

Community Health Assessment of Yamhill County

2017

Yamhill County Public Health





[This page intentionally left with only this text on it]

Executive Summary

A Community Health Assessment (CHA) identifies health status indicators in order to provide a snapshot of a community's health and describe areas for potential future health improvement while building upon community knowledge and efforts. This is accomplished through the collection and analysis of health data, and requires input from community stakeholders. Yamhill County Public Health worked with community partners to identify, collect, analyze, and share information about the community's health assets, strengths, resources, and needs.

The Mobilizing for Action through Planning and Partnerships (MAPP) strategic planning tool was used to help community members prioritize public health concerns and identify assets to address them. The results create an accurate picture of "health" in Yamhill County. Every community member brought a unique perspective as to what specific health data would be included in the CHA and helped identify available assets and barriers.

There are six phases to the MAPP process:

- Organizing for success and developing partnerships
- Visioning
- Conducting the assessment
- Identifying strategic issues
- Formulating goals and strategies
- Taking action (planning, implementation, evaluation)

This report focuses on the assessment portion of the process, particularly the Community Health Status Assessment, the Forces of Change Assessment, and the Community Themes and Strengths Assessment.

Information gathered from the CHA will be used to inform and develop strategies and a Community Health Improvement Plan (CHIP) to address identified needs, with the overall goal of improving the community's health. This will be accomplished by answering the following questions:

- What are the health needs of our community?
- Where are the opportunities to intervene?
- What are the "root causes" of the strategic issues?
- What roles are there for the local health department, partner organizations and community groups?

Silas Halloran-Steiner, Director
Yamhill County Health and Human Services Department

Acknowledgments

On behalf of the Community Health Assessment Planning Group, thanks to all of the people who completed the community health survey and shared their views about health care, public transportation, employment, safety, public services, and more in Yamhill County.

Thank you also to the representatives of community based organizations, city government, county government, state government, the tribal community, private business, law enforcement, emergency medical services, and health and human service providers who completed a key informant interview/survey in Yamhill County.

Community Health Assessment Planning Group Members

Jill Dale, MA, CPS, Yamhill County Public Health

Amy Eagon, MPH, Yamhill County Public Health

Samantha Kinney, MPH, Yamhill County Public Health

Elizabeth Sampedro, MPH, Yamhill County Public Health

Rebecca Knight, MPH, Yamhill County Public Health

Staff Support- Public Health interns

Joana Diaz, Western Oregon University

Paul Myatt, MPH, Kent State University

Charlotte Smith, Linfield College

Dominique Rodgers, Western Oregon University

Regional Health Assessment Team

Peter Banwarth, MS

Tyra Jansson, MPH

Introduction

This document presents the findings from a collaborative process carried out to assess the health and well-being of Yamhill County residents. It begins with a summary of the assessment process and presents the data collected in the following reports.

The purpose of the community health assessment process is to display a broad range of outcomes and indicators to inform readers about the health of residents and the factors that influence residents' health. The Community Health Assessment (CHA) is a resource for the community and partner organizations. It will inform organizational decision making, the prioritization of health problems, and the development, implementation, and evaluation of plans, policies, and interventions to improve community health.

Community Health Assessment

The Community Health Assessment (CHA) for Yamhill County is a compilation of quantitative and qualitative data from multiple sources, woven together to provide a comprehensive picture of the health of county residents. Many community members and Local Public Health System (LPHS) partners shared their wisdom, knowledge and perceptions about the health of residents and the capacity of the county's public health system to provide essential public health services. The Local Public Health System is defined broadly in this context to include all of the organizations and entities that contribute to public health in a community, including the county public health department as well as public, private and volunteer organizations; all contributed to this assessment.

The CHA is presented in four sections, which include:

- **Community Health Status Assessment**, a compilation of information and statistics gathered from local, state, and national databases.
- **Map appendix**, a series of maps which display demographics, social determinants of health, and chronic disease and health risk factors by census-defined geographies
- **Community survey results**, the results from a community survey asking residents about their community's health and the factors that influence it
- **Key informant interviews**, a document that displays results from interviews with key stakeholders and leaders in the community to identify views on health and well-being.

The CHA findings presented here will be used to inform the prioritization of health issues and the development of a Community Health Improvement Plan (CHIP). A CHIP is an action-oriented plan for addressing the most significant issues identified by community partners.

The goal of the CHA and CHIP is to align and leverage resources, initiatives and programs to improve local health. The ultimate goal is to ensure coordinated, measurable health improvement throughout the county, with all agencies and organizations working together toward collective impact.

Public Health Accreditation

In addition to the goal of aligning and leveraging resources, initiatives, and programs to improve health, the CHA and CHIP help to fulfill requirements of a public health department accredited by the national Public Health Accreditation Board. National accreditation standards define expectations whereby public health departments across the United States can continuously improve the quality of their services and promote accountability and credibility to the public, funders, elected officials and other community partners. Yamhill County Public Health is a nationally accredited public health department, and this CHA demonstrates part of its efforts to continue to effectively address the health needs of their community.

Mobilizing for Action through Planning and Partnerships (MAPP)

Yamhill County's CHA Planning Group adopted the Mobilizing for Action through Planning and Partnerships (MAPP) process as its planning framework to guide the CHA process. The MAPP tool, which was developed by the National Association of County and City Health Officials (NACCHO), was chosen to capture an in-depth picture of community health status through quantitative and qualitative data collection methods. The MAPP framework includes four assessments (the Community Themes and Strengths Assessment, the Local Public Health System Assessment, the Community Health Status Assessment, and he Forces of Change Assessment) which Yamhill County Public Health used to inform its data collection process.

Health Equity and Social Determinants of Health

The CHA project looks at the community's health through a wide lens. When people think of health, they may think of it only in relation to disease or illness; but health is part of every aspect of our daily lives. The World Health Organization defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." [1] This definition indicates that improving health necessitates moving beyond addressing just illness to consider a range of factors that influence health.

Social determinants of health are "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems." [2] These economic, social, cultural and environmental factors affect a wide range of health risk and outcomes and impact the health status of individuals and groups.

In Yamhill County, as in most communities, some of the most serious health concerns relate to the differences in health status among different population groups and geographic areas—called health disparities. These disparities generally stem from root causes and inequities such as poverty and inadequate housing that can also lead to poor school performance and other concerns. Such root causes are difficult to address on an individual or organizational level. Health inequities are best faced by moving "upstream" from a focus on individual responsibility to a focus on systems-level change to create the conditions that enable all residents to make healthy choices and have better health outcomes.[3] Some of the key determinants appear in the table to the right.

KEY DETERMINANTS	SUCH AS…
Social and economic opportunities and resources	• Economic development • Job opportunities • Educational attainment • Reducing poverty • Child and youth development • Civic and community engagement
Living and working conditions in homes and communities	• Built environment • Natural environment • Healthy schools • Healthy worksites • Healthy homes and neighborhoods • Health systems: food, transportation, housing
Medical and social services; Personal behavior	• Access to prevention-focused medical and social services • Health literacy • Healthy lifestyles

[This page intentionally left with just this text on it]

Yamhill County Public Health

Community Health Assessment

2017

Part One:

Community Health Status Assessment

[This page intentionally left with only this text on it]

Contents

Who We Are 3
Population Overview 3
Population by Age and Sex 3
Growing Diversity 4
Individuals with Disabilities 5
Education 5
Unemployment 7
Income and Poverty 7
Housing Affordability 10
Homelessness 11
Children in Single-Parent Households 12
Children in Poverty 13
Our Environment 14
Air Pollution 14
Secondhand Smoke Exposure 15
Foodborne Illness 16
Severe Housing Problems 16
Transportation 17
Food Environment 19
Recreation 19
Physical Health 21
Birth weight 21
Teen Birth Rate 22
Childhood Obesity 22
Adult Obesity 23
Sexually Transmitted Infections (STIs) 24
Premature Death 25
Leading Causes of Death in Yamhill County 26
Motor Vehicle Crash Deaths 27

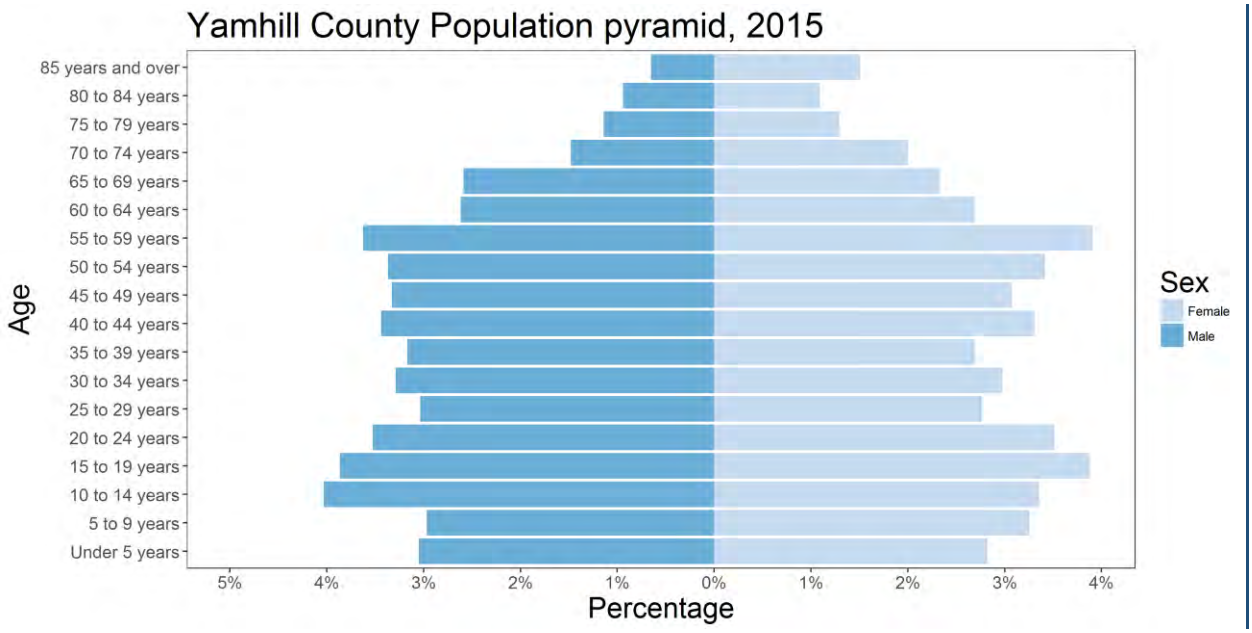
Quality of Life 28
Mental and Behavioral Health 30
Poor Mental Health Days 30
Violent Crime 31
Alcohol and Tobacco Use 32
Marijuana and Hashish Use 35
Prescription Drugs, Opioids, and Illicit Drugs 36
Social Support 40
Resources to Support Health 41
Health Insurance Coverage 42
Preventable Hospitalizations 46
Immunizations 46
Oral Health 47
Preventive Screenings 49
References 50

Chapter 1
Who We Are

Population Overview

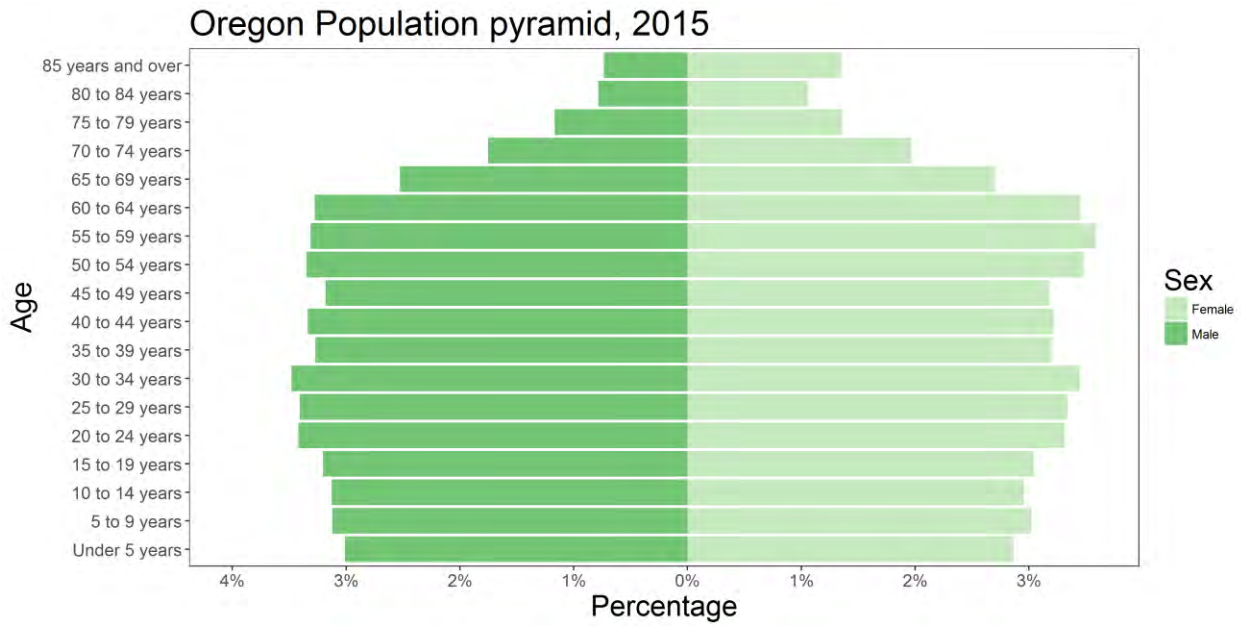
Yamhill County is home to approximately 103,000 people. 35,000 people live in the city of McMinnville, the county seat and biggest city in Yamhill County. Approximately 23 percent of Yamhill County residents live in rural areas. [4] Rural geography often isolates families through their limited daily interactions with other residents. Isolation is increased by limited public transportation options as well as the variable cost of gasoline.

Population by Age and Sex



Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2011-2015

The age distribution of the population of Yamhill County can be seen above in the form of a population pyramid. There is a slight narrowing in the pyramid through the 20-39 year old age bands, opposite of the trend demonstrated in the Oregon population pyramid seen on the next page.



Source: U.S. Census Bureau, American Community Survey (ACS) 5-year estimates, 2011-2015

Growing Diversity

Racial and ethnic diversity is increasing in Yamhill County, especially among youth. Comparing self-identified race and ethnicities between K-12 students and the general population shows that young Yamhill County residents are more likely to identify as Hispanic or Latino than the general population. One quarter of K-12 students identify as Hispanic or Latino, compared to 15 percent of the general population.

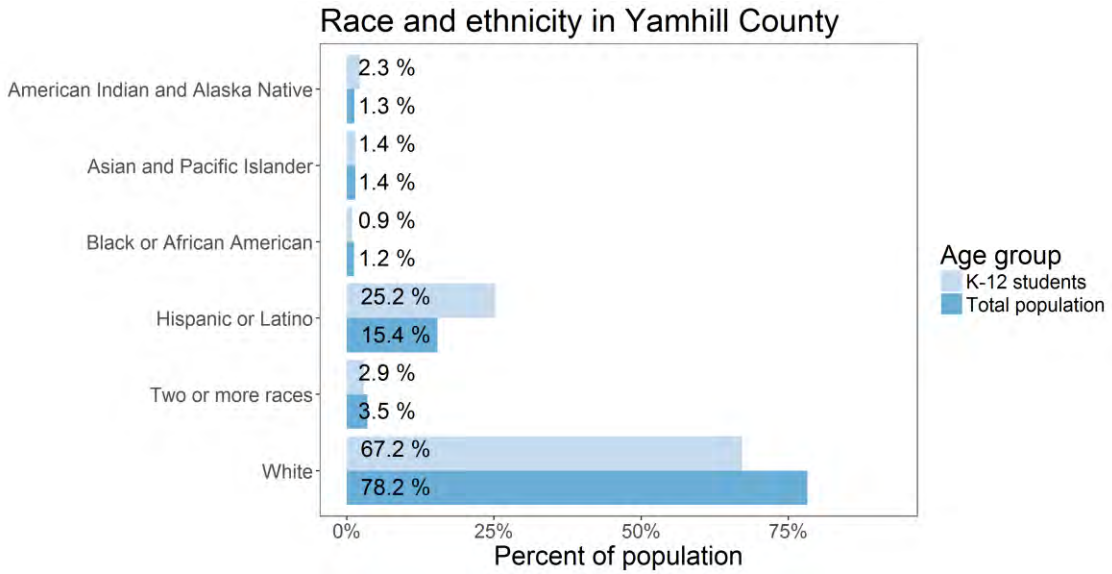


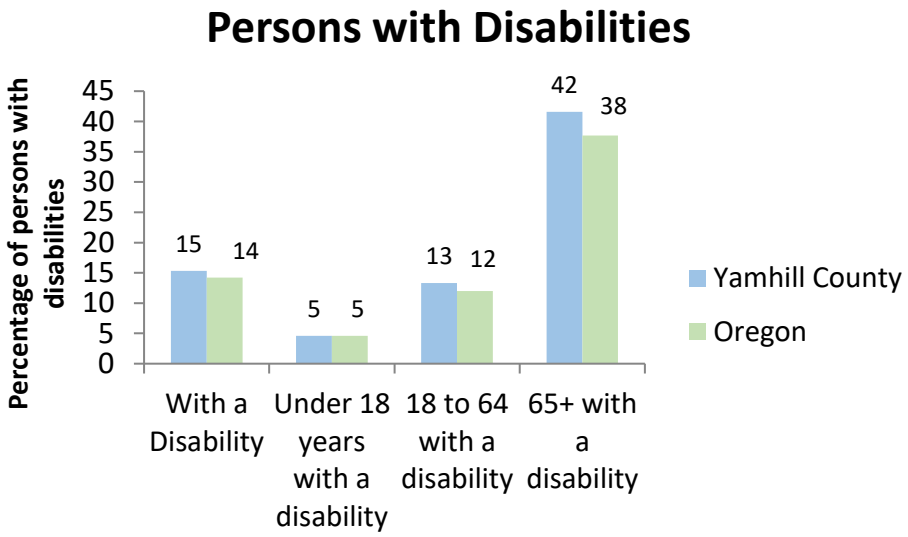
Figure notes: Race and ethnicity categories from ACS data have been adjusted to correspond to ODE race and ethnicity categories. The population of Yamhill County, as recorded in this ACS data, is approximately 100,000. The population of Yamhill County K-12 students is approximately 16,700.

Sources: Oregon Department of Education, Student Ethnicity statistics, academic year 2016-2017
U.S. Census Bureau, American Community Survey 5-year estimates, 2011-2015

Individuals with Disabilities

A disability may include physical, intellectual, or sensory impairment, medical conditions, or mental illness. Such impairments, conditions, or illnesses may be permanent or transitory in nature.

People with disabilities need health care and health programs for the same reasons anyone else does—to stay well, active, and to reach their full potential. A clear relationship exists between disability status and poverty. Individuals living with a disability often do not enjoy the same opportunities as those without a disability and may lack access to essential services.



Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2010-2014

Education

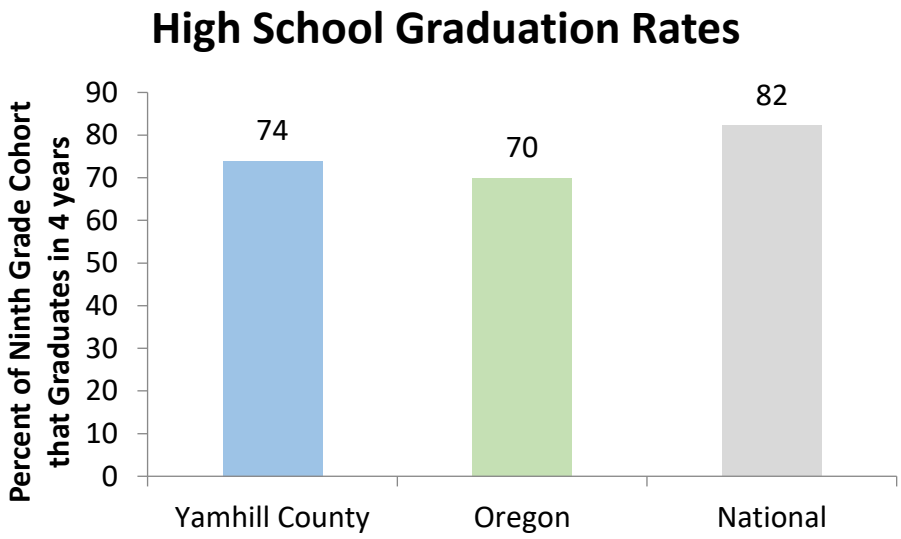
High school graduation, sometimes referred to as the average freshman graduation rate, is reported as the percent of a county's ninth-grade class in public schools that graduates from high school in four years.

Some college represents the percent of the population ages 25-44 with some post-secondary education, such as enrollment at vocation/technical schools, junior colleges, or four-year colleges. It includes individuals who pursued education following high school but did not receive a degree.

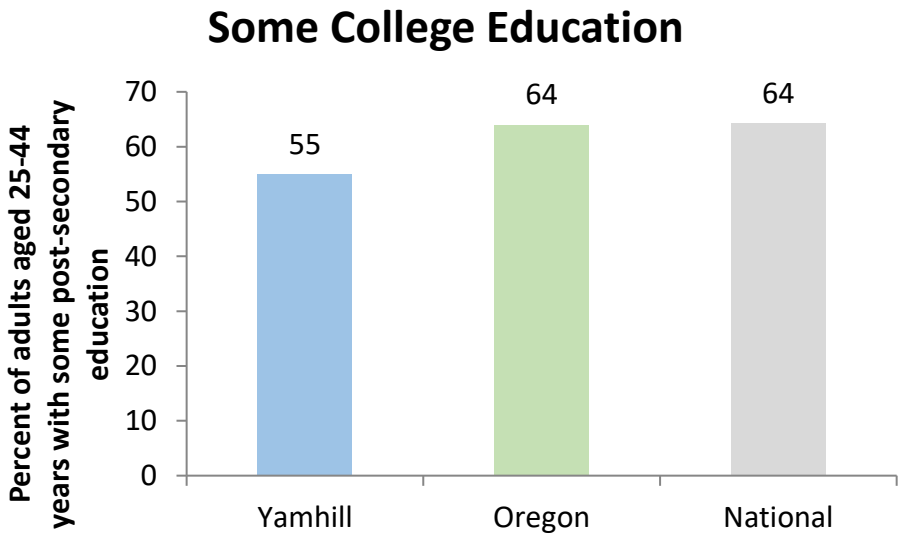
Higher education is associated with improved health outcomes, with more years of formal education correlating strongly with:

- Improved work and economic opportunities,
- Reduced psychosocial stress, and
- Healthier lifestyles

Individuals who do not finish high school are more likely than people who have completed high school to lack the basic skills required to function in an increasingly complicated job market and society. Adults with limited education levels are more likely to be unemployed, on government assistance, or involved in crime. For many, having a bachelor's degree is the key to a better life. The college experience develops cognitive skills and allows learning about a wide range of subjects, people, cultures, and communities. Having a degree also opens up career opportunities in a variety of fields, and is often the prerequisite to a higher-paying job. College graduates earn an estimated $1 million more per lifetime than their non-graduate peers.



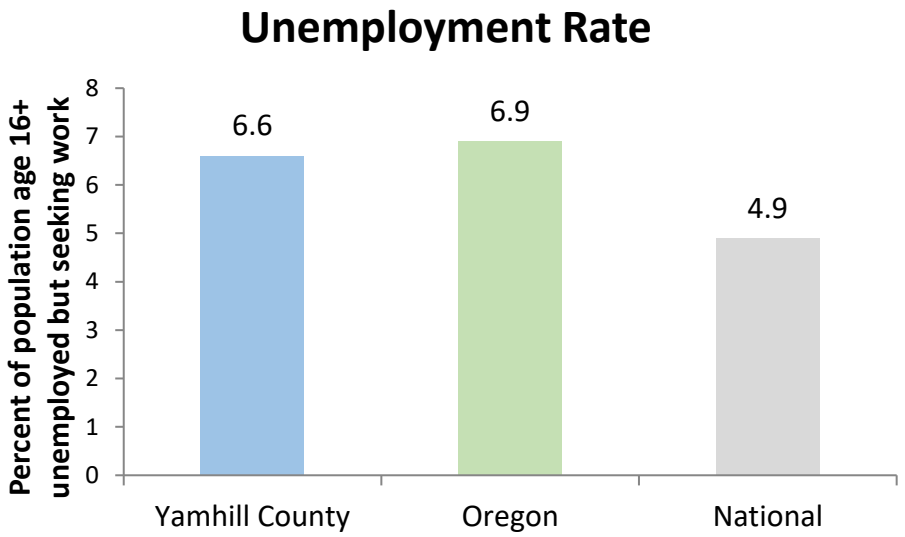
Source: U.S. Department of Education, 2015



Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2010-2014

Unemployment

Unemployment is the percent of the civilian labor force, age 16 and older, that is unemployed but seeking work. Unemployment may lead to physical health responses ranging from self-reported physical illness to death, especially by suicide. It may also lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors which in turn can lead to increased risk for disease or mortality. Because employee-sponsored health insurance is the most common source of health insurance coverage, unemployment can also limit access to health care.

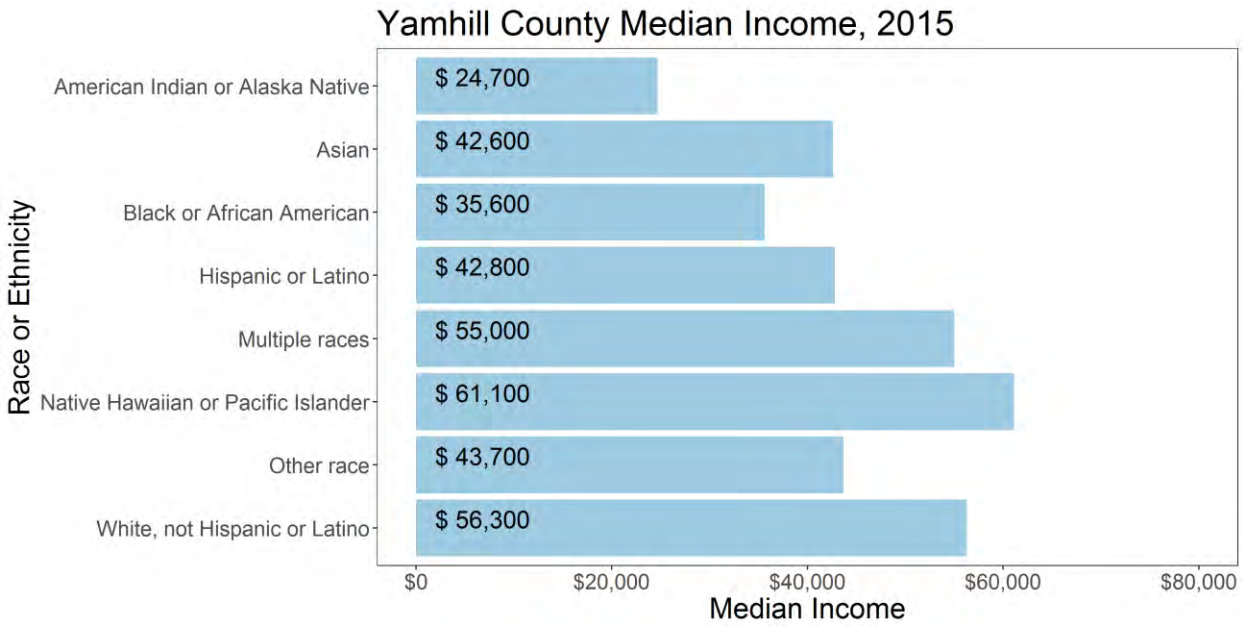


Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2010-2014

Income and Poverty

Income is the strongest predictor of health among all social determinants of health. Not only are there many studies showing a strong association between income and health,[5] but income also affects all other social determinants of health, including education, food security, and housing. The National Longitudinal Mortality Survey found that people in the top five percent of incomes had life expectancies 25 percent longer than people in the bottom five percent of incomes.[6] While income is not a "one size fits all" measure of health, understanding the income of the region provides a solid foundation for measuring social determinants of health in Yamhill County.

The median income of a population is one measure of the overall income in that population; 50% of the population earns more than the median income, and 50% of the population earns less. The median (inflation-adjusted) household income in Yamhill County is slightly higher than in Oregon. A household is any physical location where people live that has its own mailing address. A household may be one person living alone, a family, or a small group of unrelated residents. The income of every occupant contributes to the total household income. Yamhill County's median household income is $53,400, compared to $51,200 in Oregon.[7]



Source: U.S. Census Bureau. American Community Survey 5-year estimates, 2011-2015.
Small numbers of people who identify Black or African American or as American Indian or Alaska Native require that these data be interpreted with caution.

Families with children on average have higher incomes than households, because many families have two income earners. In Yamhill County, the median family income of married couples with children is $72,000, close to the Oregon median of $74,000. Single men with children earn on average $33,000 per year, and single women with children earn on average $29,000. This income gap is consistent across the state, and the gap in Yamhill County ($4,000) is actually a little smaller than the gap statewide ($6,000).[8]

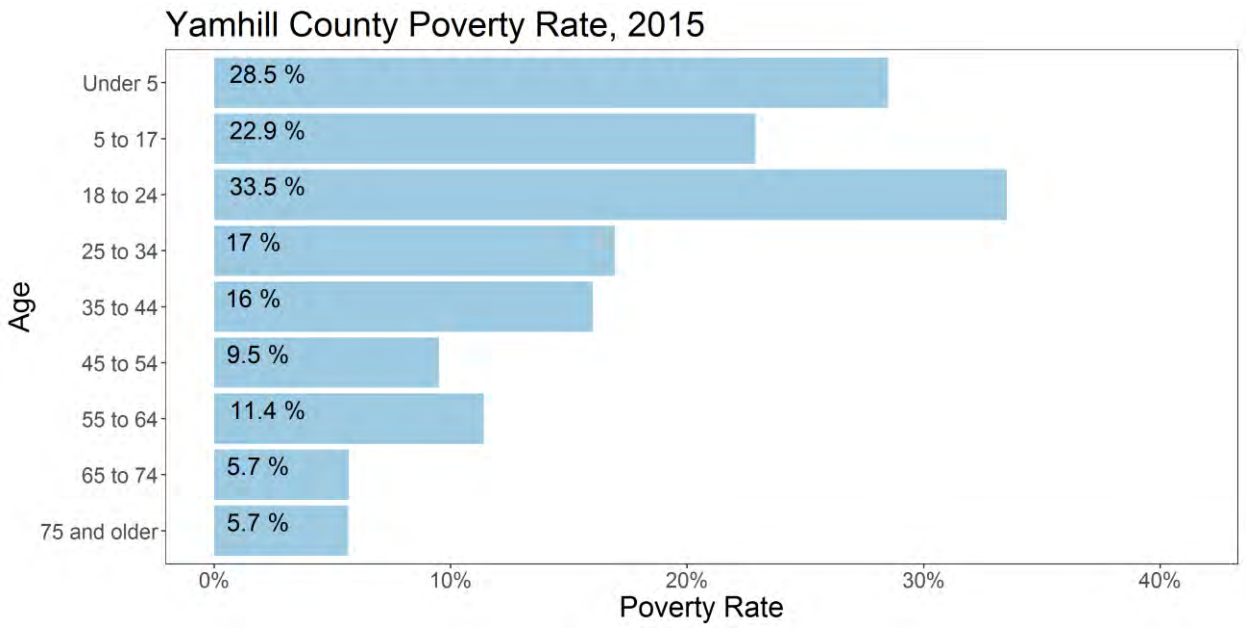
Poverty is also closely associated with health outcomes. Poverty is related to limited income and lack of economic stability, limited choices in education, employment, and living conditions, and reduced access to safe places to live, work, and play. It can also frequently limit choices and access to healthy food. The United States Census Bureau determines the Federal Poverty Level (FPL) each year. The FPL was originally an estimate of the amount of money required to meet the cost of living for individuals or families. Currently, the FPL is a statistical threshold of poverty.[9] It is not generally recognized as an accurate measure of true poverty, but it is used for determining eligibility for assistance programs. The FPL for individuals and families is presented below, as well as additional FPL ratios that are used for eligibility and comparison purposes.

Family size	Percent of Federal Poverty Level					
	50%	100%	138%	185%	200%	400%
Individual	$6,041	$12,082	$16,673	$22,352	$24,164	$48,328
Three person family	$9,436	$18,871	$26,041	$34,911	$37,742	$75,484
Four person family	$12,129	$24,257	$33,475	$44,875	$48,514	$97,028

Source: U.S. Census Bureau, Historical Poverty Threshold Table

The poverty rate in Yamhill County is 16.6 percent, essentially equivalent to the state poverty rate (16.5%). As with median incomes, poverty rates vary by race and ethnicity, but the data is subject to large potential error due to small sample sizes. White and Hispanic populations are the two race/ethnicity groups where error is constrained: The poverty rate among the white Yamhill County population is 14 percent, compared to 30 percent among the Hispanic and Latino population. [10]

Poverty varies greatly by age. Children and young adults are most likely to live in households with incomes below the poverty line. Older adults (age 65 and older) are least likely to experience poverty.



Source: U.S. Census Bureau. American Community Survey 5-year estimates, 2011-2015.

Another measure of poverty among children is qualification for free or reduced lunch at school. This also allows a comparison between different parts of Yamhill County. While all Yamhill County school districts except Newberg provide free lunch to all their students, the Oregon Department of Education still computes the number of students who meet state qualifications for free or reduced lunch.

School district	Number of students who qualify for free or reduced lunch	Percent of student body
Dayton SD	536	51 %
McMinnville SD	2,989	47 %
Newberg SD	1,615	31 %
Sheridan SD	540	53 %
Amity SD	328	38 %
Yamhill Carlton SD	405	34 %
Willamina SD	584	71 %
Yamhill County	6,997	43 %

Source: Oregon Department of Education. (2017). 2016-2017 free and reduced lunch tables.

Housing Affordability

Affordable, quality housing provides shelter that is safe and healthy for all people. Housing that costs more than 30 percent of household income is considered to be "unaffordable."[11] The figure below shows the distribution of Yamhill County residents who rent and own their homes.

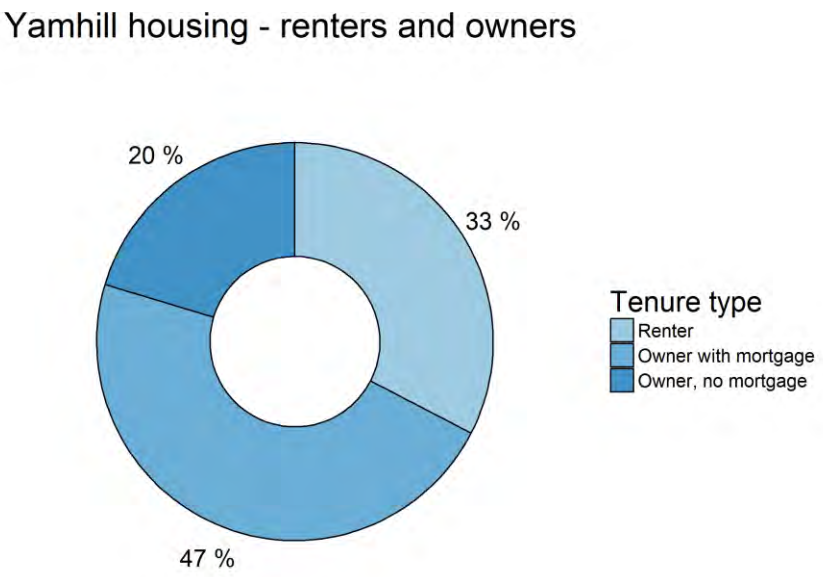


Figure notes: There are approximately 34,000 households in Yamhill County.
Source: U.S. Census Bureau, American Community Survey

The following table shows the similarities in housing affordability between Yamhill County and Oregon. Similar to Oregon, 52 percent of renters in Yamhill County spend 30 percent or more of household income on housing rent. Of home owners with mortgages, 25 percent spend 30 percent or more of household income on housing, compared to 36 percent in Oregon. Of home owners without mortgages,

just 4 percent spend 30 percent or more of household income on housing, compared to 15 percent in Oregon.[12]

Occupants with housing cost burden more than 30 percent of income, 2011-2015

	Category	Percent with housing cost burden
Yamhill County	All residents	36 %
	Renters	52 %
	Owners with mortgages	25 %
	Owners without mortgages	4 %
	Residents with annual incomes below $50,000 (renters and owners)	59 %
Oregon	All residents	32 %
	Renters	54 %
	Owners with mortgages	36 %
	Owners without mortgages	15 %
	Residents with annual incomes below $50,000 (renters and owners)	66 %

Source: U.S. Census Bureau, American Community Survey

Homelessness

The Oregon's Ending Homelessness Advisory Council defines homelessness as being without a decent, safe, stable, and permanent place to live that is fit for human habitation.[13] Understanding homeless populations is a daunting challenge for public health. Even counting the number of people experiencing homelessness is a difficult task, because they tend to lack a fixed address or living location, and many individuals change homeless status over time.

Each January, Oregon Housing and Community Services requires communities to conduct a point-in-time count of homeless populations. This snapshot of the homeless population is limited in scope and depth. Canvassers visit shelters, transitional housing, and known homeless encampments. Individuals staying with other people out of economic necessity are not counted, nor are homeless people who are in areas not covered by the canvassing. Furthermore, the one-night count misses any individual who is homeless at other points during the year. Notwithstanding these limitations, the point-in-time estimates have the benefit of being a consistent approach across years and geographies, and therefore may give some insight into the homeless community in Yamhill County.

The most recent data on homeless populations is from 2017. In January, there were 493 individuals identified in shelters and in unsheltered locations. This is a 35 percent increase from 2011, when there were 365 individuals counted.

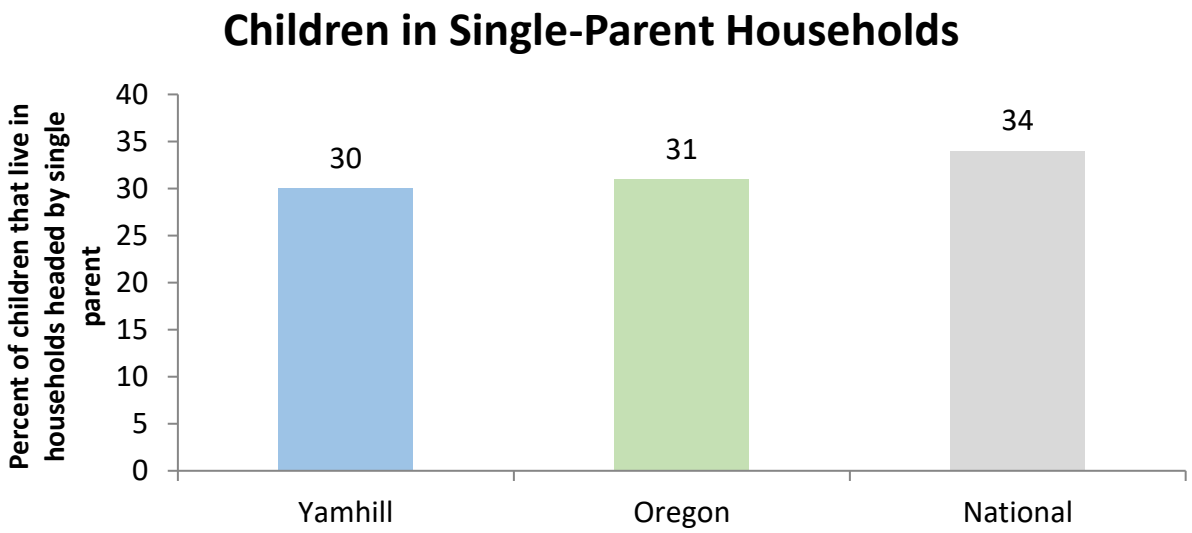
One-night count of the homeless population in Yamhill County, January 2017

	2017
Total count	**493**
Subcategories	
Sheltered count	223
Unsheltered count	270
Male	231
Female	258
Transgender	4
Children under 18	128
Unaccompanied children under 18	14
Veterans	33

Source: Oregon Housing and Community Services, 2017.

Children in Single-Parent Households

The single-parent household measure is the percent of all children in family households that live in a household headed by a single parent (male or female householder with no spouse present). Adults and children in single-parent households are both at risk for adverse health outcomes such as mental health problems (including substance abuse, depression, and suicide) and unhealthy behaviors such as smoking and excessive alcohol use.



Source: U.S. Census Bureau. American Community Survey 5-year estimates, 2011-2015.

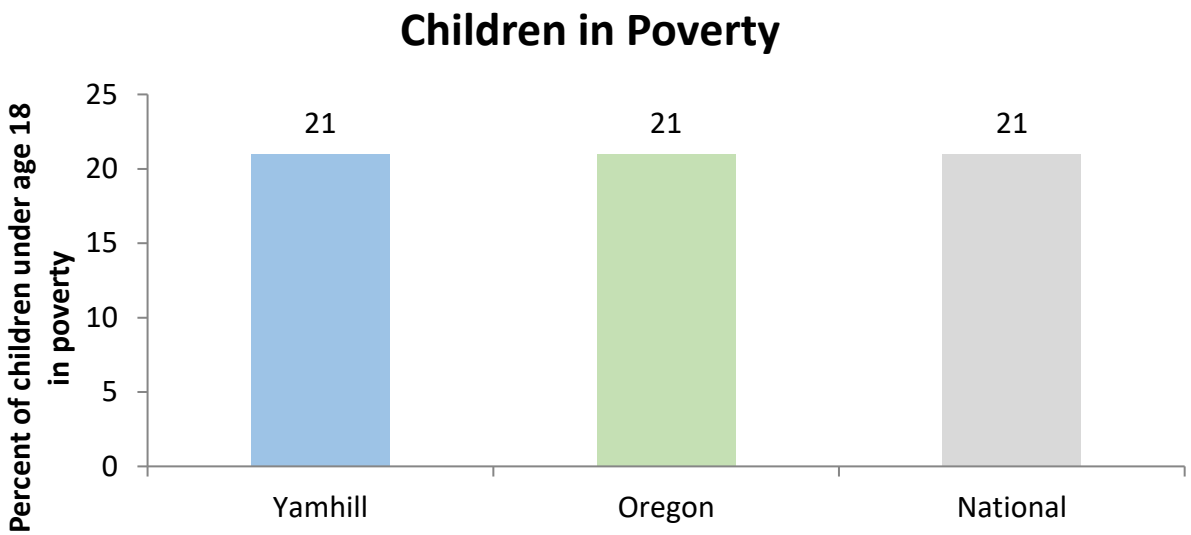
The heads of single-parent households also tend to have lower incomes than married couples. The median income for a single female head of household in Yamhill County is $19,500, while the median income for a married couple is $72,900. The median income for a single male in Yamhill County is $33,300.[14]

Children in Poverty

This indicator measures the percentage of children under age 18 living below the Federal Poverty Line. Poverty can result in negative health consequences, such as:

- Increased risk of mortality
- Increased prevalence of medical conditions and disease incidence
- Depression
- Intimate partner violence, and
- Poor health behaviors

While negative health effects resulting from poverty are present at all ages, children in poverty have a greater morbidity and mortality due to an increased risk of accidental injury and lack of health care access. Children's risk from poor health and premature mortality may also be increased due to the poor educational achievement associated with poverty. The children in poverty measure are highly correlated with overall poverty rates.



Source: Small Area Income and Poverty Estimates, 2012

Chapter 2
Our Environment

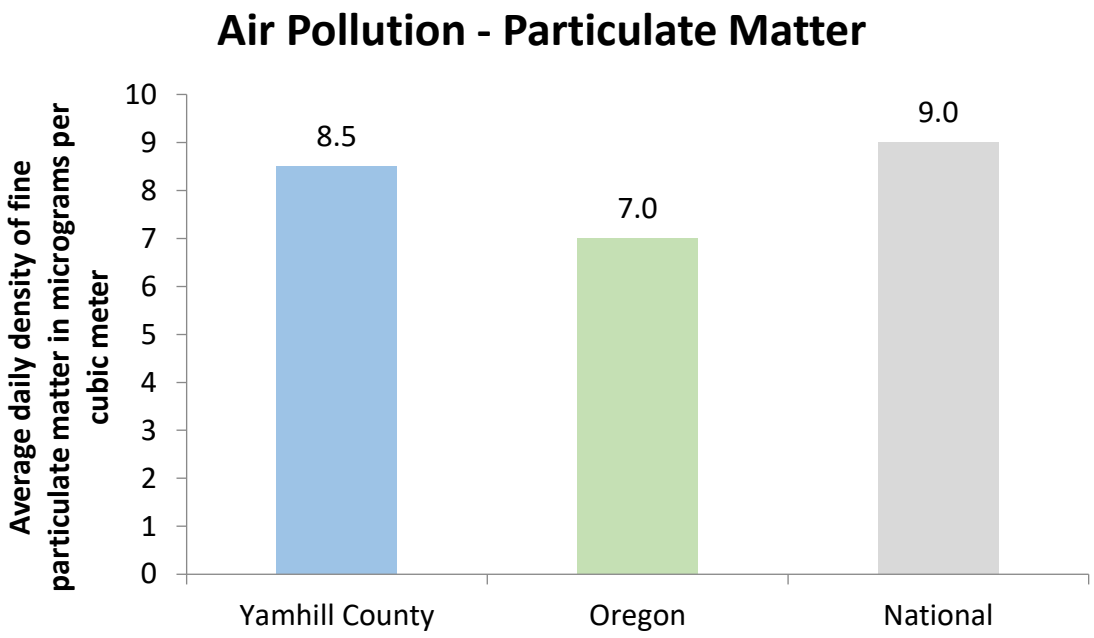
Human beings interact with their environment in everything they do. Some of these interactions have the potential to improve health, while others can negatively impact it. The natural environment is made up of the interactions of air, water, open spaces, and weather or geologic activity. The human-made environment consists of homes, communities, and infrastructure.

These two types of environment are closely linked in their effects on human health. Humans benefit from clean water and air, places to exercise and enjoy the outdoors, safe living and working spaces, and opportunities to engage in healthy behaviors such as active commuting and consuming healthy food. However, when an environment lacks these characteristics, the complex interactions of health and environment can worsen health issues. For example: poor air quality can raise the risk of asthma, heart attack, or stroke;[15] the design of communities can limit opportunities for recreation or access to healthy, affordable food;[16] and infrequent but intense natural disasters can disproportionately affect vulnerable populations.

Air Pollution

The air pollution-particulate matter measure represents the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) which often comes from fuel combustion, power plants and diesel buses and trucks. Other contributors to poor air quality include wildfires, inversion events, and seasonal pollen. The main driver of poor air quality in the region is wildfire, which can increase the level of fine particulate matter levels on smoky days.

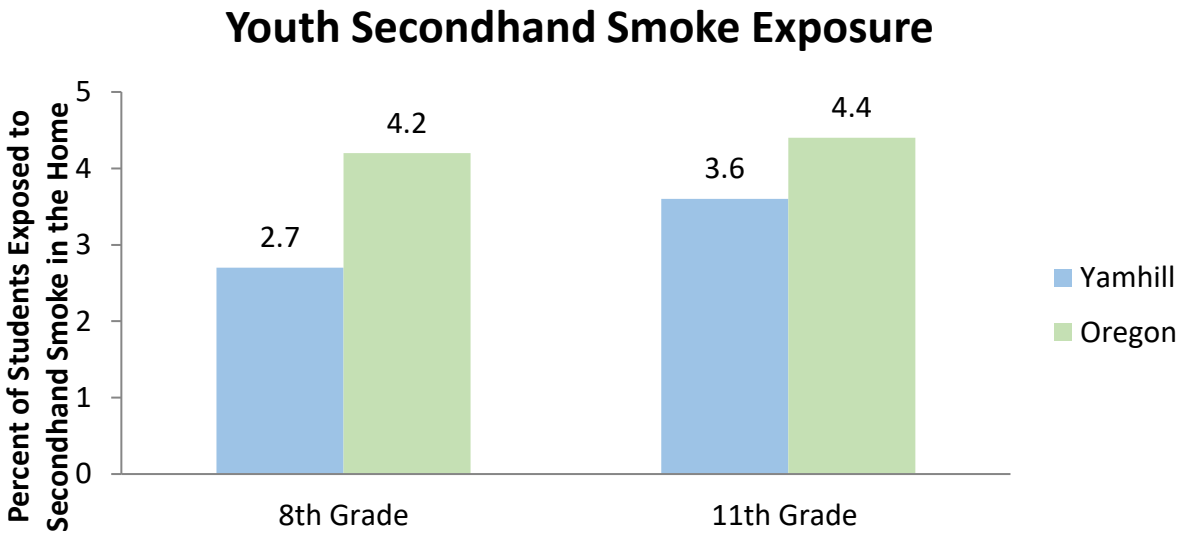
A strong relationship exists between elevated air pollution—particularly fine particulate matter and ozone—and compromised health. Air pollution can contribute to decreased lung function and lung cancer, chronic and acute respiratory problems, asthma, and heart disease. [17]



Source: County Health Rankings, 2017

Secondhand Smoke Exposure

This indicator measures the percent of 8th and 11th grade youth who reported that someone (other than themselves) smokes cigarettes inside the house.



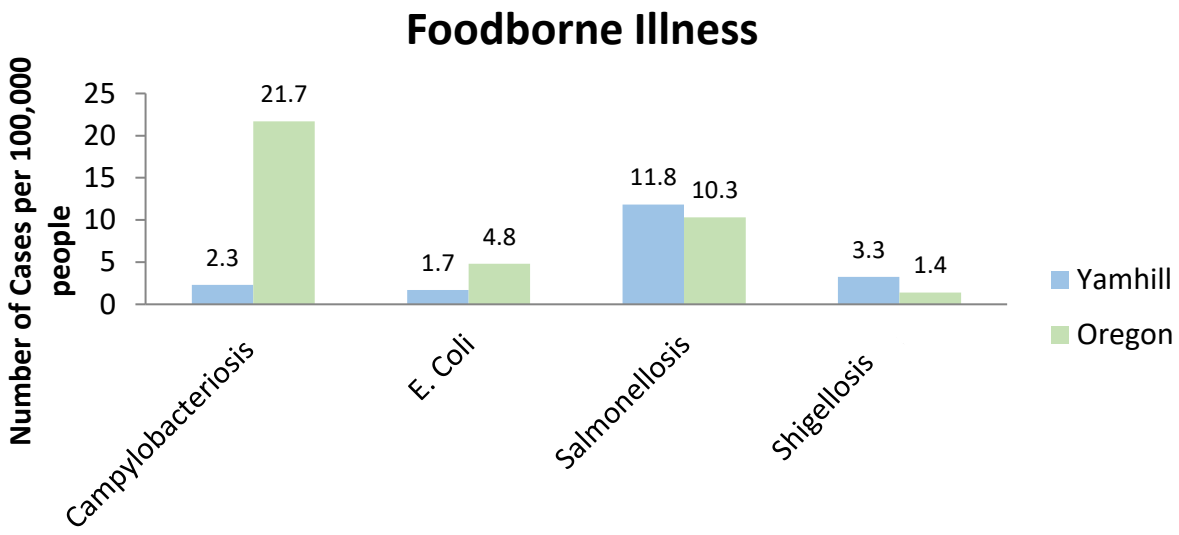
Source: Oregon Healthy Teens Survey, 2015

There is no safe level of secondhand smoke exposure. Children and youth are especially vulnerable to secondhand smoke exposure, and the Centers for Disease Control and Prevention approximate that

secondhand smoke contributes to nearly 400 infant and 41,000 adult deaths nationally each year.[18] Secondhand smoke causes middle-ear disease, respiratory symptoms such as coughing and wheezing, impaired lung function, sudden infant death syndrome, slowed lung growth, and lower respiratory illness, including infections. It also contributes to the development of asthma and lung cancer.[19]

Foodborne Illness

A foodborne outbreak occurs when two or more cases of a similar illness result from eating the same food. The figure shows the number of cases per 100,000 people.



Source: Selected Reportable Communicable Disease Summary: Oregon 2013

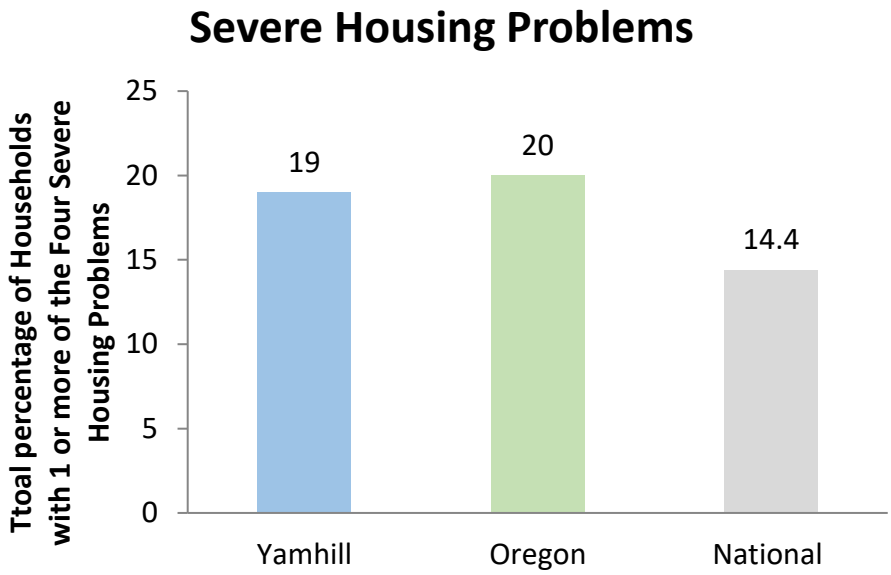
Foodborne illness is a preventable and underreported public health problem. It presents a major challenge to both general and at-risk populations. Each year, millions of illnesses in the United States can be attributed to contaminated foods. Foodborne illnesses are a burden on public health and contribute significantly to the cost of health care. Between 2012 and 2015, Yamhill County Health Department received 202 reports of foodborne illnesses, a rate of 50 illnesses per 100,000 people per year. During that same time period, the statewide rate was also 50 illnesses per 100,000 people per year. [20]

Severe Housing Problems

Severe housing problems is defined as having one or more severe housing problems as defined by the Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy (CHAS). The four severe housing problems are:

- Incomplete kitchen facilities,
- Incomplete plumbing facilities,
- More than 1.5 individuals per room, and
- Monthly housing costs (including utilities) present a cost burden greater than 50%[21]

Safe and affordable housing is an essential component of healthy communities, and the effects of housing problems are widespread. Residents who do not have a kitchen in their home are more likely to depend on unhealthy convenience foods, and a lack of appropriate plumbing facilities increases the risk of infectious disease. Research has found that young children who live in crowded housing conditions are at increased risk of food insecurity, when their families do not have enough to eat and are not able to purchase or obtain healthy food in socially acceptable ways, which may impede their academic performance. In areas where housing costs are high, low-income residents may be forced into substandard living conditions with an increased exposure to mold and mildew growth, pest infestation, and lead or other environmental hazards.



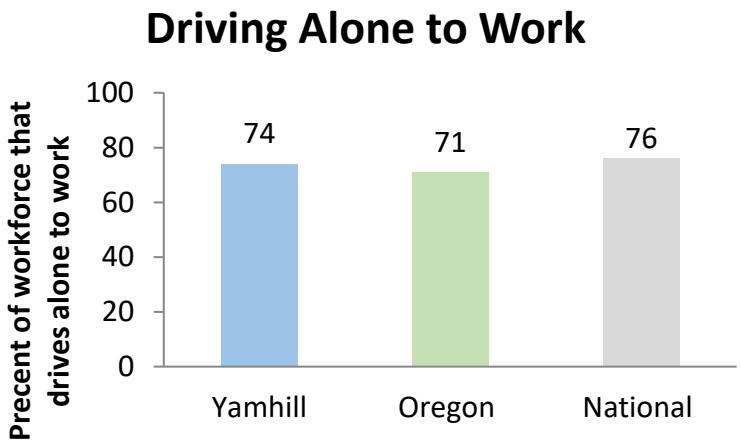
Source: U.S. Department of Housing and Urban Development CHAS data table, 2009-2013

Transportation

Transportation links people and places, making it possible to get to work, to school, to recreational opportunities, and to the grocery store. Transportation includes more than roads, walkways, or bridges. It also encompasses public transit systems, policies that dictate the location and construction of roads, and guidelines for accommodating different kinds of users. Guidelines are important for providing avenues for physical activity, and for reducing the potential of driver, cyclist, and pedestrian injury.

Driving Alone to Work

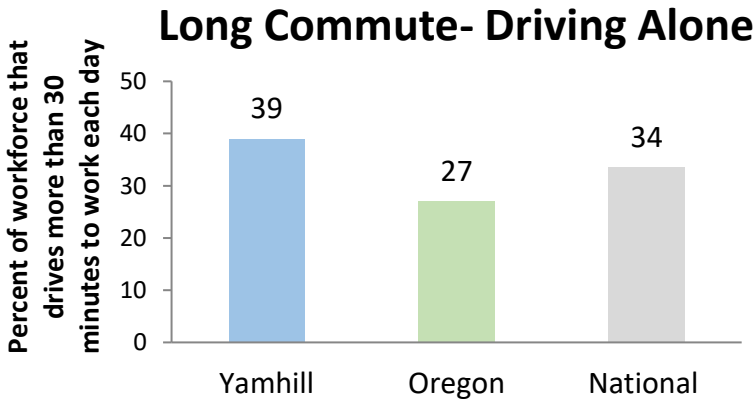
This measure looks at the percentage of the workforce who usually drives alone to work. Driving alone is the most common mode of transportation to work in Yamhill County, with 74 percent of the workforce driving alone to work.



Source: U.S. Census Bureau. American Community Survey 5-year estimates, 2011-2015.

Driving Alone – Long Commute

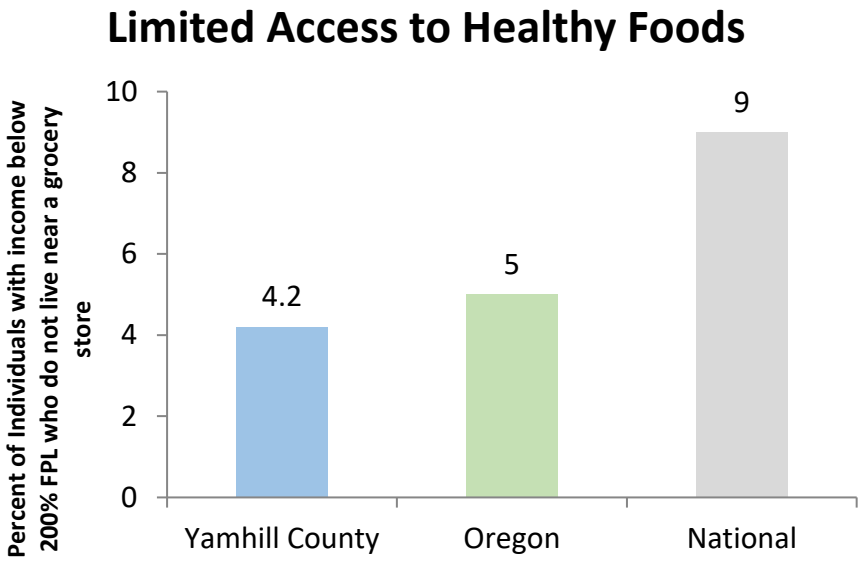
Driving alone with a long commute is defined as the percentage of people who drive longer than 30 minutes to work each day. A longer commute is associated with negative health effects, such as increased stress levels, lower back pain, increased likelihood of obesity, and less time for recreation, relaxation, or sleep. Working outside one's city of residence can also make it more difficult to access medical care, either for the worker or his or her family.



Source: U.S. Census Bureau. American Community Survey 5-year estimates, 2011-2015.

Food Environment

This measure looks at the proportion of people and families who have a low income (defined here as below 200% of the federal poverty level) and live less than one mile from a grocery store in urban areas and less than ten miles from a grocery store in rural areas. Access to healthy foods is a critical component of maintaining healthy living and thriving communities. Limited access to supermarkets or grocery stores may make it harder for residents with a low income to eat a healthy diet.



Source: County Health Rankings, 2017

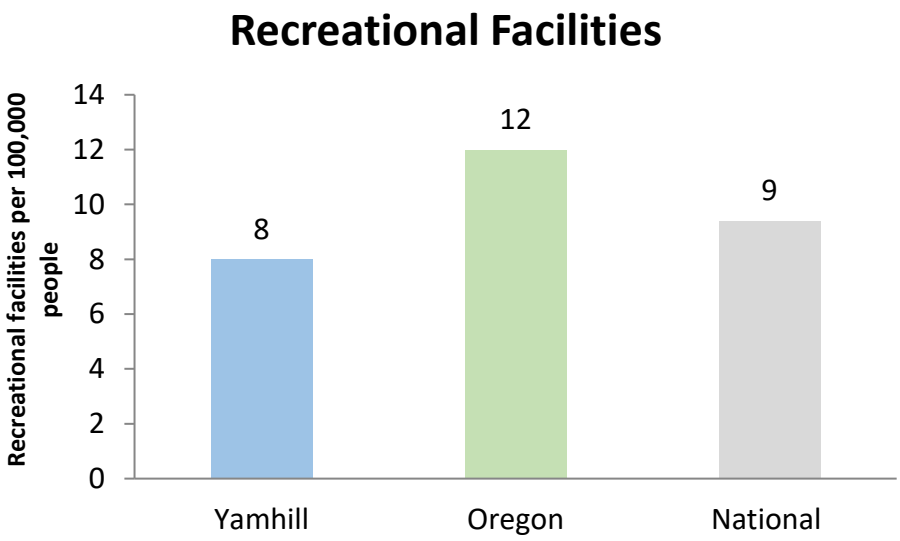
Related to limited access to healthy food is food insecurity, which is defined as limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire these foods in socially acceptable ways.[22] Children exposed to food insecurity are of particular concern given the potential impacts of scarce food resources on their health and development. Adequate nutrition is important for children, because it affects their cognitive and behavioral development. Children who are food insecure are more likely to be hospitalized and may be at higher risk for developing obesity and asthma, and may also be at higher risk for behavioral and social issues including fighting, hyperactivity, anxiety, bullying, and difficulty concentrating on tasks.[23]

Recreation

This measure represents the number of recreational facilities per 100,000 people in Yamhill County. Recreational facilities are defined as establishments primarily engaged in operating fitness and

recreational sports facilities, featuring exercise and other active physical fitness conditioning or recreational sports activities such as swimming, skating, or racquet sports.

The availability of recreational facilities can influence individuals' and communities' choices to engage in physical activity. Proximity to places with recreational opportunities is associated with higher physical activity and lower obesity levels than places with less access to recreational opportunities.[24] According to the County Health Rankings, those who are considered to have adequate access to opportunities for physical activity are individuals who reside in a census block within half a mile of a park, or who reside within one mile of a recreational facility in urban areas or within three miles of a recreational facility in rural areas. There are eight recreational per 100,000 people in Yamhill County, and an estimated 81 percent of residents have adequate access to locations for physical activity, [25]



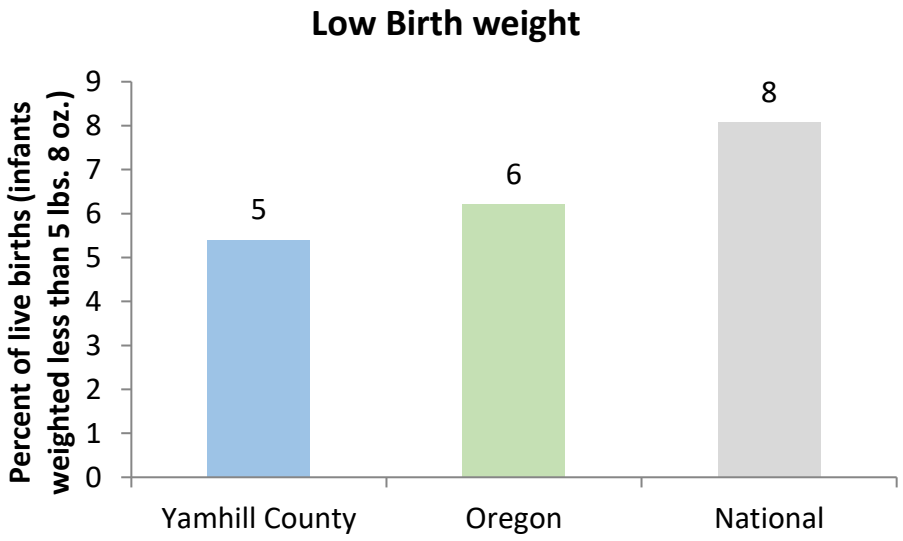
Source: County Business Patterns, 2013

Chapter 3
Physical Health

Traditional measures used to evaluate the health of populations are morbidity (incidence of disease) and mortality (deaths). Examining various cancers, heart disease, and other major causes can highlight notable improvement as well as areas in which Yamhill County is in need of improvement. The more detailed data available about disparities within particular populations and illnesses, the better communities can address these issues effectively in the region. Many of the conditions that cause illness and death within Yamhill County have well-established causes, a number of them rooted in behaviors or risk factors that can be prevented.

Birth weight

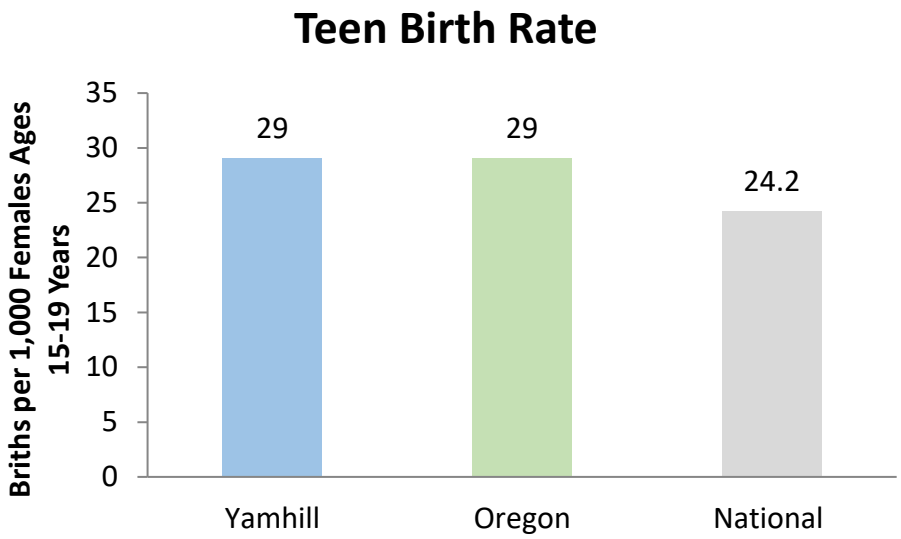
This indicator looks at the percent of live births for which the infant weighed less than 2,500 grams (approximately 5lbs., 8oz.). Low birth weight is representative of maternal exposure to health risks and an infant's current and future risk of disease and premature death risk. Along with being at greater risk of premature death, children born with a low birth weight have more developmental problems than those born with a healthy weight, as well as being at higher risk for cardiovascular disease and respiratory conditions later in life.[26] Approximately five percent of live births in Yamhill County result in a child with a low birth weight.



Source: National Vital Statistics System-Natality, 2006- 2012

Teen Birth Rate

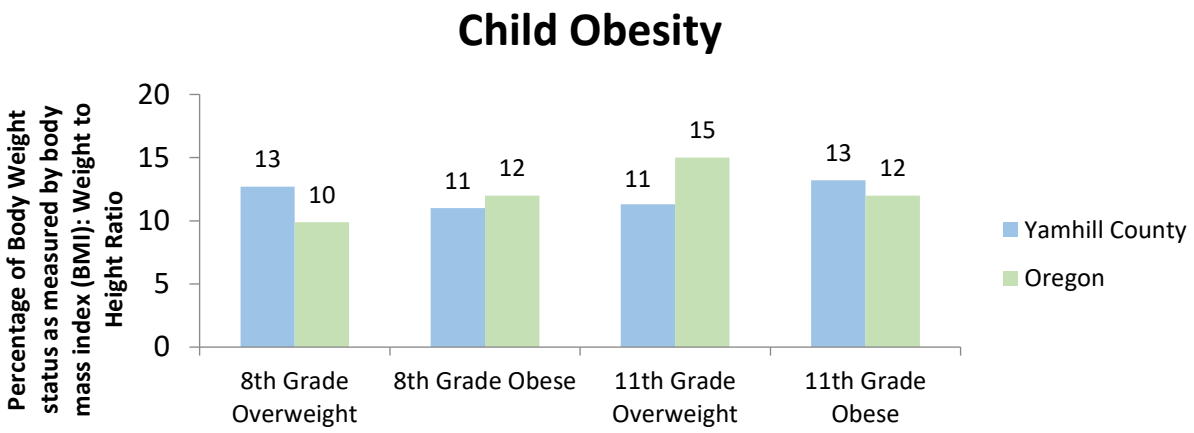
Teen births are reported as the number of births per 1,000 females aged 15-19. Teen mothers are less likely to receive early prenatal care, and are more likely to experience blood-pressure complications and premature birth.[27] Children of teenage mothers are also more likely to become teen parents themselves, be incarcerated during adolescence, drop out of school, experience more health problems, and are two times as likely to experience abuse and neglect. Negative effects of early childbearing on teenage fathers include an increased likelihood of partaking in delinquent behaviors, such as alcohol and drug abuse or dealing, and fewer years of completed school in comparison to their childless peers.[28] Only 50 percent of teen mothers graduate high school, compared to 90 percent of women who had not given birth as a teenager.[29]



Source: U.S. Census Bureau. American Community Survey 5-year estimates, 2011-2015.

Childhood Obesity

Childhood obesity is the percentage of children in 8th and 11th grade who are defined as overweight or obese as determined by their body mass index (BMI) weight to height ratio. Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile for children of the same age and sex. Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex.



Sources: Oregon Healthy Teens Survey, 2015; Youth Behavioral Risk Surveillance Survey, 2015 (National data for 8th grade overweight and obesity unavailable)

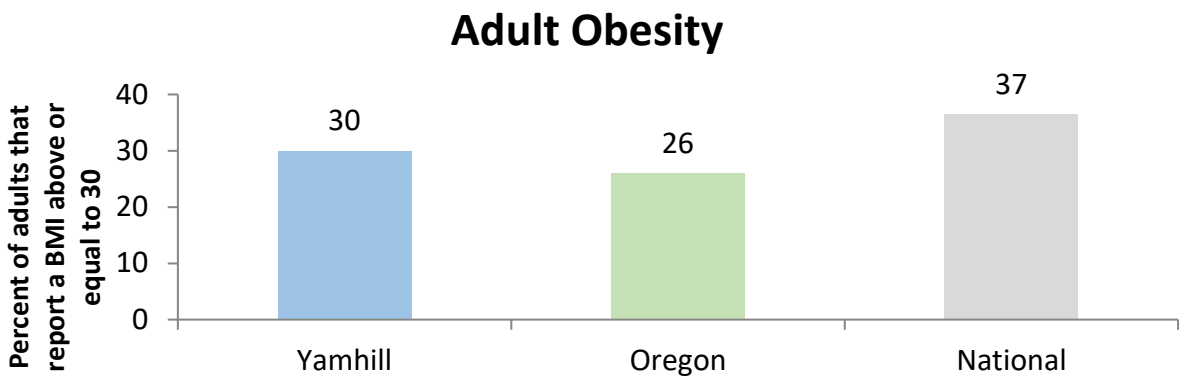
Childhood obesity can have a harmful effect on the body in a variety of ways. Obese children are more likely to have high blood pressure and high cholesterol, which are risk factors for cardiovascular disease, increases risk for type 2 diabetes, breathing problems, joint problems, fatty liver disease, gallstones, and heartburn. Obese children and adolescents have a greater risk of social and psychological problems, such as discrimination and poor self-esteem, which can continue into adulthood. Adult obesity is associated with a number of serious health conditions including heart disease, diabetes, and some cancers. If children are overweight, obesity in adulthood is likely to be more severe.

According to the CDC, it can be difficult for children and parents to make healthy food choices and get enough physical activity when they are exposed to environments that do not support healthy habits. Places such as child care centers, schools, or communities can affect diet and activity through the foods and drinks they offer and the opportunities for physical activity they provide. Other community factors that affect diet and physical activity include the affordability of healthy food options, peer and social supports, neighborhood safety, marketing and promotion, recreational opportunities, and policies that determine how a community is designed.

Adult Obesity

The adult obesity measure represents the percent of the adult population (age 20 and older) that has a body mass index (BMI) greater than or equal to 30 kg/m^2.

Obesity is often the end result of an overall energy imbalance due to poor diet and limited physical activity. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder diseases, sleep apnea and respiratory problems, joint problems, and musculoskeletal issues.[30]



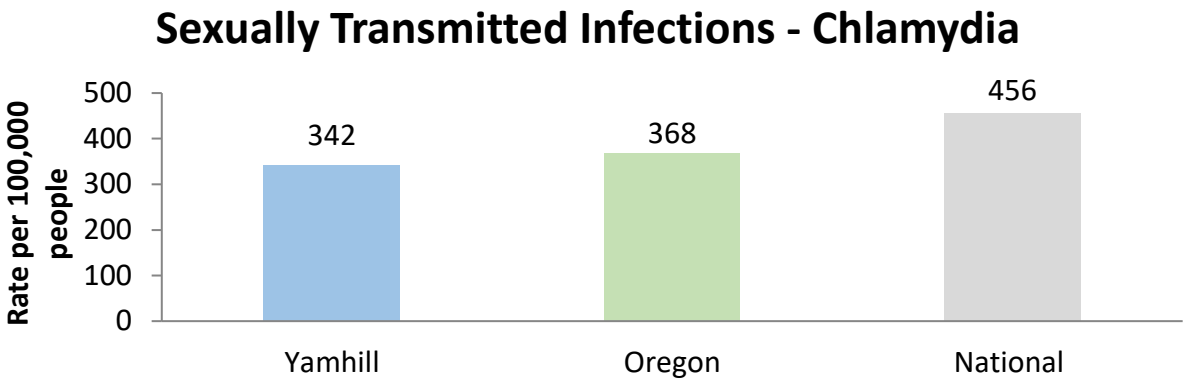
Source: Behavioral Risk Factor Surveillance System, 2008

According to the CDC, obesity and its associated health problems have a significant economic impact on the U.S. health care system. Medical costs associated with overweight and obesity may involve direct and indirect costs. Direct medical costs may include preventive, diagnostic, and treatment services related to obesity. Indirect costs relate to morbidity and mortality costs including productivity. Productivity measures include absenteeism, when employees are absent from work for obesity-related health reasons, decreased productivity of employees while at work, and premature mortality and disability. The CDC also states that people and families may make decisions based on their environment or community. For example, a person may choose not to walk or bike to the store or to work because of a lack of sidewalks or safe bike trails. Community, home, child care, school, health care, and workplace settings can all influence people's daily behaviors.[31] Therefore, it is important to create environments in these locations that make it easier to engage in physical activity and eat a healthy diet.

Sexually Transmitted Infections (STIs)

Sexually transmitted infections (STIs, also sometimes called sexually transmitted diseases, STDs) are infections that can be passed from one person to another through sexual contact. Untreated STIs can have consequences for individuals' health such as infertility and even death. Testing for STIs is a very effective mechanism for preventing the spread of STIs. Even incurable STIs, like HIV, are much less likely to spread if those affected by the infection receive proper treatment. However, untested individuals are unable to receive the treatment they need and are also much more likely to pass on the infection to others.

The sexually transmitted infection (STI) rate is reported here as the number of new cases of chlamydia reported per 100,000 people.



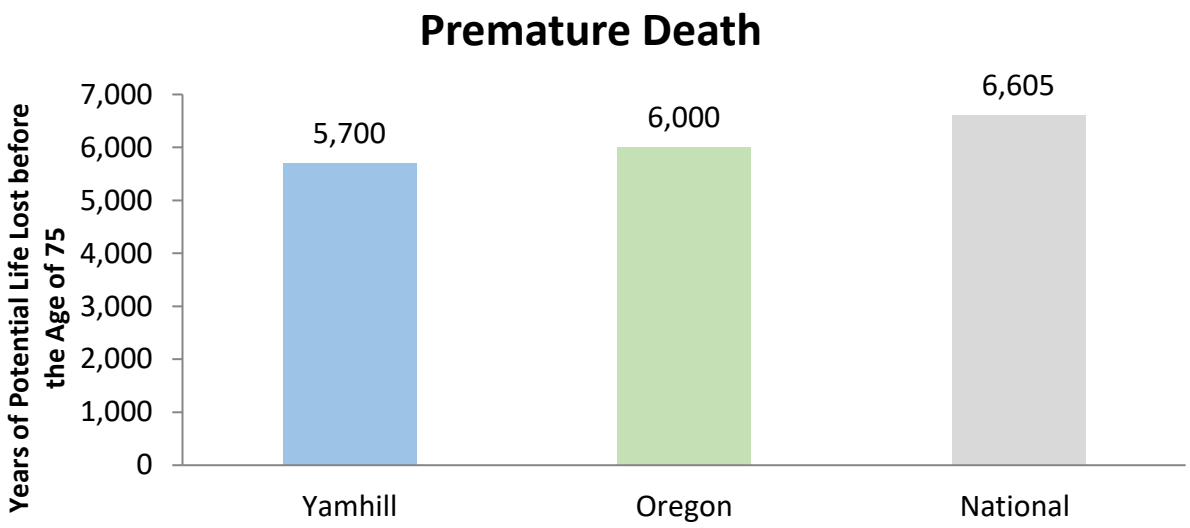
Source: Center for Disease Control and Prevention's National Center for Hepatitis, Human Immunodeficiency Virus, Sexually Transmitted Disease, and Tuberculosis Prevention, 2014

Chlamydia is the most common bacterial STI in North America and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease, and chronic pelvic pain.[32]

STIs in general are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, involuntary infertility, and premature death. However, increases in reported chlamydia infections may reflect the expansion of chlamydia screening, use of increasingly sensitive diagnostic tests, an increased emphasis on case reporting from providers and laboratories, improvements in the information systems for reporting, as well as true increases in disease.

Premature Death

Premature death is represented by Years of Potential Life Lost (YPLL) before age 75. Every death occurring before the age of 75 contributes to the total number of years of potential life lost. For example, a person dying at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost to a county's YPLL. The YPLL measure is presented as a rate per 100,000 people.



Age-adjusted years of potential life lost before age 75 (YPLL-75) rates are commonly used to represent the frequency and distribution of premature deaths. Measuring YPLL allows communities to target resources to high-risk areas and further investigate the causes of death.[33]

Leading Causes of Death in Yamhill County

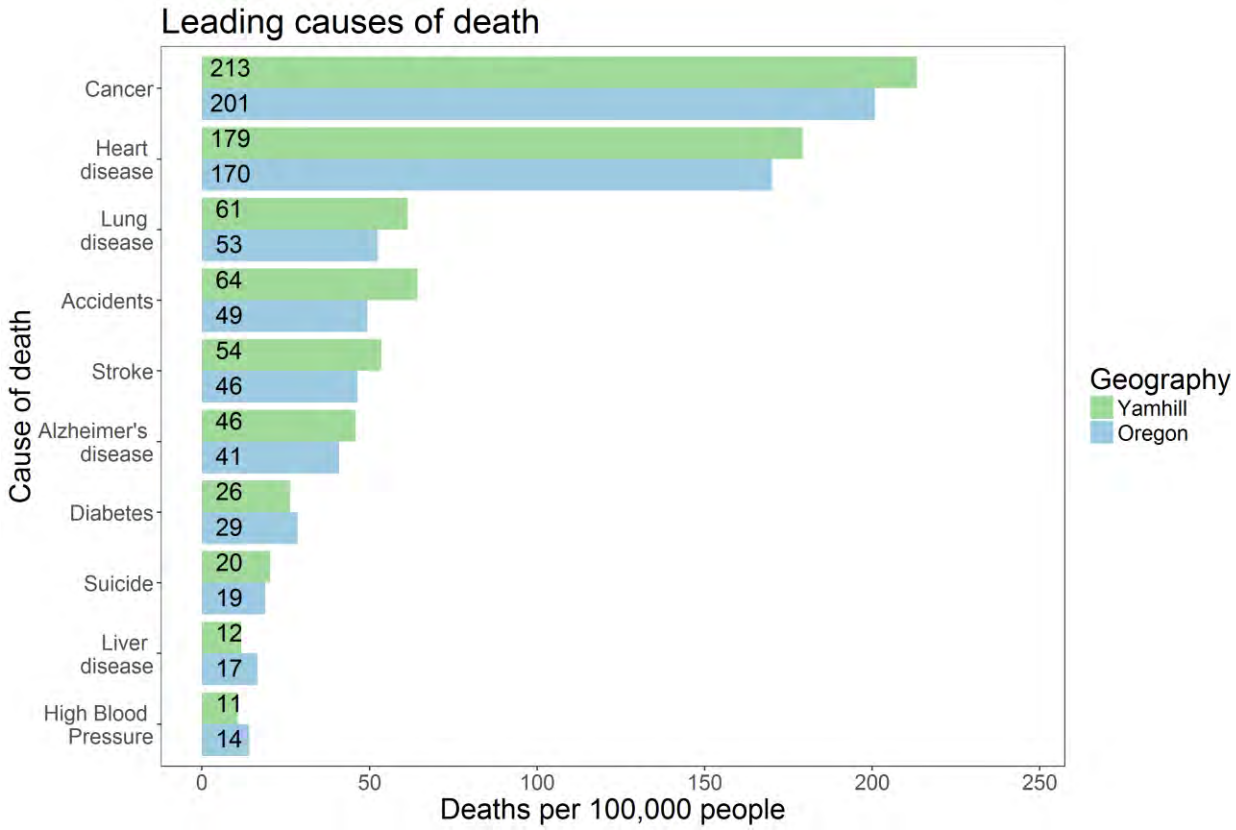
This measure looks at the leading causes of death per 100,000 people.

Healthy People 2020 has set the following targets for deaths per 100,000 people:

- Cancer: 161.4
- Heart disease: 103.4
- Chronic Lower Respiratory Diseases (lung disease): 34.8
- Cerebrovascular disease (stroke): 34.8
- Unintentional injury (accidents): 36.4

Neither Yamhill County nor Oregon have met these targets.

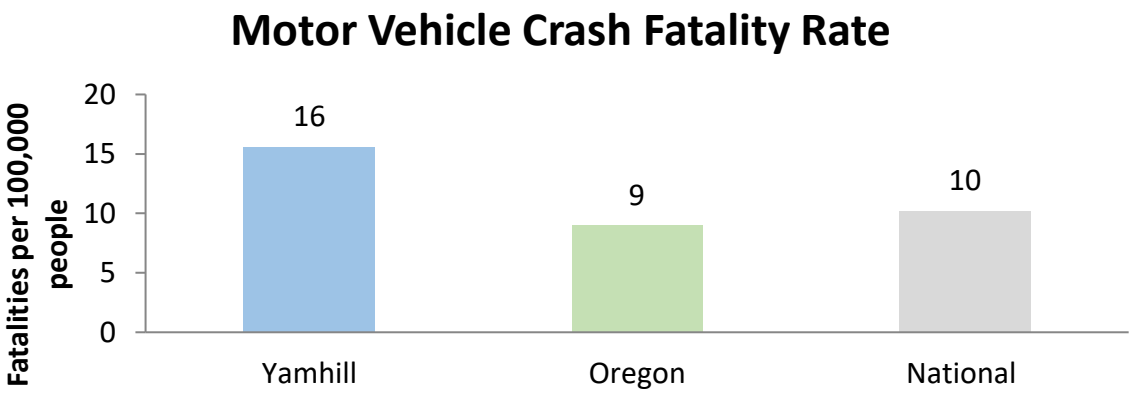
All socioeconomic groups continue acquiring noninfectious diseases related to behavior, including the use of tobacco and alcohol.



Source: Oregon Public Health Assessment Tool, 2015 and Healthy People 2020

Motor Vehicle Crash Deaths

Motor vehicle crash deaths are measured as the crude mortality rate per 100,000 people due to on- or off-road accidents involving a motor vehicle. Motor vehicle deaths includes traffic and non-traffic accidents involving motorcycles, 3-wheel motor vehicles, cars, vans, trucks, buses, street cars, all-terrain vehicles, industrial, agricultural, and construction vehicles, bikes, and pedestrians when colliding with any of the vehicles mentioned. Deaths due to boating accidents and airline crashes are not included in this measure.

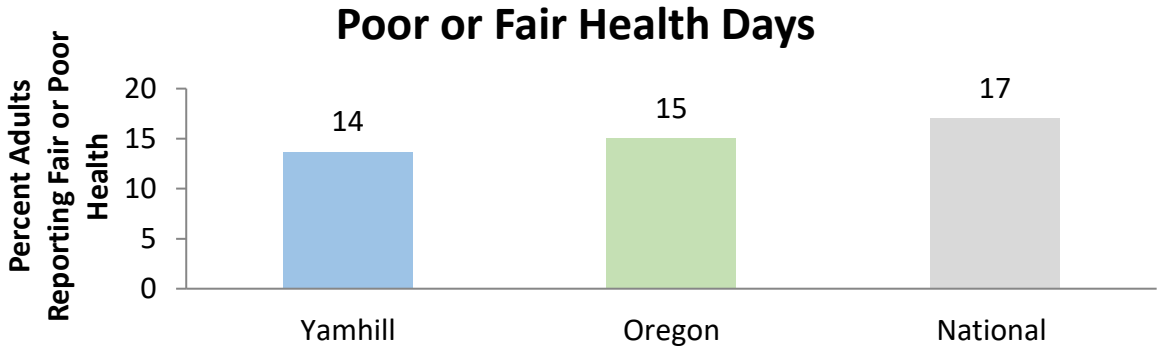


Sources: National Highway Traffic and Safety Administration, 2015

According to the Centers for Disease Control and Prevention (CDC), motor vehicle crash rates are much higher in the United States than in comparable countries. Approximately 32,000 people are killed in motor vehicle crashes each year, with a further two million injured. The deaths alone result in direct medical costs of more than $380 million.[34]

Quality of Life

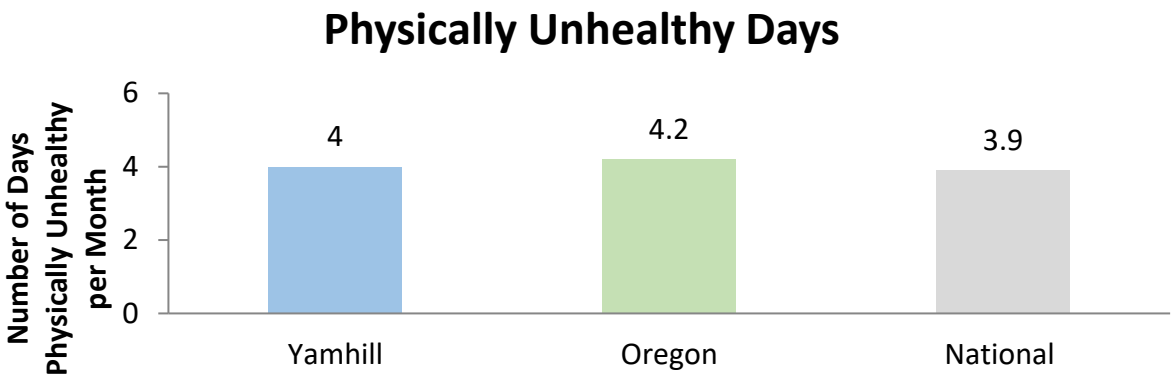
In addition to measuring how long people live, it is also important to include measures of how healthy people are while alive. Self-reported health status is a general measure of health-related quality of life in a population. This measure is based on survey responses to the question: "In general, would you say that your health is excellent, very good, good, fair, or poor?" The value reported in the County Health Rankings is the percent of adult respondents who rate their health "fair" or "poor." Self-reported health status is a widely used measure of people's health-related quality of life, and the County Health Rankings considers self-reported health status to be a reliable measure of current health.



Source: Behavioral Risk Factor Surveillance System, 2006-2012

The poor physical health days measure represents one of four measures of morbidity used in the County Health Rankings, and is based on responses to the question: "Thinking about your physical health, which

includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" Presented here is the average number of days a county's adult respondents report that they experienced poor health.



Source: Behavioral Risk Factor Surveillance System, 2006-2012

According to Healthy People 2020, adults who eat a healthful diet and stay physically active can decrease their risk of a number of adult-onset health conditions and diseases, including heart disease and diabetes. Regular physical activity can lower an adult's risk of depression and adults who maintain a healthy weight are less likely to die prematurely.[35] For pregnant women specifically, good nutrition helps pregnant women support the healthy development of their infants. Regular physical activity throughout pregnancy can help women control their weight, make labor more comfortable, and reduce their risk of postpartum depression. Staying at a healthy body weight can help women reduce their risk of complications during pregnancy.

Conclusion

It is important to be aware of and understand the conditions and outcomes that can affect how well our bodies function, improving our quality of life and preventing loss of life. While leading causes of death in Yamhill County mirror those of the state, examining various physical ailments reveals areas of vast improvement, as well as areas in which the county is doing more poorly than the state average. Data on many sub-populations are noticeably absent throughout this chapter.

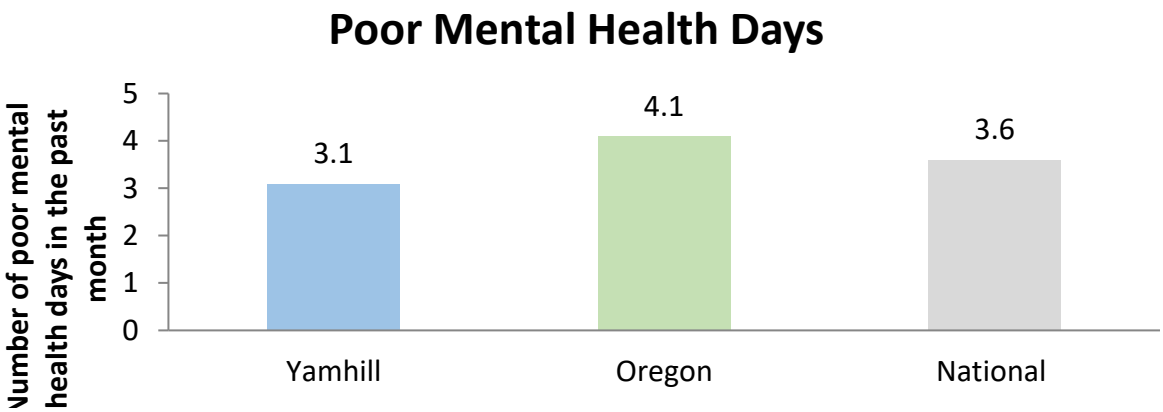
While we know that factors such as access to health care, mental health status, and other demographics are closely linked to particular conditions at a state or national level, without more robust data we can only guess at local trends. The more detailed data we have about disparities within particular populations and illnesses, the more ability we have to address these issues effectively in the region. As discussed throughout the chapter, many of the conditions that cause illness and death within the region have well-established causes, with a number of them linked with preventable mental health illnesses and socioeconomic situations. The following chapter takes a closer look at mental health and behavioral risk factors that affect and interplay with a person's health and well-being.

Chapter 4
Mental and Behavioral Health

Mental health disorders are experienced by people of all ages, from early childhood through old age. Research suggests that only about 17 percent of U.S. adults are considered to be in a state of optimal mental health. An estimated 26 percent of Americans age 18 years and older are living with a mental health disorder in any given year and 46 percent will have a mental health disorder during their lifetime.[36] These disorders include, among others, anxiety, depression, behavior disorders, persistent suicidal thoughts, schizophrenia, and Alzheimer's disease.[37]

Poor Mental Health Days

County Health Rankings reports the number of poor mental health days each month, both as a proxy for mental health diagnoses and as an indicator of overall mental wellness. This measure is based on survey responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"[38]

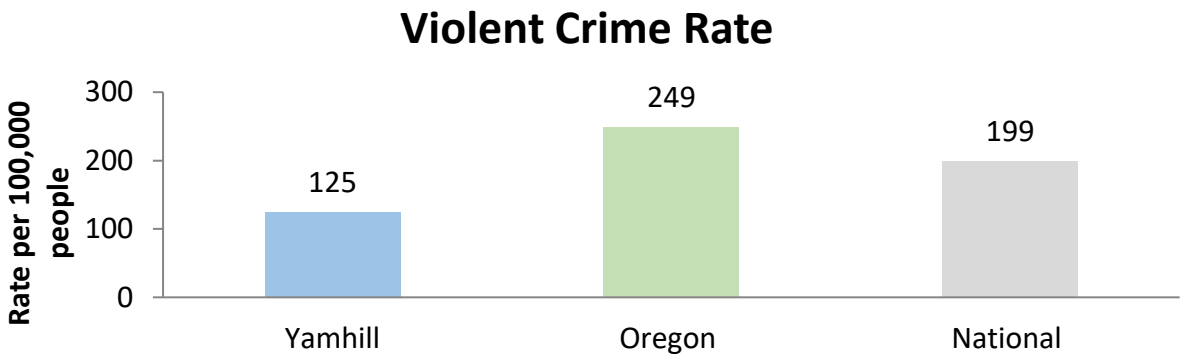


Source: County Health Rankings, 2015

Overall health depends on both physical and mental well-being. Measuring the number of days when people report that their mental health was poor represents an important facet of health-related quality of life. The County Health Rankings considers health-related quality of life to be an important health outcome. According to Healthy People 2020, mental health disorders have a serious impact on physical health and are associated with the prevalence, progression, and outcome of some of today's most pressing chronic diseases, including diabetes, heart disease, and even cancer. Mental health disorders can have harmful and long-lasting effects—including high psychosocial and economic costs—not only for people living with the disorder, but also for their families, schools, workplaces, and communities.

Violent Crime

Violent crime is represented as an annual rate per 100,000 people. Violent crimes are defined as offenses that involve face-to-face confrontation between the victim and the perpetrator, including homicide, forcible rape, robbery, and aggravated assault. High levels of violent crime compromise physical safety and psychological well-being. Additionally, exposure to crime and violence has been shown to increase stress, which may exacerbate hypertension and other stress-related disorders and contribute to obesity prevalence.[39] Exposure to chronic stress also contributes to the increased prevalence of certain illnesses such as upper respiratory illness and asthma in neighborhoods with high levels of violence.[40] Crime rates can also deter residents from pursuing healthy behaviors such as exercising out-of-doors.



Source: Community Health Status Indicators

Domestic violence, which includes many forms of abuse, affects children and adults. Physical abuse, sexual abuse or assault, intimidation, verbal abuse and emotional abuse, or threats of such harm are all forms of domestic violence. Domestic violence can include abuse from a household member (including roommates or caregivers), intimate partners (including dating partners), or a family member (whether or not they live with the victim).[41]

Not all domestic violence cases are considered aggravated assault. The chart below shows the number of emergency calls made each year for domestic violence between the years of 2012 and 2015.

Yamhill County Domestic Violence

	2012	2013	2014	2015
Number of Calls per Year	1,126	1,256	1,375	1,018

Source: Oregon Department of Human Services, Domestic Violence Data and Publications 2012-2015

Alcohol and Tobacco Use

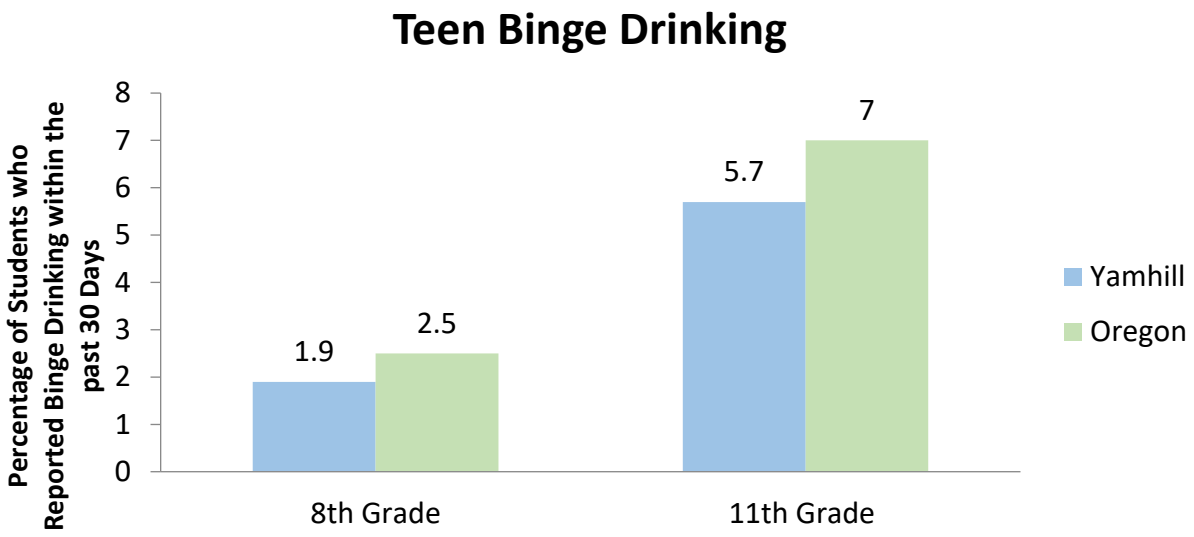
Alcohol and prescription medications are consumed appropriately and responsibly by most of the population. However, problems frequently occur when these substances are over-consumed, used inappropriately, combined with other substances, or consumed while engaging in risky activities such as driving or unsafe sexual activity. The costs to society of the misuse of alcohol, prescription medications, and other drugs include injury and death due to overdose; effects on unborn children of drug users; impacts on family, crime and homelessness; spread of infectious disease, through sexual transmission and needle sharing; and financial costs associated with lost productivity, healthcare, and legal expenses for individuals and the wider community.[42]

Research has shown that people are most likely to try drugs for the first time—including tobacco, alcohol, and illegal and prescription drugs—during adolescence and young adulthood. Misuse of substances at an early age (particularly before age 18) is shown to be an important predictor of substance use disorders later in life, making this period an important focus for prevention efforts.[43]

Some of the primary factors related to whether an adolescent tries drugs include their home environment, as well as the availability of drugs in the home, neighborhood, and community. Adolescents who experience violence, emotional or physical abuse, mental illness, or drug use in the home are at increased risk of using drugs. In addition, genetic factors and mental health conditions (including depression, anxiety, and poor impulse control) increase the likelihood that an adolescent will use drugs.[44]

Teen Binge Drinking

The National Institute on Alcohol Abuse and Alcoholism defines binge drinking as a pattern of drinking that brings a person's blood alcohol concentration (BAC) to 0.08 grams percent or above. The teen binge drinking measure reflects the percent of students that reports 5 or more drinks of alcohol in a row within a couple of hours at least once during the past 30 days.



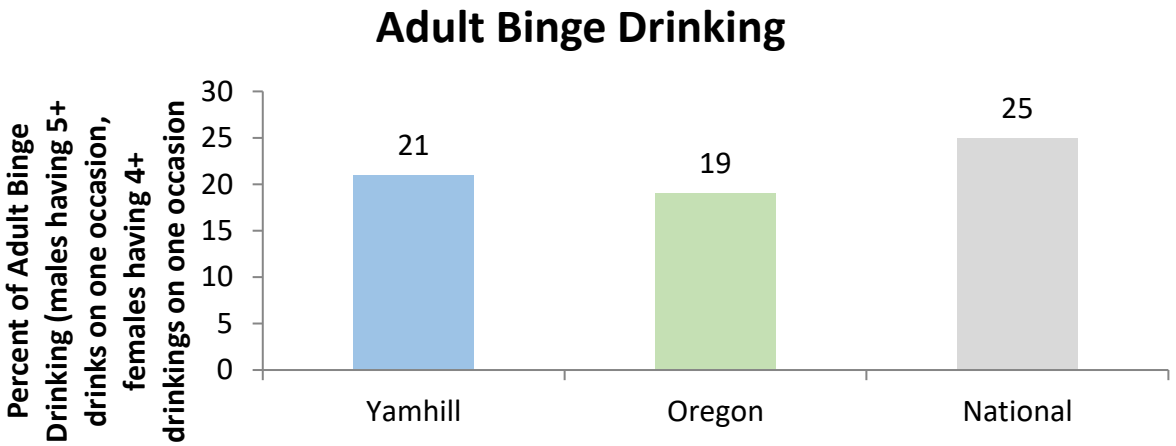
Sources: Oregon Healthy Teens Survey, 2015; Youth Behavioral Risk Factor Surveillance Survey, 2015

Binge drinking is a risk factor for a number of adverse health outcomes such as intentional and unintentional injuries, alcohol poisoning, high blood pressure, stroke and other cardiovascular diseases, sexually transmitted diseases, unintended pregnancy, children born with fetal alcohol spectrum disorders, liver disease, neurological damage, sexual dysfunction and poor control of diabetes. [45] Alcohol is also considered a gateway drug, in that the use of alcohol can lead to the use of more dangerous drugs. Youth who drink also put themselves at risk for: problems at school (higher absence and poor-failing grades), social problems, legal problems, physical health problems and memory problems.

According to the CDC, youth who start drinking as early as 15 or younger are six times more likely to develop alcohol abuse or dependence later in life than those who start drinking at or after 21 years of age.[46]

Adult Binge Drinking

The excessive drinking measure reflects the percent of the adult population that reports either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than 1 (women) or 2 (men) drinks per day on average.



Source: Behavioral Risk Factor Surveillance System, 2006-2012

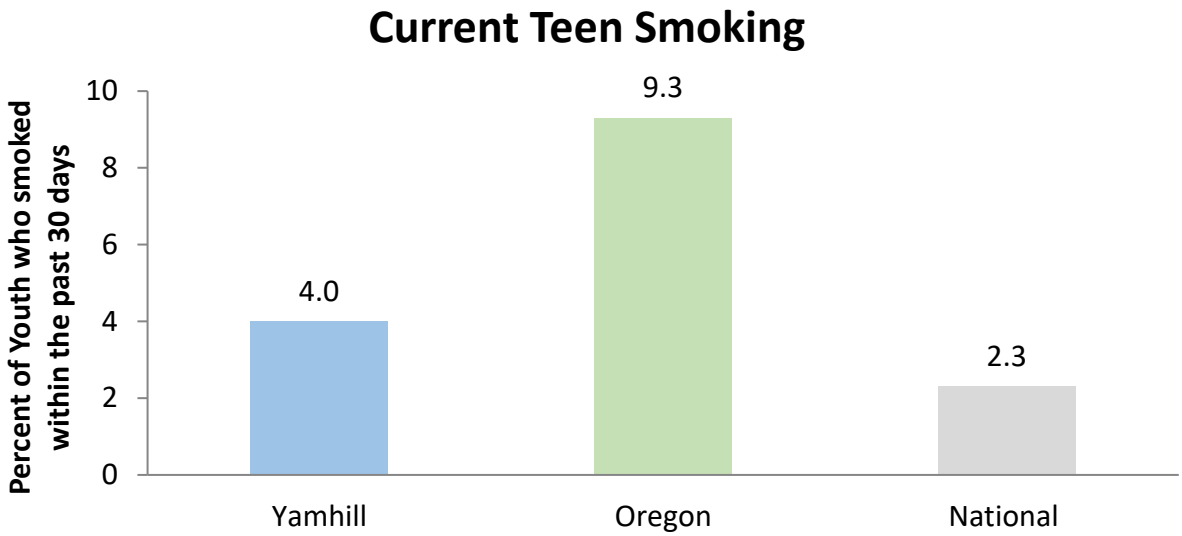
Tobacco Use

Tobacco use is the single most preventable cause of disease, disability, and death in the United States. Tobacco use in any form can cause serious diseases and health problems, including cancers of the lung, bladder, kidney, pancreas, mouth, and throat; heart disease and stroke; lung diseases (i.e., emphysema, bronchitis, and chronic obstructive pulmonary disease); pregnancy complications; gum disease; and vision problems.[47]

Smoking patterns are predictive of increased rates of future disease and early death. Smokers die, on average, 10 years earlier than nonsmokers.[48] Health impacts are more severe among those with lower socio-economic status as well. In the United States, low-income smokers are more likely to become ill and die sooner from tobacco-related diseases than smokers who have a higher income.[49]

Teen Smoking

This indicator is measured as the percent of youth under 18 who report they have smoked at least one cigarette in the past 30 days. If current youth tobacco use trends continue in the United States, 5.6 million of today's young people will die from tobacco-related diseases. Nearly all first-time tobacco use occurs before high school graduation. This suggests that if kept tobacco-free, most youth will never start using tobacco. Health behavior patterns formed in adolescence play a crucial role in health throughout life. Those who start smoking young are more likely to have a long-term addiction to nicotine than people who start smoking later in life, putting them at greater risk for smoking-related illness and death.[50]



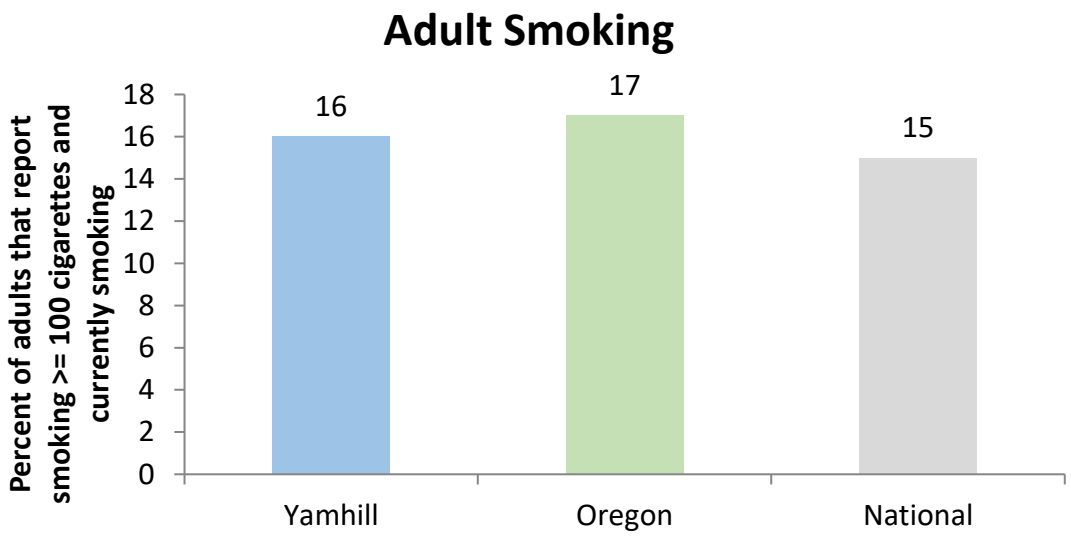
Source: Oregon Healthy Teens, 2015

Adult Smoking

Adult smoking prevalence is the estimated percent of the adult population that reports currently smoking every day or "most days" and has smoked at least 100 cigarettes in their lifetime. Tobacco is the agent most responsible for avoidable illness and death in America today. Tobacco use brings

premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. Approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco.

Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects including cancer, respiratory infections, and asthma. According to the CDC, secondhand smoke is the combination of smoke from the smoke breathed out by smokers and the smoke from the burning end of a cigarette. Secondhand smoke contains over 7,000 chemicals. Hundreds are toxic and about 70 can cause cancer.[51] Cigarette smoking is responsible for more than 480,000 deaths per year among adults in the United States.[52]



Source: Behavioral Risk Factor Surveillance System, 2006- 2012

Marijuana and Hashish Use

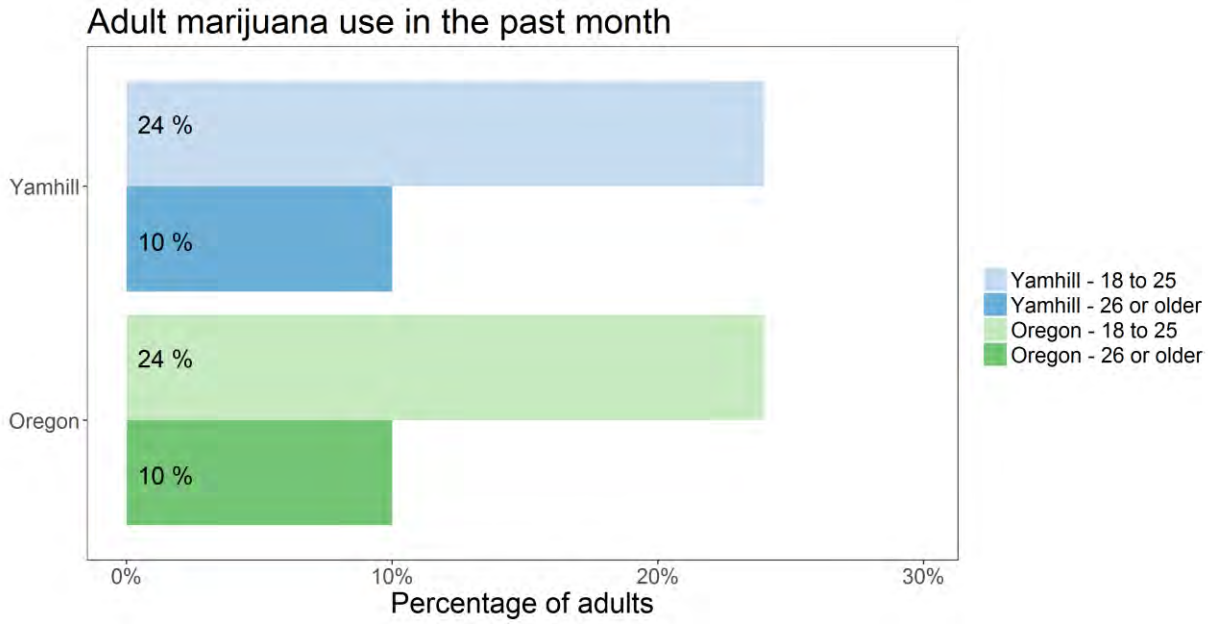
The data presented here was collected before the legalization of recreational marijuana in Oregon. Recreational marijuana is still illegal for all individuals under 21 years of age. The effects of marijuana on children and adults have not been studied to the degree that other legal substances have been, including alcohol and cigarettes.

Proportion of respondents who have ever used marijuana in Oregon, by age and sex, 2014

	18-26	25-44	45-64	65 and older
Men	49 %	54 %	67 %	27 %
Women	48 %	50 %	55 %	18 %
Both	49 %	52 %	62 %	22 %

Source: Oregon BRFSS 2014

County data is not available for marijuana use among adults. However, state data demonstrates some patterns that may hold for local populations. Statewide, two third of BRFSS survey respondents under the age of 65 who reported every using marijuana said that they were 17 or younger the first time they tried it. The 65 and older age group is an outlier, which is probably because marijuana was not culturally widespread in the United States until the late 1960s. A 65 year old in 2014 was 20 in 1969, older than the average age of first use.



Source: National Survey on Drug Use and Health, 2012- 2014

Prescription Drugs, Opioids, and Illicit Drugs

Misuse of prescription drugs is highest among young adults (aged 18 to 25).[53] As the most commonly abused type of prescription drugs, painkillers provide a useful marker for prescription drug misuse trends. While data shows little change in the self-reported pain experienced by Americans, the amount of painkillers dispensed in the U.S. has quadrupled since 1999, as have the deaths resulting from prescription painkillers. While this epidemic represents an enormous burden to society, 2012 saw a national drop in both prescribing rates and prescription overdose deaths. This is the first decrease since the 1990s, offering promise for further progress in reversing the epidemic.[54] Oregon (along with the majority of states) has implemented a system in an attempt to track and improve prescribing practices around certain types of controlled substances, including painkillers. The Oregon Prescription Drug Dashboard uses information provided by Oregon-licensed retail pharmacies to help track prescription drug use, hospitalizations, and deaths.[55]

Opioids are a common drug class, representing half of the prescriptions tracked by the Oregon Health Authority. In the 4th quarter of 2016, there were 224 opioid prescriptions per 1,000 Oregon residents, out of 395 total prescriptions per 1,000 residents. As a comparison, Yamhill County had 223 opioid

prescriptions per 1,000 residents and 390 total prescriptions per 1,000 residents during the same time period. The table on the next page displays these data in more detail.

Annual prescription rates per 1,000 residents by drug class in Yamhill County and Oregon, 2016

	Yamhill County	Oregon
Total prescriptions	390	395
All opioids	223	224
Sedatives (including Benzodiazepine)	97	101
Stimulants and pseudoephedrine	62	63
Methadone and muscle relaxants	8	7

Source: Oregon Prescription Drug Dashboard, 2016

In Yamhill County and Oregon, high prescription rates are associated with higher rates of hospitalization and death due to drug overdose. Yamhill County had an annual rate of 25 hospitalizations per 100,000 residents due to drug overdose between 2011 and 2014 and a rate of 7.5 deaths per 100,000 residents due to drug overdose over the same time period[56]. This a decrease from the previous 3-year period (2009-2011), when there were 41 hospitalizations and 10.7 deaths per 100,000 people. A comparison of hospitalizations and deaths in Yamhill County and Oregon is shown below.

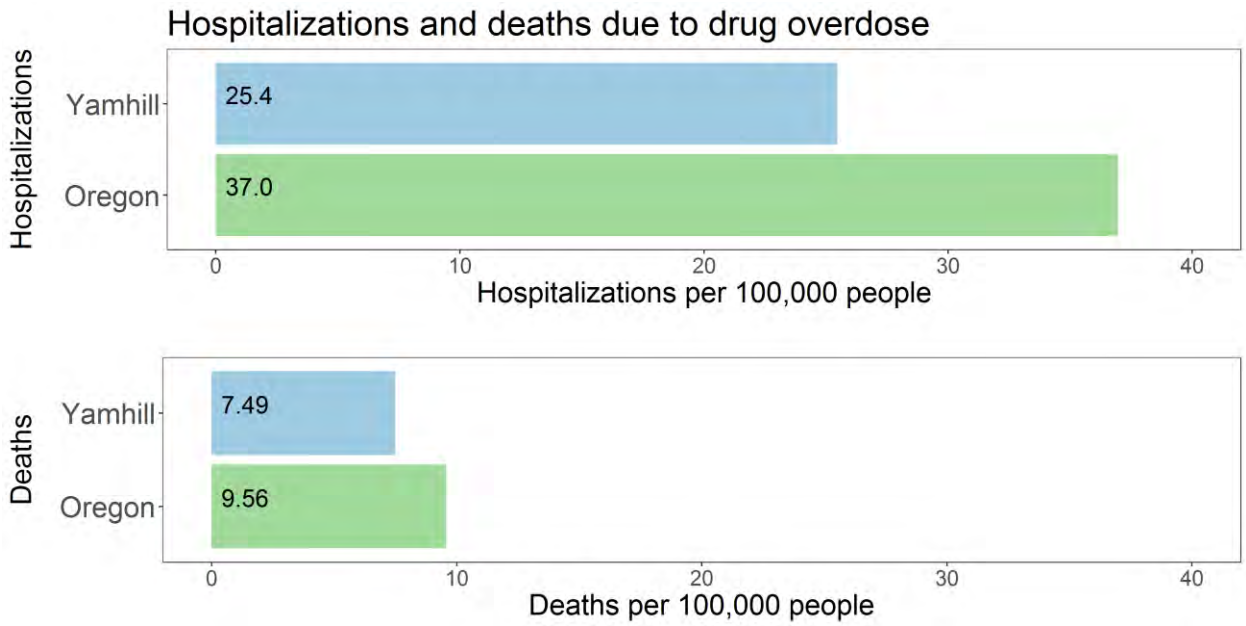


Figure notes: Data are 3-year averages of annual rates for both drug overdose hospitalizations (2012-2014) and deaths (2013-2015).
Source: Oregon Prescription Drug Dashboard, 2016

In Yamhill County, approximately one quarter of the hospitalizations and deaths were due to opioids. Most of the others were due to other prescription drugs, with a very limited number due to illegal, street drugs.[57]

Age differences in drug overdose

Drug use is more prevalent among young adults. National Survey on Drug Use and Health (NSDUH) data indicate that approximately ten percent of Oregonians age 18-25 have used prescription drugs for non-medical purposes within the last 30 days. This is about twice the rate of both children age 12-17 (5%) and adults 25 and older (4%).[58]

In contrast, according to the Oregon Prescription Drug Dashboard, drug overdoses are more common among older adults than children or young adults. The rate of hospitalization in Oregon among adults age 45 and older is nearly twice the rate of adults age 18-44. Additionally, there is a high rate of hospitalizations among older adults in Oregon (age 65 and up).

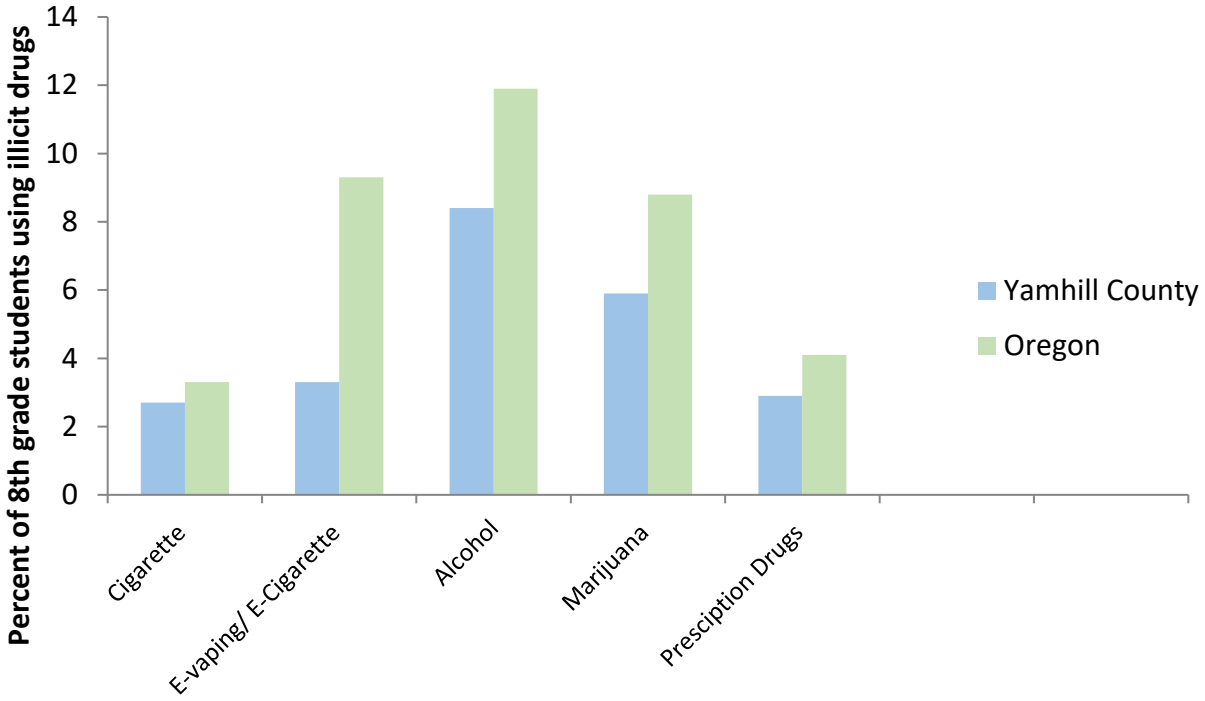
Deaths from drug overdose in Oregon are more likely in young and middle age adults (14 and 16 deaths per 100,000 people age 18-44 and 45-64, respectively) than in children or older adults. The full data is given in the table below.

Hospitalization and death rates per 100,000 people due to drug overdose among adults in Oregon, by age, 2011-2014

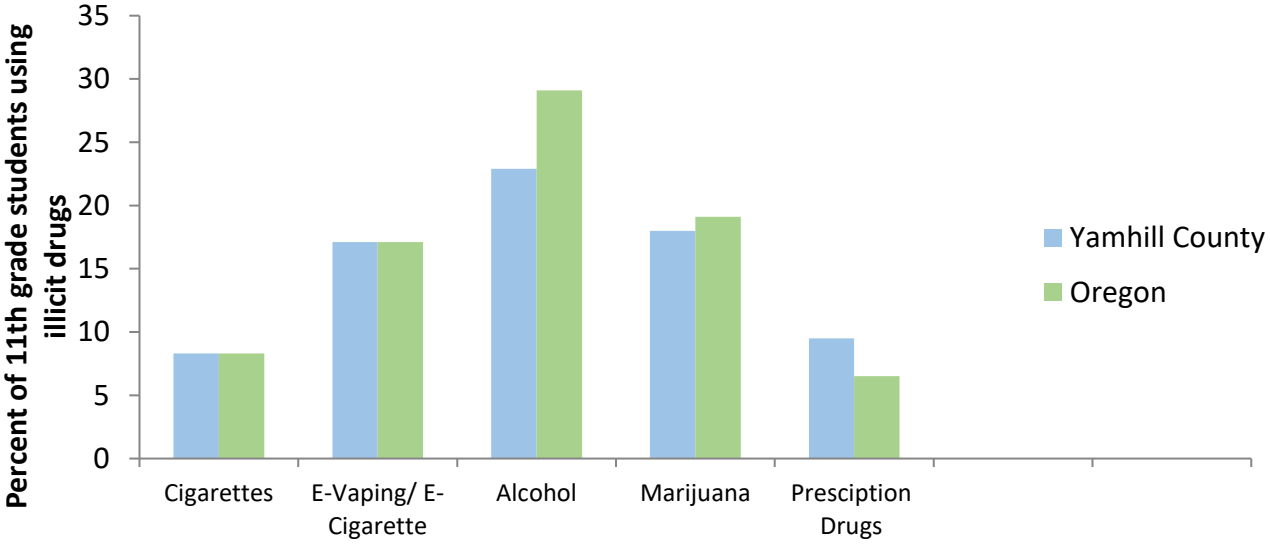
	Age group	Oregon
Hospitalization rate per 100,000 people	Less than 18	15.1
	18 – 44	33.6
	45 – 64	56.4
	65 – 74	53.5
	75 and older	61.3
Death rate per 100,000 people	Less than 18	0.3
	18 – 44	13.5
	45 – 64	16.4
	65 – 74	4.4
	75 and older	2.9

Source: Oregon Prescription Drug Dashboard, 2016

8th Grade Illicit Drug Use



11th Grade Illicit Drug Use

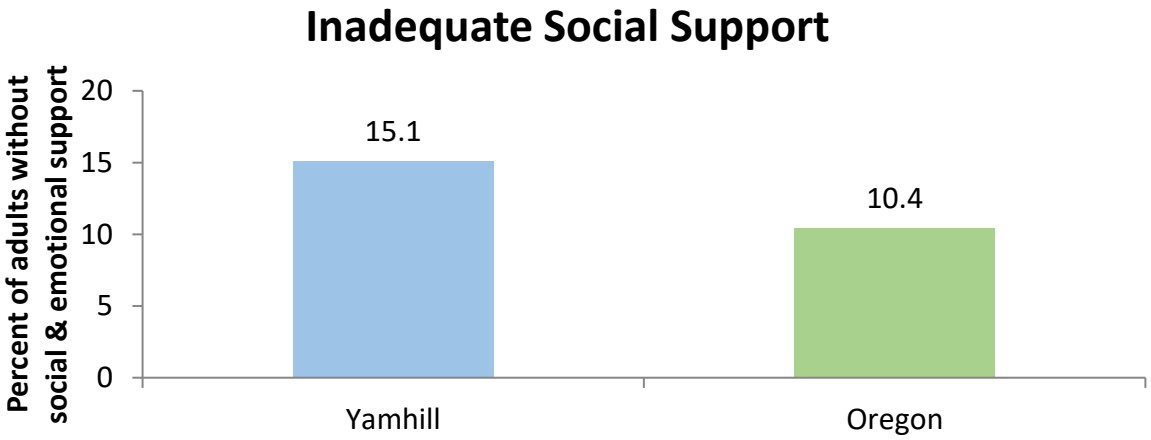


Sources: Oregon Healthy Teens Survey, 2015; Youth Behavioral Risk Factor Surveillance Survey, 2015

Social Support

The social and emotional support measure is based on responses to the question: “How often do you get the social and emotional support you need?” The County Health Rankings reports the percent of the adult population that responds that they “never,” “rarely,” or “sometimes” get the support they need.

Poor family support, minimal contact with others, and limited involvement in community life are associated with increased morbidity and early mortality. Furthermore social support networks have been identified as powerful predictors of health behaviors, suggesting that individuals without a strong social network are less likely to participate in healthy lifestyle choices.



Sources: National Center for Health Statistics, Community Health Status Indicators

Mental health disorders and illnesses can be addressed and treated effectively, with prevention, early diagnosis, and treatment the surest methods to reduce the disease burden of mental health illnesses and their associated physical illnesses. A number of social, environmental, and economic circumstances, such as those described in previous chapters, can influence an individual’s mental health as well as their physical health. These multifaceted inputs to poor mental health make it necessary to take a thoughtful, informed approach to address the root causes of mental illness.

Chapter 5
Resources to Support Health

Access to health care is important to physical, mental, and social health. The Institute of Medicine (IOM) defines access to health care as "the timely use of personal health services to achieve the best health outcomes," with a special focus on the importance of equity of health care usage and health outcomes among and across different groups of people.[59] The ability to access healthcare can impact other areas of life, including employment, education, family life, nutrition, and emotional outlook, which play major roles in one's overall health status. Scarcity of health services, rising health care costs, lack of insurance coverage, and other limiting factors create barriers that prevent individuals and families from accessing quality health care. Persistent or cumulative barriers to health care lead to worsening health conditions, preventable hospital visits, limited use of preventive care, and other negative health outcomes.[60]

According to the Agency for Healthcare Research and Quality (AHRQ) 2013 National Healthcare Disparities Report (NHDR), there are three steps to attaining adequate access to health care:

- Gaining entry into the health care system,
- Getting access to sites of care where patients can receive needed services, and
- Finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust.[61]

Healthy People 2020 cites both the IOM and AHRQ documents on access to health care, and divides access into four major components:

- *Insurance Coverage and Affordability* – Health insurance coverage is highly emphasized by current policy in the United States as a means to affordable health care services.
- *Service Availability* – Having a usual and ongoing source of care, especially a primary care provider, leads to better health outcomes. Existence of preventive services and emergency medical services are also key.
- *Workforce* – Health care centers must be staffed with appropriate employees in order for people to access health care. Healthy People 2020 focuses on tracking the number of primary care providers.
- *Timeliness of Care* – Timeliness is defined as receiving care quickly after a need is recognized. This can be measured both in appointment and office wait times as well as the time lag between identifying a needed service (such as a test or course of treatment) and receiving it.[62]

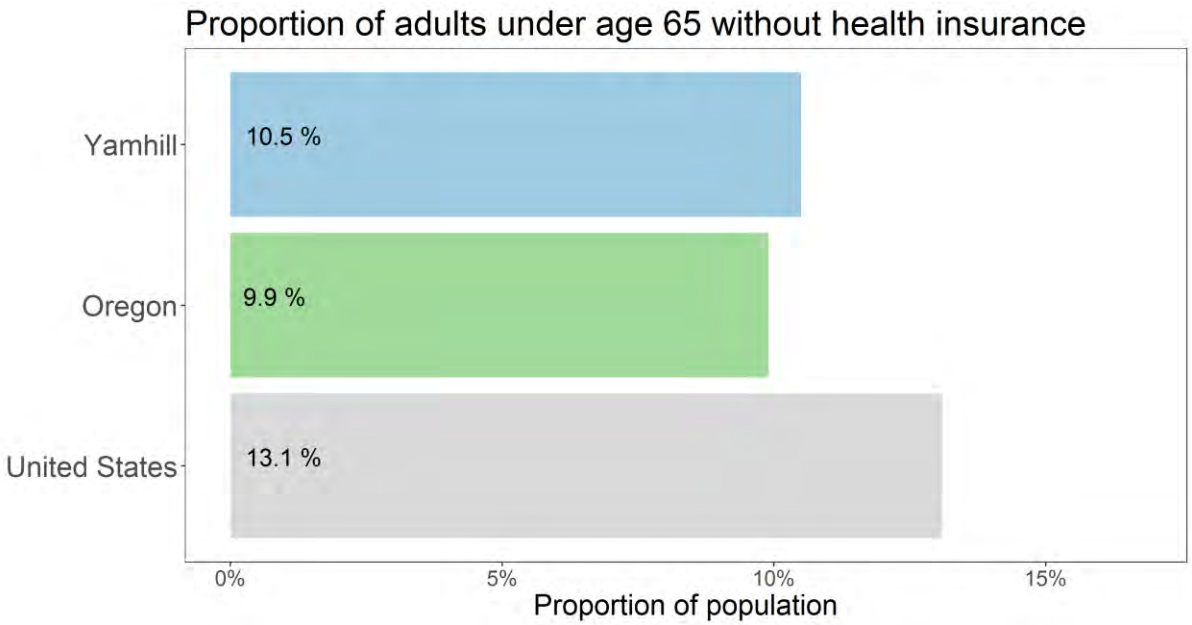
Health Insurance Coverage

Lack of adequate health insurance coverage is often a major barrier to medical care. People who are uninsured or underinsured receive less medical care than their insured counterparts.[63] Inadequate coverage creates a financial barrier between a patient and needed medical care services. People without health insurance are less likely to know about or seek out preventive services, and are more likely to have new and worsening health problems, and shorter lifespans.[64] In general, even when uninsured or underinsured persons receive medical care, care is often postponed (due, in part, to concerns about cost). These individuals suffer significantly worse health outcomes than those who have adequate medical coverage.[65]

Recent changes in policy on both the national and state level have altered the landscape of health care and health insurance access in the past five years. The Affordable Care Act (ACA), enacted on a federal level in 2010, made it illegal to deny coverage due to pre-existing medical conditions, mandated health coverage for most individuals, expanded Medicaid funding and coverage, and subsidized health insurance through exchanges for lower income individuals,[1] among other provisions. Most of these provisions went into effect by 2014.[66] As part of the ACA, Oregon accepted federal funding to expand Oregon Health Plan (OHP) membership, setting targets for enrollment and expanding the variety of services (e.g. dental services). Statewide, membership in OHP increased 104 percent over seven years, from 469,000 members in January 2010 to 957,000 members in January 2017.

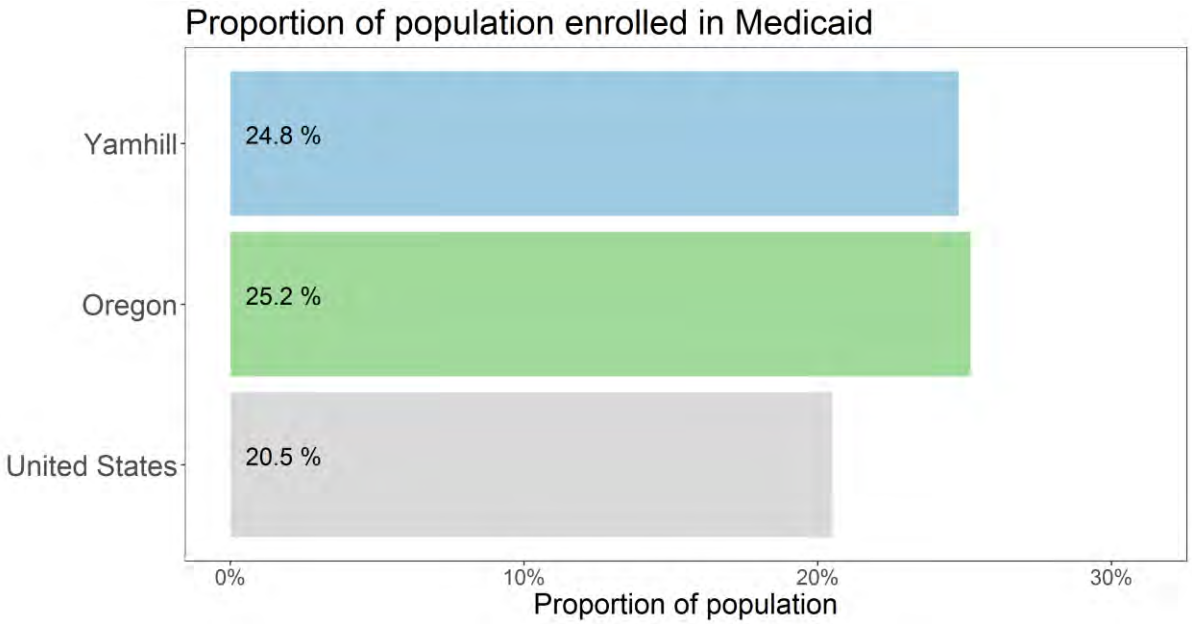
The uninsured adults measure represents the estimated percentage of the adult population under age 65 that has no health insurance coverage. The population aged 65 and above has a low uninsured rate due to their eligibility for Medicare.

[1] Health insurance exchanges are online, state or federally run marketplaces where an individual can compare plans from different insurance companies and purchase individual health insurance. Individuals with a qualifying level of income can receive federal subsidies to help pay premiums on health insurance plans.



Source: American Community Survey, 2015

Health resource availability is partially measured by the percent of the population enrolled in the state's Medicaid programs.

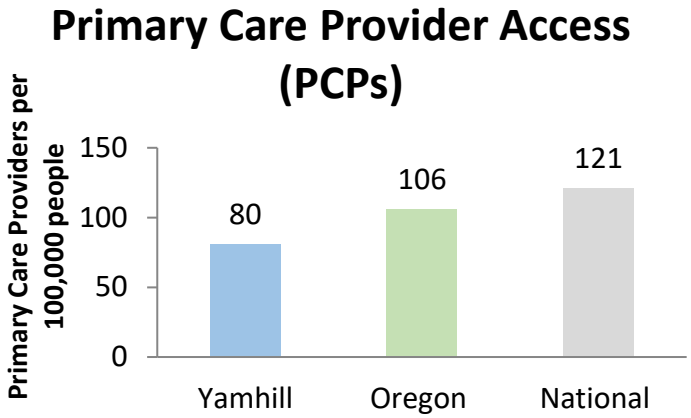


Source: Oregon Health Authority, May 2017 Coordinated Care Service Delivery and American Community Survey, 2015 (National data)

Provider Access

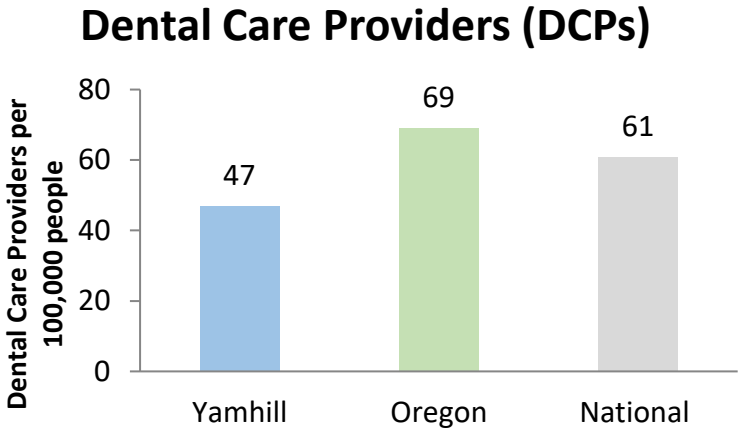
The availability of Primary Care Physicians (PCPs) was measured as the number of physicians in primary care (general practice, internal medicine, obstetrics and gynecology, or pediatrics) per 100,000 people.

Having access to care requires not only having financial coverage but also access to providers. While high rates of specialized physicians has been shown to be associated with higher, and perhaps unnecessary, utilization, having sufficient availability of primary care physicians is essential so that people can get preventive and primary care, and when needed, referrals to appropriate specialty care. To improve heath, it is important to increase and track the number of practicing PCPs.



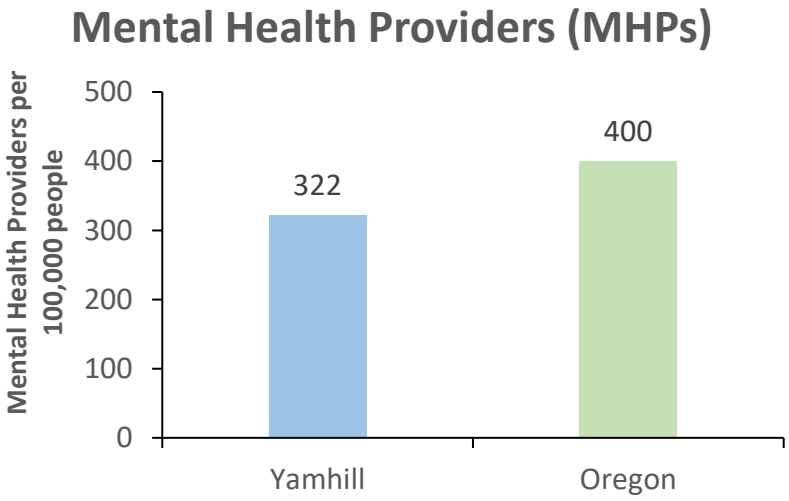
Source: American Medical Association Master File and from the Census Population Estimates, 2013

The availability of Dental Care Providers was measured as the amount of Dental Care providers per 100,000 people. Having adequate access to dental care is essential in not just preventative dental care, but also limiting risks for other diseases for which poor dental health can be attributed. In the same way primary physicians are responsible for improving the nation's health, dental care providers share equal responsibility in the mission.



Source: American Dental Association Health Policy Institute, 2001-2015

The graph below shows the number of mental health providers per 100,000 residents in Yamhill County, including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental health care. In addition to these providers, there are also 52.10 FTE behavioral health peer workers in Yamhill County.

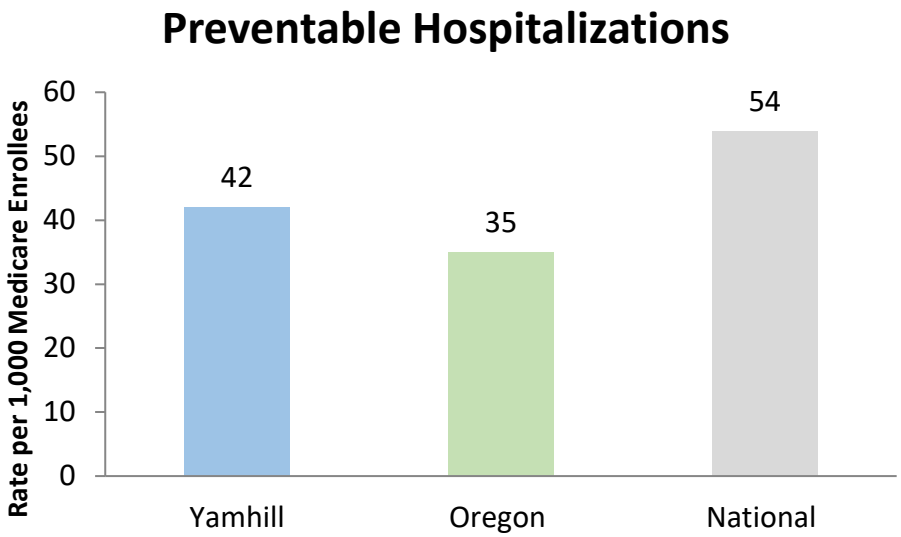


Source: County Health Rankings and Reports, 2017.

There is a strong link between mental illness and chronic disease, which makes it important to have access to both physical and behavioral health care when addressing health problems. Many mental health disorders can be treated effectively, and prevention of mental health disorders is a growing area of research and practice. Early diagnosis and treatment can decrease the disease burden of mental health disorders as well as the associated chronic diseases. Assessing and addressing mental health remains important to ensure that people can lead longer, healthier lives.[67]

Preventable Hospitalizations

Preventable hospital stays are measured as the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 Medicare enrollees. Hospitalization for diagnoses suitable for outpatient services suggests that outpatient services are underutilized and/or there is a shortage of providers. The measure

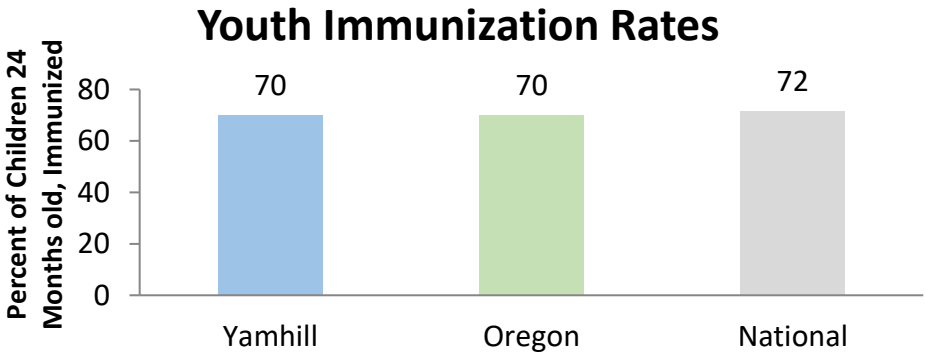


Source: American Health Rankings, 2015

may also indicate a population's tendency to overuse the hospital as a main source of care especially in communities experiencing lack of access to Primary Care Providers.

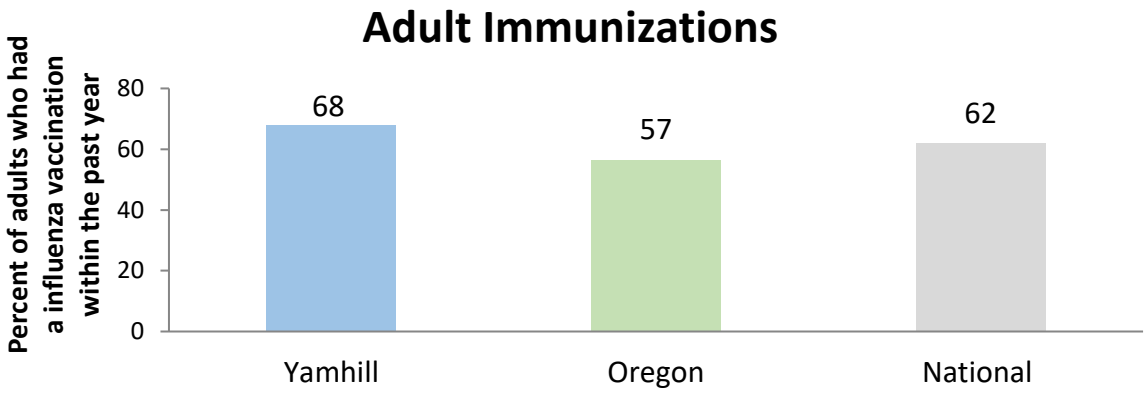
Immunizations

Youth immunization rates were measured as the percent of two year olds who had received the following immunizations: 4+ diphtheria, pertussis and tetanus (DTaP), 3+ Polio, 1+ Measles, Mumps and Rubella (MMR), 3+ Haemophilus influenzae type b (Hib), 3+ Hepatitis B, 1+ Varicella (4:3:1:3:3:1). According to Healthy People 2020, vaccines are among the most cost-effective clinical preventive



Sources: ALERT Immunization System, 2015; National Center for Health Statistics, 2015

services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule (this includes DTaP, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society saves 33,000 lives, prevents 14 million cases of disease, reduces direct health care costs by $9.9 billion and saves $33.4 billion in indirect costs.



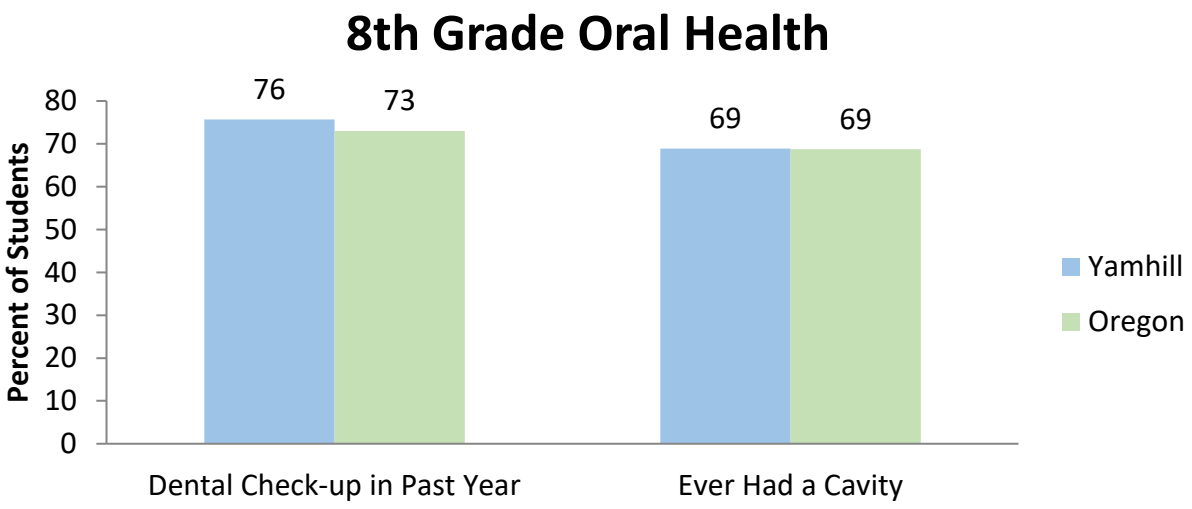
Sources: ALERT Immunization System, 2015; Behavioral Risk Factor Surveillance System, 2013

Adult immunizations were measured as non-institutionalized adults aged 65 and over, who have had an influenza shot within the past year. Despite progress, approximately 42,000 adults and 300 children in the United States die each year from vaccine-preventable diseases. Communities with pockets of unvaccinated and under vaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases, whereas herd immunity protects the unvaccinated when a majority of members are vaccinated.[68]

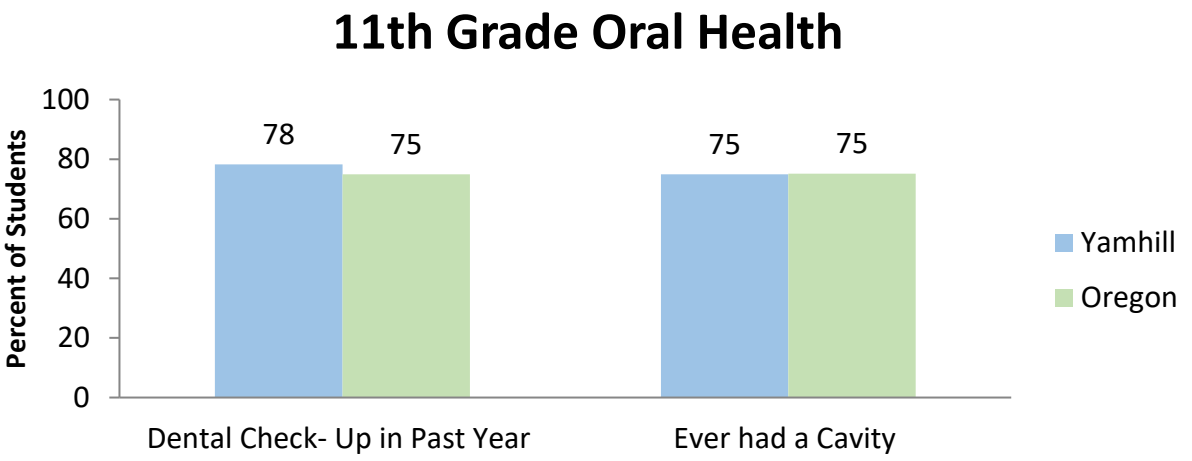
Oral Health

Oral health has been shown to impact overall health and well-being. Nearly one-third of all adults in the United States have untreated tooth decay, or tooth caries, and one in seven adults ages 35 to 44 years old has periodontal (gum) disease.[69] Tooth decay is the most prevalent chronic infectious disease affecting children in the U.S. One in five children ages 5 to 11 and one in seven adolescents aged 12 to 19 have at least one untreated decayed tooth. Youth from low income families have a higher rate of untreated tooth decay than their peers from higher-income households.[70] Given the serious health consequences, it is important to maintain good oral health. Poor oral health is linked to heart disease, premature and low birth weight babies and tooth loss.

It is recommended that adults and children see a dentist on a regular basis. Professional dental care helps to maintain the overall health of the teeth and mouth, and provides for early detection of precancerous or cancerous lesions. People living in areas with low rates of dentists may have difficulty accessing the dental care they need.



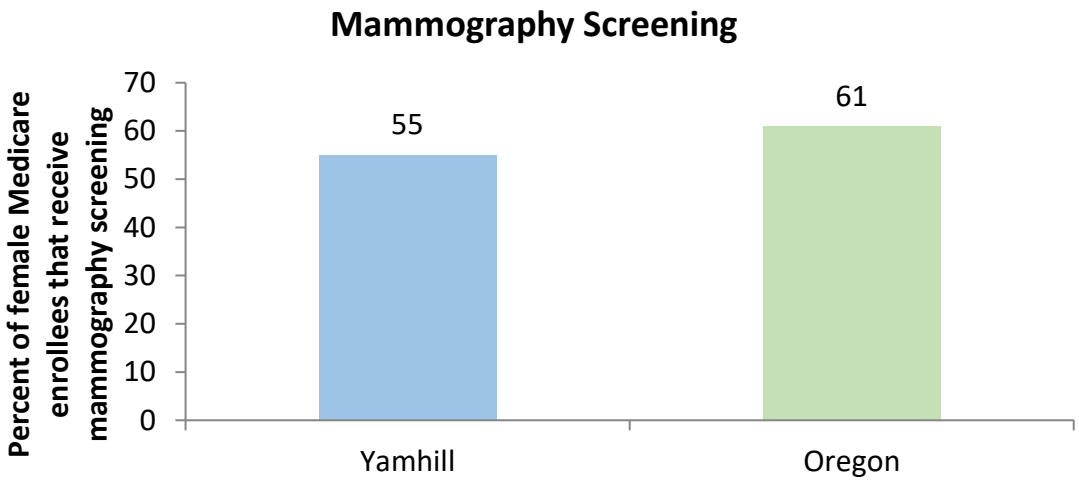
Source: Oregon Healthy Teens Survey, 2015



Source: Oregon Healthy Teens Survey, 2015

Preventive Screenings

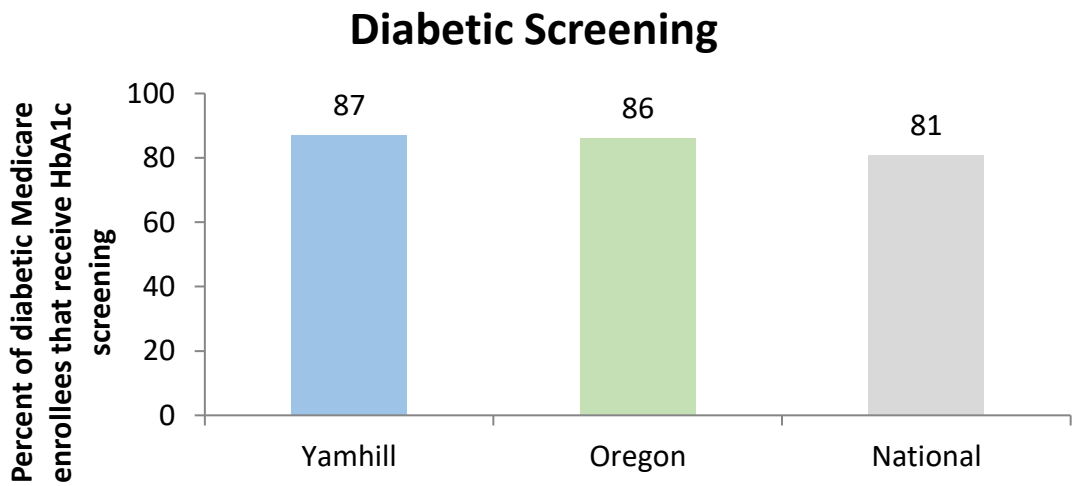
Mammography screening represents the percentage of female Medicare enrollees ages 67-69 that had at least one mammogram over a two-year period. At the time of publication, national data was not available. Evidence suggests that mammography screening reduces breast cancer mortality, especially among women over the age of 50. A physician's recommendation or referral—and satisfaction with physicians—are major facilitating factors among women who obtain breast cancer screenings.



Source: Dartmouth Atlas for Health Care, 2012

Diabetic screening is calculated as the percent of diabetic Medicare patients whose blood sugar control was screened in the past year using a test of their glycated hemoglobin (HbA1c) levels.

Regular HbA1c screening among diabetic patients is considered the standard of care. It helps assess the management of diabetes over the long term by providing an estimate of how well a patient has managed his or her diabetes over the past two to three months. When hyperglycemia is addressed and controlled, complications from diabetes can be delayed or prevented.



Source: Dartmouth Atlas of Health Care, 2012

References

[1] World Health Organization (WHO). (1985). Constitution of the World Health Organization. Retrieved from http://www.who.int/about/definition/en/print.html

[2] World Health Organization. (2017). Social Determinants of Health. Retrieved from http://www.who.int/social_determinants/en/

[3] American Public Health Association. (2015). Better Health Through Equity. Retrieved from https://www.apha.org/~/media/files/pdf/topics/equity/equity_stories.ashx

[4] U.S. Census Bureau. (2010). ACS Demographic and Housing Estimates, 2008-2012, American Census Summary File 1, P2. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_P2&prodType=table

[5] Kindig, D., University of Wisconsin, Population Health Sciences. (2012). The Link between Income and Health. Retrieved from http://www.improvingpopulationhealth.org/blog/2012/04/the-link-between-income-and-health.html

[6] Deaton, A., National Bureau of Economic Research. (20132003). Health, Income, and Inequality. Retrieved from http://www.nber.org/reporter/spring03/health.html

[7] U.S. Census Bureau. (2015). American Community Survey 5-year estimates 2011-2015. Retrieved from factfinder.census.gov

[8] U.S. Census Bureau. (2015). American Community Survey 5-year estimates 2011-2015. Retrieved from factfinder.census.gov

[9] U.S. Census Bureau. (n.d.). Poverty:(2016). How the Census Bureau Measures Poverty. Retrieved from https://www.census.gov/hhes/www/topics/income-poverty/about/overview/measureguidance/poverty-measures.html

[10] U.S. Census Bureau. (2015). American Community Survey 5-year estimates 2011-2015. Retrieved from factfinder.census.gov

[11] U.S. Department of Housing and Urban Development. (20152017). Affordable Housing. Retrieved from http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/

[12] U.S. Census Bureau. (2015). Selected Housing Characteristics, American Community Survey 5-Year Estimates, 2011-2015, Table DP04. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_DP04&prodType=table

[13] Ending Homelessness Advisory Council. (2008). A Home for Hope: A 10-Year Plan to End Homelessness in Oregon. Retrieved from http://www.oregon.gov/ohcs/pdfs/report-ehac-10-year-action-plan.pdf

[14] U.S. Census Bureau. (2015). American Community Survey 3-year estimates 2012-2015. Retrieved from factfinder.census.gov

[15] World Health Organization. (2016). Ambient (outdoor) air quality and health. Retrieved from http://www.who.int/mediacentre/factsheets/fs313/en/

[16] National Association of County & City Health Officials (NACCHO). (2016). Statement of Policy: Healthy Food Access. Retrieved from http://www.naccho.org/uploads/downloadable-resources/13-04-Healthy-Food-Access.pdf

[17] World Health Organization. (2016). Ambient (outdoor) air quality and health. Retrieved from http://www.who.int/mediacentre/factsheets/fs313/en/

[18] Centers for Disease Control and Prevention. (2017). Secondhand Smoke. Retrieved from https://www.cdc.gov/tobacco/basic_information/secondhand_smoke/index.htm

[19] Centers for Disease Control and Prevention. (2017). Health Effects of Secondhand Smoke. Retrieved from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/health_effects/index.htm

[20] Oregon Health Authority. (2017). Oregon Public Health Assessment Tool.

[21] Robert Wood Johnson Foundation, County Health Rankings & Roadmaps. (2017). Severe Housing Problems. Retrieved from http://www.countyhealthrankings.org/measure/severe-housing-problems

[22] Anderson, S.A. (1990). Core indicators of nutritional state for difficult to sample populations. *The Journal of Nutrition*, 120(11), 1555-1600. Retrieved from http://jn.nutrition.org/content/120/11_Suppl/1555.full.pdf

[23] Bhattacharya, J., Currie, J., & Haider, S. (2004). Poverty, food insecurity, and nutritional outcomes in children and adults. *Journal of Health Economics*, 23(4), 839-862.

[24] Active Living Research. (2011). Research Brief: The Power of Trails for Promoting Physical Activity in Communities. Retrieved from http://activelivingresearch.org/files/ALR_Brief_PowerofTrails_0.pdf

[25] Robert Wood Johnson Foundation, County Health Rankings. (2017). Access to exercise opportunities. Retrieved from http://www.countyhealthrankings.org/app/oregon/2017/measure/factors/132/description

[26] Robert Wood Johnson Foundation, County Health Rankings. (2017). Low birthweight. Retrieved from http://www.countyhealthrankings.org/app/oregon/2017/measure/outcomes/37/description

[27] U.S. Department of Health and Human Services, National Institute of Child Health and Human Development. (2013). What are the factors that put a pregnancy at risk? Retrieved from http://www.nichd.nih.gov/health/topics/high-risk/conditioninfo/pages/factors.aspx

[28] Planned Parenthood Federation of America. (2013). Pregnancy and Childbearing Among U.S. Teens. Retrieved from http://www.plannedparenthood.org/files/2013/9611/7570/Pregnancy_And_Childbearing_Among_US_Teens.pdf

[29] Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Reproductive Health. (2014). Reproductive Health: Teen Pregnancy. Retrieved from http://www.cdc.gov/teenpregnancy/aboutteenpreg.htm

[30] Centers for Disease Control and Prevention. (2016) Childhood obesity causes and consequences. Retrieved from https://www.cdc.gov/obesity/childhood/causes.html

[31] Centers for Disease Control and Prevention. (2017). Adult obesity causes and consequences. Retrieved from https://www.cdc.gov/obesity/adult/causes.html

[32] Centers for Disease Control and Prevention. (2011). STDs in Women and Infants. Retrieved from http://www.cdc.gov/std/stats10/womenandinf.htm

[33] Robert Wood Johnson Foundation, County Health Rankings. (2017). Premature death. Retrieved from http://www.countyhealthrankings.org/app/oregon/2017/measure/outcomes/1/description

[34] Centers for Disease Control and Prevention. (2016). Motor vehicle crash deaths. Retrieved from https://www.cdc.gov/vitalsigns/motor-vehicle-safety/index.html

[35] Healthy People 2020. (2017). Physical Activity. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity

[36] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). Healthy People 2020: Mental Health. Retrieved from http://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Mental-Health/determinants?tab=determinants

[37] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). Healthy People 2020: Mental Health. Retrieved from http://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Mental-Health

[38] Robert Wood Johnson Foundation, County Health Rankings & Roadmaps. (2017). Yamhill County Snapshot: Poor mental health days. Retrieved from http://www.countyhealthrankings.org/app/oregon/2017/measure/outcomes/42/data

[39] Ellen, I.G., Miljanovich T., Dillman K.N. (2001). Neighborhood effects on health: Exploring the links and assessing the evidence. *Journal of Urban Affairs, 23*(3-4), 391-408. DOI: 10.1111/0735-2166.00096

[40] Johnson S.L., Solomon B.S., Shields W.C., McDonald E.M., McKenzie L.B., Gielen A.C. (2009). Neighborhood violence and its association with mothers' health: Assessing the relative importance of perceived safety and exposure to violence. *J Urban Health, 86*(4), 538-550. DOI: 10.1007/s11524-0009-9345-8

[41] Oregon Department of Human Services: Child Welfare Program. (2015). Striving to meet the need: Summary of services provided by sexual and domestic violence programs in Oregon. Retrieved from http://www.oregon.gov/dhs/abuse/domestic/Documents/2014-dv-annual-report.pdf

[42] National Council on Alcoholism and Drug Dependence, Inc. (2015). Facts About Drugs. Retrieved from https://ncadd.org/about-addiction/faq/facts-about-drugs

[43] National Institute on Drug Abuse. (2014). Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide. Retrieved from http://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/introduction

[44] National Institute on Drug Abuse. (2014). Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide. Retrieved from http://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/introduction

[45] Centers for Disease Control and Prevention. (2017). Fact Sheets – Binge Drinking. Retrieved from https://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm

[46] Centers for Disease Control and Prevention. (2016). Fact Sheets – Underage Drinking. Retrieved from https://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm

[47] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). Healthy People 2020: Tobacco, Overview & Impact. Retrieved from https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Tobacco

[48] Jha, P., Ramasundarahettige, C., Landsman, V., Rostron, B., Thun, M., Anderson, R., McAfee, T., Peto, R. (2013). 21st-Century Hazards of Smoking and Benefits of Cessation in the United States. *The New England Journal of Medicine,* 368(4), 341-350. Retrieved from http://www.nejm.org/doi/pdf/10.1056/NEJMsa1211128

[49] Public Broadcasting Service. (2008). Unnatural Causes: is inequality making us sick? Retrieved from http://www.unnaturalcauses.org/assets/uploads/file/AmazingFacts_small.pdf

[50] Centers for Disease Control and Prevention. (2017). Youth and tobacco use. Retrieved from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm

[51] Centers for Disease Control and Prevention. (2017). Secondhand smoke. Retrieved from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/general_facts/index.htm

[52] Centers for Disease Control and Prevention. (2017). Fast Facts: Smoking and tobacco use. Retrieved from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm

[53] National Institute on Drug Abuse. (2014). Adolescents and Young Adults. Retrieved from http://www.drugabuse.gov/publications/research-reports/prescription-drugs/trends-in-prescription-drug-abuse/adolescents-young-adults

[54] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention. (2015). Injury Prevention and Control: Prescription Drug Overdose, Data Overview. Retrieved from http://www.cdc.gov/drugoverdose/data/index.html

[55] Oregon Health Authority. Oregon Prescription Drug Dashboard. Accessed online: https://public.health.oregon.gov/PreventionWellness/SubstanceUse/Opioids/Pages/data.aspx
[56] Oregon Health Authority. Oregon Prescription Drug Dashboard. Accessed online: https://public.health.oregon.gov/PreventionWellness/SubstanceUse/Opioids/Pages/data.aspx
[57] Oregon Health Authority. Oregon Prescription Drug Dashboard. Accessed online: https://public.health.oregon.gov/PreventionWellness/SubstanceUse/Opioids/Pages/data.aspx
[58] Substance Abuse and Mental Health Services Administration, 2014
[59] Institute of Medicine, Committee on Monitoring Access to Personal Health Care Services. (1993). Access to health care in America. Retrieved from http://www.nap.edu/read/2009/chapter/1
[60] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). Healthy People 2020: Access to Health Services. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services
[61] U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality. (2014). National Healthcare Disparities Report, 2013: Chapter 10. Access to Health Care. Retrieved from http://www.ahrq.gov/research/findings/nhqrdr/nhdr13/chap10.html
[62] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). Healthy People 2020: Access to Health Services. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services
[63] The Henry J. Kaiser Family Foundation. (2015). Key Facts about the Uninsured Population. Retrieved from http://files.kff.org/attachment/fact-sheet-key-facts-about-the-uninsured-population
[64] The Henry J. Kaiser Family Foundation. (2013). The Uninsured: A Primer 2013-4: How does lack of health insurance affect access to health care? Retrieved from http://kff.org/report-section/the-uninsured-a-primer-2013-4-how-does-lack-of-insurance-affect-access-to-health-care/
[65] The Henry J. Kaiser Family Foundation. (September 2016). Key Facts about the Uninsured Population. Retrieved from kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population.
[66] Oregon Health Authority, Oregon Health & Science University. (2015). Impacts of the Affordable Care Act on Health Insurance Coverage in Oregon: County Results/Statewide Update. Retrieved from http://www.ohsu.edu/xd/research/centers-institutes/center-for-health-systems-effectiveness/upload/Health-Insurance-Coverage-in-Oregon-County-Results.pdf
[67] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). Healthy People 2020: Mental Health. Retrieved from http://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Mental-Health/determinants?tab=determinants
[68] Healthy People 2020. (2017). Immunization and infectious disease. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases
[69] Centers for Disease Control and Prevention. (2013). Adult oral health. Retrieved from https://www.cdc.gov/oralhealth/children_adults/adults.htm
[70] Centers for Disease Control and Prevention. (2017). Children's oral health. Retrieved from https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html

Yamhill County Public Health

Community Health Assessment

2017

Part Two:

Map Appendix

[This page intentionally left with only this text on it]

Appendix A

Maps of Yamhill County health indicators

This appendix presents 17 maps of Yamhill County. The first eight maps (A.1 through A.8) show Yamhill County demographics and social determinants of health. The other nine maps (A.9 through A.17) show estimates of chronic disease and health risk factors, organized alphabetically. Each map is preceded by a description on the facing page.

Contents

A.1 Population density by census block group
A.2 Median age by census tract
A.3 Proportion of residents who do not identify as white by census tract
A.4 Estimated disability prevalence by census tract
A.5 Household poverty rate by census tract
A.6 Proportion of households with a housing cost burden by census tract
A.7 Proportion of households that are renters by census tract
A.8 Proportion of households that receive SNAP benefits by census tract
A.9 Estimated arthritis diagnosis rate by census tract
A.10 Estimated asthma diagnosis rate by census tract
A.11 Estimated binge drinking prevalence by census tract
A.12 Estimated cancer diagnosis rate by census tract
A.13 Estimated depression diagnosis rate by census tract
A.14 Estimated diabetes diagnosis rate by census tract
A.15 Estimated heart disease diagnosis rate by census tract
A.16 Estimated obesity prevalence by census tract
A.17 Estimated smoking prevalence by census tract

Definition of a census tract and census block group.

According to the U.S. Census Bureau, census tracts are small, relatively permanent statistical subdivisions of a county or equivalent entity that…generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts varies widely depending on the density of settlement. All maps in this appendix use census tracts, except for population density, which uses census block groups.

A census block group is a subdivision of a census tract, generally containing between 600 and 3,000 people.

A.1 Population density by census block group

Yamhill County, 2015

Map notes:

The population density by census block group is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. Population density estimates by census block group are reliable. In this map, one dot represents 50 people. The dots are spread randomly over each block group and do not represent actual locations. In larger, rural block groups, the population is more likely to be clustered than spread randomly.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

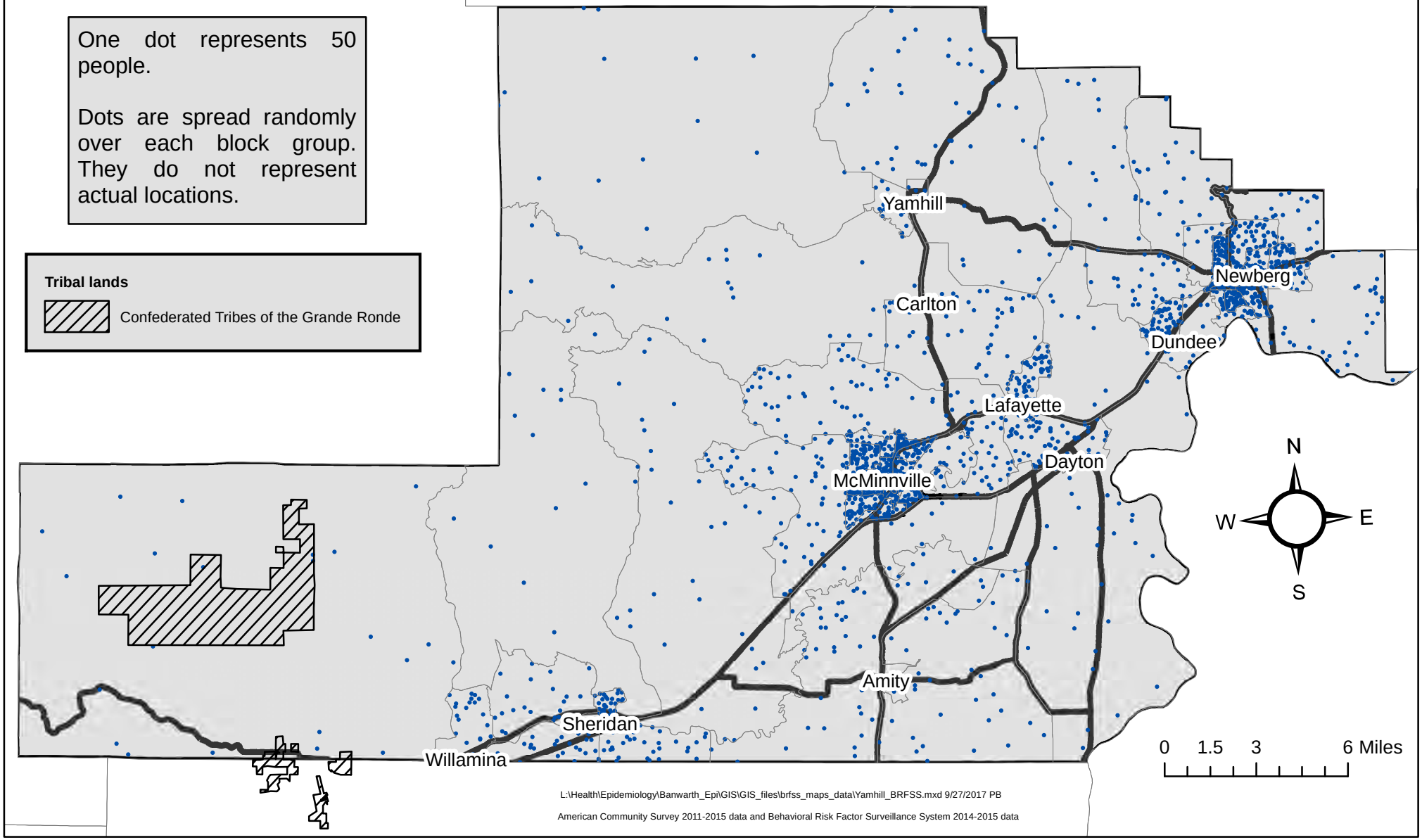
Population density by census block group
Yamhill County, 2015

One dot represents 50 people.

Dots are spread randomly over each block group. They do not represent actual locations.

Tribal lands

Confederated Tribes of the Grande Ronde



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/27/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.2 Median age by census tract

Yamhill County, 2015

Map notes:

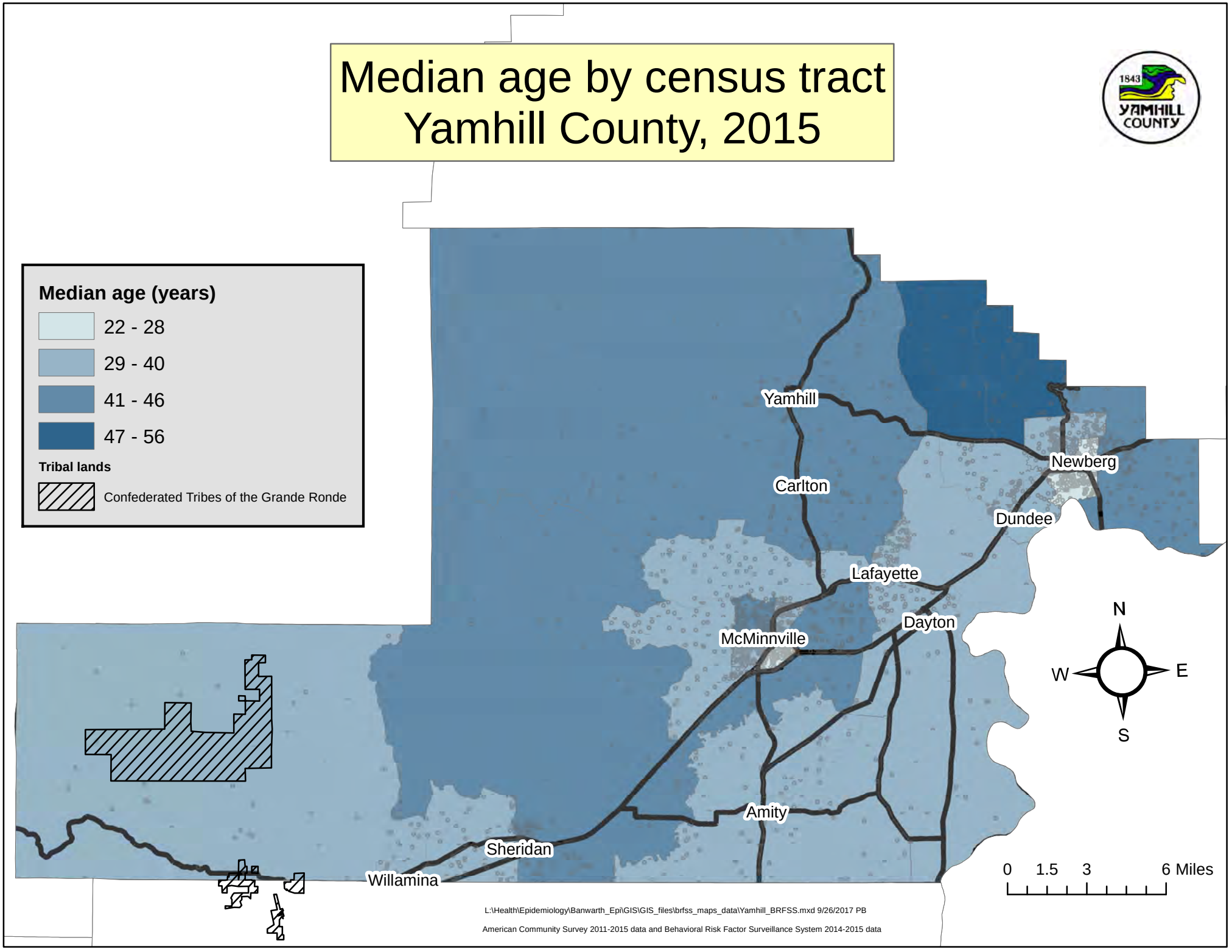
The median age by census tract is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census tract. The estimates are computed from 5 years of survey data, 2011-2015. Median age estimates at the census tract level are reliable.

The blue-gray color palette is used here to indicate that there is no “better” or “worse” median age.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Median age by census tract
Yamhill County, 2015



A.3 Proportion of residents who do not identify as white by census tract

Yamhill County, 2015

Map notes:

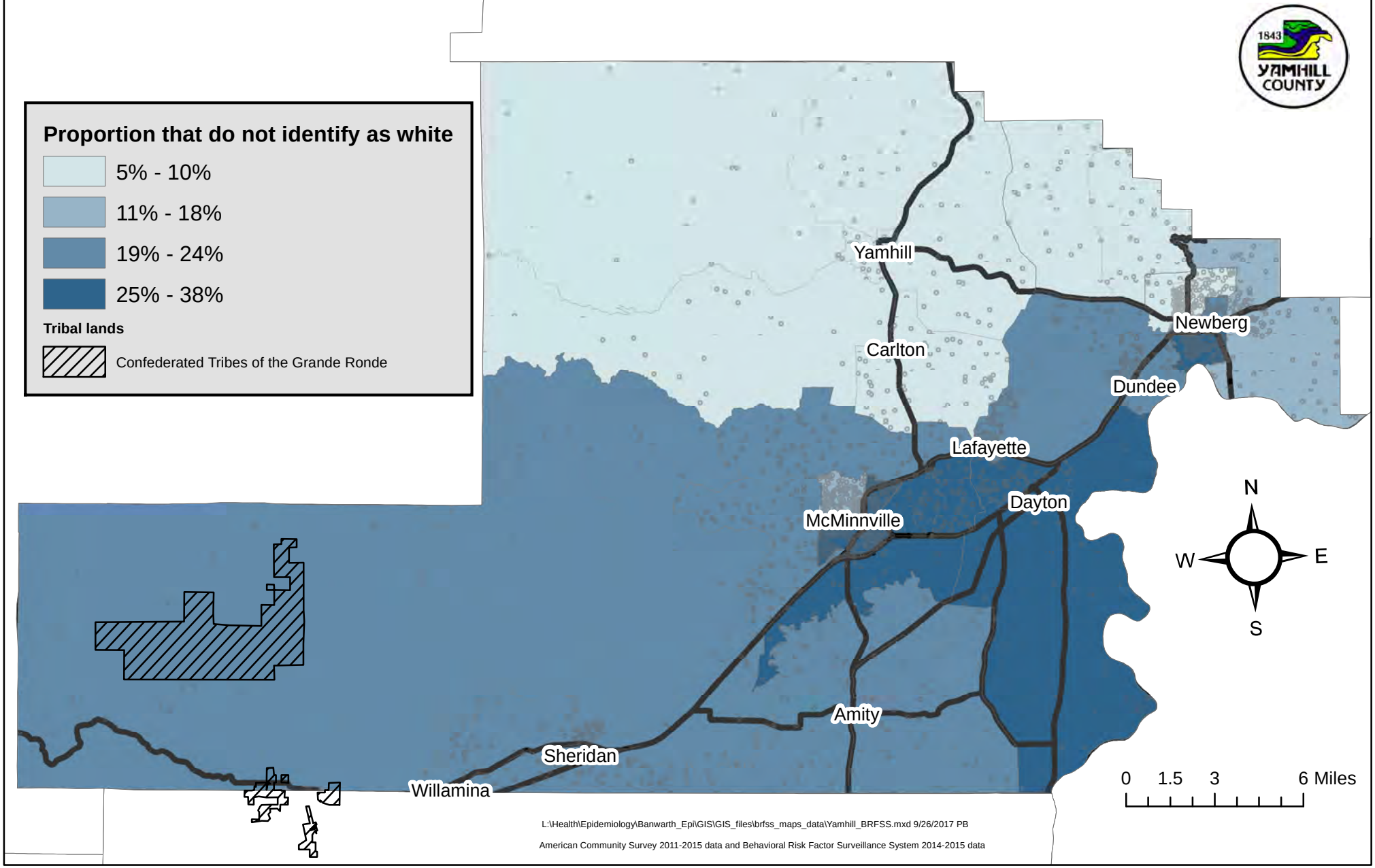
The proportion of residents who do not identify as white is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census tract. The estimates are computed from 5 years of survey data, 2011-2015. The specific data used is the proportion of residents who are not "White, not Hispanic or Latino", according to the U.S. Census Bureau definition. Race and ethnicity estimates at the census tract level are generally reliable, but the U.S. Census Bureau does not survey individuals without fixed addresses, such as migrant workers. Therefore these data should be interpreted to refer only to residents with fixed addresses.

The blue-gray color palette is used here to indicate that there is no "better" or "worse" proportion of non-white residents.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Proportion of residents who do not identify as white
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.4 Estimated disability prevalence by census tract

Yamhill County, 2015

Map notes:

The estimates of disability prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has any disability. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the probability of disability for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of disability prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

There is no "better" or "worse" disability prevalence. People with disabilities are equally capable of living healthy lives as people without disabilities. However, the red color palette is used here because the survey specifically asked if the person had a disability that limited them from activities.

Limitations and suggested interpretation:

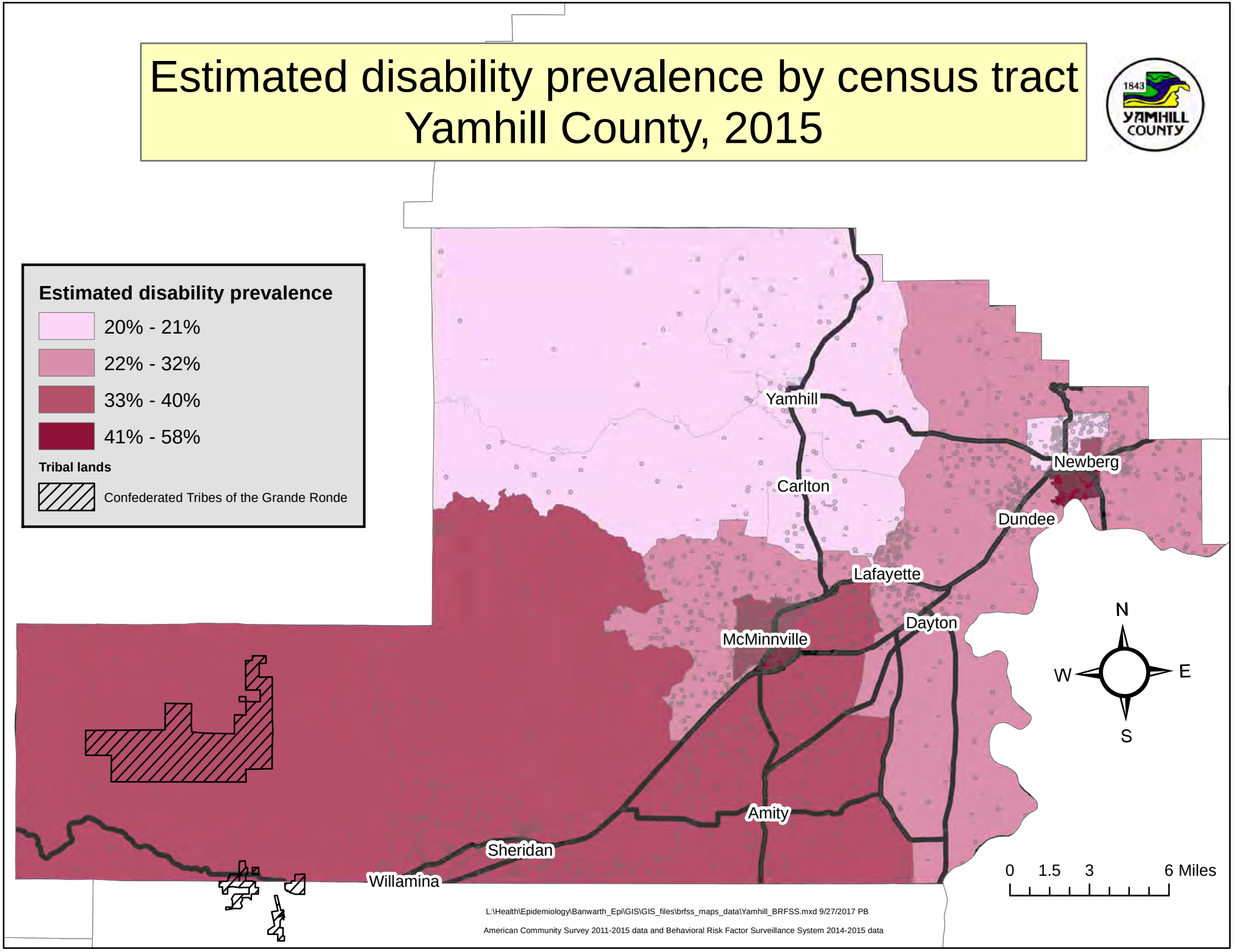
Disability prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher disability prevalence, ranging between approximately 20 and 58 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated disability prevalence by census tract
Yamhill County, 2015



A.5 Household poverty rate by census tract

Yamhill County, 2015

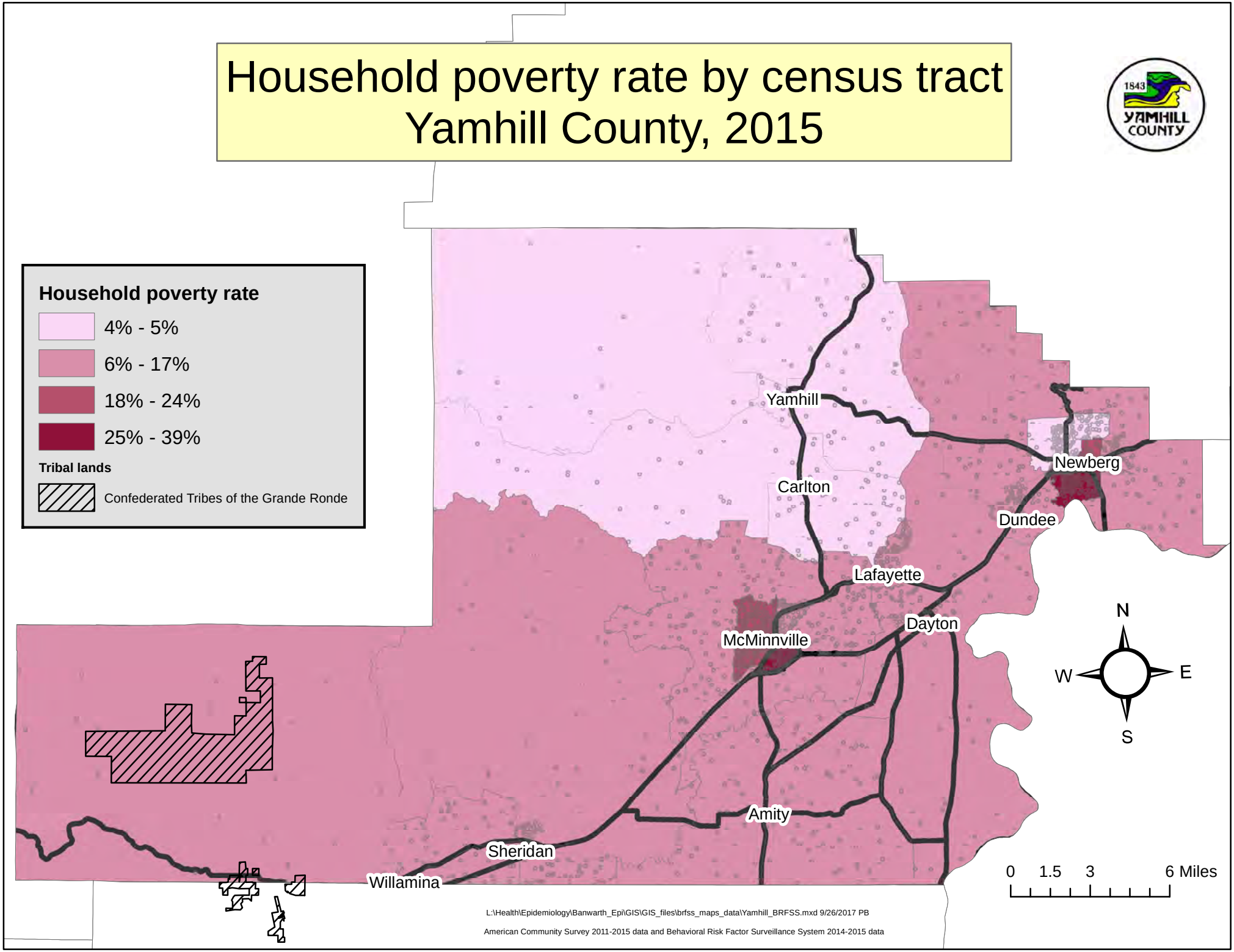
Map notes:

The household poverty rate by census tract is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census tract. The estimates are computed from 5 years of survey data, 2011-2015. The household poverty rate is the proportion of households in tract that are below the federal poverty level. A household is defined as one or more people who occupy a housing unit. Households generally do not include shared living facilities such as dormitories, barracks, and assisted living facilities. The federal poverty level is actually many different poverty levels, one for each household size. Household poverty rate estimates at the census tract level are reliable.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Household poverty rate by census tract
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.6 Proportion of households with a housing cost burden by census tract

Yamhill County, 2015

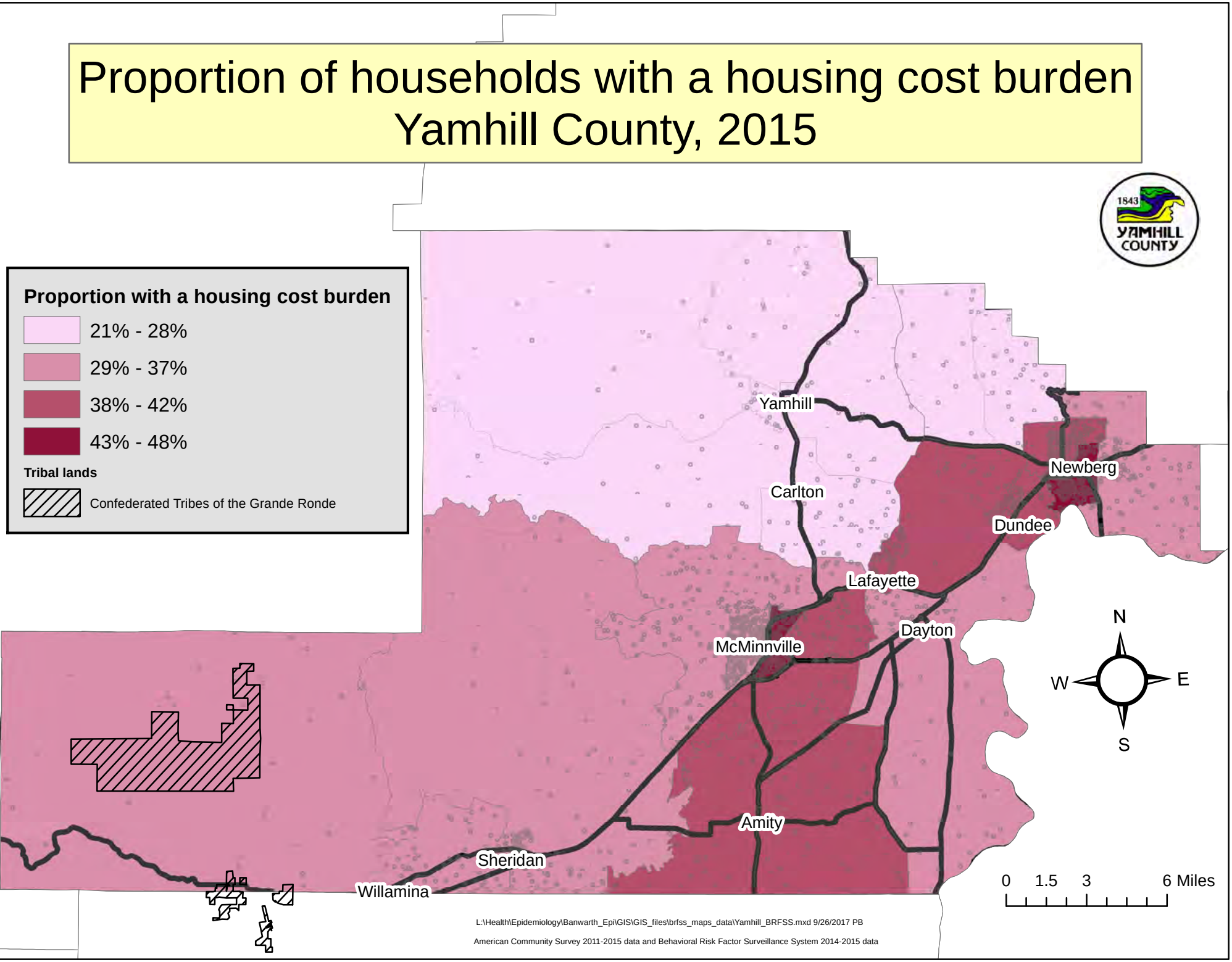
Map notes:

The proportion of households with a housing cost burden is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census tract. The estimates are computed from 5 years of survey data, 2011-2015. A household has a housing cost burden if 30 percent or more of annual household income is spent on housing costs (rent for renters, mortgage and taxes for owners). Housing cost burden estimates at the census tract level are reliable.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Proportion of households with a housing cost burden
Yamhill County, 2015



A.7 Proportion of households that are renters

Yamhill County, 2015

Map notes:

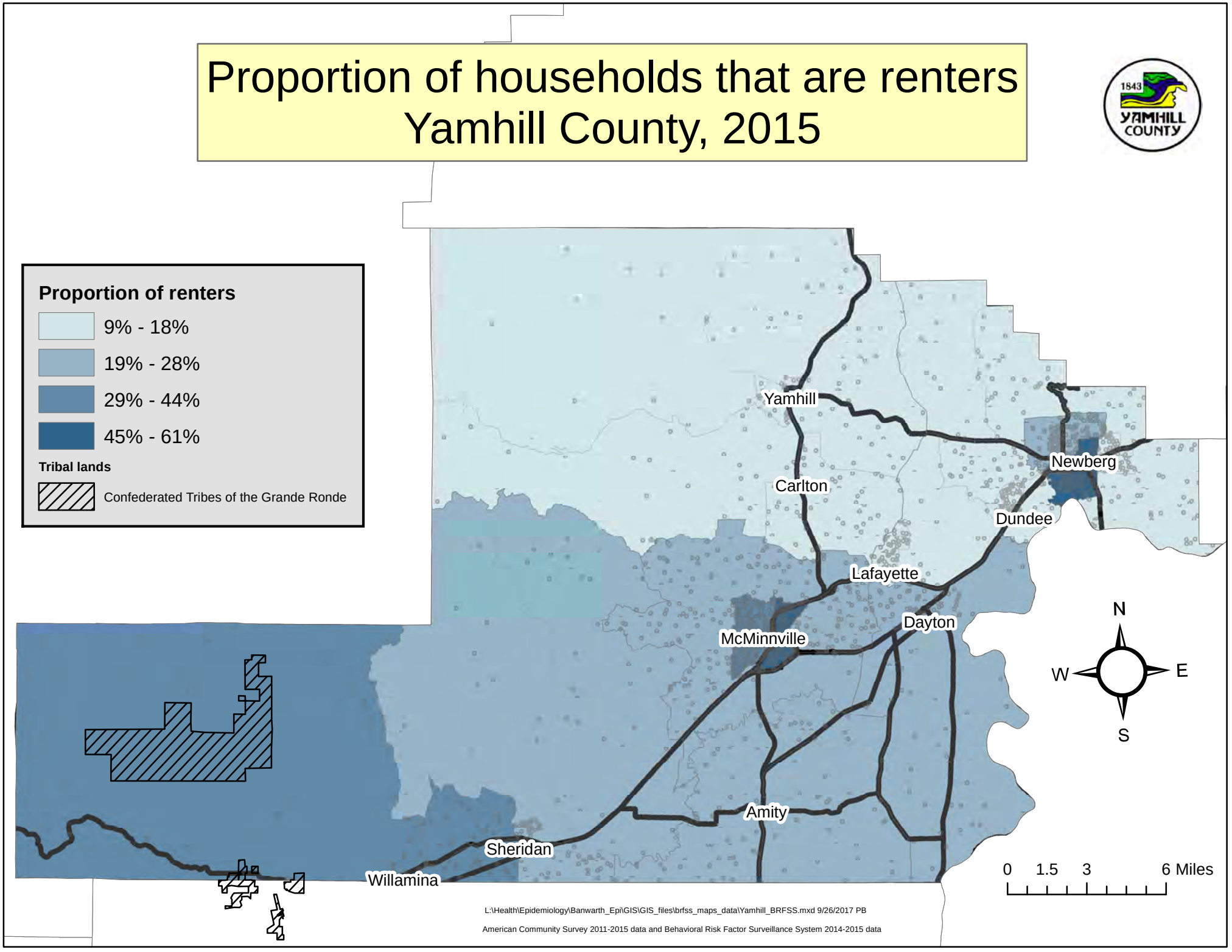
The proportion of households that are renters is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census tract. The estimates are computed from 5 years of survey data, 2011-2015. Renter-occupied housing estimates at the census tract level are reliable.

The blue-gray color palette is used here to indicate that there is no "better" or "worse" proportion of renters.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Proportion of households that are renters
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.8 Proportion of households that are receive SNAP benefits by census tract

Yamhill County, 2015

Map notes:

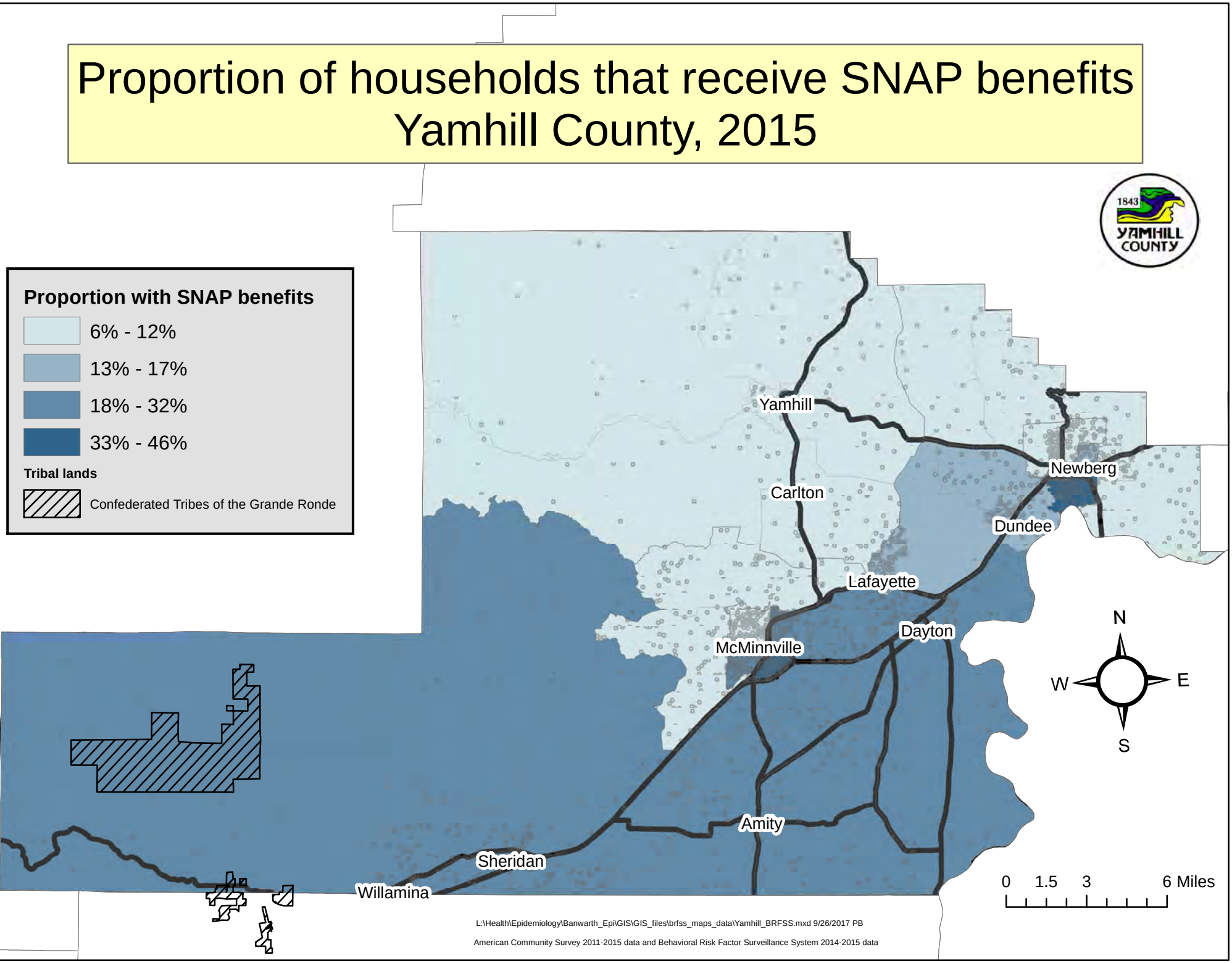
The proportion of households that receive SNAP benefits is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census tract. The estimates are computed from 5 years of survey data, 2011-2015. Estimates of households receiving SNAP benefits at the census tract level are reliable.

The blue-gray color palette is used here to indicate that there is no "better" or "worse" proportion of households receiving SNAP benefits. While this proportion is correlated with poverty, it also signals that these households are able to access supports and services.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Proportion of households that receive SNAP benefits
Yamhill County, 2015



A.9 Estimated arthritis diagnosis rate by census tract

Yamhill County, 2015

Map notes:

The estimates of arthritis diagnosis rate by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with arthritis. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of arthritis for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the arthritis diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

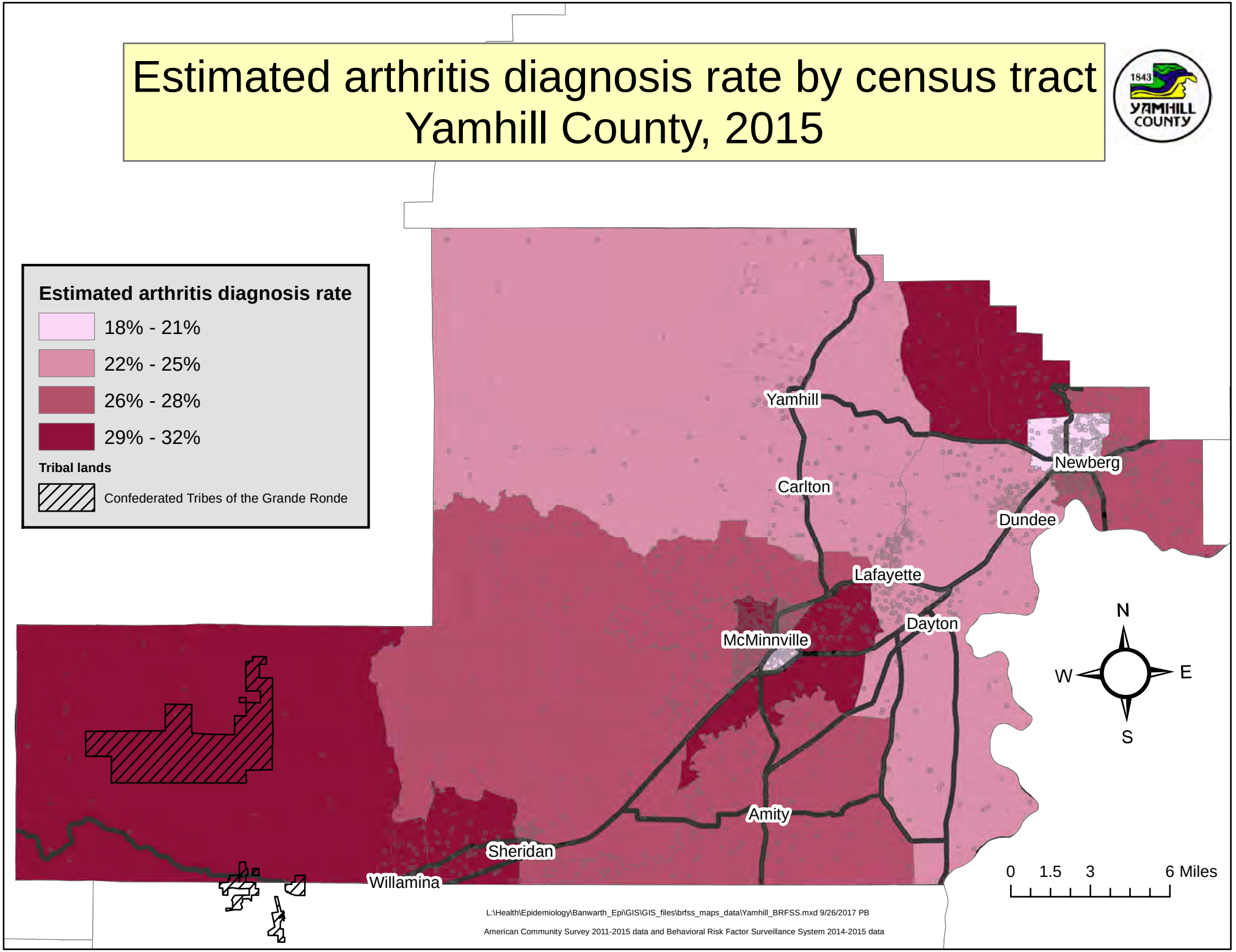
The arthritis diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher arthritis diagnosis rates, ranging between approximately 18 and 32 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated arthritis diagnosis rate by census tract
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.10 Estimated asthma diagnosis rate by census tract

Yamhill County, 2015

Map notes:

The estimates of asthma diagnosis rate by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with asthma. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of asthma for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the asthma diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

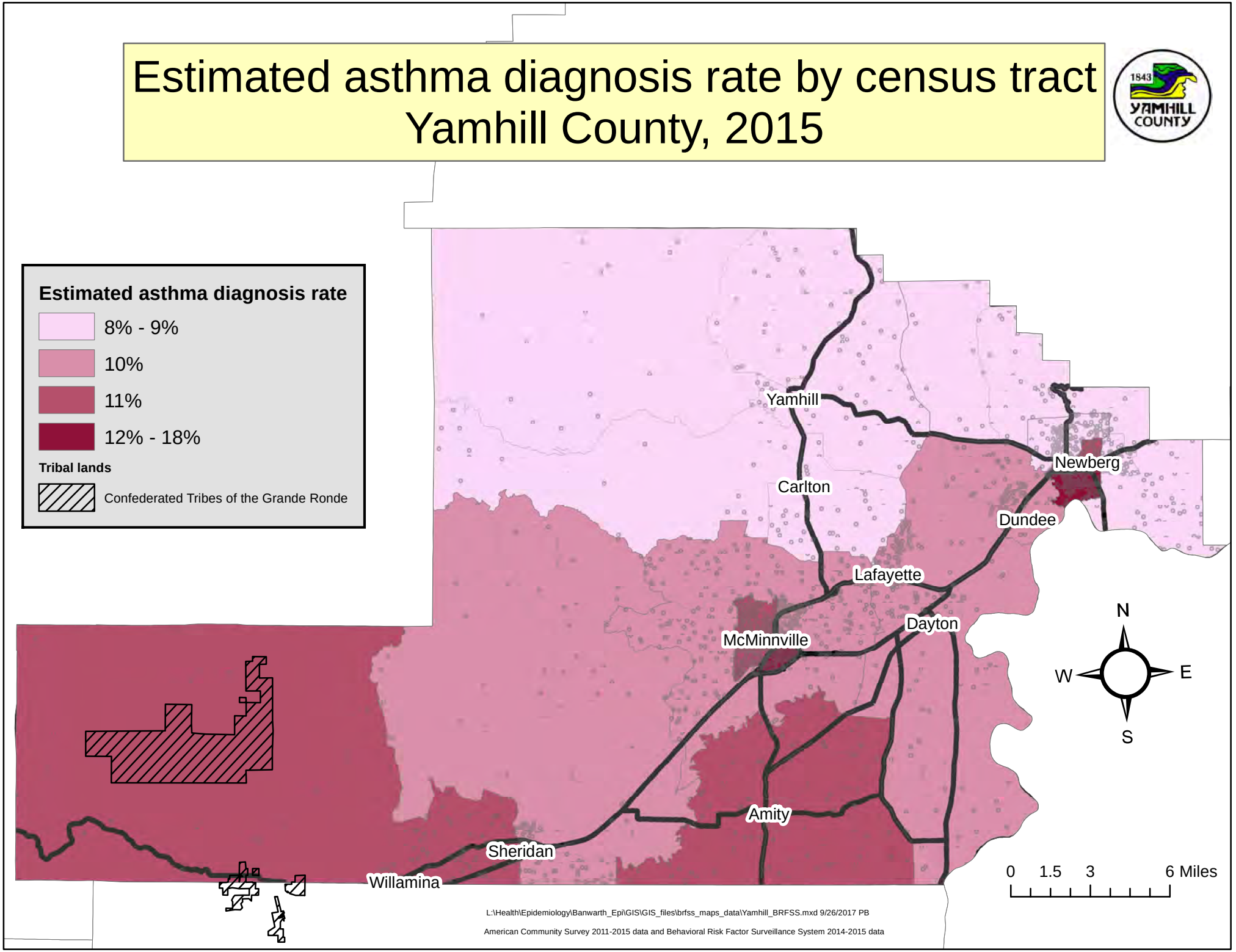
The asthma diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher asthma diagnosis rates, ranging between approximately 8 and 18 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated asthma diagnosis rate by census tract
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.11 Estimated binge drinking prevalence by census tract

Yamhill County, 2015

Map notes:

The estimates of binge drinking prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks: "How many times during the past 30 days did you have 4 (women) or 5 (men) drinks on one occasion?" Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of binge drinking for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of binge drinking prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

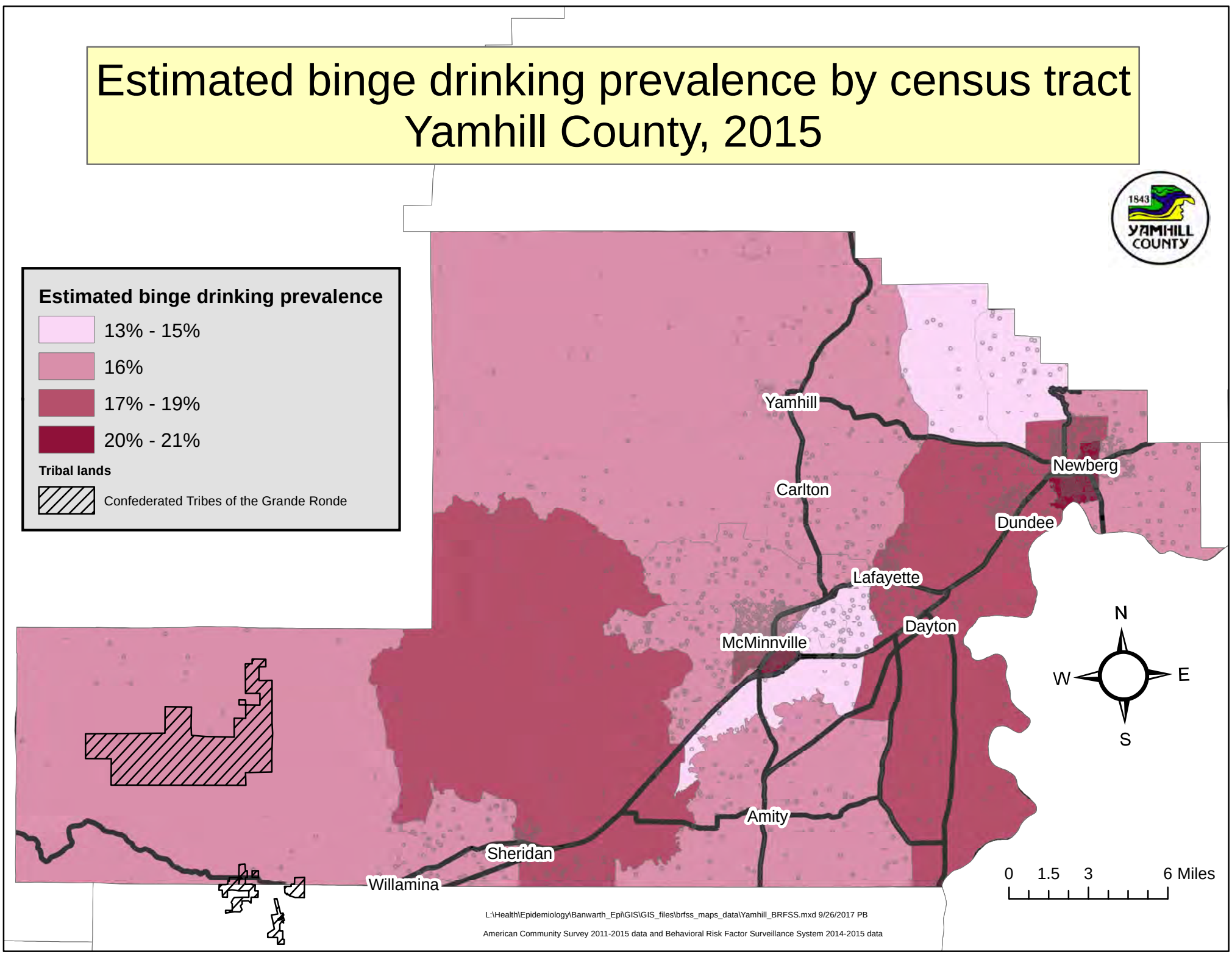
Binge drinking prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher binge drinking prevalence, ranging between approximately 13 and 21 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated binge drinking prevalence by census tract
Yamhill County, 2015



A.12 Estimated cancer diagnosis rate by census tract

Yamhill County, 2015

Map notes:

The estimates of cancer diagnosis rate by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with cancer. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of cancer for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the cancer diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

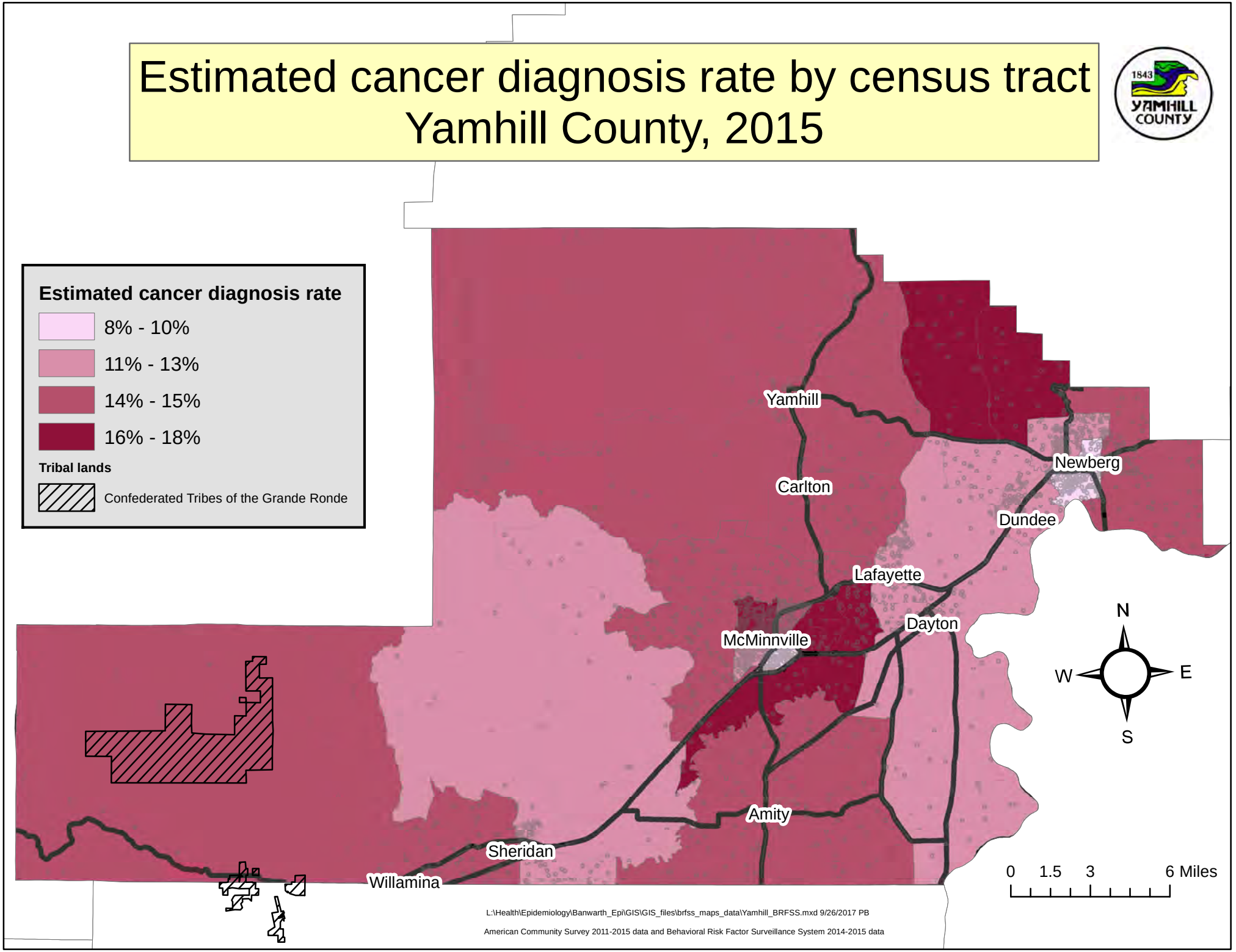
The cancer diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher cancer diagnosis rates, ranging between approximately 8 and 18 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated cancer diagnosis rate by census tract
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.13 Estimated depression diagnosis rate by census tract

Yamhill County, 2015

Map notes:

The estimates of depression diagnosis rate by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with depression. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of asthma for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the depression diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

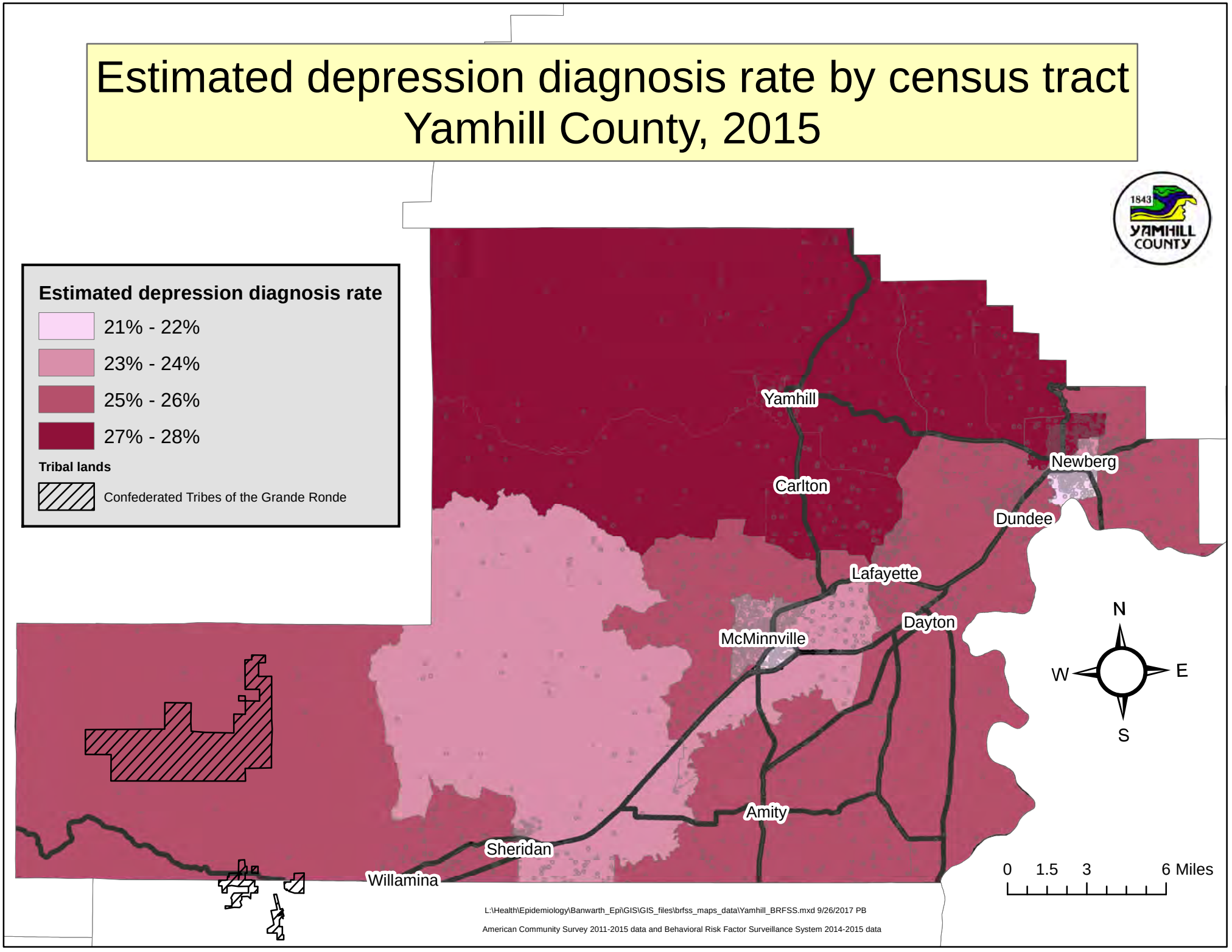
The depression diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher depression diagnosis rates, ranging between approximately 21 and 28 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated depression diagnosis rate by census tract
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.14 Estimated diabetes diagnosis rate by census tract

Yamhill County, 2015

Map notes:

The estimates of diabetes diagnosis rate by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with diabetes. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of diabetes for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the diabetes diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

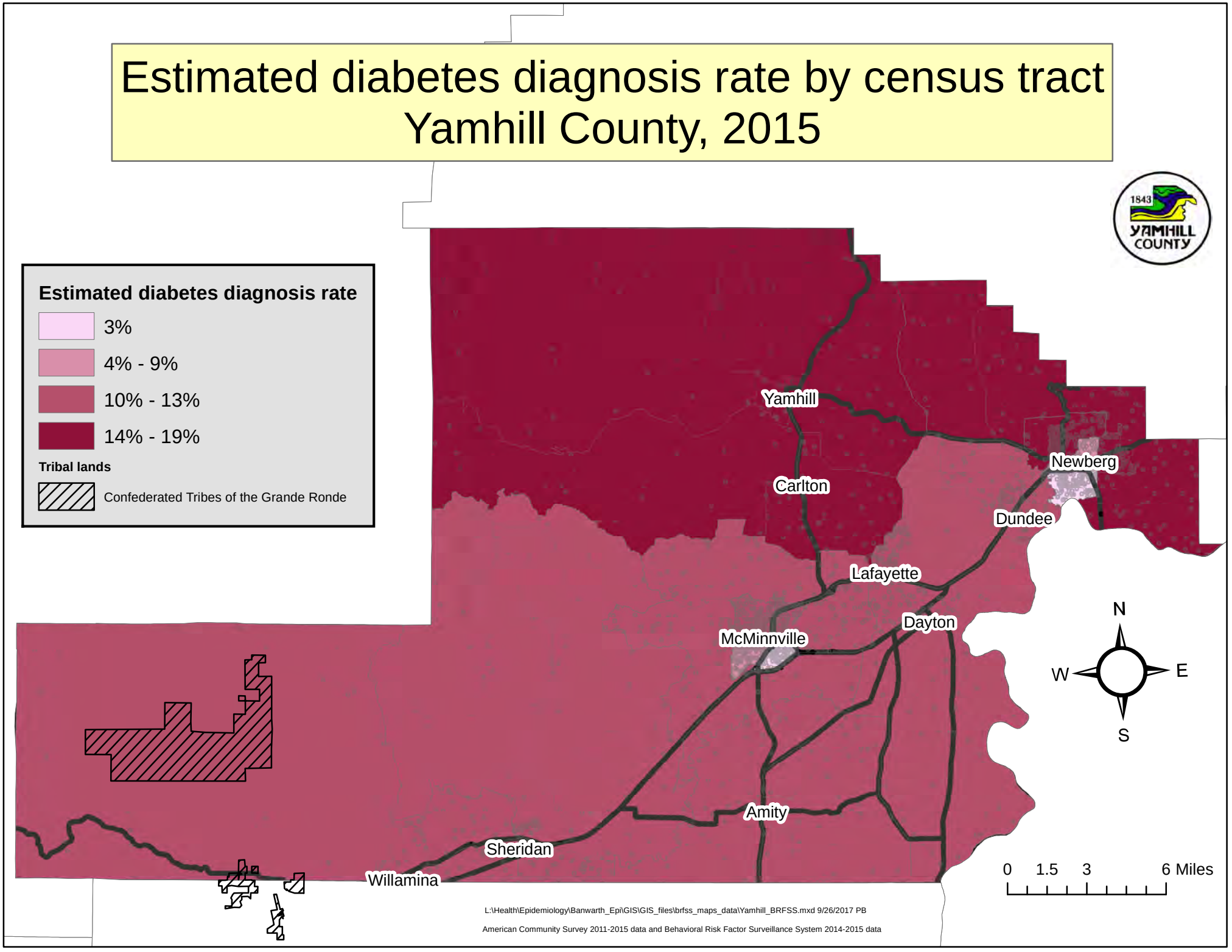
The diabetes diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher diabetes diagnosis rates, ranging between approximately 3 and 19 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated diabetes diagnosis rate by census tract
Yamhill County, 2015



A.15 Estimated heart disease diagnosis rate by census tract

Yamhill County, 2015

Map notes:

The estimates of heart disease diagnosis rates by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with heart disease. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates heart disease diagnosis rates for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of heart disease diagnosis rates. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

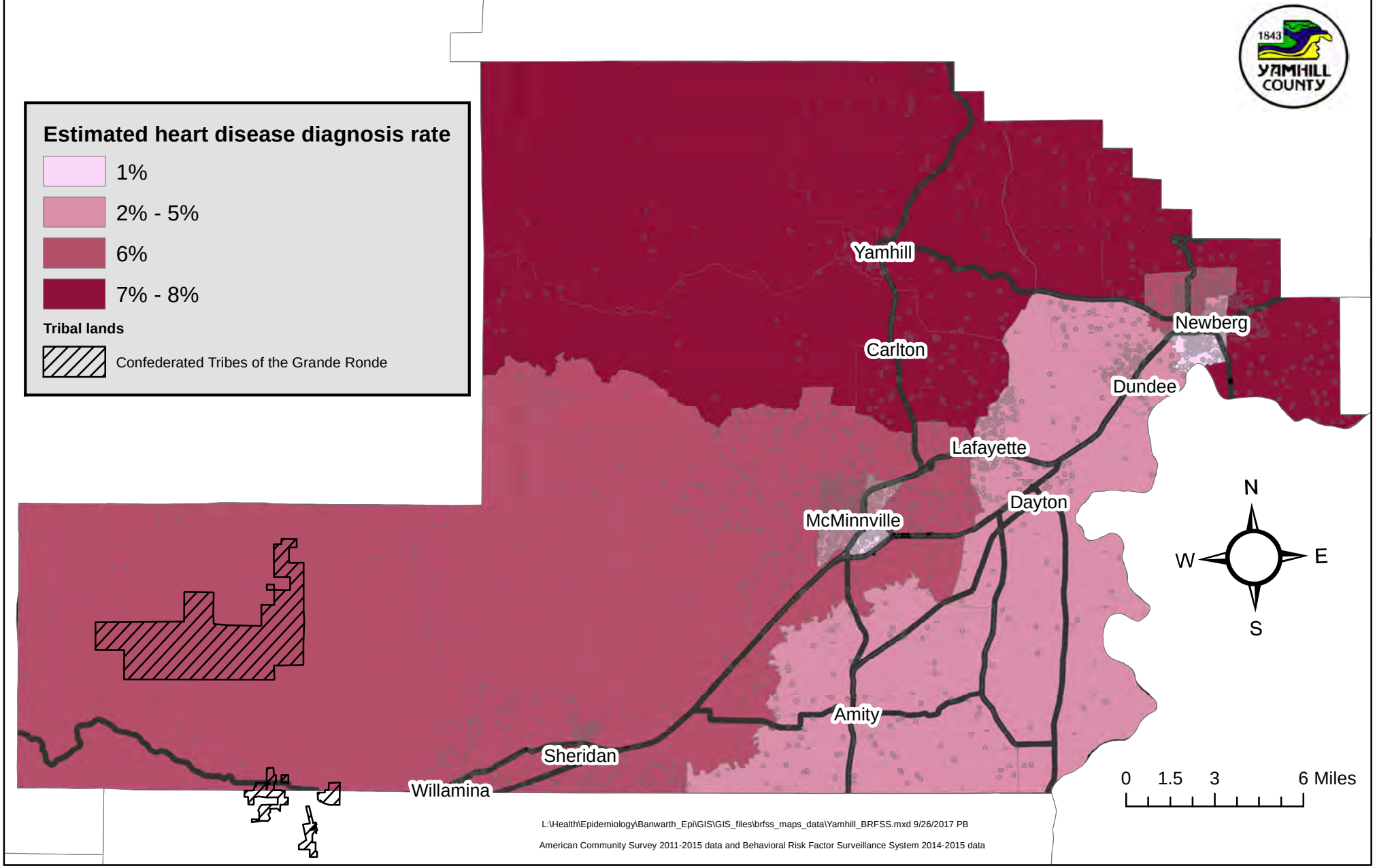
The heart disease diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher heart disease diagnosis rates, ranging between approximately 1 and 8 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated heart disease diagnosis rate by census tract
Yamhill County, 2015



L:\Health\Epidemiology\Banwarth_Epi\GIS\GIS_files\brfss_maps_data\Yamhill_BRFSS.mxd 9/26/2017 PB

American Community Survey 2011-2015 data and Behavioral Risk Factor Surveillance System 2014-2015 data

A.16 Estimated obesity prevalence by census tract

Yamhill County, 2015

Map notes:

The estimates of obesity prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks the height and weight of the respondent. These values are used to calculate the body mass index (BMI) of the person, with a BMI over 30 recorded as "obese". Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the probability of obesity for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of obesity prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

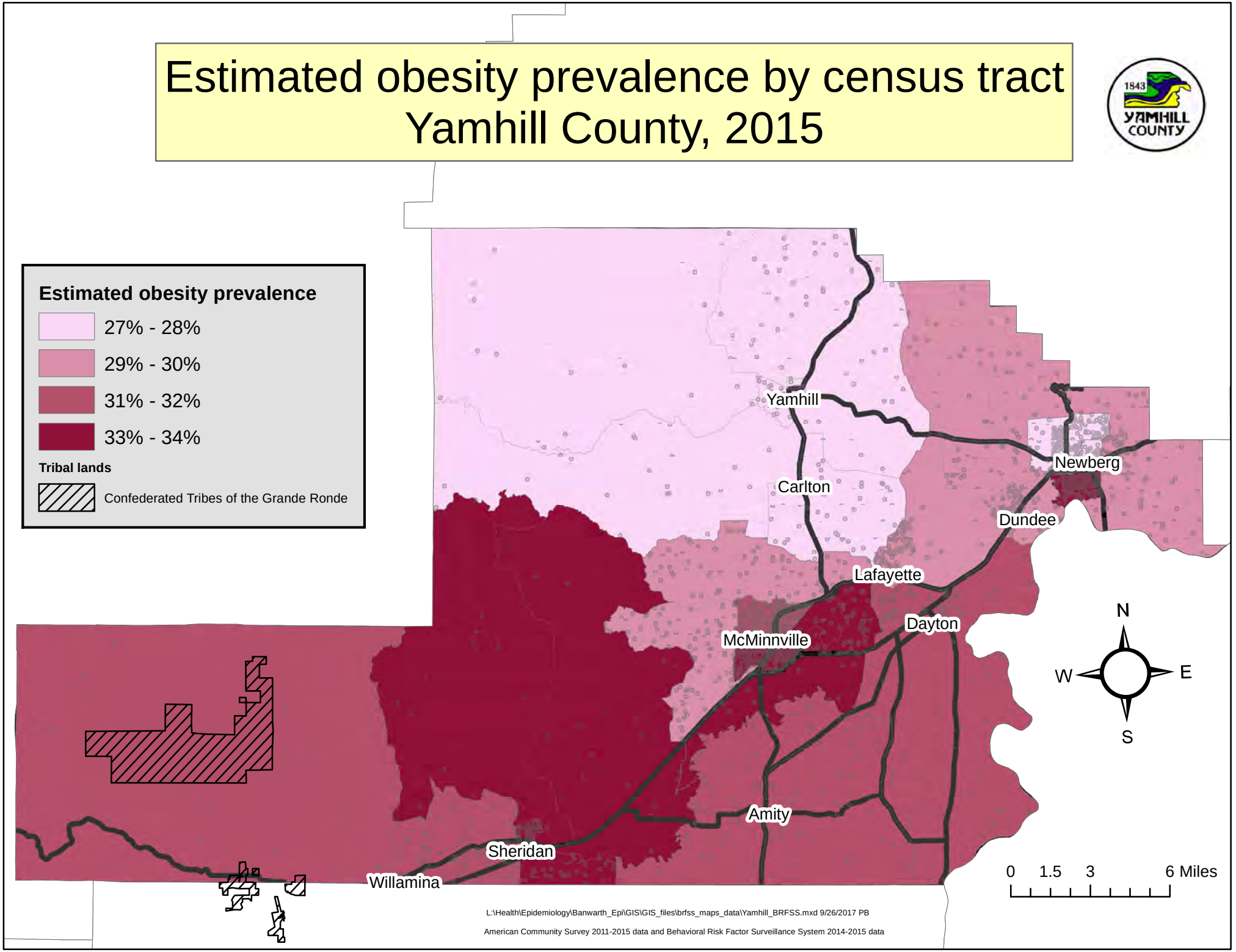
Obesity prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher obesity prevalence, ranging between approximately 27 and 34 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated obesity prevalence by census tract
Yamhill County, 2015



A.17 Estimated smoking prevalence by census tract

Yamhill County, 2015

Map notes:

The estimates of smoking prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has smoked cigarettes in the previous 30 days. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the probability of smoking for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of smoking prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

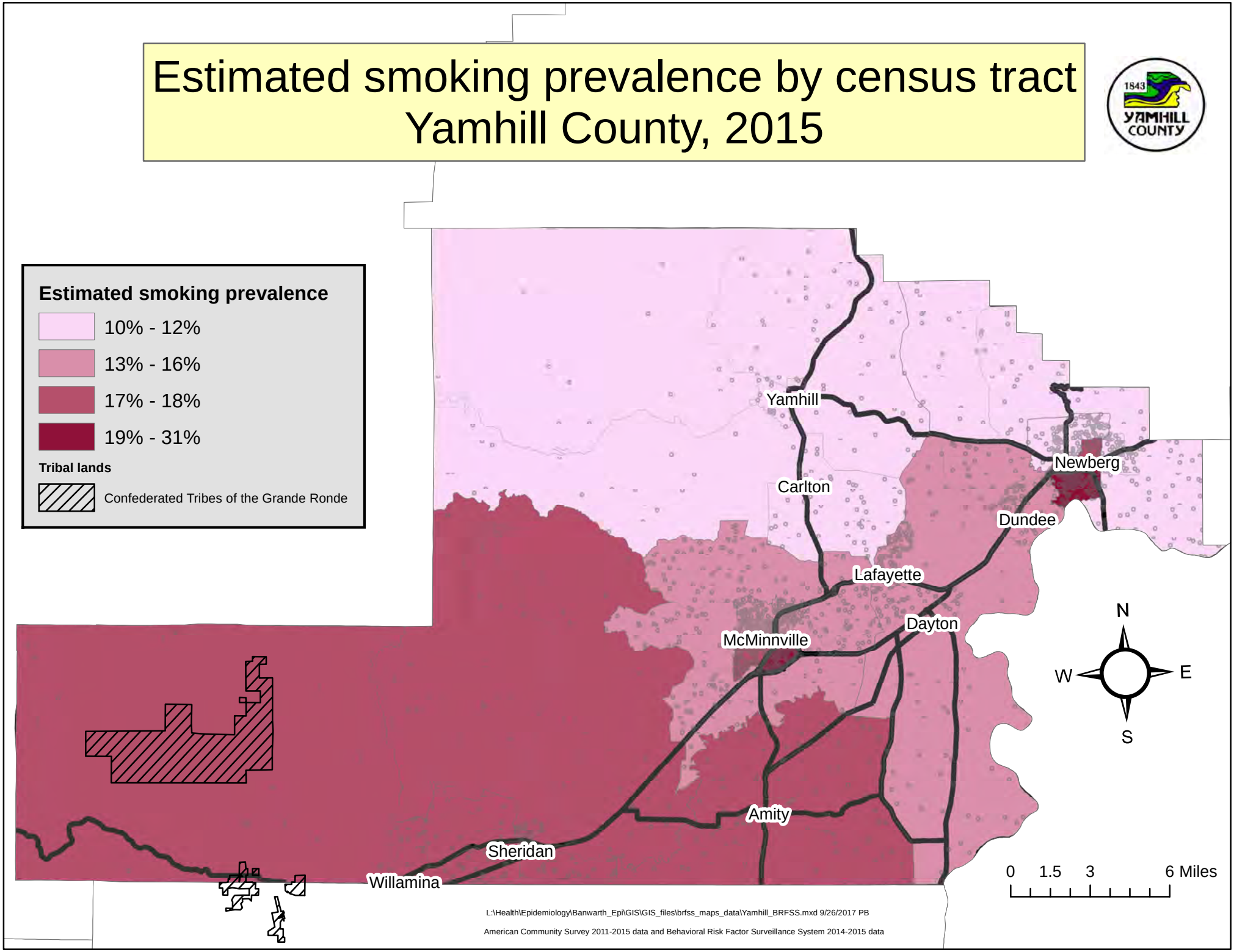
Smoking prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depend on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher smoking prevalence, ranging between approximately 10 and 31 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated smoking prevalence by census tract
Yamhill County, 2015



[This page intentionally left with only this text on it]

Yamhill County Public Health

Community Health Assessment

2017

Part Three:

Community Survey Results

[This page intentionally left with only this text on it]

Yamhill County Community Health Perceptions Survey

Introduction and background

To be completed by Yamhill County

Data entry and analysis

The data were downloaded from SurveyMonkey and analyzed using R statistical software. Qualitative responses were analyzed using thematic analysis.

Survey responses

226 individuals completed the community health perceptions survey. 225 surveys were completed in English. One survey was completed in Spanish.

Limitations

The community health perceptions survey used convenience sampling to elicit responses. The data and analysis in this summary should not be interpreted as representative of Yamhill County as a whole.

Survey Results

The Community Health Perceptions Survey is divided into three sections. The first set of questions asked about the demographics of the people who responded to the survey ("respondents"). The second set of questions were about health care access and utilization. The final set of questions asked respondents to give their opinions on the health of the community by scoring different indicators of health factors and outcomes.

Section 1: Demographic characteristics of survey respondents

The demographic questions included gender identity and sexual orientation, race and ethnicity, age, family structure, and socioeconomic characteristics. 210 respondents provided answers. The results are presented in Tables 1-4 below.

Tables 1-4: Demographic characteristics of community health perception survey respondents

Note: Certain categories are grouped in order to suppress small numbers and to have categories sum to the total. The groups do not indicate an equivalency between categories in the same group.

Table 1. Gender and sexual orientation			
Characteristic	Category	Number	Percent of total
Gender identity	Female	157	75 %

	Male	43	20 %
	Transgender/declined to answer	10	5 %
Sexual orientation	Straight/heterosexual	181	86 %
	Gay, lesbian, bisexual, or another sexuality	17	8 %
	Declined to answer	12	6 %

Table 2. Race, ethnicity, and language spoken at home			
Race or ethnicity	American Indian or Alaska Native	23	11 %
	Hispanic or Latino	13	6 %
	White	142	67 %
	Another race or ethnicity/declined to answer	32	15 %
Language spoken at home	English	203	97 %
	Another language/declined to answer	7	3 %

Table 3. Age and family structure			
Age group	25 to 44	84	40 %
	45 to 64	115	55 %
	Another age group	11	5 %
Family structure	Children in the home	90	43 %
	No children in the home	116	55 %
	Lives with one or more people	188	90 %
	Lives alone	22	10 %

Table 4. Socioeconomic characteristics			
Annual household income	Less than $15,000	11	5 %
	$15,000 to $24,000	14	7 %
	$24,000 to $34,000	17	8 %
	$35,000 to $50,000	47	22 %
	$50,000 to $79,000	59	17 %

	$80,000 or more	62	30 %
Housing situation	Stable housing (1 year or more)	201	96 %
	Unstable housing or housing assistance	9	4 %
Education level	High school or less	28	13 %
	Some college or two-year degree	94	45 %
	Four-year degree	45	21 %
	Graduate degree	37	18 %
	Declined to answer	6	3 %
Employment status	Employed	166	79 %
	Not formally employed	54	21 %

Section 2: Access to health care for survey respondents

Respondents to the survey were also asked about their access to health care. Questions included health insurance coverage, dental care insurance, behavioral health coverage, and health care utilization. 217 respondents gave answers. The results are presented in Tables 5-8, below.

Tables 5-8: Access to health care for community health perception survey respondents

Note: Certain categories are grouped in order to suppress small numbers and to have categories sum to the total. The groups do not indicate an equivalency between categories in the same group.

Table 5. Health insurance and health care access			
Characteristic	Category	Number	Percent of total
Health insurance source	Through job	160	74 %
	Oregon Health Plan	15	7 %
	Tribal insurance	12	6 %
	Other source or no insurance	30	14 %
Health insurance coverage	Adequate coverage	165	76 %
	Inadequate coverage	52	24 %
Location for medical care	Regular provider	170	78 %
	Tribal health center	19	9 %
	Clinic or health center	17	8 %
	Other location or does not seek care	11	5 %

Table 6. Dental insurance and oral health care			
Dental insurance	Adequate insurance	147	68 %
	Inadequate insurance	44	20 %
	No insurance	26	12 %
Dental visit	Within past year	123	57 %
	Within 1-2 years	46	21 %
	Within 2-5 years	31	14 %
	Not within 5 years	17	8 %

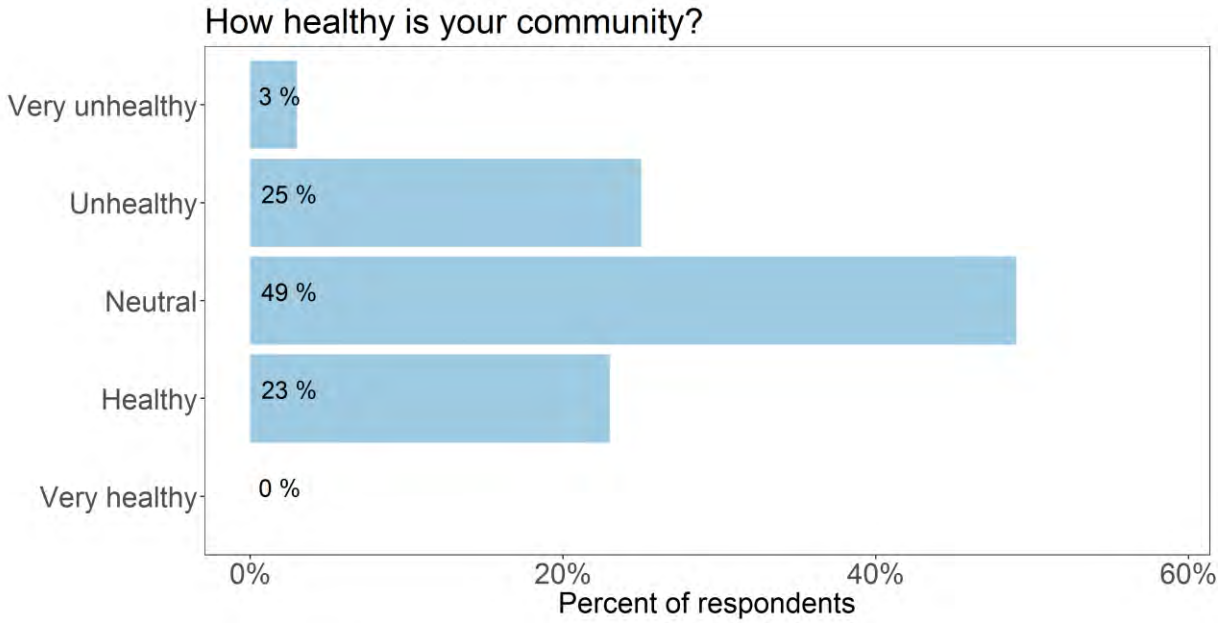
Table 7. Mental Health insurance and access to services			
Mental health services coverage	Insurance covers mental health	160	74 %
	Insurance does not cover mental health or no insurance	14	6 %
	Unknown if insurance covers mental health	43	20 %
Access to mental health services	Able to access services as soon as needed	42	19 %
	Able to access services after a wait	27	12 %
	Difficult or unable to access services	28	13 %
	Did not need services	120	55 %

Table 8. Access to substance abuse treatment insurance and access to services			
Substance abuse treatment coverage	Insurance covers substance abuse treatment	94	43 %
	Insurance does not cover substance abuse treatment or no insurance	8	4 %
	Unknown if insurance covers substance abuse treatment	115	53 %
Access to substance abuse treatment	Needed treatment	10	5 %
	Did not need treatment	207	95 %

Section 3: Community Health Perceptions

Survey respondents were asked eleven questions about their perceptions of community health. Responses to these questions were tabulated and graphed, and have descriptions included with each figure. The first question ask respondents to rate the overall health of their community, while the other questions asked about specific categories of health indicators. The results are presented in Figures 1-11 below.

Figure 1. How healthy is your community?



This question provided an overview of perceptions of community health. Half of respondents rated the health of their community as neutral (neither healthy nor unhealthy). Just under one quarter of respondents rated their community as healthy, one quarter rated it as unhealthy, and 3 percent rated it as very unhealthy.

Health inputs and health outcomes

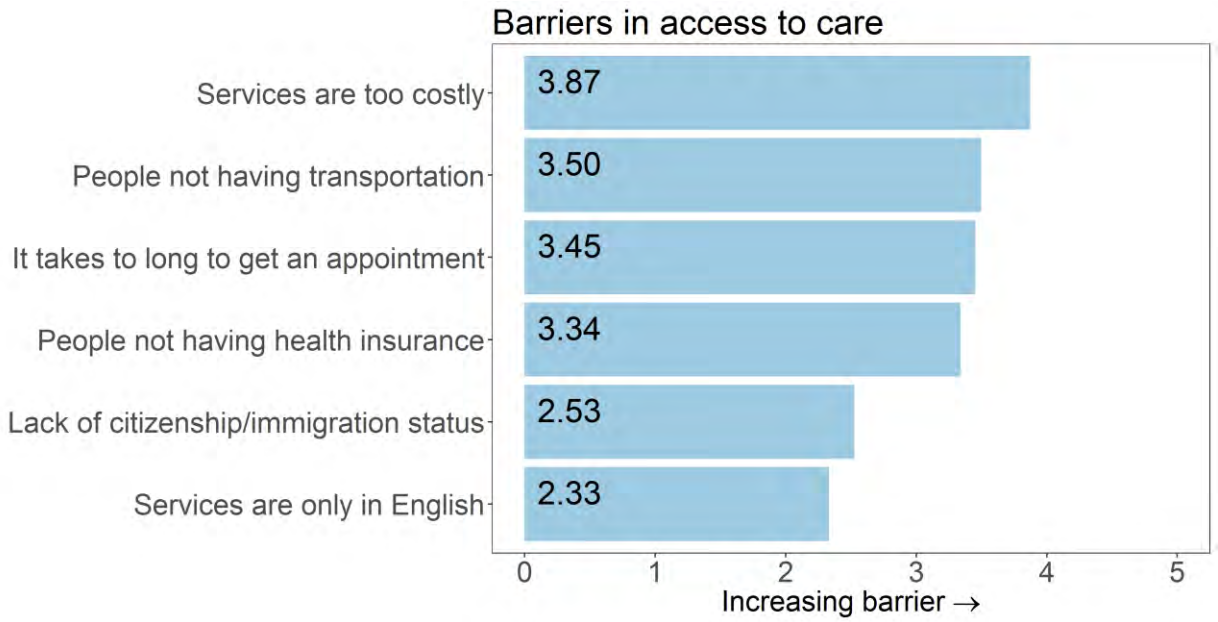
The following questions asked respondents to rate different factors affecting health on a scale of 1-5. An average score was computed for each factor, and the factors were ranked by those scores.

For each question, the factors were chosen because they were expected to have some significance. In addition, the scoring from 1 to 5 is an arbitrary scale. Therefore, the specific mean score should not be interpreted as an exact measure of significance. Factors that were ranked higher can be understood to have relatively more significance to the group of respondents, but do not indicate the overall significance of the factor to all of Yamhill County.

In order to keep the survey to a manageable length, only a short list of factors were provided for each question. Respondents were invited to write in additional factors that they would score a 5 in terms of significance.

Figure 2. Barriers in access to care

On a scale of 1-5, how would you rate the listed barriers that would prevent people in your community from accessing health care? A score of 1 indicates a very low barrier, a score of 5 indicates a very high barrier. The graph displays the average score from all respondents.

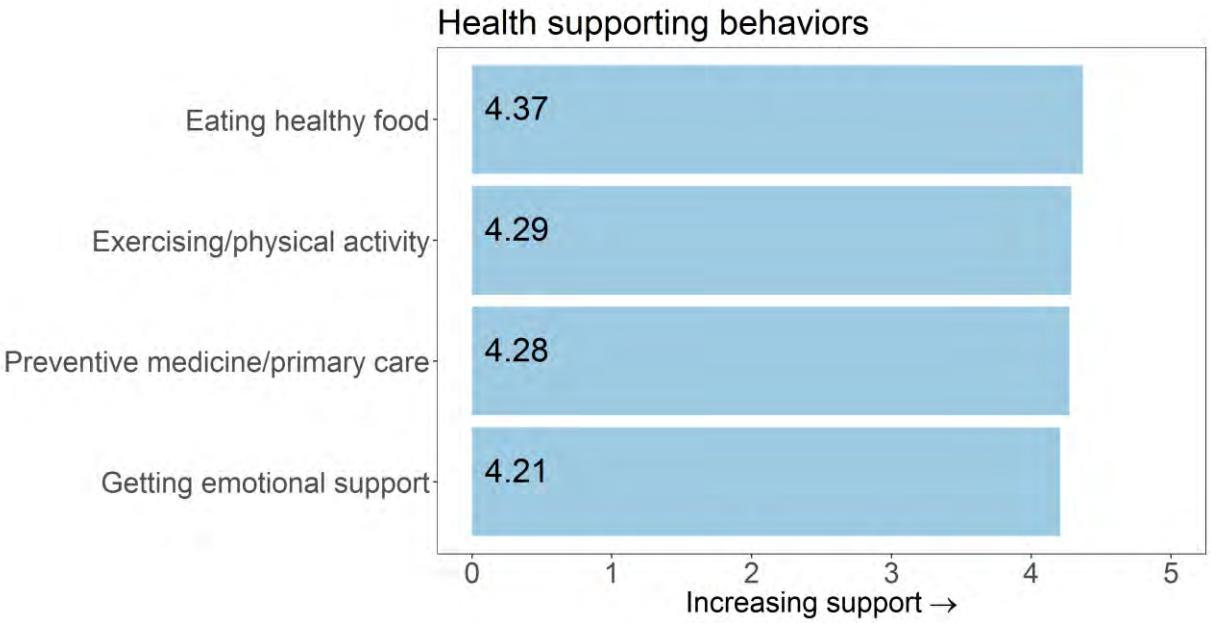


Costly services was rated the most significant barrier to care, followed by lack of transportation and inability to get appointments. Respondents added other factors to this list, which are presented here as themes:

- Cost of living (childcare, housing, dental care)
- Lack of mental health care
- Lack of providers or their unwillingness to take Medicaid or Medicare
- Cost of health insurance
- Discrimination, stigma, lack of cultural awareness

Figure 3. Health supporting behaviors

On a scale from 1-5, how would you rate the following behaviors and how important they are for supporting health in your community? A score of 1 indicates a behavior that is not very supportive, a score of 5 indicates a behavior that is very supportive. The graph displays the average score from all respondents.

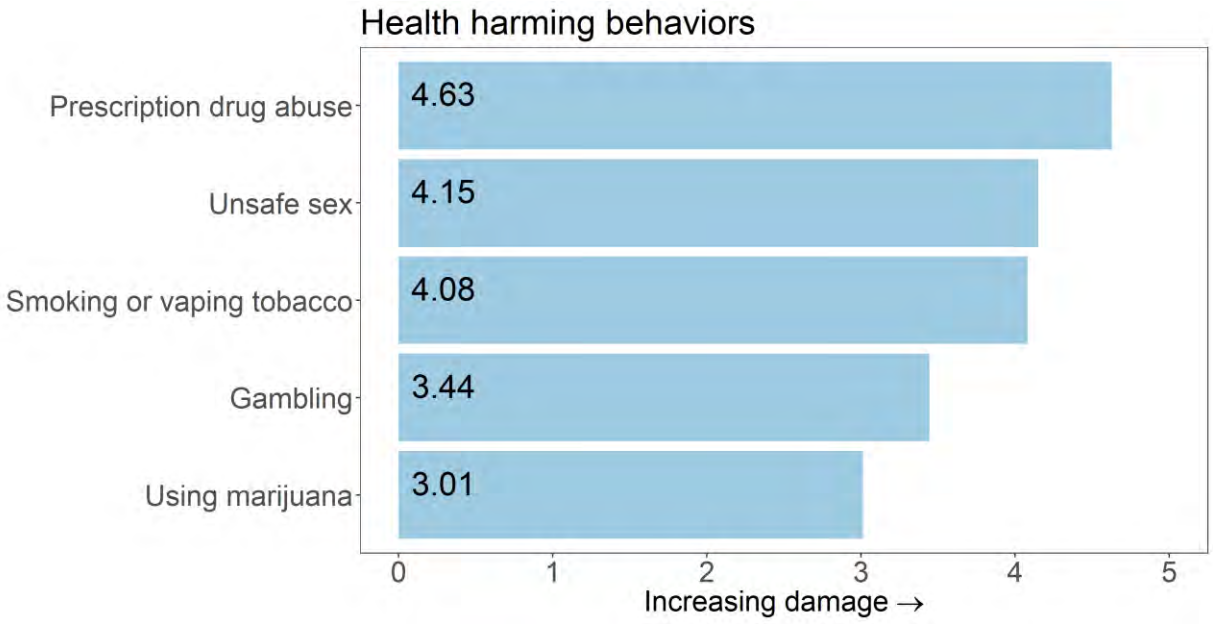


All four behaviors listed were ranked very highly for importance. Eating healthy food was ranked the most significant. Respondents added other behaviors to this list, which are presented here as themes:

- Having supportive social relationships
- Stable home life (having a routine, eating food cooked at home, secure in housing)

Figure 4. Health harming behaviors

On a scale of 1-5, how would you rate the following behaviors and how much they would harm health in your community? A score of 1 indicates a behavior that is not very harmful, a score of 5 indicates a behavior that is very harmful. The graph displays the average score from all respondents.

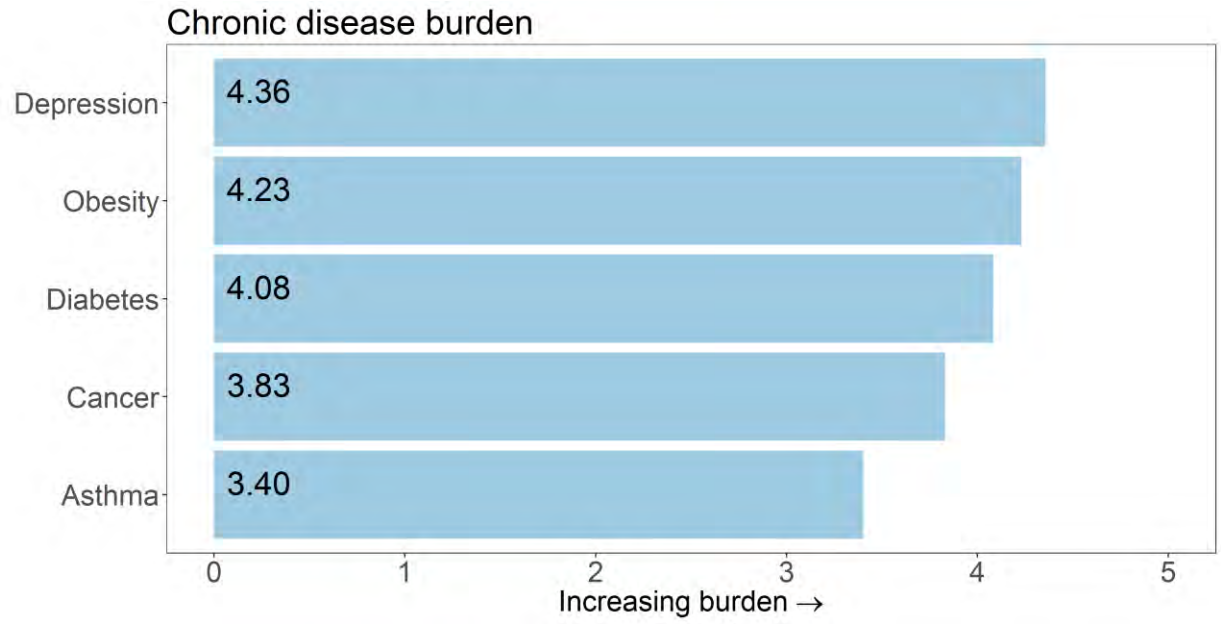


Prescription drug abuse was scored very highly in terms of a health-harming behavior. It was ranked the highest of the behaviors listed. Unsafe sex and tobacco use were ranked second and third. Respondents added other behaviors to this list, which are presented here as themes:

- Alcohol abuse
- Illegal drug use
- Child abuse and domestic violence

Figure 5. Chronic diseases

On a scale of 1-5, how would you rate the following chronic diseases and their impacts on your community? A score of 1 indicates a disease with a very low burden, a score of 5 indicates a behavior with a very high burden. The graph displays the average score from all respondents.

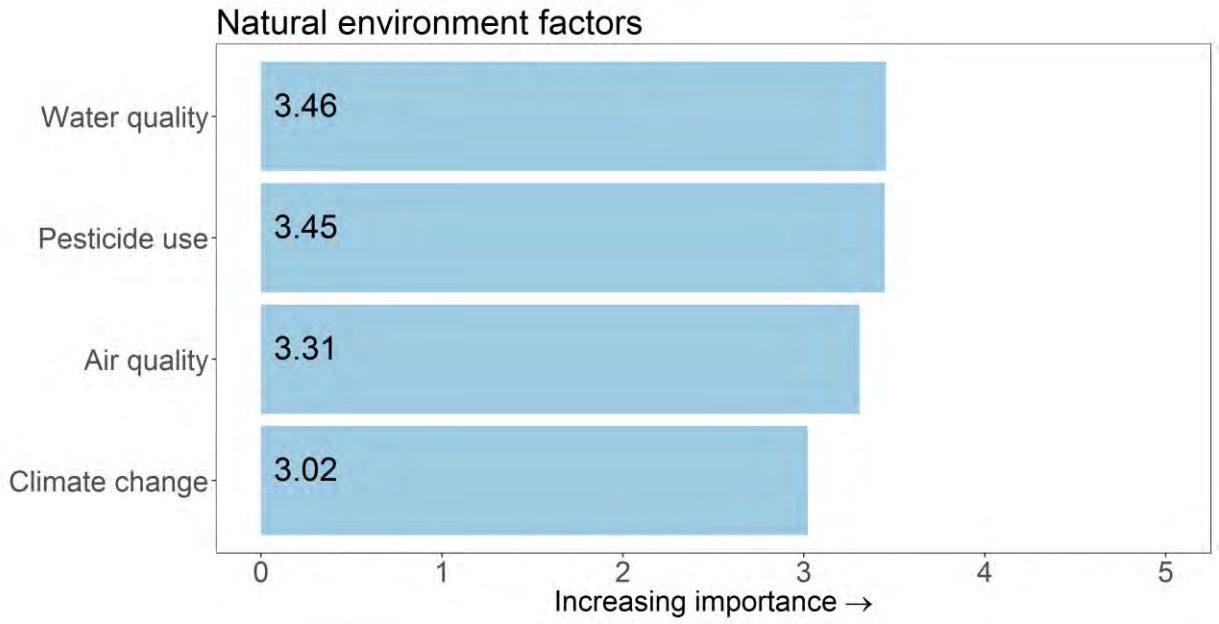


Depression was scored as the most significant chronic disease, followed by obesity and diabetes. Respondents added other behaviors to this list, which are presented here as themes:

- Addictions
- Other mental health disorders
- Chronic pain

Figure 6. Natural environment

On a scale from 1-5, how would you rate the following environmental factors and how much of an issue they are for health in your community? A score of 1 indicates a factor with low importance, a score of 5 indicates a factor with high importance. The graph displays the average score from all respondents.

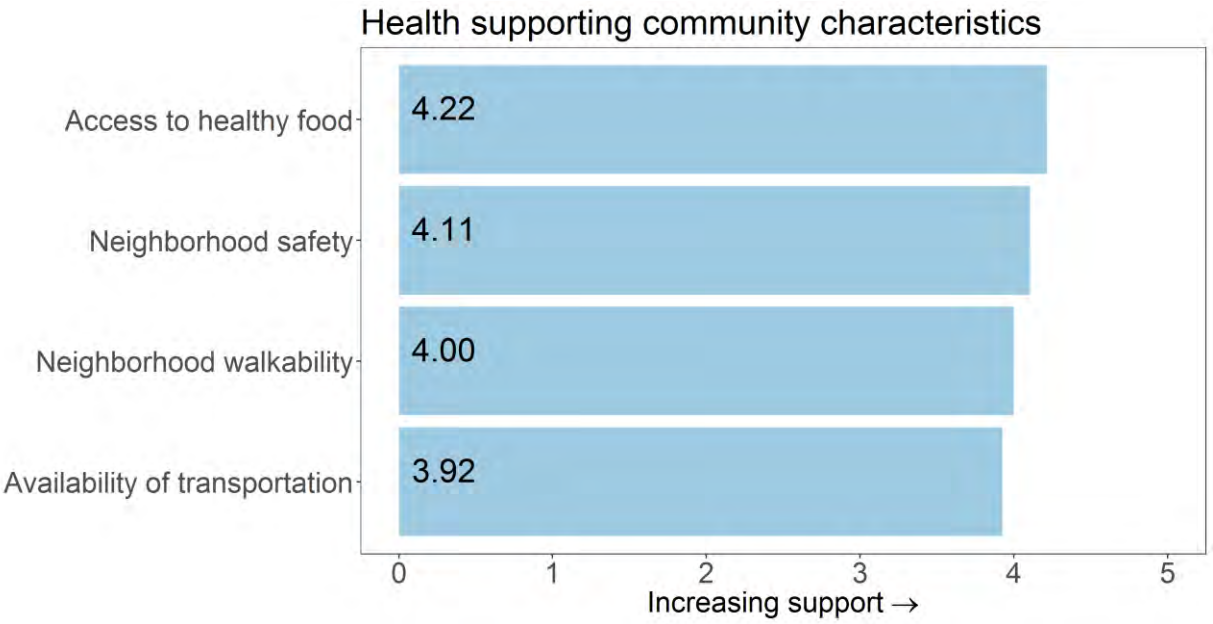


Water quality and restricting pesticide use were ranked as the most important factors for supporting a healthy natural environment. Respondents added other factors to this list, which are presented here as themes:

- Food safety
- Invasive species
- Fluoride (as a contaminant in water)

Figure 7. Health supporting community characteristics

On a scale of 1-5, how would you rate the following community characteristics and how much they would help the health of your community? A score of 1 indicates a characteristic that is not very supportive, a score of 5 indicates a characteristic that is very supportive. The graph displays the average score from all respondents.

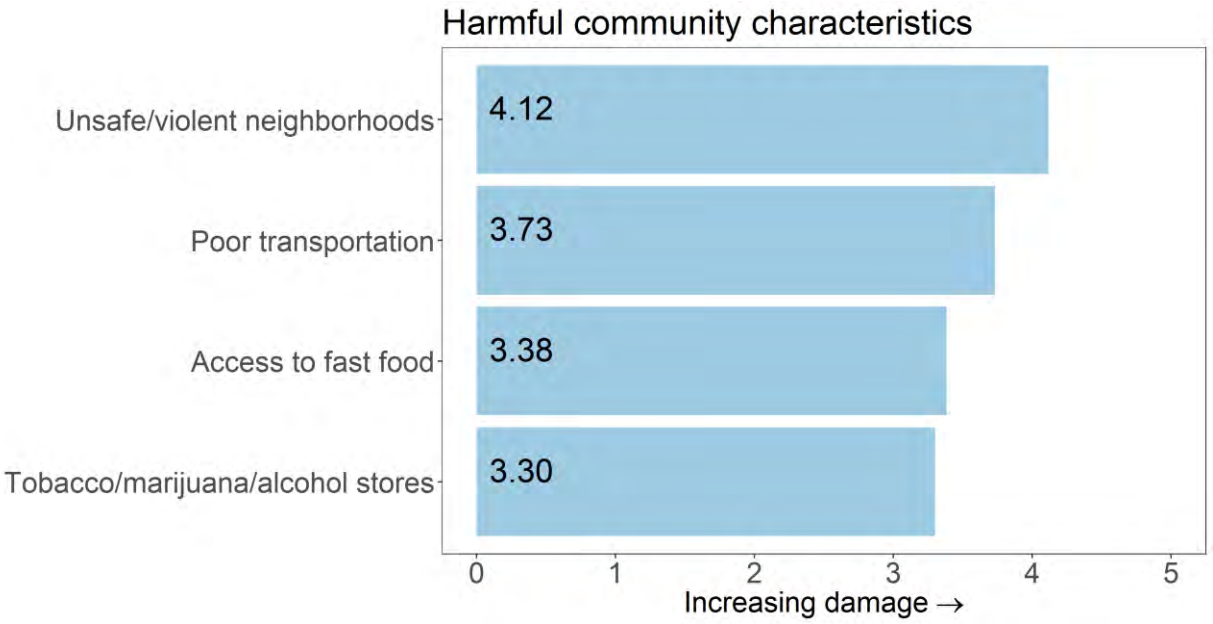


Access to healthy food was ranked as the most supportive community characteristic, followed by neighborhood safety. Respondents added other characteristics to this list, which are presented here as themes:

- Childcare and family support
- Community activities and integration
- Education

Figure 8. Health harming community characteristics

On a scale of 1-5, how would you rate the following community characteristics and how much they would harm the health of your community? A score of 1 indicates a characteristic that is not very harmful, a score of 5 indicates a characteristic that is very harmful. The graph displays the average score from all respondents.

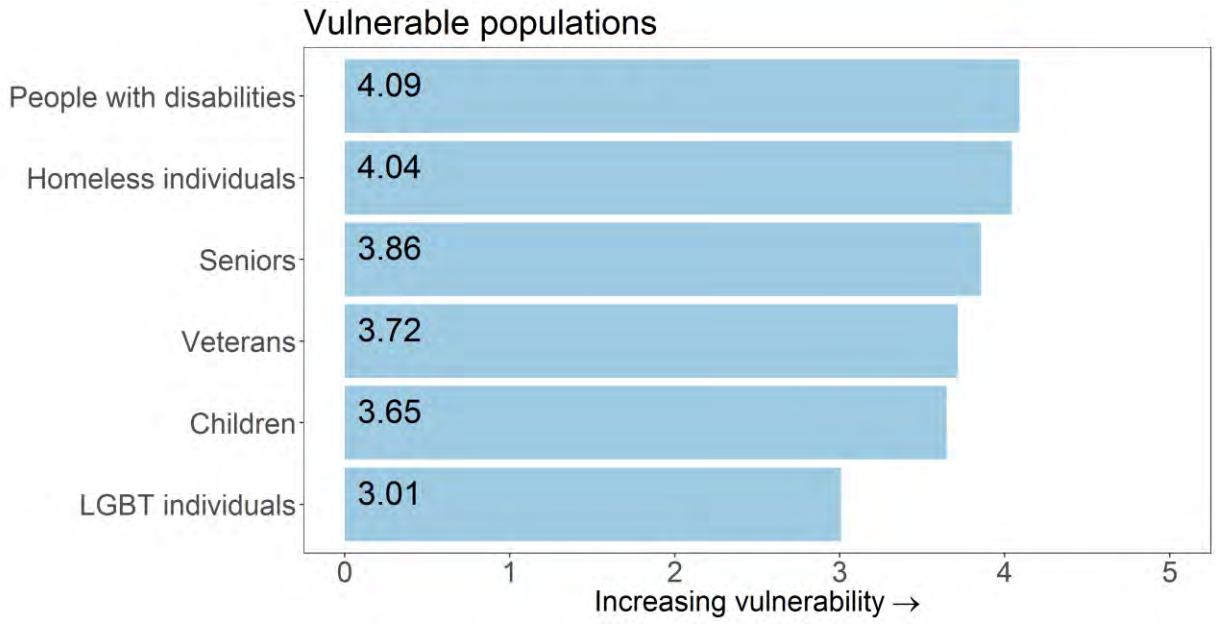


Unsafe neighborhoods were ranked as the most harmful community characteristics. Respondents added other characteristics to this list, which are presented here as themes:

- Homelessness
- Drug and alcohol use
- Promotion of unhealthy lifestyles in media
- Crime

Figure 9. Vulnerable populations

On a scale from 1-5, how would you rate the following populations for vulnerability to health problems in your community? A score of 1 indicates a population that is not very vulnerable, a score of 5 indicates a population that is very vulnerable. The graph displays the average score from all respondents.

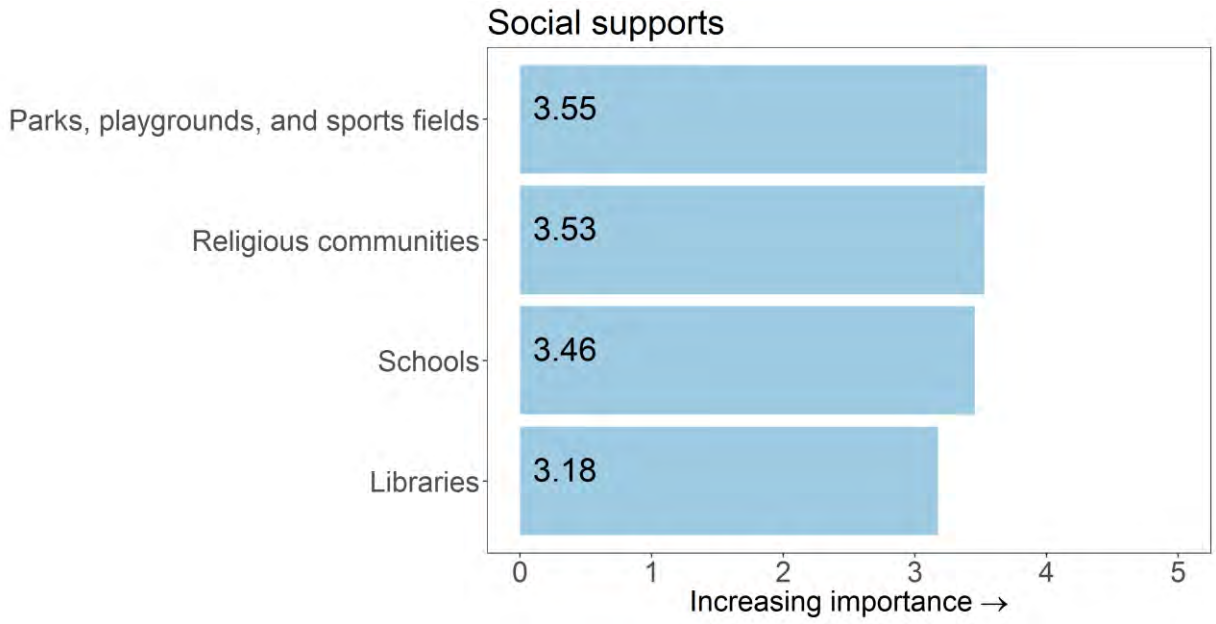


People with disabilities were scored as the most vulnerable population, followed by people experiencing homelessness. Respondents added other populations to this list, which are presented here as themes:

- Domestic violence victims
- Individuals with addictions
- Undocumented residents

Figure 10. Social supports

On a scale from 1-5, how would you rate the following social supports for how much they support your community's health? A score of 1 indicates low support, a score of 5 indicates high support. The graph displays the average score from all respondents.

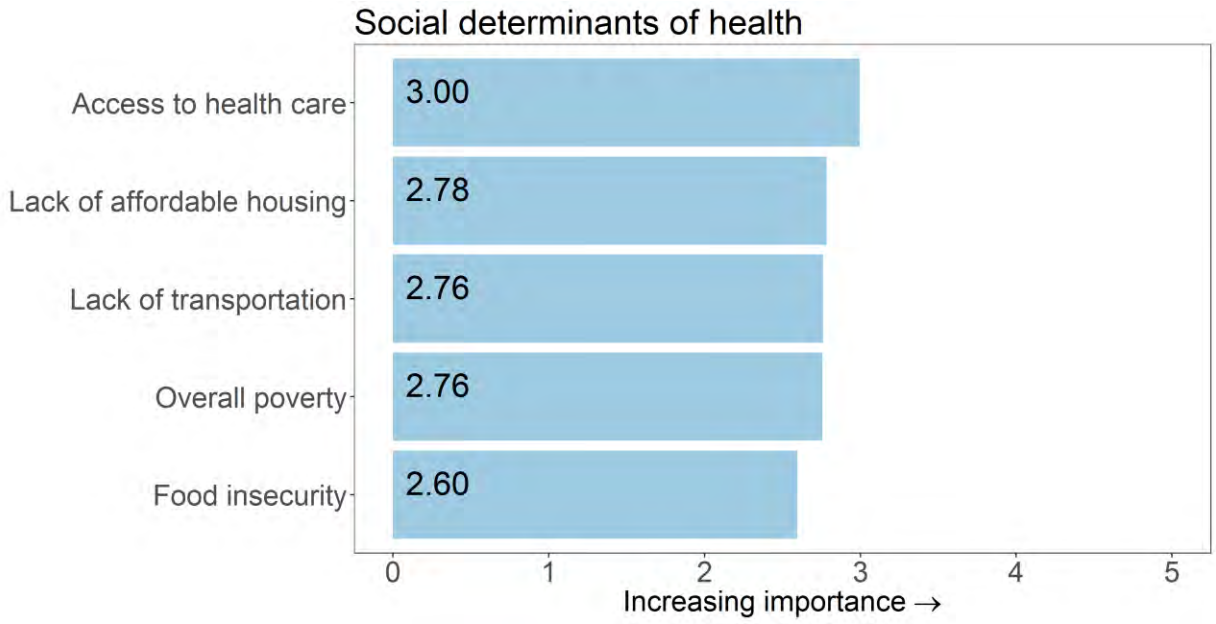


Parks, playgrounds, and sports fields were ranked as the most supportive, followed by religious communities. Respondents added other supports to this list, which are presented here as themes:

- Community centers and aquatic centers
- Social service and peer support agencies

Figure 11. Social determinants of health

On a scale from 1-5, how would you rate the following factors and their impact on your community's health? A score of 1 indicates a factor with low importance, a score of 5 indicates a factor with high importance. The graph displays the average score from all respondents.



Access to health care was scored as the most important social determinant of health. Respondents added other factors to this list, which are presented here as themes:

- Mental health and trauma

[This page intentionally left with only this text on it]

Yamhill County Public Health

Community Health Assessment

2017

Part Four:

Key Informant Interviews

[This page intentionally left with only this text on it]

Table of Contents

Key Informant Interviews/Survey

Introduction & Background 1

Results

Health & Quality of Life 2

Most Important Characteristics of a Healthy Community 3

Most important assets Promoting Health & Well Being 4

Health & Quality of Life Over the Past 10 Years 5

Most Critical Health Issues 6

What Needs to be Done to Address These Issues? 7

Populations of Most Concern 8

Solutions for Improving Health & Well Being 8-9

Most Significant Barriers to Improving Health & Quality of Life 10

Specific Actions, Policy or Funding Priorities 11

Other Comments 12

Figure

1. Overall Health and Quality of Life Rating For Yamhill County 2

Tables

1.Most Important Characteristics of a Healthy Community 3

2.Most Important Assets Promoting Health & Well Being 4

3.Health & Quality of Life Over the Past 10 Years 5

4.Most Critic al Health Issues 6

5.What Needs to be Done to Address These Issues? 7

6.Populations of Most Concern 8

7.Solution for Improving Health & Well Being 8

8.Most Significant Barriers to Improving Health & Quality of Life 10

9.Specific Actions, Policy or Funding Priorities 11

Addendums

A. Interview/Survey Questions 12

B. Key Informants 13

Key Informant Interviews/Survey

Introduction & Background

Purpose

The purpose of the key informant interviews was to identify views on health and well-being in Yamhill County among key stakeholders and leaders in the community. This approach is one component of the Community Themes and Strengths Assessment as defined by the Nation Association of County and City Health Officials (NACCHO) in its community-wide strategic planning tool called MAPP (Mobilizing for Action through Planning and Partnerships).

Background

To prepare for the key informant interviews, the Yamhill County Public Health Prevention Team reviewed a tool previously used in Mendocino County developed by the Mendocino County Department of Public Health MAPP Steering Committee in 2002. The Survey tool was modified by the Planning Group during the summer of 2015. They made many modifications such as adding a question about overall rating of quality of life in Mendocino County as well as whether it had improved, stayed the same, or declined during the last 10 years. The Yamhill County Public Health Prevention Team made minor modifications in wording, and formatting, but overall kept the questions the same.

Methodology

The key informant interviews were conducted by three Public Health, Prevention Team staff members. The interviews were conducted in person, over the phone, based on the key informant's preference. To maintain consistency, a dialogue was created for interviewers to follow, and all key informants were asked the same ten questions. A recorder was present at 17 of the interviews to type the responses. The purpose of the interviews were to obtain different perspectives on the areas of need in Yamhill County, as well as create solutions to address concerns, and barriers in the community.

Key Informant Interview/ Survey Responses

The target population consisted of key leaders and informants in Yamhill County: law enforcement, health and human services, the local community college, representatives of county and city government, nonprofits, county office of education, health providers, and community organizations.

A total of 42 key informants were contacted for an interview . Out of those 18 interviews were completed for a total sample size of 18.

Data Analysis

Notes were taken during each interview by two people. The designated recorder took notes on the computer, and the interviewer took notes on paper; the notes were then compared. A qualitative analysis using deductive coding was conducted on the responses to identify common themes.

Limitations

The intent of the key informant interviews were to solicit qualitative responses from a variety of key leaders and community representatives. However, absent from the pool of informant responses is the faith based community, local businesses, transportation planning agencies, Latinos, environmental health and air quality, among others. Consequently, these perspectives are underrepresented n the results. Additionally, the opinions represented are those of the participants and not necessarily representative of the entire county. Thus, these results are useful in conjunction with other supporting data such as community health surveys, focus groups, and community dashboard data to characterize health in Yamhill County, identity strategic issues, and select priorities for action.

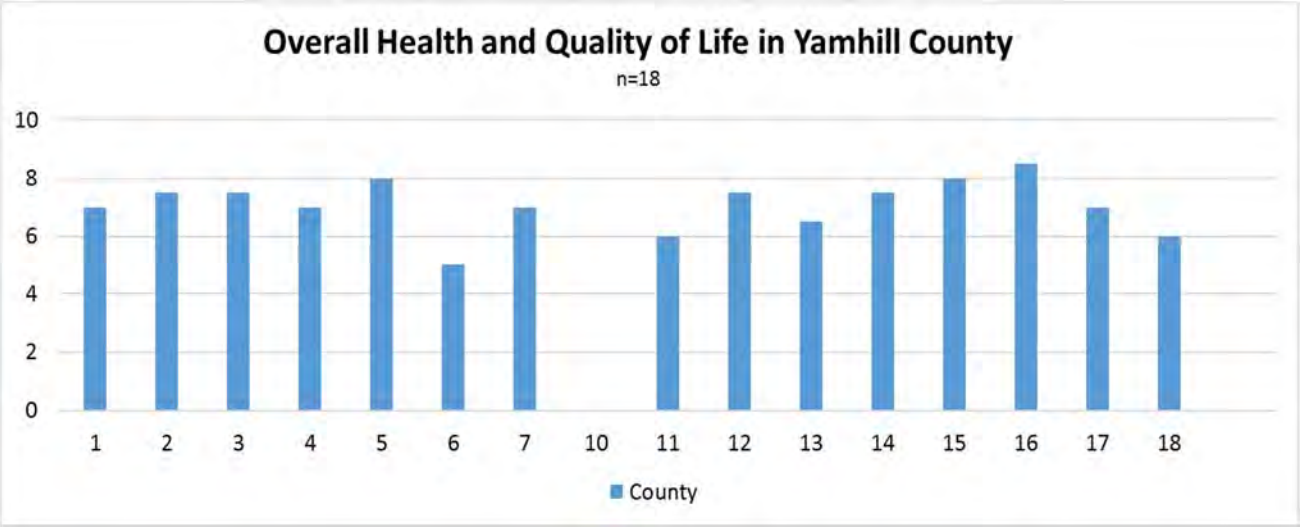
Results

Health & Quality of Life

Key informants were asked to rate the overall health and quality of life in Yamhill County on scale of 1-10, with 10 being the most positive (Q1). A summary follows (n=18).

- Ratings ranged from a low of 5 to a high of 8 for the county as a whole in overall health and quality of life.

Figure 1. Overall Health and Quality of Life Rating for Yamhill County



Comments regarding the rating for the county as a whole in overall health and quality of life, which ranged from 5 to 8, included the following:

⇒ *"There is clean air, that is beautiful and there is abundance, outdoor spaces, and natural resources, but there are not enough doctors with the attitude 'that I care.' So, the outdoor and clean spaces can end up being a lack. There is not enough affordable housing ."*

⇒ *" Well that's a loaded question for this question. I would say it kind of depends on the perspective you're answering from. I guess, I would put it at a 6 or a 7. Mostly because I know we have a lot of access problems, and delivery problems in the system. Especially for our OHP members it can be challenging to get comprehensive services here in Yamhill County we need to focus on capacity."*

⇒ *"My thought was a 7 including general and our population. Our population has a lot of economic advantages income, growth opportunities, but there are also a lot of rural disadvantages."*

⇒ *"I would rate it as a probably a 8. The living in more of a rural community is important to me, that feeds toward a higher quality of life, than living to an urban area. To me it just raises the quality of life, I want to believe there is less bad stuff if you live outside of the city, and I think the smaller town, the presence of um, a tight community. I mean, you're out doing what you are doing today; I find that really cool. You are asking patrons questions to improve things. People really care."*

⇒ *"I would give it a six. I think there are some key health services that are lacking in Yamhill County that make it a six. Some of the things that I think are lacking is we don't have an in depth public transportation system. The one we do have is very limited; it prohibits people from where they need to go. I think we are lacking some addictive treatment for withdrawals. I mean I could go on and on."*

Most Important Characteristics of a Healthy Community

In addition to being asked to rate the overall health and quality of life, key informants were asked to **Identify two or three of the most important characteristics of a healthy community** (Q2). The top 4 characteristics of a healthy community were as follows (n=18) (table1):

1. Community Involvement and civic engagement
2. Access to health care and other services, including mental health services
3. Low crime/safety and drug free community
4.Parks and recreation

Table 1. Most Important Characteristics of a Healthy Community (n=18)

No. of Respondents		Most Important Characteristics of a healthy Community
••••••••••••••••••	(18)	Community Involvement and civic engagement
••••••••••••••	(13)	Access to health care and other services, including mental health services
••••••••	(8)	Low crime/safety and drug free community
••••••	(6)	Parks and recreation
••••	(4)	Access to food and education
••••	(4)	Relationship between health sector and schools
••	(2)	Good jobs and a healthy economy
••	(2)	Clean air/ water
••	(2)	Good schools
••	(2)	Affordable housing
•	(1)	Overall opportunity

Comments regarding the most important characteristics of a health community included the following:

⇒ *"...access to mental, health and dental health... everyone needs to have good access to care."*

⇒ *"Access to resources for health improvement and cohesive community. Isolation is the crook to an unhealthy community."*

⇒ "Safety, civic engagement, or positive civic engagement, and access to healthcare also, preventative care, and opportunity for overall wellbeing, whether that's through clean air water etc."

Most Important Assets Promoting Health & Well-Being

As the next step, key informants were asked to **identify the two or three most positive things promoting health and well-being in our county** (Q3). The top 3 identified by the informants were as follows (n=16) (Table 2):

1. Collaboration/ Leadership in Community to Address Local Needs
2. Health Clinic, Providers, VA Clinic, Hospital & Resource Centers
3. Managed Care

Table 2. Most Important Assets Health & Well-Being in Yamhill County (n=16)

No. of Respondents	Most Positive Things Promoting Health & Well-Being in Yamhill County
•••••••••••••• (14)	Collaboration/Leadership in Community to Address Local Needs
•••••••••••• (13)	Health Clinic, Providers, VA Clinic, Hospital & Resource Centers
•••••• (6)	Managed Care
••••• (5)	Schools
•• (2)	Transportation
•• (2)	Health Education Programs
• (1)	Jobs
• (1)	Public Safety
• (1)	Social Media & TV
• (1)	Climate
• (1)	Latino Population Bridge Building
• (1)	Parks and Recreation

Comments regarding the most positive things promoting health and well-being in Yamhill County included the following:

⇒ *"I would say our community itself promotes it; we embrace healthy choices. I would say our climate helps a lot, and I would say that public service entities, school districts, and organizations, are overtly mindful of the issues, or of the factors, that it takes to provide a healthy community and services are delivered that way."*

⇒ *"The way they collaborate together, I've worked in larger counties that don't have it as well. We have things like the 'SIT team' and 'Unidos.' I think those different resources group the collaborative process, and are the thing for me that makes me impressed. "*

Health & Quality of Life Over the Past 10 Years

Key informants were asked for their opinions about **whether or not the health and quality of life in Yamhill County has improved, stayed the same, or declined over the past ten years** (Q4). A summary of the responses is provided below in Table 3:

Table 3. Health & Quality of Life in Yamhill County Over the Past 10 Years (n=17)

No. of Respondents	Health & Quality of Life in Mendocino County Over the Past 10 Years
•••••••••••••• (14)	Improved
• (1)	Stayed the Same
•• (2)	Declined

Sample Quotes from each of the three ratings in Table 3 above follows:

...Improved...

⇒ *"I would say its improved, even though we've seen an increase in issues with like homelessness specifically in McMinnville. I don't necessarily think it's specifically because health and quality of life has declined, I think it's because we are more aware of it. It has become the front page in the community. There are a lot of resources available. When I moved here in 2000, there wasn't very many resources and if there were, they weren't aware of it and now we have more. And since our staff knows, we can better direct people to services."*

⇒ *"I would say it has improved. I think the community is a much more aware of what a healthy strong and resilient community needs to be, and I think this community has done a lot of work of what health and well-being looks like. We still have a lot of work to do in this community, but I do believe that this community has been very involved in shaping the county that promotes health and well being."*

⇒ *I think there is a modest improvement. Well one, I think we have the development of our health services; we have a commitment in the area that…*

...Stayed the Same...

⇒ *"I don't see a steep decline or increase, it is stable in my opinion and I don't have a lot to pull to back that would support that statement, but from year to year when we look at food and energy it hasn't changed."*

...Declined...

⇒ *"It has declined a bit...economic factors. We're not that far out of a ten year recession. The middle class health insurance decreased with the ACA and there are not enough doctors."*

Most Critical Health Issues

Key informants were asked **identify, overall, what are the most critical health and quality of life issues in Yamhill County** (Q5). The top five issues identified by informants are (Table 4):

1.Substance Abuse/Addiction

2.Lack of Access to Health Services (Including Mental Health Treatment)

3.Mental Health

4.Suicide

5.Jobs

Table 4. Most Critical Health Issues in Yamhill County

No. of Respondents	Most Critical Health & Quality of Life Issues in Yamhill County
•••••••••• (10)	Substance Abuse/Addiction
••••••• (7)	Lack of Access to Health Services (Including Mental Health Treatment)
•••••• (6)	Mental Health
•••• (4)	Suicide
••• (3)	Jobs
••• (3)	Affordable Housing
•• (2)	Chronic Illness
• (1)	Homelessness
• (1)	Affordable Care for Seniors
• (1)	Bullying

Sample comments from the top five issues follows:

⇒ *"I think we have some addiction problems, and the way we handle and treat addiction in this country is not conducive to recovery, but I think we have a beat in this county by doing treatment instead of incarceration."*

⇒ *"Mental health and substance abuse: We need more treatment, screening, and interventions. It's a problem because we have the most inadequate resources for those areas. Traditional medical health is capable of addressing current issues. Mental health is hard to address in a timely manner."*

⇒ *"Access to care, whether it be access to physical health or mental health, there is as huge void in mental health particular if you have commercial insurance. Access to mental health with people that have commercial healthcare!"*

⇒ *"I think we need more permanent supportive housing not just affordability, but for those with disability issues...there is not enough for the lowest functioning people in our societies."*

⇒ *"Mental health: We have not had an infrastructure to support our citizens in making healthy choices when they are struggling, at least for adolescents. Oregon ranks 51 behind Puerto Rico for support in adolescence. The data shows that when you look at suicide attempts and suicide ideation."*

What Needs to be Done to Address These Issues?

When asked **what needs to be done to address these issues,** informants identified 15 approaches or strategies (Q6). These are listed in Table 5 below.

Table 5. What Needs to be Done to Address These Issues? (n=18)

No. of Respondents		What Needs to be Done to Address These Issues?
••••••••••••	(11)	Collaboration
•••••••	(7)	Education/ Prevention on Chronic Disease, Mental Health & Disabled Populations
•••••	(5)	Increase Providers for Mental Health Services
•••••	(5)	Increase Counseling/ Mental Health Intervention
••••	(4)	Improve Housing (Affordability & Safety)
••••	(4)	More Law Enforcement
••••	(4)	Better Nutrition Programs
•	(1)	Job Growth
•	(1)	Improve Transportation
•	(1)	Increase County Funding/ Support
•	(1)	Decriminalize
•	(1)	Conduct Assessment of Service Gaps in Mental Health / SUD Treatment
•	(1)	Address Prescription Policy

Sample comments from the top three issues follows:

⇒ *"We need a better process and programs in place that focus on prevention and rapid intervention. We need clinics with crisis level care. People spend too much time in ER, and come back with same issues the next week. There is a big gap of time in treatment and follow up."*

⇒ *"The county should invest in case management for supportive housing, we go after the federal grants, but it would be nice to have met effort for that."*

⇒ *"We have acknowledged the problem. Now, we are looking at ways to treat the problem and I think that is very positive. I would like to see us decriminalize, we need to have major discussion about drug policies at federal level. We are doing the right thing by addressing both aspects medication and counseling."*

⇒ *"We need more psychiatrist. We need bilingual counselors, whether they are clinical or social workers, but I think having more psychiatry in McMinnville is needed. I think it's been a caseload having to take in also the mental health patients."*

⇒ *"The wait needs to be met when it comes to housing. People moving to Oregon doesn't help because of the pressure to keep up with demand. We also need to focus on the preventative side, you go into a home and make it efficient so they can afford the bills and save them from eviction notice. We fill temporary income to support people from being evicted."*

Populations of Most Concern

Key informants were asked to identify **what populations they were most concerned about** and what solutions they envision for improving their health and well being (Q7). A summary follows in Table 6.

Table 6. Populations of Most Concern (n=18)

No. of Respondents		Populations of Most Concern
•••••••••	(9)	Youth
•••••	(5)	Homeless
•••••	(5)	Latino/Migrant Workers
•••	(3)	Poverty
••	(2)	Addicted—Drugs & Substance Abuse
•	(1)	Undocumented
•	(1)	Mentally Ill
•	(1)	No Access to Health Care
•	(1)	Disabled--Elderly and Adults
•	(1)	All Populations

Solutions for Improving Health & Well Being

Below are the **solutions for improving health and well being** of the populations they were most concerned about (Q7).

A Summary follows in table 7.

Table 7. Solutions for Improving Health & Well Being (n=18)

No. of Respondents		Solutions for Improving Health & Well Being
●●●●●	5	Increase Collaboration/ Community Support
●●●●	4	Increase Access to Care
●●●●	4	Provide More Resources
●●●	3	Regulate Drugs
●●●	3	Improve Housing
●●	2	Remove Barriers
●●	2	Increase Provider Training
●●	2	Identify More Needs (Disabled Population)
●	1	Increase Education
●	1	Improve Transportation

Sample comments from the top issues & Solutions follows:

⇒ *"I have a personal concern towards disabled children and adults it's the population I'm most interested in and work with in the county...that's my population. That's the one I know has very few dental coverage. I am helping the underserved, and individuals with disabilities, that can't speak, but are in pain. The adults and kids with disabilities can't speak and verbalize their pain. My goal or motivation, I mean obviously we aren't going to touch everyone, but at least bring it to life and identify the people out there. The second is to identify the disabled in the community the ones who can't speak for themselves. How do we address them if they have a disability. Is it one doctor that does it? We need to figure out the need and figure out a dental provider group that can give them care on a regular basis. We need more training for providers, because many don't feel comfortable, and while they are willing to do it they don't feel comfortable to take care of patients with special needs. If you educate them, and tell them there's a need they would likely be more willing and they could say 'how can you help lead the way.' There needs to be people to lead."*

⇒ *"Families living in poverty; Families who live below the poverty line have to make decisions that compromise health, keeping them from their and their children's health. They are forced to make choices that compromise quality of life and they are the folks I worry the most. I think whatever services we can offer to take care of basic needs, education, the staff to recognize barriers, giving them access to public services, education of family, removing the barriers that keep them from accessing them. That could be time, availability proximity, because ultimately, what I am responsible for; it shows up every day.*

⇒ *"Young adults and teens, because the mental issues and substance abuse hits this population the hardest. We need better wrap around services from the time the problem is identified to determining short term treatment, determining long term treatment, and conducting on going follow-up. Follow up should be a focus."*

⇒ *"Continuing the dialogue and communication with the local leaders, to assure them they are safe in the community and will continue to receive those services despite the negativity in the community."*

⇒ *"One of the solutions is building low income housing to house those that can't afford to live. It takes financial will, and physical will and political will, to really solve this issue."*

⇒ *"Increasing skill sets no matter what those things are. It can be language education. Most of them come in with a 4th 6 or 8th grade education, and this prevents them from getting family wage jobs. "*

⇒ *"I think we are, and should be concerned about youth that are from broken families or families subject to violence, part of the homeless at times too, but just our youth in general because if they are in instability or violence you expose them they could result in social cost/burdens. I think we need as specific focus there."*

⇒ *"You know, drug and rehab drug and alcohol rehab services have to be available. You've got to deal with some these social determinants of health with the homeless population. And I don't have a handle on the number of homeless in McMinnville, working families, and the cost of healthcare.*

⇒ *"It is tough to find a spot for drug and alcohol just like mental health. The driver is who's your insurance provider? Are you a working parent? If you have a child that's into drugs and alcohol how do you afford the program? Some of those programs are thousands of dollars."*

⇒ *"Well I know that in Yamhill County we are down primary care providers. We have to do something to recruit and retain providers for the community, and those with Medicare."*

Most Significant Barriers to Improving Health & Quality of Life

Key informants were asked to identify **the most significant barriers to improving the health and quality of life in Yamhill County** (Q8). A summary follows in Table 8.

Table 8. Most Significant Barriers to Improving Health and the Quality of Life (n=18).

No. of Respondents		Most Significant Barriers to Improving Health and Quality of Life
•••••••••	(9)	Lack of Resources/ Funding
•••••••	(7)	Lack of Cooperation & Collaboration
•••••	(5)	Education
••••	(4)	Healthcare Access
••••	(4)	Attitude
••••	(4)	Transportation
••••	(4)	Geography/ Isolation
•••	(3)	Lack of Providers
•	(1)	Waiting Periods for Services
•	(1)	Safety
•	(1)	Health Insurance
•	(1)	Housing
•	(1)	Language

Sample comments from the top four issues follows:

⇒ *"Public perception and willingness to receive care: Lot of people are being skeptical, hearing bad stories, and this creates generalizations. Overcoming adverse medical effects and stories is the goal. It only takes one bad experience to sour someone to the process."*

⇒ *"Reluctance to look at data that shows what we are doing is counter-productive: we need to look away from what we are doing, and do what works."*

⇒ *"If I tell everyone, they want to help, but then they procrastinate because they have a lot on their plate and don't have time to fit more. The barrier is collaboration with teams, they help for a month and then they have too much going on, and we don't hear from them. I send emails and I never hear back from them."*

⇒ *"Another significant barrier specifically in the homeless population is political will. I mean homelessness is one of those things where they recognize their problem, but don't want to solve the problem, the political barrier to solving the issue is there and it's a problem. I don't think we are there yet."*

⇒ *"A huge barrier is resources as far as if we are talking about drug addiction. The waiting period is 6 months to a year, even the one through the court. They go to counseling and treatment, and then there's a huge waiting period. If someone walked in for treatment, and I said see you in 6 months, they are not going to come back."*

Specific Actions, Policy or Funding Priorities

Informants were asked what **specific actions, policy or funding priorities** they would support to contribute to a healthier community (Q9) (n=16).

Table 9. Actions, Policy or Funding Priorities (n=18).

No. of Respondents		Actions, Policy or Funding Priorities
••••••••••	(10)	Drug Addiction / Mental Health Support & Crisis Care
••••••••••	(10)	Focus on Youth
••••••	(6)	Support Education Programs
••••	(4)	Increase Health Services for the Chronically Ill
•••	(3)	Transportation
•••	(3)	Homelessness & Affordable Housing
••	(2)	Policy Change/ Increase Tax
•	(1)	New Jobs
•	(1)	Support non-profits
•	(1)	Farmers Market
•	(1)	Increase Public/ Private Partnership Between Hospitals
•	(1)	Natural Approach to Healing
•	(1)	Reduce Jail Population
•	(1)	Landfill Funding
•	(1)	Support All Programs

Sample comments from the top six issues follows:

⇒ *"One of the things I worry about is the landfill, and it is not up to me on what is going to happen. Is it going to grow? What is going to happen? In the mean time, we are taking a lot of urban garbage, and filling up our land. I think extending the life of our landfill, that is huge to traffic and that touches a lot of different aspects of our quality of life. "*

⇒ *"I would support public policy that says that we are going to make homelessness an issue that we are going to solve."*

⇒ *I'm partial to overweight and obesity and the young. I'm a big fan of building a healthier child, so you don't have to fix a broken adult. I think that you can promote better eating practices and exercise in the young population, I'm talking down to 2-5 to ten years old. If you're looking at the long game. Long after I'm gone, 20-30 years from now; you have to help them be better. We need more activities to encourage them to be outside and go to the farmers market, and create better transportation.*

⇒ *"I would love to see opportunities to link with school districts to interrupt cycles of dysfunction around family and substance abuse. I would love to see greater levels of transportation, availability. One of the things we recognized once we had the fourth suicide, is that all the students were so disconnected* and had so much down time, and away from positive adult models."

Other Comments

Lastly, key informants were asked if they have anything to add (Q10) (of respondents provided additional comments). Sample quotes follow:

⇒ *"Substance use and mental health interventions need to get into the community; anything that can be done to reach individuals to raise awareness on risky behaviors that may lead to long term addiction. We need to publicize healthy levels of alcohol consumption, raising awareness on what things are going to lead to, drinking in particular."*

⇒ *"Drinking wine and alcohol in 'wine country' is where we are. People forget how much they are supposed to be drinking and go down a slippery slope."*

⇒ *"No. Community health is one of three elements we need to address; the physical health or our population. Those that are incapacitated are still members of our community, and we need to address that. Mental health shows up in really violent ways; we need to evaluate the health of our community mental, spiritual and community health, they all need to be addressed. That's the cream to your coffee! If you take any!"*

⇒ *"I think Yamhill county over all is a phenomenal place to live. It's a wonderful community, it is very supportive of people that live here, business are supportive of people that live here. I think in actuality; I think just continuing to stress jobs and education and healthcare and park and recreation and activities for kids. We have an adolescent and youth obesity epidemic we have to get the kids out from the screen get them running and exercising."*

⇒ *"We need to continue to decrease the opioid use in Yamhill County."*

⇒ *"The CCO and HHS, especially Adult Behavioral Health, are doing a good job with crisis response, and with mental health; we are rich in people who care, and meeting needs. We need more money for emergency room medical services, extra in home care, and for community health workers."*

⇒ *"I think that Yamhill County… we have seen here so many successful approaches to health, and to just behavior concerns. We have innovated here. We have done things here that no one else has done. I think that we can continue that attitude with all things that we provide in the community. There is a reason people look at Yamhill County as a standard. I would like for us to become an aggressive example of health. I hear what goes on and what they say, it is not like here. I think that we should appreciate it."*

⇒ *"We have great community, great potential, but like I said there's definitely a lot to be done."*

⇒ *"I would add that um, my experience, I have been in Yamhill County for 7 years. We have a special community that wants to take care of its own. I think that what we have done for managed care in the community is huge; we are being recognized by the state as a model community. We are a model community for other communities across the country; lets embrace that potential as a community and lets come together and solve our problems. I guess that is what I would add."*

⇒ *"The only thing I would like to add is that I think Yamhill County is doing a good job, and even though there are improvements to be made, we are doing much better in Yamhill County than other parts of the state, but one of those is that you guys are looking to improve the system. A county that is open to talking about issues and solutions makes for a good entity."*

- this page is intentionally left blank -

ADDENDUM A

Interview/ Survey Questions

April – June 2017

1. In general, how would you rate overall health and quality of life in Yamhill County on a scale of 1 to 10, with 10 being the most positive? Please explain why.

2. What do you believe are the two or three most important characteristics of a healthy community?

3. What in your view are the two or three most positive things promoting health and well-being in our County?

4. In your opinion, have health and quality of life in Yamhill County improved, stayed the same, or declined over the past ten years? Why do you think so?

5. Over all, what do you consider the most critical health and quality of life issues in Yamhill County?

6. What needs to be done to address these issues?

7. Which specific populations (groups) in Yamhill County are you most concerned about, and why? What solutions do you envision for improving their health and well-being?

8. What are the most significant barriers to improving health and quality of life in Yamhill County?

9. What specific actions, policy, or funding priorities would you support to contribute to a healthier Yamhill County?

10. Is there anything you would like to add?

- this page is internationally left blank -

ADDENDUM B

Key Informants (N=18)

April — June 2017

A total of 42 informants — representatives of county and city government, private business, health and human services, nonprofits and community leaders - were targeted for an interview. This group also contained law enforcement, children and youth service providers, community health clinics, the school districts, the local community colleges, among others. Of those targeted, 18 participated in an in-person or phone interview, resulting in 18 key informants. A list follows.

County & City Government

Yamhill Police Department– Gregory Graven

City of Newberg Mayor– Bob Andrews

Yamhill County, Health and Human Services Liaison– Mary Starrett

Yamhill County Sheriff– Tim Svenson

Health Care

Virginia Garcia– Nichole Boyer

Virginia Garcia– Gil Munoz

Affordable Dental Care– Dr. Raji Mathew

Physicians Medical Center– Dr. Bill Koenig

Providence Newberg Medical Center– Dennis Gray

Providence Medical Group– Amy Scmidt

Health and Human Services

Yamhill Community Care Organization– Seamus McCarthy

Yamhill Community Action Partnership-Mandy Gawf

Yamhill Community Action Partnership-Kraig Ludwig

Yamhill Community Action Partnership-Jeff Sargent

Yamhill Community Care Organization; Community Advisory Council– Ginny Rake

Education

Newberg School District– Dr. Kym LeBlanc-Esparza

Newberg School District– Todd Thomas

George Fox University– Robin Baker

Chemeketa Community College– Dean Holly Nelson