

# Community Health Assessment

Marion County, Oregon 2015



Marion County Health Department  
3180 Center St NE, Salem, OR 97301  
503-588-5357  
<http://www.co.marion.or.us/HLT>

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# Executive Summary

The local public health system in Oregon is in the midst of many changes. The Modernization of Public Health Bill (HB 3100) passed in the summer of 2015, allowing state and local partners greater flexibility to work toward a shared vision with standard foundational capabilities and programs at the core. One of these foundational capabilities is assessment and epidemiology: the ability for a local public health system to effectively and competently analyze and communicate health data to partners and the community. The Modernization of Public Health comes to Oregon on the heels of healthcare transformation with the creation of coordinated care organizations in the fall of 2012 and early learning hubs in the summer of 2013. The idea that resources can be aligned to achieve health, learning and social outcomes for a better community is at the crux of our changing systems.

In the summer of 2014, Marion and Polk health departments began to discuss a vision for a joint community health assessment and improvement plan. Marion and Polk counties sit in the heart of the Willamette Valley separated by the Willamette River. Both counties enjoy working with similar partners including Salem Health, Kaiser Permanente, Willamette Valley Community Health, OSU Extension, Early Learning Hub, Inc., and United Way. Many of our joint partners are required to conduct community health assessments every few years. Driven by shared data needs, Marion and Polk counties began planning for a joint community health assessment in September 2014. During the first few meetings, we gathered our mutual partners and formed the Steering Committee. We created our shared vision to set the tone for the year to come: *Marion Polk Community Health Assessment Steering Committee will ensure the community health assessment represents the whole community by looking at the broad definition of health including the community system and the environment.*

The Steering Committee selected the national model, *Mobilization for Action through Planning and Partnerships* or MAPP as the framework for the community health assessment. The four assessments of the MAPP framework include: Community Themes and Strengths, Local Public Health System Assessment (conducted in 2013), Community Health Status Assessment and The Forces of Change Assessment.

The Community Themes and Strengths Assessment was conducted by surveying community partners working in social, health, community, educational and correctional health settings and the community-at-large. The surveys used in both Marion and Polk counties consisted of the same questions and used the 2011 Marion County survey as a template. Paper and electronic surveys were allocated based on population distribution throughout our communities.

The Local Public Health System Assessment was conducted for both Marion and Polk counties in 2013 and will be updated in late 2015/early, 2016 by an Americorps VISTA Volunteer.

The Community Health Status Assessment was conducted by compiling data from national surveillance systems like the Behavior Risk Factor Surveillance Survey and Oregon Healthy Teens as well as state and local data from birth and death certificates.

The Forces of Change Assessment was conducted with United Way, Salem Health staff, Marion County Health Advisory Board, Polk County Health Advisory Board, and the Willamette Valley Community Health Clinical Advisory Panel. United Way, Salem Health, and Willamette Valley Community Health serve both Marion and Polk counties. The Forces of Change Assessments were conducted by Health Department Staff in all locations except for Salem Health. Notes were transcribed and are included throughout this assessment.

Based on the data, the Steering Committee selected four priority areas including Timeliness of Prenatal Care, Obesity Prevention, Depression Screening and Tobacco Cessation. Marion and Polk counties held five community forums in Woodburn, Salem, Stayton, Dallas, and Independence to gather feedback on strengths, barriers and potential policy changes to affect these priority areas.

This report contains the most updated demographic, socioeconomic and health data for Marion County. A similar report for Polk County is available on the Polk County Health Department webpage.

\*It is important to note that the majority of the data presented in this report are publicly available data sets that individuals must elect to provide. While it is adjusted, weighted, and combined as necessary to provide the most accurate picture of health possible, it is likely that certain groups of people are not fully represented by these numbers. While the report strives to use the most reliable and valid data available; it is important to acknowledge some groups of people are less likely to participate in data collection experiences, certain types of information are more personal and less likely to be reported, and data collection methods can vary between organizations.

# Demographics

Demographics of a community identify and define who lives in a particular community at any given time. Demographic information helps to set the context for health indicators because different groups of people experience greater risk for disease. For example, based on national statistics we know that the highest risk group for Chlamydia is women aged 20-24. Therefore, knowing that Marion County has a younger population than Oregon as a whole could lead us to believe that Marion County will have higher Chlamydia rates than the state as a whole.

## Key Demographic Findings for Marion County:

- Marion County has a larger percent of residents under 25 than Oregon.
- Marion County has a larger percent of residents that identify as Hispanic/Latino than Oregon.
- Marion County has a larger percent of residents that speak a language other than English at home than Oregon.
- A third of the Marion County population lives outside of the five largest cities in Marion County.

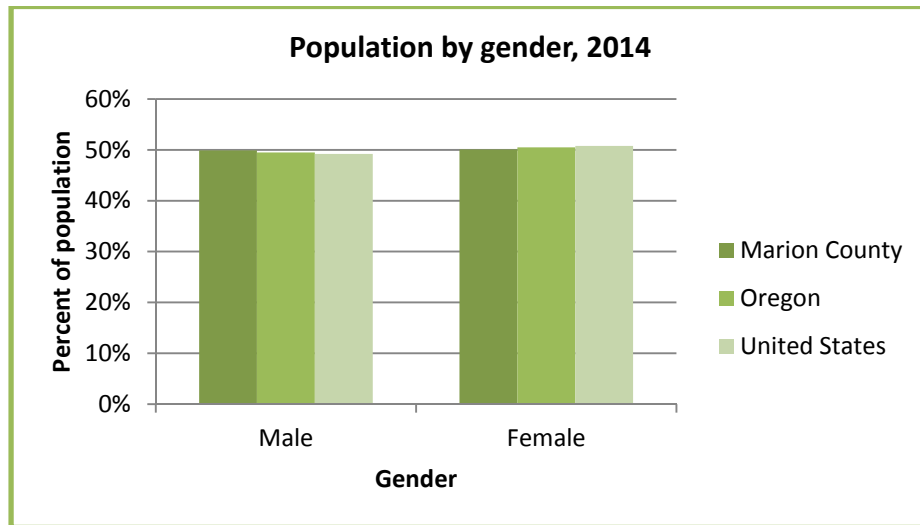
**Marion County Quick Facts:** Marion County is located in the Willamette Valley and is the fifth most populous Oregon County. It spans about 1,200 square miles<sup>1</sup> and contains the state capital Salem as well as 19 additional cities.<sup>2</sup> The five largest cities: Salem, Keizer, Woodburn, Silverton and Stayton, are home to 66.3% of Marion County's total population. The remaining 33.7% live in one of the smaller 15 cities or on unincorporated land. Those who live outside of the major population areas may experience higher difficulty accessing resources like health care services and healthy foods because smaller cities cannot maintain as wide a variety of services within that city. This means people living outside of the largest cities will likely require a vehicle to access most resources that support healthy lifestyles.



**Population:** In 2014, the population of Marion County was estimated to be 326,150. Marion County makes up about 8.2% of Oregon’s population. It was estimated that Marion County’s population has increased by 2.6% since 2010 which is equal to the population growth rate in the state.<sup>3</sup>

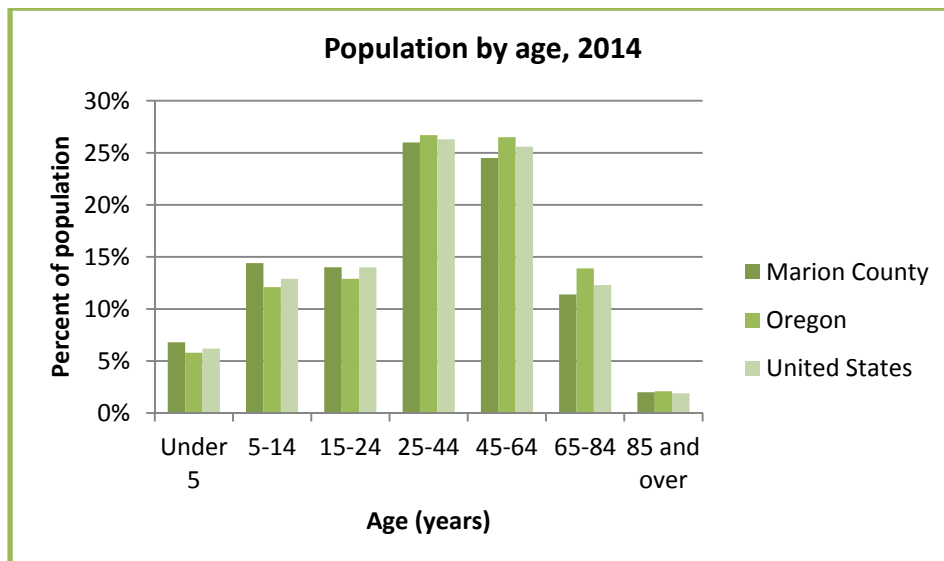
**Gender:** It is important to know the gender break down in a population because some diseases and risk factors for disease occur at different rates in males than in females.

A little over half of Marion County’s population is female. Oregon and the United States show the same break down with a population a little over 50% female.<sup>4</sup>



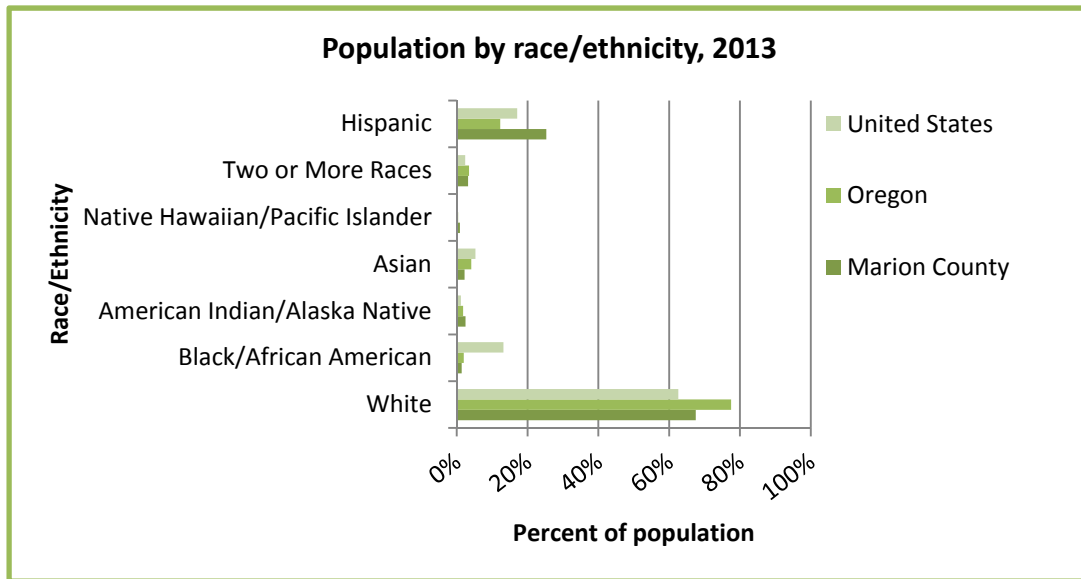
**Age:** Different age groups experience different health problems; for example, young children and elderly adults over 65 years of age are more likely to die of the flu than younger adults.

Marion County has a larger percent of individuals between the ages of 0-24 years old than Oregon and the United States. The median age in Marion County is 36.1 years. In Oregon the median age is 39.2 years.<sup>5</sup>



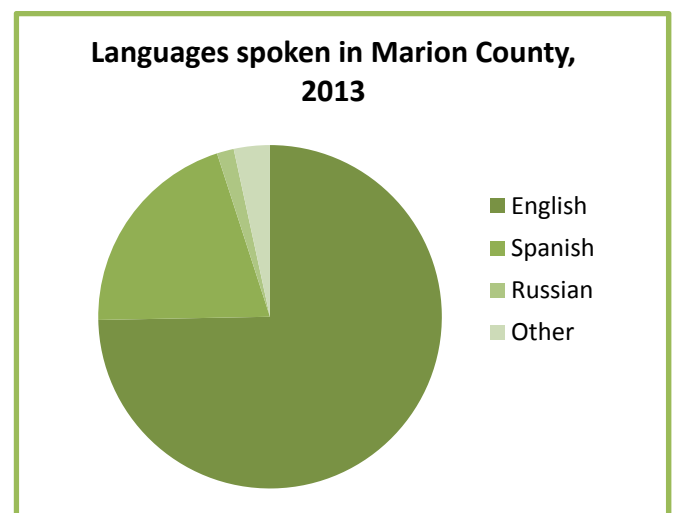
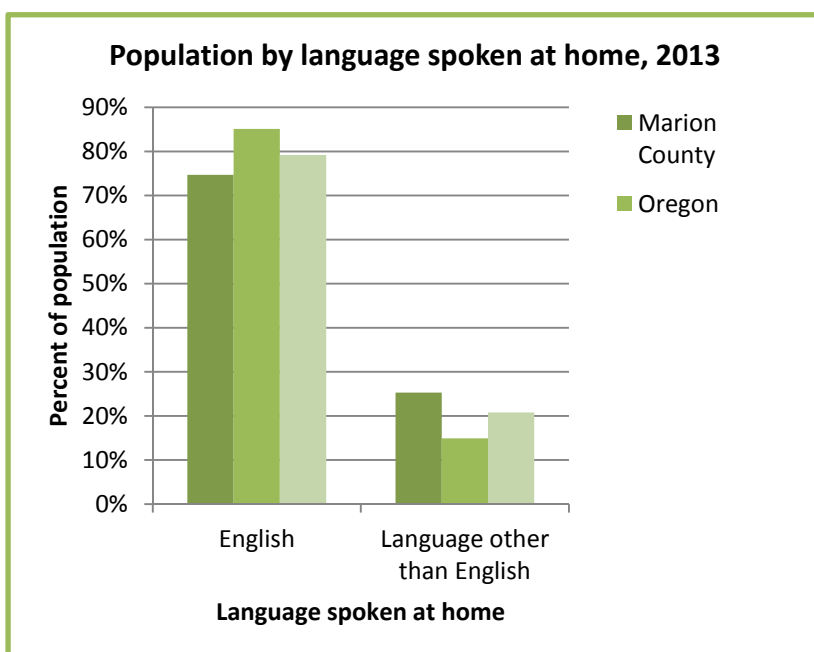
**Race/Ethnicity:** It is possible that a certain race or ethnic group may experience disease rates at a higher or lower rate than a different race or ethnic group.

Marion County has a lower percent of White residents than Oregon, but a higher percent of White residents than the United States. Marion County has a higher percent of residents that identify as Hispanic, American Indian/Alaska Native and Native Hawaiian/Pacific Islander than Oregon overall.<sup>5</sup>



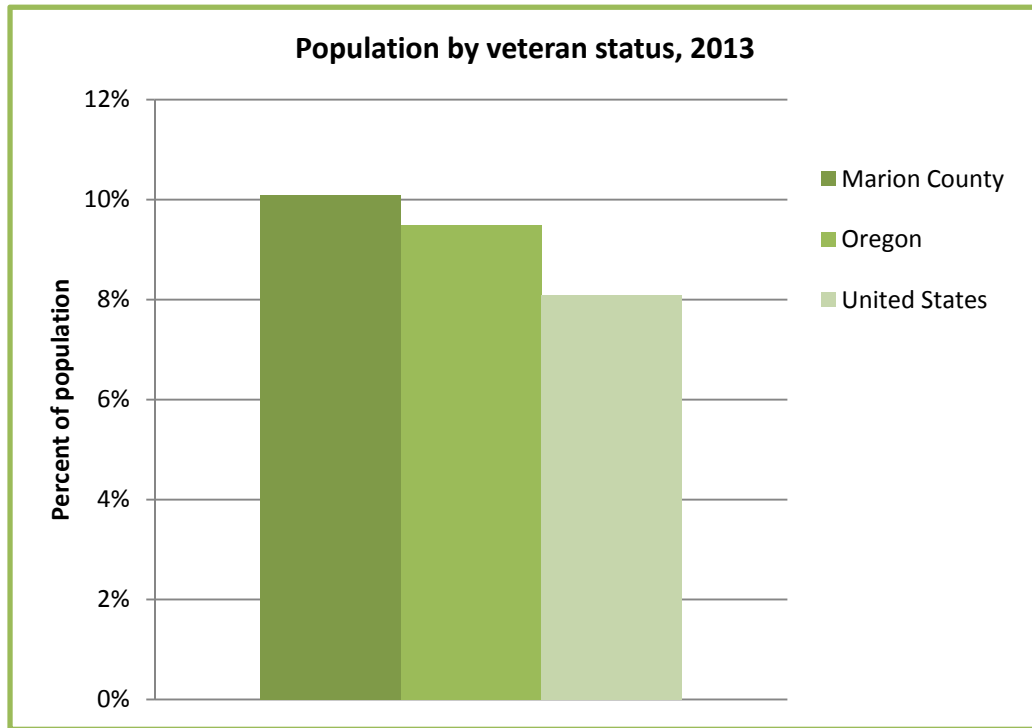
**Language Spoken at Home:** Inability to speak, read or understand English can present barriers to seeking, accessing, and receiving necessary health care and other services.

Marion County has a larger percent of residents that speak a language other than English at home than Oregon and the United States. The three main languages spoken in Marion County are English, Spanish and Russian.<sup>6</sup>



**Veteran Status:** During service, military personnel often experience higher rates of exposure to adverse environmental factors that can increase risk for chronic health conditions and/or disability.

Marion County has a larger percentage of residents that are veterans than Oregon and the United States.<sup>7</sup>





# Socioeconomics

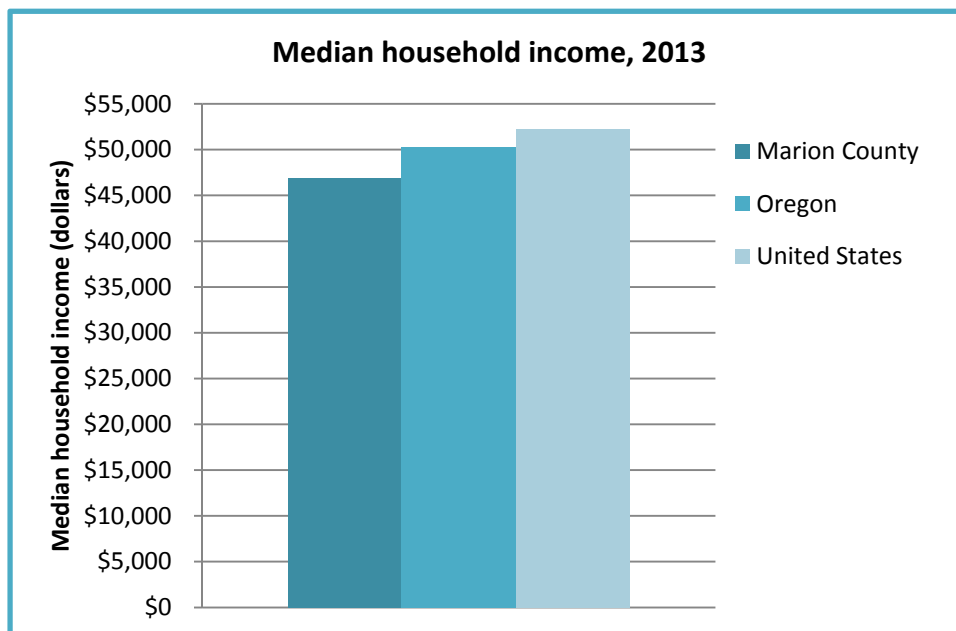
Socioeconomic factors may determine fiscal earning power of individuals which, in turn, can increase access to supports that lead to a healthy lifestyle such as access to health care, healthy foods, safe housing and safe places to exercise. Social determinants of health are the circumstances in which people are born, grow up, live, work and age and the systems put in place to deal with illness (World Health Organization). These circumstances are then shaped by economics, social policy and politics.

## Key Socioeconomic Findings for Marion County:

- Marion County residents have a lower median household income than Oregon residents and Americans in general.
- A larger percent of Marion County residents (especially residents under 18) live below the federal poverty level than Oregon residents and Americans in general.
- A smaller percent of Marion County residents have attended college than Oregon residents and United States residents.

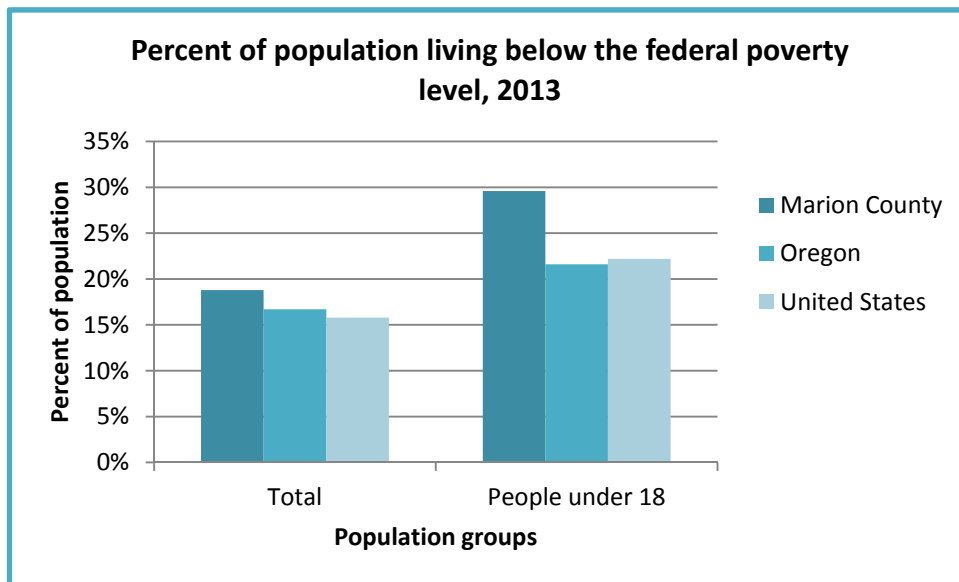
**Median Household Income:** Median household income can indicate access to supports that promote health such as health insurance, healthy food, and gym memberships. Income may also support higher educational attainment, which is also positively associated with better health outcomes.

Marion County has a lower median household income (\$46,873) than both Oregon (\$50,251) and the United States (\$52,250).<sup>8</sup>



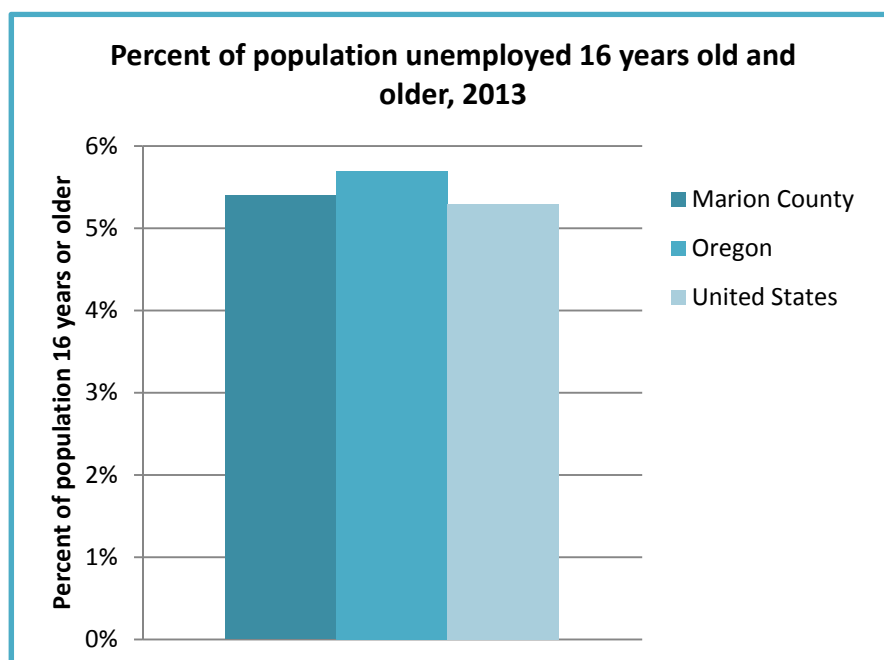
**Poverty:** Those living below the federal poverty level may be more likely than those living above the federal poverty level to rely on public health insurance and food stamps to receive health care and feed their families.

Marion County has a larger percent of its population (especially those under age 18) living below the federal poverty level than Oregon and the United States.<sup>8</sup>



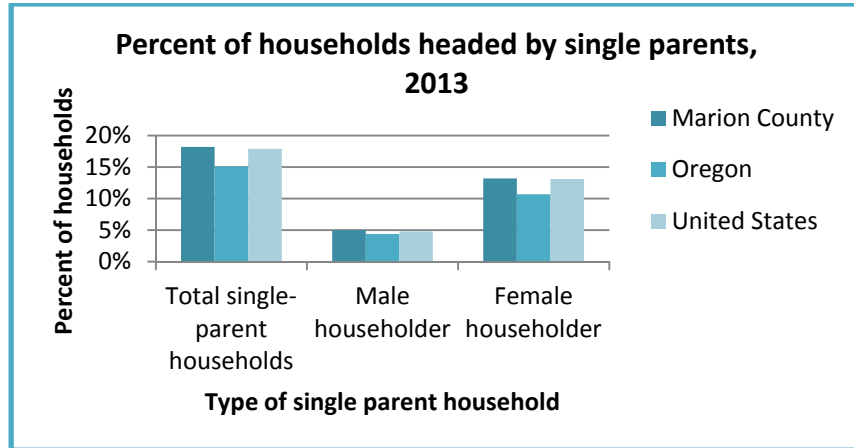
**Unemployment:** Like income, unemployment also indicates lack of access to supports that promote positive health behaviors such as health insurance and a safe, clean place to live.

Overall, the percent of the population that is unemployed is about the same in Marion County, Oregon and the United States.<sup>8</sup>



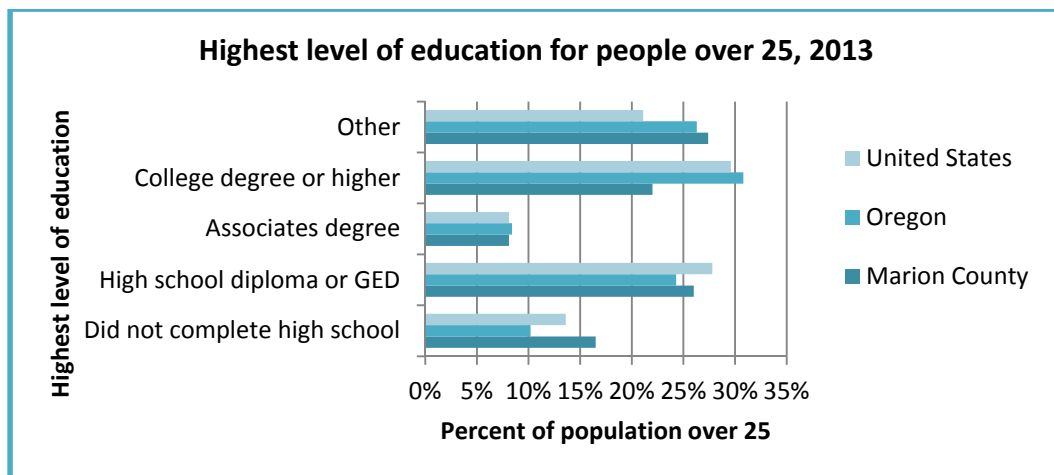
**Single-Parent Households:** Single-parent households may be more likely to live in poverty than two-parent household. This could mean that individuals living in single-parent households may lack access to supports that promote health and well-being.

Marion County has a larger percent of single parent households than the United States and Oregon. A larger percent of single parent households in Marion County are headed by women (13.2%) than men (5.0%).<sup>8</sup>



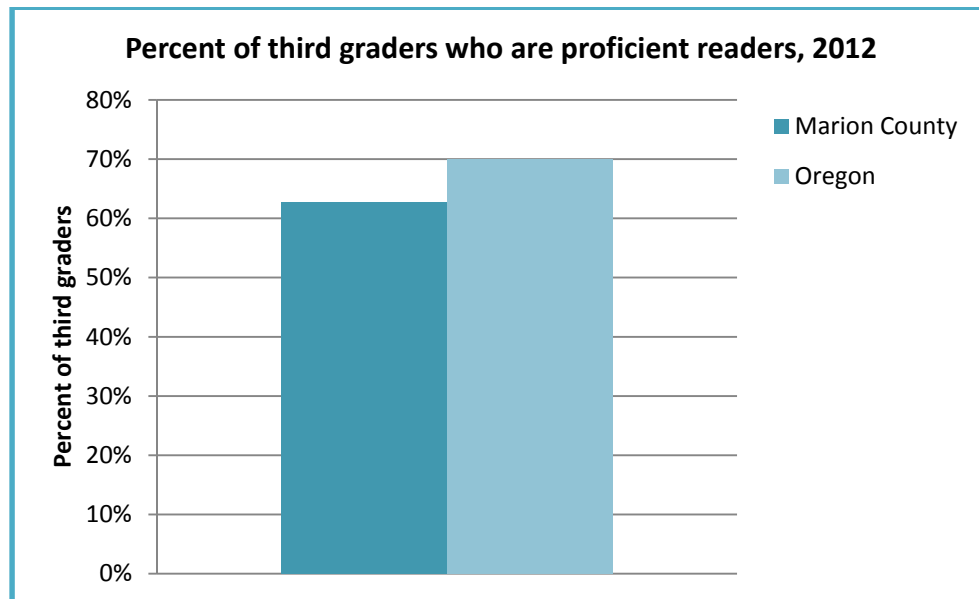
**Educational Attainment:** Educational attainment can be indicative of income earning power. Higher educational attainment is associated with better health outcomes.

Marion County has a higher percent of residents that did not complete high school than Oregon and the United States. Marion County has a lower percent of residents with a college degree or higher than Oregon and the United States.<sup>9</sup> In 2013, only 71.3%<sup>10</sup> of Marion County high school students graduated from high school in four years. Although the 2013 rate is up from the 2010 rate (64.6%), the most recent data remains short of the Healthy People 2020 goal of 82.4% four year graduation rate. It is important to note that this percentage does not include the percent of people in Marion County who graduated from high school in more than four years, so the overall educational attainment of high school degrees and above is higher than the four year high school graduation rate.



**3<sup>rd</sup> Grade Reading Proficiency:** Reading proficiency during third grade is a good indicator for future school success, high school graduation and improved life outcomes.

A smaller percent of Marion County third graders are considered proficient readers than Oregon third graders.<sup>11</sup>



**Homelessness:** Each year, Mid-Willamette Valley Community Action Agency in Marion and Polk Counties partner with community based organizations to survey and outreach to the homeless community. The information below displays both Marion and Polk combined data.

Based on results from the 2014 Homeless Survey<sup>12</sup>:

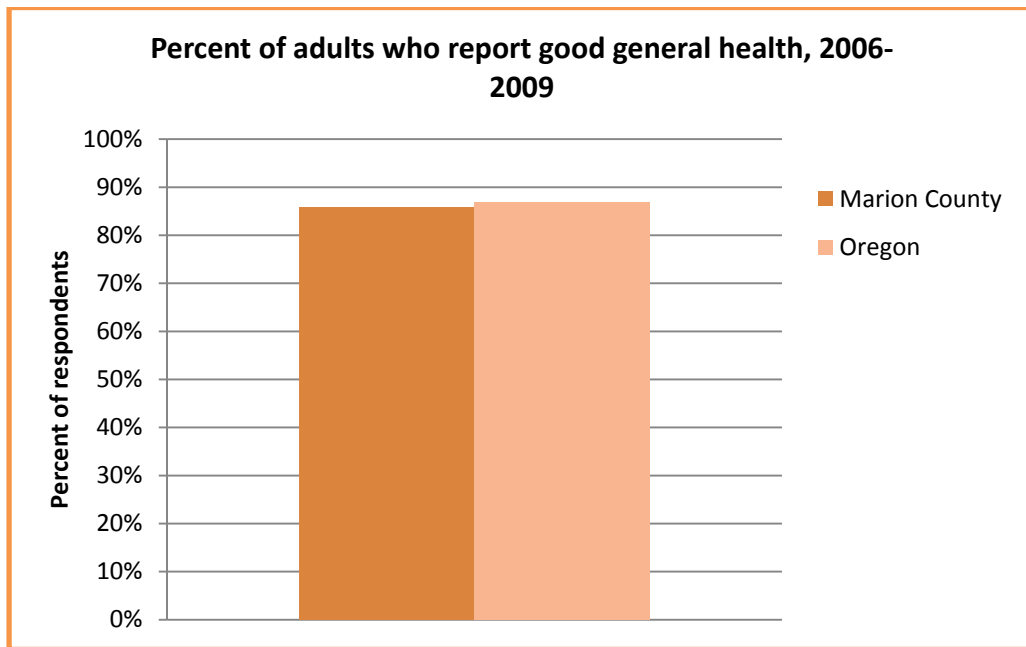
- The majority of people surveyed were single adults without children (82%).
- About two thirds of the people surveyed were male (68%).
- The majority of people surveyed were White (84%).
- Almost one half (44%) said they have been homeless for 1-3 years.
- Almost one half (45%) said they were looking for a job.
- The three most common responses given as reason for homelessness were that the individuals “Could not afford rent” (28%), “Unemployed” (34%), and “Criminal History” (13%).
- The two main things respondents believe would improve their current situation were affordable housing and a job/income source.

# Quality of Life

Self-reported health status includes the individual's consideration of his or her own physical, mental and emotional health as well as his or her social functioning within peer groups. Self-reported health status can be a good indicator of the effects of chronic illness, long term medical treatments and short and long-term disabilities.

**Self-Reported Health Status:** How an individual rates his or her own health can be a good indicator of future disability, hospitalization and death. Those who report poor general health may be more likely to suffer premature death than those who report good general health.

Marion County and Oregon have approximately the same percentage of adults who report overall good health.<sup>13</sup>



# Access to Care

Access to comprehensive health care services is important for the achievement of health equity and increasing the quality of health and life for everyone in a community. This section provides a brief overview of access to health care services. A more detailed assessment is available on the Health Department website at

<http://www.co.marion.or.us/NR/rdonlyres/204E69C6-1E74-414C-98A6-77182BB947A5/52829/20131118MarionPolkHealthcareAccessAssessmentFINALv.pdf>

## Key Access to Care Findings for Marion County:

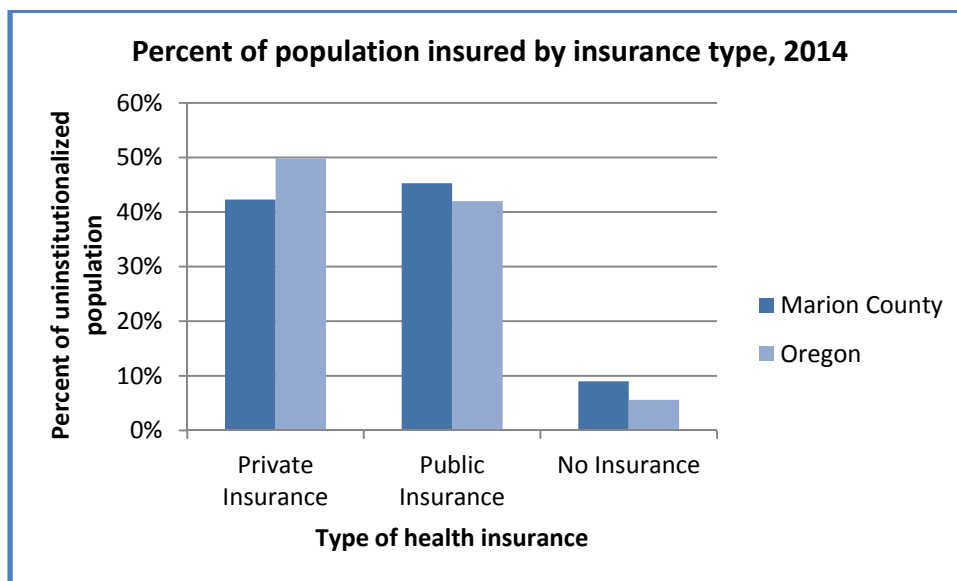
According to the census:

- A higher percentage of Marion County residents have public insurance or no insurance than in Oregon and the United States.

According to the 2011 & 2015 community surveys:

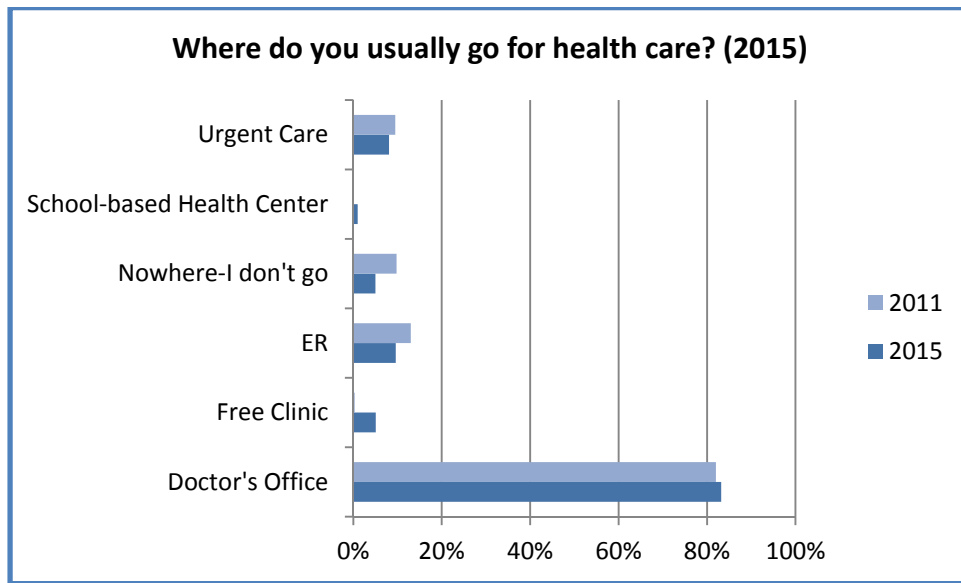
- A smaller percentage of individuals reported using urgent care and emergency care services as their usual health care source now than in 2011.
- A larger percentage of individuals reported access to all types of medical providers in 2015 than in 2011.
- The largest percentage of Marion County residents reported difficulty receiving eye and dental care.

**Health Insurance:** Insurance status suggests access to a primary care physician and preventive care. Marion County has a larger percentage of its population using public health insurance than in Oregon and the United States. A higher percent of the Marion County population is uninsured than the Oregon population.<sup>14</sup>

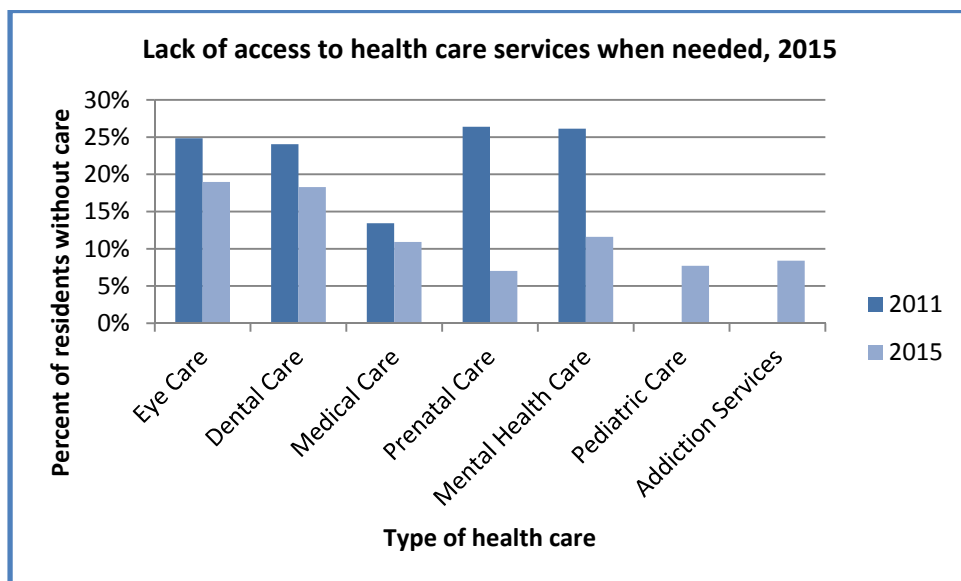


**Health Care Usage:** The medical provider’s office is often the most cost-effective means of caring for non-emergency health issues. Having a regular place for care, such as the office of a physician, nurse practitioner or physician’s assistant, can help ensure better coordinated, on-going care of chronic health problems.

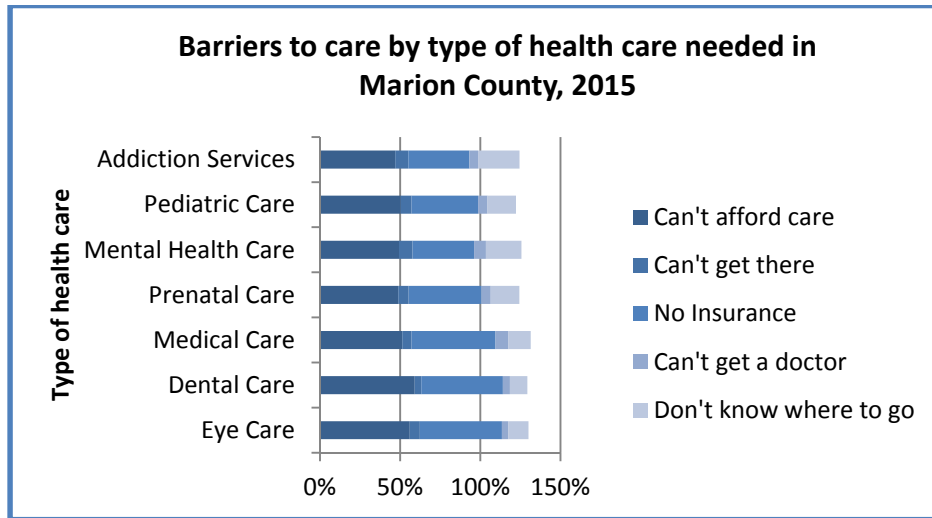
On the Community Health Survey, a large percentage (82.3%) of Marion County residents stated that they usually go to the doctor’s office when they need health care. Between 2011 and 2015 a larger percentage of Marion County residents reported going to the doctor’s office and/or the free clinic when they needed health care, while a smaller percentage of Marion County residents reported going to urgent or emergency care.<sup>15</sup>



**Access to Providers:** In 2015, a larger percentage of Marion County residents reported access to eye care, dental care, medical care, prenatal care and mental services than in 2011. This is encouraging because it suggests increased access to all types of health care services.<sup>15</sup>



**Barriers to Accessing Health Care:** The most commonly reported barriers to accessing health care in Marion County, regardless of the type of health care were: not being able to afford care, not having insurance that covers needed health care services and not knowing where to seek necessary care.<sup>15</sup>





# Injury Prevention/Safety

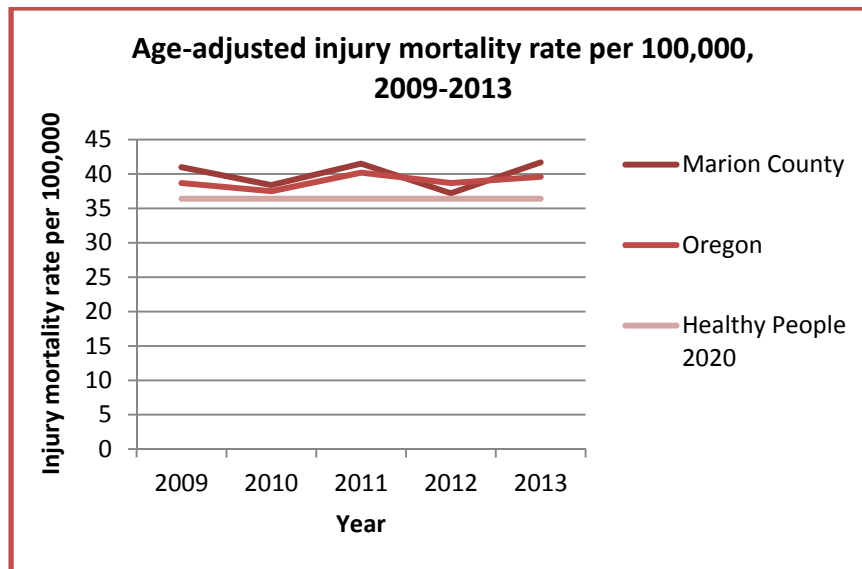
Both unintentional and intentional injuries are among the top 15 causes of death for Americans of all ages and are the top cause of death for Americans under the age of 45. Injuries are the leading cause of disability at all ages, regardless of sex, race/ethnicity or socioeconomic status. While some accidents are unavoidable, many events that result in injury, disability or death are predictable and preventable.

## Key Injury Prevention/Safety Findings for Marion County:

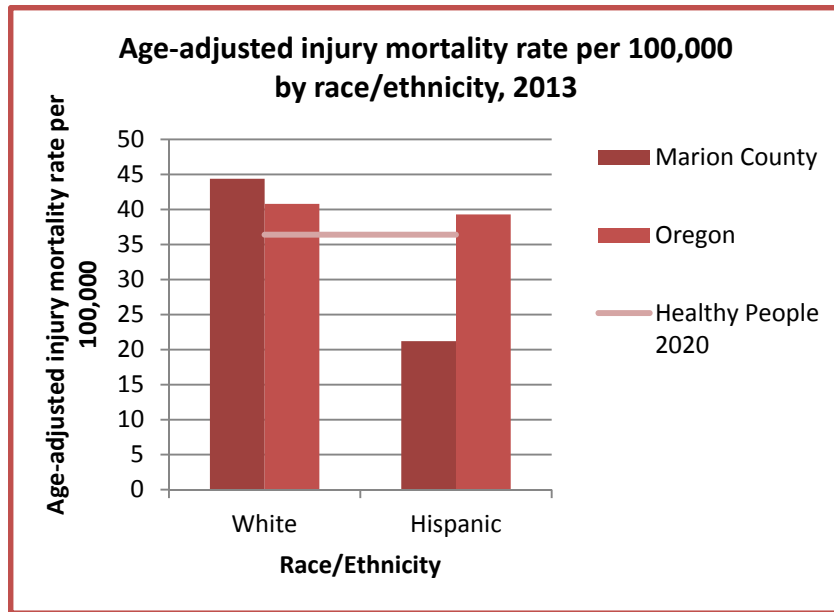
- Men die at higher rates from injuries than women.
- The main causes of injury death are: falls, poisoning and motor vehicle accidents.
- Persons who identify as White, non-Hispanic are almost twice as likely to die of accidental injury as individuals who identify as Hispanic.

**Age-Adjusted Injury Mortality Rate:** Injury mortality rates often include avoidable premature deaths such as motor vehicle deaths or workplace deaths that may not have occurred with proper seatbelt use or proper workplace safety.

The age-adjusted injury mortality rate for both Marion County and Oregon as a whole has remained steady for the past five years. Marion County has not achieved the Healthy People 2020 injury mortality goal.<sup>16, 17</sup>

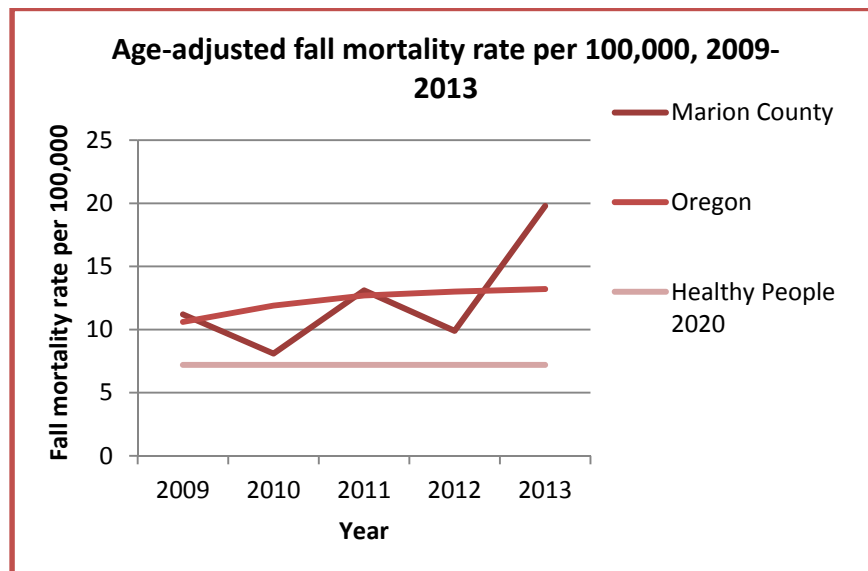


In Marion County, individuals who identify as White, non-Hispanic die at twice the rate from accidental injury as individuals who identify as Hispanic. In Marion County, the Hispanic population has achieved the Healthy People goal while the White, non-Hispanic group has not.<sup>16, 17</sup>



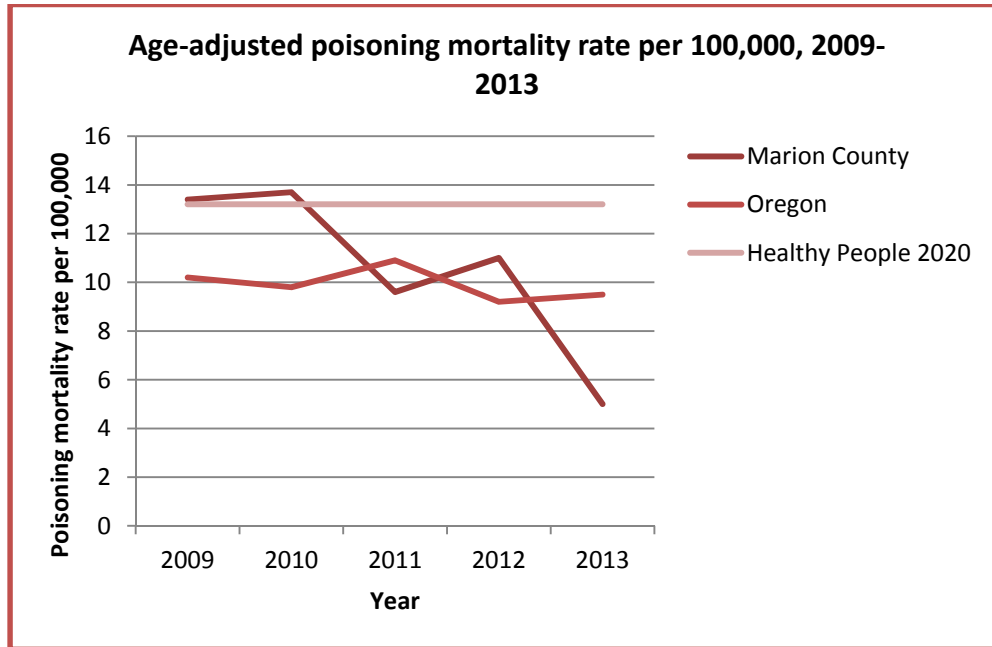
**Age-Adjusted Fall Injury Mortality Rate:** In elderly populations, falls are a common cause of death.

Both Marion County and Oregon have seen an increase in the age-adjusted fall mortality rates, moving further away from the Healthy People goal.<sup>16, 17</sup>

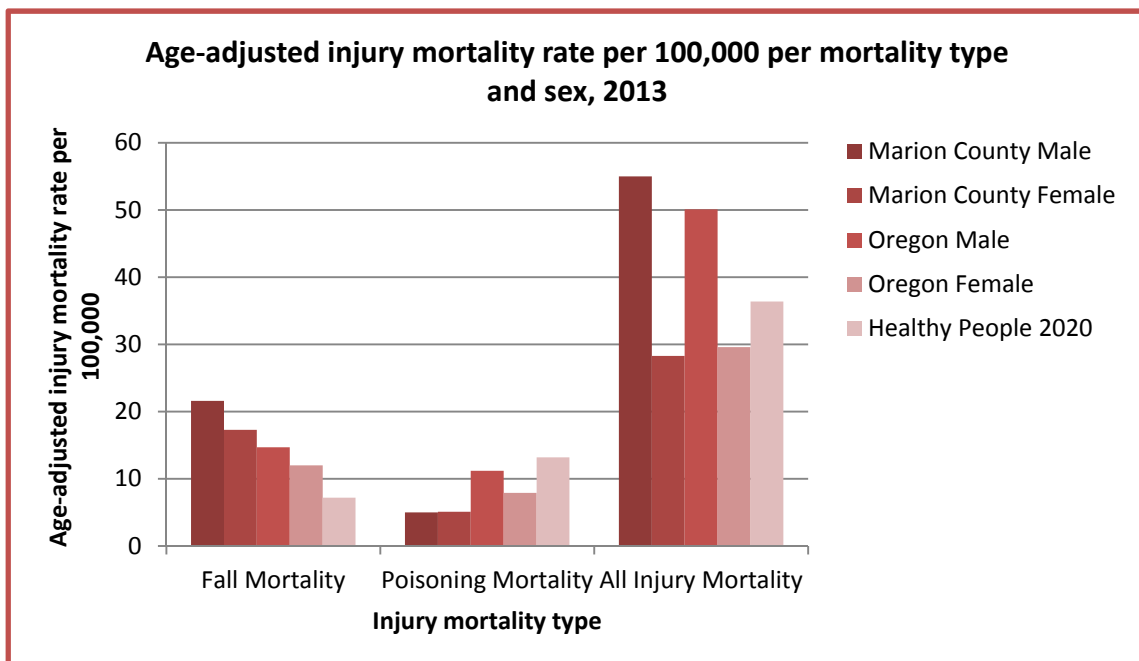


**Age-Adjusted Poisoning Mortality Rate:** The poisoning mortality rate can indicate access/exposure to dangerous household chemicals and other hazardous substances.

Marion County poisoning mortality rate has been decreasing while the Oregon rate has remained stable. Both the county and state have achieved the Healthy People goal.<sup>16, 17</sup>

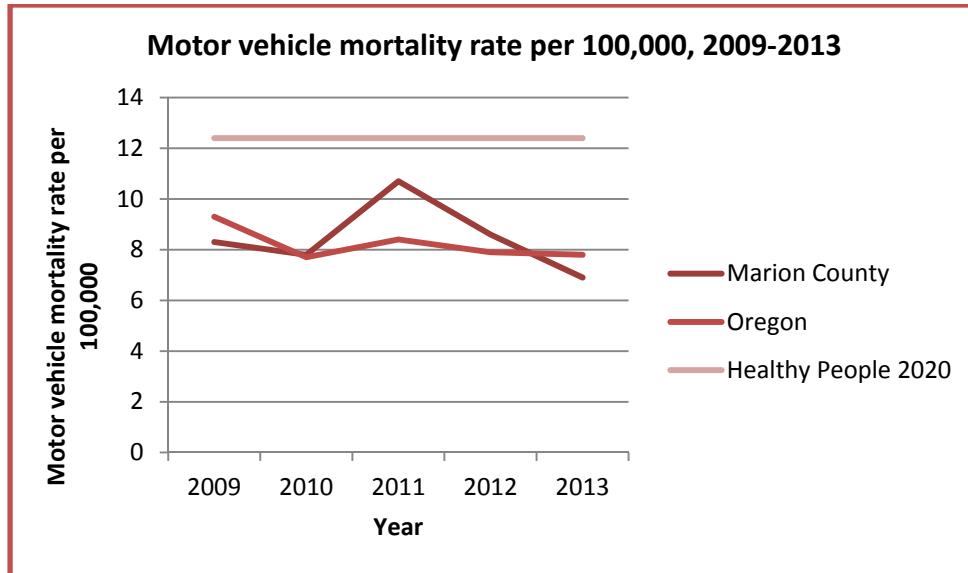


Males die at about twice the rate from injuries than females in both Marion County and Oregon. Marion County males have a higher injury mortality rate than Oregon males while Marion County females die at about the same rate from injury than Oregon females. Marion County residents die at a higher rate from fall injuries than Oregon residents as a whole. Oregon residents die at a higher rate from poisoning than Marion County residents.<sup>16, 17</sup>



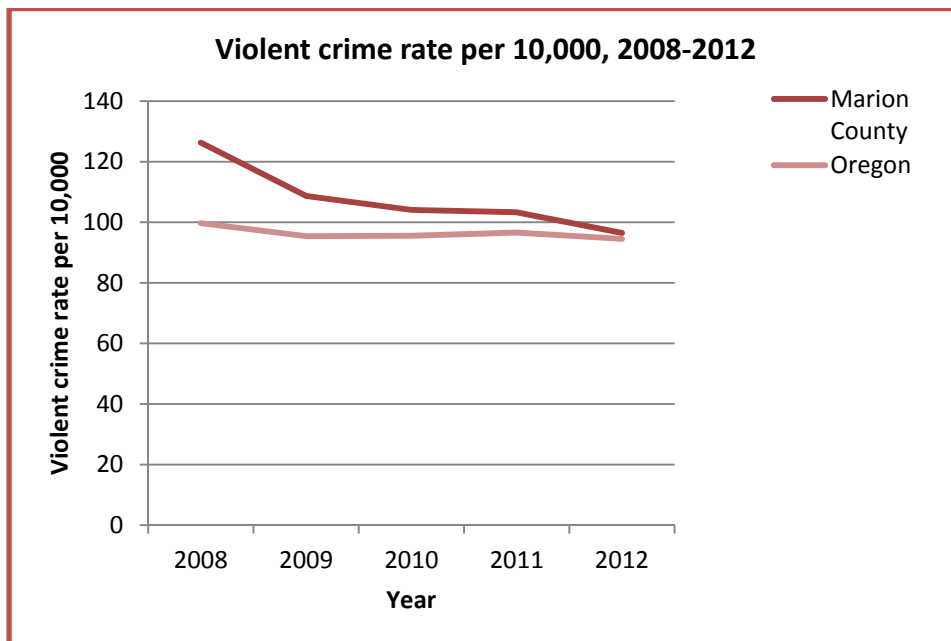
**Age-Adjusted Motor Vehicle Mortality Rate:** Car crashes kill more children and adults than any other cause of death in the United States. Decreasing age-adjusted motor vehicle mortality rates may indicate increased seat belt use as well as reductions in drinking while driving and other forms of distracted driving.

The overall trend for motor vehicle mortality rate has been decreasing in Marion County since 2011. Marion County and Oregon have achieved the Healthy People 2020 goal.<sup>16,17</sup>



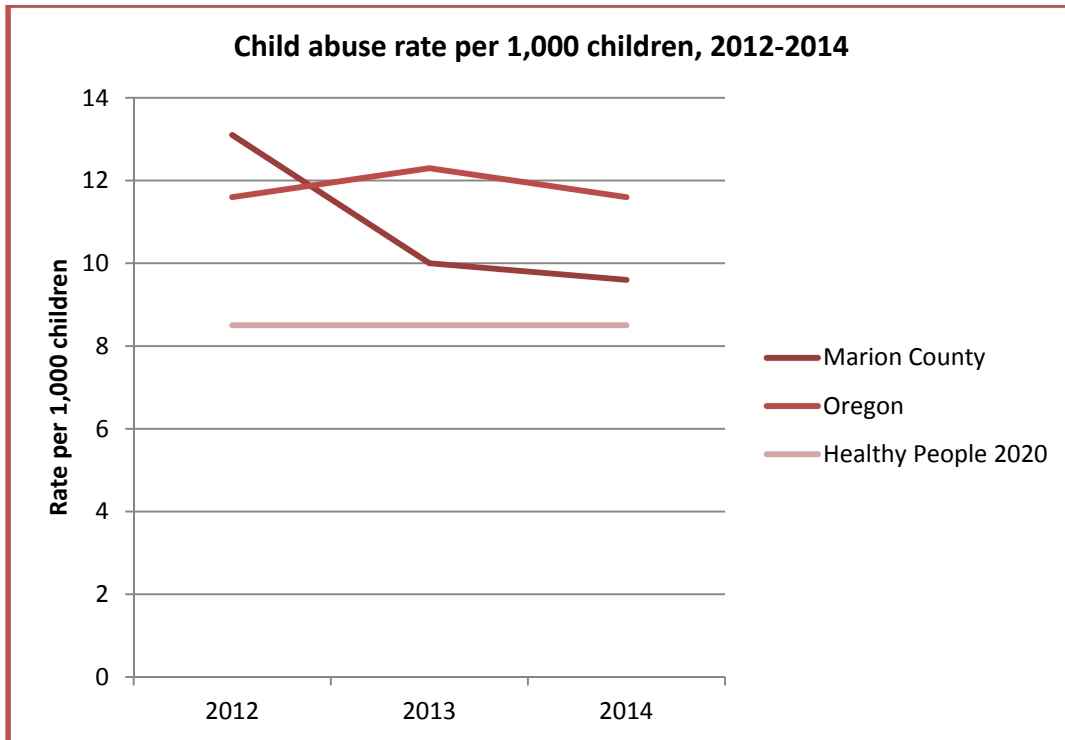
**Violent Crime Rate:** The violent crime rate is a good indicator of community safety. Violent crimes include murder, assault, kidnapping, robbery, rape and other sex crimes.

The violent crime rate in Marion County decreased between 2008 and 2012 and was about the same as Oregon's violent crime rate by 2012.<sup>18</sup>



**Child Abuse Rate:** This indicator shows the number of children less than 18 years of age that experienced abuse (physical, sexual and emotional) or neglect per 1,000 children. Children who experience abuse and/or neglect can have enduring physical and psychological issues into adolescence and adulthood.

Child abuse rates in Marion County have decreased over the past three years from about 13 per 1,000 children in 2012 to less than 10 per 1,000 children in 2014. Marion County has a lower child abuse rate than Oregon as whole but has not met the Healthy People 2020 goal.<sup>19, 17</sup>



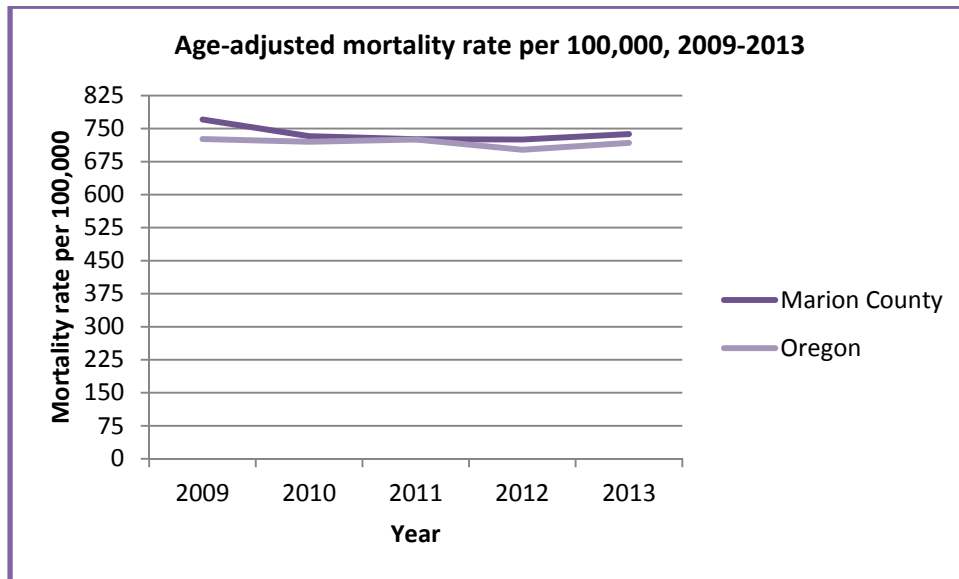
# Mortality

Mortality rates identify who is dying of what cause in a community. It is important to note the leading causes of death because it helps to inform where prevention activities should be focused. If the leading cause of death is heart disease, community health agencies may choose to focus on alleviating health problems that contribute to heart disease such as high blood pressure, high cholesterol, unhealthy eating habits and lack of physical activity.

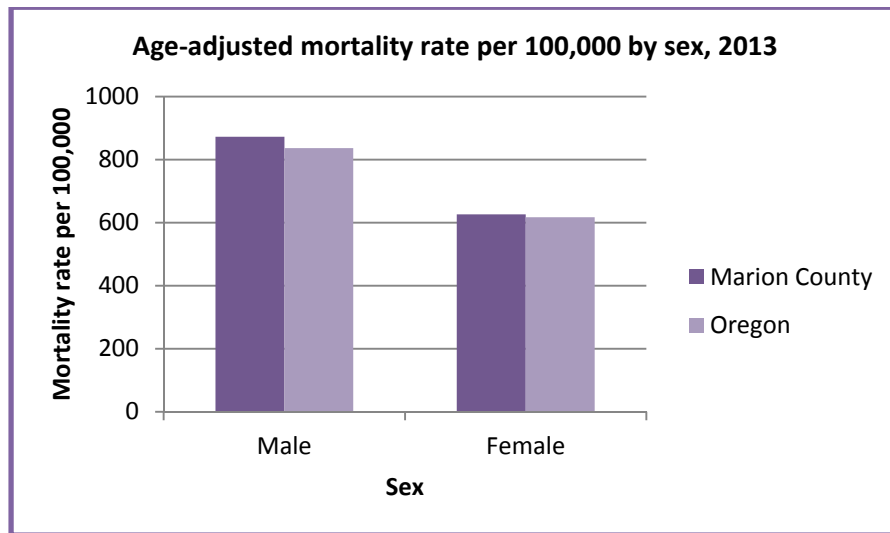
## Key Mortality Findings for Marion County:

- Marion County residents die at about the same rate than Oregon residents.
- Leading causes of death are: heart disease, lung cancer and stroke.
- Men die of heart disease at a higher rate than women.

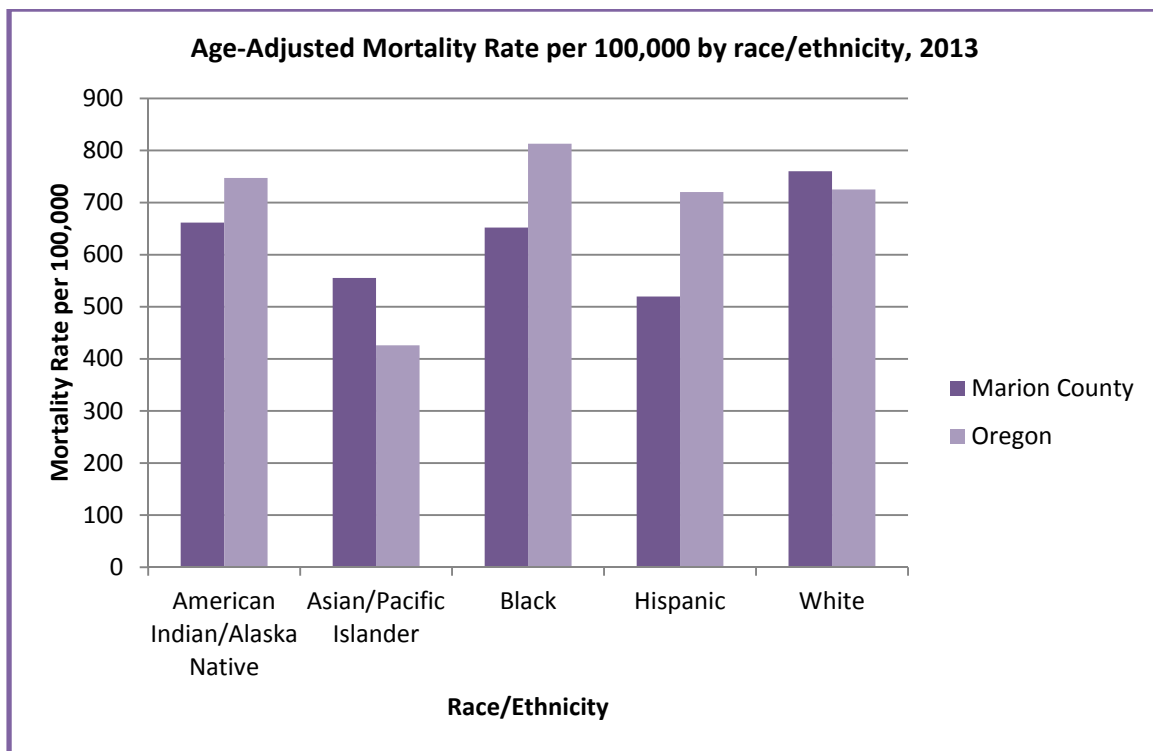
**Age-Adjusted All Cause Mortality Rate:** Marion County and Oregon have about the same mortality rate.<sup>20</sup>



Men have a higher mortality rate than women.<sup>20</sup> This may be due to higher chronic disease rates among men or because men die at a higher rate from injury than women.

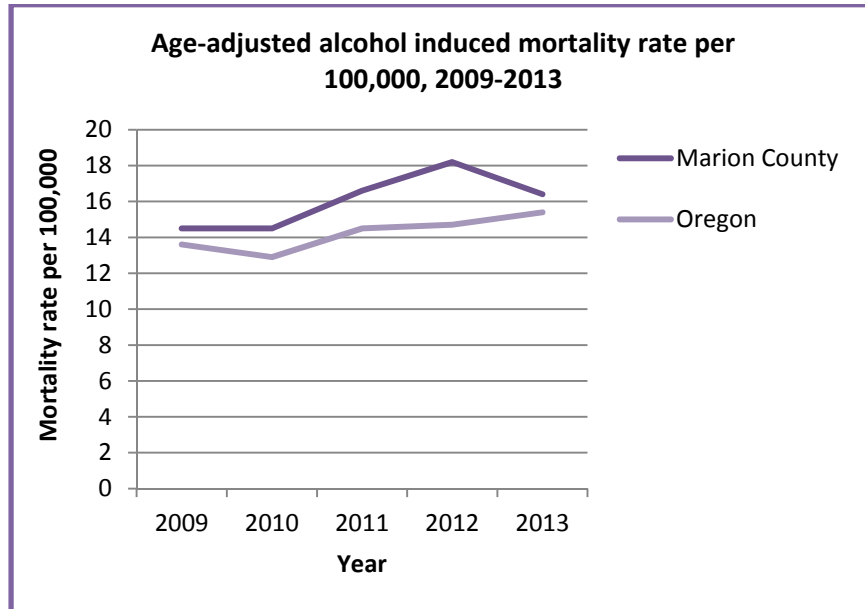


The Marion County mortality rate for Whites is higher than the Oregon White mortality rate. In Marion County, Whites, Blacks, and American Indian/Alaska Natives die at a higher rate than Asian/Pacific Islanders and Hispanics.<sup>20</sup> This may be because of higher disease incidence among certain racial or ethnic groups, or a lack of access to health care services to individuals belonging to a certain group.

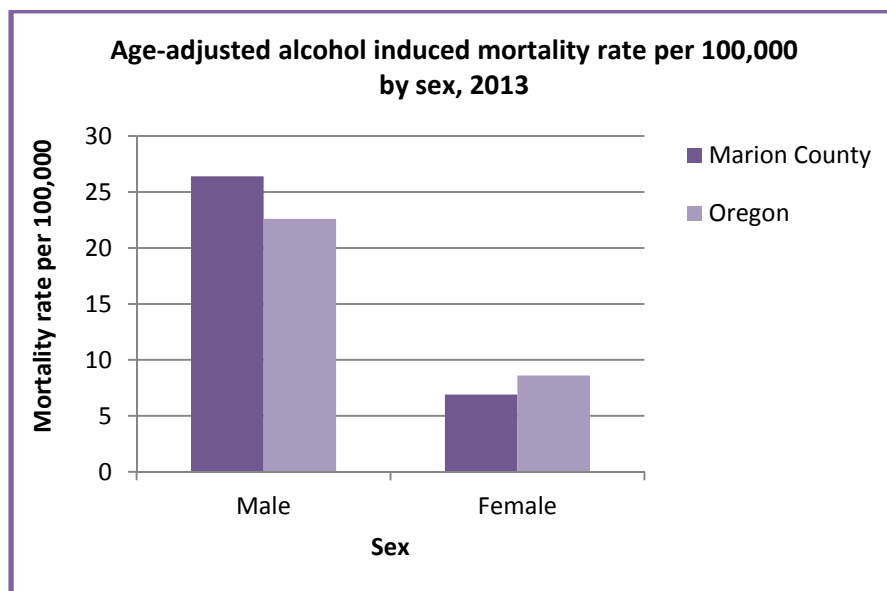


**Alcohol-Induced Mortality Rate:** Alcohol induced mortality rates indicate the rate at which people die from alcohol-related causes such as: degeneration of the nervous system due to alcohol, gastritis, myopathy, pancreatitis, poisoning, etc.

Marion County and Oregon residents die at about the same alcohol-induced mortality rate.<sup>20</sup>



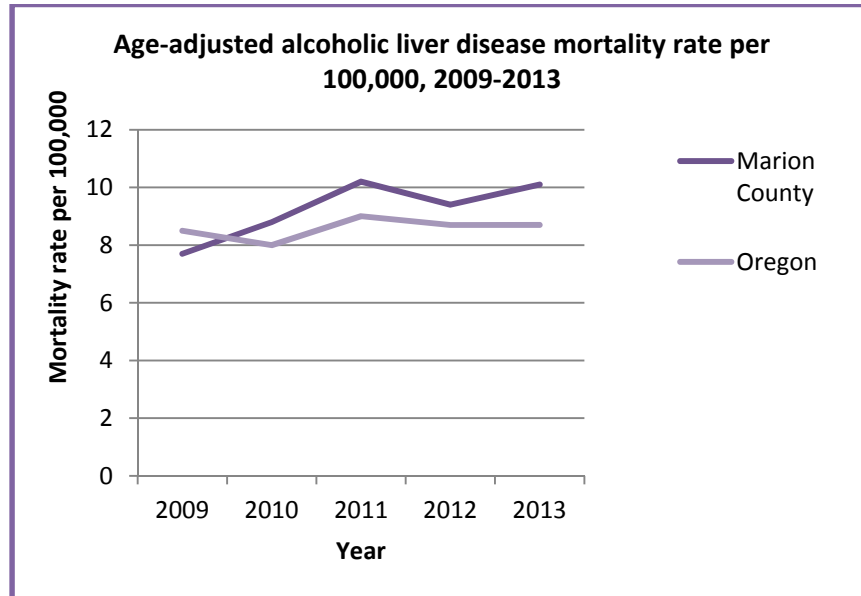
Men have at a higher alcohol-induced mortality rate than women.<sup>20</sup> This suggests that men consume alcohol more often and in higher quantities than women.





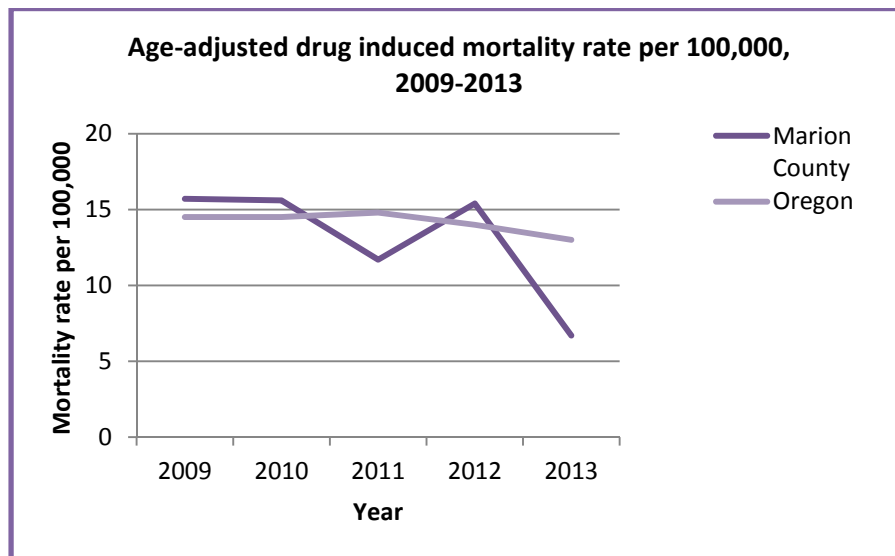
**Alcoholic Liver Disease Mortality Rate:** Alcoholic liver disease mortality includes all deaths from liver cirrhosis related to alcohol abuse.

Marion County residents die at about the same rate from alcoholic liver disease as Oregon residents. The overall trend in the alcoholic liver disease mortality rate appears to increase between 2009 and 2013.<sup>20</sup>

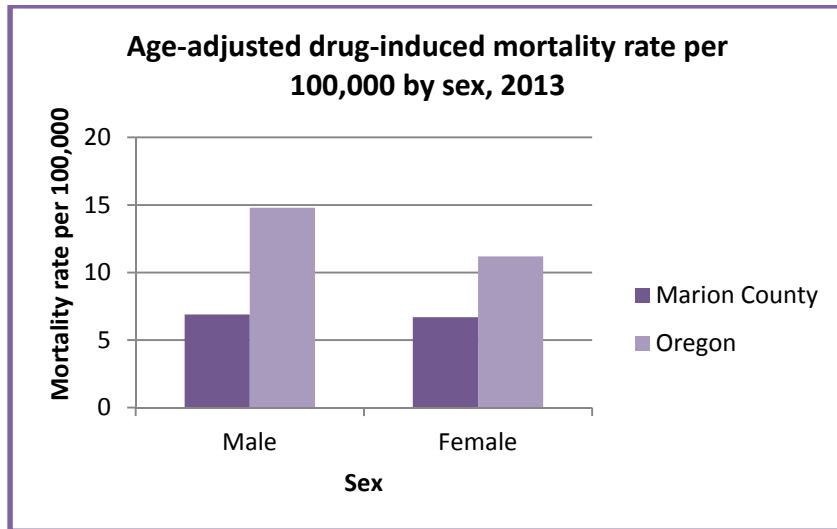


**Drug-Induced Mortality Rate:** Drug-induced mortality rates include all deaths for which drugs are the underlying cause including: overdose and deaths from medical conditions resulting from chronic drug use.

Marion County residents die at a lower rate from drug-induced mortality than Oregon residents.<sup>20</sup> This may indicate lower drug use in Marion County than in the state of Oregon as a whole.

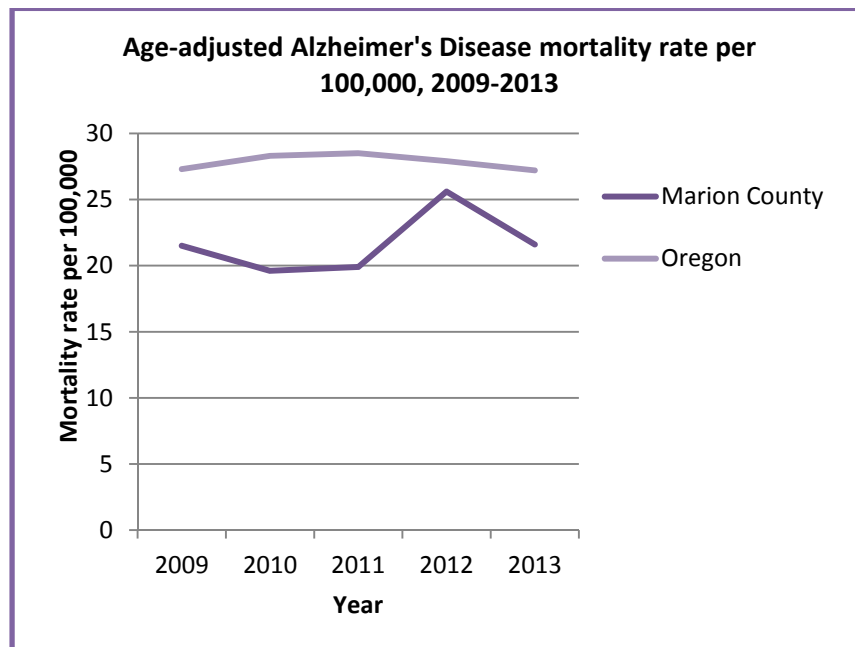


Oregon residents die at a higher rate from drug-induced mortality than Marion County residents. Marion County men and women die at about the same rate from drug-induced mortality. Oregon men die at a higher rate from drug-induced mortality than Oregon women.<sup>20</sup> These rates may indicate equal likelihood of drug use by Marion County men and women, but a higher rate of drug use among Oregon men than Oregon women.

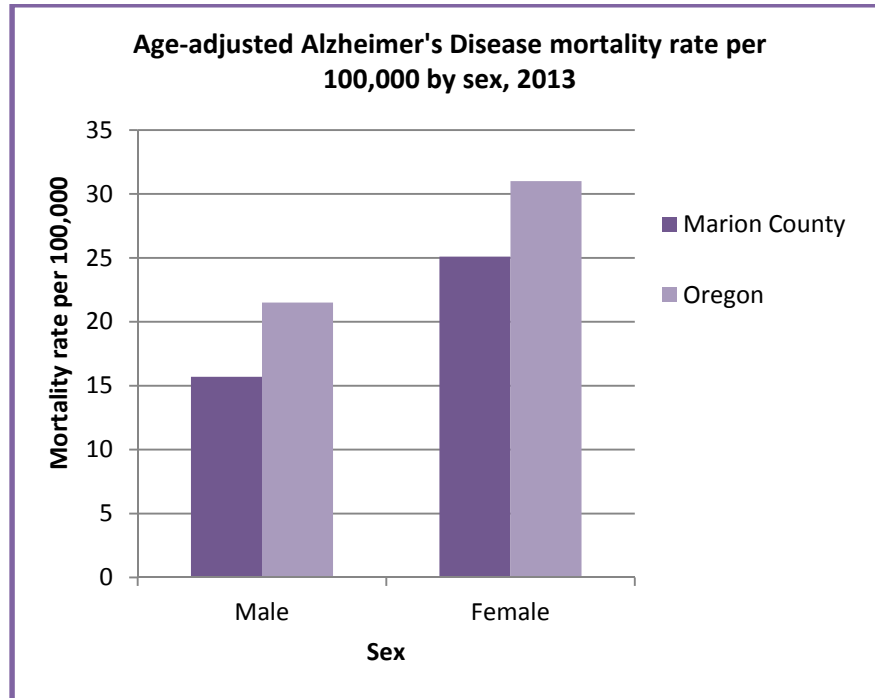


**Alzheimer’s Disease Mortality Rate:** “Dementia is a non-specific syndrome that severely affects memory, language, complex motor skills, and other intellectual abilities seriously enough to interfere with daily life.” Alzheimer’s Disease, which usually begins after age 60, is the most common form of dementia among seniors.

Marion County residents die at a lower rate from Alzheimer’s Disease than Oregon residents.<sup>20</sup>

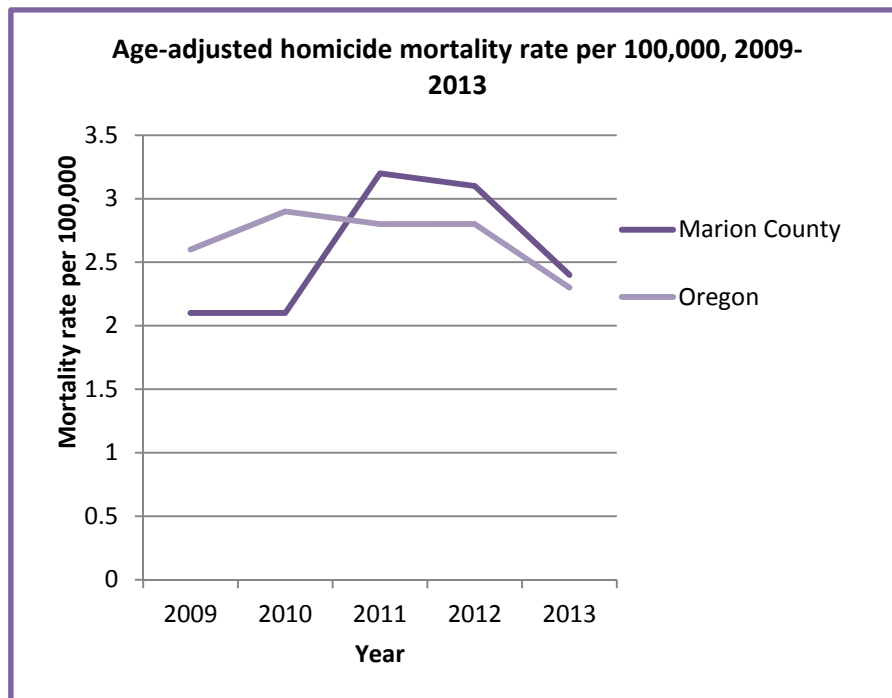


In Marion County and Oregon women die from Alzheimer's Disease at a higher rate than men.<sup>20</sup>



**Homicide Mortality Rate:** The homicide mortality rate is another indicator of community safety.

Marion County and Oregon residents die at about the same rate from homicide.<sup>20</sup>



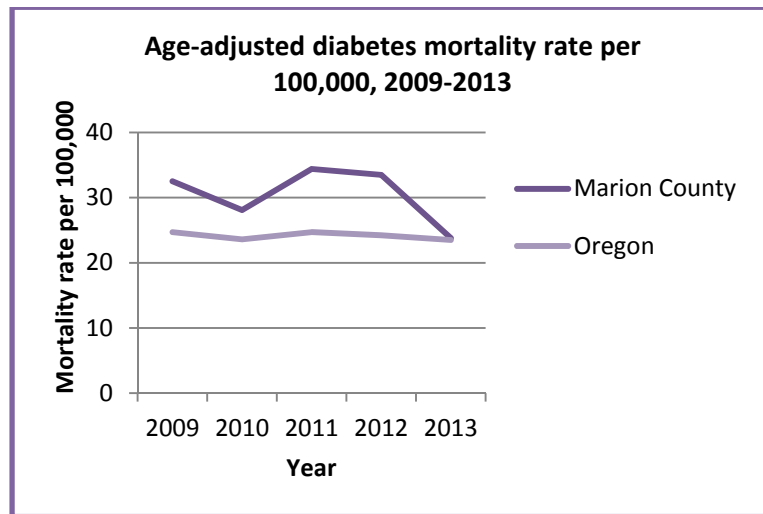
**Emphysema Mortality Rate:** Emphysema is one of several diseases known collectively as Chronic Obstructive Pulmonary Disease (COPD). Emphysema occurs when the air sacs in a person’s lungs are damaged. This damage reduces the amount of oxygen in a person’s bloodstream.<sup>21</sup>

Marion County and Oregon residents die from emphysema at about the same rate. Overall mortality trends for emphysema have been decreasing in Marion County and Oregon.<sup>20</sup> Since the main causes of emphysema are tobacco and marijuana smoke, air pollution and manufacturing fumes, the decrease in mortality rates from emphysema may indicate decreasing exposure to secondhand smoke, and air pollution for Marion County and Oregon residents.

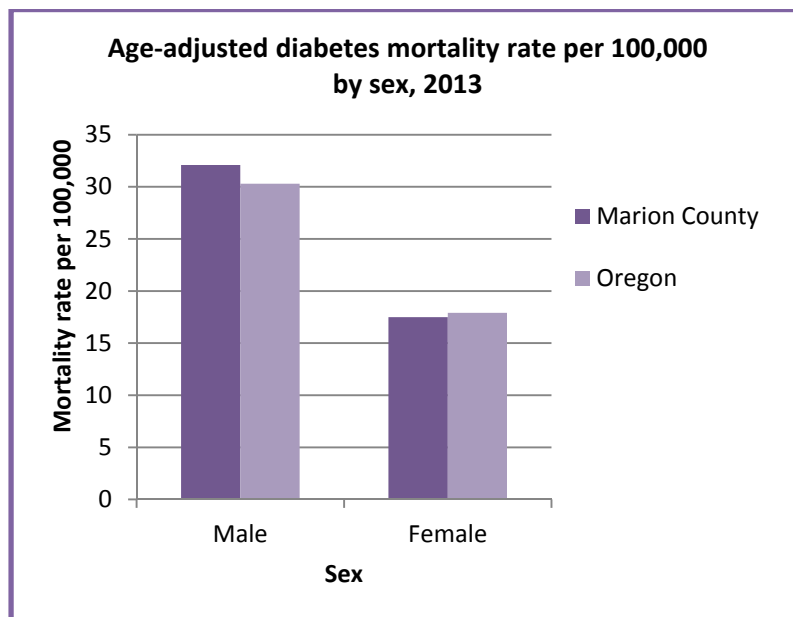


**Diabetes Mortality Rate:** Diabetes is a disease in which blood sugar levels are higher than normal. According to the Centers for Disease Control, some risk factors for diabetes are: family history of diabetes; being overweight or obese; high blood pressure; engaging in physical activity less than three times per week; and history of having diabetes while pregnant. Diabetes can lead to heart disease, stroke, blindness and kidney problems.

Between the years 2009-2012 Marion County residents died at a higher rate from diabetes than Oregon residents. In 2013, Marion County residents died at about the same rate from diabetes than Oregon residents. The overall trend for the diabetes mortality rate in Marion County has been decreasing since 2009 from about 35 per 100,000 in 2009 to about 25 per 100,000 in 2013.<sup>20</sup> Diabetes mortality rates can indicate lack of access to care needed to properly manage diabetes.

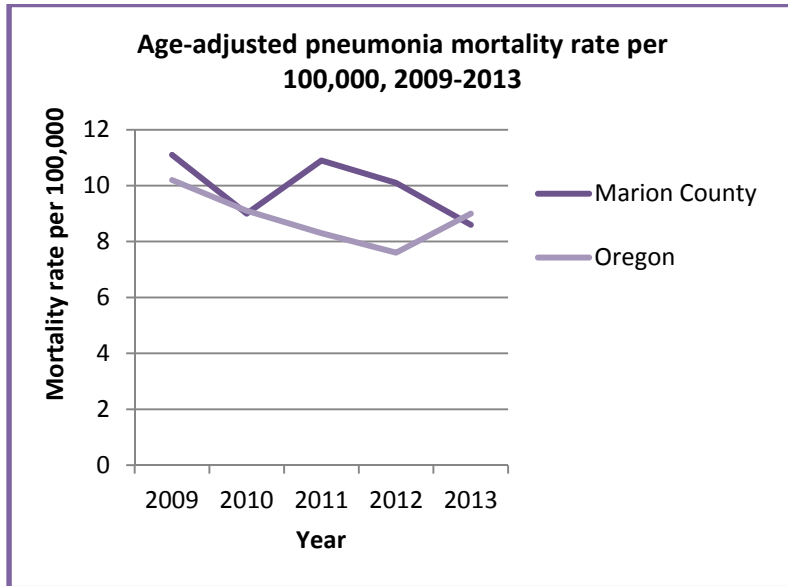


Males die at a higher rate from diabetes than women.<sup>20</sup> Increased diabetes deaths in males may suggest higher diabetes prevalence in males than females or that men are more likely to have poorly controlled diabetes than women.



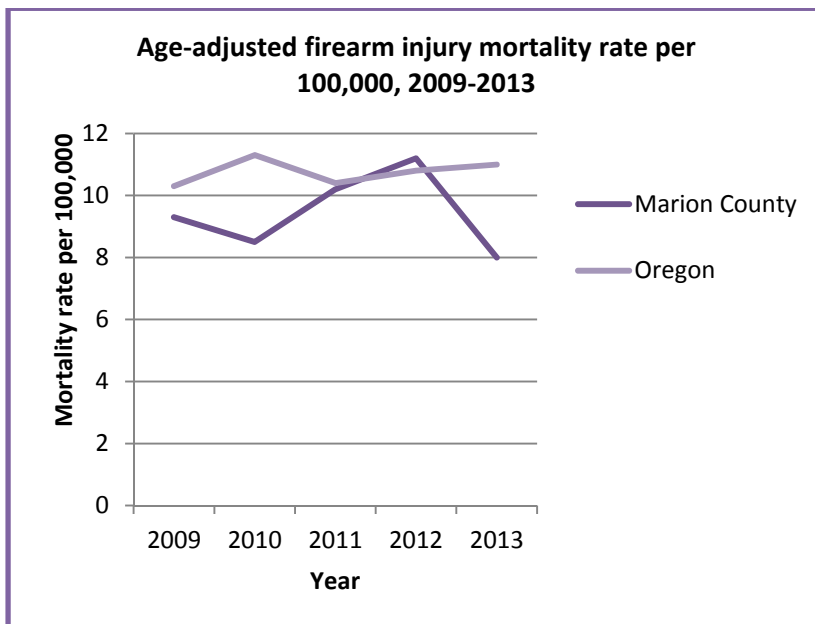
**Pneumonia Mortality Rate:** Pneumonia is an infection caused by a variety of organisms that causes cough, fever and difficulty breathing. Some types of pneumonia are preventable through the administration of pneumonia and influenza vaccines, especially important for young children and senior citizens.

Marion County residents die from pneumonia at about the same rate as Oregon residents.<sup>20</sup>

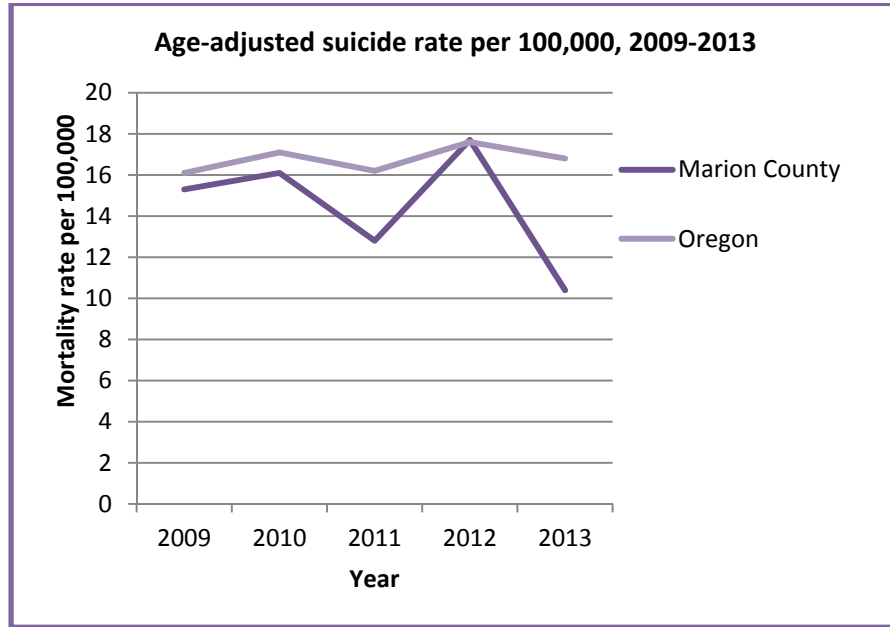


**Firearm Injury Mortality Rate:** Firearm injury mortality rates include deaths from accidental firearm discharge, suicide by firearm, assault by firearm, firearm discharge of undetermined intent, and legal intervention involving firearm discharge.

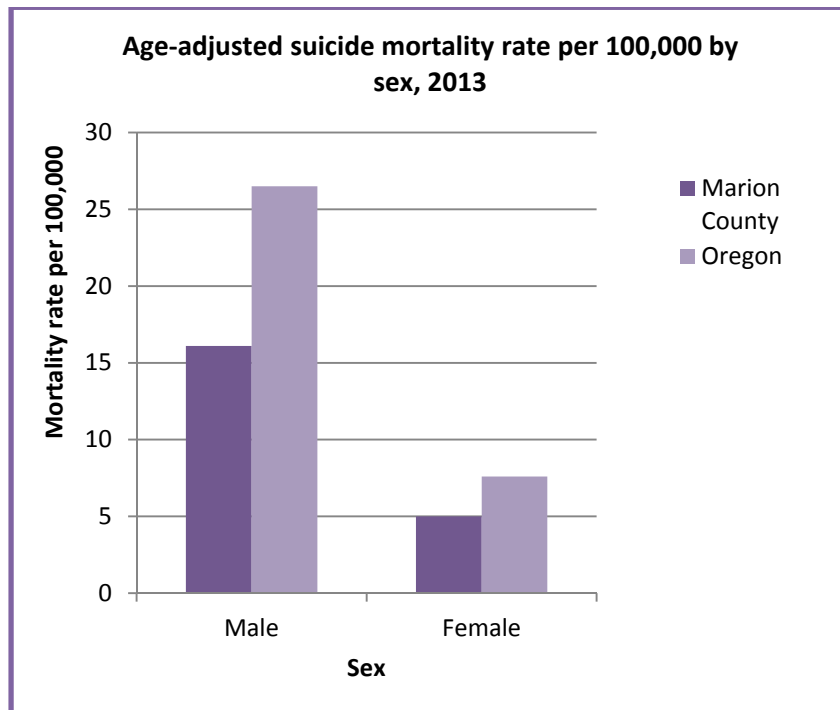
Marion County residents die at a lower rate from firearm injuries than Oregon residents.<sup>20</sup>



**Suicide Mortality Rate:** Marion County residents die from suicide at a lower rate than Oregon residents. The 2013 Marion County suicide rate is the lowest it has been in five years.<sup>20</sup>

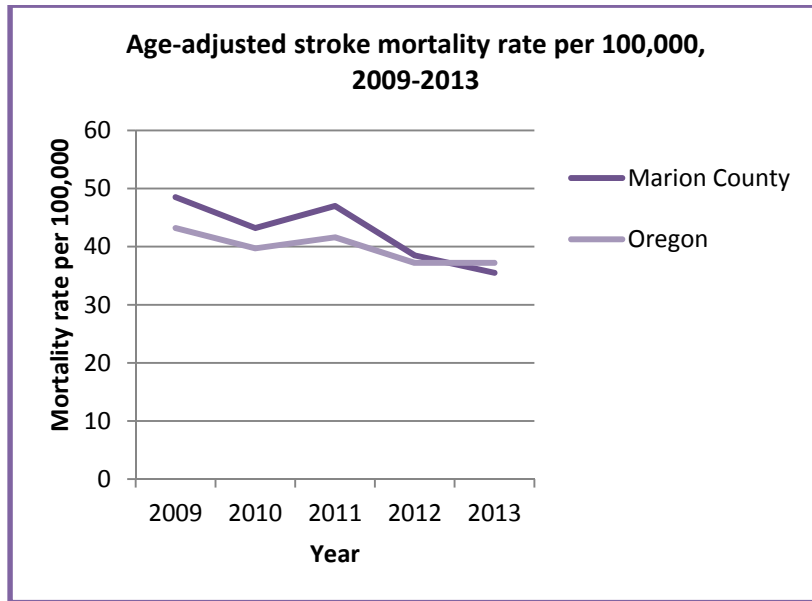


Males have a higher suicide mortality rate than females in both Marion County and Oregon.<sup>20</sup>

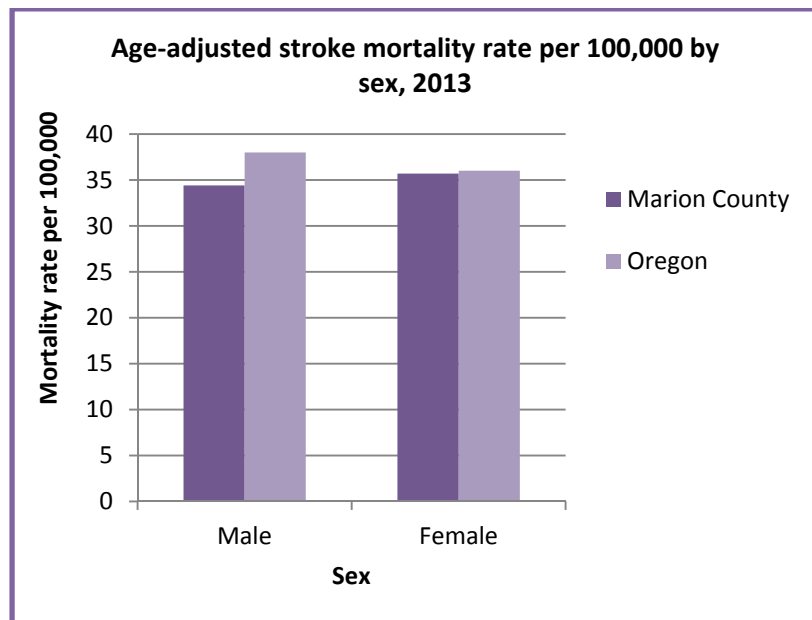


**Stroke Mortality Rate:** Most strokes happen when blood flow to the brain is blocked. A stroke can result in mild to severe long-term disability and sometimes death. Risk factors for stroke include high blood pressure, high cholesterol and smoking, but the actual likelihood of having a stroke or dying from a stroke varies by race and ethnicity.<sup>22</sup>

Marion County residents die at about the same rate of strokes as Oregon residents. The overall trend in stroke mortality has been decreasing steadily since 2009 in both Marion County and the state of Oregon.<sup>20</sup>

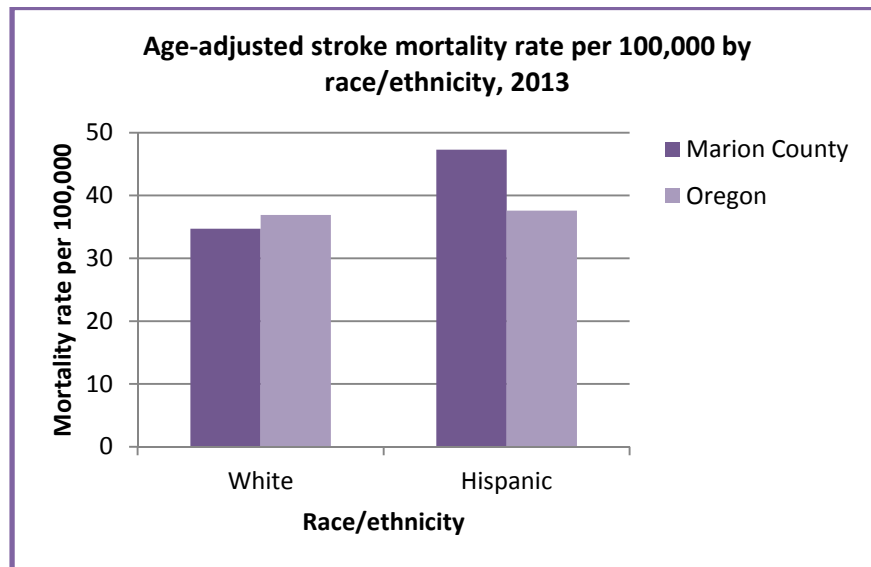


Marion County females and males have about the same stroke mortality rate. Oregon males have a slightly higher stroke mortality rate than Marion County males and females as well as Oregon females.<sup>20</sup>



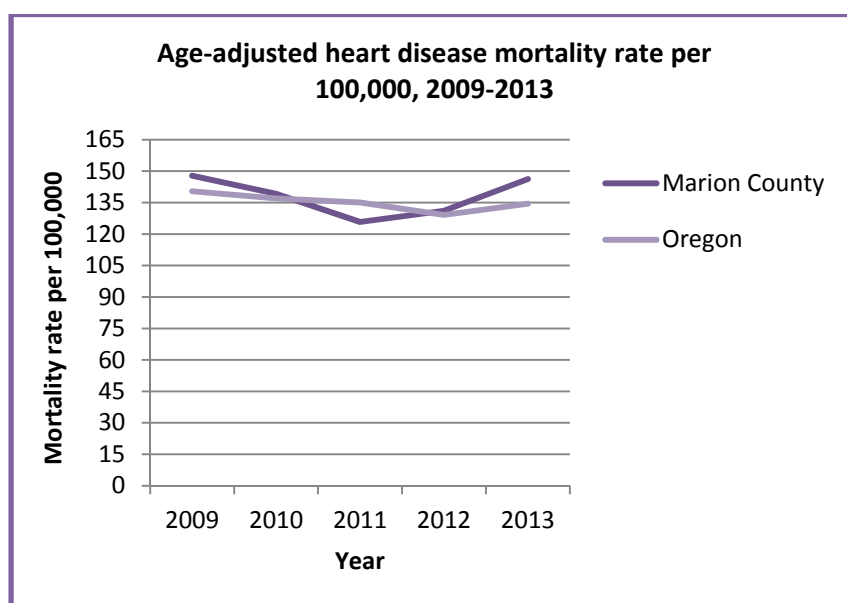


Marion County residents who identify as Hispanic experience a higher stroke mortality rate than Marion County residents who identify as White. Marion County residents who identify as Hispanic experience a higher stroke mortality rate than Oregon residents that identify as Hispanic.<sup>20</sup>

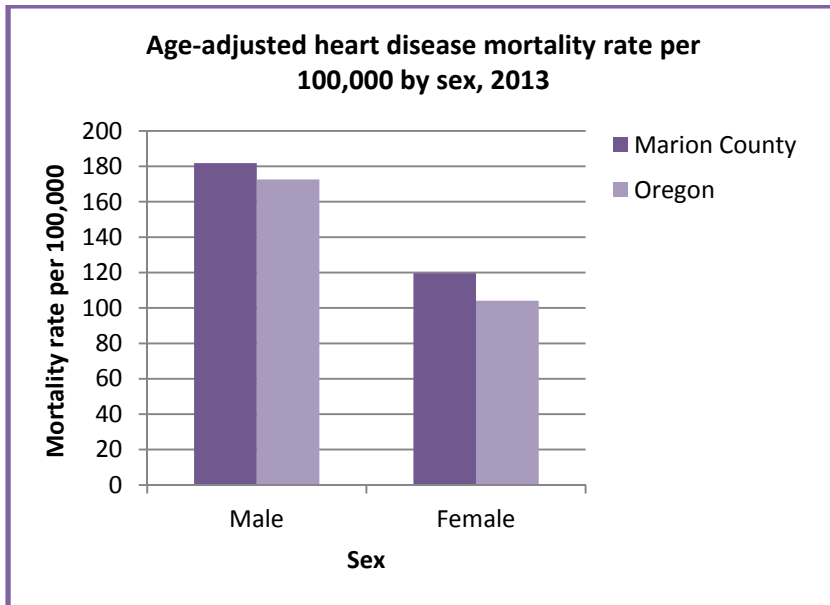


**Heart Disease Mortality Rate:** Coronary artery disease is the most common type of heart disease in the United States, and can cause heart attack, angina, heart failure and problems with the heart’s rhythm. Risk factors for heart disease that a person can change include high cholesterol, high blood pressure, diabetes, tobacco use, diet choices, physical inactivity, obesity and excessive alcohol use. If heart disease runs in the family, a person’s risk of developing heart disease can increase even more if they smoke and make poor diet choices.<sup>23</sup>

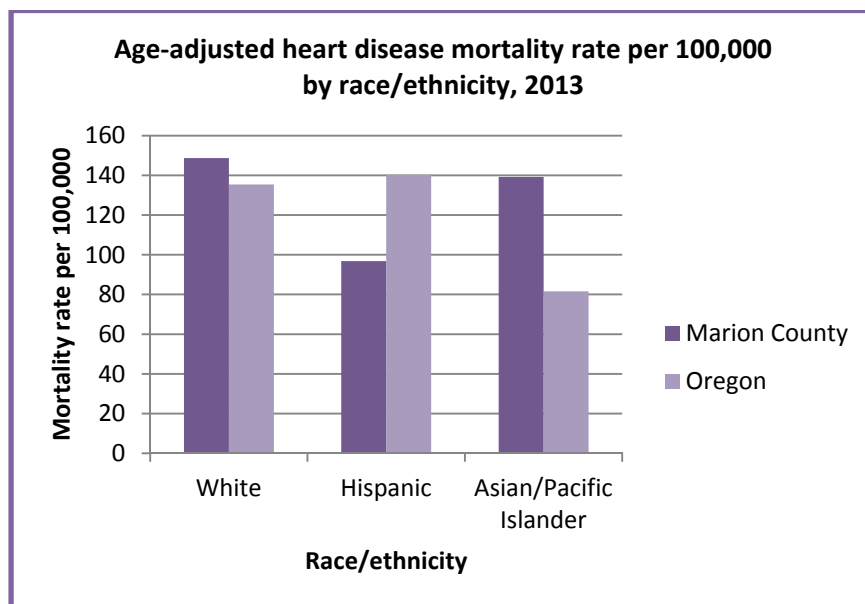
Marion County residents die at a higher rate from heart disease than Oregon residents.<sup>20</sup> This may indicate higher prevalence of risk factors for heart disease in Marion County residents; for example, higher prevalence of high cholesterol, diabetes and obesity and higher rates of tobacco use.



Men die at a higher rate from heart disease than women in Marion County and Oregon. Both Marion County men and women die at a higher rate from heart disease than Oregon men and women.<sup>20</sup> This may indicate a higher prevalence of risk factors for heart disease among men such as higher diabetes prevalence, excessive alcohol consumption or higher rates of tobacco use.

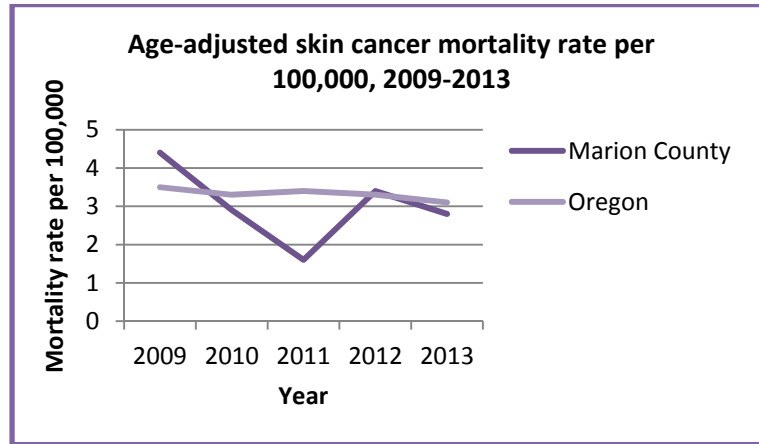


Marion County residents that identify as White or as Asian/Pacific Islander die of heart disease at higher rates than Marion County residents that identify as Hispanic.<sup>20</sup> This may indicate a higher prevalence of risk factors for heart disease among Whites and Asian/Pacific Islanders such as higher rates of tobacco use.



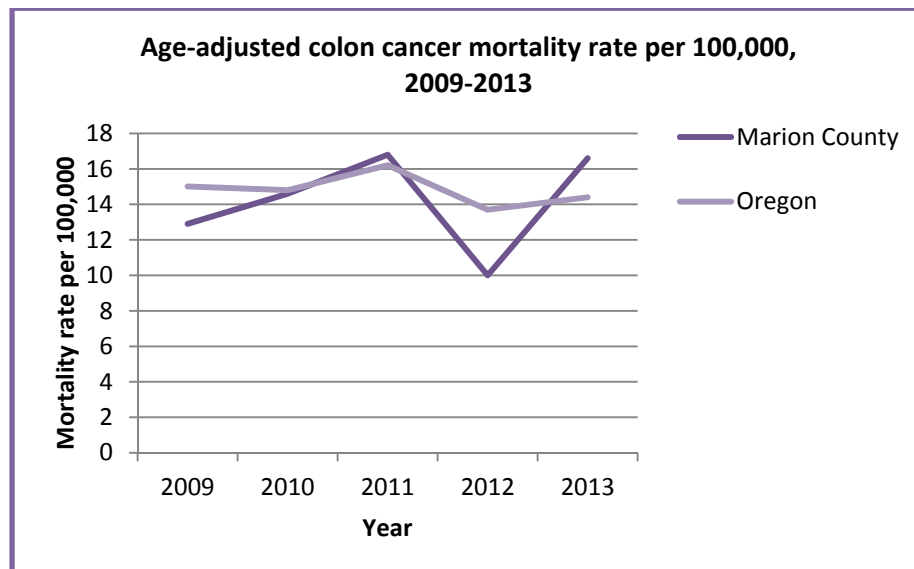
**Skin Cancer Mortality Rate:** Skin cancer (abnormal growth of skin cells) risk can be reduced by limiting/avoiding exposure to UV radiation (sunlight and tanning beds) and wearing sunscreen and protective clothing when exposed to sunlight.

Marion County residents die from skin cancer at about the same rate as Oregon residents.<sup>20</sup>

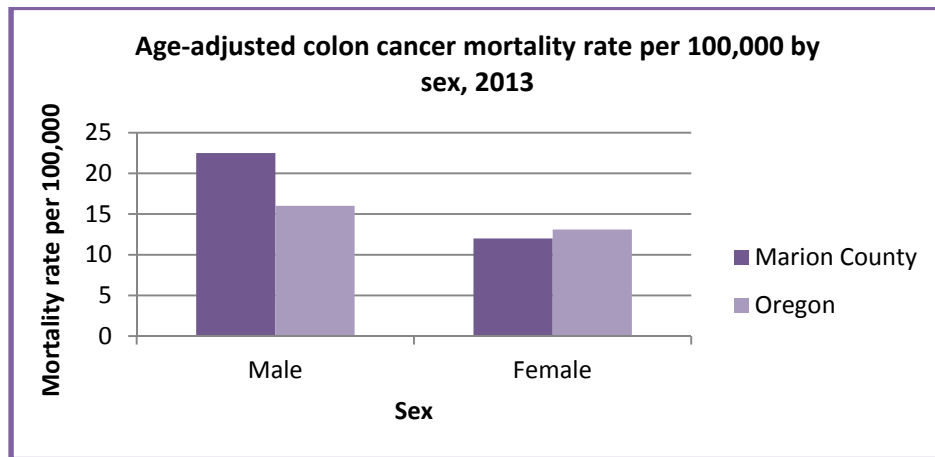


**Colon Cancer Mortality Rate:** According to the Centers for Disease Control and Prevention, colorectal cancer, also called colon cancer, is most common in adults after age 50. Colorectal cancer screening saves lives by finding and removing precancerous growths in the colon, and/or by finding the cancer at an early, more treatable stage. Screening is recommended for persons aged 50 and older and for persons at higher risk due to a personal or family history, or other bowel disease. Persons under 50 who may be at higher risk should speak with their medical provider about the need for early screening.<sup>24</sup>

Marion County residents die of colon cancer at a higher rate than Oregon residents. The overall trend in colon cancer mortality has increased from 2009 (about 12 per 100,000) to 2013 (about 16 per 100,000).<sup>20</sup> This rate may suggest lack of preventive screenings as well as increased behaviors that increase colon cancer incidence like smoking or obesity.

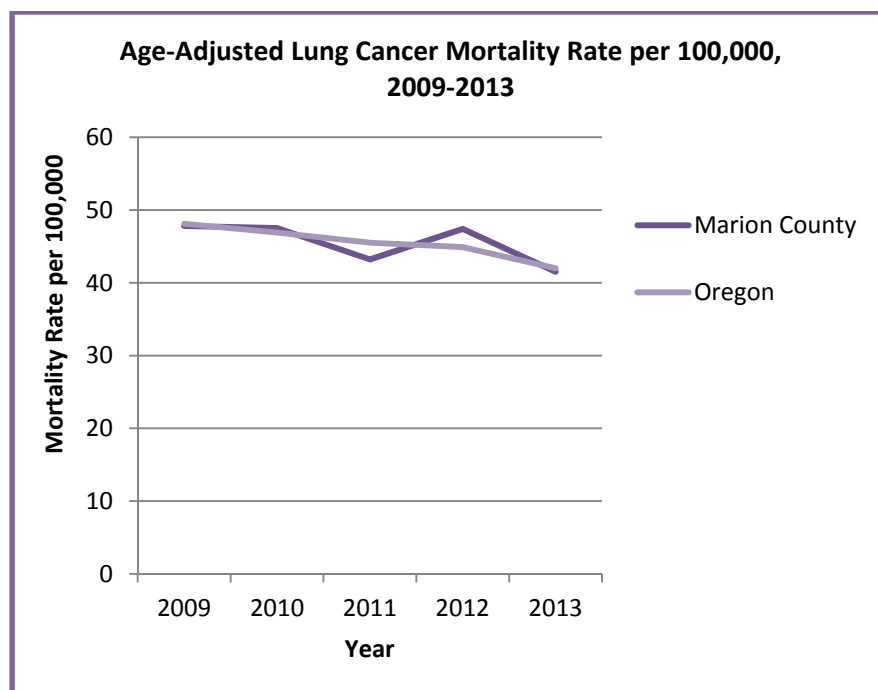


Men die from colon cancer at a higher rate than women. This difference is more pronounced in Marion County than Oregon.<sup>20</sup> This may indicate that fewer men receive colon cancer screenings as recommended, or that men are more likely to participate in behaviors that increase risk for colon cancer such as tobacco use and excessive alcohol use.

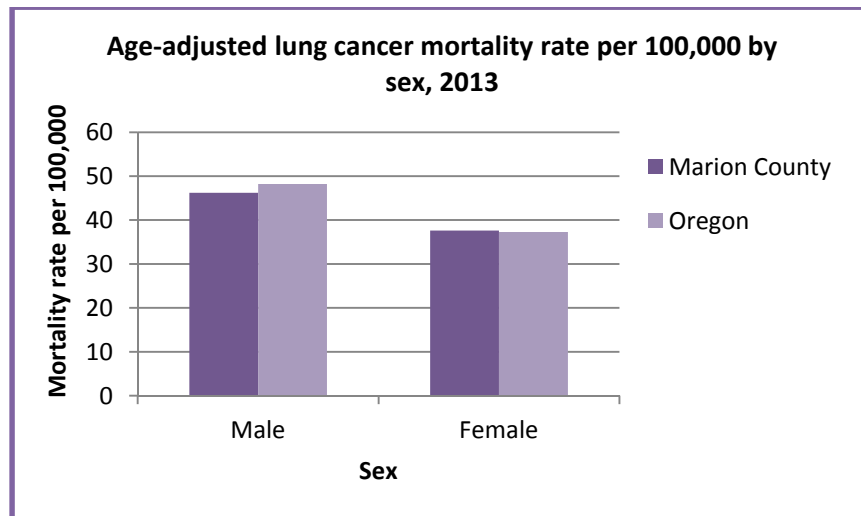


**Lung Cancer Mortality Rate:** According to the Centers for Disease Control and Prevention, “lung cancer is the leading cause of cancer death” for both men and women in the United States. Persons are encouraged to quit smoking and avoid secondhand smoke to lower their risk of lung cancer. “The second leading cause of lung cancer is radon, a naturally occurring gas that comes from rocks and dirt and can get trapped in houses and buildings.” Marion County has areas with higher than recommended levels of radon, so residents are encouraged to have their homes tested. More information about testing can be found by checking out the Marion County Radon Health Profile, 2015 on the Health Department webpage: <http://www.co.marion.or.us/HLT/communityassessments/>

Marion County residents die at about the same rate from lung cancer as Oregon residents. Overall, lung cancer mortality has decreased since 2009.<sup>20</sup> This may indicate less exposure to secondhand smoke.

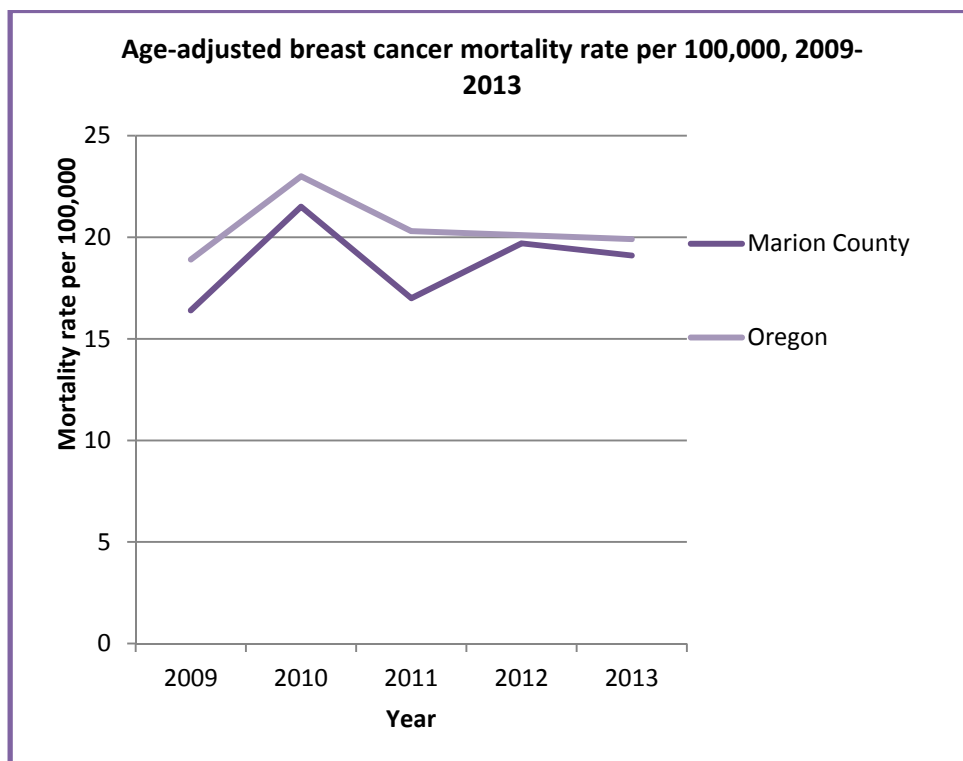


Men die at a slightly higher rate from lung cancer than women.<sup>20</sup> This data suggests men are more likely to use tobacco products or be exposed to secondhand smoke than women.



**Breast Cancer Mortality Rate (Female):** According to the Centers for Disease Control and Prevention, “breast cancer is the most common cancer among American women”. Women ages 50-74 should have a mammogram screening every two years. Women between 40-49 years old should talk with their health care provider about whether they should have a mammogram.<sup>25</sup>

Marion County females die at about the same rate from breast cancer as Oregon females. Breast cancer rates in women have increased from about 16 per 100,000 in 2009 to 20 per 100,000 in 2013.<sup>20</sup>



# Maternal & Child Health

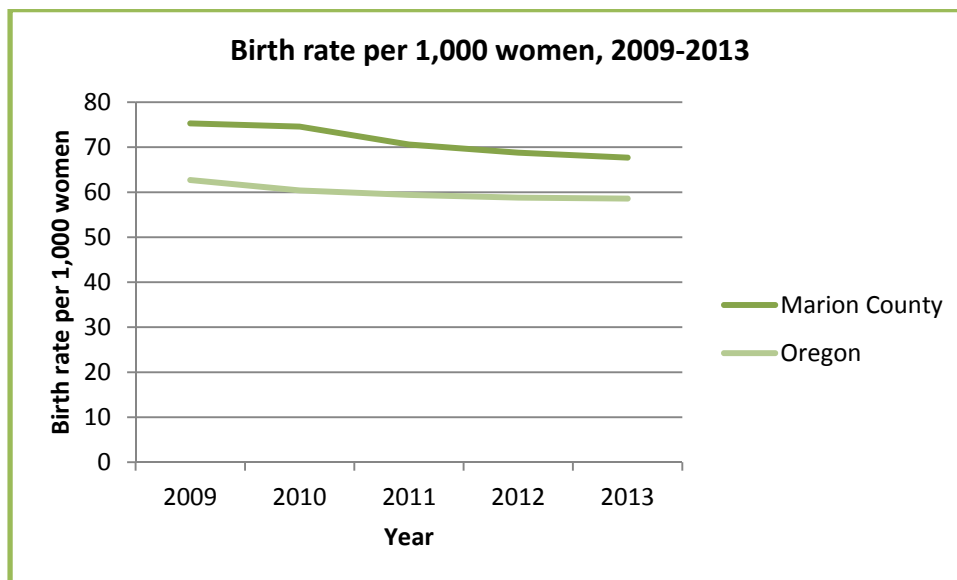
Healthy moms and healthy infants ensure a healthy start to the next generation. Therefore, health indicators outlining the health of the youngest community members are of the utmost importance.

## Key Maternal & Child Health Findings for Marion County:

- Gestational diabetes prevalence has been increasing steadily since 2008.
- The percent of moms who receive first trimester prenatal care has been increasing since 2008.
- Tobacco use during pregnancy, while still high in Marion County has been decreasing since 2008.

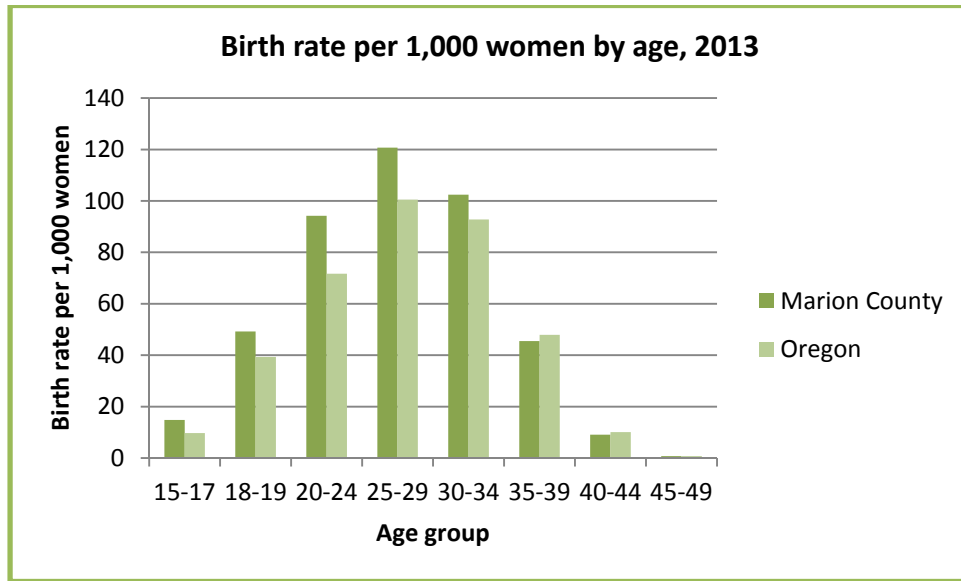
**Birth Rate:** The birth rate gives an idea about the number of people added to the community population each year. The birth rate includes all live births to women between the ages of 10-49 during a calendar year.

Marion County has a higher birth rate than Oregon. The birth rates for both Marion County and Oregon have been decreasing since 2010.<sup>26</sup>

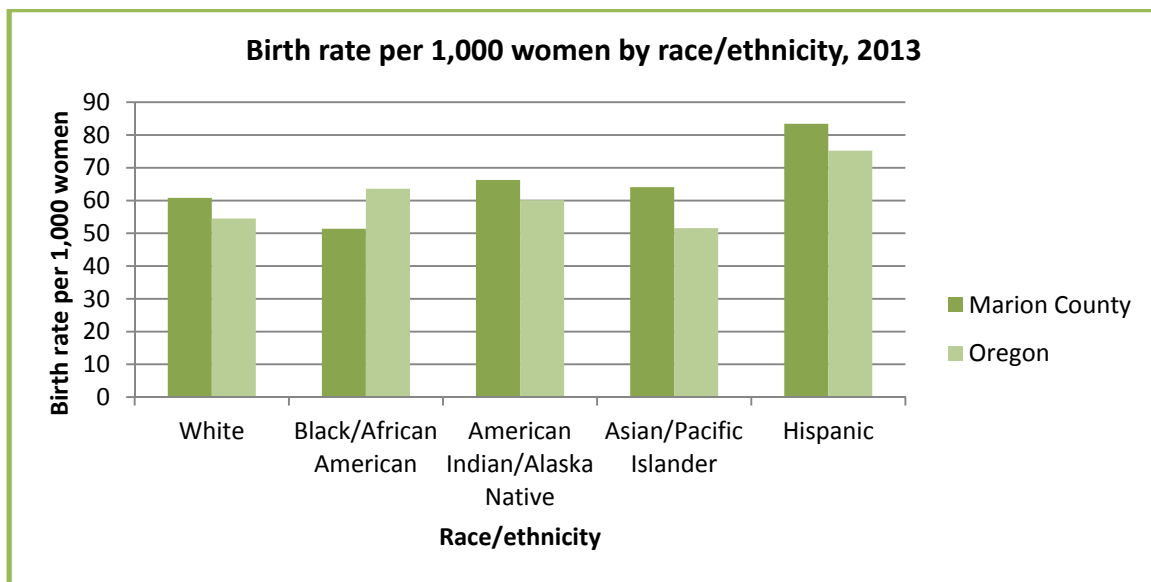


Women in certain age groups are at higher risk for birth complications. Teens and women over 35 are more likely to have higher risk pregnancies than women between the ages of 20-34.<sup>27</sup>

Marion County has a higher teen birth rate than Oregon. Oregon has a higher rate of births to mothers over 35 than Marion County.<sup>26</sup>

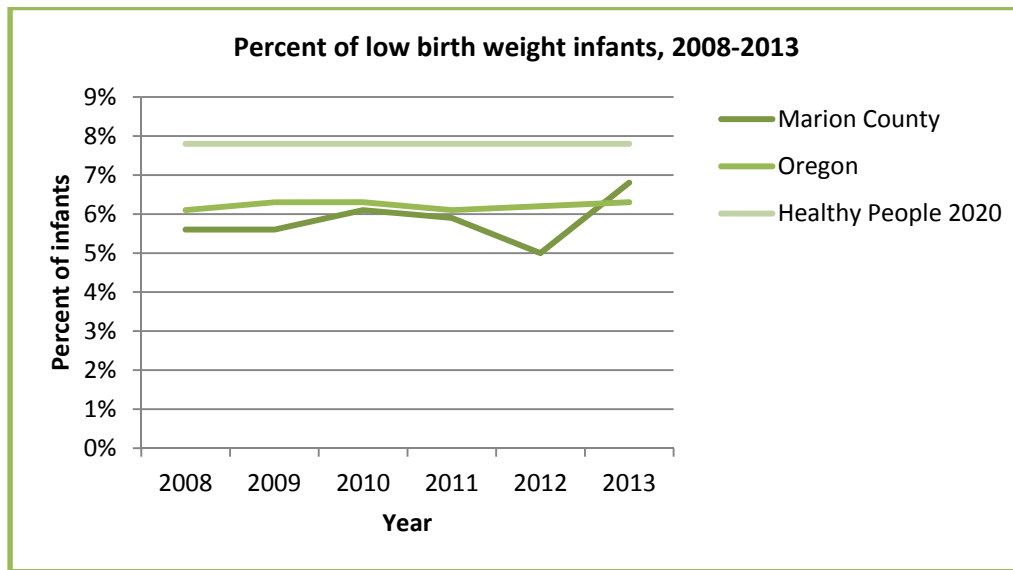


High birth rates among a population determine the rate at which that population is growing. In Marion County, the group with the highest birth rate is the Hispanic community.<sup>26</sup>

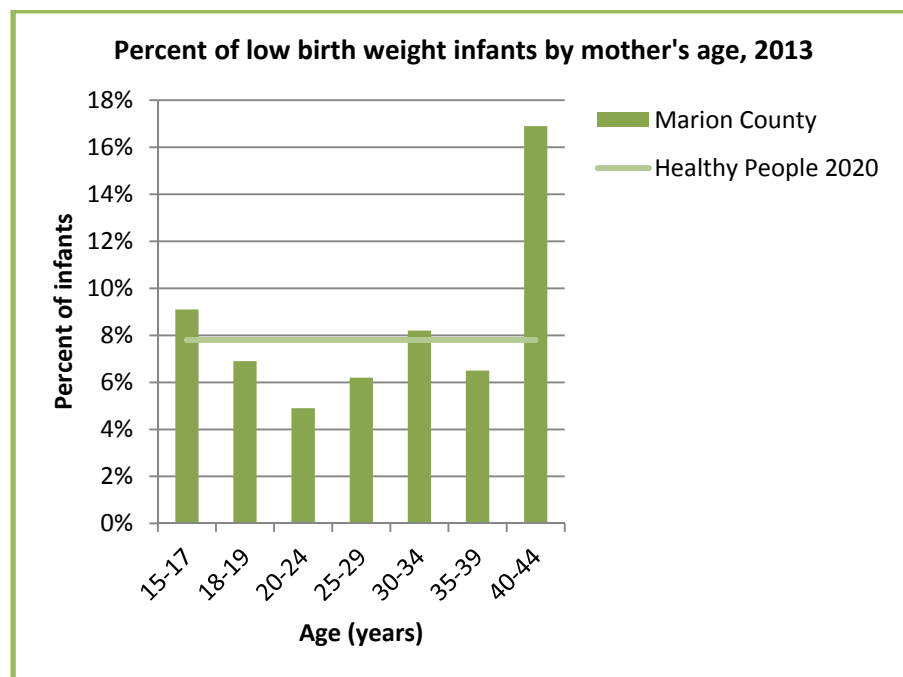


**Low Birth Weight Infants:** Low birth weight infants are defined as infants born weighing less than 2,500 grams or 5 pounds 8 ounces. Low birth weight infants may have more health problems than infants of normal weight. There are several possible risk factors for having a low birth weight infant. A few examples include smoking, drinking alcohol, stress and exposure to air pollution.<sup>28</sup> Starting prenatal care during the first three months of pregnancy can help to prevent having a low birth weight infant.

Marion County and Oregon have about the same percent of low birth weight infants.<sup>29</sup> Marion County and Oregon have already achieved the Healthy People 2020 goal for percentage of low birth weight infants.<sup>30</sup>

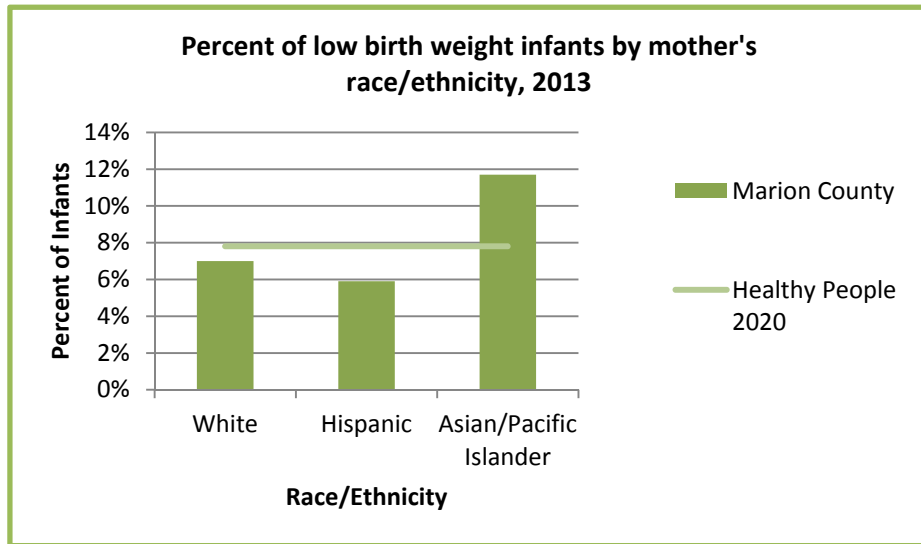


Mothers in Marion County with the highest percent of low birth weight infants are between 15-17 years old and 40-44 years old.<sup>29,30</sup>





Mothers who identify as Asian/Pacific Islanders in Marion County have a larger percentage of low birth weight infants than mothers who identify as White or Hispanic.<sup>29, 30</sup>

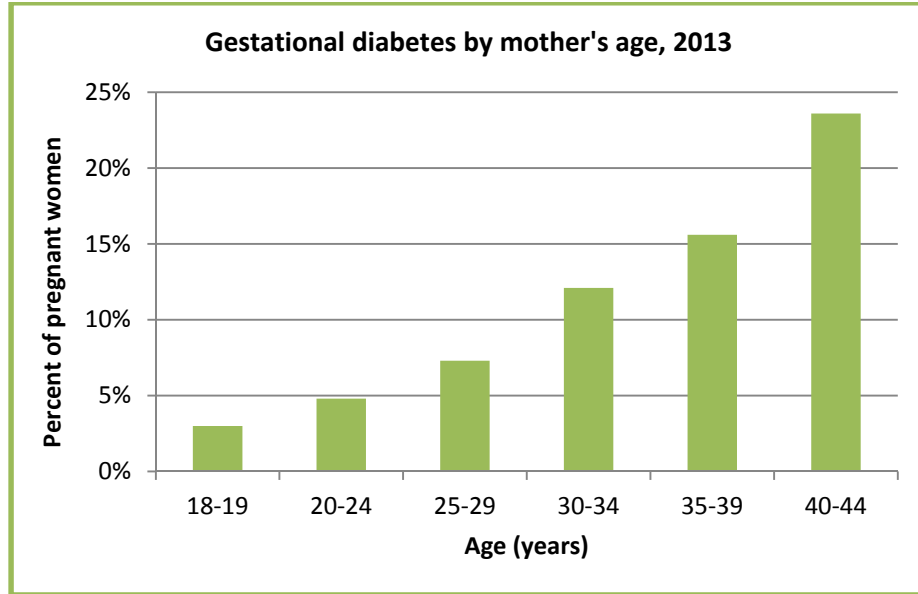


**Gestational Diabetes:** Pregnant women who are diagnosed with diabetes for the first time, while they are pregnant have gestational diabetes. Uncontrolled diabetes during pregnancy can cause problems for both the mother and baby. Poorly managed gestational diabetes can increase the newborn’s risk of breathing problems as well as obesity in adulthood. A healthy diet and regular exercise may control the diabetes, but some women will need to take insulin.

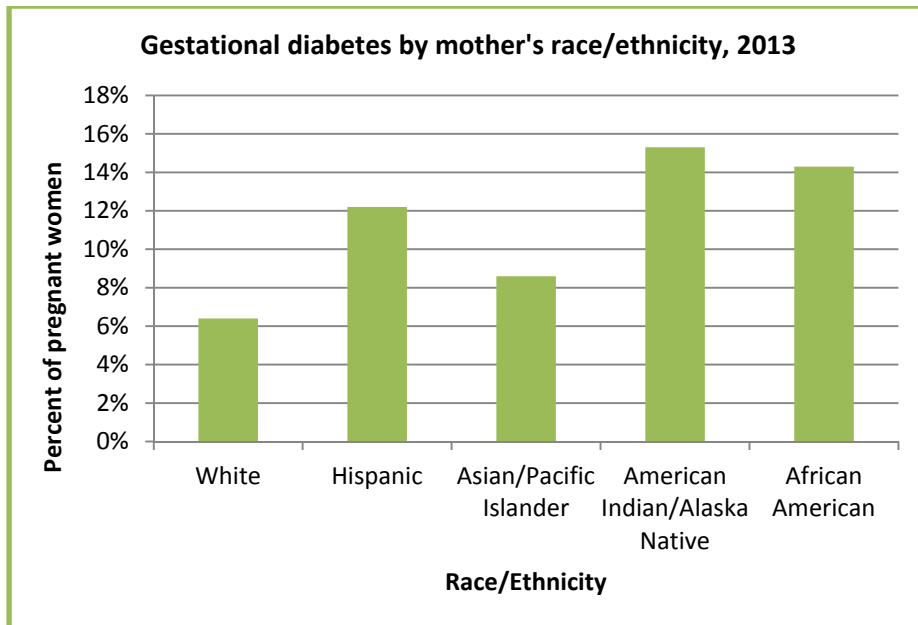
The percent of women with gestational diabetes has been increasing since 2008. A larger percent of Marion County women have gestational diabetes than Oregon women.<sup>29</sup>



The percent of women with gestational diabetes increases with the mother's age in Marion County.<sup>29</sup>

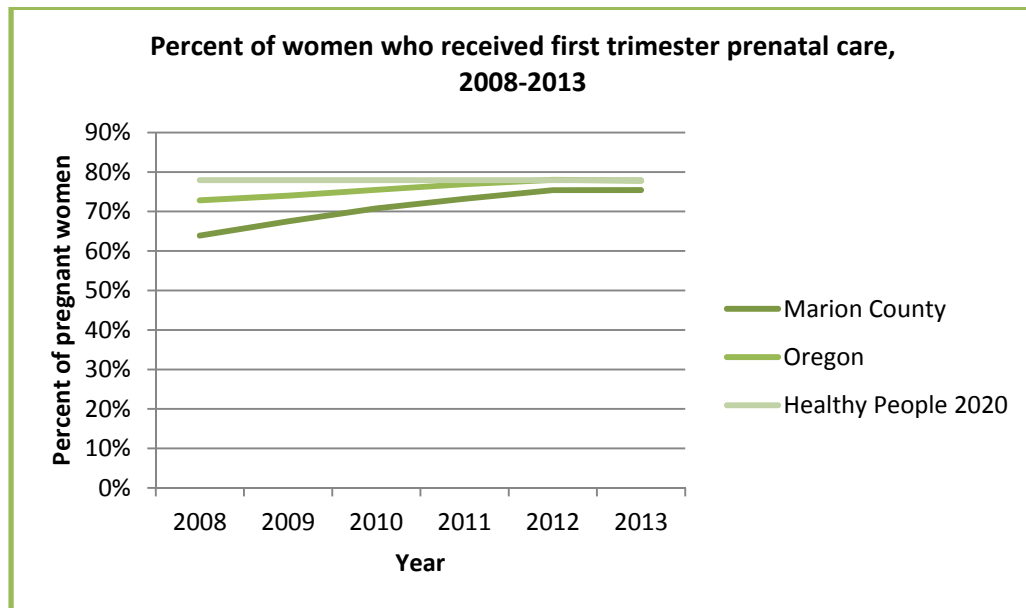


In Marion County, a larger percentage of women who identify as Hispanic, American Indian/Alaska Native or African American have gestational diabetes than women who identify as White or Asian/Pacific Islander.<sup>29</sup>

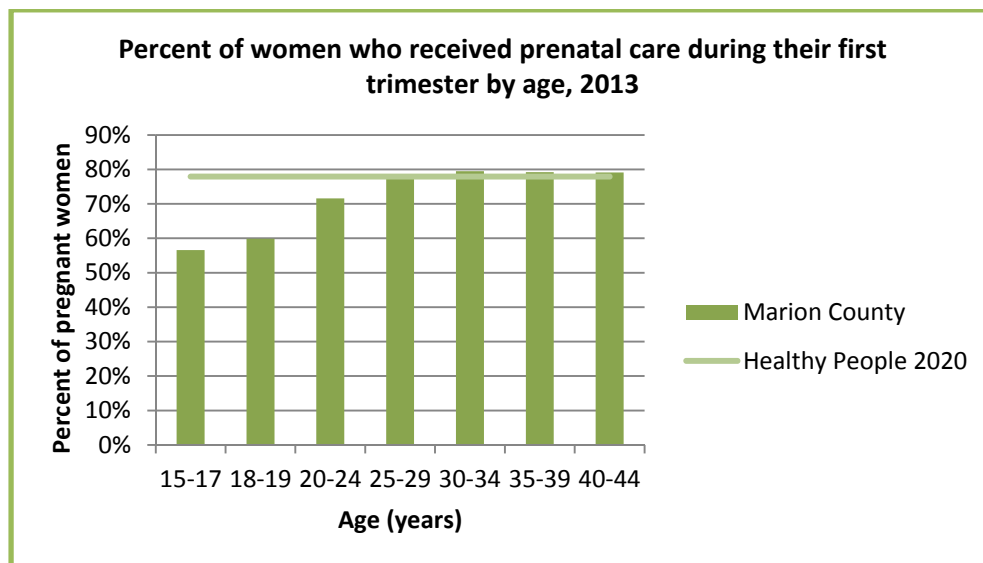


**Prenatal Care:** Women who start prenatal care during the first trimester of their pregnancy are at lower risk for low birth weight infants, pre-term births and other birth complications.

The percent of Marion County women who receive first trimester prenatal care has increased since 2008.<sup>29, 30</sup>

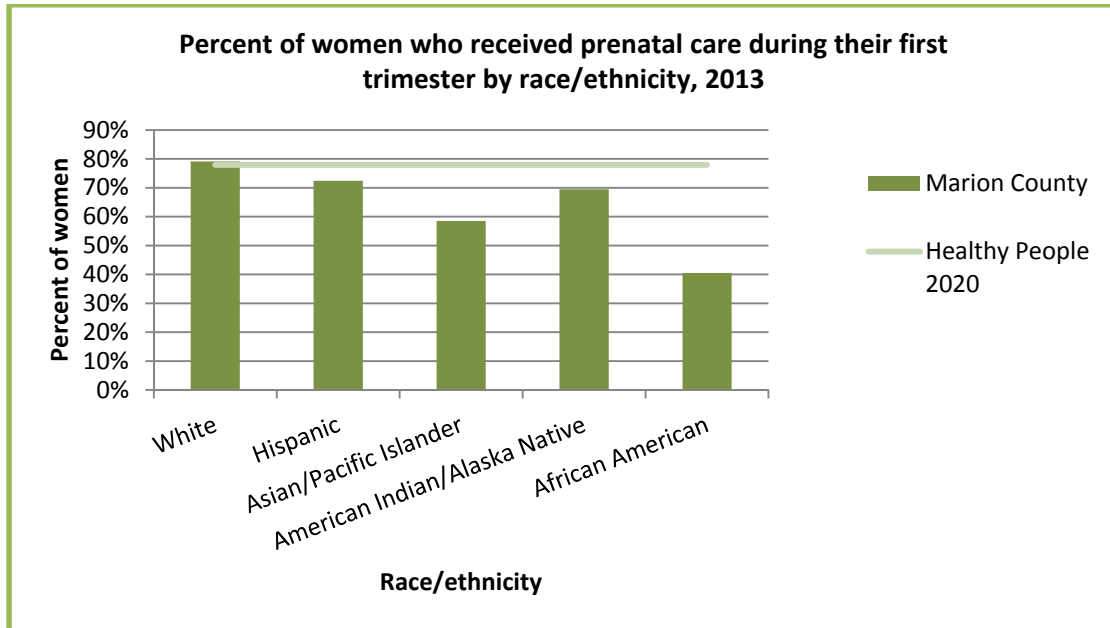


In Marion County, a lower percentage of women under the age of 25 receive first trimester prenatal care than pregnant women aged 25 and older.<sup>29</sup> Only women 25 years and older have met the Healthy People 2020 target for first trimester prenatal care.<sup>30</sup>



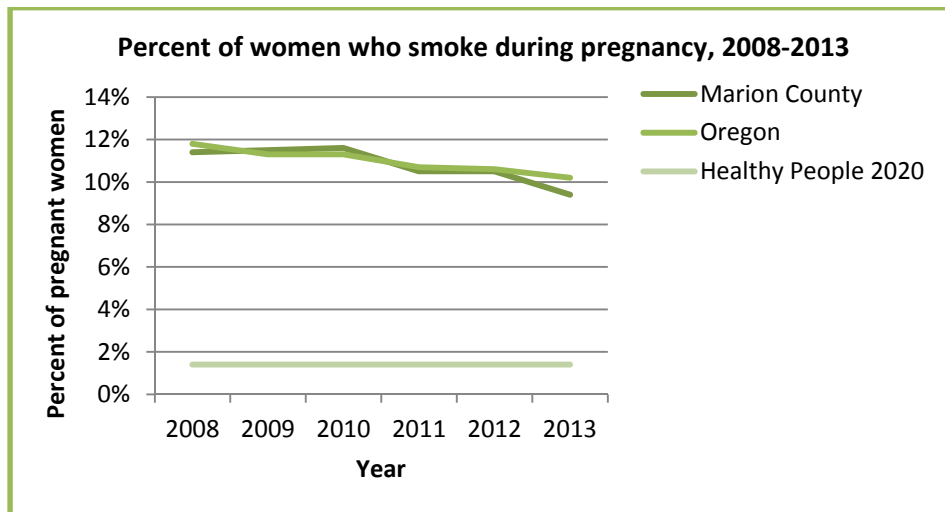
In Marion County, a larger percentage of women in Marion County who identify as White receive first trimester prenatal care than women who identify as Hispanic, Asian/Pacific Islander, American Indian/Alaska Native or African American.<sup>29</sup> Only women who identify as White are meeting the Healthy People 2020 goal.<sup>30</sup>

This may indicate that women who identify as a race/ethnicity other than White are more likely to have low birth weight infants, pre-term births or other birth complications.

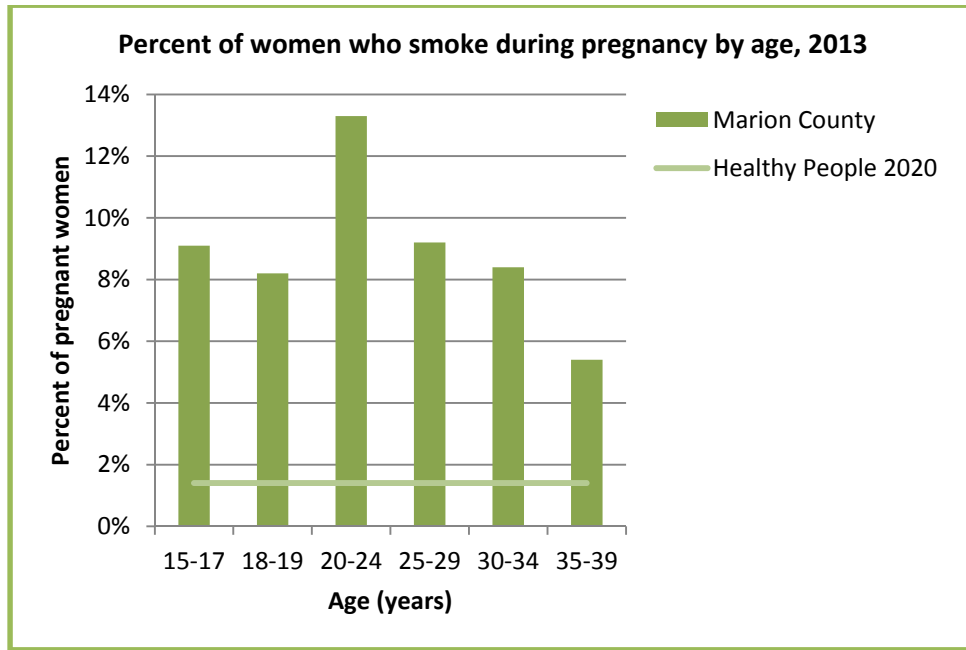


**Tobacco Use during Pregnancy:** Smoking during pregnancy can increase the risk of giving birth to a low birth weight infant.

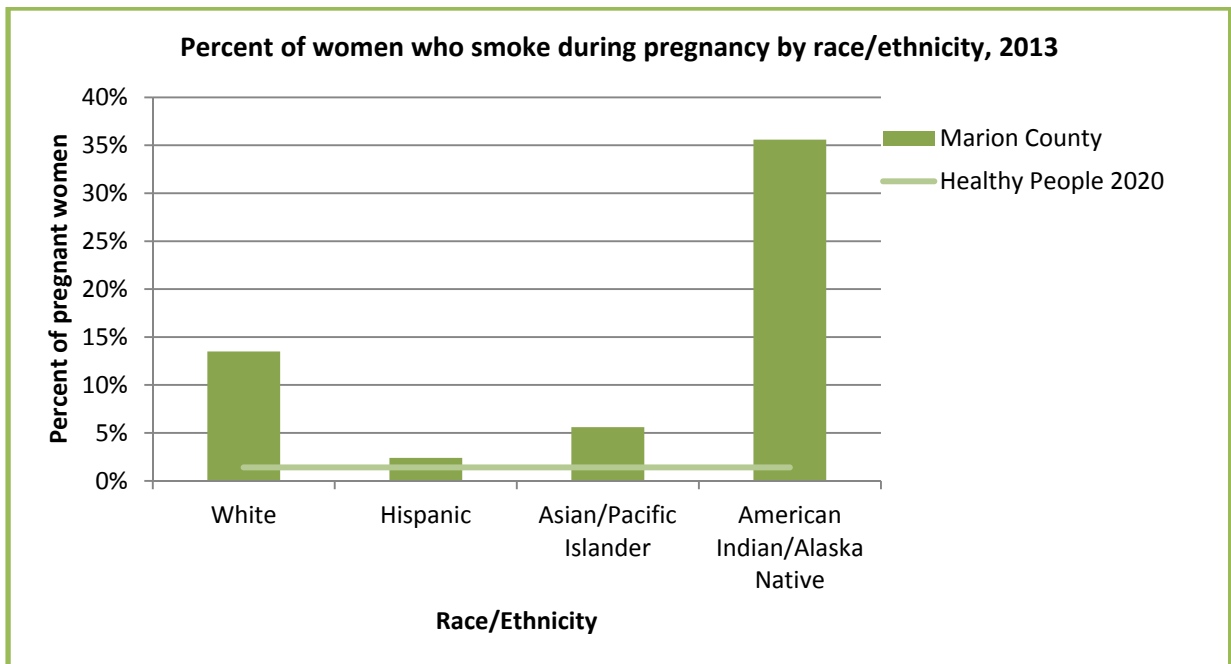
The percentage of women who smoke during pregnancy has been decreasing since 2008. The percentage of Marion County and Oregon women who smoke during pregnancy is about the same.<sup>29</sup> Neither Marion County nor Oregon meets the tobacco use during pregnancy Healthy People 2020 goal (1.4%).<sup>30</sup>



In Marion County, women aged 20-24 years represented the highest percentage of women that smoked during pregnancy.<sup>29</sup> None of the age groups in Marion County have achieved the Healthy People 2020 goal.<sup>30</sup>

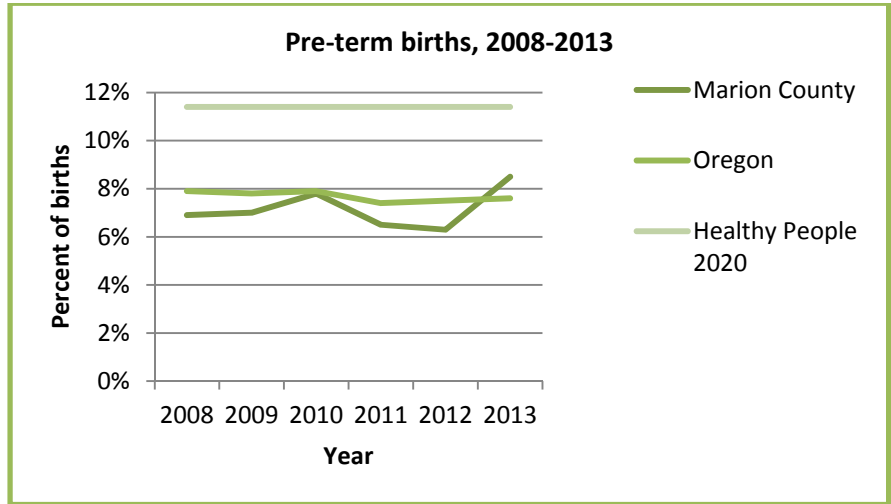


In Marion County, a larger percentage of women who identify as American Indian/Alaska Native smoke during their pregnancy than women who identify as White, Hispanic or Asian/Pacific Islander.<sup>29,30</sup>

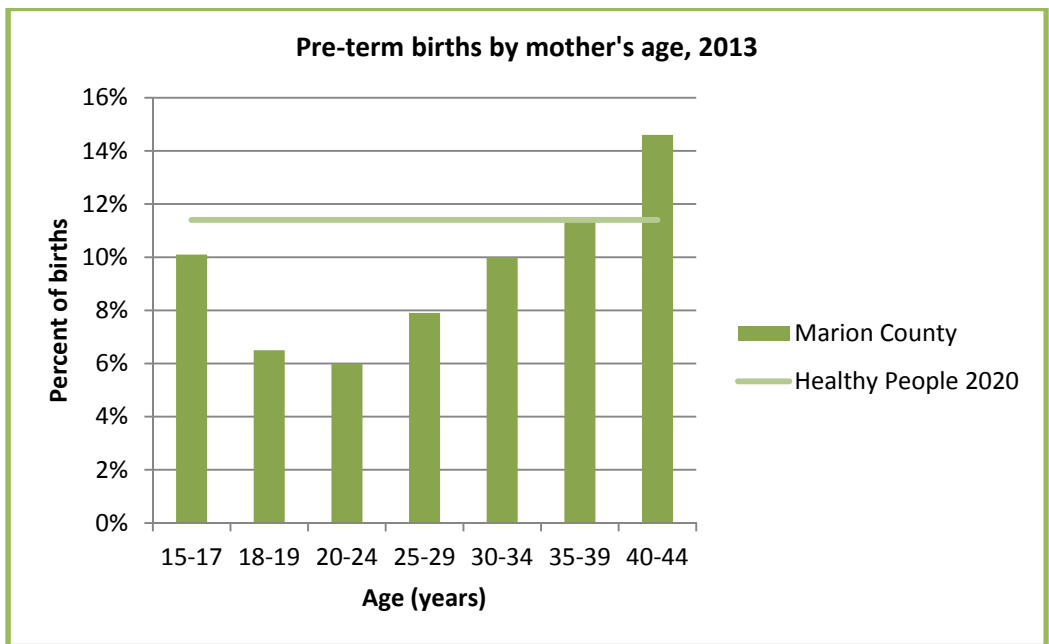


**Pre-term Births:** Pre-term birth, defined as a birth before 37 weeks of pregnancy, is the leading cause of long-term neurological disabilities in children in the United States. Poverty, infection during pregnancy, high blood pressure, tobacco use, alcohol use, substance abuse, high levels of stress and late prenatal care are all associated with increased risk of pre-term birth.

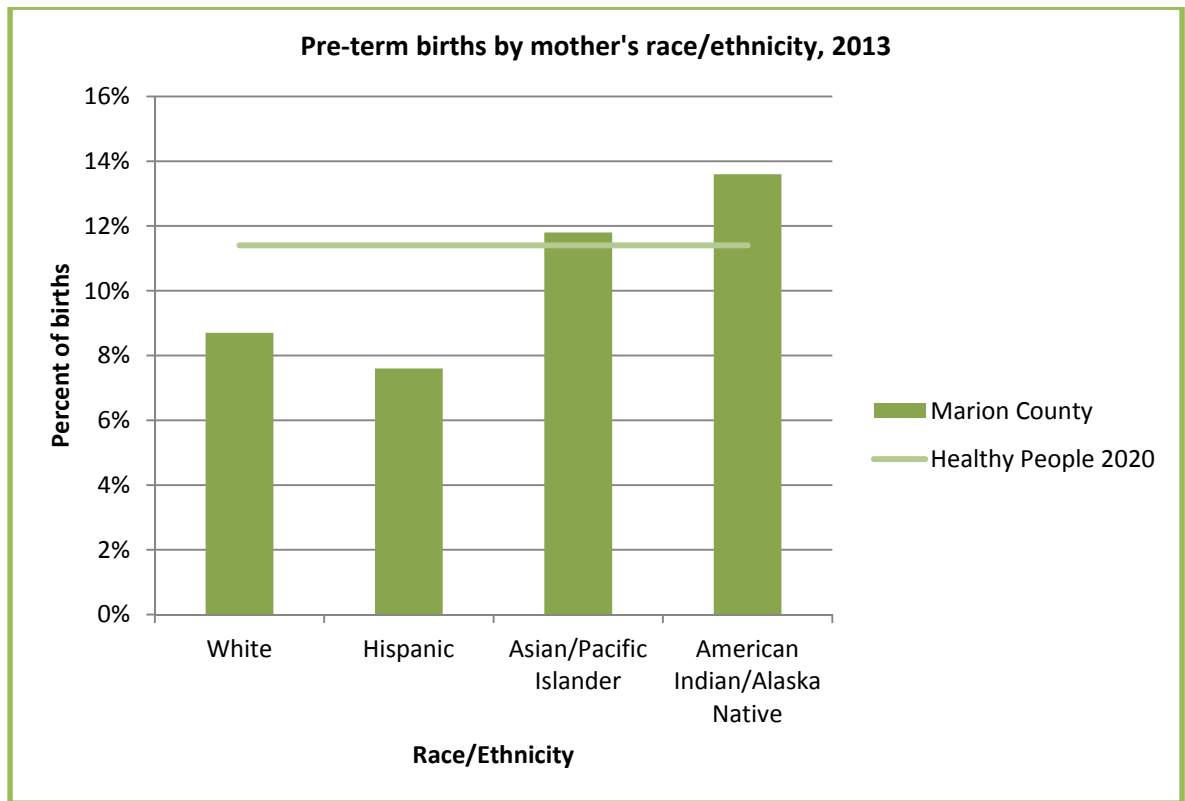
Marion County and Oregon have about the same percentage of pre-term births. The overall trend in the percentage of pre-term births has remained about the same and is below the Healthy People 2020 goal.<sup>29, 30</sup>



In Marion County, mothers between the ages 40 and older had the highest percentage of pre-term births.<sup>29, 30</sup>



Mothers who identify as Asian/Pacific Islander or American Indian/Alaska Native have a higher percentage of pre-term births than mothers who identify as White or Hispanic.<sup>29,30</sup>

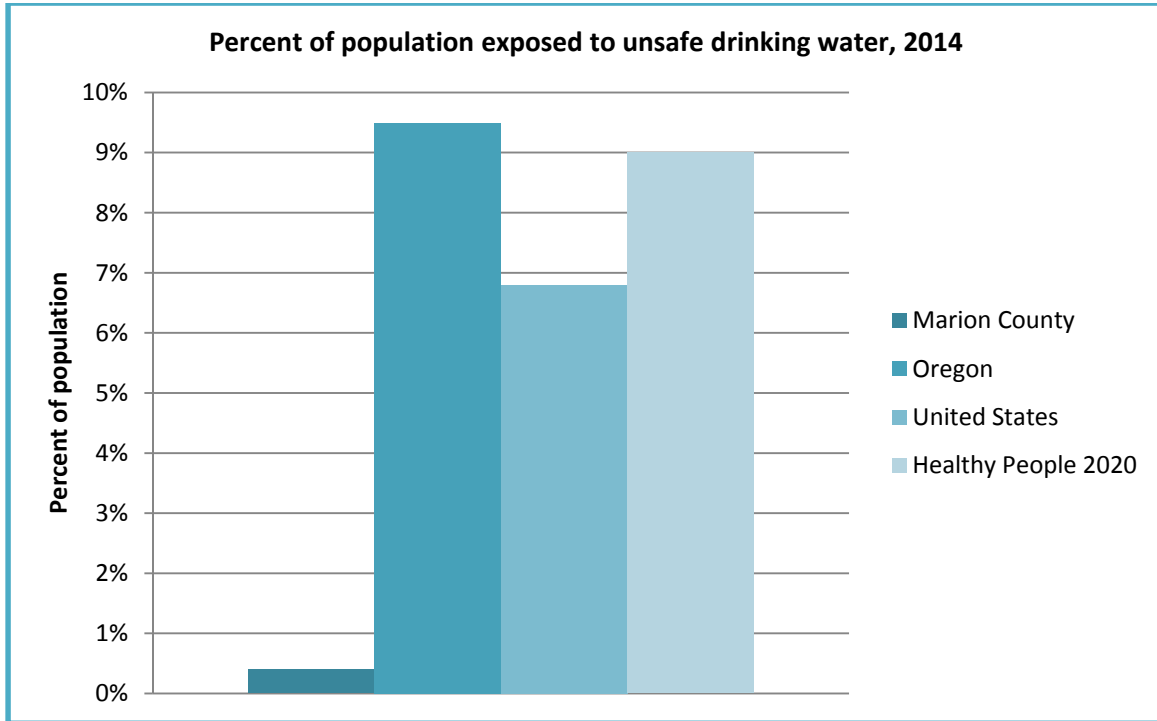


# Environmental Health

According to the World Health Organization, environment is all of the physical, chemical and biological factors external to a person. Environmental health consists of preventing or controlling disease, injury and disability related to interactions between people and the environment.

**Drinking Water Quality:** High quality drinking water decreases exposures to harmful chemicals present in water, such as arsenic, as well as bacteria that can make people sick, like E. coli.

In Marion County, only .4% of the population was exposed to drinking water that did not meet safety regulations for drinking water.<sup>31</sup> This is a much lower percent of people than were exposed to potentially unsafe drinking water in Oregon and the United States. Marion County far exceeds the Healthy People 2020 goal for drinking water safety.<sup>32</sup>





# Built Environment

According to the Centers for Disease Control and Prevention, the built environment includes all of the physical parts of where we live and work, such as streets, open spaces, sidewalks, and walking paths. The built environment can influence a person's health by increasing access to supports that encourage a healthy lifestyle, such as access to healthy foods, parks and sidewalks.

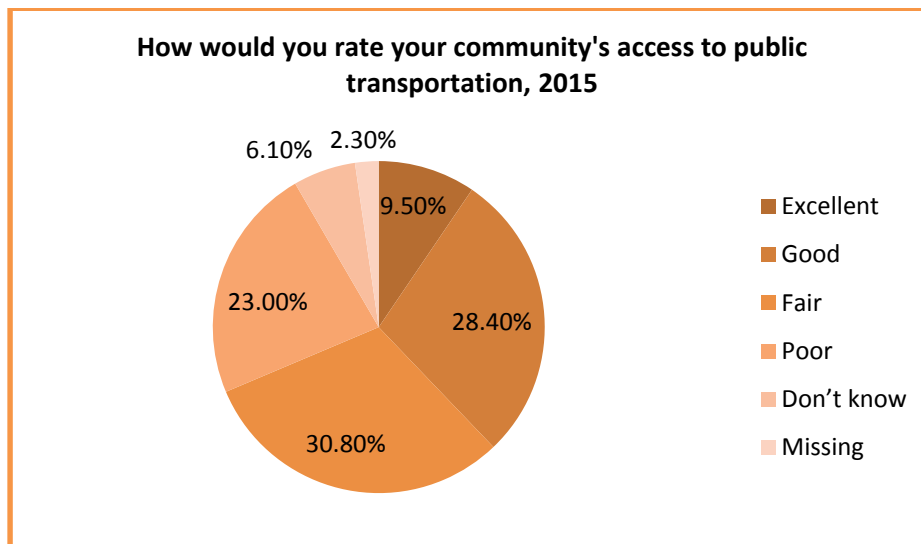
## Key Built Environment Findings for Marion County:

Based on 2015 Community Survey Data:

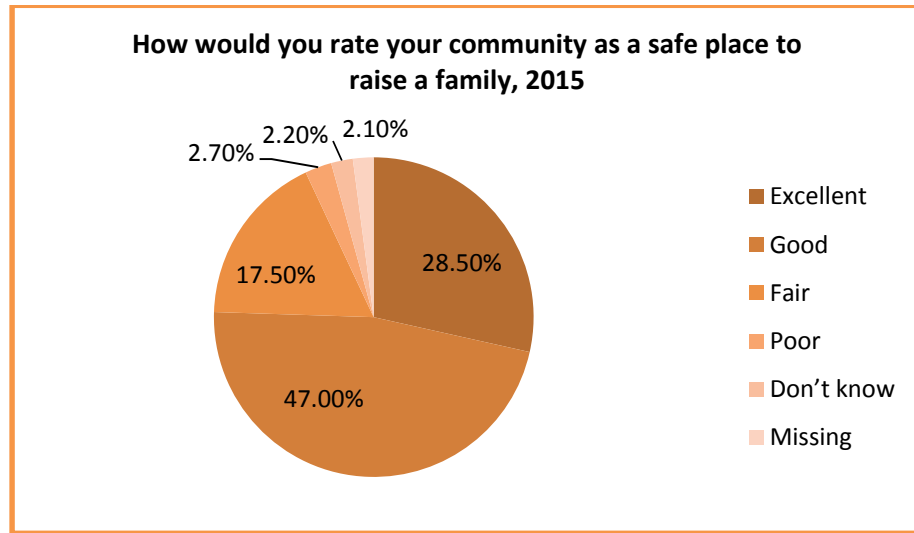
- Almost one quarter of Marion County residents believe their access to public transportation is poor.
- A little over one quarter of Marion County residents believe the county is an excellent place to raise a family.
- About one quarter of Marion County residents believe their access to healthy foods is fair or poor.

**Access to Public Transportation:** Increased access to public transportation reduces the amount of traffic in an area, therefore reducing crash-related injuries/fatalities, as well as pollution emissions. Access to public transportation also increases access to medical care and healthy food options. Use of public transportation can promote physical fitness and healthy weights through encouraging individuals to walk from the bus stop to their destination.

About one third of Marion County residents believe their access to public transportation is good or excellent. <sup>15</sup>

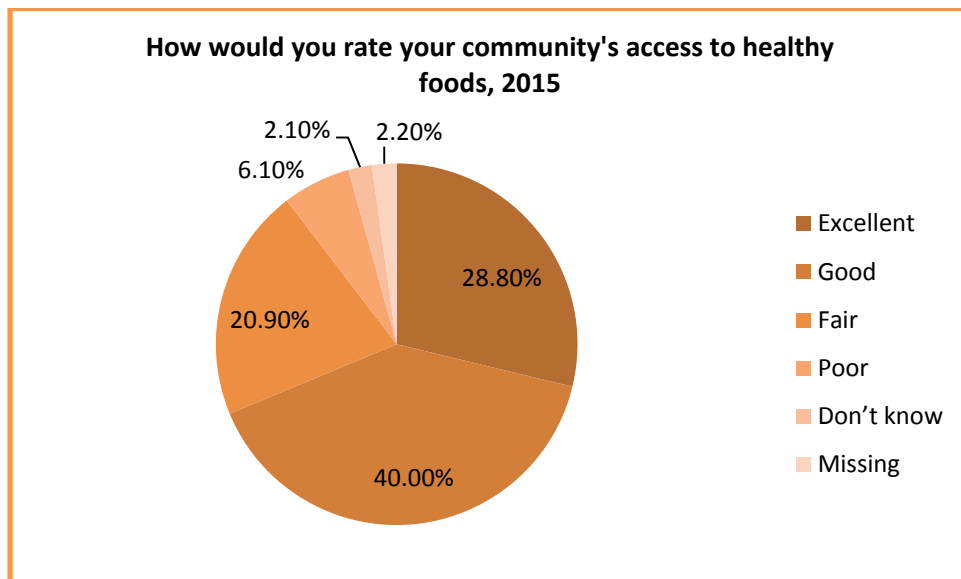


**Community Safety:** About three quarters of survey participants believe that their community is an excellent or good safe place to raise a family.<sup>15</sup>



**Access to Healthy Foods:** Access to healthy food may indicate better community nutrition which may affect the community's overall weight status and health.

About two thirds of Marion County survey participants believe their community has excellent or good access to healthy food.<sup>15</sup>



# Health Behaviors

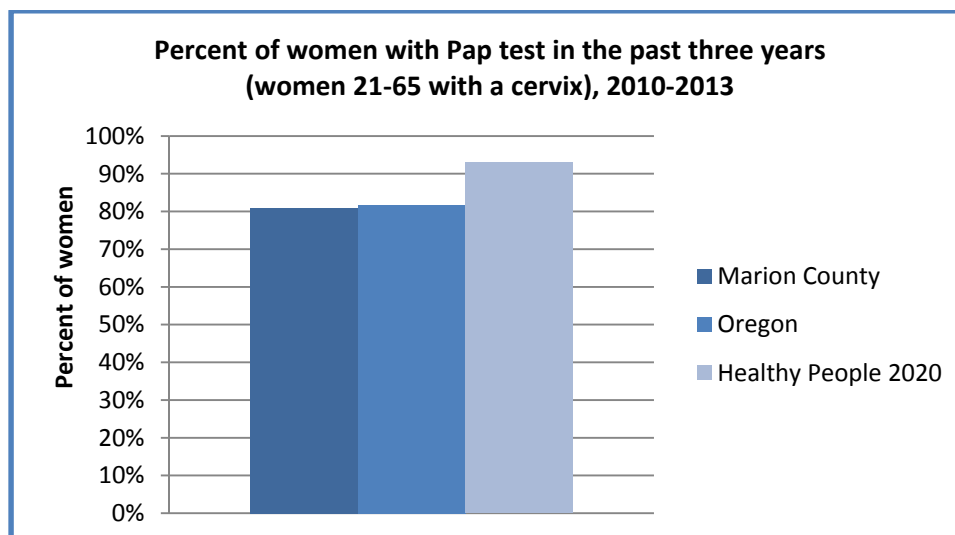
Genetics, social circumstances, environmental exposures and health care are all factors that impact health. In the case of health behaviors, a fifth factor, individuals can take steps to help ensure that they live healthier and longer lives. Some of these steps include: avoiding tobacco and excessive alcohol consumption, maintaining a healthy weight with physical activity and healthy food choices, and receiving the recommended health screenings.

## Key Health Behavior Findings for Marion County:

- A little over 50% of Marion County adults 50-75 years of age are up to date on their colon cancer screening.
- The Marion County Hispanic teen pregnancy rate in 2013 (<30 per 1,000 15-17 year old females) has been cut in half since 2008 (>60 per 1,000 15-17 year old females).
- A larger percentage of Marion County residents (32.7%) are considered to be obese than Oregon residents (25.9%).

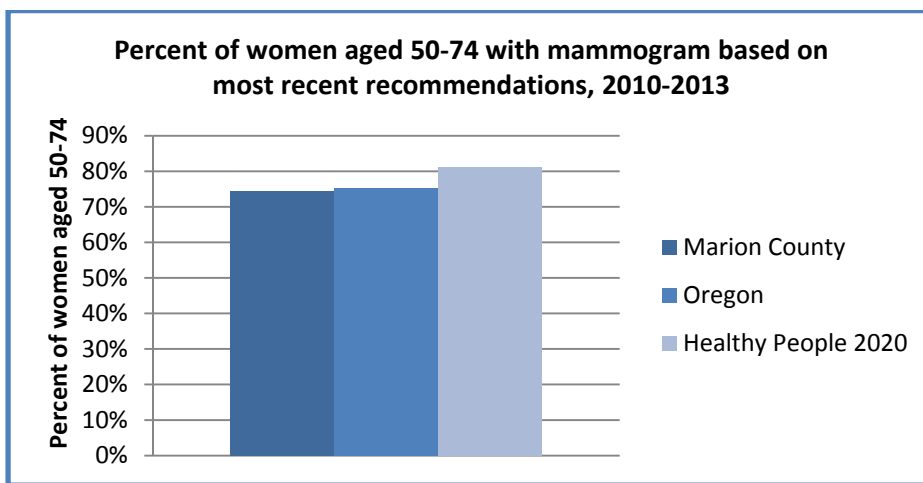
**Preventive Screenings-Pap Test:** Pap tests are an effective means of early cervical cancer detection. The American Cancer Society recommends that all women should get their first Pap test at 21, and should continue to get a Pap test every 3 years until they turn 29. Between ages 30-65 women should either get a Pap test combined with an HPV test every 5 years, or just the Pap test every 3 years.<sup>33</sup> The graph below shows the percent of women between the ages of 21-65, with a cervix, who have had a pap test in the past three years.

The percent of Marion County and Oregon women who received a Pap test in the past three years were about the same. Neither Marion County nor Oregon have reached the Healthy People 2020 Pap test goal.<sup>34, 35</sup>



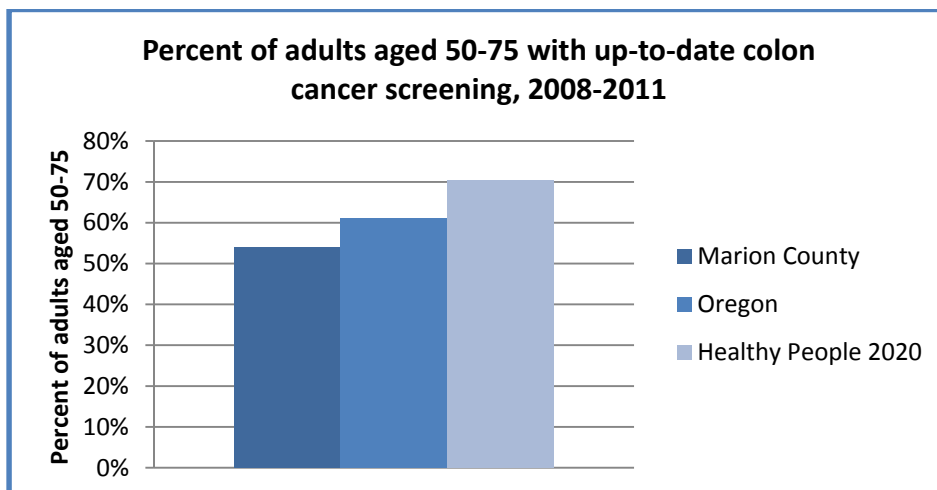
**Preventive Screening-Mammogram:** Mammograms may help doctors to diagnose breast cancer during earlier, more treatable stages. The American Cancer Society recommends that women aged 40 and older have a mammogram yearly.<sup>36</sup> Although the graph below does not include screening rates for women under 40, it remains the only county level source of information about breast cancer screening rates.

About the same percent of Marion County and Oregon women aged 50-74 have had a breast cancer screening based on the most recent recommendations. Neither Marion County nor Oregon has met the Healthy People 2020 goal for mammograms.<sup>34, 35</sup>



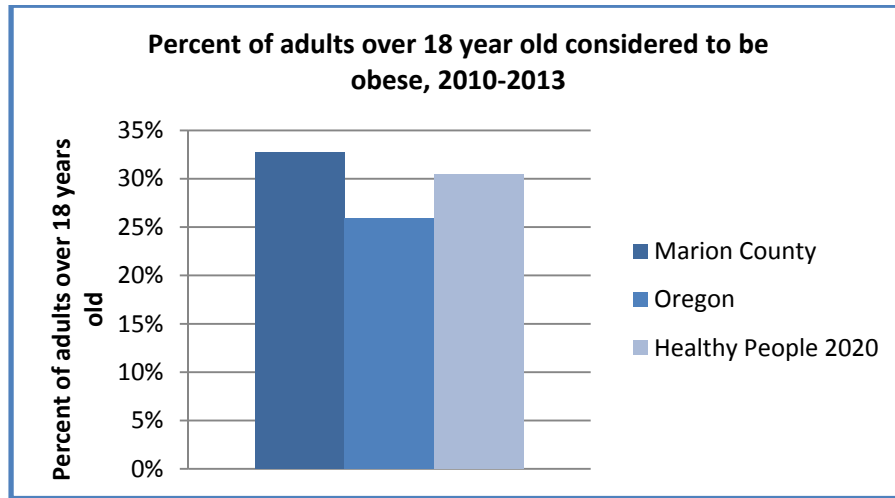
**Preventive Screening-Colon Cancer:** Colon cancer screening is an effective way of detecting colon cancer at early, more treatable stages. The American Cancer Society recommends all adults begin colon cancer screening at age 50. They recommend one of the following schedules for screening: Colonoscopy every 10 years, Flexible Sigmoidoscopy, Double-Contrast Barium Enema, or CT Colonography every 5 years, Stool DNA test every 3 years, or a Guaiac-Based Fecal Occult Blood Test or Fecal Immunochemical Test annually.<sup>37</sup>

A smaller percent of Marion County adults 50-75 years old have had appropriate colon cancer screening than Oregon adults 50-75 years old. Both Marion County and Oregon fall short of the Healthy People 2020 goal for colon cancer screening.<sup>34, 35</sup>



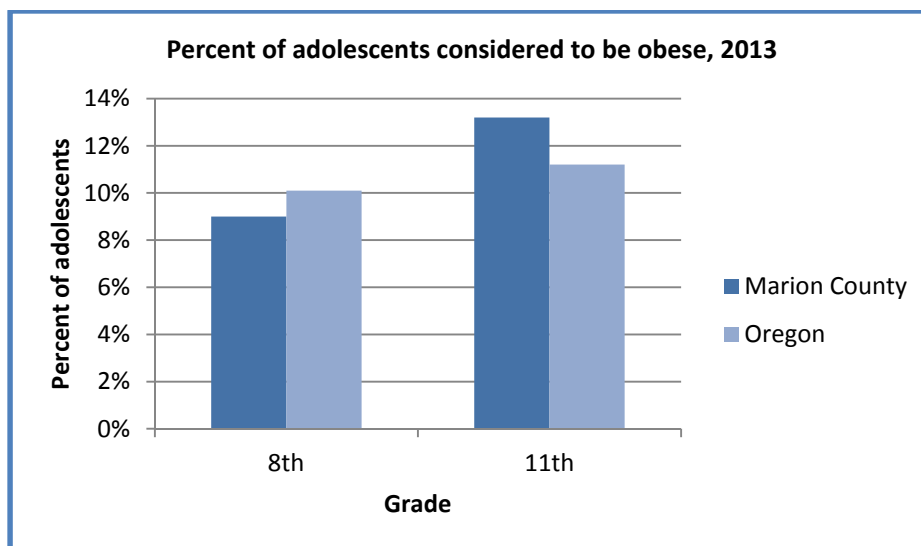
**Modifiable Risk Factors-Obesity:** Obesity is measured by a person’s Body Mass Index or BMI (weight in kilograms divided by the square height in meters). A person is considered to be obese if he or she has a BMI of 30 or larger. Obesity is linked to other chronic diseases such as Type 2 diabetes, heart disease and high blood pressure.

Marion County has a higher percent of residents considered to be obese than Oregon. Marion County has not achieved the Healthy People 2020 goal (30.5%).<sup>38, 39</sup>



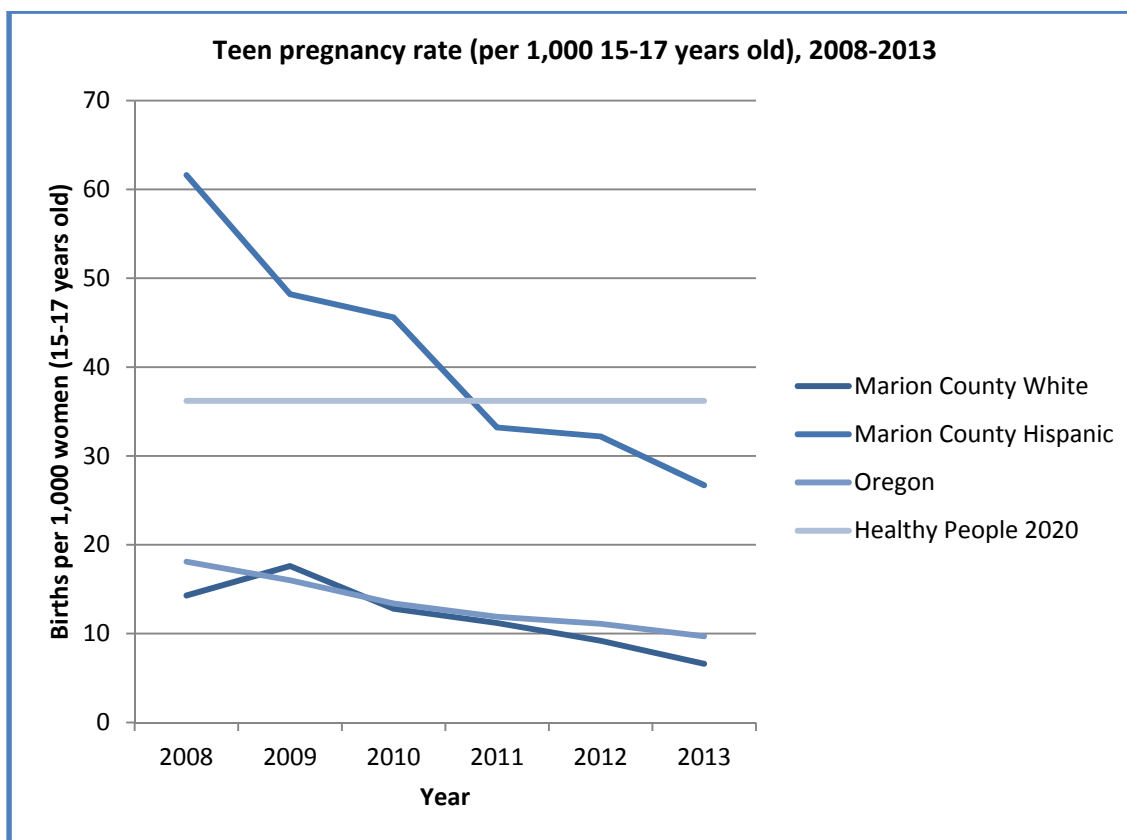
**Modifiable Risk Factors-Teen Obesity:** Obesity in children and teens is defined as a person who has a BMI that is above the 95<sup>th</sup> percentile for children and teens of the same age and sex. Teens that are obese are more likely to become obese adults. Obesity is linked to other chronic diseases such as diabetes, heart disease and colon cancer.

Marion County and Oregon have about the same percent of obese 8<sup>th</sup> graders but Marion County seems to have a slightly larger percent of obese 11<sup>th</sup> graders than Oregon.<sup>40</sup>



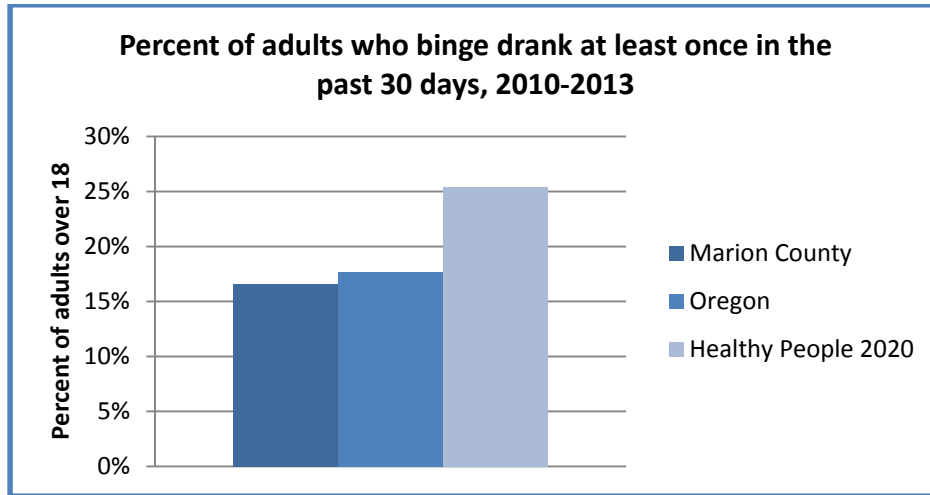
**Modifiable Risk Factors-Teen Pregnancy:** Teen childbearing has consequences for the parents, their child and society. The teen mother is “less likely to finish high school, more likely to rely on public assistance; more likely to be poor as an adult; and more likely to have children who have poorer educational, behavioral, and health outcomes over the course of their lives than do kids born to older parents.”<sup>41</sup> As mentioned earlier in this document, income and educational attainment are linked to health care access and opportunities for nutrition and physical activity necessary to achieve and maintain health.

The Marion County teen pregnancy rate has been decreasing since 2008. The Hispanic Marion County teen pregnancy rate is about four times higher than the White Marion County teen pregnancy rate.<sup>29</sup> Both Marion County and Oregon have achieved the Healthy People 2020 goal for teen pregnancy.<sup>30</sup>



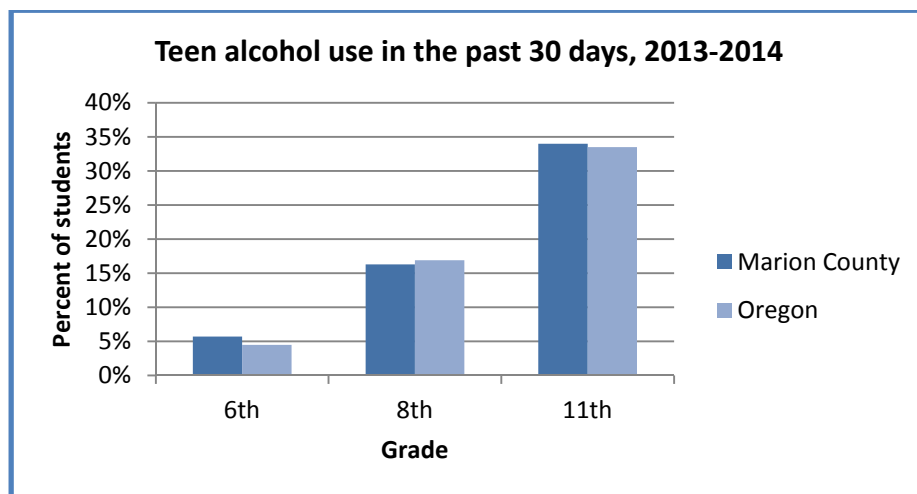
**Modifiable Risk Factors-Adults who binge drink:** The CDC defines binge drinking as five or more drinks for men and four or more drinks for women on one occasion. In the short term, binge drinking may result in vomiting, loss of sensory perception, and blackouts. In the long term, alcohol abuse is associated with a higher risk of traffic accidents, injuries, employment problems, family and interpersonal problems, liver cirrhosis and liver cancer. Binge drinkers were also found, by the CDC, to be more likely than non-binge drinkers to report alcohol-impaired driving.

About the same percent of adults binge drank at least once in the past 30 days in Marion County and Oregon.<sup>38</sup> Both Marion County and the state have already achieved the Healthy People 2020 goal.<sup>42</sup>



**Modifiable Risk Factors-Teens who drink alcohol:** The National Institute on Alcohol Abuse and Alcoholism reports that adolescents who begin drinking at a young age are more likely to develop alcohol dependence than those who begin drinking at 21. Alcohol consumption is associated with other high risk behaviors like drunk driving and unsafe sexual activity.

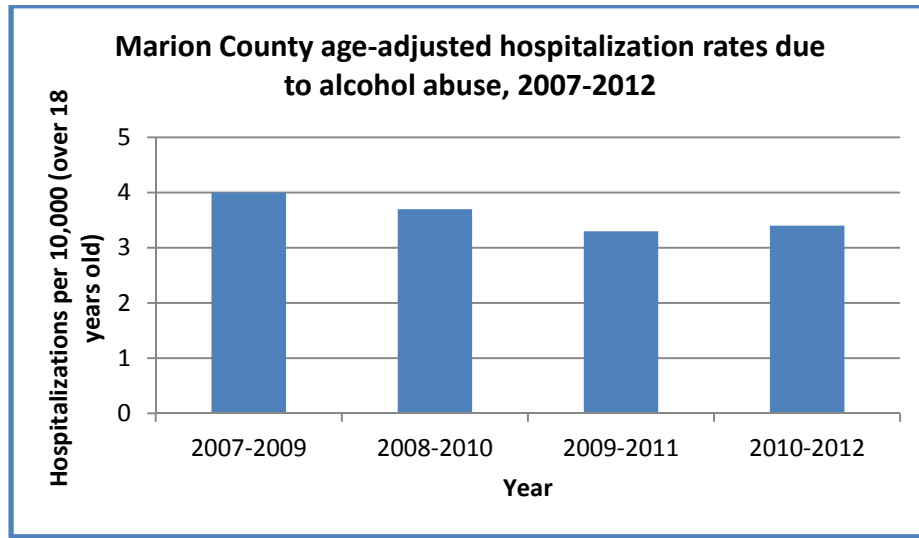
Marion County and Oregon have about the same percent of teens reporting alcohol consumption in the past 30 days. Alcohol consumption increases from sixth to 11<sup>th</sup> grade.<sup>48</sup>



## Modifiable Risk Factors-Age-Adjusted Hospitalization Rates due to

**Alcohol Abuse:** This rate shows hospitalization due to “alcohol abuse” which includes alcohol dependence syndrome, nondependent alcohol abuse, alcoholic psychoses, excessive blood level of alcohol, and fetal alcohol syndrome. Excessive alcohol use (eight or more drinks per week for women and 15 or more drinks per week for men) or binge drinking (four or more drinks during a single occasion for women and five or more drinks on a single occasion for men) can lead to increased risk of health problems like liver disease and/or unintentional injuries.

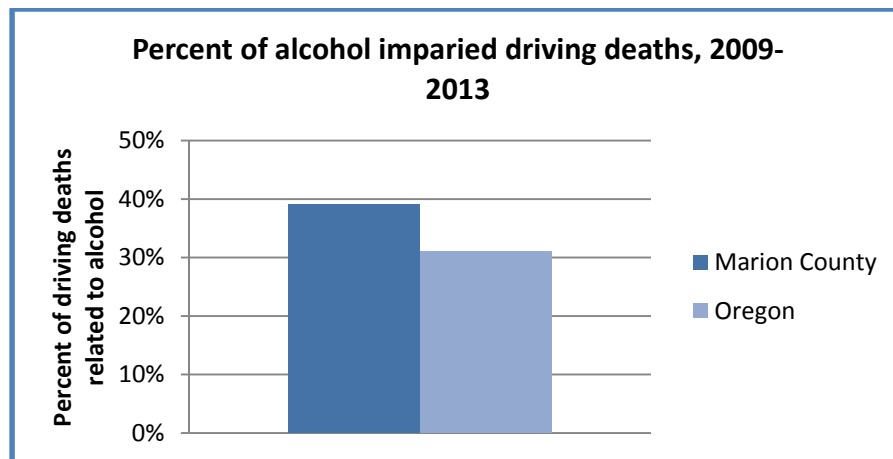
In Marion County, age-adjusted hospitalization rates due to alcohol abuse have remained steady from 2007-2012.<sup>65</sup>



## Modifiable Risk Factors-Percent of Alcohol Impaired Driving Deaths:

Alcohol impaired driving deaths are more likely to involve young adult drivers (21-24) than older drivers (25 and older). Community based approaches to alcohol control and prevention of alcohol impaired driving along with sobriety checkpoints and ignition interlocks for people with a history of impaired driving are effective measures to prevent injuries and deaths from drunk driving.<sup>43</sup>

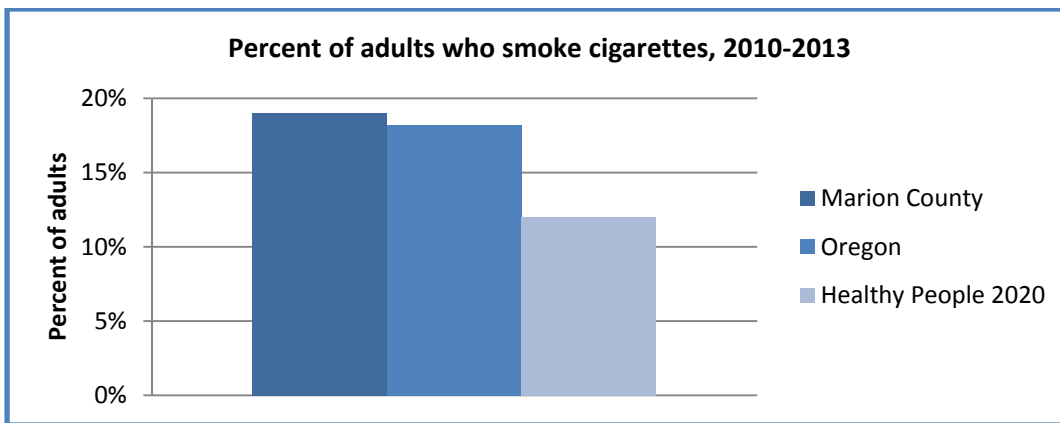
A higher percent of Marion County driving deaths are related to alcohol than Oregon driving deaths.<sup>43</sup>





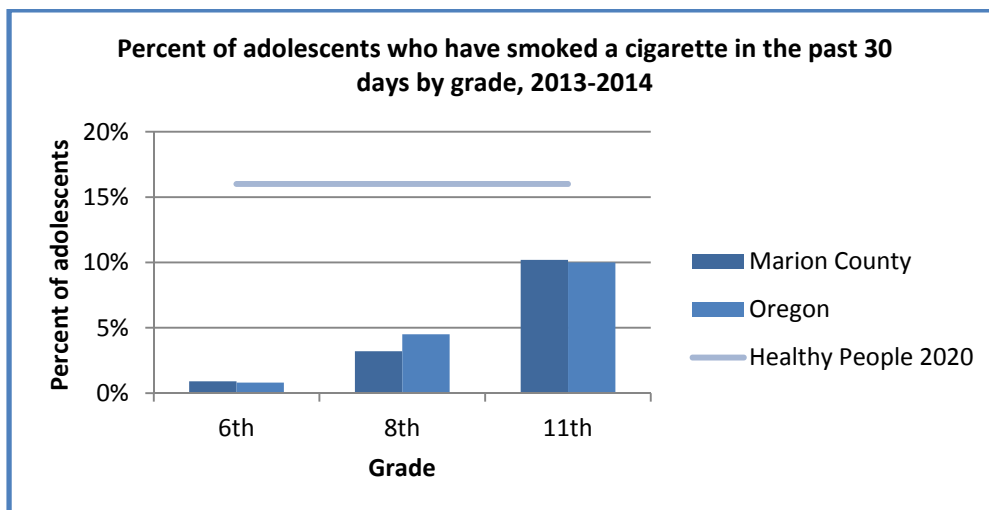
**Modifiable Risk Factors-Adults who smoke cigarettes:** According to the Centers for Disease Control and Prevention, “smoking harms nearly every organ of the body, causing many diseases and affecting the health of smokers in general”.<sup>44</sup>

Close to the same percent of Marion County and Oregon adults smoke cigarettes.<sup>45</sup> Neither Marion County nor Oregon has achieved the Healthy People 2020 goal for adults who smoke.<sup>46</sup>



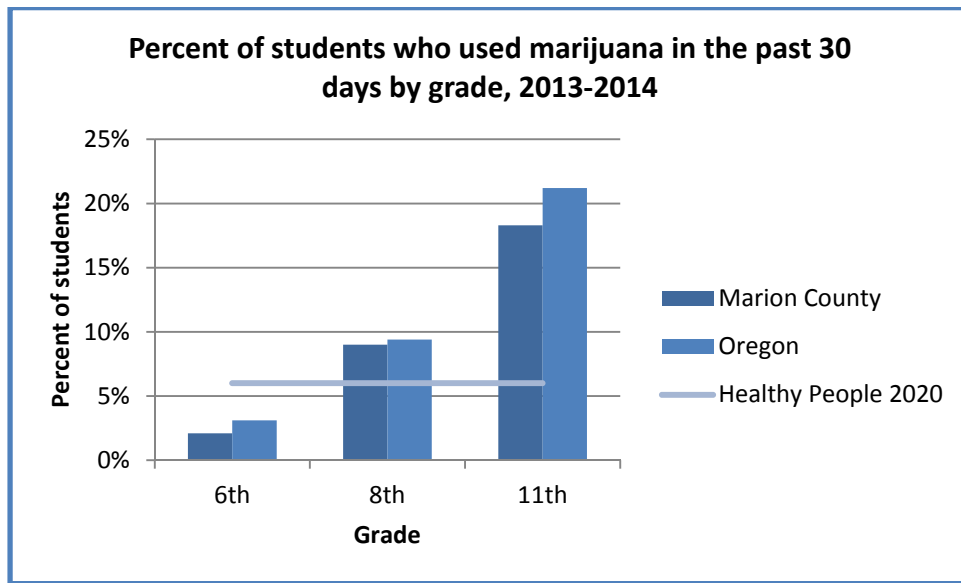
**Modifiable Risk Factors-Teens who smoke cigarettes:** Nine out of 10 smokers first tried smoking by age 18. Youth are more likely to smoke if their peers and/or parents also smoke. There are biological and genetic factors that may make it more likely for youth to become regular smokers; for example, there is evidence that youth may feel dependent on nicotine sooner than adults. Personal perceptions that tobacco is a tool for coping with stress or for controlling weight are related to youth tobacco use. A few other factors that affect youth tobacco use include lack of skills to resist peer pressure to smoke, lower education and exposure to tobacco advertising.<sup>47</sup>

Overall, a lower percent of 6<sup>th</sup> graders smoke than 11<sup>th</sup> graders. The percent of Marion County and Oregon 6<sup>th</sup> and 11<sup>th</sup> graders who smoked a cigarette in the past 30 days is about the same. A slightly lower percent of Marion County 8<sup>th</sup> graders smoked a cigarette in the past 30 days than Oregon 8<sup>th</sup> graders.<sup>48</sup> Marion County and Oregon have already achieved the Healthy People 2020 goal for adolescent cigarette use.<sup>46</sup>



**Modifiable Risk Factors-Teens who use marijuana:** In youth, illicit drug use is associated with heavy alcohol use, tobacco use, violence, and other delinquent behaviors. The CDC warns that marijuana intoxication can distort perception, and impair problem solving, learning, and memory. Chronic marijuana use can lead to addiction, which may interfere with family, school, work and recreational activities.

A smaller percent of Marion County teens report using marijuana in the last 30 days than Oregon teens at all three grade levels. Marion County and Oregon sixth graders have achieved the Healthy People 2020 goal but eighth and eleventh graders have not.<sup>48, 42</sup>



**Marijuana in Marion County:** Oregon’s Medical Marijuana Program tracks individuals who have medical marijuana cards as well as their caregivers; marijuana growers and marijuana grow sites. The administrative rules and legal information govern who can have a card, grow, and dispense marijuana. It is likely that these numbers will change dramatically in the upcoming year with the legalization of recreational marijuana.<sup>49</sup>

Marijuana by numbers: July 2015
3,885 patients
2,462 growers
1,930 grow sites

# Communicable Disease

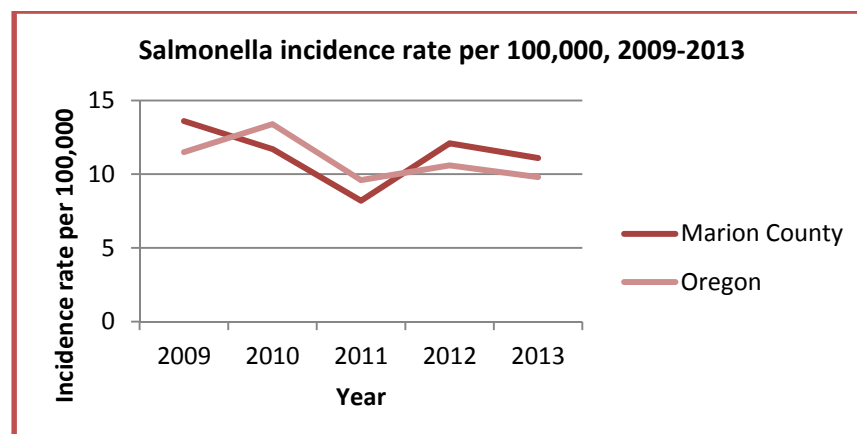
Communicable or infectious diseases differ from chronic diseases because they can pass from human to human or from animals to humans. Globally, there has been a reduction in infectious disease mortality over the last century due largely to immunization, but also drinking water and food regulation. Despite these advances, infectious disease remains a major cause of illness, disability and death worldwide. For each birth cohort in the United States, the recommended childhood vaccine series 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. Unfortunately, about 42,000 adults and 300 children die each year in the United States from vaccine preventable diseases. Disease-specific information in this section comes from the Control of Communicable Diseases Manual reference used by public health departments across the nation.<sup>50</sup>

## Key Communicable Disease Findings for Marion County:

- Pertussis incidence rates are increasing in Marion County. (4.8 per 100,000 in 2009 to 16.8 per 100,000 in 2013).
- Syphilis incidence rates are increasing in Marion County. (1.3 per 100,000 in 2009 to 7.3 per 100,000 in 2013).
- Childhood immunization rates are decreasing in Marion County. (55.3% up-to-date 2 year olds in 2009 to 43.9% up-to-date 2 year olds in 2013).

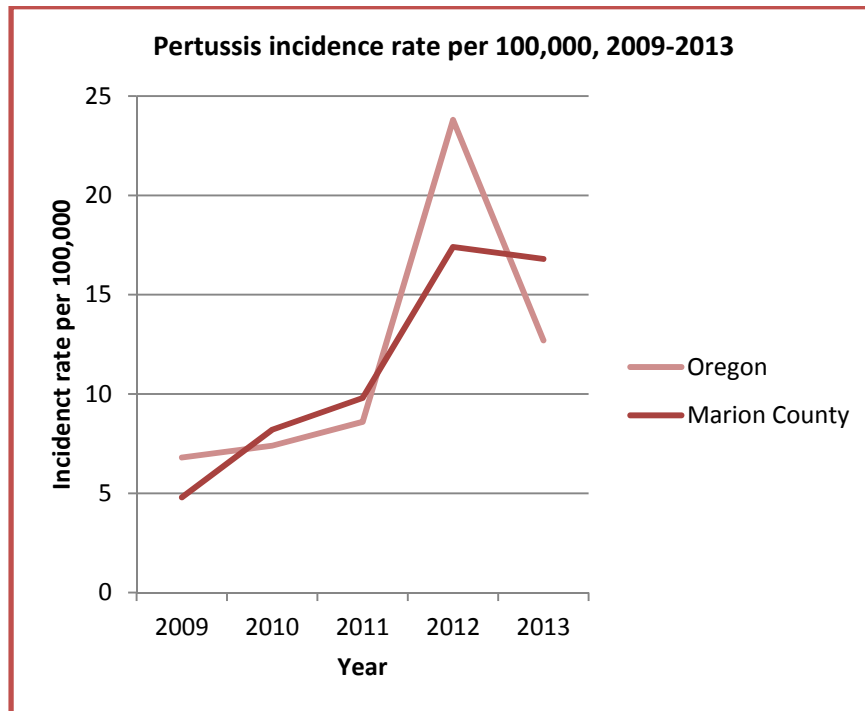
**Salmonella Incidence Rate:** Salmonella is a bacterium that makes people sick. Most people with salmonella have diarrhea, fever, and abdominal cramping that lasts 4-7 days. Most people recover without treatment however, in some cases diarrhea is so severe it requires hospitalization. In rare cases the infection can spread to the blood stream and other body sites. This can be deadly if the person is not treated with antibiotics quickly. Older adults, infants and people with compromised immune systems are more likely to have severe infections. Ways to avoid salmonella are to cook all poultry, ground beef and eggs thoroughly. Avoid consuming raw eggs or unpasteurized milk. Wash hands, kitchen counters and utensils after they have been in contact with raw meat. Wash hands thoroughly after handling reptiles and birds.<sup>51</sup>

The overall trend in the Salmonella incidence rate for Marion County has been about the same between the years 2009-2013.<sup>52</sup>



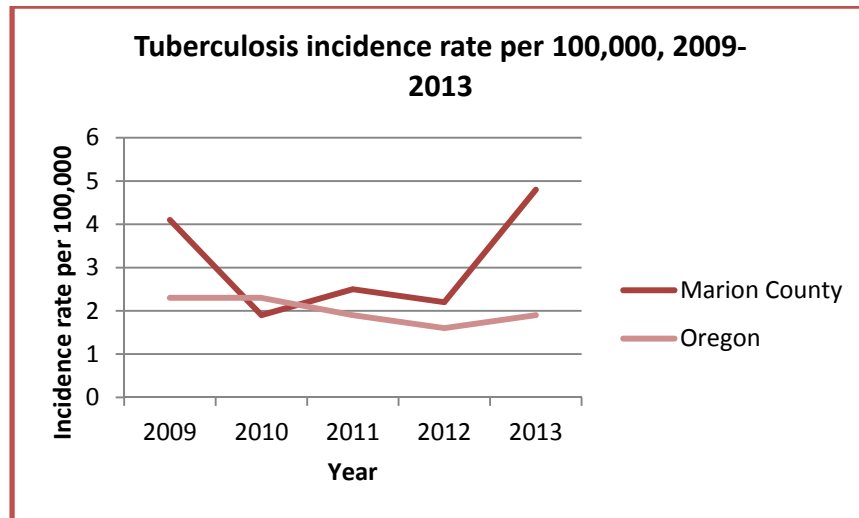
**Pertussis Incidence Rate:** Pertussis, also known as Whooping Cough, is caused by highly contagious bacteria that infect the respiratory track. Pertussis can result in serious illness and sometimes death, especially in infants younger than six months. In older persons who have been vaccinated, the illness may be milder. Pertussis is considered a vaccine-preventable disease and a complete vaccine series is recommended for young children. As immunity may wane or decrease over time, a one-time booster dose is recommended for persons who are middle-school aged or older.<sup>53</sup>

Marion County has been experiencing an increase in pertussis incidence since 2009.<sup>52</sup> Increasing pertussis rates may be partially related to the reduced effectiveness of the acellular vaccine that is currently in use (DTaP and Tdap) compared with the previous whole-cell vaccines, as well as decreasing vaccination rates among children and adults.



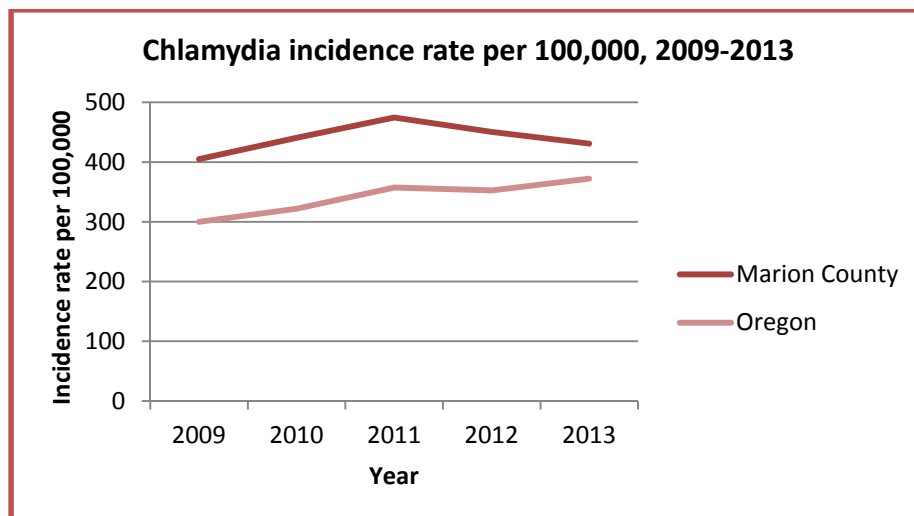
**Tuberculosis Incidence Rate:** Tuberculosis (often called TB) is a bacterial disease that can occur in various organs of the body. Whether a person is contagious depends upon the site of his or her disease. TB disease most commonly affects the lungs, which means that the person with TB may spread the infection to others through coughing. Tuberculosis requires treatment with antibiotics and can lead to death if not treated. With the availability of adequate treatment, the rate of new cases of TB in the United States has decreased from 52.6 in 1956 to 3 cases per 100,000 in 2013.<sup>54</sup>

This graph shows new cases of active TB disease for Marion County and Oregon. The overall tuberculosis incidence trend for Marion County and Oregon has remained stable since 2009. In 2013, Marion County had a higher tuberculosis incidence rate (4.8 per 100,000) than Oregon (1.9 cases per 100,000).<sup>52</sup>



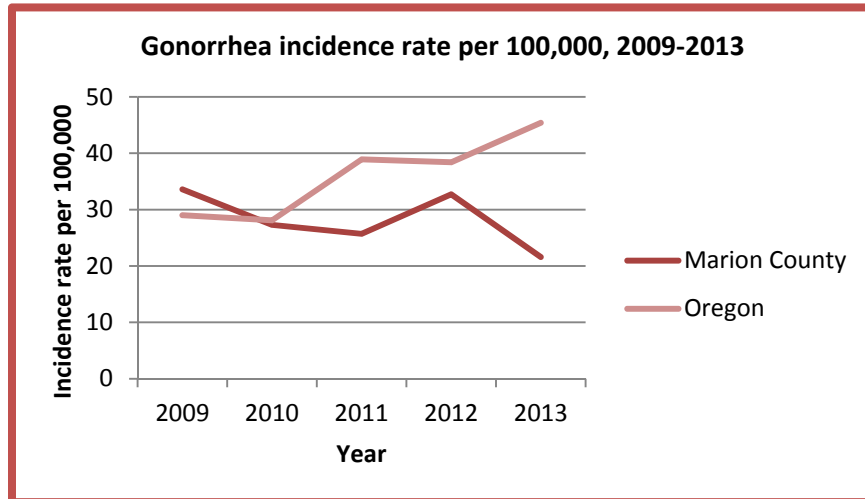
**Chlamydia Incidence Rate:** Chlamydia is a sexually transmitted bacterial infection that often causes no symptoms. If untreated in women, the infection can lead to infertility and other problems. Infection during pregnancy can result in eye and lung infections in the newborn.<sup>55</sup>

Marion County has a higher Chlamydia incidence rate (431.0 per 100,000) than Oregon (372.4 per 100,000).<sup>52</sup>



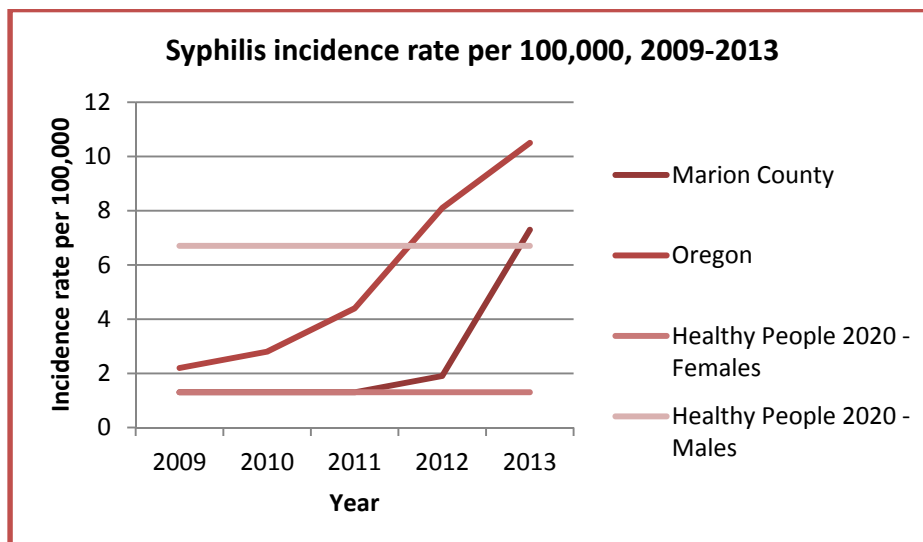
**Gonorrhea Incidence Rate:** Gonorrhea is a sexually transmitted bacterial infection. Untreated infection in men and women can lead to complications, including infertility. Risk of HIV infection is increased when a person is already infected with gonorrhea.<sup>56</sup>

Marion County has a lower gonorrhea incidence rate (21.6 cases per 100,000) than Oregon (45.4 per 100,000).<sup>52</sup>



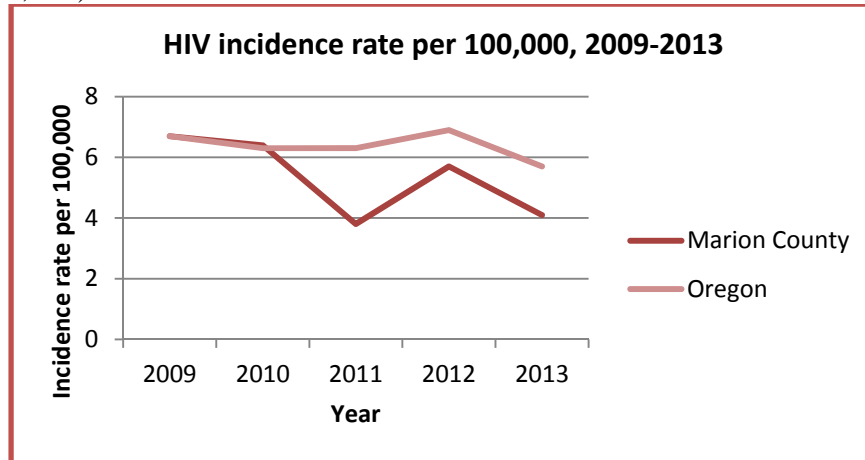
**Syphilis Incidence Rate:** Syphilis is a sexually transmitted bacterial infection. The illness progresses in stages. Pregnant women may transmit the infection to their fetus with a high risk that the baby will be stillborn or have other serious health problems. Persons who are not treated may develop late stage syphilis, including nervous system problems.<sup>57</sup>

Syphilis incidence rates for both Marion County and the state of Oregon have been increasing since 2009.<sup>52</sup> The goal of Healthy People 2020 is to lower the incidence of Syphilis to 1.3 cases per 100,000 for females and 6.7 cases per 100,000 for males.<sup>58</sup> Neither Marion County nor Oregon has achieved the Healthy People 2020 goal.



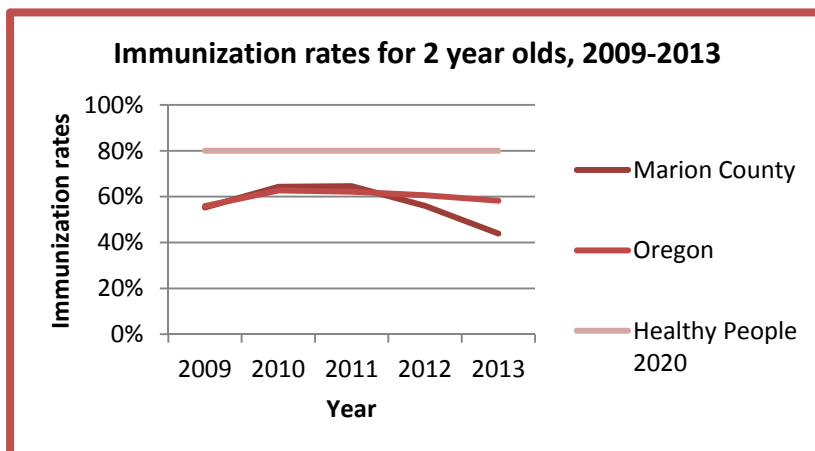
**HIV Incidence Rate:** HIV (Human Immunodeficiency Virus) is a virus that attacks specific cells in the immune system. Over time, HIV can destroy so many of these cells that the body cannot fight off other diseases. At that point, HIV infection leads to AIDS (Acquired Immunodeficiency Syndrome). At this time there is no safe, effective cure for HIV, so once infected, you will have HIV for life.<sup>59</sup>

The overall trend in HIV incidence has been decreasing in Marion County from about 7 cases per 100,000 in 2009 to about 4 cases per 100,000 in 2013. In 2013, Marion County had a lower HIV incidence rate (4.1 per 100,000) than Oregon (5.7 per 100,000).<sup>52</sup>



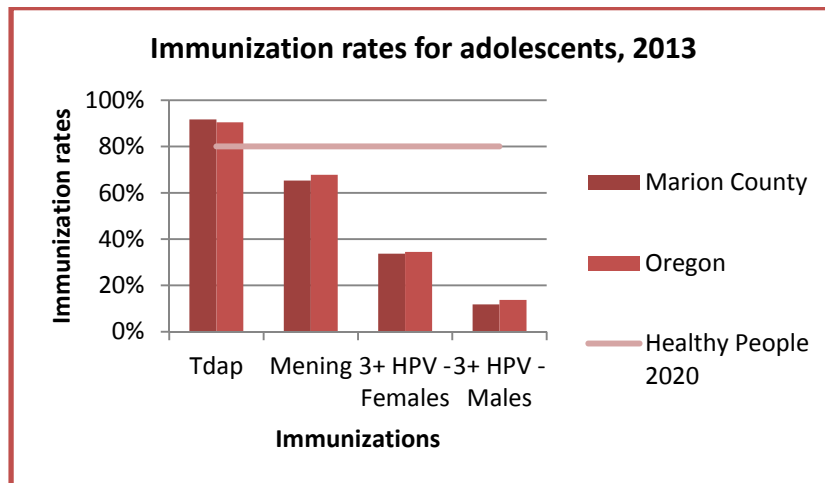
**Immunization Rates:** Oregon requires certain immunizations for children in school and child care. The purpose of the immunization requirements is to protect everyone in a population from vaccine preventable diseases. If enough people are immunized, herd immunity can be achieved. This means enough people have been immune that it is unlikely the disease will spread.

A lower percent of two year olds are fully immunized in Marion County than in Oregon. A lower percent of two year olds were fully immunized in 2013 (43.9%) than were immunized in 2009 (55.3%).<sup>60</sup> Neither Marion County nor Oregon has accomplished the Healthy People 2020 immunization goal.<sup>61</sup> Two year olds are considered to be fully immunized with: 4 doses of DTaP, 3 doses of IPV, 1 dose of MMR, 3 doses of Hib, 3 doses of HepB, 1 dose of Varicella and 4 doses of PCV. This series of immunizations protect children from diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, haemophilus influenza type b, hepatitis B, chicken pox and pneumonia.



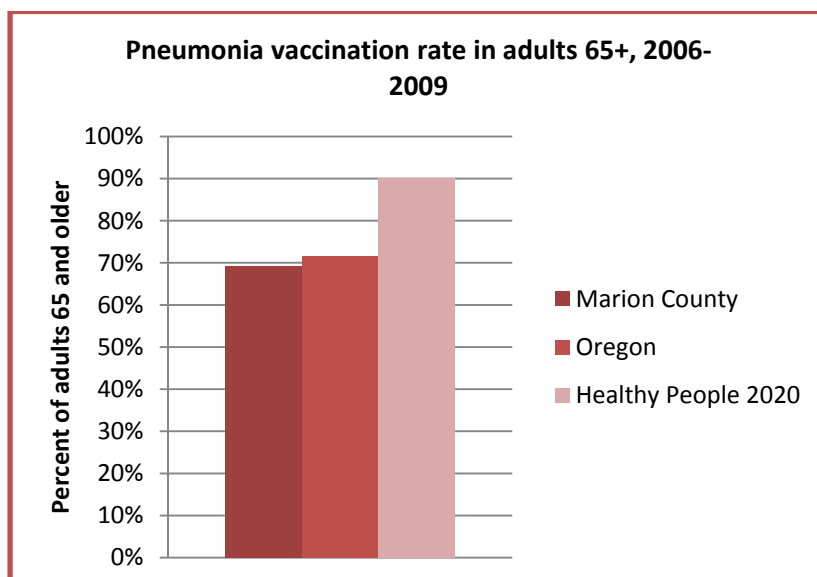
Adolescents are considered to have a complete vaccination record with: 1 dose Tdap, 1 dose MCV, and 3 doses HPV. This series of vaccinations protects adolescents against tetanus, diphtheria, pertussis, meningitis, and human papillomavirus.

Marion County and Oregon have about the same percent of vaccinated adolescents. Both Marion County and Oregon have achieved the Healthy People goal for the adolescent Tdap vaccine rate but have not achieved the Healthy People goal for the meningococcal or HPV vaccines.<sup>60,61</sup>



**Pneumonia Vaccination Rate:** Older adults are at higher risk for pneumonia-related health complications. Two different pneumonia vaccines, given one year apart are recommended for this age group by the Centers for Disease Control.

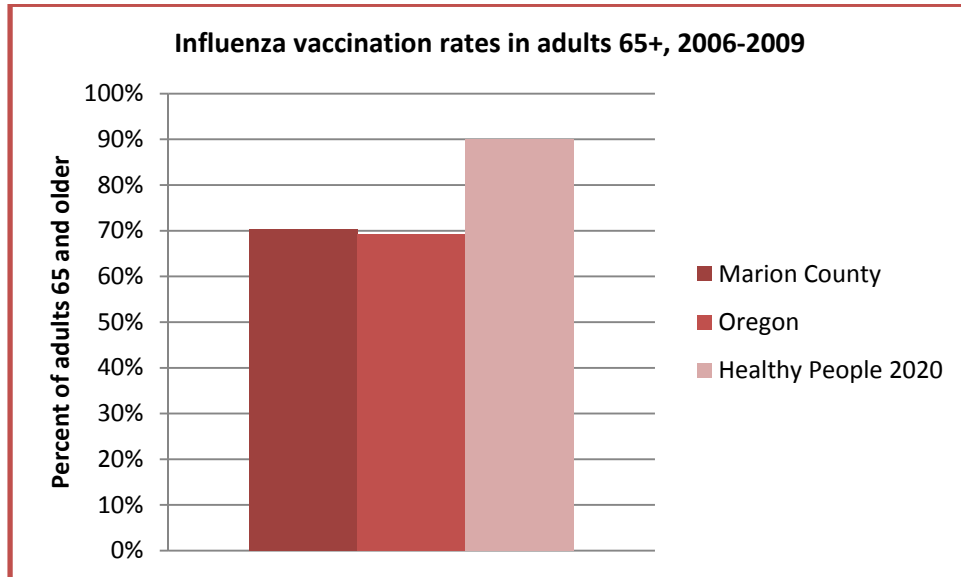
This graph shows the percent of adults aged 65 and older who have received at least one pneumonia vaccine. Marion County and Oregon have about the same percent of adults ages 65 and older with at least one pneumonia vaccine.<sup>62</sup> Marion County and Oregon pneumonia vaccine rates have yet to reach Healthy People 2020 goals.<sup>61</sup>





**Influenza Vaccination Rate:** Older adults are at higher risk for influenza-related health complications and Centers for Disease Control and Prevention recommends an annual Fluzone high-dose vaccine for this age group. This graph shows the percent of individuals aged 65 and older who received a flu vaccine.

About the same percent of Marion County and Oregon adults ages 65 and older received an influenza vaccine.<sup>62</sup> Marion County and Oregon influenza vaccine rates have not yet reached Healthy People 2020 goals.<sup>61</sup>



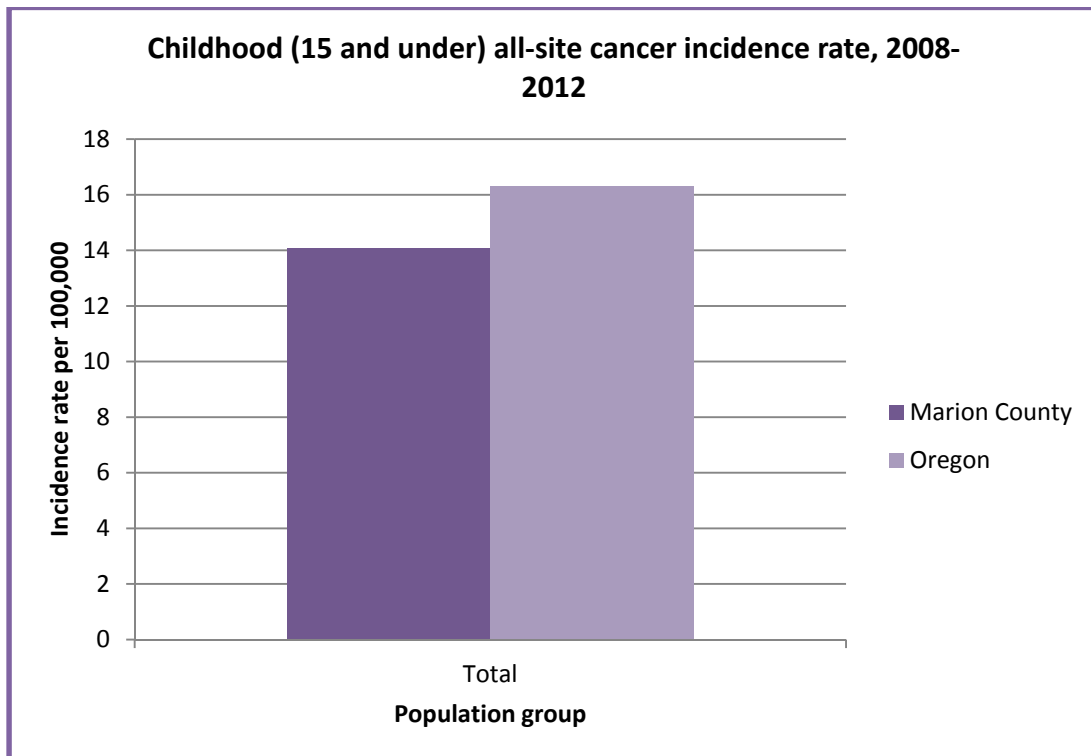
# Chronic Disease

Chronic disease is responsible for 7 out of every 10 deaths and accounts for 86% of the nation's health care costs each year. Chronic disease includes diseases that are long term and most times are not transmissible from human to human. Chronic disease examples include but are not limited to: cancer, diabetes, heart disease, arthritis and asthma.

## Key Chronic Disease Findings for Marion County:

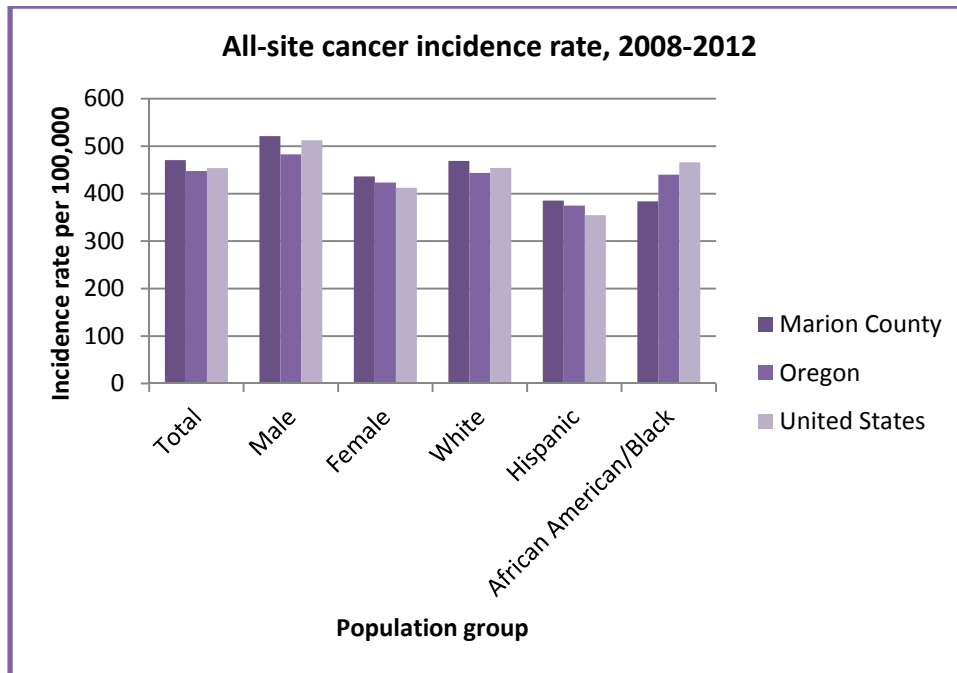
- Marion County boys have a higher childhood cancer incidence than Marion County girls.
- In general, Marion County men have a higher cancer incidence than Marion County women.
- Marion County has a higher percent of adults with diabetes than Oregon

**All-Site Childhood Cancer Incidence Rate (15 and under):** Marion County has a lower childhood cancer incidence rate than Oregon.<sup>63</sup>

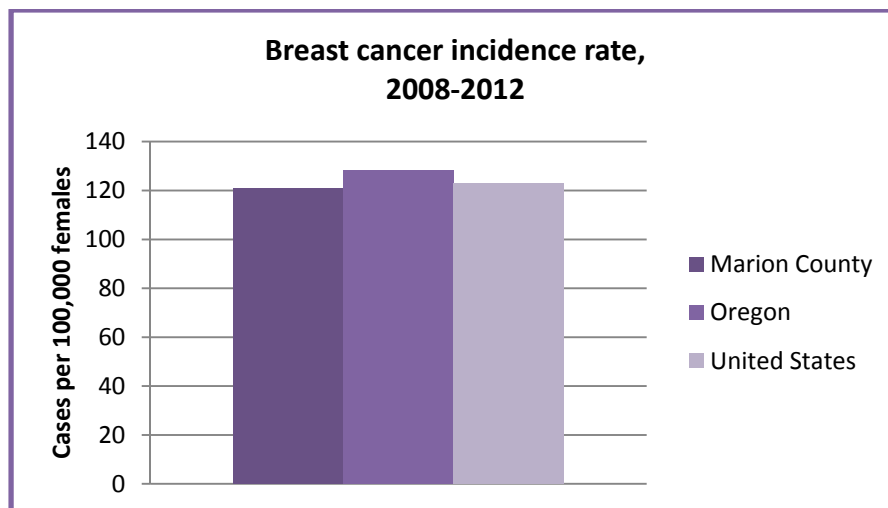


**All Site Cancer Incidence Rate:** Increased risk of cancer is associated with increased age, alcohol abuse, tobacco use or exposure to tobacco smoke, exposure to radiation, exposure to carcinogenic substances such as arsenic, benzene and asbestos in the environment, chronic inflammation due to infections, or abnormal immune reactions, exposure to hormones, immunosuppression, contraction of certain viruses, and obesity.

Males have higher cancer incidence than females. In Marion County, Whites have higher cancer incidence than Hispanics and African American/Blacks. Marion County has a higher cancer incidence than Oregon and the United States.<sup>63</sup>

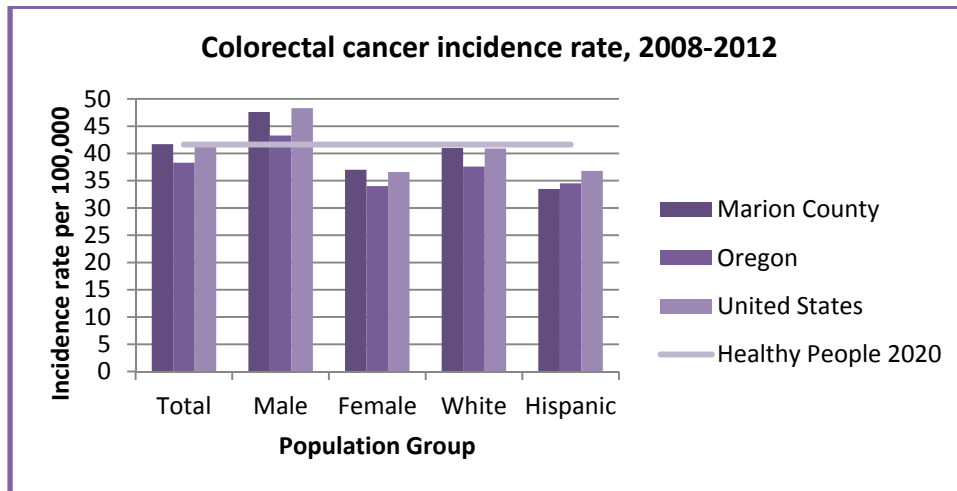


**Breast Cancer Incidence Rate:** The Marion County breast cancer incidence rate is about equal to the United States breast cancer incidence rate and is lower than the breast cancer incidence rate in Oregon.<sup>63</sup>



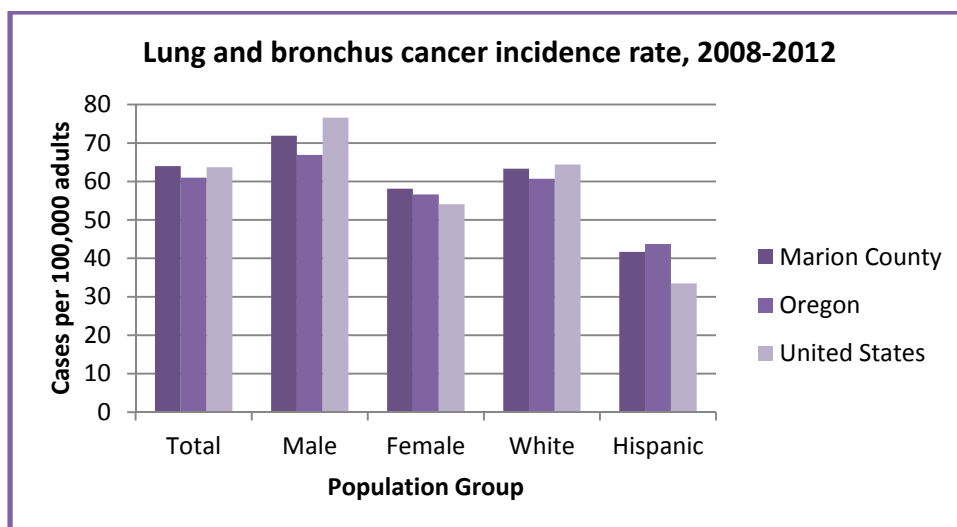
**Colorectal Cancer Incidence Rate:** Colorectal cancer incidence is associated with: increased age, personal history of colorectal cancer, having an inflammatory intestinal condition like Crohn’s disease, family history of colorectal cancer, eating a low fiber, high fat diet, having a sedentary lifestyle, having diabetes, being obese, smoking cigarettes, heavy alcohol use and radiation therapy for a different type of cancer.

The Marion County colorectal cancer incidence rate is higher than the Oregon colorectal cancer rate and about the same as the United States colorectal cancer incidence rate in all groups except those who identify as Hispanic. Women have a lower colorectal cancer incidence than men. Hispanic individuals have a lower rate of colorectal cancer incidence than White individuals.<sup>63</sup>



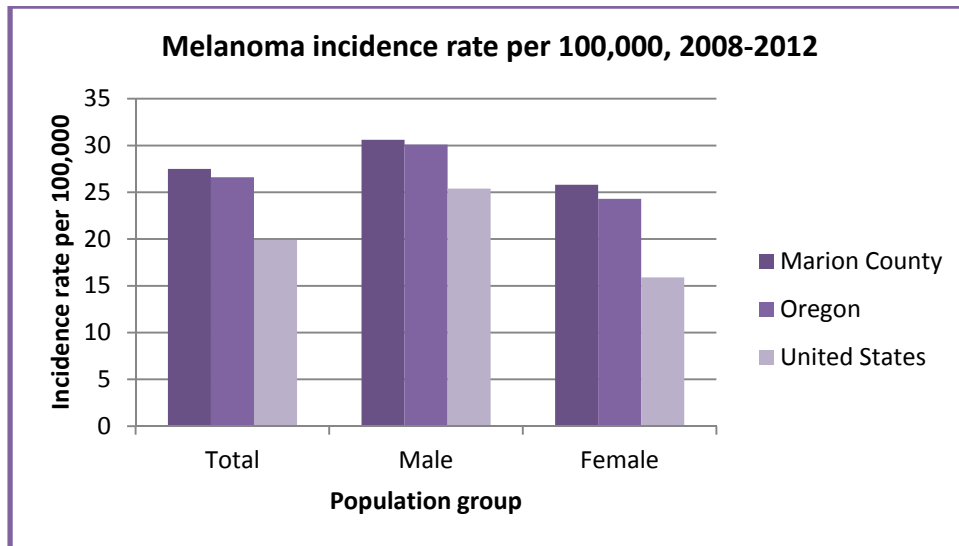
**Lung Cancer Incidence Rate:** Smoking cigarettes, exposure to secondhand smoke, exposure to radon gas, exposure to asbestos and other chemicals such as arsenic, chromium and nickel, and having a family history of lung cancer can increase an individual’s risk of developing lung cancer.

Marion County, Oregon and United States residents have about the same lung cancer incidence rate. Men have a higher lung cancer incidence rate than women. Individuals who identify as White have a higher lung cancer incidence rate than those who identify as Hispanic.<sup>63</sup>



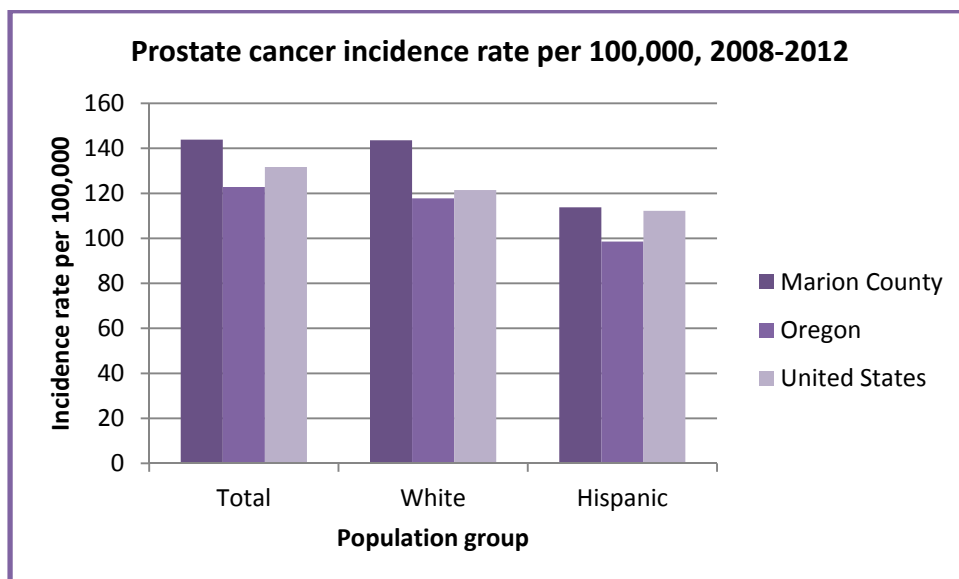
**Melanoma Incidence Rate:** Melanoma is a type of skin cancer. Factors that may increase a person’s risk of melanoma are: having fair skin, a history of one or more severe blistering sunburns, exposure to ultraviolet light, living closer to the equator or at a higher elevation, having many moles, having a family history of melanoma, and having a weakened immune system.

Marion County and Oregon residents have a higher melanoma incidence rate than United States residents. Men have a higher melanoma incidence rate than women.<sup>63</sup>



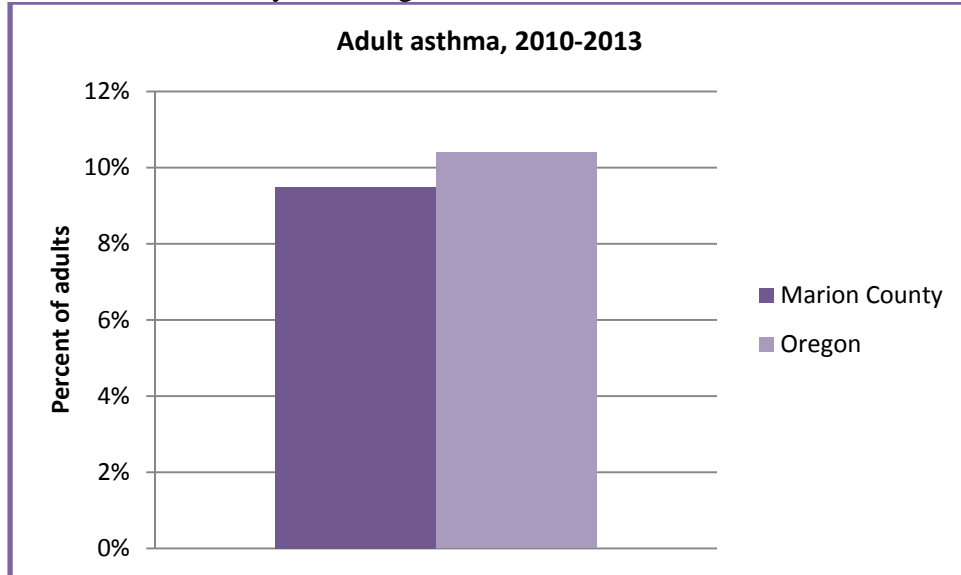
**Prostate Cancer Incidence Rate:** Consuming a lot of red meat or high-fat dairy products may increase a person’s risk of developing prostate cancer.

Marion County residents have a higher prostate cancer incidence rate than Oregon and United States residents. Individuals who identify as White have a higher prostate cancer incidence rate than those who identify as Hispanic.<sup>63</sup>



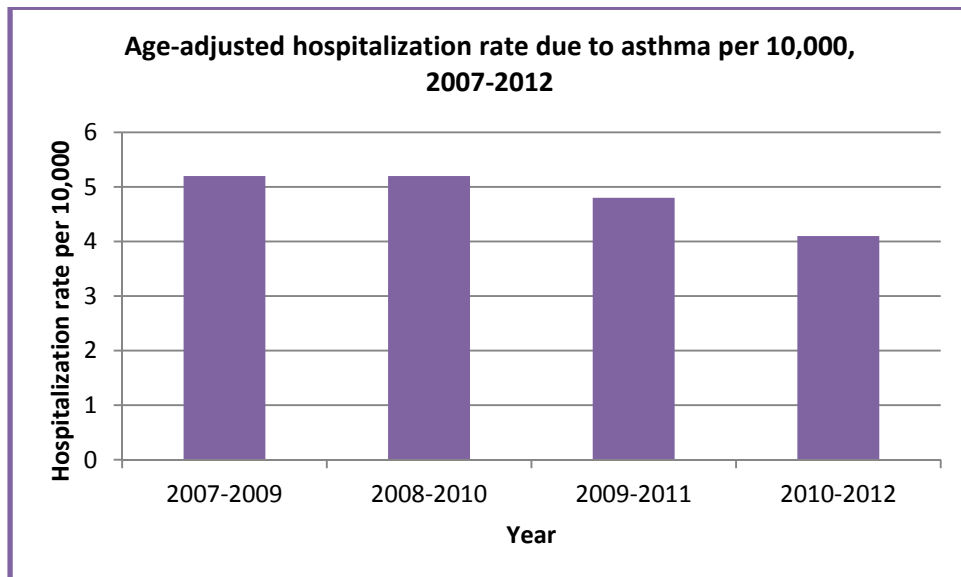
**Asthma Prevalence:** Asthma is a disease that affects the lungs and causes wheezing, breathlessness, chest tightness and coughing. Asthma can be controlled by taking proper medications and avoiding activities that cause asthma attacks. According to the National Heart, Lung and Blood Institute, the exact cause of asthma is not known, but may be partly genetic and attacks may be triggered by things in the air such as tobacco smoke.

About the same percent of Marion County and Oregon adults have asthma.<sup>64</sup>



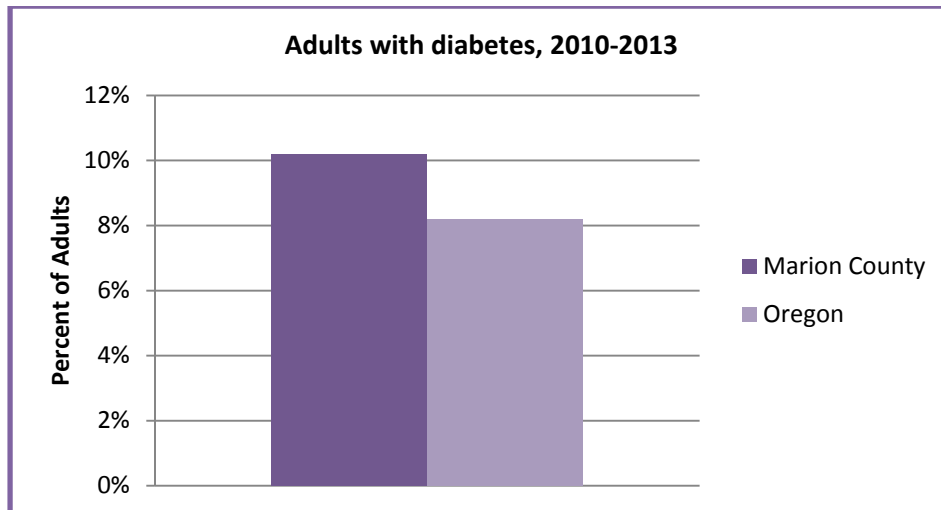
**Age-Adjusted Hospitalization Rate Due to Asthma:** Decreasing hospitalization rates for asthma in a community may indicate decreasing numbers of people living with asthma or that those living with asthma are better managing their condition so that hospitalization is not required.

The age-adjusted hospitalization rate for asthma has decreased slightly in Marion County since 2009. The most recent data shows a hospitalization rate of 4.1 per 10,000.<sup>65</sup>



**Diabetes Prevalence:** Diabetes is a disease that affects how the body uses blood sugar (glucose). Having diabetes means there is too much glucose in your blood which can lead to serious health problems. Having diabetes places a person at higher risk for heart disease and strokes. Often people do not realize they have diabetes and if diabetes is not controlled it can cause damage to the kidneys and eyes.

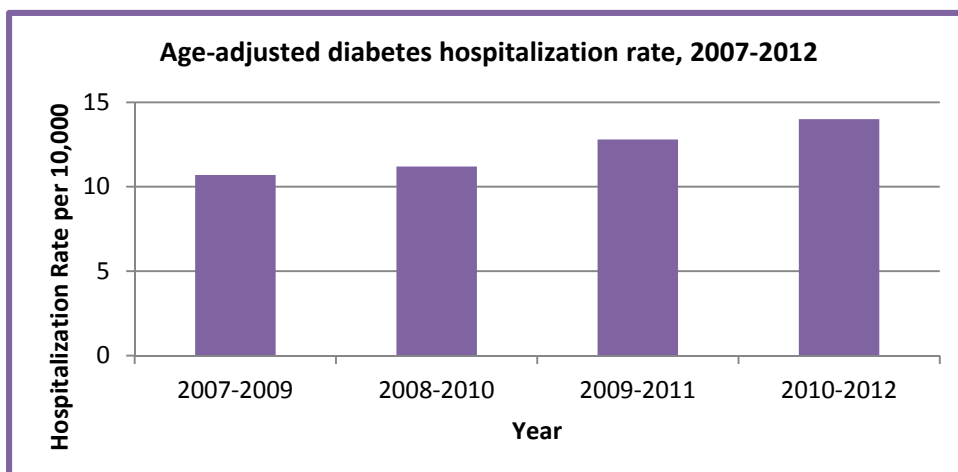
This graph shows the percentage of adults who report having ever been diagnosed with diabetes in Marion County and Oregon. Marion County has a higher percent of adults that reported having diabetes than Oregon. <sup>64</sup>



**Age-Adjusted Hospitalization Rate due to Diabetes:** This rate can indicate increasing diabetes prevalence in the community as well as increasing rates of uncontrolled diabetes.

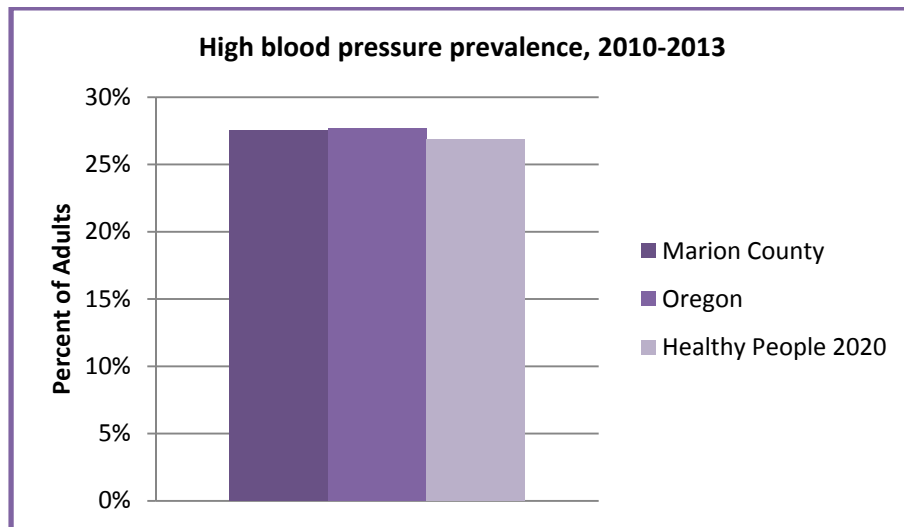
The age-adjusted hospitalization rate for diabetes in Marion County has been increasing since 2007. In Marion County, men (16.6 per 10,000) and those who identify as Hispanic (10.3 per 10,000) are hospitalized for diabetes at higher rates than women (11.5 per 10,000) and those who identify as White, non-Hispanic (5.4 per 10,000).<sup>65</sup>

This may be due to higher prevalence of diabetes in men and those of Hispanic ethnicity than women and those of non-Hispanic ethnicity, or may be due to poor diabetes control in these particular groups of people.



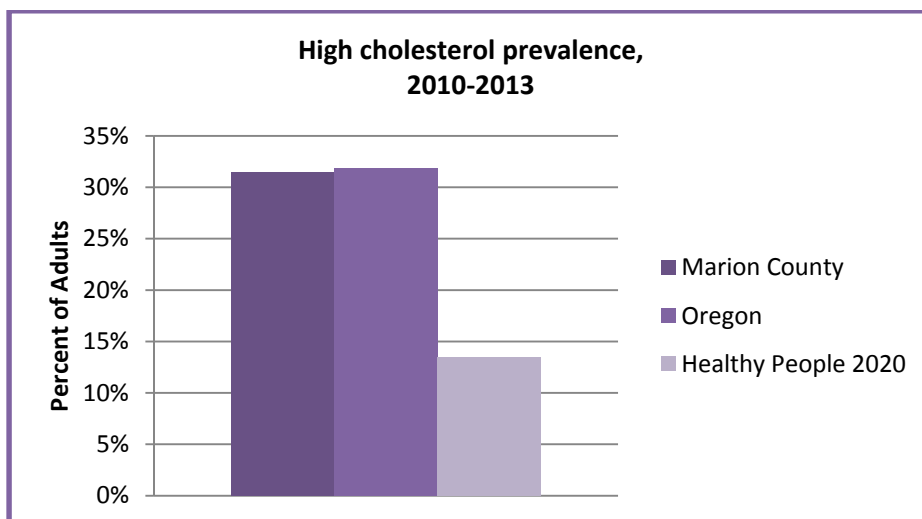
**High Blood Pressure Prevalence:** Chances of developing high blood pressure are increased by being obese, living a sedentary lifestyle, using tobacco, eating a high sodium diet, not consuming enough vitamin D or potassium, drinking too much alcohol, high stress levels, and certain chronic conditions. Having high blood pressure can increase a person’s chances of heart attack, stroke, aneurysm, heart failure, kidney failure, vision loss, and trouble with memory.

Marion County and Oregon have about the same prevalence of high blood pressure. Neither Marion County nor Oregon has achieved the Healthy People 2020 goal yet, but are close. <sup>38, 66</sup>



**High Cholesterol Prevalence:** Risk factors for high cholesterol are genetic makeup, sedentary lifestyle, obesity, an unhealthy diet, smoking cigarettes, large waist circumference, and diabetes. Having high cholesterol can increase chances of heart attack and stroke.

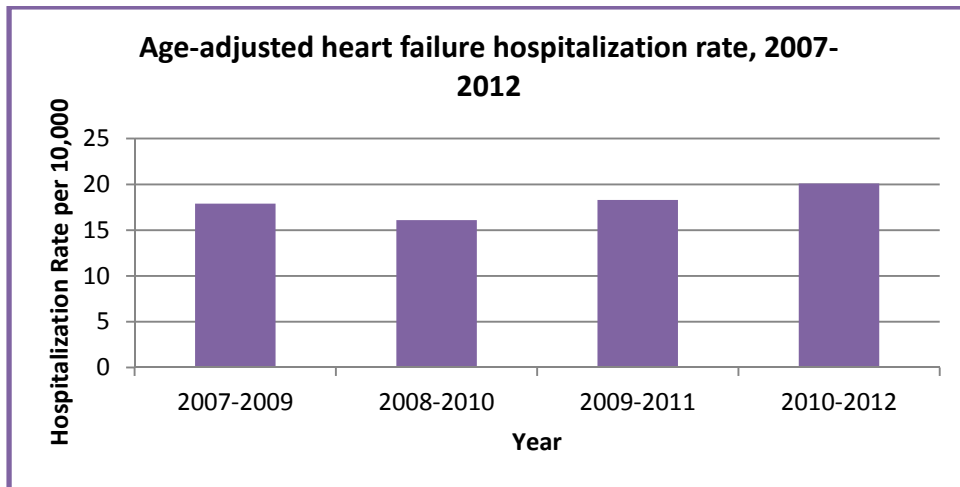
Marion County and Oregon have about the same percent of adults that report having high cholesterol. Neither Marion County nor Oregon has achieved the Healthy People 2020 goal. <sup>38, 66</sup>





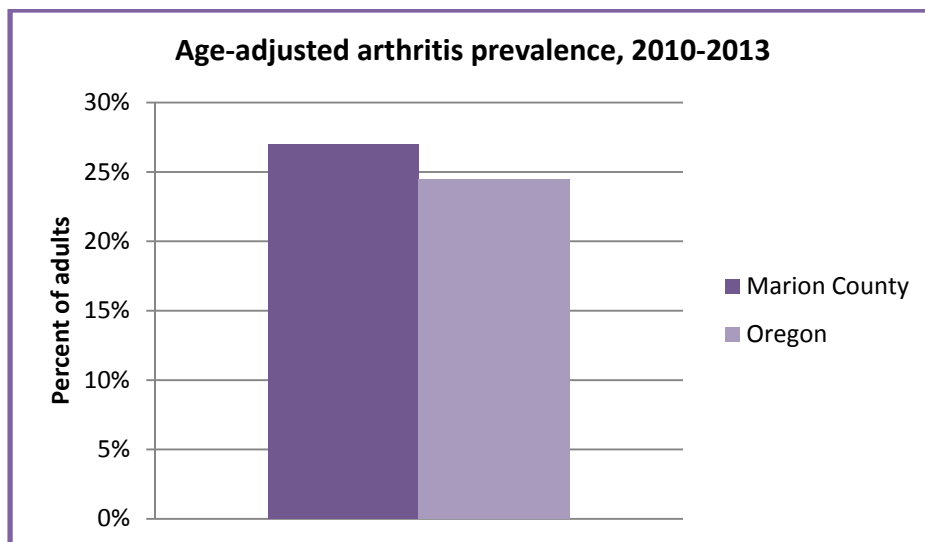
**Age-Adjusted Hospitalization Rate Due to Heart Failure:** When a person has heart failure their heart does not do a good job of pumping blood to their organs, or around their body. This may cause a backup of fluids in the lungs or cause swelling in the legs and feet. Other health conditions such as diabetes, high blood pressure and previous heart attack may lead to heart failure.

Marion County’s age-adjusted hospitalization rate due to heart failure has increased since 2008. Men (23.1 per 10,000) and those of Hispanic ethnicity (12.3 per 10,000) are hospitalized due to heart failure at a higher rate than women (17.7 per 10,000) and those who identify as White, non-Hispanic (8.3 per 10,000).<sup>65</sup>



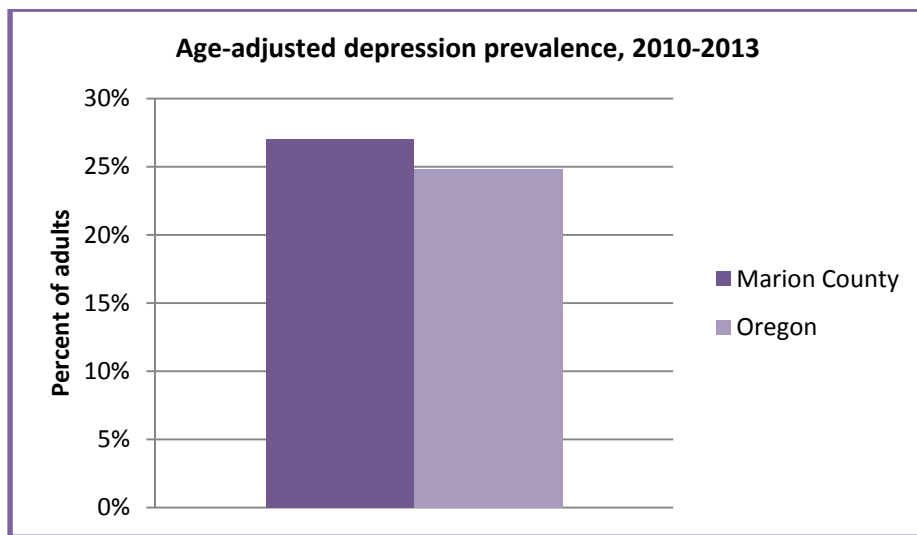
**Arthritis Prevalence:** Arthritis, an inflammation of the joints, is a chronic condition that can affect quality of life, the ability to work and the ability to carry out the basic activities of daily living. Arthritis commonly occurs with other chronic conditions such as diabetes, heart disease and obesity. Interventions to manage arthritis pain can help to reduce functional limitations and encourage people to be more physically active.

Marion County has a slightly larger percent of adults with arthritis than Oregon.<sup>64</sup>



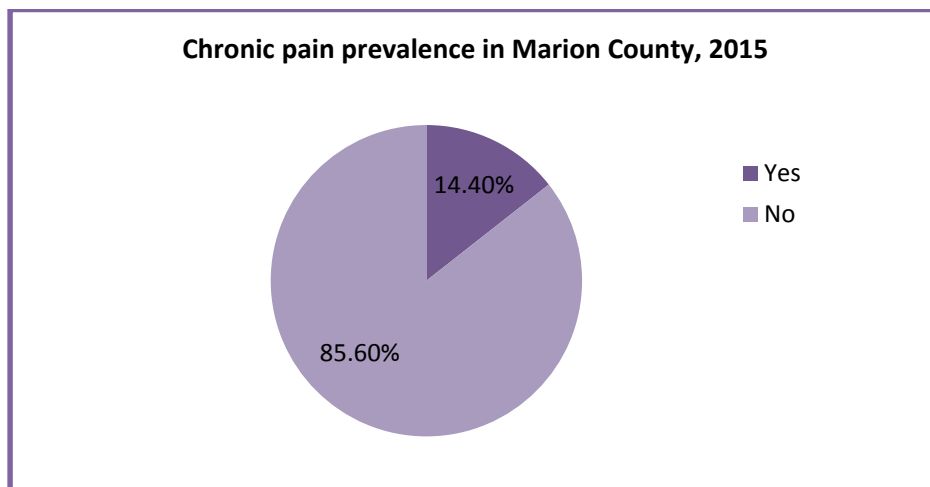
**Depression Prevalence:** Mental health and physical health are closely connected. Depression may affect a person’s ability to participate in healthy lifestyle behaviors such as physical activity, and chronic diseases that affect a person’s ability to participate in daily activities may increase risk for developing depression.

Marion County has a slightly larger percent of adults with depression than Oregon.<sup>64</sup> According to the Medicaid Behavioral Risk Factor Surveillance System in 2014, the Medicaid populations of Marion and Polk counties had a depression prevalence of 36.0%, almost 10% more than the Marion County prevalence.



**Chronic Pain Prevalence:** There is evidence that chronic pain can have a negative impact on people’s health, including their sleep, thought processes, mood, mental health, heart health, sexual function and general quality of life.

Results from the Marion County Community Survey showed that 14.4% of community members reported having chronic pain.<sup>15</sup> According to the Medicaid Behavioral Risk Factor Surveillance System, in 2014, 44.5% of the Medicaid populations in Marion and Polk counties experienced chronic pain.



# Marion County Says

## Partner and Community Survey Themes:

When asked what the top health concern in Marion County was, providers of health and social services listed mental health issues, access to affordable health care and substance use as their main concerns. When asked what the top health concern in Marion County was, community members listed obesity, access to affordable health care and substance use as their main concerns.

Top Health Concerns in Marion County	
Marion County Health and Social Service Partners <sup>67</sup>	Marion County Community Members <sup>15</sup>
1. Mental Health Issues	1. Obesity
2. Access to Affordable Health Care	2. Access to Affordable Health Care
3. Substance Use (alcohol, tobacco and drugs)	3. Substance Use (alcohol, tobacco and drugs)

In the community survey, respondents were asked to report which diseases or health problems they currently have. Below are the top five reported conditions, which the percent of community members that selected each one.

Top Reported Chronic Diseases or Risk Factors for Disease in Marion County <sup>15</sup>	
Disease or Risk Factor	Percent of Community Members
1. Arthritis	24.4%
2. High Blood Pressure	23.7%
3. Obesity	20.4%
4. Depression	17.8%
5. Chronic Pain	14.4%

### What our partners had to say: <sup>67</sup>

*“The lack of free advocacy, housing, care, and support for those with mental health issues is a big problem.”*

*“Need service providers to come into the rural areas.”*

*“Complex system so folks don't get what they need.”*

*“Providers not accepting new patients. Lack of available providers (with or without insurance).”*

*“There is no financial support/funding for making changes to policy or the environment to prevent chronic disease up front. Seems to be plenty of money/focus for helping people prevent worse outcomes by managing or treating chronic disease”*

### What the community had to say: <sup>15</sup>

*“Detroit is in perhaps the most remote part of Marion County. Health care providers don’t always take into consideration the difficulties in scheduling and traveling to and from appointments. It’s not just the cost of the service, but the cost of gas to get there.”*

*“Many people are in need of mental health services. There is a lack of providers in the area. The homeless rate is high and is often due to mental health issues that are unmet. Affordable eye and dental care is a huge need.”*

*“Medical services are available, but clinics and doctor’s offices need to be open either before or after the “regular” working hours of 8a to 5p.”*

*“Living in a small town, if one does not have access to a car; it would be tough to get good healthy food, doctor or dentist attention or emergency medical attention beyond calling an ambulance.”*

*“There is a need for more family practice doctors.”*

*“There is a lot of mental illness that goes undertreated due to disparities”*

*“Resources available but not enough promotion”*

*“Salem free clinic really helps us patients who are uninsured get health coverage”*

*“It is challenge for people with Medicare to find providers who accept new patients, making their Medicare less than useful.”*

*“The poor public transportation system limits access to a lot of resources for many people”*

*“The built environment (sidewalks, bike lanes, noise pollution, etc) in some places is not conducive to active living and public transit options are awful. There are big gaps for what the neighborhood looks like in well off areas and what it looks like in lower income areas.”*

*“I wish there were more affordable and accessible options for exercise/healthy activities in this area.”*

*“I think there needs to be increased focus on the built environment, in a county where transportation options are limited in both our urban and rural areas. Creating accessible pedestrian and bicycle access, investing in public transportation and incentivizing health care providers and healthy food vendors/retailers to locate in underserved areas could have a major impact in the health of our community in both the short and long term.”*

### **Forces of Change Results:**

When the Marion County Health Advisory Board and partners from United Way, Willamette Valley Community Health Clinical Advisory Panel, and Salem Health were asked about whether there was something unique about Marion County that may pose an opportunity for health the responses were as follows:

- *Partnerships: Community Health Improvement Partnership, Salem Health partnership with OHSU*
- *Employment: State of Oregon is the main employer in the county, large agriculture industry*
- *Education: Full day kindergarten starting, Community Health Education Center at Salem Health*

When the Marion County Health Advisory Board and partners from United Way, Willamette Valley Community Health Clinical Advisory Panel, and Salem Health were asked about whether there was something unique about Marion County that may pose a threat to health the responses were as follows:

- ***Socioeconomic Factors: Overall lower educational attainment, lower median household income, higher percent of individuals living in poverty that qualify for assistance***
- ***Population: Significant homeless and prison/corrections population***
- ***Health Care Access: Aging physician population, shortage of specialists, difficult to recruit and retain physicians with Portland so close, CCO stability over time***
- ***Economic: no major corporations to bring revenue to Marion County***

# Community Assets and Gaps

The following assets and gaps were identified during various forums and focus groups. Attendees were presented with preliminary demographic, socioeconomic, access and health data from the assessment and were then asked to provide feedback about what was working in their community and what could be improved. This data was collected through three community forums, one each in Salem, Woodburn, and Stayton, as well as at a table at the Marion County fair, and a Community Health Awareness Team meeting with staff at the Marion County Health Department.

## Assets:

- Strong policy work-
  - Smoke free campus policies
  - Increased cost of tobacco
  - Restriction of tobacco sales to minors
  - Healthy Vending in schools
  - PE in schools
  - EBT at Farmers Market
  - Calories on menus
- Community Health Education-
  - Free tobacco Quit Line
  - Strong county tobacco prevention and education program
  - The Salem Health Community Health Education Center (CHEC)
  - Tailored educational materials for specific population groups (youth, pregnant women, etc.)
  - Reinforcement of community health messaging in schools
- Health Care System-
  - Increase in insured population
  - Increase in coverage for certain health care services (tobacco cessation products)
  - More employers with wellness programs for staff
  - More people have primary care physicians
  - Oregon Mother's Care
  - Women Infants and Children (WIC)
  - Oregon Health Plan (OHP)
  - Citizen Alien Waived Emergency Medical Plus (CAWEM+)
  - Cuidate
  - Moms Program
  - Planned Parenthood
  - Local obstetrics and gynecologists (OB/GYNs)
  - Local Hospitals
  - Salud
  - Guadalupe Clinic

- 211
- Psychiatric Crisis Center
- Integration of mental and physical health services
- Behaviorists co-located with primary care physicians
- Salem Free Clinic
- Additional Supports-
  - Family Building Blocks
  - Local Churches
  - OSU Extension cooking classes
  - Marion Polk Food Share
- Built Environment-
  - Local parks
  - Community Gardens
  - Public biking/hiking/walking trails
  - Sidewalks
  - Walk Salem
  - Family YMCA
  - Farmers Markets
  - Increased access to technology that allow people to manage health (fitbit, phone apps, etc)

### **Gaps:**

- Enforcement of Laws Related to Health-
  - Enforcement of smoke free policies
  - Enforcement of laws that prohibit youth from purchasing tobacco products
  - Lack of federal regulation on new products that may affect health (e-cigarettes)
  - Regulations on what food Federal subsidies can purchase
- Policy
  - School lunch policy
  - School PE policies—for older grades—8-12
- Community Health Education
  - Clearer communication about what resources are available in the community
  - More education needed about the importance of first trimester prenatal care
  - More youth education about mental illness
  - Education about how to read and understand food labels
  - Nutrition education tailored for specific community groups (elderly, youth)
  - Gardening classes
  - Ensure community and school health messaging aligns
  - Focused health education in low income neighborhoods
  - Reframing the perception that healthy food costs more
  - More youth nutrition education
- Health Care System-
  - Some health care is still unaffordable
  - Not enough providers for Oregon Health Plan members

- Long wait times to see primary care providers
- Limited health care access for undocumented residents
- Services that welcome all people
- Post-partum depression services
- No good data system to track community mental illness rates
- Not enough alcohol and drug treatment services for adolescents
- Affordable prescription drugs
- Primary care providers do not know enough about mental health needs
- Some services are still not covered by insurance
- Additional Supports-
  - Could use more organized community groups that meet regularly and do physical activity
  - Could use more community outreach from health organizations concerning health topics of concern
- Built Environment-
  - Inadequate public transportation—weekend bus transportation
  - More roads with bike lanes
  - More parks
  - Quality, affordable child care
  - Sidewalks missing in some neighborhoods
  - Lack of lighting makes walking at night dangerous
  - Lack of access to inexpensive/free fitness classes/gyms
- Community Support
  - Positive reinforcement for those working to make behavior changes (eat healthy, quit smoking, etc.)
  - Less stigma around seeking health care
- Data
  - Childhood chronic disease and illness data-asthma, allergies, etc.
  - Mental health data
  - Post-partum depression data
  - Insurance status for underrepresented populations: agricultural workers, lgbt, rural populations, etc.



# MAPP Methodology

Community Health and Community Health Needs Assessments are documents that the local public health system utilizes to learn about the health of the community at large. They help the local public health system to identify factors that contribute to health risks and poorer health outcomes as well as the resources available to improve community health status.

## **Phase 1: Partnership Development**

In order to create a comprehensive community health assessment, a community health assessment steering committee was formed including representation from two local health departments, the local coordinated care organization, the three local hospitals, and various health and social service entities. This committee assembled and agreed upon a national assessment model, Mobilizing for Action through Planning and Partnerships (MAPP).

The Community Health Assessment Steering Committee met as needed for a period of about one year (September 2014-September 2015) working through the MAPP process from organization of the process to publication of the final health assessment. A total of five in person meetings were held as well as continuous email communication.

At the first meeting the group reviewed the MAPP process including the purpose of each assessment and how the group planned to complete each assessment. Based on the chosen methodology for each assessment, the group created a time line for the completion of each of the four MAPP assessments, and the comprehensive community health assessment.

## **Phase 2: Visioning**

The vision for this project was to complete a joint county health assessment that would lead to an alignment of Community Health Improvement Plans between neighboring Marion and Polk counties and their local coordinated care organization. To help us achieve aligned county and coordinated care organization improvement plans the group wrote the following shared vision statement of a healthy community: “Marion Polk Community Health Assessment Steering Committee will ensure the community health assessment represents the whole community by looking at the broad definition of health including community systems and built environment.”

## **Phase 3: Community Health Status Assessment**

Based on the time line the group began the Community Health Status Assessment for the purpose of determining the community’s health status through the use of valid and reliable data systems. In order to complete this assessment, the Community Health Steering Committee used the data dashboard, paid for by the local hospitals. The Data Dashboard, available on each hospital’s website, provides access to the most up to date health indicator data available for both counties involved in this assessment. In order to manage the vast amount of health indicators contained in the data dashboard, the Steering Committee grouped the indicators into over arching categories: Demographics, Socioeconomics, Access to Care, Maternal/Child Health, Environmental Health, Health Behaviors, Injury Prevention/Safety, Chronic Disease, and Communicable Disease. Next, Steering Committee

members distributed a survey via Survey Monkey to staff (including the health departments’ governing entity), community partners, and community members to rank the indicators and determine which indicators should be included in each category in the health assessment. Based on the feedback from about 300 survey respondents, the Steering Committee finalized the health indicators that appear in the final health assessment.

**Phase 3: Community Themes & Strengths Assessment**

Next, the group turned its attention to the Community Themes & Strengths Assessment. The purpose of this assessment is to find out what is important to the community, how the community perceives its quality of life, and what assets exist that can be used to improve community health. The Steering Committee developed two different surveys, one for community partners and one for community members, using the surveys from the 2011 Marion County Health Assessment as a starting point.

The Partner Survey included eight questions and provided open ended opportunities to identify the top three health issues that most adversely affect their community, the top five factors that affect community health, the top five environmental health issues, the top health five areas to focus funding, the top five barriers residents encounter when seeking health care and a demographic question relating to the population sector they serve. Based on this feedback, interviews were completed to identify specific areas of need in the top ranked factors, environmental issues and funding interests. Between Marion and Polk counties there were 160 responses, representing business, community-based organization, community health organizations, education, faith, government, medical care, mental health care, public health, social services and corrections sectors.

Top five factors adversely affecting community health			
Polk		Marion	
1. Lack of Jobs	27.50%	1. Poverty	30.60%
1. Poverty	27.50%	2. Lack of Jobs	11.10%
3. Access to Healthcare	12.50%	2. Unemployment	11.10%
4. Homelessness	10.00%	4. Addiction	9.30%
5. Addiction	7.50%	5. Access to Healthcare	8.30%

Top five environmental factors that most adversely affect our community			
Polk		Marion	
1. Mold	19.00%	1. Food Deserts	24.00%
2. Food Deserts	16.70%	2. Meth Labs	13.50%
2. Meth Labs	16.70%	3. Mold	12.50%
4. Second Hand Smoke	14.30%	4. Herbicides/Insecticides	8.70%
5. Quality of Drinking Water	9.50%	4. Migrant Camp Safety	8.70%

Based on this information from partners, interviews were completed to find out more about mold in housing and meth labs in Marion County. To find out more about mold, key informant interviews were scheduled with: Salem Housing Authority, a farm worker housing development, and ARCHES. These entities generally work with low income populations, immigrants, undocumented residents, and homeless individuals. The housing authority estimated that about 1% of their low income population live in houses with mold. The houses with mold were generally built before 1976. Housing Authority stated that, on occasion, in these old homes landlords cannot afford to get rid of the mold and/or residents cannot afford heat in the winter to keep the house dry and free of mold. The migrant housing development has not reported an issue with mold. ARCHES reported that about 5-10% of their population served live in houses with mold. Some of the mold problems were significant enough to cause relocation of the resident. Mold seems to occur in areas where the income level is lower, particularly the northeast region of Marion County.

Seizing meth labs is uncommon in the Marion County region, decreasing to only 1 or 2 per year according to the Marion County Sheriff’s Office. However, some partners felt that the number of meth seizures per year does not accurately reflect meth activity in the county.

Top areas to focus resources			
Polk		Marion	
1. Mental Health	35.90%	1. Mental Health	32.00%
2. Maternal & Child Health	20.50%	2. Maternal & Child Health	22.30%
3. Primary Care	15.40%	3. Community Prevention Activities	10.70%
4. Overweight & Obesity	7.50%	4. Substance Abuse	7.80%
4. Substance Abuse	7.50%	5. Primary Care	4.90%

Based on the high interest in focusing resources on mental health and maternal/child health services key informant interviews were completed to explore what specific areas of mental health and maternal/child health services were most in need of resources. Key informants at the Early Learning Hub, Inc. voiced concern that there is not enough funding focus on prenatal and post-partum care in particular. Both interviewees said that access to these services was improving in Marion County but a major concern is transportation to access these services, particularly for low-income women and their families.

In terms of mental health, interviews were completed with Project ABLE, the Canyon Crisis Center in Stayton and a counselor working in the Woodburn School District. In particular, due to the lack of rural mental health care providers, these interviewees thought resources should be focused on transportation services to mental health care.

Top 5 Barriers to Accessing Health Care Services			
Polk		Marion	
1. Lack of Mental Health Providers	15.40%	1. Lack of Mental Health Providers	24.30%
1. Transportation Issues	15.40%	2. High cost of treatment	13.50%
3. Lack of Knowledge of Where to Seek Care	10.30%	3. Number of providers accepting new Medicaid patients	9.90%
3. High Cost of Treatment	10.30%	4. Lack of access to alcohol & drug treatment	8.10%
3. Lack of Knowledge about Public Health	10.30%	5. Childcare/lack of affordable care & transportation issues	7.20% (each)

With the implementation of health care reform it was surprising that “high cost of treatment” continues to be in the top five barriers perceived by community partners. A couple of key informant interviews were completed to inquire about the high cost of treatment. The consensus was, based on type of insurance coverage, not all services physicians recommended are covered, and when recommended services are not covered, many times they are too costly for patients. The interviewees said that these high cost issues are concentrated in the Oregon Health Plan, Medicaid, Medicare population, but apply to people with private insurance plans as well.

The survey for community members consisted of 21 questions, and included questions about health status, access to care, chronic disease, nutrition and physical activity behaviors, community safety and emergency preparedness, as well as demographic and socioeconomic information. The survey was available in both English and Spanish. It was determined that to achieve a 99% confidence level Marion County would need to collect about 2,000 surveys and Polk County would need to collect 500 surveys. Surveys were distributed via email and paper copies. A distribution list of 53 sites across Marion County and about 25 sites in Polk County, including churches, libraries and health centers were established. Each site could decide whether to distribute the survey electronically or via paper copies. If they selected electronic distribution they were provided with a link to a survey to share with clients. If they selected paper surveys, they were given a certain number of surveys, pencils and a box to collect the completed surveys. Health Department staff drove to each site and collected the surveys. In order to ensure representation from all parts of Marion and Polk counties, surveys were distributed to cities based on the percentage of the county population that city represents. For example, Woodburn makes up about 9% of the Marion County population, so 9% of the Marion County surveys were distributed to sites around Woodburn. The survey remained

open for about one month, until enough surveys were collected to assure confidence in findings. All paper surveys were manually entered into the online survey link by Health Department staff to merge the paper and electronic survey data. Responses that were left blank were removed from the data set. Results from this survey appear throughout this assessment in the Access to Care, Built Environment, Chronic Disease, and Marion County Says sections. For full report of community survey findings email Rachel Posnick at [rposnick@co.marion.or.us](mailto:rposnick@co.marion.or.us).

### **Phase 3: Forces of Change Assessment**

The purpose of this assessment is to discuss trends, factors and/or events that are or will influence health and the quality of life in the community. The Forces of Change Assessment was conducted with advisory boards and committees for United Way, Early Learning Hub, Inc, Salem Health, Marion County Health Department, Polk County Health Department and the Willamette Valley Community Health Clinical Advisory Panel. United Way, Salem Health, Early Learning Hub, Inc. and Willamette Valley Community Health serve both Marion and Polk counties. The Forces of Change Assessments were conducted by Health Department staff in all locations except for Salem Health. Notes were transcribed and grouped according to common themes. Common themes from both counties are identified below. County specific information is included throughout the assessment. All of the groups were asked the same questions.

1. What has occurred since 2012 that may affect our local health system?
  - Significant changes in access to health care services: The Affordable Care Act/Medicaid Expansion/Coordinated Care Organization development, integration of mental and physical health care services, not enough providers to keep up with increasing insured population
  - New Partnerships: Silverton Health and Legacy, Salem Health and Oregon Health and Sciences University
  - Change in health insurance plans: Rise in high deductible insurance plans, increasing copays and deductibles
  - Increasing population diversity: Minority and elderly populations increasing
2. What may occur in the next 5 years that will affect our local health system?
  - Marijuana Legalization
  - 2016 Election and pending changes in the Affordable Care Act policy
  - Increasing number of people dual-eligible (Medicaid & Medicare)
  - Increasing elderly population
  - Increasing population diversity and therefore medical needs
  - Retirement of physicians and not enough general practitioners to fill their spots
  - Public Health Reform
  - Transition to International Classification of Diseases-10 (ICD-10)
  - Earthquake
3. Are there any trends occurring that will have an impact on health in our community?
  - Legalization of marijuana
  - Increase in e-cigarette use and availability
  - Retail companies offering health care services in stores (CVS, Walmart, etc.)
  - Increasing obesity rates

- Increasing prescription drug costs as well as out of pocket health care expenses
  - Increasing drug use
  - Increasing Sexually Transmitted Disease rates
4. What situations/factors are occurring that impact health locally, regionally, nationally, and globally?
- Marijuana legalization
  - Debate over Genetically Modified Organisms (GMOs)
  - Technology that allows people to more closely monitor personal health behaviors (fitbits, phone apps, etc.)
  - Increased use of electronic cigarettes, especially in teens
  - 2016 election
  - Uber and other on demand transportation services
  - Social media
  - Changing population, living longer, increasing burden of chronic disease
  - Climate change
  - Poverty
  - Electronic Health Records
  - Consolidation of insurance companies
  - Increasing prescription drug costs
5. What may occur/has occurred that may pose a barrier to achieving our shared vision?
- Lack of trust and transparency between entities involved in the local health systems
  - Lack of communication
  - Fear of change
  - Future legislation regarding health care and health care services
  - Lack of health equity
  - Lack of funding for services
  - Natural disaster
  - Inequality in access to healthy foods
  - Shift from local to regional focus
  - Lack of providers
  - Lack of quality, affordable childcare
  - Lack of quality, affordable housing
  - Decreasing vaccination rates
  - Lack of access to services in rural areas

### **Phase 3: Local Public Health System Assessment**

This assessment answers the question, how are the 10 essential public health services being provided to our community and what are the components, activities, competencies, and capacities of our local health system. This assessment was last conducted in 2013. The report is located here:

<http://www.co.marion.or.us/HLT/communityassessments/Pages/default.aspx#swapTabTop>

#### **Phase 4: Identify Strategic Issues**

In order to identify strategic issues, five community forums were scheduled, three in Marion County, and two in Polk County. At each of these forums, preliminary data collected during Phase 3 of the MAPP framework was presented to attendees. The attendees were then asked to provide information about the health of their community. They were asked to define health, to provide thoughts about what was going well concerning health in their community, what was could be going better concerning health in their community, and what, if anything, they would change to increase the health of their community. This information was used to identify health priorities to focus on in the Community Health Improvement Plan, as well as gaps in services that need to be addressed by the local public health system.

**Phase 5: Formulate Goals and Strategies and Phase 6: The Action Cycle are contained in the Community Health Improvement Plan.**

# Acknowledgments

This Community Health Assessment would not have been possible without the support of the following individuals/organizations: 50+, Afton Sullivan (Polk County Public Health), Alinna Ghavami (Polk County Family & Community Outreach: Healthy Communities), Amanda Stevens (Polk County Public Health), Andy Casqueiro (Willamette Valley Providers Health Authority), Angie Docherty (Oregon Health & Sciences University School of Nursing), Anytime Fitness, Arielle LeVeaux (Polk County Public Health), Arturo Vargas (United Way of the Mid-Willamette Valley), Aumsville City Hall, Aurora City Hall, Batisse Wilson (Willamette Valley Community Health Community Advisory Council), Bill Bouska (Oregon Health Authority), Bill Guest (Willamette Valley Providers Health Authority), Caroline Larsen (Willamette Valley Community Health Community Advisory Council), Central School District, Chemeketa Community College, City of Donald, City of Mt. Angel, City of Scotts Mills City Hall, City of Sublimity, Colonia Libertad, Connie Lu (Marion County Public Health), Courthouse Fitness, Dallas Chamber of Commerce, Dallas Senior Center, Dallas School District, Department of Human Services, Detroit Post Office, Diana Dickey (Marion County Public Health), Early Learning Hub, Inc., Edgewater Partnership, Emily de Hayr (Marion County Public Health), Family YMCA of Marion and Polk Counties, Gail Saxowsky (Polk County Advisory Board), Geoffrey Carpenter (Americorps VISTA), Georgia Wilson (Oregon State University Extension), HALO, Jeanine Stice (Willamette Valley Providers Health Authority), Jefferson School District, Jessica Watson (Oregon Health & Sciences University School of Nursing), Jim Sapienza (West Valley Hospital), Jon Reeves (Mid-Willamette Valley Community Action Agency), Julia Humphreville (Marion County Public Health), Judith Morehead (Polk County Behavioral Health), Kacie Prado (Polk County Public Health), Kaiser Permanente, Kaitlyn Muller (Marion County Public Health), Katrina Rothenberger (Polk County Public Health), Kristen Buchanan (Polk County Public Health), Kristin Jordan (Salem Health), Lauren Benjamin (Santiam Hospital), Lena Stadelmann (Marion County Public Health), Lyndsie Schwarz (Marion County Public Health), Mackenzie Lafferty (Polk County Public Health), Margie Lowe (Early Learning Hub, Inc.), Marybeth Beall (Willamette Valley Community Health Community Advisory Council), Matthew Stevenson (Polk County Family & Community Outreach: Tobacco Prevention Education), Marion County Health Advisory Board, Marion County Board of Commissioners, Marion County Health Department, Melinda Veliz (Silverton Health), Mid-Willamette Valley Community Action Agency, Mill City Library, Mill City Crisis Center, Missy Allison (Marion County Public Health), Monmouth Independence Chamber of Commerce, Monmouth Library, Monmouth Senior Center, Mount Angel Abbey, Nancy Zoltner (Mid-Willamette Valley Community Action Agency), Northwest Senior Center, Northwest Senior and Disability Services, Nueva Amanacer, Oregon Child Development Coalition, Pam Cortez (West Valley Hospital), Pam Hutchinson (Marion County Public Health), Patty Vega (Marion County Public Health), Peter Davis (Marion County Public Health), Polk County Health Advisory Board, Polk County Behavioral Health, Polk County Family & Community Outreach, Polk County Health Department, Polk County Service Integration Team, Rachel Burdon (Kaiser Permanente), Rhoda Jantzi (Woodburn Pediatric Clinic), Salem Free Clinic, Salem Health, Salud, Salvation Army, Santiam Hospital, Santiam School District, Santiam Senior Center, Sara Campos (Marion County Public Health), Dr. Saucy, Scott Richards (Marion County Behavioral Health), Sharon Heuer (Salem Health), Silver Falls Library, Silverton Health, Silverton Together, St. Edwards Catholic Church, St. Paul School District, Stayton Library, Stuart Bradley (Willamette Valley Providers Health Authority), Dr. Suzanne Deschamps (Kaiser Permanente), Tonya Johnson (Oregon State University Extension), Turner City Hall, Union Gospel Mission, United Way of the Mid-Willamette Valley, Vedika Chalise (Marion County Public Health), Verena Wessel (Northwest



Human Services), West Salem Library. West Valley Hospital, Western Oregon University, Willamette University, Willamette Valley Community Health, Willamette Valley Community Health Clinical Advisory Panel, Willamette Valley Community Health Community Advisory Council, Willamette Valley Providers Health Authority, Woodburn Public Library, World Gym, and Yuritzky Glez (Woodburn Pediatric Clinic).

# Glossary

**Age-Adjusted Rates:** Age-adjusted rates allow you to compare event rates between two communities that have very different age distributions by standardizing both populations to the United States census population. This allows us to rule out that the difference in rates is due to age distribution in the community.

**Incidence Rate:** Describes the rate at which new illness enters the population over a specified time ((# of new cases of X)/(total population-those who cannot get disease X))

**Mortality Rate:** Describes the rate of death in a community over a specified time ((# of deaths)/(total population))

**Prevalence Rate:** Describes the burden of new and old cases of a specific disease over a specified time ((# of new cases + # of old cases)/(population))

**Healthy People 2020:** Healthy People provides science-based, ten year national objectives for improving the health of all Americans. Healthy People establishes benchmarks and monitors progress over time to: encourage collaboration across communities and sectors, empower individuals to make informed health decisions and measure the impact of prevention activities. Its mission is to: identify nationwide health benchmarks, increase public awareness and understanding of the determinants of health, disease and disability and the opportunities for progress, provide measurable objectives and goals that are applicable at national, state and local levels, engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge, and to identify critical research, evaluation and data collection needs. Its overarching goals are to: attain high-quality, longer lives free of preventable disease, disability, injury and premature death, achieve health equity, eliminate disparities and improve the health of all groups, create social and physical environments that promote good health for all, and promote quality of life, healthy development and healthy behaviors across all stages of life.

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