immunization Child Profile registry. Pharmacies that offer immunizations are also linked with the registry via web based interfaces. School districts also have read-only access to Child Profile records for students enrolled in their schools.

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