



Klickitat County



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I. Executive Summary

Over the past several years, cuts in federal and state payment for health care and social service providers, including local health departments, have created a challenging environment. Throughout Washington State, local health departments have experienced significant funding cuts, and Washington's 2012 legislature has proposed cuts that could significantly reduce Medicaid reimbursement for Klickitat County's two public hospital districts and primary care providers as well as cut enrollment in the Basic Health Plan and Disability Lifeline, among other cuts. At the same time, residents of Klickitat County have been challenged by high rates of unemployment (10.8% in 2011, a full percentage point higher than the State average), by overall lower health status indicators, and by chronically higher rates of poverty. It is within this challenging environment that this Community Health Needs Assessment (CHNA) was conducted.

Despite this environment, Klickitat County's health and social service providers enjoy a long and proven history of working together to address needs and develop and implement needed services. For example, in 2009, the Healthy People Alliance of Klickitat County was formed to provide a single unified resource for the County. For this CHNA, over the course of about 6 months, providers from throughout the County, led by the Klickitat County Health Department and Klickitat County Public Hospital Districts #1 and #2, came together to review secondary data, collect and analyze primary data, and identify and prioritize the County's health care needs.

This process was funded in part by grants from Washington State's Office of Community and Rural Health and by the Association of Washington Public Hospital Districts. The CHNA process was staffed and facilitated by Health Facilities Planning & Development of Seattle. The CHNA was conducted using available guidance published by the IRS related to the new requirement for 501(c) (3) hospitals. Please note that this Report meets the current draft of IRS requirements as well as the proposed Washington State CHNA requirements. As appropriate, each Hospital will use this CHNA to develop its own Implementation Plan.

The process, methods, and conclusions of this comprehensive CHNA are summarized in this Report. Key findings include:

- The social determinants of health – the conditions in which people are born, grow, live, work and age – create challenges to improving health status in Klickitat County, but must be addressed “head on” if the intent is to improve health.
- Food instability is a significant issue in the County.
- Medication access and affordability remains a problem.
- The County's population is older and aging rapidly and support and care management for those with chronic care conditions is vital.
- Klickitat residents were more likely than other residents of the state to report high cholesterol or hypertension in the family.
- Behavioral health resources are a growing gap.
- The lack of public transportation hinders the utilization of health services.



The top CHNA priorities identified include:

- Improve access to, and educate the community regarding, making healthy choices – with particular focus on healthy eating and tobacco cessation.
- Reduce obesity and educate residents on lifestyle choices that affect obesity.
- Refocus primary and specialty care to include emphasis on medical homes and care management of those with chronic conditions, and increase access to appropriate specialty services.
- Advocate ensuring that the newly selected Medicaid managed care contractors for Washington develop a robust provider network in Klickitat County so that residents realize improved access.
- Eliminate disparities in pharmacy and oral health.
- Increase access to disease screening services.
- Maintain EMS services.
- Improve overall access and affordability.
- Integrate oral health providers into County health initiatives.



II. Community Description

Klickitat County, Washington is the service area for this CHNA. The County is located in south central Washington, bordering the Columbia River and Oregon to the south, remote rural Skamania County to the west, Benton County to the east, and Yakima County and the tribal lands of the Confederated Tribes of the Yakima Indian Reservation to the north. Klickitat County lies at the junction where the Columbia River Gorge cuts through the eastern slopes of the Cascade Mountains and is also a gateway to the Gifford-Pinchot National Forest and the Mount Adams Recreation area. It encompasses 1,904 square miles (about the same size as the state of Delaware). The County is home to the Klickitat Wildlife Management Area and Conboy Lake National Wildlife Refuge. A table listing the zip codes used for this analysis can be found in Appendix 1.

The County's population density is 10.9 people per square mile and it is classified rural by the US Census Department. Goldendale, with 3,407 residents, is both the largest city in the County and the County seat. As depicted in Table 1, the population of Klickitat County was approximately 21,100 in 2010. By 2015 the population is expected to grow by 2.9% to about 21,700. The fastest growing cohort is the "young elderly," (the population 65-74), which is expected to increase by 20% by 2015. The 85+ cohort is expected to grow by 8.7%. The population of children and non-elderly adults is projected to remain relatively stable. Not surprisingly, the County is older than the State with 16.9% of the population 65+, as opposed to 12.3% statewide.

Table 1
Klickitat County Population 2000, 2010, 2015

	2000 Census	Pct of Tot Pop	2010 Est.	Pct of Tot Pop	Pct Chg. 2000-2010	2015 Proj	Pct of Tot Pop	Pct Chg. 2010-2015
Tot. Pop.	19,722	100.0%	21,102	100.0%	7.0%	21,715	100.0%	2.9%
Pop. By Age								
0-17	5,332	27.0%	4,734	22.4%	-11.2%	4,733	21.8%	0.0%
18-44	6,360	32.2%	6,672	31.6%	4.9%	6,897	31.8%	3.4%
45-64	5,325	27.0%	6,129	29.0%	15.1%	6,014	27.7%	-1.9%
65-74	1,481	7.5%	1,990	9.4%	34.4%	2,394	11.0%	20.3%
75-84	891	4.5%	1,083	5.1%	21.5%	1,140	5.2%	5.3%
85+	333	1.7%	494	2.3%	48.3%	537	2.5%	8.7%
Tot. 0-64	17,017	86.3%	17,535	83.1%	3.0%	17,644	81.3%	0.6%
Tot. 65 +	2,705	13.7%	3,567	16.9%	31.9%	4,071	18.7%	14.1%
Fem. 15-44	3,642	18.5%	3,714	17.6%	2.0%	3,812	17.6%	2.6%

Source: Nielsen Claritas



There are fewer households with children under the age of eighteen in Klickitat County than in the State as a whole. As indicated in Table 2, the median age for Klickitat County is 45.3, eight years older than the State median of 37.3. 10.7% of the County's population is of Hispanic descent, which is comparable to that of Washington State. 2.4% of residents are Native American, more than 50% higher than the State average.

**Table 2
Selected Demographic Data for Klickitat County**

	County	State
Caucasian	87.7%	72.5%
Hispanic	10.7%	11.2%
Native American	2.4%	1.5%
All County Median Age	45.3	37.3
All County Male	50.5%	49.8%
All County Female	49.5%	50.2%
Households with Children < 18	35.9%	45.2%
Households with Children <6	7.1%	10.9%

Source: Nielsen Claritas and US Census 2010

Median household income and per capita income in Klickitat County are about 30% lower than Washington State. Similarly, the poverty rate in the County is higher than the State rate. Only 5.6% of residents are foreign born, a rate less than half the State rate of 12.7%. Selected Area economic indicators are presented in Table 3. In 2011, the full year average unemployment rate in Washington stood at 9.6%, while in Klickitat, it was 10.8%.

**Table 3
Socioeconomic Indicators**

City	Population	Foreign Born	Language Other than English Spoken at Home	Per Capita Income	Median Household Income	Poverty Rate	Unemployment Rate*
County	21,102	5.6%	9.1%	\$21,553	\$37,398	19.5%	9.6%
State	6,724,540	12.7%	17.5%	\$29,733	\$57,244	12.1%	10.8%

Source: US Census 2012, except for * US Bureau of Labor Statistics

Klickitat County Public Hospital District #1, dba Klickitat Valley Health (KVH) is based in Goldendale and the District boundaries include Central Klickitat County, though the District serves most of Eastern Klickitat County. Klickitat County Public Hospital District #2, dba Skyline Hospital is located in White Salmon which serves the Western portion of the County as well as communities in adjacent Skamania County. Table 4 provides a break-down of the population of the County by East and West. In summary, West Klickitat County's population is both larger and has a faster growing 65+ population. The elderly make up 17.6% of the population in East Klickitat County and 16.3% in West Klickitat County.

**Table 4
East and West Klickitat County by Age Cohort**

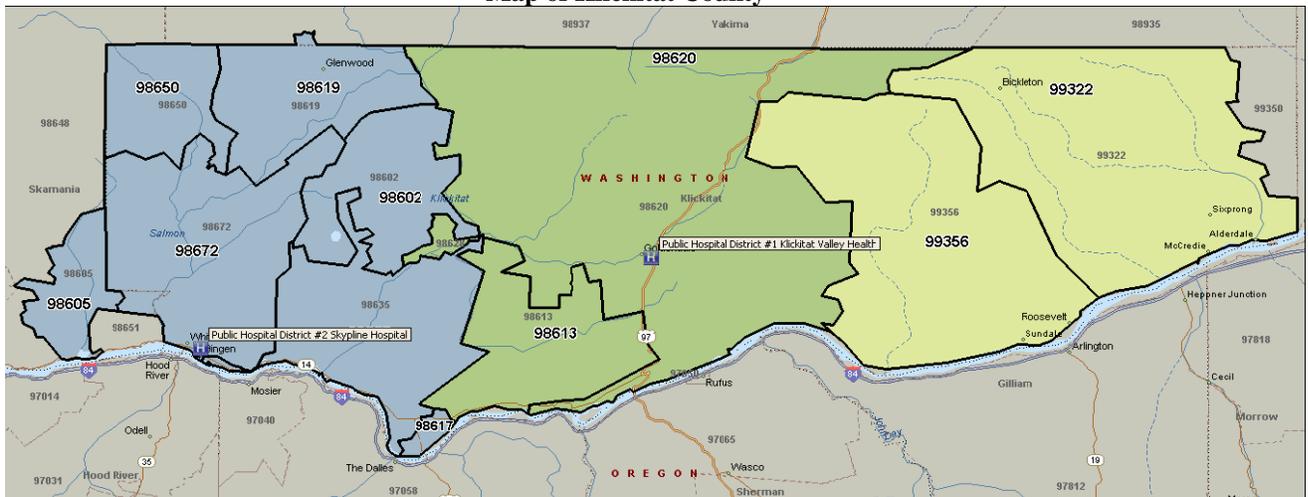
	East Klickitat County			West Klickitat County		
	2010	2015	% Change	2010	2015	% Change
0-64	7,561	7,553	-0.11%	9,974	10,091	1.17%
65+	1,622	1,822	12.33%	1,945	2,249	15.63%
Total	9,183	9,375	2.09%	11,919	12,340	3.53%

Source: Nielsen Claritas



A map of the County and the two Districts is included as Figure 1. In Figure 1, the boundaries of Klickitat County Public Hospital District #1 are shaded green and District #2 is shaded blue. Black lines indicate the boundaries of zip codes. (Yellow shaded region indicates the geography unaffiliated with either Public Hospital District.) Travel throughout the County, and particularly between the two population centers, (Goldendale and White Salmon) is scenic, but often rugged. The distance is only about 45 miles, but the average travel time is in excess of 1 hour. During inclement weather, winds and ice fill the Gorge, making travel treacherous and isolating the communities.

Figure 1
Map of Klickitat County



III. Health and Social Service Providers Operating in the County

Addressing identified community health priorities will require cooperation with service providers both located in the County, and those located in adjoining Counties that provide care to Klickitat residents. As part of this CHNA, all providers of medical, health, and social services located in the County were identified. Table 5 lists providers and the services offered along with the location.

Table 5
Providers/Health and Social Service Organizations in Klickitat County

Organization	Location	Clinicians
Klickitat Valley Health Family Practice Clinic	Goldendale	William Bothamley, MD Michael Garnett, MD Natalia Luera, MD Rebecca Nelson, ARNP Dawn Sexton, PA-C Rick Sexton, PA-C David Tuning, PA-C Ilan Wilde, PA-C
Klickitat Valley Health Surgical Services	Goldendale	Jeffrey Mathisen, MD Paul Moon, MD James Stoller, MD David Schlosser, CRNA



Organization	Location	Clinicians
Klickitat Valley Health Emergency Services	Goldendale	Dagmar Crosby, MD Anh Nguyen, MD Rick Sexton, PA-C
Klickitat Valley Health Physical Therapy/Occupational Therapy	Goldendale	Bob Hill, PT Glenda Lovejoy, OTR/L Rich Miller, PT
Klickitat Valley Health Cardiology Clinic	Goldendale	David Guarraia, MD, Cardiologist Peter Banitt, MD, FACC, FSCAI Eli Rosenthal, MD, FACC, FSCAI
Klickitat Valley Health Vascular Clinic	Goldendale	Michale Zammit, MD, FACS, RPVII
James Ogden, MD	Goldendale	James Ogden, MD
Reimche-Vu David DDS	Goldendale	
Comprehensive – Goldendale Center Crisis Services Comprehensive – White Salmon Center Crisis Services Outpatient Therapy Psychiatric Evaluation Residential Alcohol & Substance Abuse Help for Parents Suicide Prevention Violence/Sexual Assault/Crimes Jail Diversion	Goldendale	
Two Rivers Landing-Youth Evaluation & Treatment Facility	Goldendale, White Salmon	
Klickitat County Senior Services	Goldendale	
Goldendale Dental Center Inc. PC	Goldendale	
Skyline Hospital Emergency Care	White Salmon	Stephen Bergmann, MD Forest Hofer, PA Rodney Krehbiel, MD Russell Smith, MD Eric Stroud, PA Sara Trask, MD Christopher VanTilburg, MD
Skyline Hospital Radiology	White Salmon	Terrance Finstad, MD Martin Foster, MD Barbara Spezia, MD
Skyline Hospital Surgery	White Salmon	Michael Hauty, MD David Maccabee, MD Gianna Scannell, MD
Skyline Hospital Orthopedics	White Salmon	John Durkan, MD Greg Stanley Charles Petit, MD
Skyline Hospital OB/GYN	White Salmon	George Bailey, MD Charlie Chambers, MD
Skyline Hospital Travel Clinic	White Salmon	Matt Fahey, MD
Skyline Hospital Pathology	White Salmon	Vassil Kaimaktchiev, MD Arthur Van Eaton, MD
Skyline Hospital Ophthalmology	White Salmon	Floyd Comell, MD Daniel Kelly, MD John Willer, MD
Skyline Hospital Physical Therapy & Sports	White Salmon	Dave Wiltsie, MSPT, SCS



Organization	Location	Clinicians
Medicine		Shelly Skiles, MPT, OCS Bree Hoomans, DPT Kirsten Zefting, DPT
NorthShore Medical group	White Salmon	Ray FitzSimmons, MD Alicia Gimenez, MD Cindy Horton, MD Steven Koontz, PA-C R. Allen LaBerge, MD F. Joseph Rinella, D.O Christopher Samuels, MD Liette Witherrite, MD Troy Witherrite, MD Gregory Zuck, MD
Curtis W Mathisen, DDS	White Salmon	Curtis W Mathisen, DDS
Staci L Hanson, DMD	White Salmon	Staci L Hanson, DMD
Tim Middaugh Dentist	White Salmon	Tim Middaugh DDS
White Salmon Family Practice	White Salmon	Debra Short, MSN Erinn Quinn, MSN
Sherman Martin, MS, LMHC	White Salmon	Sherman Martin, MS, LMHC
White Salmon Counseling	White Salmon	Paul Grim, LMHC
Bergstrom Family Eye Care	White Salmon	Anthony Bergstrom, OD Deborah Bergstrom, OD
Mountain Sage Medicine	Bingen	Jennifer Silapie, ND
Addus Healthcare	Bingen	
John Lloyd – (Behavioral Health)	Bingen	John Lloyd, MA
John Holley (Allopathic & Osteopathic Physicians)	Lyle	John Holley, MD
Hood River Speech Therapists	Hood River, OR	Lara Dunn, MA, CCC Michael Collins, MS, CCC
Public Health Klickitat County Department of Health	Goldendale White Salmon	
Washington Gorge Action Program	Bingen Goldendale Stevenson	

In addition to these providers, by virtue of the geography of the service area, there are services and providers located in neighboring Oregon that serve Klickitat County residents. There are several major river crossings in Klickitat County. The crossing near White Salmon provides access to resources in Hood River, Oregon; Providence Health Services operates both clinics and a hospital in Hood River. La Clinica, a federally qualified health center has clinics in The Dalles and Hood River. There are also crossings approximately 30 miles south and south west of Goldendale that connect to The Dalles, Oregon. Mid-Columbia Medical Center is also located in The Dalles, as well as a host of other health care services. Specialty services, including orthopedic, cardiology, and women’s health are available in The Dalles.



IV. Process (Methods)

A committee comprised of the County's health and social service and related organizations was convened. Cities and school districts also participated. Advance notices of all meetings were published on the Healthy People Alliance website, and were open to all. The Committee actively shaped the process by which the CHNA was conducted, and assisted in the prioritization of community needs.

Both primary and secondary data collection efforts were employed in this CHNA. Secondary data sources relied upon, include but are not limited to:

- Nielsen Claritas – current and projected demographic information by age and ethnicity.
- 2010 U S Census – detailed demographic information.
- Washington State Office of Financial Management 2011 Databook.
- Kids Count, the Annie E. Casey Foundation, a joint effort of the Children's Alliance and Washington State Budget & Policy Center.
- Washington State Health Care Authority: Enrollment figures for Medicaid.
- Centers for Disease Control: Trends in Oral Health Status: United States, 1988-1994 and 1999-2004.
- Washington State Department of Health:
 - Maternal and Child Health Priority Issue Brief, May 16, 2008.
 - Office of Maternal and Child Health Priorities 2005-2009.
- Catholic Health Services, Community Health Needs Index.
- Washington State Employment Security Department – Unemployment rates.
- Community Health Rankings – health behaviors and outcomes.
- United States Department of Health and Human Services Bureau of Primary Care, Migrant Health Program.
- Behavioral Risk Factor Surveillance System (BRFSS) – a yearly survey conducted by the States and overseen by the CDC.
- The Health of Washington State, 2007, Washington State Department of Health.
- Lots to Lose: How America's Health and Obesity Crisis Threatens our Economic Future – the Bipartisan Policy Center

While the available secondary data painted a general picture of the community's demography, health factors, and health status, in order to fully assess the community's needs and priorities, the Health Department advocated for, and the Committee agreed to collect more specific (zip code level) data. It was agreed that a robust community survey process should be undertaken. A survey instrument was developed and distributed in three ways:

1. A random telephone survey of County households,
2. An on-line internet survey of community leaders and health care providers (key informants), and
3. A hard (paper) copy survey in local clinics and at the Klickitat County Fair.



Telephone Survey

The survey was conducted by telephone at various times throughout the day and evening from August 10, 2011 – August 19, 2011 using randomly generated telephone numbers for Klickitat County. The primary objectives of the survey were to gather data and ascertain opinions related to:

- Utilization patterns for outpatient services, primary care services, specialist services, hospital services and urgent care services.
- Perceptions of and priorities for the local health care system.
- General demographic information.
- Community perceptions of health status and health behaviors.

A total of 333 households were surveyed proportionally representing East and West County.

Internet Survey

In addition to the telephone survey, a web survey was also conducted between August 19, 2011 – September 8, 2011. 281 total surveys were returned from community leaders, county and health department employees, and health care providers.

Hard Copy Survey

In a specific effort to reach priority populations that are likely to be underserved in traditional sampling methods, paper surveys were distributed and collected at several venues, most specifically the Klickitat County Fair. 161 surveys were completed via paper.

Highlights of both the secondary and primary data are summarized in Section V, and where differences were found between West and East County, they are so noted.

A series of three CHNA Countywide meetings were held to secure input from those with broad knowledge of the community. Public Health was an integral part of the process. Other participants were identified and selected to participate in the CHNA process via formal invitations, and the Healthy People Alliance used its website to advertise and recruit other individuals with interest and knowledge of the community and public health.

As noted in Table 6, two of the meetings were held in Goldendale, with teleconference capabilities for West County participants. 18 individuals participated in the initial meeting.

The second meeting was also held in Goldendale, again with teleconferencing capabilities. 17

individuals attended the November 2, 2011 Goldendale meeting and another 7 participated via teleconferencing from White Salmon. The final meeting was held in White Salmon, and while teleconferencing was offered as an option, all East County providers opted to attend in person. A total of 14 attended the final meeting. A list of participants is included in Table 7.

Table 6
Meeting Schedule

Meeting	Date	Location
1	September 29, 2011	KVH, Goldendale
2	November 2, 2011	KVH, Goldendale
3	January 25, 2012	Skyline Hospital, White Salmon



**Table 7
Klickitat County CHNA
Participants by Name and Affiliation**

Name	Title	Affiliation
Charise Weis	Director of Human Resources	Klickitat Valley Hospital
Connie Pond	Commissioner	Klickitat Valley Hospital
Gail Garcia	FPC Director	Klickitat Valley Health
Jane Palmer	Nursing/Community Health Manager	Klickitat County Health Department
Jeff Teal	Director of Quality and Risk	Klickitat Valley Health
Jim Daniel	Commissioner	Klickitat Valley Health
Jody Carona	Principal	Health Facilities Planning & Development
Johanna Roe	Staff	Skamania Klickitat Community Network
John White	Chief Executive Officer	Klickitat Valley Health
Kevin Barry	Director	Klickitat County Health Department
Larry Bellamy	Administrator	City of Goldendale
Larry Gourley	Community Member	Goldendale
Leslie Smith	Counselor	Central Washington Comprehensive Mental Health
Leslie Hiebert	Chief Financial Officer	Klickitat Valley Health
Linda Williams	Horizons Member	Klickitat County/WSU Extension
Lorraine Fritsch	Manager	Washington State Department of Social and Health Services
Mark Thomas	Community Outreach	Providence Hood River
Melissa Morin	Community Health AmeriCorp Member	Klickitat County Health Department
Mike Madden	Chief Executive Officer	Skyline Hospital
Monica Lash	Volunteer	Healthy People Alliance
Paul Moyer	PA	La Clinica del Carino
Ramona Reynolds	Support Service Director	Klickitat Valley Health
Rhonda Turner	Respiratory Care Director	Klickitat Valley Health
Serah Boland	RN Supervisor	Skyline Hospital
Sharon Carter	Director	Klickitat County Senior Services/Transportation
Stephanie Horace	Chronic Disease Prevention	Klickitat County Health Department and Healthy People Alliance
Stephanie Irving	Foundation Director	Skyline Hospital
Theresa Rundell	Nurse Practitioner	Klickitat County Health Department
Tristan Mock	Health Manager	Mid-Columbia Children's Council, Inc.



V. Assessment of Community Health Needs

Secondary Data

The secondary data creates a profile of Klickitat County as a community with significant social and health needs, particularly compared to Washington State as a whole.

Social Environment

Education is highly correlated with health status, and as demonstrated in Table 8, Klickitat residents are less-educated than State residents. Thirty-one percent of Washington State residents have a college degree, but only 17% of Klickitat County residents do. Klickitat County fares better with high school education: 87.2% of County residents have a high school diploma, similar to the 89.6% rate for the entire State. Only 9.1% of community residents speak a language other than English at home compared to 17.5% of all state residents, however, it is important to note that community residents are less likely to be foreign-born: only 5.6% were born outside of the United States, but 12.7% of State residents were.

The home ownership rate is higher than the statewide average: 69.9% of residents of the County own their own homes compared to 64.8% of all Washington residents. This may be in part due the median value of owner-occupied houses in the County being 70% of the value in the state overall.¹ A related finding is that fewer county residents have high housing costs – spend at least 30% of their income on housing. In addition, the violent crime rate is less than one third of the State rate.

Table 8
Social Determinants

Determinant	Klickitat	State
Households with high housing costs*	33%	38%
Residents who own their homes	69.9%	64.8%
Residents with a high school diploma	87.2%	89.6%
Residents with a college degree	17%	31%
Language other than English spoken at home	9.1%	17.5%
Foreign born residents	5.6%	12.7%
Crime Rate*	54	334
Inadequate Social Support	16.9%	17.1%
Unemployment Rate April 2012	9.5%	7.9%

*Source: US Census 2010, except for *County Health Rankings2012*

Catholic Health Care West and Thomson Reuters have developed a method for quantifying the need for health care services, called the Community Need Index (CNI). This process takes into account both public health data and social factors affecting access to health care. These data are used to calculate the CNI, a number between one and five, with one corresponding to lowest need and five the highest. Overall, Klickitat County's weighted average CNI score is 3.7, placing the community in the quintile with the second highest need. CNI scores for individual zip codes can be found in Table 9. For comparison, the statewide score is 3.18.

¹ 2010 US Census.



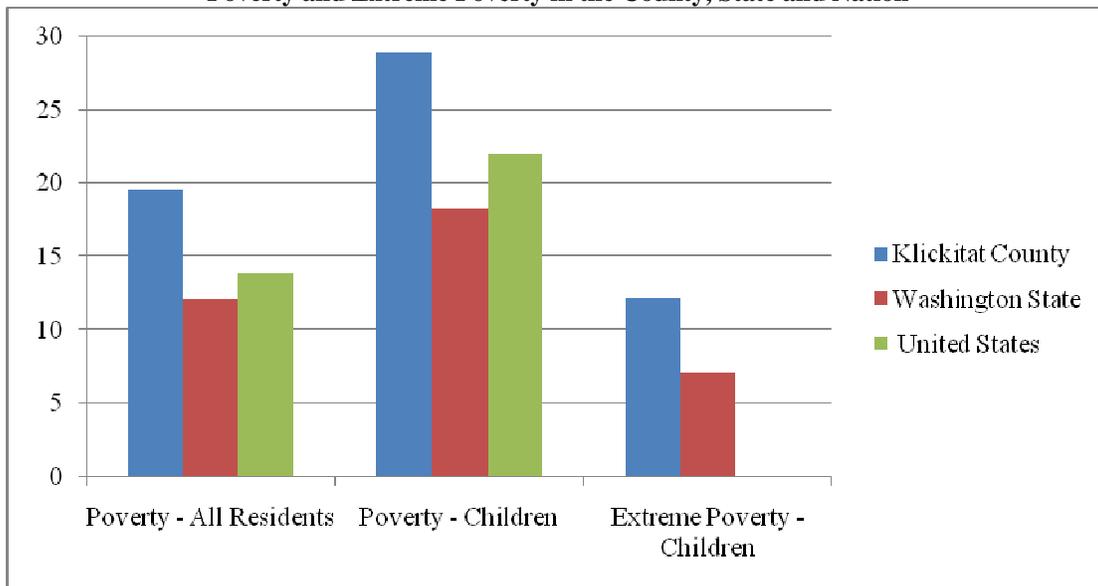
Table 9
CNI Scores for Klickitat County Zip Codes

West			East		
Zip Code	Score	Quintile	Zip Code	Score	Quintile
Glenwood – 98619	2.8	Mid Quintile	Goldendale – 98620	3.8	2nd Highest Quintile
Trout Lake – 98650	2.8	Mid Quintile	Bickleton – 99322	3.8	2nd Highest Quintile
Appleton – 98602	3.2	Mid Quintile	Roosevelt – 99356	3.8	2nd Highest Quintile
Dallesport – 98617	3.4	2nd Highest Quintile	Centerville – 98613	4	2nd Highest Quintile
Bingen – 98605	3.6	2nd Highest Quintile	Klickitat – 98628	4.2	Highest Quintile
Lyle – 98635	3.6	2nd Highest Quintile	Wahkiacus – 98670		N/A
White Salmon – 98672	3.8	2nd Highest Quintile	Wishram – 98673		N/A
Husum – 98623		N/A			

Source: Community Need Index, Catholic Healthcare West. Bold indicates zip codes not within either Public Hospital District.

Poverty is a strong risk factor for poor health. The poverty rate in Klickitat County (19.2%) is higher than the National (13.8%) or State (12.1%) rates. The child poverty rate is also higher, as identified in Figure 2. Additionally, the percent of children living in extreme poverty is 70% higher than the State.

Figure 2
Poverty and Extreme Poverty in the County, State and Nation



No national data available for children in extreme poverty.

Source: Kids Count (extreme poverty); US Census 2010 (all poverty, child poverty)



Top Causes of Mortality, Morbidity and Hospitalization

Mortality

In both Klickitat County and Washington State, the top causes of death in 2010 were Heart Disease and Cancer/Malignant neoplasms, as indicated in Table 10. These two conditions accounted for 68% of all deaths in the County. By comparison, in Washington, they accounted for approximately 55% of all deaths.²

In comparison to the State, Klickitat County’s death rate due to Alzheimer’s disease is 67% lower than the State rate, though this may result partly from the availability of long-term care for Alzheimer’s disease in the County. The death rates due to accidents and chronic lower respiratory disease were higher than the state rates; rural regions generally have higher death rates for accidents due an increase in driving.³

Table 10
Top Causes of Death in Klickitat County and Washington State 2005-2010, Rate per 100,000

Rank	Cause	Klickitat	State	Percent Difference
1	Major cardiovascular diseases	234.3	222.6	+5%
2	Malignant neoplasms/Cancer	167.0	175.5	-5%
3	Accidents (Unintentional Injuries)	46.7	40.1	+16%
4	Chronic lower respiratory diseases	46.7	42.3	+10%
5	Diabetes mellitus	23.4	23.5	-1%
6	Alzheimer’s	13.7	42.3	-67%

Note: State and County rates are not age-adjusted
Source: Washington State Center for Health Statistics

As noted in Table 11, years of life lost, a measure of premature mortality that takes into account the age of the decedents, is also higher in Klickitat County with 7,558 years lost per 100,000 in contrast to the State’s ratio of 5,915 per 100,000. Additionally, the fatality rate due to vehicular crashes is higher than the State rate; these rates tend to be higher for rural communities.

Table 11
Select County Health Statistics

Factor	Klickitat	State
Premature Deaths age-adjusted years lost before the age of 75	7,558	5,915
Motor Vehicle Crash Fatality Rate per 100,000	14	11

Source: County Health Rankings

² Washington State Center for Health Statistics.

³ Washington State Center for Health Statistics.



Hospitalization Rates

Analysis of the Washington and Oregon State CHARS databases identified top DRGs for hospital discharges in 2009. In both East and West County, the top DRG was vaginal delivery without complicating diagnoses followed by major joint replacement. Other common DRGs included esophagitis, gastroenteric and miscellaneous digestive disorders and simple pneumonia and pleurisy. (See Tables 12 and 13.) Taken together, these data indicate that, with the exception of births, a substantial proportion of the inpatient stays are for conditions that are associated with advanced age.

Table 12
East Klickitat Top DRGs 2009

DRG	Description	No. of Discharges	Percent of Total
M775	Vaginal delivery w/o complicating diagnoses	56	5.6%
M470	Major joint replacement or reattachment of lower extremity w/o MCC	38	3.8%
M392	Esophagitis, gastroent & misc digest disorders w/o MCC	32	3.2%
M945	Rehabilitation w CC/MCC	27	2.7%
M195	Simple pneumonia & pleurisy w/o CC/MCC	23	2.3%
M766	Cesarean section w/o CC/MCC	23	2.3%
M690	Kidney & urinary tract infections w/o MCC	21	2.1%
M641	Nutritional & misc metabolic disorders w/o MCC	20	2.0%
M194	Simple pneumonia & pleurisy w CC	18	1.8%
M743	Uterine & adnexa proc for non-malignancy w/o CC/MCC	18	1.8%
	Total	276	27.4%

Source: Washington and Oregon CHARS databases

Table 13
West Klickitat County Top DRGs, 2009

DRG	Description	No. of Discharges	Percent of Total
M775	Vaginal delivery w/o complicating diagnoses	73	7.2%
M470	Major joint replacement or reattachment of lower extremity w/o MCC	32	3.2%
M951	Other factors influencing health status	27	2.7%
M392	Esophagitis, gastroent & misc digest disorders w/o MCC	26	2.6%
M743	Uterine & adnexa proc for non-malignancy w/o CC/MCC	23	2.3%
M195	Simple pneumonia & pleurisy w/o CC/MCC	21	2.1%
M603	Cellulitis w/o MCC	21	2.1%
M766	Cesarean section w/o CC/MCC	18	1.8%
M491	Back & neck procedures except spinal fusion w/o CC/MCC	15	1.5%
M690	Kidney & urinary tract infections w/o MCC	15	1.5%
	Total	271	26.9%

Source: Washington and Oregon CHARS databases

Preventable hospital stays are defined as hospital stays for conditions that can be treated in an ambulatory setting. As noted in Table 14, Klickitat's rates of preventable hospital stays for the Medicare population are approximately 30% higher than the State rate.⁴

⁴ County Health Rankings 2012.



Table 14
Preventable Medicare Hospitalizations

Factor	Klickitat	State
Preventable Hospital Stays per 1,000 Medicare Beneficiaries	62	47

Source: County Health Rankings

Access to Care

One of the factors affecting access to health care, particularly in rural regions, is having sufficient providers to serve residents. Table 15

demonstrates that the physician supply is lower than the State, as is the case in many rural communities: there are 887 residents per primary care physicians in Klickitat County, versus 736 statewide. There is also a striking shortage of mental health providers: there are 2,513 Washington residents to every mental health provider, versus 6,797 Klickitat County residents per mental health providers.⁵ As a result, Klickitat County has been designated a mental health HPSA.⁶ Another measure of access is whether care is affordable. Thirteen percent of Klickitat or Sate residents did not see a doctor due to the cost.

Table 15
Ratio of Residents per Provider

Provider	Klickitat	State
Population per Primary Care Provider	887	736
Population per Mental Health Provider	6,797	2,513
Percent who did not see a doctor due to cost	13%	13%
Percent uninsured	20%	15%

Source: County Health Rankings, 2012

Another factor in access to health care is the insurance status of the population. In all of Washington State, 15% of residents do not have health insurance, which rises to 20% in Klickitat County.⁷ While 18.1% of all Washington residents are enrolled in Medicaid programs, 25.7% of Klickitat County residents are. In 2011, 39.4% of the community’s children were enrolled in Medicaid and if children enrolled in CHIP are counted, fully 56% of children receive state-subsidized health care.⁸ Sixteen percent of the total population is considered disabled, 1.0% is enrolled in Disability Lifeline, and 0.5% receive State Supplemental SSI, which ranks the County 3rd and 10th in the State respectively, though it ranks 30th in population. Taken together, these data indicate that a significant proportion of the community falls into the priority populations that this CHNA process aims to address.⁹

⁵ County Health Rankings, *ibid*.

⁶ A Guide to Federal Health Professional Shortage Area and Medically Underserved Area/Population Designations in Washington State; Washington State Department of Health.

⁷ County Health Rankings, *ibid*.

⁸ Washington State Health Care Authority, Enrollment Figures for Medicaid.

⁹ Washington State OFM 2011 Databook.



Migrant farm workers are particularly likely to lack access to health care. Klickitat County has been designated as a migrant/seasonal primary care health professional shortage area (HPSA), a low income dental care HPSA, a mental health HPSA, and a Native American Medically Underserved Population. Currently, a seasonal farmworker is designated as “An individual whose principal employment (51% of time) is in agriculture on a seasonal basis, who has been so employed within the last twenty four months” while a migrant farmworker is a seasonal farmworker who “establishes for the purposes of such employment a temporary abode.” The most recent data on migrant farmworkers in Klickitat County is from 2000, in which there were 2,079 migrant and seasonal farmworkers (MSFW) and 3,215 MSFW workers and non-workers.¹⁰ Census 2000 data do not provide counts of MSFW populations, instead grouping them in the agriculture, forestry, fishing, hunting and mining (AFFHM) sector. In 2000, only 1,025 workers were classified in this category, less than half the count of MSFW, indicating that the census counts do not accurately reflect the presence of this population.¹¹ The 2010 US Census identified 807 workers in the AFFHM sector; it is likely that the true number of MSFWs is closer to the 2000 count of MSFWs than the 2010 count of AFFHM sector workers.¹²

Food, Diet, Exercise, and Obesity

The World Food Summit of 1996 defined food security as existing “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life”. Food security is built on three pillars:

- Food availability: sufficient quantities of food available on a consistent basis.
- Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
- Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

The percentage of residents participating in food assistance programs is higher in Klickitat County than in the State as a whole. In 2011, 18.4% of the total County population received food assistance.¹³ As demonstrated in Figure 3, a higher percentage of children in the County participated in food assistance programs; the percent of children participating in the State’s Basic Food Program is about 30% higher than Statewide.¹⁴

¹⁰ Migrant and Seasonal Farmworker Enumeration Profiles Study Washington, Migrant Health Program Bureau Primary Health Care Health Resources and Services Administration, 2000.

¹¹ 2000 US Census.

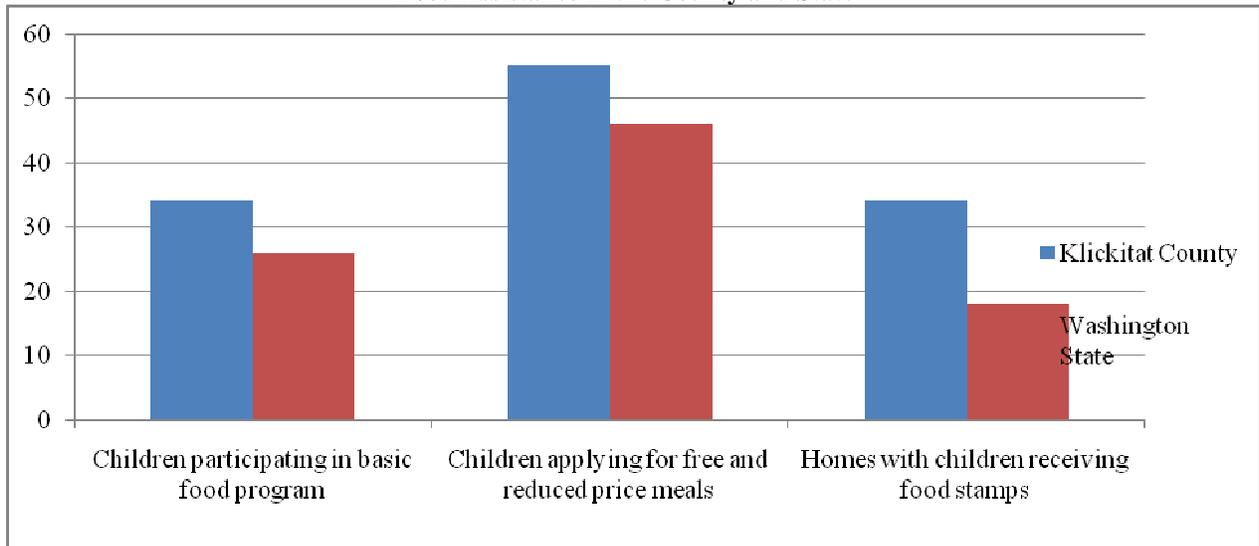
¹² 2010 US Census.

¹³ OFM *ibid*.

¹⁴ Kids Count *ibid*.



Figure 3
Food Assistance in the County and State



Source: Kids Count

Access to healthy foods is also a challenge with only 42% of County residents residing in a zip code with at least one health food outlet such as a grocery store or farmer’s market in comparison to 69% of State residents¹⁵.

Health Status and Risk Factor Behaviors

There are several broad indicators to assess general health status: an individual’s self-reported health status (including the reported number of poor mental or physical health days), an individual’s percent disability, and Quality-Adjusted Life Years (QALY). On the whole, Klickitat residents’ health status was similar to that of State residents. On average, they reported 3.6 poor physical health days and 3.3 poor mental health days, with poor health days making up fewer than 13% of all days in a month. The percent of residents who considered their health to be poor or fair was comparable, as indicated in Table 16.

Table 16
General Health Status

	Average Number of Poor Mental Health Days	Average Number of Poor Physical Health Days	Percent in Poor or Fair Health
County	3.3	3.6	14%
State	3.3	3.6	13%

Source: County Health Rankings, 2012

¹⁵ County Health Rankings *ibid.*



Chronic health conditions can severely impact an individual’s quality of life and increase the risk for other diseases. Obesity is a growing concern, as it raises the risk for diabetes, asthma, heart disease, and some cancers. The obesity rate in Klickitat County is the same as in the State, as indicated in Table 17. Diabetes is slightly more prevalent. Though these rates are similar to State rates, the Nation as a whole is already seeing an increase in health care costs due to the increases in these conditions. The most striking difference is in the prevalence of Asthma. Washington has had among the highest rates of asthma in the country for many years; Klickitat County has one of the higher rates in the state.¹⁶

Table 17
Chronic health conditions

Population	Obese	Diabetes	Asthma*
County	27%	9%	12.3
State	27%	8%	9.1

Source County Health Rankings, 2012 except for *The burden of Asthma in Washington State 2008, Sept 2008

Though genetics and health care consumption affect an individual’s health, in the developed world, approximately 50% of an individual’s health is determined by their lifestyle; the rapid rise in obesity rates over the past thirty years is an excellent example. Chief among the lifestyle causes of disease is the sedentary western lifestyle. Recent findings from the CDC indicated that of all money spent on health care, 75% was spent on chronic diseases. A substantial proportion of these diseases are preventable, and half of all Americans now have at least one chronic disease. The Bipartisan Policy Center has recommended that non-clinical health services, which account for only 3% of all health spending, be included in health resources to prevent the development of chronic disease such as Obesity and Diabetes.¹⁷ Smoking is another important factor in health: it raises the risk of stroke, heart disease, and various cancers. Public health campaigns have reduced the rate of smoking over the years. In Klickitat County, 17% of residents are smokers, a rate that is comparable to the state rate, as indicated in Table 18 below. Excess weight is dependent on eating habits as well as physical activity. Though obesity rates are comparable, Klickitat residents are more likely to be physically inactive than State residents, further increasing the risk of heart disease.

Table 18
Behavioral Risk factors

Population	Smokers	Physically Inactive	Engaging in Excessive Drinking
County	17%	23%	16%
State	17%	19%	17%

Source: County Health Rankings, 2012

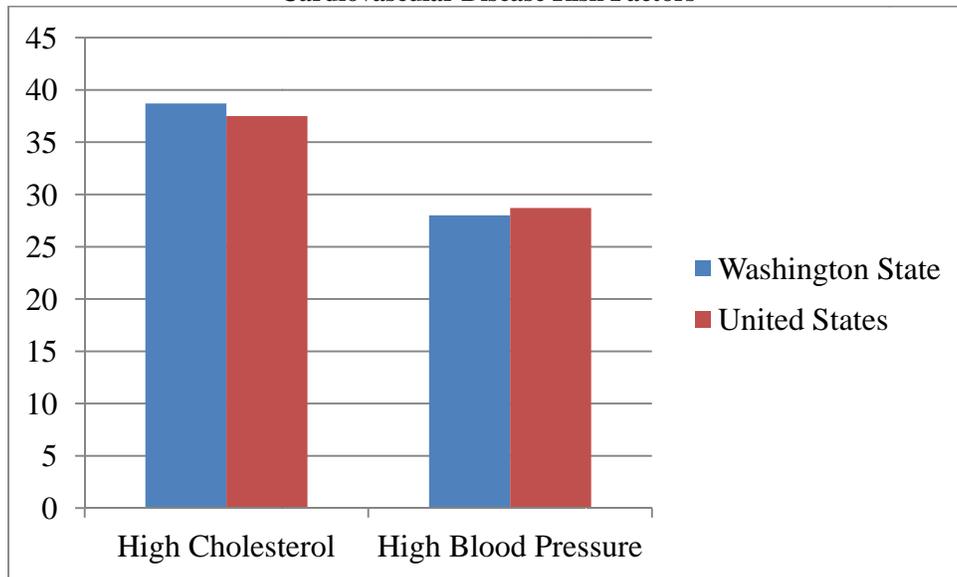
¹⁶ The burden of Asthma in Washington State 2008.

¹⁷ Lots to Lose: How America’s Health and Obesity Crisis Threatens our Economic Future: June 2012, the Bipartisan Policy Center.



Heart Disease is very much a disease of the modern lifestyle. In addition to the risk factors mentioned previously, metabolic risk factors include high cholesterol and high blood pressure. These data are unavailable at the county level, and so State data were used. Washington State rates were similar to the National rates: over a third of Americans have high cholesterol and more than a quarter have High blood pressure.¹⁸ Even though these rates are similar to the National rates, as indicated in Figure 4, this indicates that these diseases are very important and could represent a significant burden on the health system, leading to increases in heart disease, stroke, blindness, End Stage Renal Disease (ESRD), and dementia.

Figure 4
Cardiovascular Disease Risk Factors



Source: BRFSS 2010

Child Health

Health status during adulthood is partly a result of health during childhood – most overweight children grow up to be overweight adults. In Klickitat County, 31.4% of tenth graders are overweight in comparison to the State rate of 24%, as noted in Table 19. In Klickitat County, fully 40% of children are living in single parent families, a rate that is one third higher than the State rate. Teen parents are more likely to raise children in a single-parent family, but the teen pregnancy rate in Klickitat County is lower than the State rate. A child’s health can be significantly affected by the conditions *in utero* – children born to women who smoked while pregnant are at risk for low birth weight among other problems. The rate of births to mothers who smoked is more than twice as high in Klickitat County as the State rate. The percent of babies born with low birth weight is slightly higher than the State rate; low birth weight is the primary risk factor for infant mortality, though Klickitat County’s population is too small to derive meaningful rates of infant mortality.

¹⁸ BRFSS 2010 CDC.



Table 19
Child Health Indicators

Indicator	County	State
Child poverty rate	29%	18.2%
Children living in single parent families	40%	29%
Children participating in the basic food program*	34%	26%
Children applying for free and reduced price meals*	55%	46%
Homes with children receiving food stamps*	34%	18%
Tenth graders who are overweight	31.4%	24%
Children in foster care* per 1,000	13.0	6.0
Two year old immunization rates*	–	73.7%
Births to mothers who smoked*	21%	10%
Mothers with late prenatal care*	–	7%
Low Birth weight babies	6.8%	6.3%
Teen pregnancy, per 1,000	38	44

*County health rankings except for *, Kids Count*

Environmental Health

Environmental conditions can significantly affect an individual’s health. Ozone pollution is primarily an urban pollutant resulting from motor vehicle exhaust. Klickitat did not have any ozone days, Washington State had 3. Particulate matter pollution results from farming and smelting – Klickitat County had a single particulate matter day in comparison to six for the State.¹⁹ The Superfund program was created in order to deal with sites that will need long-term efforts to clean up. While there are multiple Superfund sites in Washington State, none are located in Klickitat County.

Oral Health

Childhood oral health problems often go unnoticed until they cause serious pain, at which time surgery is frequently necessary to successfully treat the conditions. Over the past five years, there has been a nationwide increase in the number of pre-school aged children with multiple cavities, a phenomenon that is occurring in all income levels. The Centers for Disease Control and Prevention (CDC) reported that the mean filled dental surfaces in children 2-5 years of age living below the poverty line has increased from one to nearly three. While increases in this indicator were found in this age group across all incomes, this was particularly prominent in children living below the poverty line.²⁰ In Washington State, 59% of second and third graders were found to have tooth decay; 70% of this age group in Klickitat County was found to have decay.²¹ These findings suggest that Oral Health should be a priority in Klickitat County, especially given the high percentage below-average income households.

¹⁹ County Health Rankings.

²⁰ Trends in Oral Health Status: United States, 1988-1994 and 1999-2004: CDC April 2007.

²¹ Washington County Oral Health Profiles, Washington State Department of Health.



Mental Health

Individuals with a mental health condition are more likely to have physical health problems, though whether the mental health condition is a cause or effect is not known. Individuals with poor mental health are more likely to smoke, drink heavily, or be obese. The 2006 BRFSS revealed that 9% of Washington State and Klickitat County residents had at least 14 poor mental health days (days in which an individual experiences significant emotional problems or stress) in the previous 30 days. In Washington State, women between 18 and 64 were most likely to report poor mental health; while respondents 65 or older were less likely to report poor mental health. The 2006 Healthy Youth survey noted that between 25-30% of 8th, 10th and 12th graders had symptoms of depression in the previous year, and overall, about 20% of children met the diagnostic criteria for a mental illness. Barriers to achieving mental health include the stigma associated with mental illness and the shortage of mental health providers.²²

Primary Data

At the request of the Committee, and in an effort to collect both updated information and information separately for the Eastern and Western portions of the County, HFPD surveyed County residents in order to obtain data on health status, use of health services, compliance with preventive care, health concerns, and perceived community health needs.

Several key findings emerged from the surveys, including:

- Most residents were satisfied with their health care, though there were concerns expressed about the affordability of health care and access to services, particularly specialty care.
- Respondents also cited lack of access to pharmacy care as a concern. Specifically, West residents noted the absence of a 24 hour pharmacy in White Salmon and East residents repeatedly identified Goldendale's lack of a pharmacy that accepts Medicaid.
- The lack of substance abuse treatment in the County was also identified as a concern, particularly by health care workers.
- Programming and support for the elderly is also a concern.

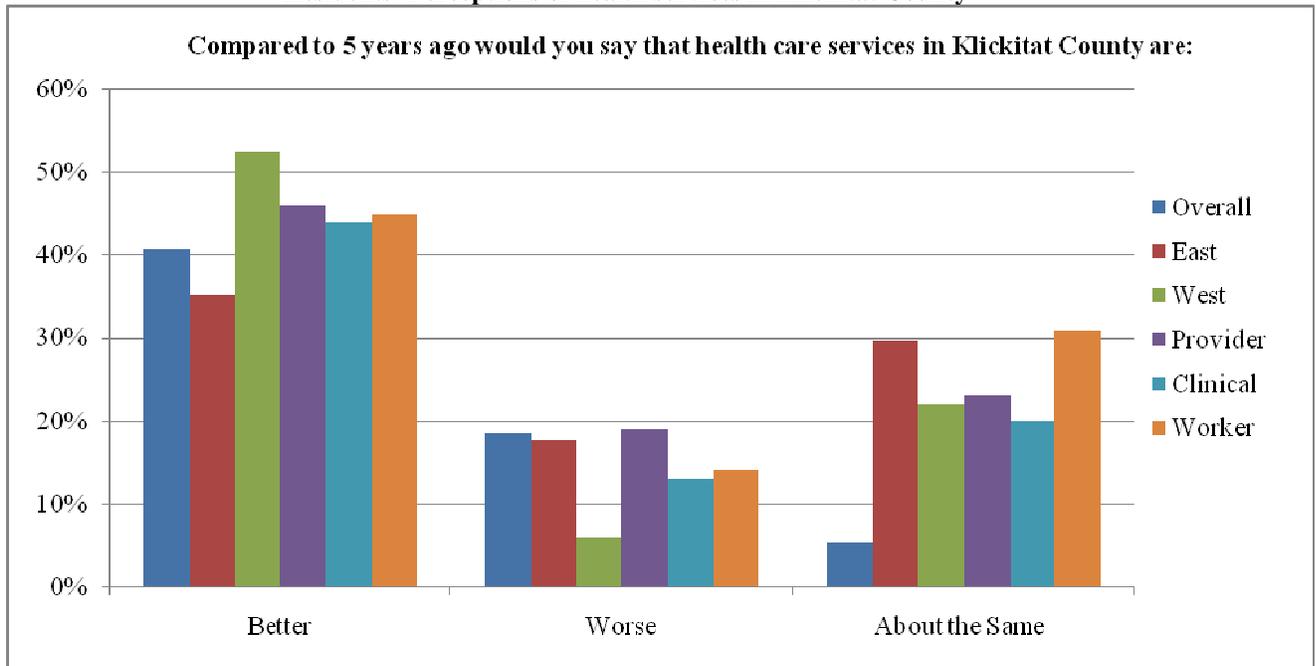
Additional drill down on these concerns is included below:

The majority of both East and West County residents surveyed by phone had experienced a non-urgent primary care visit in the last 12 months, and 84% reported having a primary care provider. Most surveyed residents indicated that they would have to wait less than one week to see their primary care practitioner for a non-urgent visit and 83% of respondents indicated that this wait time was acceptable. The wait for immediate care was reported by most respondents to be less than 24 hours, with wait times longer for East County residents. Most respondents also rated the health care services as better or about the same as five years ago, with fewer than 10% percent of West and 16% of East residents saying that these services had gotten worse (Figure 5).

²² The Health of Washington State, 2007.



Figure 5
Residents' Perceptions of health services in Klickitat County

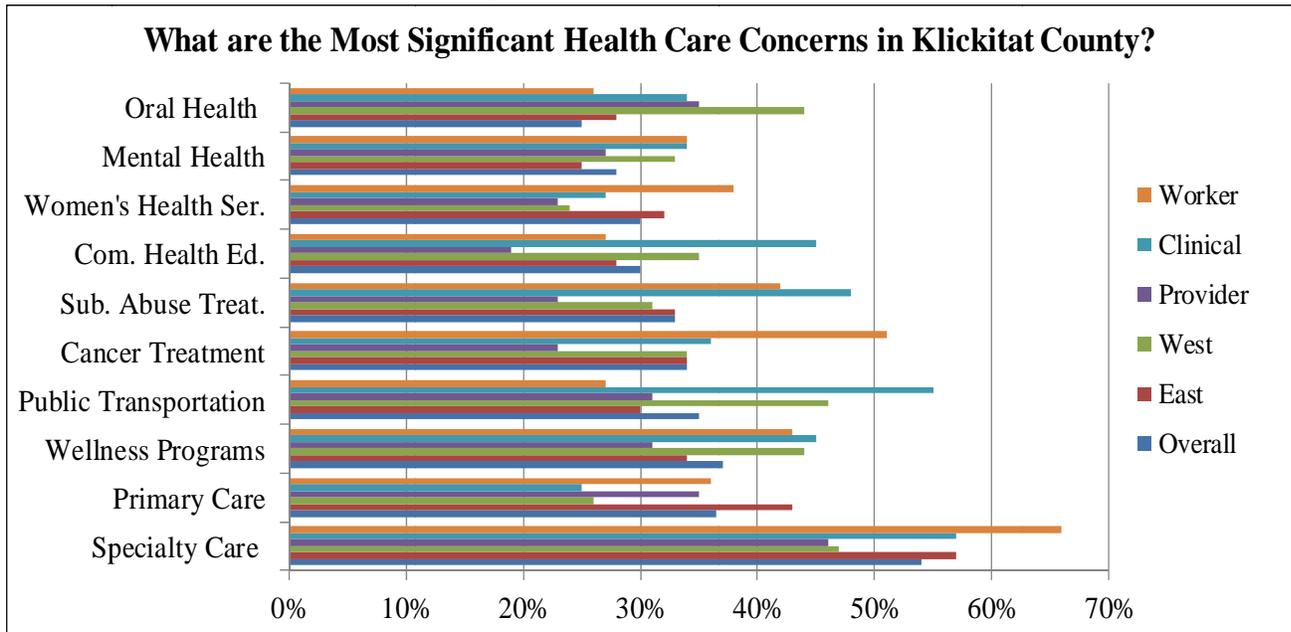


Key: East: East County residents; West: West County residents; Provider: MD, DO, PA, ARNP, Pharmacist, etc.; Clinical: RN, LPN, technician etc.; worker: non-healthcare County employee.

The most frequently mentioned health care concern for both East and West County residents was access to specialty care. (Residents' health care concerns are graphed in Figure 6.) West County residents (47%) also saw the lack of public transportation as an impediment to utilization of health care services. Nearly half of all clinical workers viewed substance abuse treatment as a top concern for the community; they also identified wellness programs and community health education as health priorities. Mental health services were another priority identified by clinical workers. This correlates well with the low density of mental health providers identified in the secondary data. Another access concern was the lack of pharmacy services; White Salmon does not have a 24 hour pharmacy and Goldendale lacks a pharmacy that accepts Medicaid, forcing patients to either pay out of pocket, or drive long distances to find a pharmacy that accepts Medicaid.



Figure 6
Residents' Perceptions of County Health Care Concerns



Key: East: East County residents; West: West County residents; Provider: MD, DO, PA, ARNP, Pharmacist etc.; Clinical: RN, LPN, technician etc.; worker: non-healthcare County employee.

Preventive and screening health practices play a role in health status by affecting risk factors to reduce the chance of developing disease and by identifying disease early when the disease is less severe or by reducing the likelihood an individual will develop the disease. Examples of screening tests include mammograms and blood sugar readings to detect insulin resistance. Residents' uses of screening and vaccination practices were surveyed (see Table 20). Most residents had had a dental exam in the past 12 months, though 65% is far below the State goals, and indicates that oral health may be an area in need of improvement.

Table 20
Compliance with Recommended Screening Practices

Recommended Practice	Residents Reporting Compliance
Dental Exam in the last 12 months	65%
Mammogram in the last in 2 — 3 last years	85%
Breast self-exam once or more per month	40%
Pap smear every 2 – 3 years	66%
Ever have a prostate exam or PSA (males over 45)	45%

Source: Klickitat County Surveys

Most women had received a mammogram in the past 3 years, but only 40% performed a breast self-exam monthly. Other preventive behaviors include getting screened for conditions that raise the risk for disease and taking steps to reduce these risk factors. High blood pressure and blood cholesterol are well-recognized risk factors for cardiovascular disease. Residents were asked whether they or anyone in their family had been diagnosed with either of these conditions. More than half – 55% – indicated that they or someone in their household had been diagnosed with high cholesterol, and 46% reported someone in the household had high blood pressure. This finding indicates that half of households are affected by one or more cardiovascular risk factor.

Most women had received a mammogram in the past 3 years, but only 40% performed a breast self-exam monthly. Other preventive behaviors



Despite the high rates of cardiovascular risk factors, residents viewed their health positively. Overall, 87% of residents rated their health as excellent, very good, or good. Nearly a third reported an impairment that limited their activities, the most common conditions being back or neck pain, walking problems, arthritis/rheumatism, or a fracture/bone/joint injury.

Respondents were also asked their height and weight, so that BMI could be calculated. Compared to the secondary data, the rate of obesity obtained from this survey was very similar, suggesting that the survey’s results are similar to data obtained through the BRFSS, as demonstrated in Table 21. In addition, to the 28% of the population that was obese, another 34% were overweight, and therefore at increased risk of developing diseases such as cardiovascular disease and diabetes.

Table 21
BMI

	Klickitat Co.	State
Not overweight or Obese	38%	37%
Over weight 25 – 29.9	34%	36%
Obese 30+	28%	27%

Source: Washington Department of Health

Vaccination remains an important tool for ensuring wellness in the individual and community. In 2011, the Washington Department of Health reported that 84% of children under the age of five were fully vaccinated, though rates of receipt of individual vaccines varied.²³ Survey results indicate that a similar percentage of community children are fully vaccinated (Table 22).

Table 22
Vaccination of Children Younger than 5

Are your children younger than 5 years of age up-to-date with their shots	
Yes – 84%	No – 16%
Where did your child(ren) receive their last immunizations?	
Personal Doctor 77%	

Source: Klickitat County Surveys

Most respondents (78%) agreed that ambulance services were critically important and most would support a levy to pay for the EMS services, indicating that residents view this service as integral to healthcare in the County. Forty percent of respondents (40% of East County and 46% of West County residents) indicated that they had used the emergency room in the past 12 months, stressing the importance of these facilities in Klickitat County. In the community meetings, concern was expressed about the ability to sustain EMS services given the current level of subsidy required.

²³ Immunization rates for toddlers improve for some vaccines, Washington Department of Health News Release, September 1, 2011.



VI. Priorities

Klickitat County has formed a Healthy People Alliance of Klickitat County. The Health People Alliance's mission statement is:

The mission of Healthy People Alliance of Klickitat County is to build a healthy, active and vibrant community by working collaboratively to share knowledge, advance policies and implement effective campaigns.

As part of this program, the county created a strategic plan with three priorities:

- Ensuring access to healthy foods.
- Ensuring access to physical activity.
- Limiting access to tobacco products.

After reviewing primary and secondary data and holding three community meetings to discuss the findings of the secondary and primary data, the CHNA Task Force determined that the County's focus should continue in these areas and be expanded to include educating the community on health practices and healthy lifestyles. The ultimate goal is to reduce death and hospitalization rates associated with obesity (cardiovascular, diabetes), etc. Specific priorities include:

- Providing access and education to assist the community to make healthy choices- with particular focus on healthy eating and tobacco cessation.
- Educating residents on lifestyle choices that affect obesity.
- Refocusing primary and specialty care to include emphasis on medical homes and care management of those with chronic conditions and increase access to appropriate specialty services.
- Advocacy to ensure that the newly selected Medicaid managed care contractors for Washington develop a robust provider network in Klickitat County so that residents have access.
- Eliminating disparities in pharmacy and oral health and improve access to these services.
- Increasing access to disease screening services.
- Maintaining EMS service.
- Improving overall access and affordability.

Though not part of the CHNA, several organizations involved in this CHNA identified the priorities that they are best able to address. These priorities are not formal Implementation Plans, which will be developed at a later time. A summary from these organizations is listed below.

KVH:

- Configure clinic services to meet community need:
 - Primary Care
 - Specialty Care
 - Chronic disease management
 - Implement Medical Home



- Evaluate clinic expansions
- Improve access to Oral Health services.
- Increase access through active participation in Medicaid Managed Care.

Skyline Hospital:

- Maintain OB and EMS services.
- Develop programs to educate the community on how make better use of the system.
- Expand specialty clinics.
 - Orthopedics and joint replacement.

Health Department:

- Educate the community on healthy eating and reducing food insecurity.
- Tobacco cessation awareness.
- Instruct community on methods to prevent chronic disease.

Providence Health:

- Develop case management for chronic care patients.
- Behavioral Health.

Transportation:

- Educate patients and caregivers by telehealth in order to prevent complications.
- Focus on the more rural areas of Klickitat County.



VII. Appendices

Zip Codes used to define East and West Klickitat County

West	East
Appleton – 98602	Centerville – 98613
Bingen – 98605	Goldendale – 98620
Dallesport – 98617	Klickitat – 98628
Glenwood – 98619	Bickleton – 99322
Husum – 98623	Roosevelt – 99356
Lyle – 98635	Wahkiacus – 98670
Trout Lake – 98650	Wishram – 98673
White Salmon – 98672	



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