

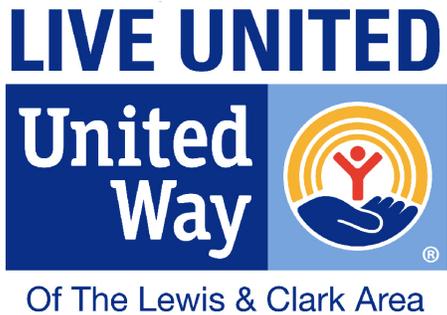
2018

Community

Health Report

Lewis & Clark County, Montana





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Compiled by Gayle Shirley, Systems Improvement Manager, Lewis and Clark Public Health.

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Front cover photo: Fog over Mount Helena City Park, from summit ridge, Helena MT. SuperStock/Alamy Stock Photo

Introduction

Greetings, Lewis and Clark County Residents,

Welcome to this, the latest effort to assess the health of our county. One of the hallmarks of public, or population, health is that it's evidence-based. In other words, public health policy is informed by impartial data. Lewis and Clark Public Health has been collecting this data for decades, but this year we asked a broad group of community partners to work with us. We call this partnership **Healthy Together**. You can see who's represented on our steering committee at the bottom of this page.



This report provides a snapshot of the health of our community with regard to chronic disease, communicable disease, environmental health, and mental health, among many other indicators.

In the past 5 years or so, researchers have realized that the conditions we live in play a big part of why some of us are healthier than others. We've known for decades that we need to eat well, stay active, avoid tobacco, get recommended immunizations and screening tests, and see a doctor when we're sick. But now we know that our health is also determined by what public health experts call "**social determinants.**" These include social and economic opportunities; resources and support available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. That's why you'll see these addressed throughout this report in addition to the more traditional health indicators.

For purposes of this report, we conducted a telephone survey of about 400 local residents at random to gauge their health conditions and behaviors. We also surveyed about 300 "key stakeholders" by email to get their perceptions about the pressing health issues facing our community. A summary of these surveys is included on **page XX**.

This report will serve as the basis for a community health-improvement planning process, or CHIP, that we'll launch in January 2019. We've invited dozens of people representing business, government, schools, nonprofit and civic organizations, service providers, and others to serve on a Healthy Together Task Force that will meet regularly to:

- review and compare county, state, and national data;
- prioritize county health issues and needs;
- develop goals and objectives to meet those needs; and
- review progress toward those goals and objectives.

This process will be an ongoing opportunity to develop a common agenda for the entire community. It will help all of us to focus our energy and resources and to support policies, projects, and programs that will be most effective in improving the health of the people we serve. If you'd like to learn more, contact Gayle Shirley, Lewis and Clark Public Health, at gshirley@lccountymt.gov

Best wishes from The Healthy Together Steering Committee

Lori Ladas, Director, Rocky Mountain Development Council

Jaime Larese, Wellness Manager, St. Peter's Health

Alison Munson, Director, United Way of the Lewis and Clark Area

Drenda Niemann, Health Officer, Lewis and Clark Public Health

Gayle Shirley, Systems Improvement Manager, Lewis and Clark Public Health

Jill Steeley, Director, PureView Health Center

Summary of Findings

Factors That Affect Health

What makes some people healthy and others not? Many factors combine to affect the health of individuals and communities. Together, these factors are called **determinants of health**. Scientists generally recognize five of them: genes and biology, health behaviors, social and economic factors, physical environment, and availability of quality medical care. The interrelationships among these factors determine both individual and population health.

- **Genes and Biology**

Biological and genetic factors generally fall outside the scope of public health, so we don't address them in this report. Some examples include age, gender, and heredity. Most often these are factors that are difficult, if not impossible, to change.

- **Health Behaviors**

Many efforts to improve health focus on changing individual behaviors, such as alcohol and drug abuse, tobacco use, diet, physical activity, seat-belt use, sleep patterns, and hand washing. These are factors that we have the ability to improve.

- **Social and Economic Factors**

Together with our physical environment, these factors are called **social determinants of health**. They've become an increasingly important focus of public health in recent years as we strive to achieve **health equity** – the factors related to where we choose to live, learn, play, and work.

Examples of social and economic factors include poverty, education, social and community connections, access to quality health care, exposure to crime, and food security. When we address the social determinants of health, we strive to give everyone a chance to live a healthy life.

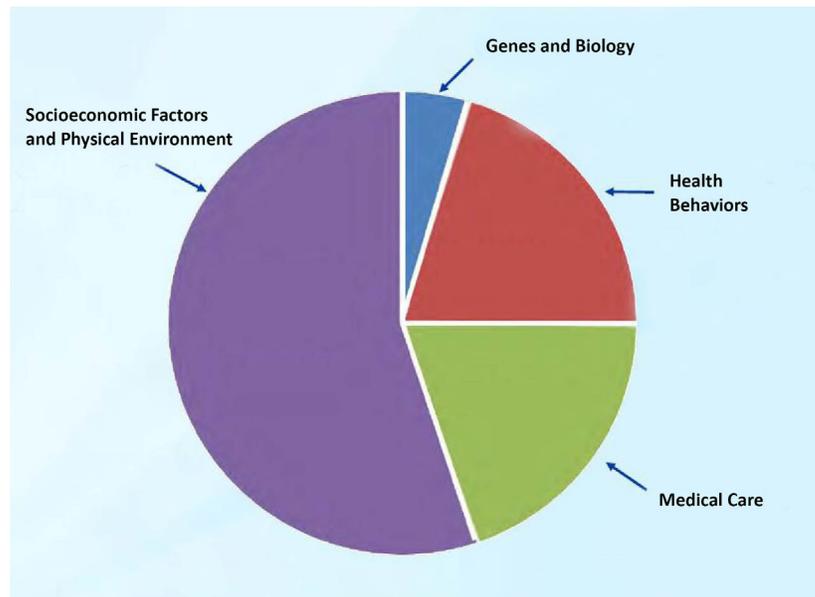
- **Physical Environment**

People interact with their environment constantly, and these interactions affect our length and quality of life. The World Health Organization estimates that environmental factors account for about 25% of all disease. Our physical environment includes not only the natural environment, but also the environment we build to live in, called the "built environment."

Examples of environmental factors include weather, housing, transportation, worksites, physical barriers (especially for people with disabilities), clean air and water, and exposure to toxic substances and other physical hazards.

- **Medical Care**

Access to health-care services and the quality of those services can greatly impact a person's health. For example, a person who doesn't have health insurance is less likely to seek preventive care and more likely to delay medical treatment. Expensive services and lack of medical providers are other barriers that can impact health.



Relative Impact of Determinants of Health

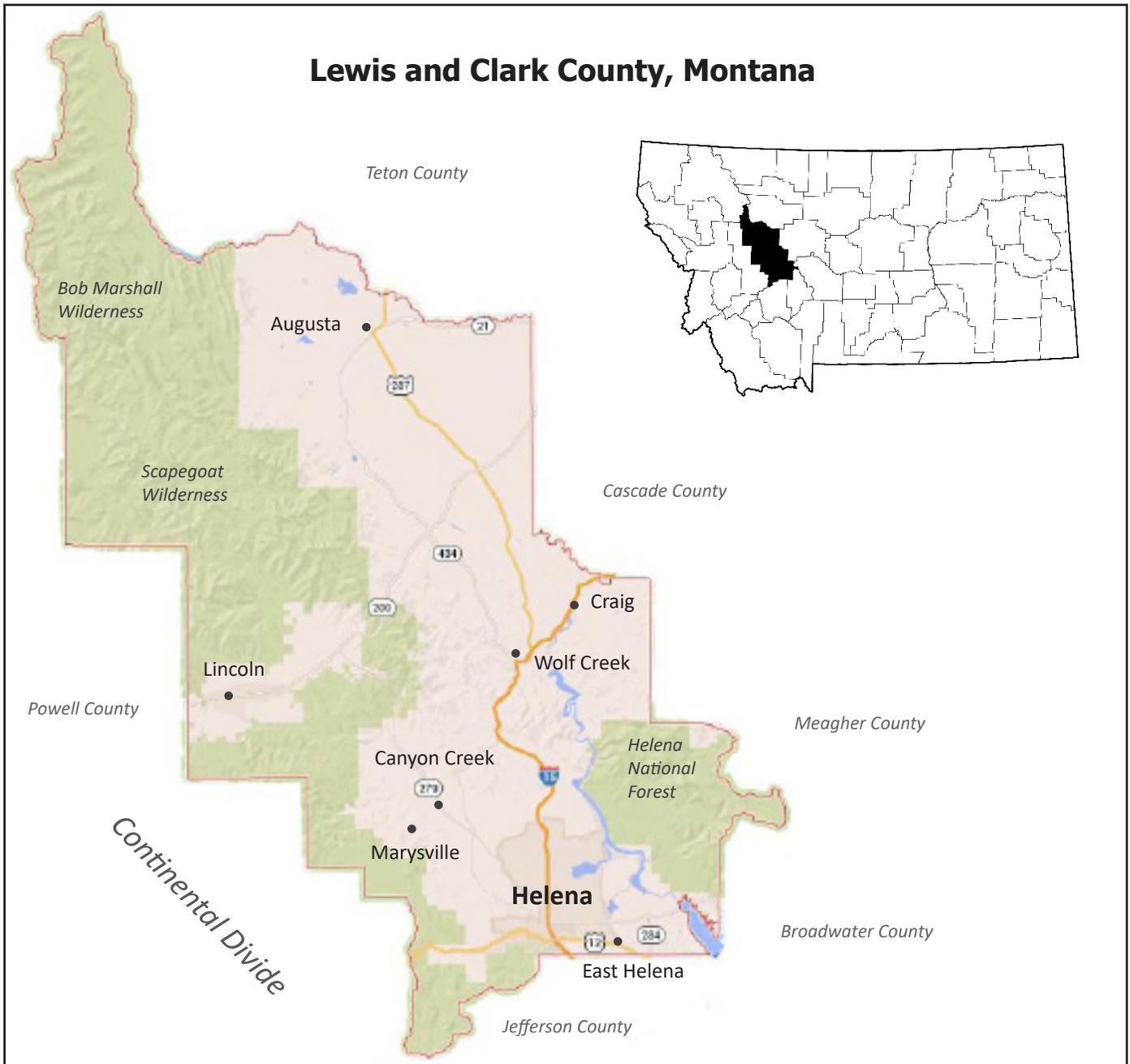
These are estimates of the extent to which various factors influence population health, as identified by the Centers for Disease Control and Prevention.

Community Profile

Location and Geography

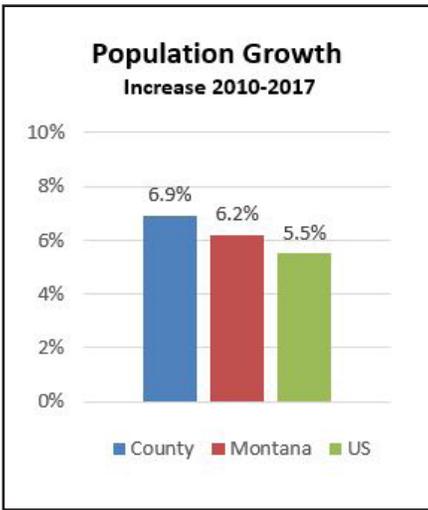
Lewis and Clark County was established in Montana Territory in 1864. It covers 3,497 square miles in west-central Montana on the eastern slopes of the Continental Divide and has an average elevation of 4,724 feet. Much of the northern and western parts of the county are mountainous and include portions of the Bob Marshall and Scapegoat wilderness areas. The Rocky Mountain Front and Missouri River are also popular attractions.

The county usually has warm, dry summers and moderately cold winters. At times in the winter, cold air becomes trapped by temperature inversions in the Helena Valley. Along with the common use of wood-burning stoves and fireplaces, this periodically leads to episodes of poor air quality.

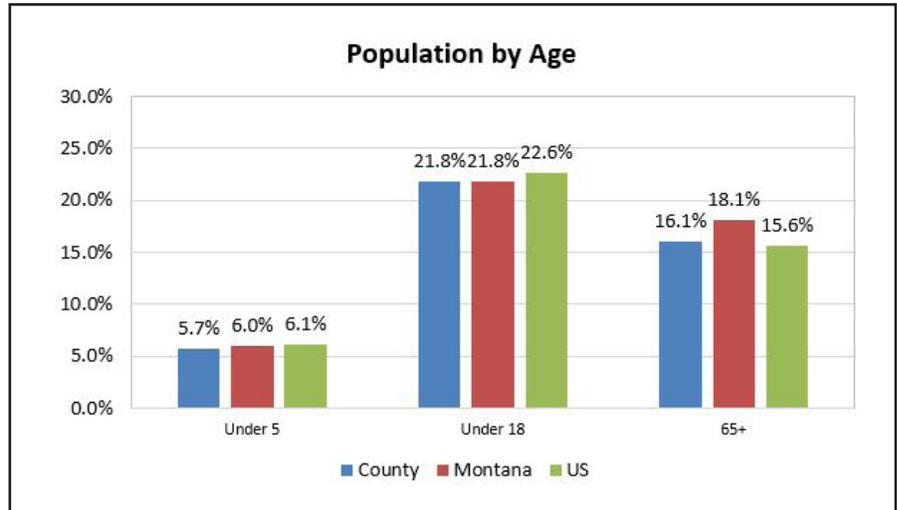


Population

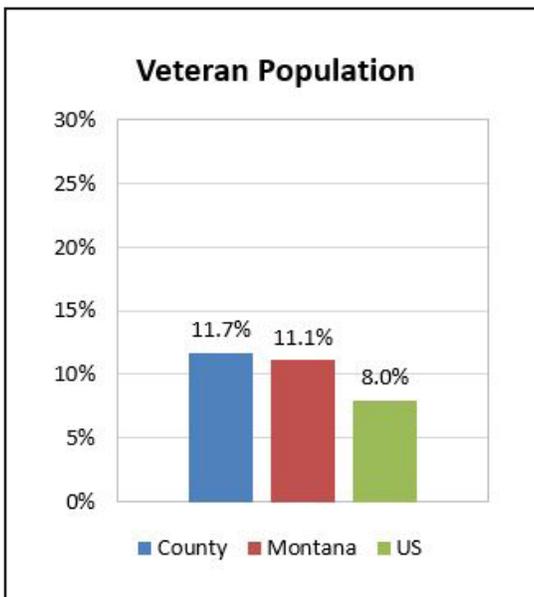
The U.S. Census Bureau has estimated the population of Lewis and Clark County in 2017 to be 67,773. In 2010, when the last national census was held, the population was 63,395. This represents an increase of 6.9%. Population density in 2010 was 18.3 people per square mile. Almost half of county residents (46%) live within the city limits of Helena, which is the county seat and the state capital. Smaller rural communities include Augusta, East Helena, Lincoln, Canyon Creek, Craig, Marysville, and Wolf Creek. All but East Helena are unincorporated. The median age in the county is 41.2 years old, compared to 39.8 in the state and 37.7 in the U.S..



US Census, American FactFinder, 2016

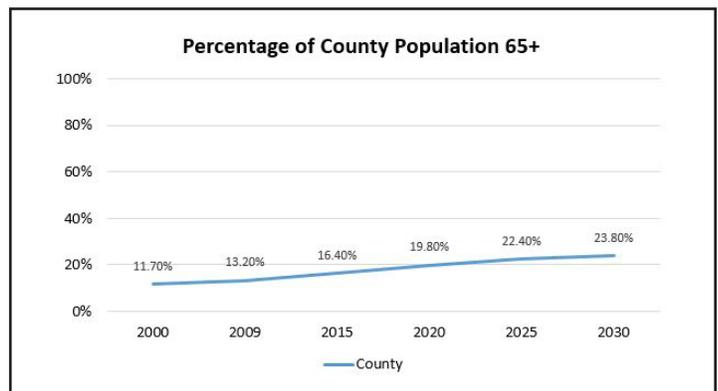


US Census, American FactFinder, 2016



US Census, American FactFinder, 2016

- **Veterans.** Due perhaps to the location of the VA Medical Center and the Montana Army National Guard at Fort Harrison in Helena, Lewis and Clark County has a higher percentage of veterans than the U.S. in general.



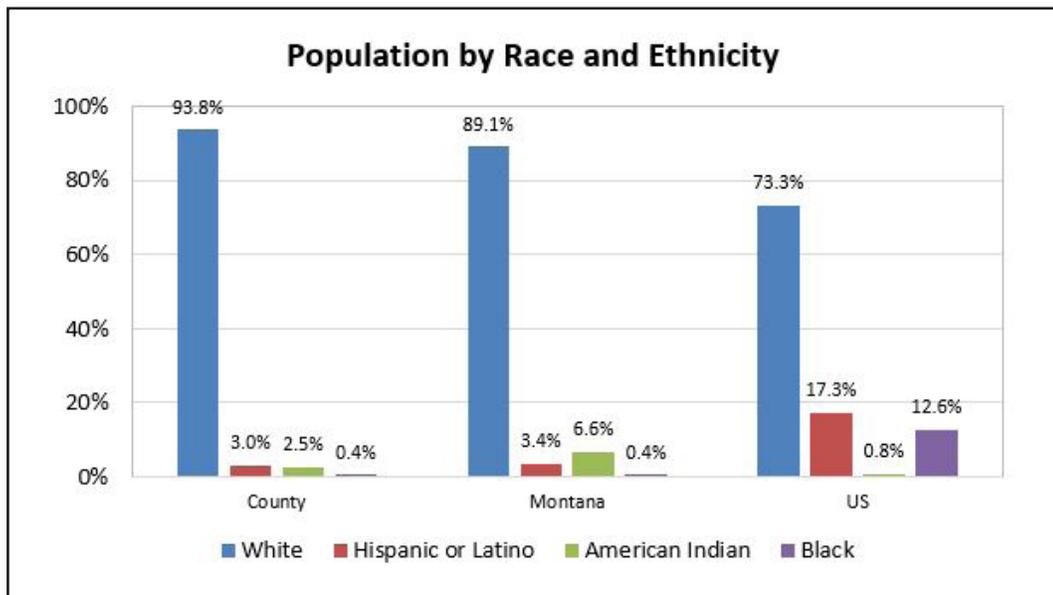
MT Dept. of Public Health and Human Services, Aging Population Maps

Population: Race, Ethnicity, and Language

The demographic makeup of a community is important to consider when setting health priorities. Different age, gender, and racial groups face different health concerns and can require different types of health interventions. So it's important to be aware of population estimates based on those categories.

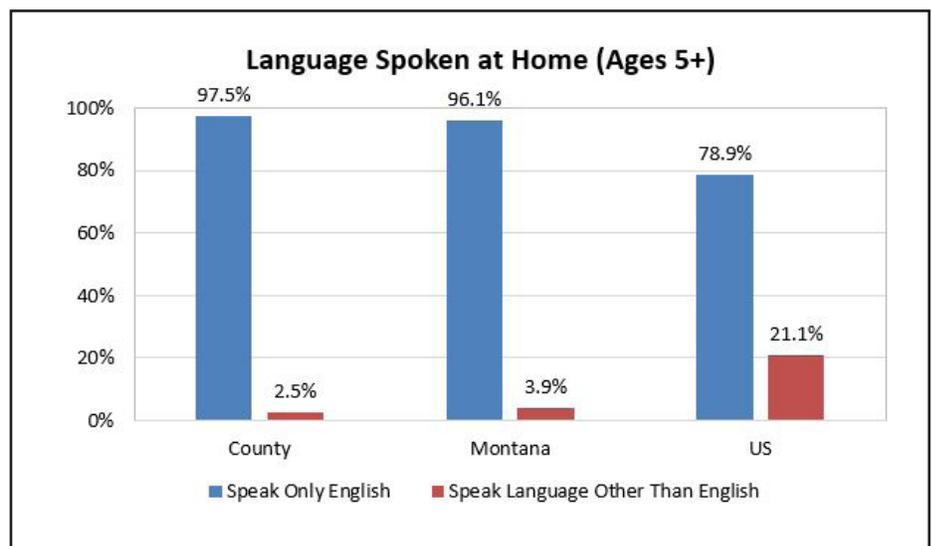
Residents of Lewis and Clark County are mostly white (93.8%). The largest minorities are Hispanic/Latinos and American Indians. While there are no American Indian reservations within county borders, non-reservation Indians live in Helena and other parts of the county and have access to the Helena Indian Alliance and Leo Pocha Clinic.

Between 2000 and 2010, the Hispanic/Latino population in Lewis and Clark County grew by 87.7%, according to U.S. Census data. This represents more growth than statewide and nationally.



US Census, 2012-2016 American Community Survey 5-Year Estimates

- Language.** English is the most common language spoken in the county. Nonetheless, language accommodations can reduce barriers to access for health and social services for those who speak another language.

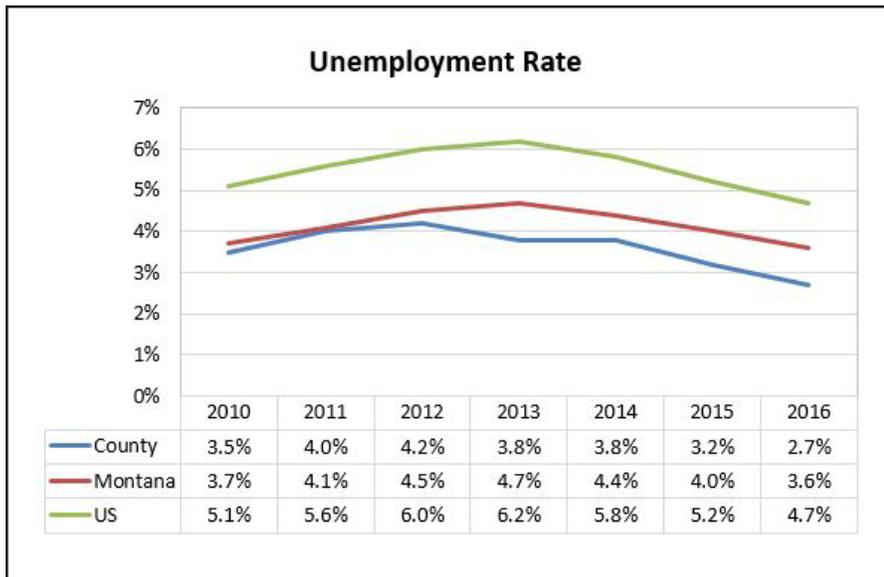


US Census, 2012-2016 American Community Survey 5-Year Estimates

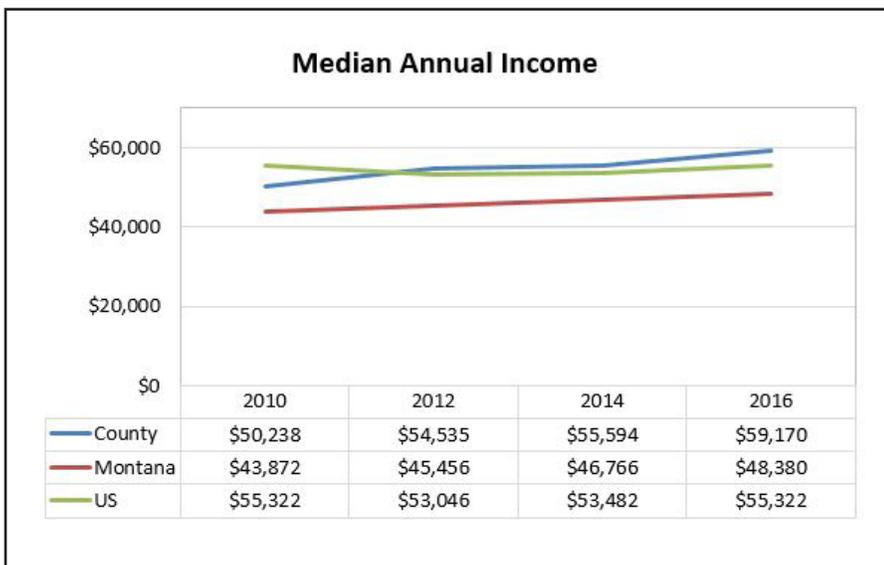
Economic Stability

Lewis and Clark County residents generally are better educated, more likely to be employed, and better paid than other residents of the state and the nation as a whole. According to the Montana Department of Labor and Industry, “Helena is known for its record of economic stability, owing in large part to government employment, which claims roughly one-third of Helena’s workforce.”

This translates to better overall health because steady employment and a living wage provide a crucial foundation for health and wellbeing. That said, our county is not without people in poverty. Residents who are unemployed or who live on inadequate incomes may not have health insurance or get preventive care because of the cost. According to the World Health Organization, those living in poverty are more likely to have higher than average child and maternal deaths, more limited access to health care, and higher levels of disease.



MT Dept. of Labor and Industry; U.S. Dept. of Labor, Bureau of Labor Statistics



2012-2016 American FactFinder Survey 5-Year Estimates

Top 20 Private Employers (100 + Employees)

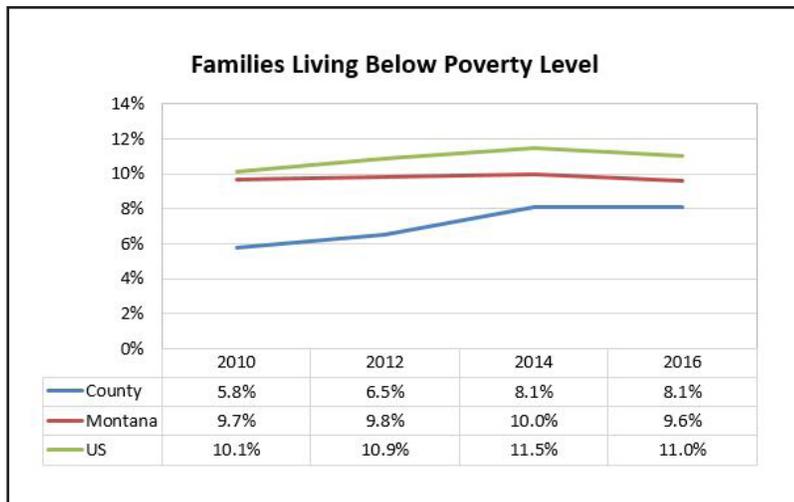
- A 2 Z Personnel
- Albertsons
- American Chemet
- Blue Cross Blue Shield of MT
- Boeing
- Carroll College
- Costco
- Intermountain Children’s Home
- Lowes Home Center
- McDonald’s
- MT Independent Living Project
- Rocky Mountain Dev. Council
- Salvation Army
- Shodair Hospital
- St. Peter’s Health
- Touchmark
- Town Pump
- Valley Bank
- Walmart
- West Mont

MT Dept. of Labor and Industry

Economic Stability: Poverty

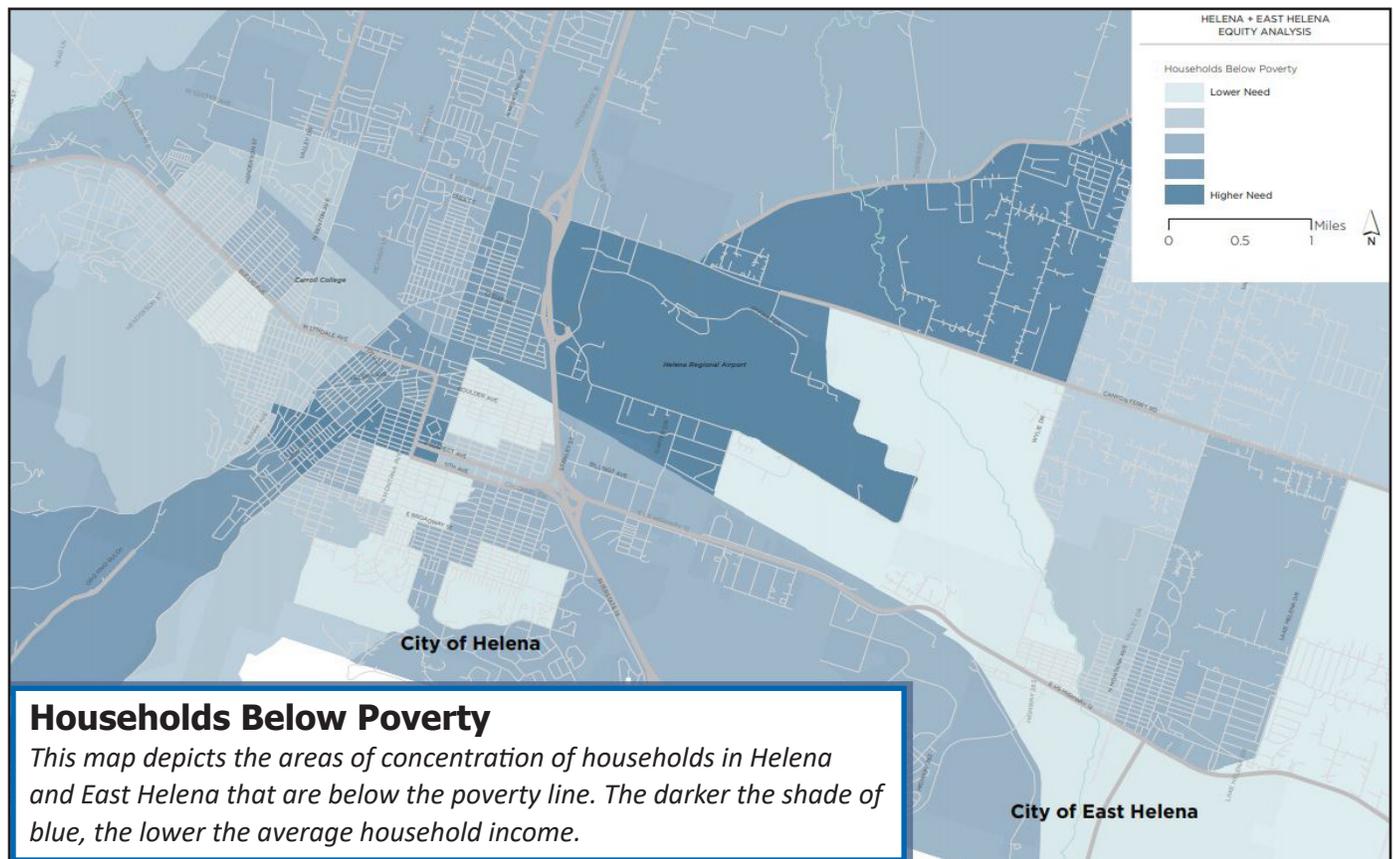
Many government programs base eligibility on a person’s income as it compares to poverty guidelines set each year by the federal government. Often, participants in these programs are allowed to earn amounts above the poverty level. For example, Medicaid is available to families whose income is 138% of the poverty level. The Affordable Care Act provides insurance subsidies for households between 138% and 400% of the poverty level.

In 2018, a person earning less than \$12,140 a year was deemed to be living at the federal definition of poverty. A family of 2 could earn \$16,460, while a family of 4 was considered poor if earning under \$25,100 a year.



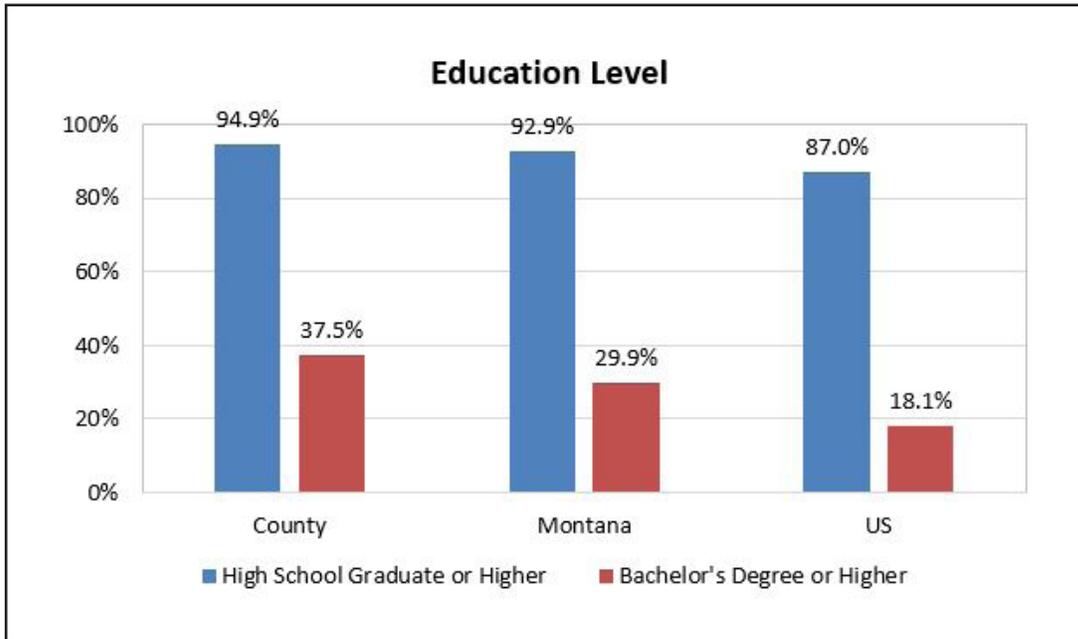
US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

Poverty is not evenly distributed throughout Helena and East Helena. The map below was produced for a March 2017 publication, “Greater Helena Area Active Living Wayfinding System.” The publication was produced by Alta Planning and Design and made possible by grants from the American Planning Association, American Public Health Association, and National Association of Chronic Disease Directors. The darker the shade of blue, the lower the average household income level in that particular neighborhood.

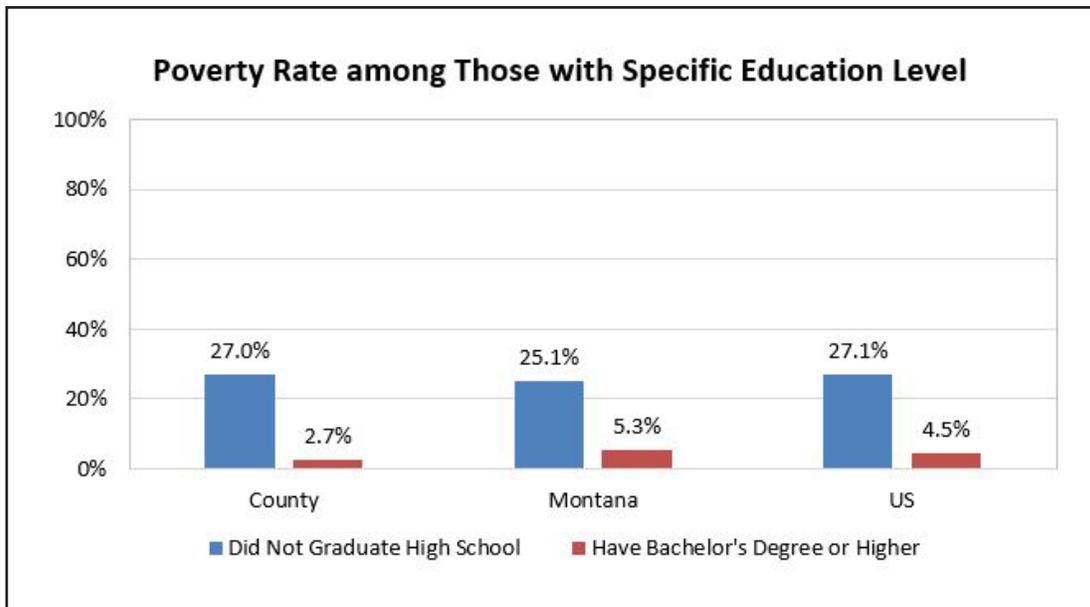


Education

Education – from preschool through college – is a social determinant of health. While the links between education and health are complex, the opportunities that education provides are closely tied to a healthy life. People with more education are more likely to earn higher salaries. They're more likely to live in communities with greater resources, like better schools and access to nutritious food, health services, and transportation. They're also more likely to have the knowledge and skills to support healthier behaviors.



US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

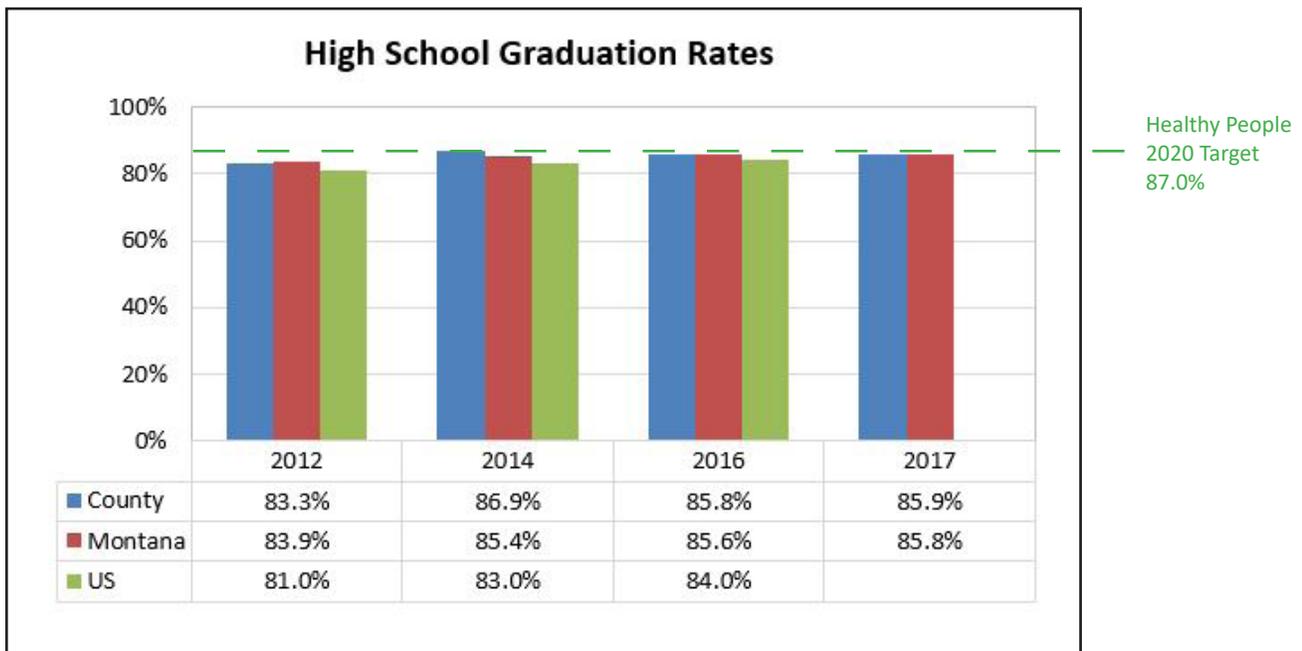


US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

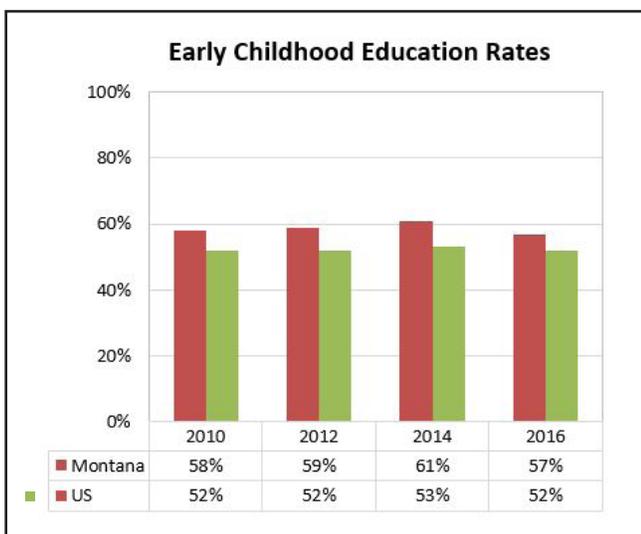
Education

High school graduates tend to lead longer and healthier lives than those who drop out. This is partly due to a graduate’s ability to earn more money and afford better health care and housing in safer neighborhoods. By completing a high school education, graduates also have an opportunity to learn more about healthy behaviors, like healthy eating and physical activity. Graduates are more likely to practice these healthy behaviors and ultimately have a better chance of growing a strong social support network.

Many students don’t graduate because they have to get a job or provide care for a relative or child. Common barriers to graduation include bullying, absenteeism, undiagnosed or unmanaged physical or mental health issues, and chronic stress related to social and environmental circumstances.



MT Office of Public Instruction; National Center for Education Statistics



Kids Count Data Center, Annie E. Casey Foundation

- Early Learning.** Childhood development is an important determinant of health over a person’s lifetime. Children in low-income families often are exposed to more traumatic events during childhood and to environmental factors that delay or compromise their development. This can hurt their chances for healthy growth and school readiness.

High-quality early childhood education, such as preschool, is pivotal for a child’s physical, social, emotional, and intellectual development, according to the American Public Health Association. Parents with higher levels of education are more likely to enroll their kids in preschool.

Child Care

Decades of brain science have shown the tremendous development that occurs in the first 3 years of life, and caregivers are second only to parents in the influence they can have on this development. So it's critical that infants and toddlers have access to the best possible care. A shortage of licensed child care has significant impacts on children and their families. When working families can't find care, they may leave the workforce altogether or rely on a patchwork of arrangements in unlicensed programs or through extended family members, friends, or neighbors. Such informal care arrangements lack the safeguards and quality standards that protect children in licensed care.

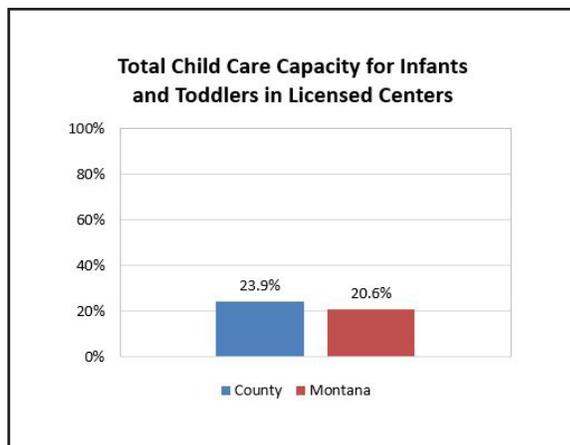
Nearly 60 percent of American mothers with a child younger than age 3 are working. Given the price of raising a child, many can't afford to take significant time off or leave the workforce. The high cost of child care adds to the stress on their families.

The average cost of providing infant care in the United States is estimated at nearly \$15,000 a year, more than 20% of a typical family's income, according to the Center for American Progress. A recent survey indicated that younger children's parents are more likely to report lack of availability as the main reason they have trouble finding care.

Availability of quality licensed care is also an issue. The chart at lower left shows what percentage of the total number of infants and toddlers in the given geographic area would fill all existing slots in licensed child-care facilities.



Economic Policy Institute, State of Working America Database, 2016



Center for American Progress, 2018 Report

Licensed Child-Care Facilities in County

- Family Group Care: 41
- Child Care Centers: 37
- Head Start Programs: 8

Child Care Connections, Helena MT

Housing

Housing is another important social determinant of health, and it's become a major public health issue. Poor housing conditions and lack of affordable housing have been associated with a wide range of health conditions, including injuries, asthma, cancer, diabetes, heart disease, and poor mental health.

People are healthier when they live in an environment that's safe, dry, clean, well maintained, well ventilated, and free of pests and contaminants, like lead, radon, and carbon monoxide. They're more likely to have safe drinking water, effective waste disposal, better nutrition, more community engagement, and better peace of mind.

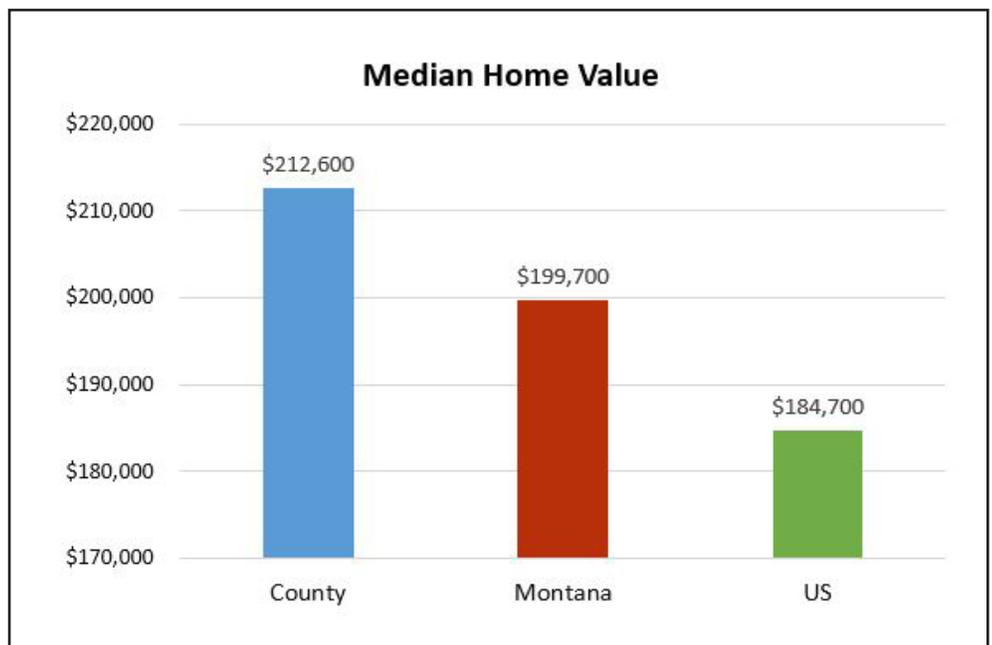
In January 2018, a Tri-County Housing Task Force began a series of focus groups to get information on housing issues and trends in Broadwater, Jefferson, and Lewis and Clark counties. The group found that new construction is not keeping up with the growth in county population, which means not enough housing is available. Both the Helena Housing Authority and Rocky Mountain Development Council reported that there are waiting lists for subsidized housing.

69%
of county residents
own a home

US Census Bureau

67%
of housing units in
the county are single-
family homes

US Census Bureau



US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

• **Homelessness.** In 2017, United Way of the Lewis and Clark Area worked with local partners to launch Greater Helena Area Housing First. The goal of the program is to identify people who are homeless and connect them with housing and other services. From September 2017 through November 2018, the program worked with 278 adults, 23 youth aged 18-24, and 62 families. But United Way believes “there are way more people experiencing homelessness in our region than are captured by this information.” Many may not have participated out of fear or distrust, or for other personal reasons.

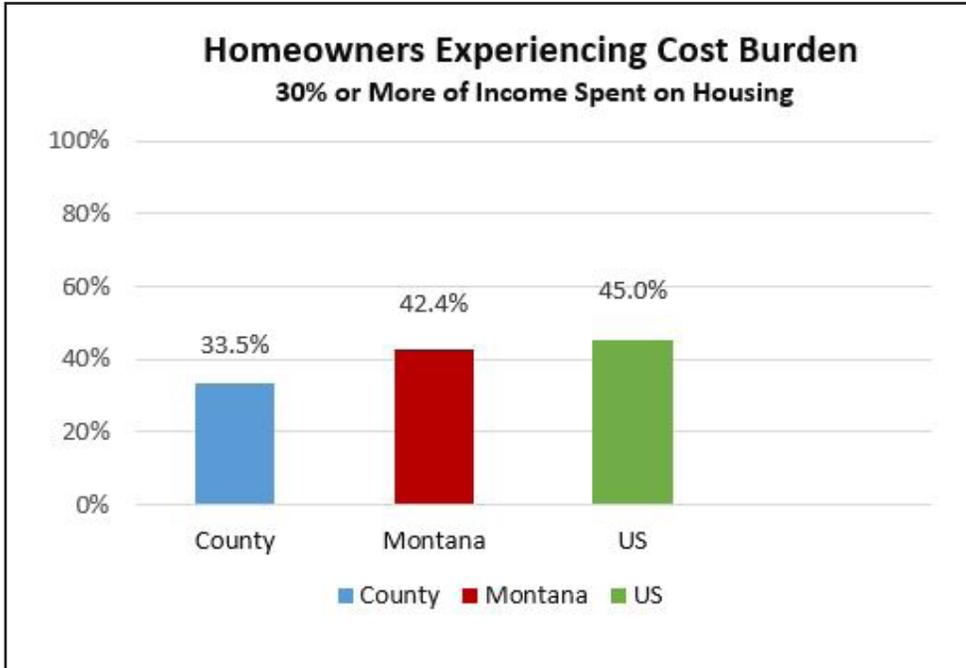
People who are homeless have high rates of chronic physical and mental health conditions, substance abuse disorders, and barriers to getting health care. They tend to overuse emergency services, leading to higher treatment costs. Because food and shelter are higher priorities, they often put off going to a doctor until a problem is life-threatening. Reducing homelessness is a vital step toward a healthier county.

62%
of county residents
identifying as
homeless in January
2018 were male.

HUD Point in Time Survey

Housing: Cost Burden

The cost of housing in Lewis and Clark County can be a barrier to home ownership. The U.S. Census considers anyone paying 30% or more of their household income on housing to be experiencing a “cost burden.” Those paying more than half their income are considered “severely cost burdened.”



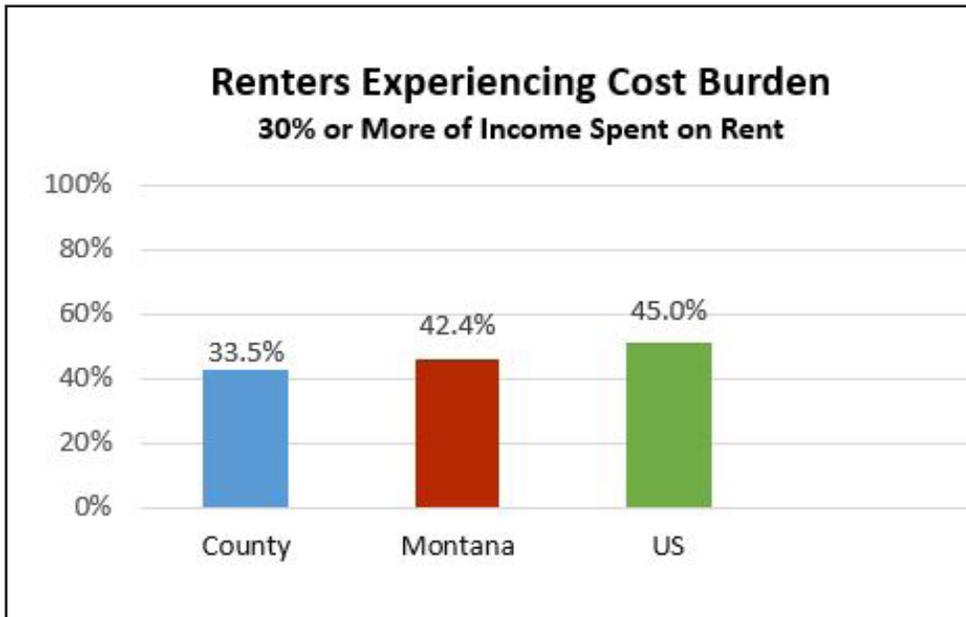
US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

\$1,352
median monthly mortgage in the county

US Census Bureau

\$802
median monthly rent in the county

US Census Bureau



US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

16.3%
of county residents are always, usually, or sometimes worried about paying rent or mortgage

2018 PRC Community Health Survey

\$17.37
hourly wage needed to rent an average 2-bedroom apartment in the county

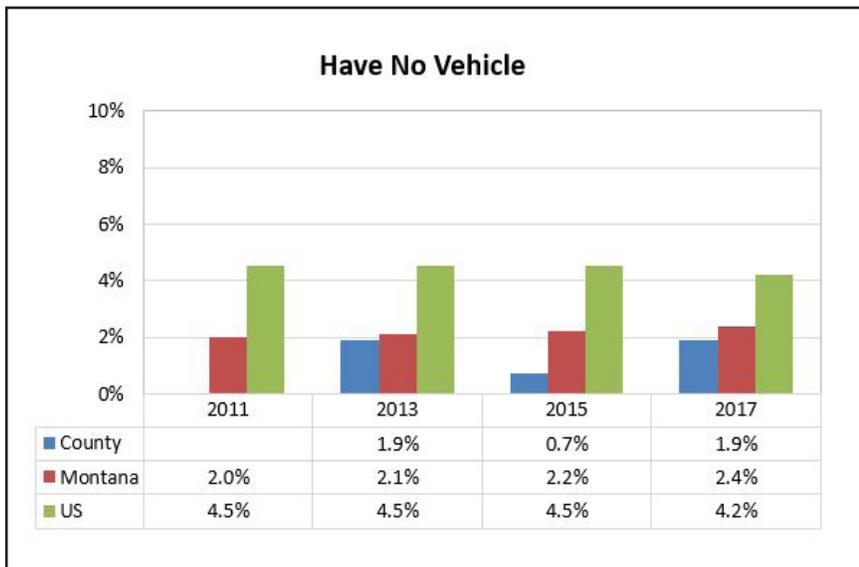
2018 Tri-County Housing Assessment

Transportation

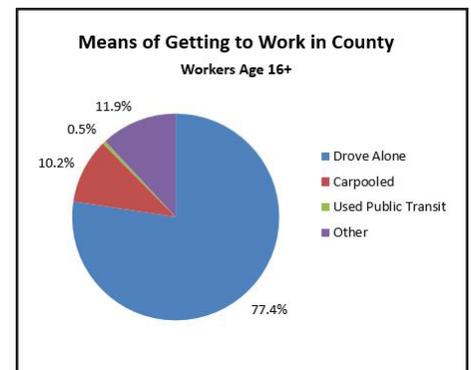
Transportation is one of the social and economic factors that affects the health of individuals and communities. Health costs associated with transportation – like traffic crashes, air pollution, and physical inactivity – add up to hundreds of billions of dollars in the nation each year. Yet health is often not considered by those who make transportation policy.

Many studies have found that walkable, bikable, transit-oriented communities have healthier populations. People in such communities are more physically active, gain less weight, have fewer traffic injuries, and are exposed to less air pollution. Communities that invest in sidewalks, bike lanes, trails, public transit, and other infrastructure that supports physical activity can improve health and lower health-care costs.

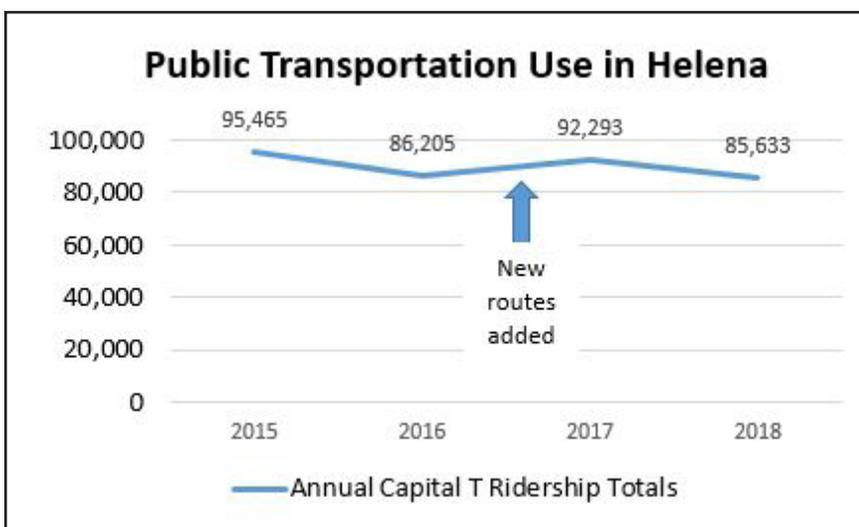
The cities of Helena and East Helena share a public bus system called Capital Transit. But more rural areas of the county don't have public transportation, which can mean less access to healthy foods, health care, and steady, well-paying jobs.



US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates



US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates



Capital Transit, Helena MT

Air Quality

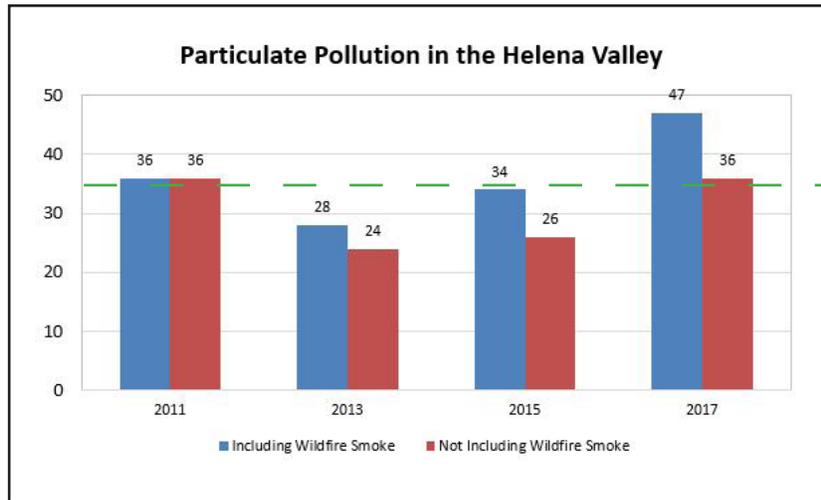
Lewis and Clark County has been at risk of violating EPA health-based standards for fine particulate matter (PM_{2.5}) for the past 7 years. To address this, the health department monitors fine-particulate air pollution in a designated Air Pollution Control District that includes Helena, East Helena, and their immediate surroundings. It also enforces outdoor air-quality regulations adopted by the county in 2011 to control emissions of PM_{2.5}.

Fine-particulate air pollution includes soot, combustion byproducts, and liquid pollutants. A 2012 study by the health department found that the use of wood stoves is the greatest contributor to this type of pollution.

Particulate pollution contributes to and worsens asthma, chronic obstructive pulmonary disease (COPD), lung cancer, heart disease, and diabetes. Children and people over age 65 are particularly vulnerable.

The graph at right shows the average annual amount of fine particulate pollution (PM_{2.5}) in the air over 24 hours. Under the federal Clean Air Act, the EPA has set 35 ug/m³ as the maximum amount of this particulate that can be present in the air. Anything over this amount is considered harmful to public health and the environment.

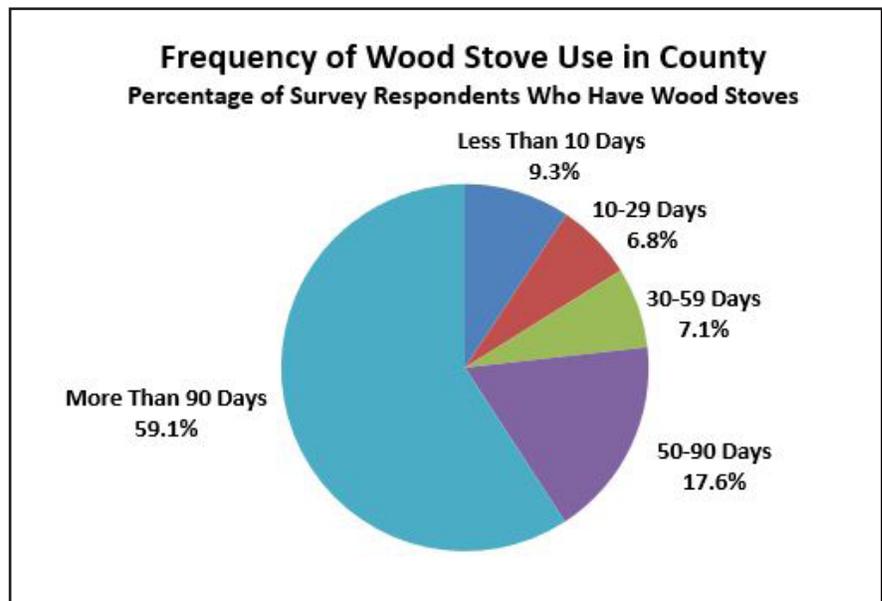
The EPA does not consider particulate caused by wildfire smoke when it determines a county's compliance with air-quality standards. That's because county officials have little control over wildfires. But from a health perspective, bad wildfire seasons contribute to air pollution and poor health.



Lewis and Clark Public Health, Environmental Services Division

22.6%
of county residents use a wood stove to heat their home

2018 PRC Community Health Survey



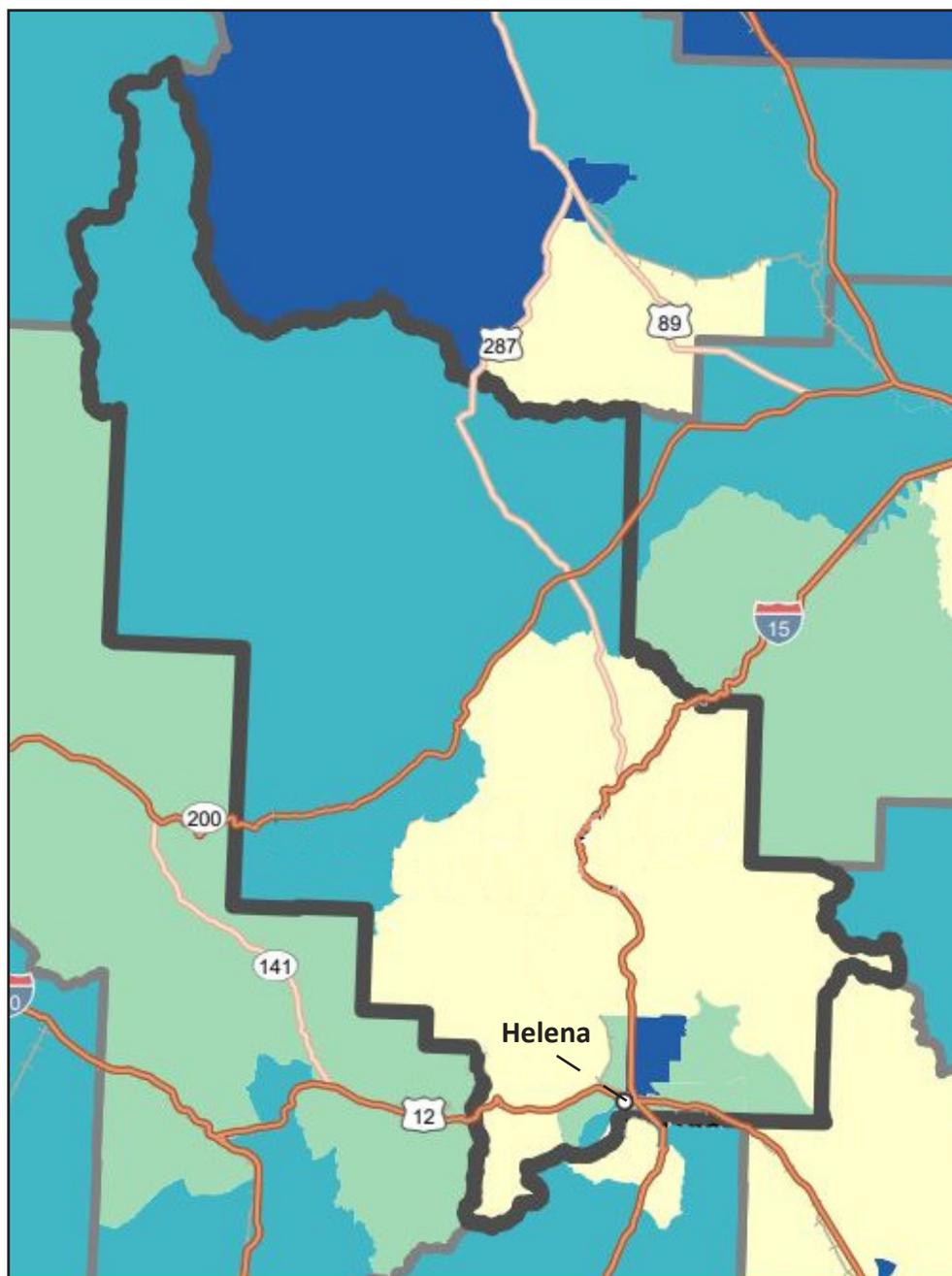
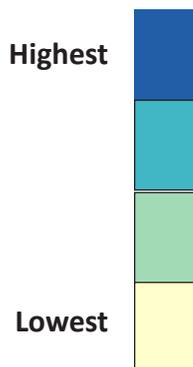
2018 PRC Community Health Survey

Vulnerability to Disaster

Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events, like natural disasters, human-caused disasters, or disease outbreaks. This map shows the vulnerability of Lewis and Clark County at a census-tract level.

The map groups 15 census variables related to 4 themes (socioeconomic status; disability and household composition; race, ethnicity, and language; and housing and transportation). It summarizes the county's varying vulnerability to disaster.

Lewis & Clark County Vulnerability Level

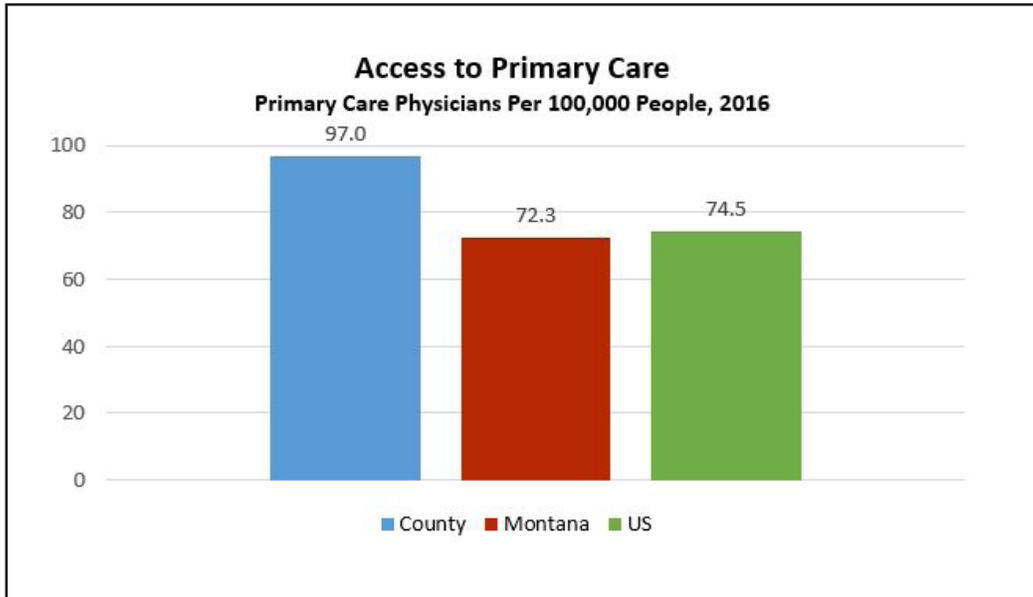


2016 CDC Social Vulnerability Index

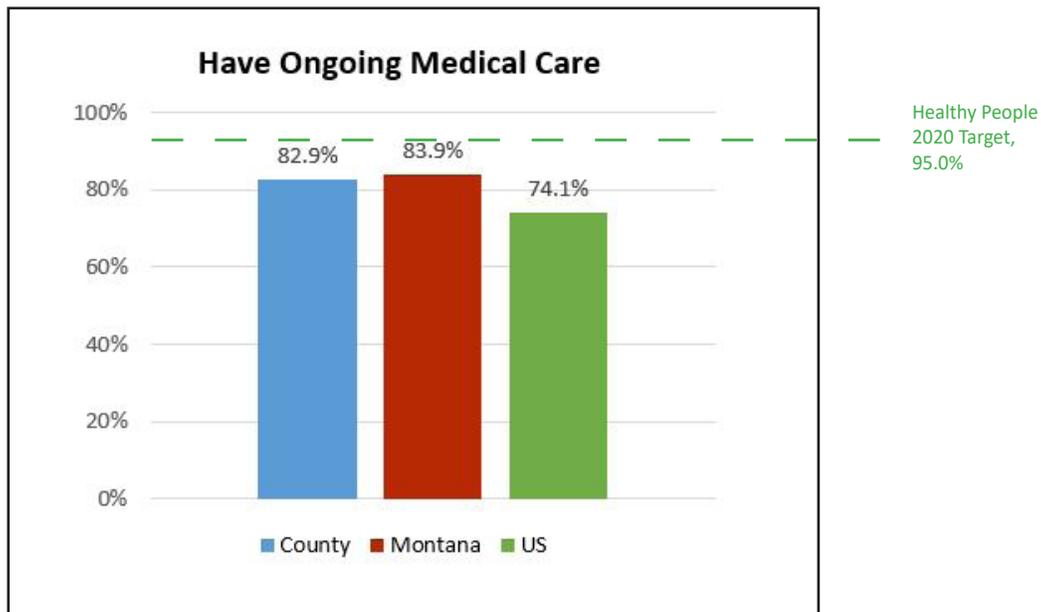
Health Indicators

Access to Health Care

A person's ability to access health services has a profound effect on every aspect of his or her health. Increasing access to affordable health insurance and routine medical care is vital to improving both individual and community health.



Center for Health Workforce Studies, University of Washington



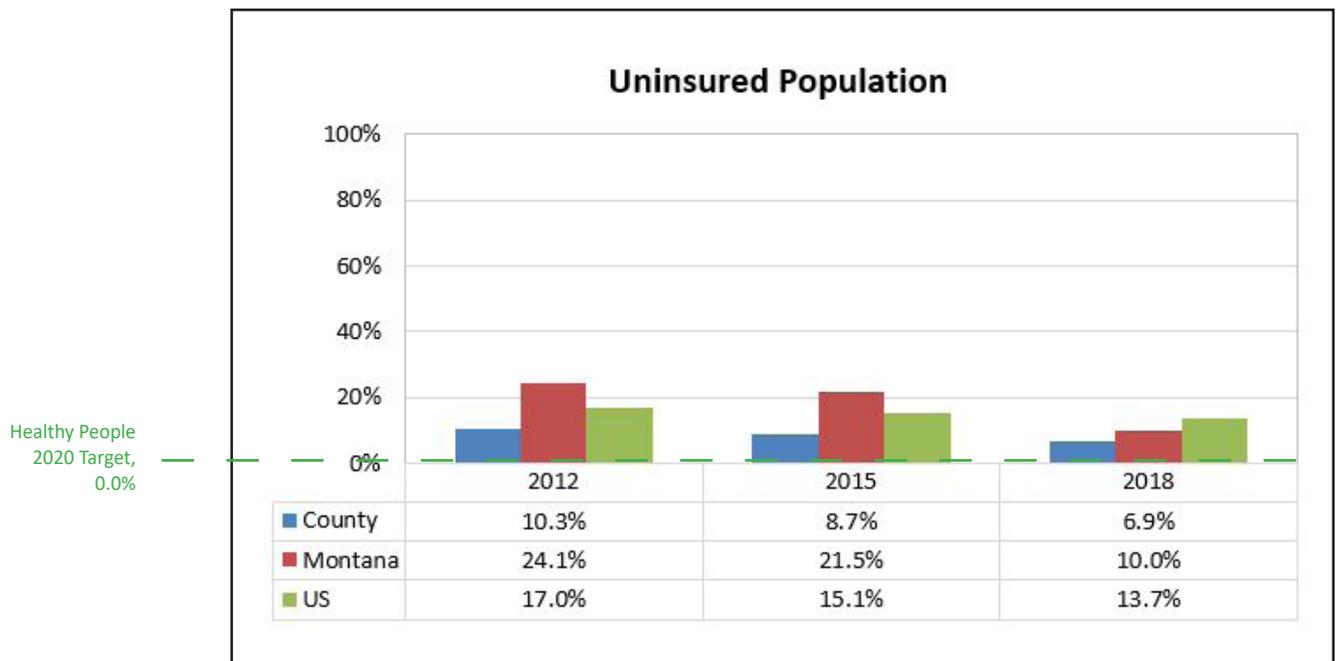
2018 PRC Community Health Survey

Access to Health Care: Insurance

Health insurance coverage is the key that unlocks the health-care system. Lack of adequate coverage makes it difficult for people to get the health care they need. When they do get care, they can be burdened with large medical bills. Uninsured people are more likely to be in poor health, to be diagnosed with medical conditions later, and to die prematurely.

Passage of the Affordable Care Act in 2010 has helped millions of adults to gain health insurance coverage. But federal data show there have been significant disparities in access based on sex, age, race, ethnicity, education, and family income, according to Healthy People 2020. Disparities also exist by geography; many rural residents lack access to primary care because of workforce shortages.

As of Sept. 1, 2018, more than 96,000 Montanans -- or 9.4% of the state population -- were enrolled in Medicaid. The program is the largest source of medical and health-related coverage for Americans with a low income and limited resources. The 2015 Montana Legislature expanded the program to cover all adults ages 19-64 with incomes less than 138% of the federal poverty rate.



US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

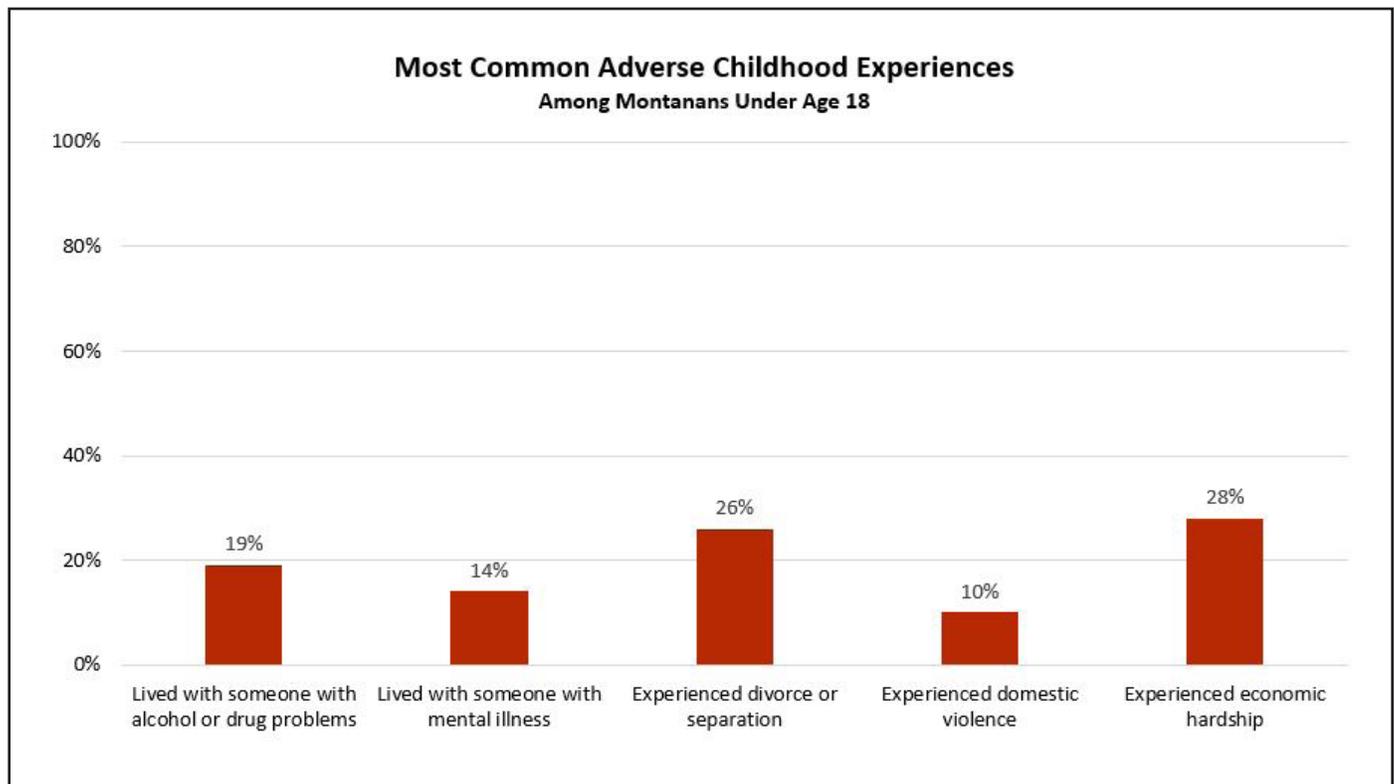
8.5%
of county residents are enrolled in Medicaid under the expansion (2018)

MT Medicaid Expansion Dashboard, DPHHS

Adverse Childhood Experiences

In recent years, the effects of childhood trauma have been understood through the lens of Adverse Childhood Experiences (ACEs). These are identified using a 10-question assessment scale that measures exposure to verbal, sexual, and physical abuse; domestic violence or economic insecurity or neglect; caregiver substance use or mental illness; and parental separation, divorce, or imprisonment.

Researchers studying the health and mental health consequences of ACEs have found a strong correlation between exposure to ACEs (including abuse and neglect) and poor health and well being in adulthood. According to the National Survey of Children’s Health, Montana has among the highest reported ACE scores in the U.S.



MT Dept. of Public Health and Human Services, 2018 Strategic Plan

52%
of Montanans under age 18 report having at least one adverse childhood experience (ACE).

17%
of Montanans under age 18 report having 3 or more ACEs.

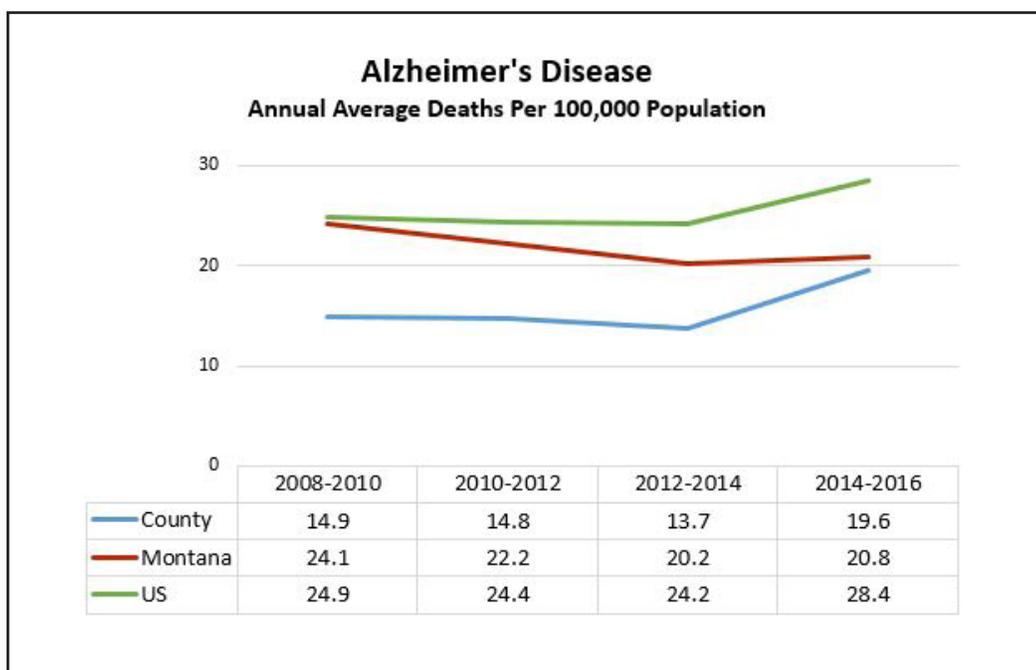
MT Dept. of Public Health and Human Services

Alzheimer's Disease and Dementia

Dementia is the loss of cognitive functioning – thinking, remembering, and reasoning – to such an extent that it interferes with a person's daily life. Dementia isn't a disease itself, but rather a set of symptoms. Memory loss is the most common symptom of dementia, but memory loss by itself doesn't mean a person has dementia. Alzheimer's disease is the most common cause of dementia. It accounts for most diagnosed cases.

Alzheimer's disease is the 6th leading cause of death among U.S. adults. Prevalence of this disease is predicted to more than double by 2050 unless researchers discover better ways to treat and prevent it. Because Lewis and Clark County is aging even faster than the nation, we're likely to feel greater impacts from these conditions.

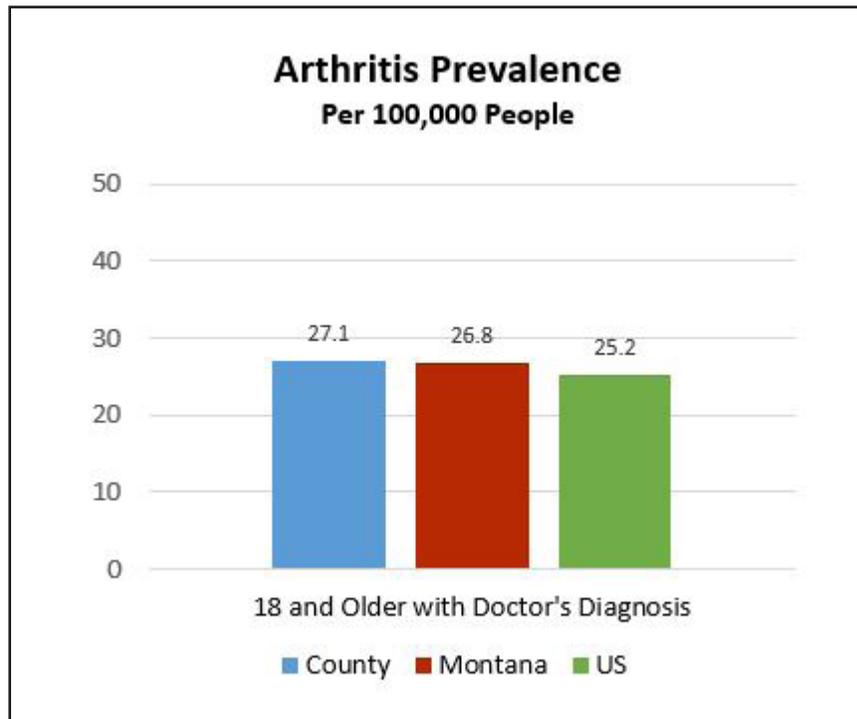
Several factors determine the risk of developing dementia, including age, gender, and family history. Almost two-thirds of Americans with Alzheimer's disease are women.



2018 PRC Community Health Survey

Arthritis

Arthritis is the most common cause of disability among adults, and it has a major effect on quality of life, ability to work, and basic activities of daily living. Weight loss and more physical activity can reduce pain and improve function. Arthritis commonly occurs with other chronic conditions, like diabetes, heart disease, and obesity. It affects about 1 in 5 adults in the U.S., and the burden is expected to grow as the population ages.

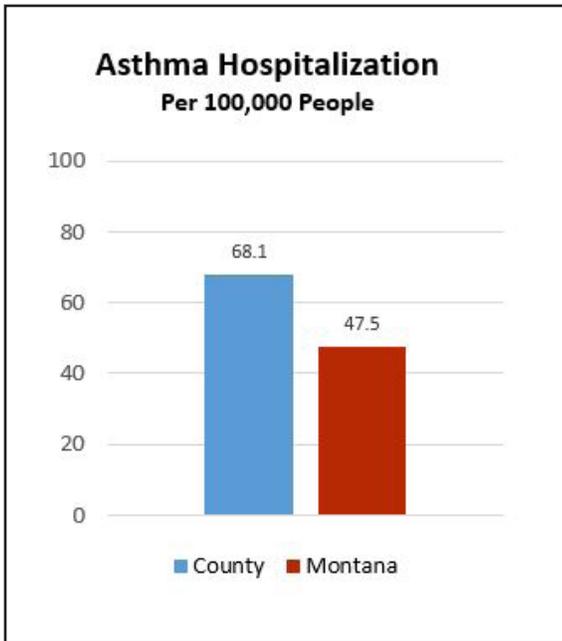


MT Dept. of Public Health and Human Services, 2014-2016

Asthma

Asthma is a chronic inflammatory disorder that affects more than 25 million Americans. It causes periodic breathing problems when the airways narrow and become blocked. These episodes can range in severity from mild to life-threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and help people who have asthma to lead active lives.

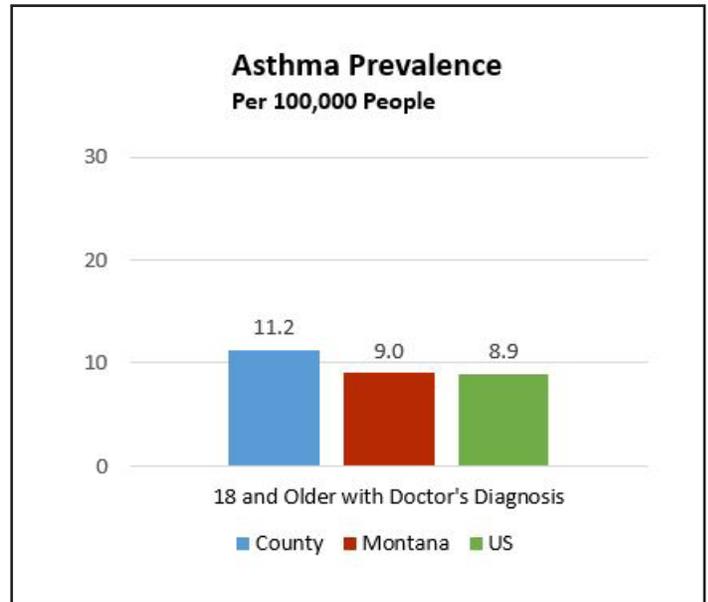
The prevalence of asthma has increased nationwide since 1980, but deaths from asthma have decreased since the mid-1990s. The prevalence of asthma in Lewis and Clark County is higher than that of the nation and state as a whole. This may be related in part to increasing bouts of wildfire smoke in the summer and, in the Helena Valley, winter temperature inversions that trap air pollution near ground level.



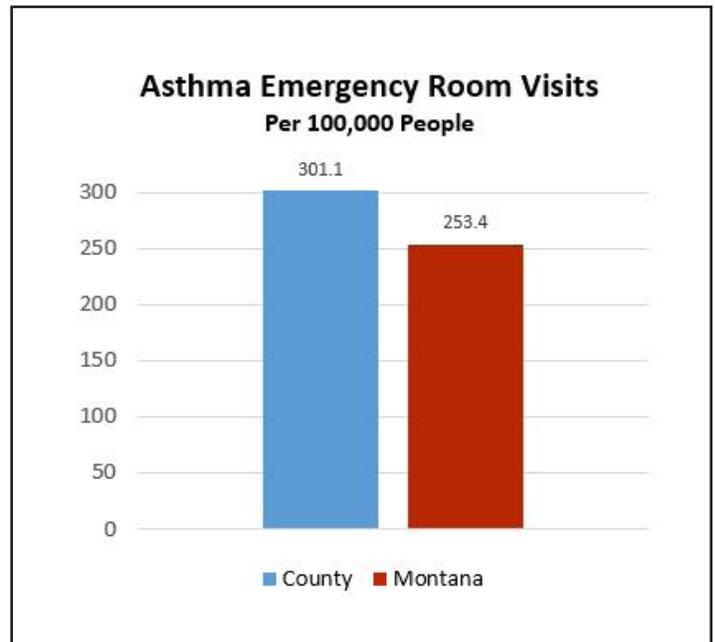
MT Dept. of Public Health and Human Services, 2012-2014

Healthy People 2020 Targets

- Hospitalizations for ages 5-64: 80.7 per 100,000 people
- Emergency room visits for ages 5-64: 490.6 per 100,000



MT Dept. of Public Health and Human Services, 2014-2016



MT Dept. of Public Health and Human Services, 2012-2014

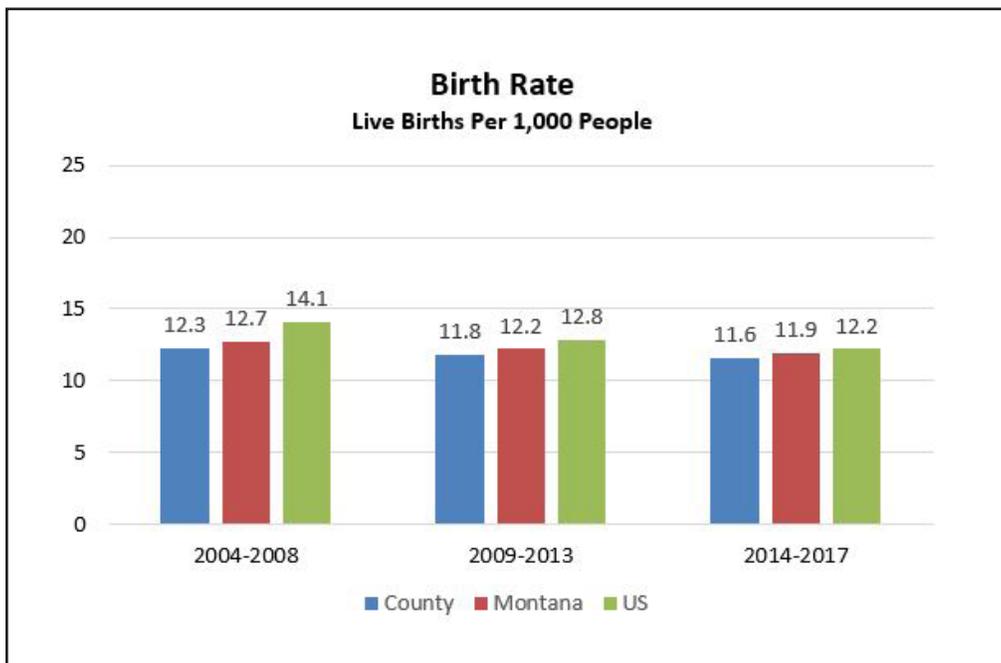
Births

Healthy births and early identification and treatment of developmental delays and disabilities and other health conditions among infants can prevent death or disability and enable children to reach their full potential.

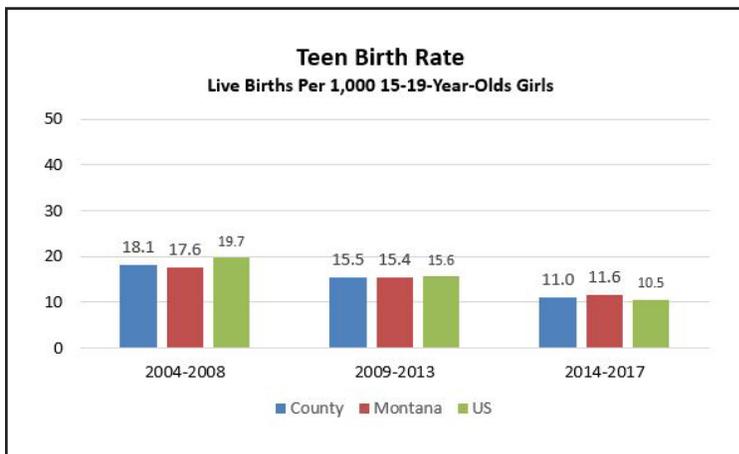
A total of 787 births were registered in Lewis and Clark County in 2016, up 1.9% from 772 in 2013.

Montana’s teen pregnancy rate is influenced by a number of factors. Poverty is one of the most important contributing factors. Teens who have dropped out of school are also more likely to become pregnant and have a child than their peers who stay in school. Teen parenthood is most common in rural areas.

Nationwide, the teen birth rate has declined more or less continuously over the past 25 years. In 2016, it was at the lowest level ever recorded. But it still remains higher than in many other developed countries, including Canada and the United Kingdom.



US and Montana Vital Statistics



US and Montana Vital Statistics

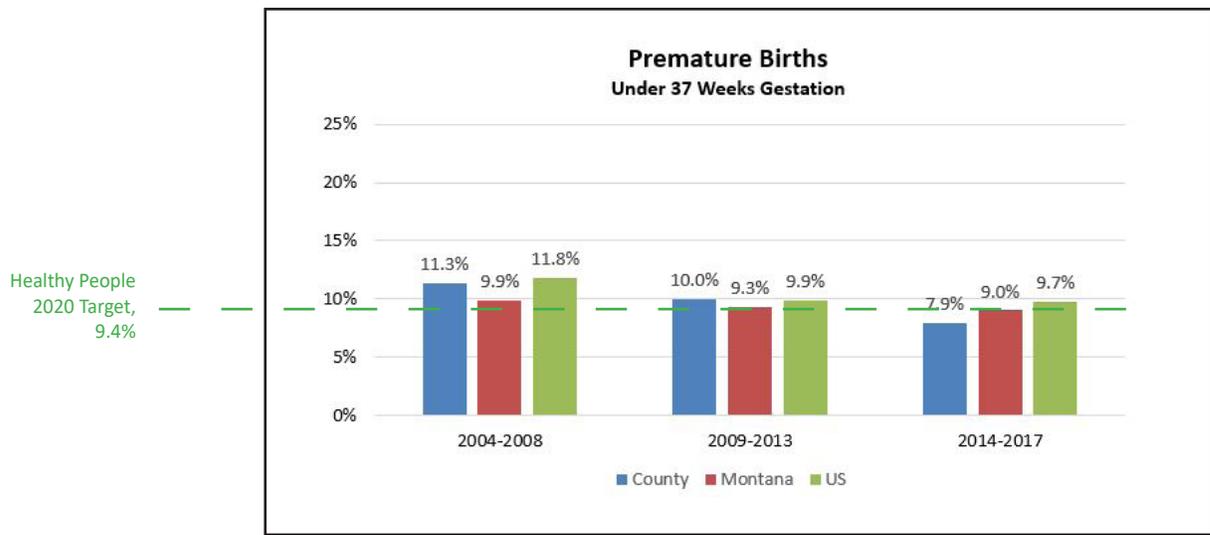
89%
of U.S. teen births in 2016 occurred outside of marriage

US Vital Statistics

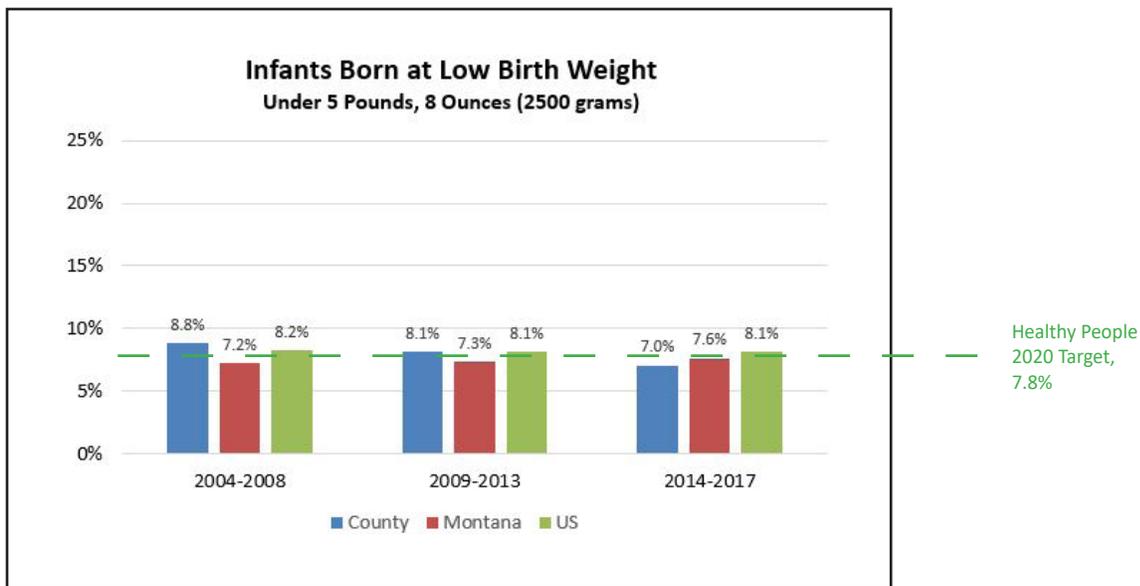
Births

Premature birth is when a baby is born too early, before 37 weeks of pregnancy have ended. A developing baby goes through important growth throughout pregnancy – including in the final months and weeks. For example, the brain, lungs, and liver need the final weeks of pregnancy to fully develop. Babies born too early (especially before 32 weeks) have higher rates of death and disability. If they survive, they may have problems with breathing, feeding, vision, and hearing. Their development may be delayed.

Infants born at a low birth weight (defined as under 5 pounds, 8 ounces) are more likely to die in the first year of life or have chronic health problems later in life.



US and Montana Vital Statistics

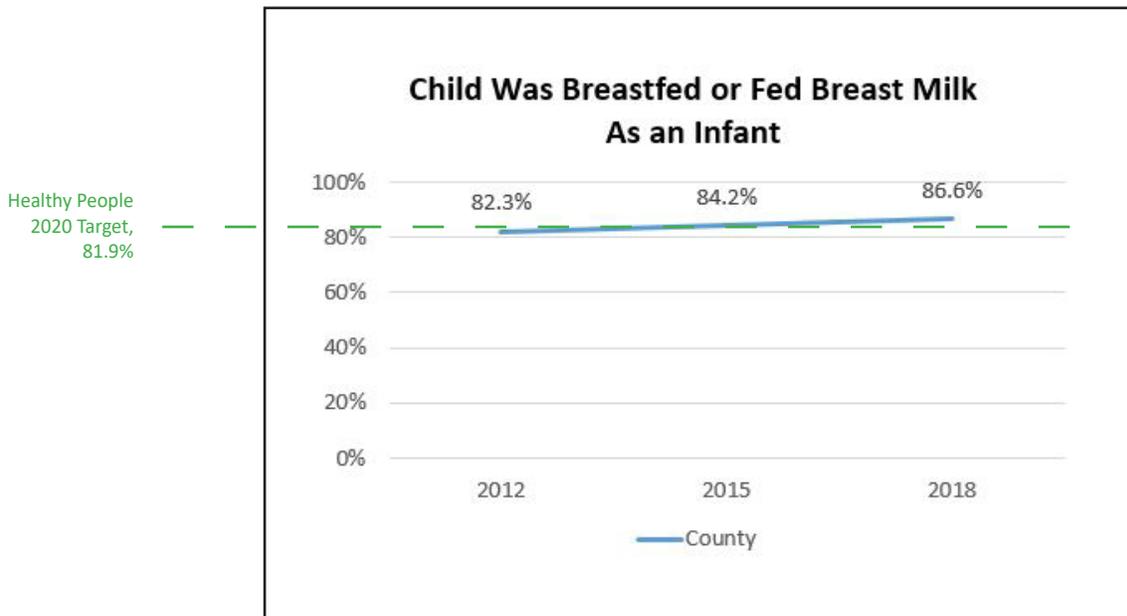


US and Montana Vital Statistics

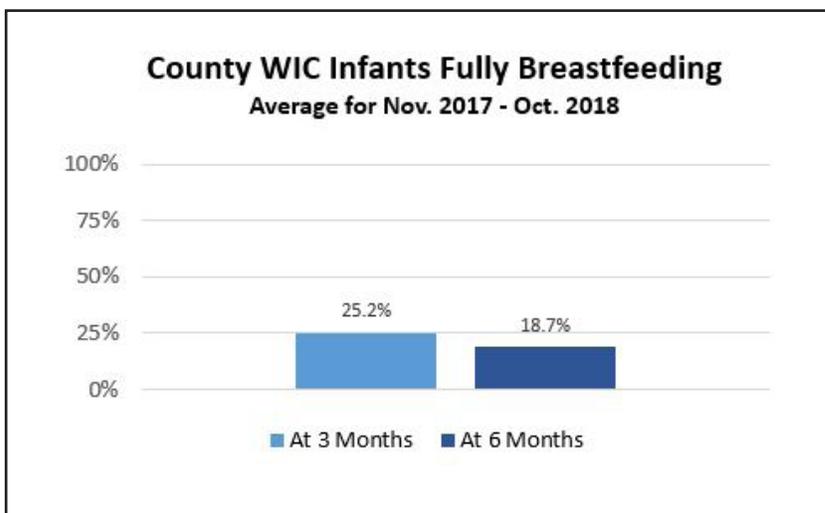
Breastfeeding

Research shows that breastfeeding offers many health benefits for mothers as well as babies. Breastfed babies have lower risks of asthma, obesity during childhood, ear infections, sudden infant death syndrome, and type 2 diabetes, among other things. Breastfeeding mothers lower their risks of type 2 diabetes, ovarian cancer, and certain types of breast cancer.

The World Health Organization recommends feeding infants entirely on breast milk until age 6 months, if possible.



2018 PRC Community Health Survey

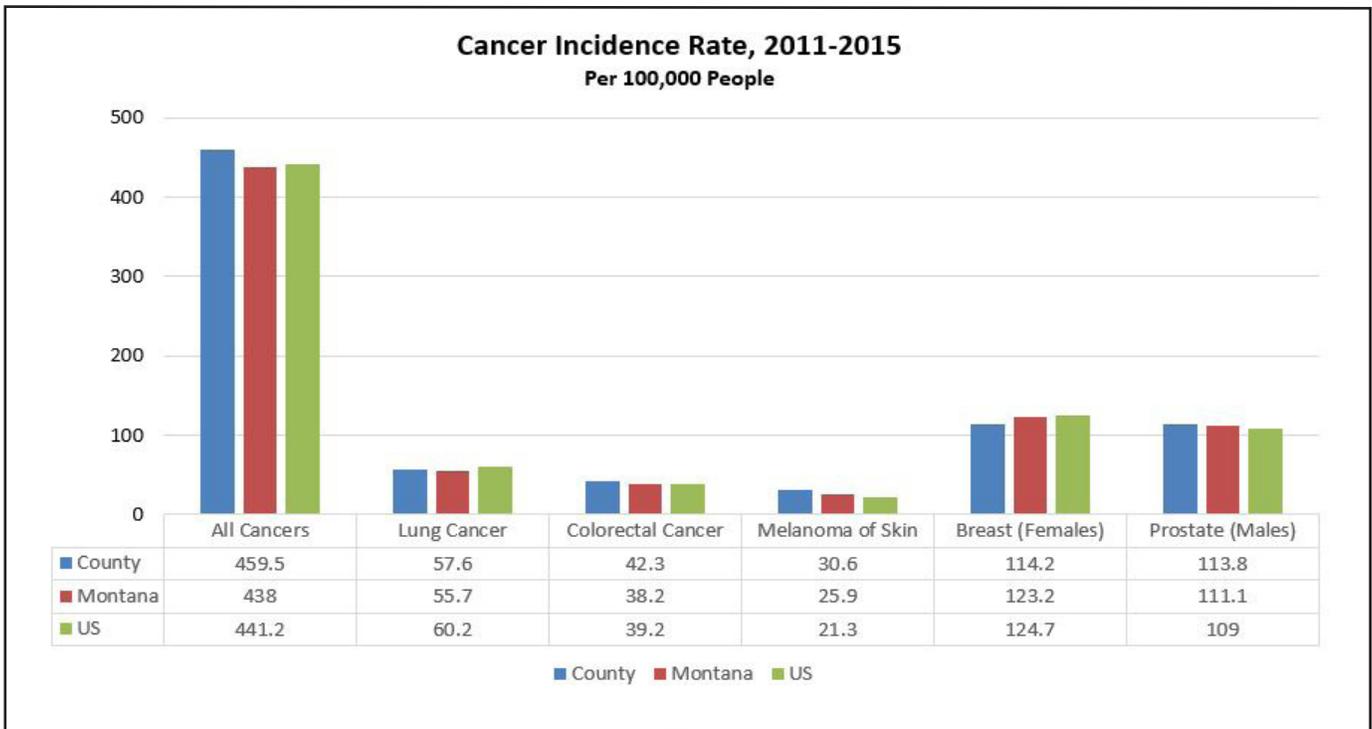


Lewis and Clark Public Health, WIC Program

Cancer

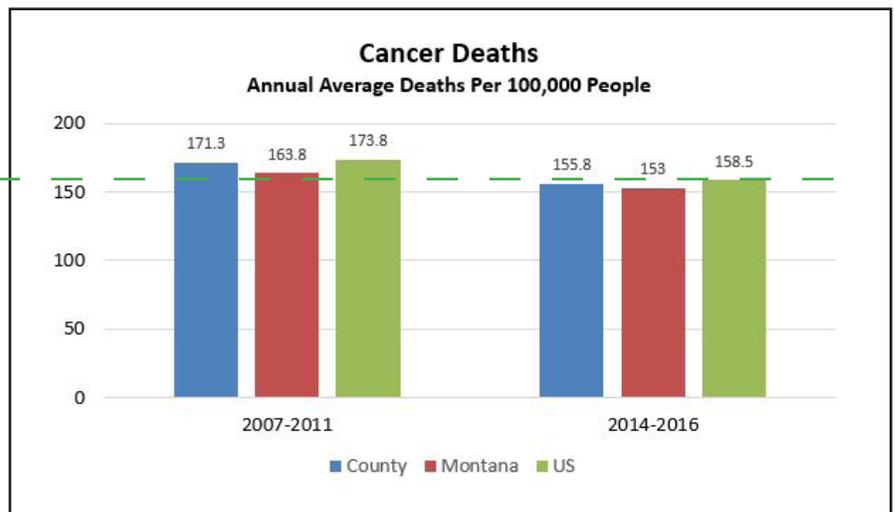
Scientists continue to make advances in detecting and treating cancer. This has led to a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in 5 years, yet cancer remains a leading cause of death in the United States, second only to heart disease.

Many cancers are preventable by reducing risk factors such as tobacco use, physical inactivity, poor nutrition, obesity, and exposure to sun and other ultraviolet light. Some cancers can be prevented by getting vaccinated against human papillomavirus (HPV) and hepatitis B.



State Cancer Profiles, National Cancer Institute, Centers for Disease Control and Prevention

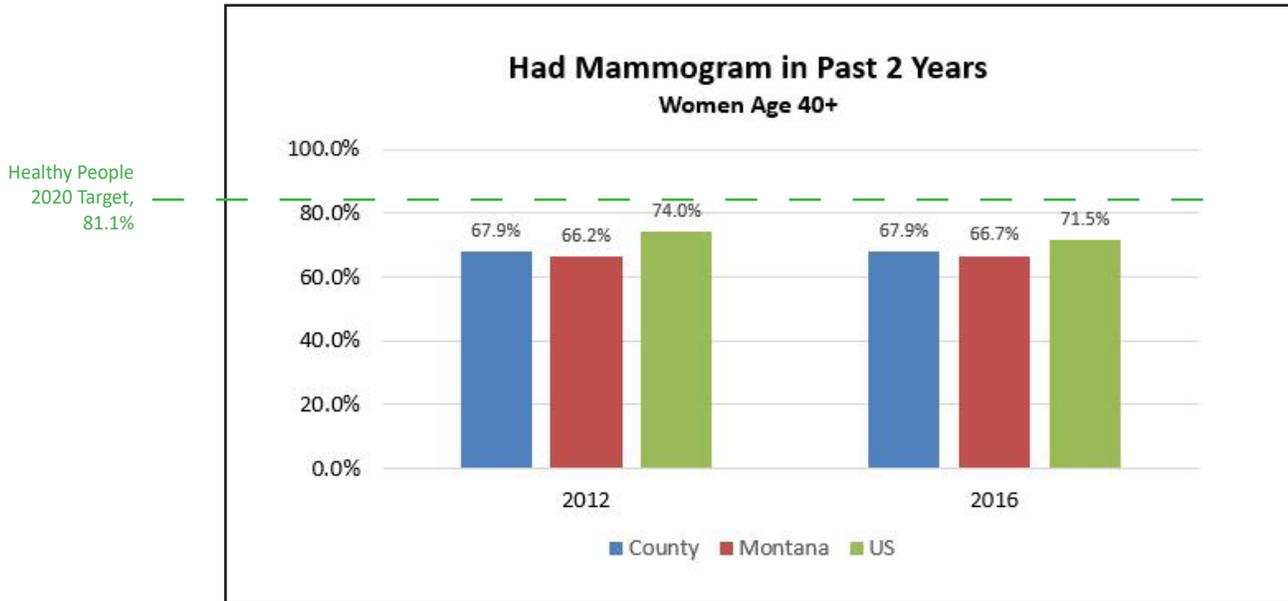
Healthy People
2020 Target,
161.4 per 100,000 people



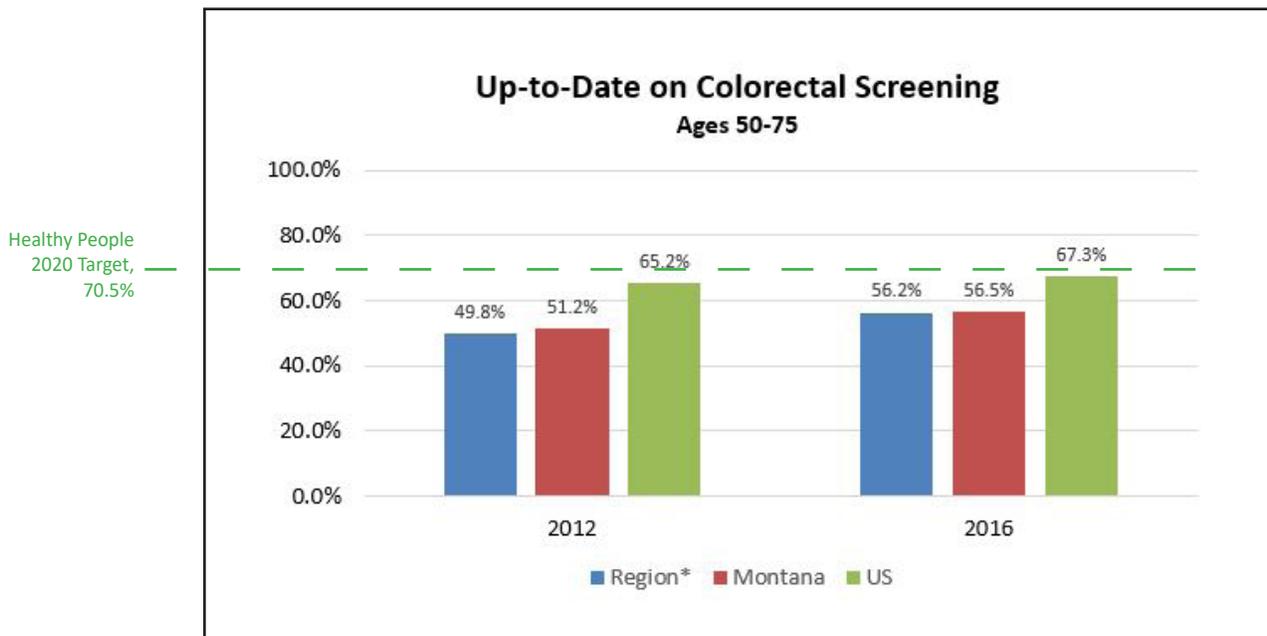
2014-2016 Data: 2018 PRC Community Health Survey
2007-2011 Data: 2015 Community Health Report, Lewis and Clark County

Cancer: Preventive Screenings

Screening is an effective way to identify some types of cancers, including breast cancer (using mammography), cervical cancer (using Pap tests), and colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy). Early detection may improve chances of treating and surviving cancer.



2016 Data: 2018 PRC Community Health Survey
2012 Data: 2015 Community Health Report, Lewis and Clark County



2016 Data: MT Dept. of Public Health and Human Services
2012 Data: National Colorectal Cancer Roundtable
*DPHHS reports screening data based on health regions rather than counties. Lewis and Clark County is part of the South-west Region, which also includes Beaverhead, Broadwater, Deer Lodge, Gallatin, Granite, Jefferson, Madison, Meagher, Park, Powell and Silver Bow counties.

Child Abuse and Neglect

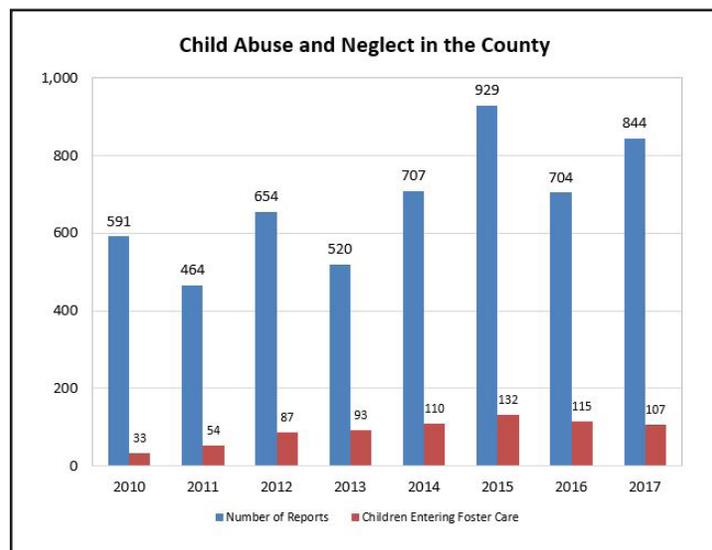
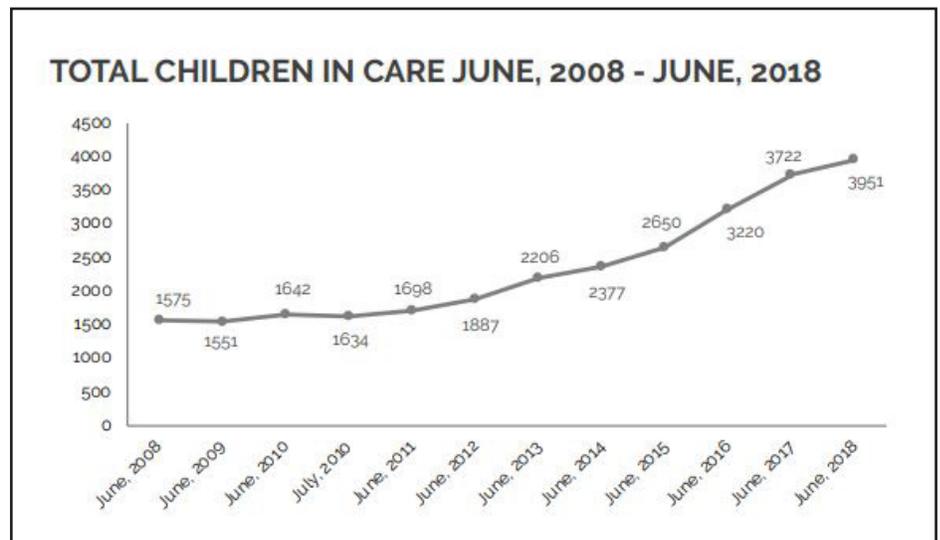
Child abuse and neglect is defined in state law as any form of poor treatment of a person under age of 18 by a caregiver, parent, or another authority that results in harm or potential for harm to the child. This includes physical, sexual, and psychological abuse or neglect.

Children subjected to abuse and neglect experience physical, emotional, and psychological consequences that can affect them throughout their lives. In addition to any immediate physical injuries they sustain, abuse has been shown to cause long-term consequences for social interactions, thinking skills, language development, and academic achievement. The experience of abuse and/or neglect in childhood increases the victim's risk of mental health issues, substance abuse, chronic disease, obesity, and sexual risk taking. The total direct and indirect cost of child abuse and neglect in the U.S. is estimated at \$80 billion annually.

The 2017 state Legislature created a Child Abuse and Neglect Review Commission and charged it with educating the public, service providers, and policymakers about child abuse and fatalities, and strategies for intervention and prevention. The commission developed a strategic plan for reducing child abuse and neglect, which it will present to the 2019 Legislature.

64.7%
of child out-of-home placements in MT were associated with parental substance abuse in April 2016

MT Dept. of Justice



MT Dept. of Public Health and Human Services, Child and Family Services Division

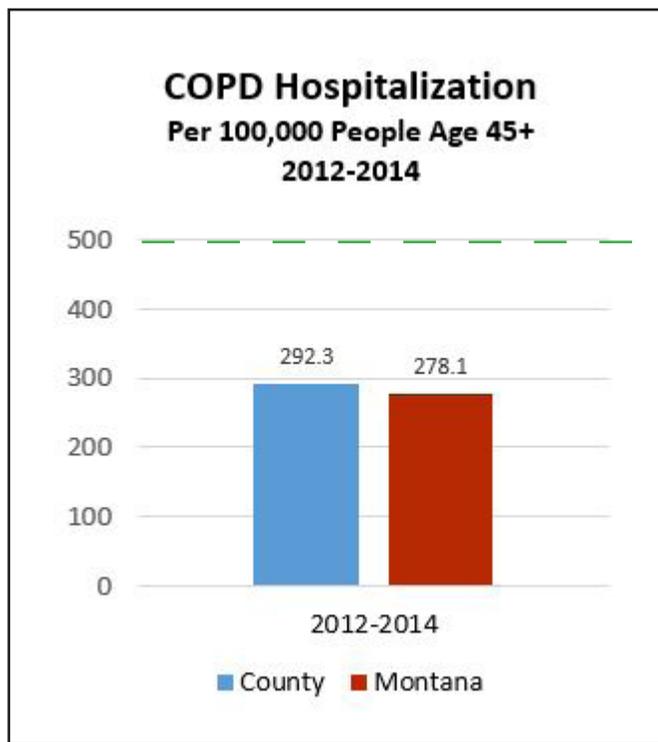
Chronic Obstructive Pulmonary Disease (COPD)

COPD is the name for a group of diseases – including emphysema and chronic bronchitis – that restrict air flow in and out of one’s airways and cause trouble breathing. Symptoms of COPD include coughing that produces large amounts of mucus, wheezing, shortness of breath, and chest tightness.

COPD is a major cause of disability and the 4th leading cause of death in the U.S., state, and county. In almost 8 out of 10 cases, cigarette smoking is the cause. But long-term exposure to other lung irritants – like air pollution, chemical fumes, smoke, or dust – also may contribute to it. Severe COPD may prevent you from doing even basic activities, like walking, cooking, or taking care of yourself.

COPD is usually diagnosed in middle-aged or older adults. It’s not contagious, and it has no cure. But treatments and lifestyle changes can slow progress of the disease and improve quality of life.

About 15 million adults nationwide have been diagnosed with COPD, and about 12 million people have the disease but have not yet been diagnosed.



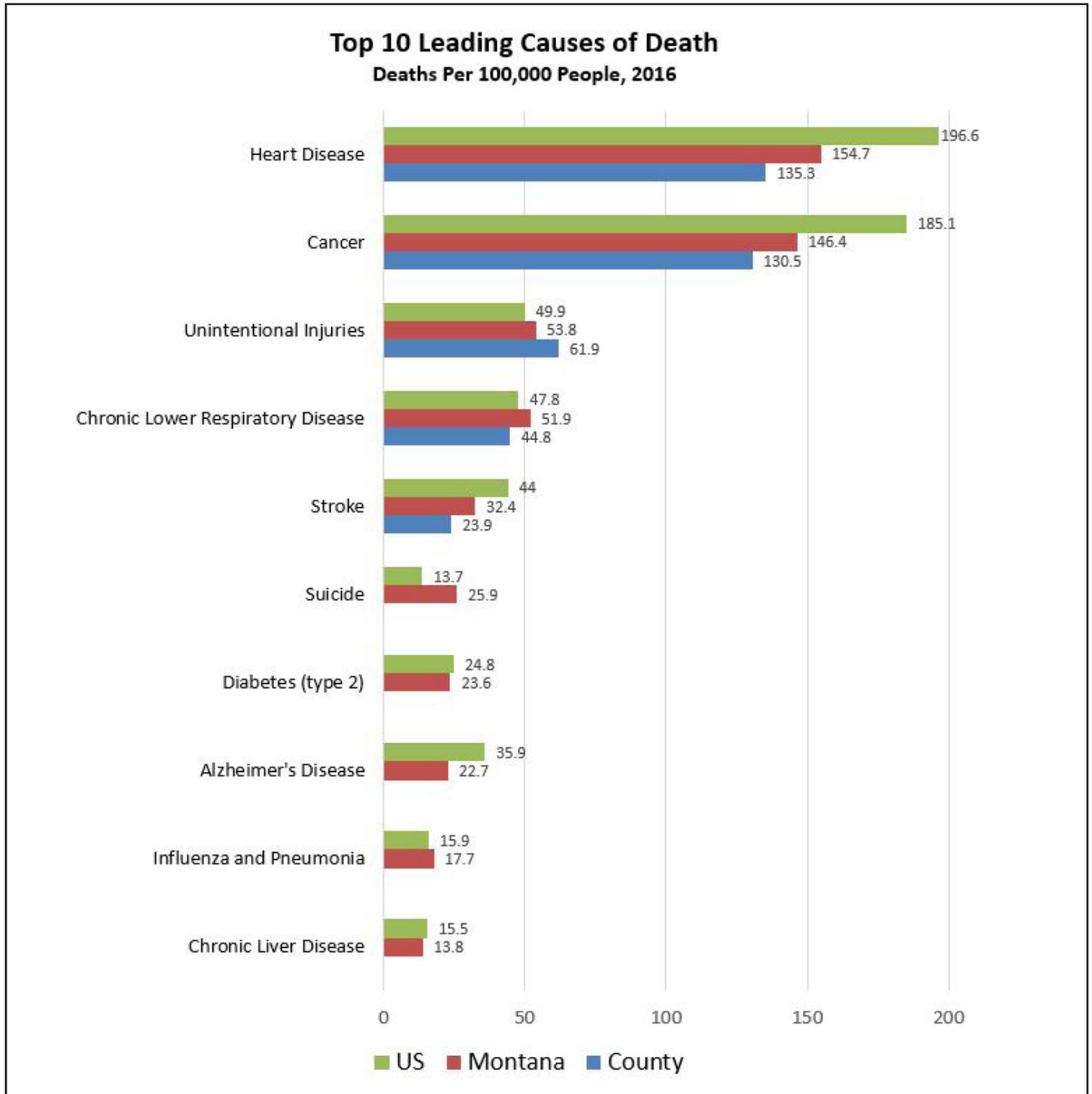
MT Dept. of Public Health and Human Services

6.7%
of Montanans reported that they had been diagnosed with COPD in 2016

MT Dept. of Public Health and Human Services

Deaths: Leading Causes

Ranking leading causes of death is a useful tool for illustrating the relative burden of various causes of death. The leading cause in Lewis and Clark County in 2016, the latest year for which data were available, is heart disease. County data for some causes of death were unavailable because they occurred in such small numbers as to be statistically unreliable.

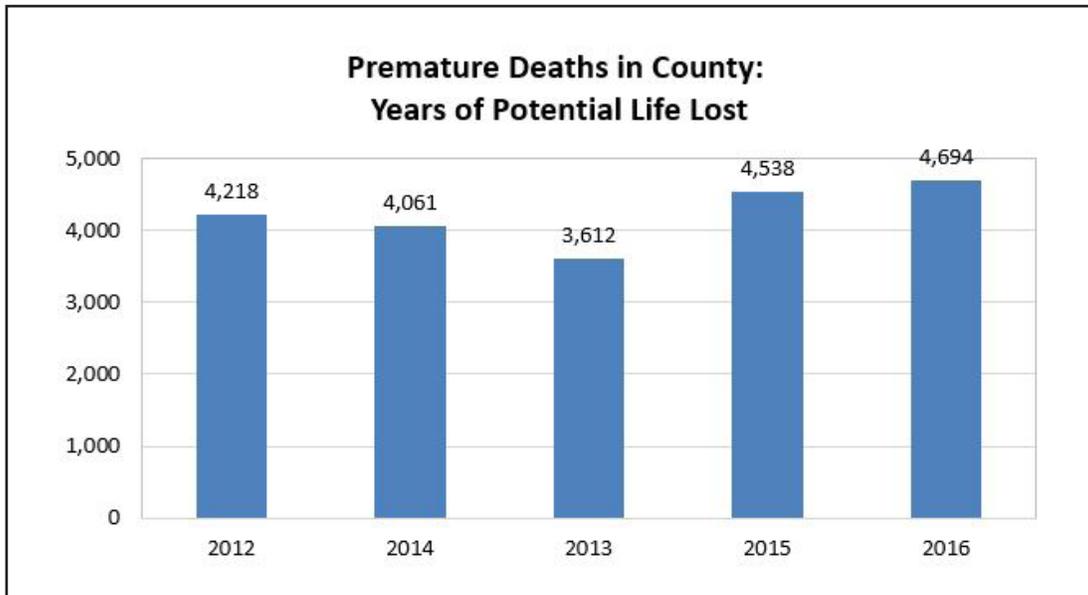


US and MT Vital Statistics, 2016

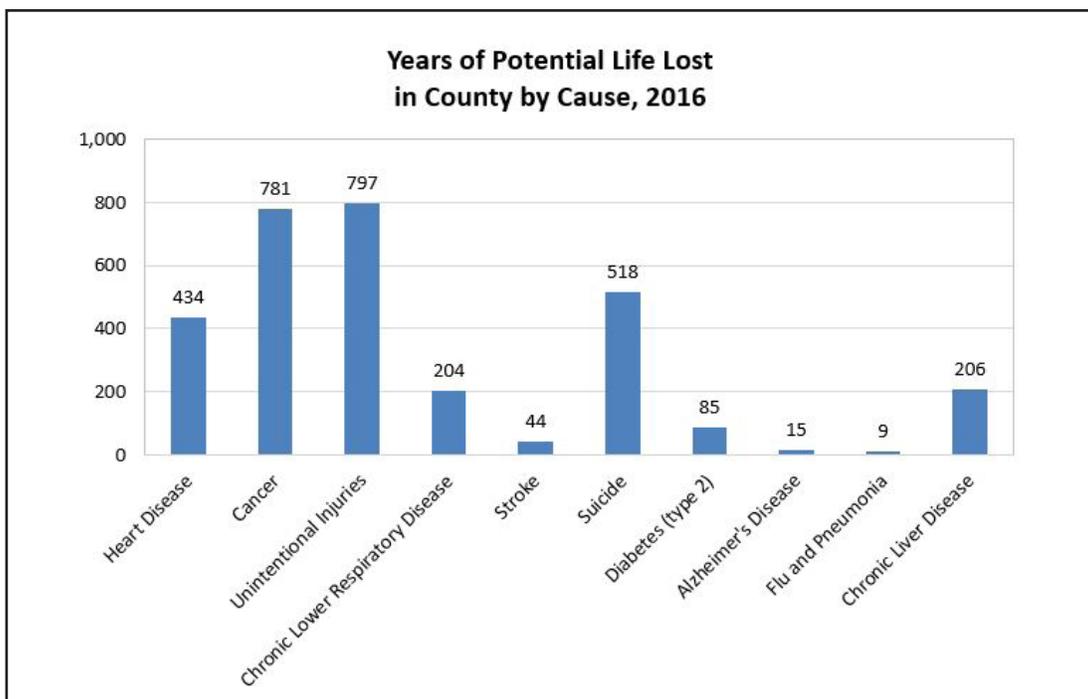
Deaths: Premature

Premature death is measured by the years of potential life lost (YPLL) before age 75. Every death that occurs before 75 contributes to the total number of years of potential life lost. For example, a person who dies at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost to a county's YPLL. So the higher the YPLL, the more people who are dying before old age. This measure is presented as a rate per 100,000 population.

YPLL is important because it measures deaths that could have been prevented. It emphasizes the deaths of younger people, whereas overall death statistics are influenced heavily by deaths of the elderly.



MT Vital Statistics



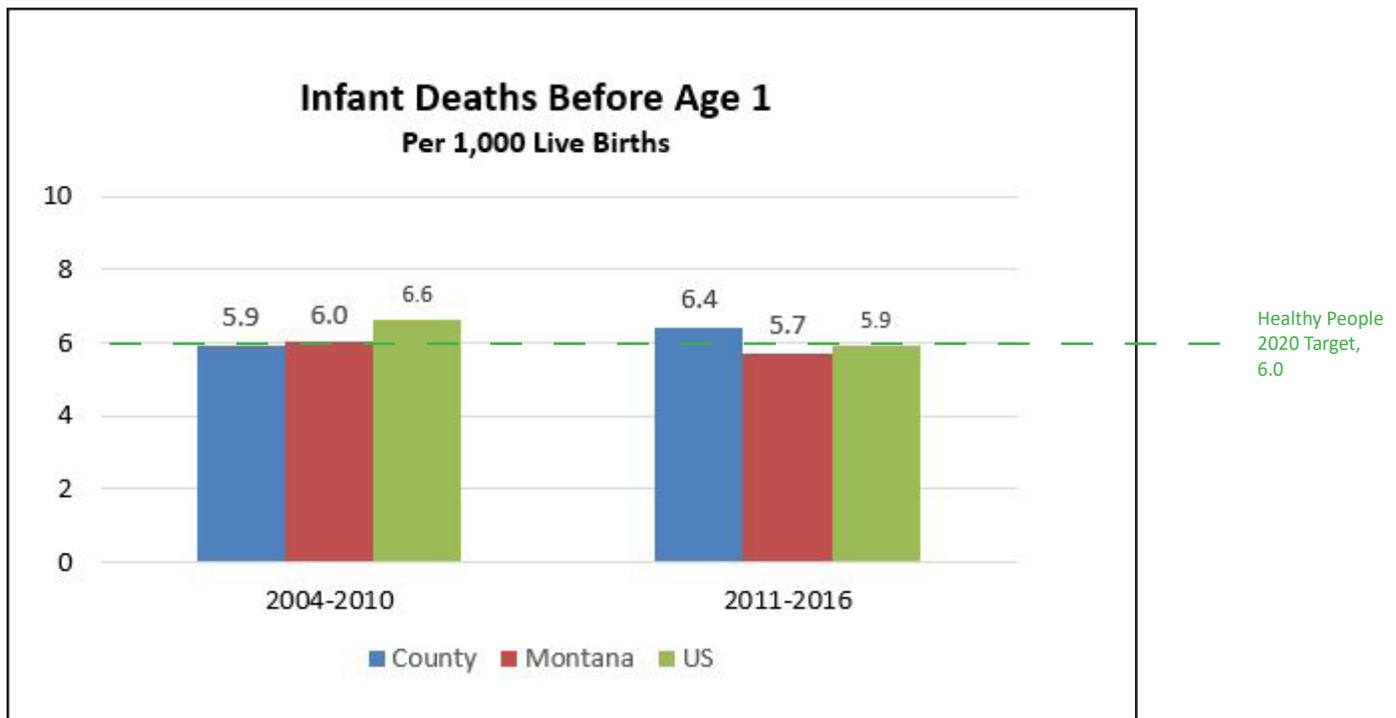
MT Vital Statistics

Deaths: Infants

Infant mortality is the death of an infant before his or her first birthday. In addition to giving us key information about maternal and infant health, the infant mortality rate is an important marker of the overall health of a society. It serves as a crude indicator of community health status, poverty and socioeconomic status levels, and availability and quality of health-care services.

Social determinants that can impact infant health are race and ethnicity and lack of health insurance coverage. American Indians, for example, have almost double the rate of infant mortality as white people (9.4 per 1,000 live births compared to 4.9 in 2016). Other factors that influence infant deaths are the age and health of the mother; whether the birth involved twins, triplets or other multiples; whether the infant was born prematurely and/or at a low birth weight; and whether the mother sought prenatal care.

The five leading causes of infant death nationwide in 2016 were birth defects, preterm birth and low birth weight (see page XX), sudden infant death syndrome (SIDs), maternal pregnancy complications, and injuries, like suffocation.

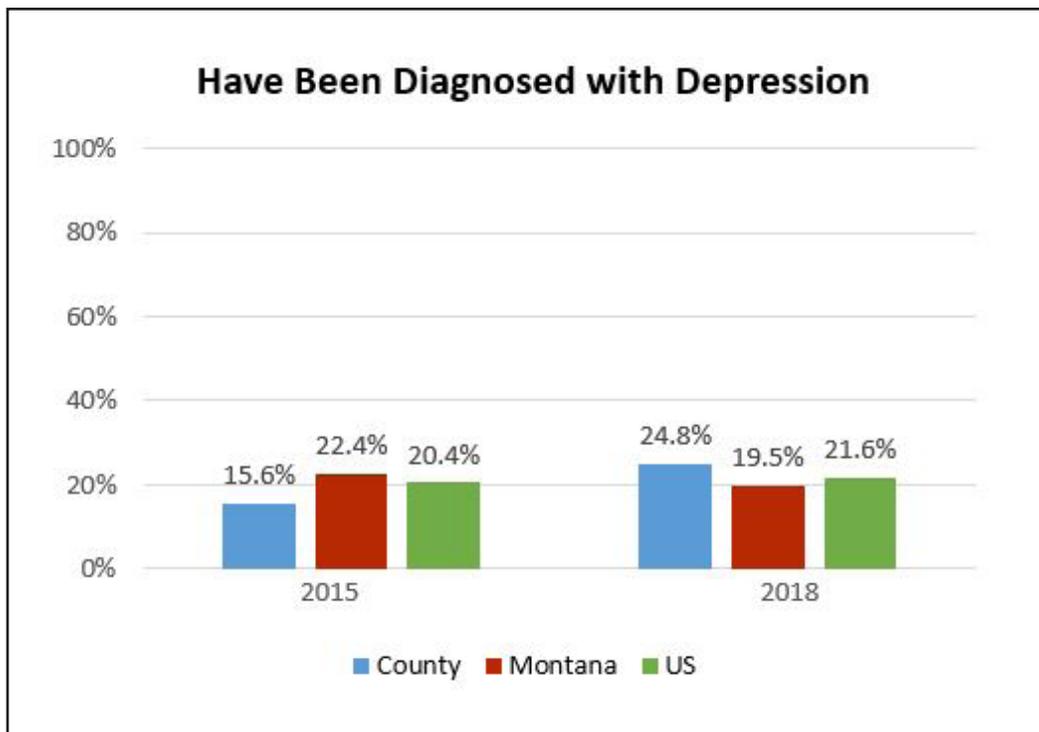


Depression and Anxiety

Mental health is essential to personal well being, family and interpersonal relationships, and the ability to contribute to one's community or society. Mental disorders are health conditions that are characterized by alterations in thinking, mood, or behavior. They're associated with distress and impaired functioning. Mental disorders contribute to a host of problems that may include disability, pain, and death.

Mental disorders are among the most common causes of disability. The disease burden of mental illness is among the highest of all diseases. In any given year, an estimated 18.1% (43.6 million) of U.S. adults suffered from a mental illness, and 4.2% (9.8 million) suffered from a seriously debilitating mental illness.

According to the World Health Organization, there is no health without mental health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.



2018 PRC Community Health Survey

13.0%

of county residents reported having "poor" or "fair" mental health

2018 PRC Survey

28.3%

of low-income county residents reported "poor" or "fair" mental health

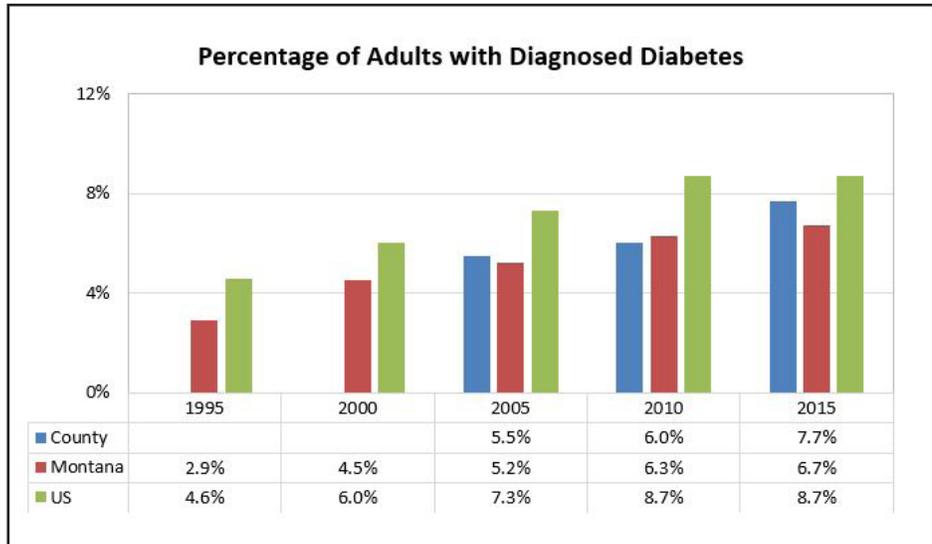
2018 PRC Survey

Diabetes

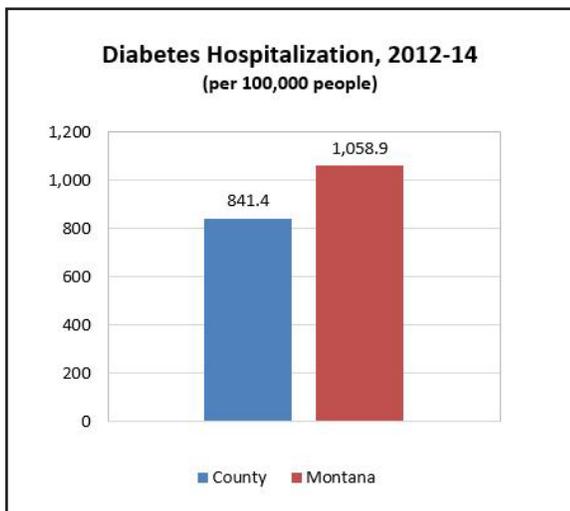
Type 2 diabetes, or diabetes mellitus, occurs when your body can't make enough insulin or use it correctly. Insulin is a hormone the body needs to turn glucose (sugar) into fuel. Type 2 diabetes accounts for 90-95% of all diabetes cases. It affects about 29.1 million people in the U.S. and is the 7th leading cause of death. The number of cases is increasing worldwide, in part because of a rise in obesity.

The complications of diabetes can lower quality of life. The disease lowers life expectancy by up to 15 years, increases the risk of heart disease by 2-4 times, and is a leading cause of kidney failure, lower limb amputation, and blindness later in life. Evidence also shows that it may affect thinking and remembering, incontinence, risk of broken bones, and risk and progression of cancer. The effects of type 2 diabetes will increase as the population ages. People from minority populations tend to be disproportionately affected by it.

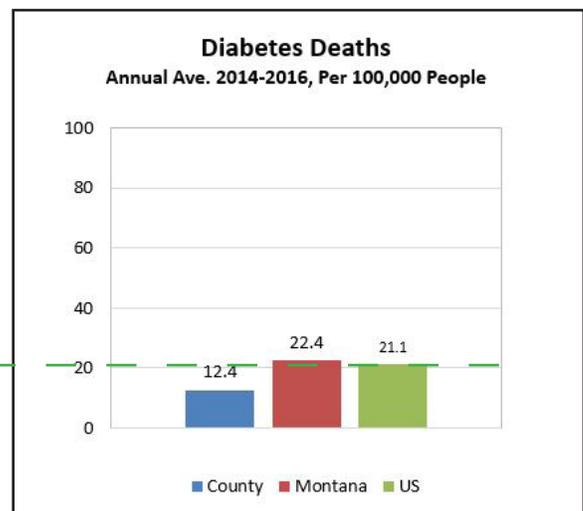
Lifestyle changes have proven to help prevent or delay type 2 diabetes. These include healthy eating and regular physical activity. Medications also can control blood sugar.



Centers for Disease Control and Prevention



Centers for Disease Control and Prevention

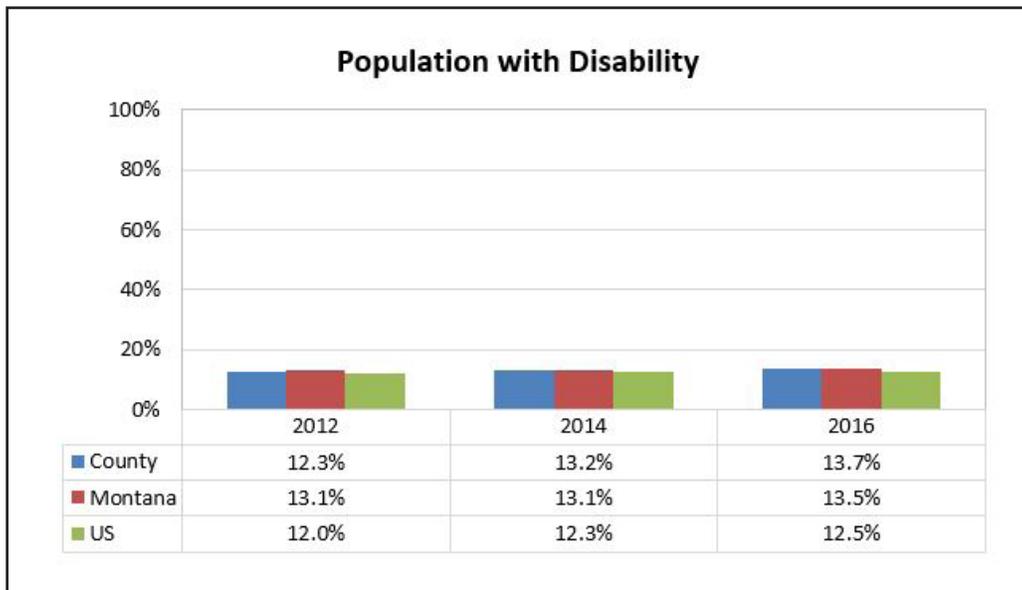


Centers for Disease Control and Prevention

Disability

People with disabilities represent 18.7% of the U.S. population, according to Healthy People 2020. Disability is part of human existence. It can occur at any point in life. A disability diagnosis doesn't define individuals, their talents and abilities, or health behaviors and health status. To be healthy, everyone, regardless of disability status, must have a chance to take part in meaningful daily activities that add to their growth, development, fulfillment, and community contribution.

Recent data show that people with disabilities, as a group, experience health disparities. Compared with individuals without disabilities, they are less likely to get recommended preventive health-care services, like teeth cleanings and cancer screenings; are at a higher risk for obesity, high blood pressure, falls, and mood disorders; and are more likely to engage in unhealthy behaviors, like using tobacco and avoiding physical activity.



US Census Bureau, 2008-2016 American FactFinder Survey 5-Year Estimates

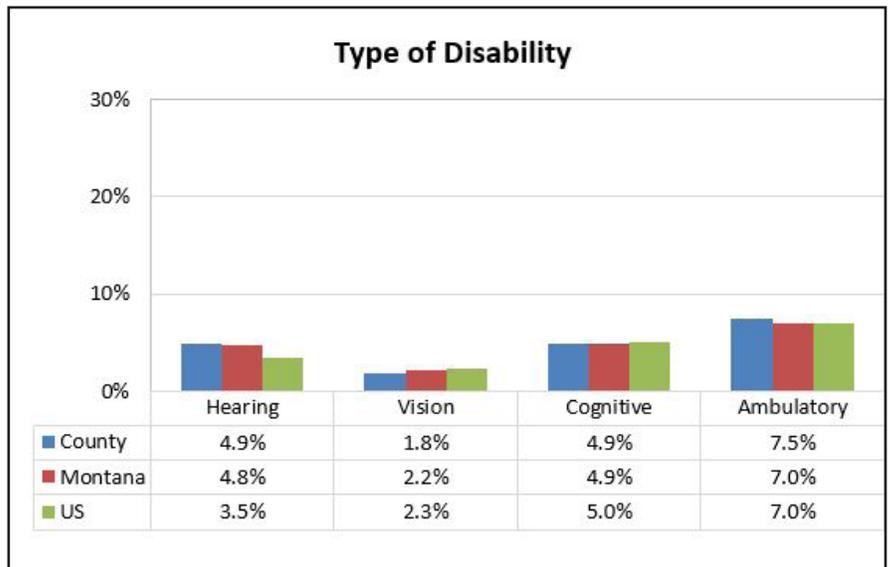
- **Disability Definitions.** The U.S. Census Bureau defines the types of disability this way:

Hearing disability: Deaf or having serious difficulty hearing

Vision disability: Blind or having serious difficulty seeing, even when wearing glasses

Cognitive disability: Difficulty remembering, concentrating, or making decisions because of a physical, mental, or emotional problem

Ambulatory disability: Having serious difficulty in walking or climbing stairs



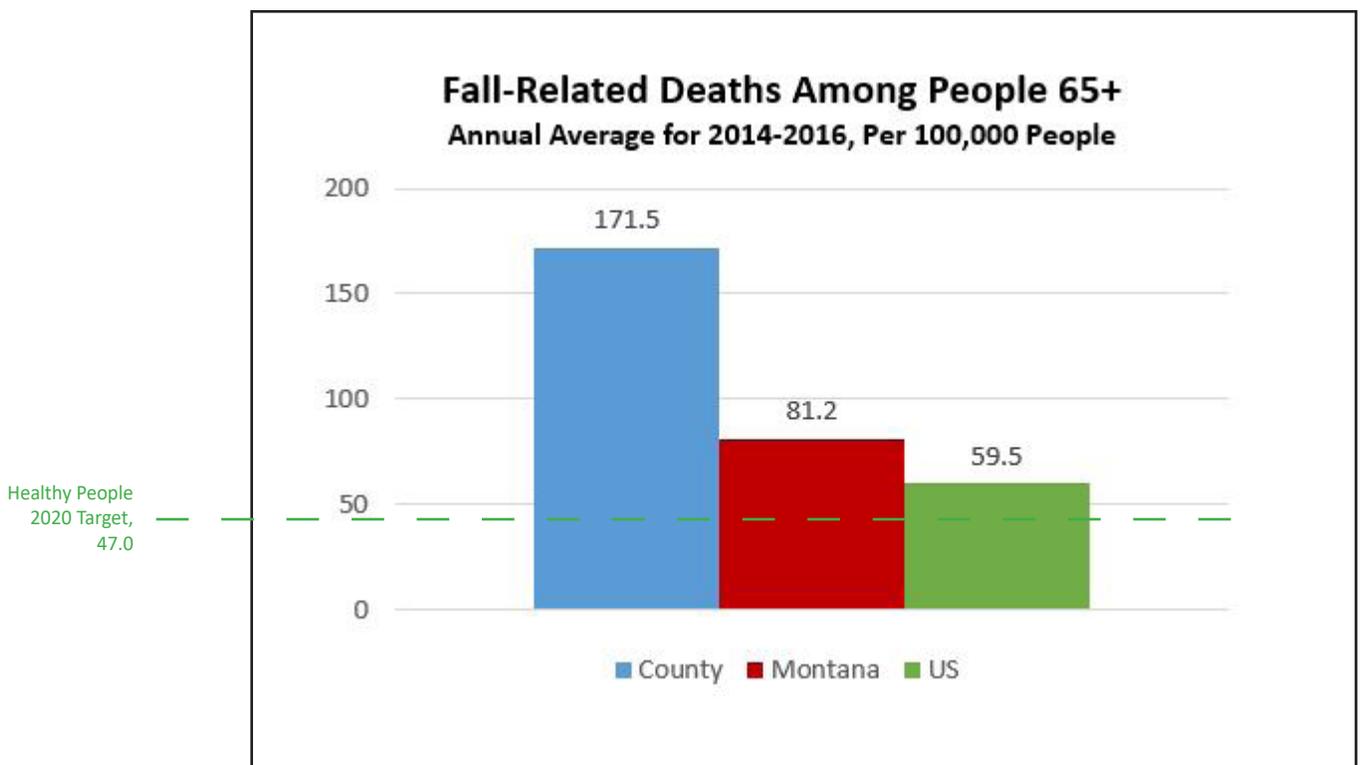
US Census Bureau, 2012-2016 American FactFinder Survey 5-Year Estimates

Falls

Injuries are the leading cause of death for Americans ages 1-44 and a leading cause of disability for all ages, regardless of sex, race, ethnicity, or socioeconomic status. More than 180,000 people die from injuries each year, and about 1 in 10 sustains a nonfatal injury that's serious enough to require treatment in a hospital emergency room.

Falls are the leading cause of death from unintentional injury among Americans 65 and older. Hip fractures and traumatic brain injuries are the most common fall injuries that lead to death. A serious injury from a fall can limit mobility and independent living. Falls also can increase the risk of early death. Many people who fall develop a fear of falling and may become more sedentary.

Reducing the rate of falls and fall-related deaths among those 65 and older will become more challenging as the population ages. Most falls are preventable and not a normal part of aging.



2018 PRC Community Health Survey

45.3%
of county residents 45 or older fell at least once in the past year

2018 PRC Community Health Survey

60.1%
of low-income county residents 45 or older fell at least once in past year

2018 PRC Community Health Survey

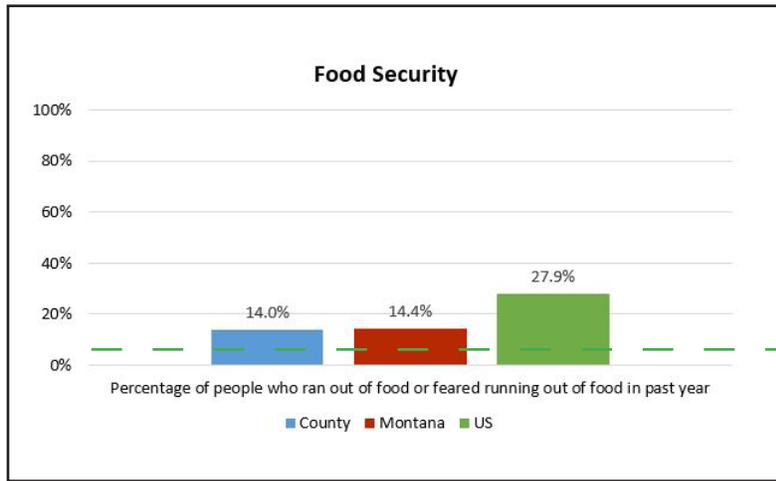
Food Security

Food insecurity is defined by the U.S. Department of Agriculture as the disruption of food intake or eating patterns because of lack of money or other resources. Food insecurity doesn't necessarily cause hunger, but hunger is one possible result of food insecurity.

Food insecurity may be long-term or temporary. It may be influenced by many factors, including income, employment, race/ethnicity, and disability. Low-income households, on average, are more likely to have higher rates of food insecurity.

Neighborhood conditions can affect access to food. For example, people living in some urban areas, rural areas, and low-income neighborhoods may have limited access to full-service supermarkets or grocery stores because of long distances and lack of transportation. Adults and children who are food insecure may be at risk for a variety of poor health outcomes, including obesity. Kids without access to plentiful, nutritious food also may have developmental or mental health problems.

The National School Lunch Program is a federally assisted meal program designed to increase food security among children. It operates in public and nonprofit private schools and residential child-care facilities. It provides nutritionally balanced, low-cost or free lunches to low-income children each school day.



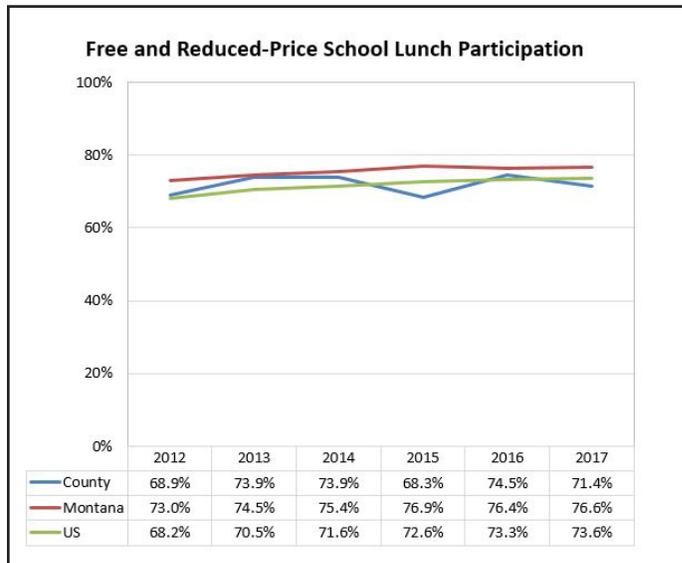
2018 PRC Community Health Survey

11.5%
of county residents find it hard to buy affordable fresh produce

2018 PRC Community Health Survey

19.0%
of county residents live far from a supermarket or large grocery store

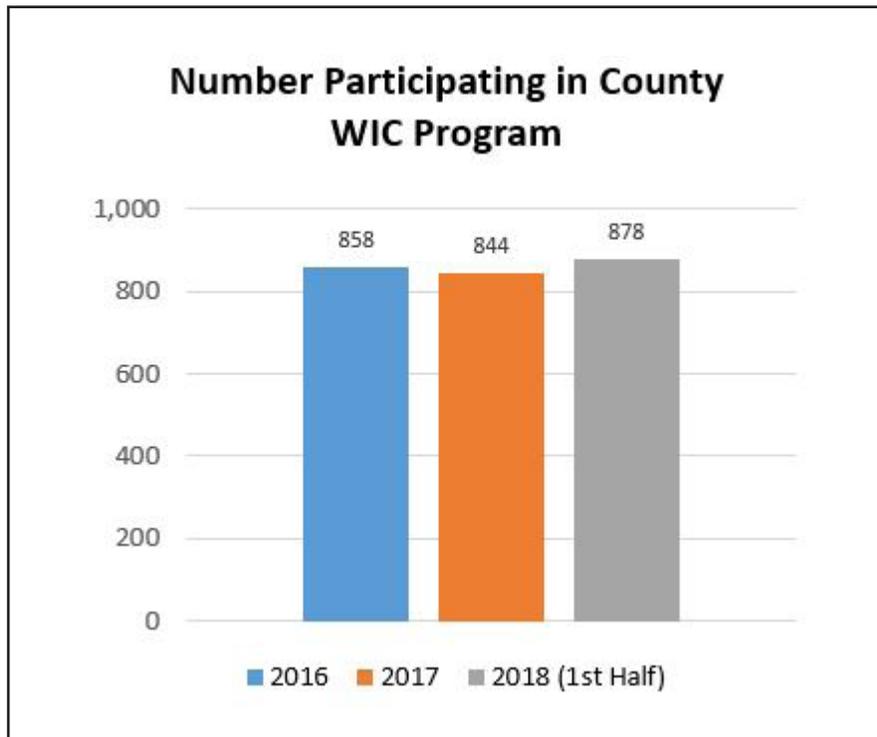
2018 PRC Community Health Survey



US Department of Agriculture, National School Lunch Assistance Program

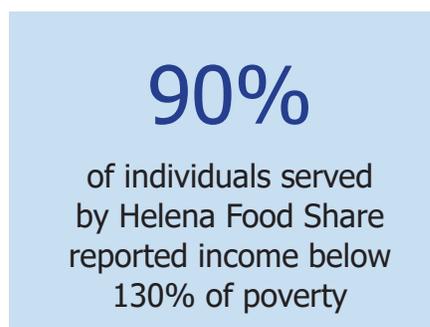
Food Security

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides supplemental food, health-care referrals, and nutrition education for low-income women who are pregnant or breastfeeding, or who recently gave birth. It also serves infants and children up to age 5 who may be at risk of getting poor nutrition. In Lewis and Clark County, the program is administered by Lewis and Clark Public Health. WIC benefits help to ensure that new mothers and young children get healthy food.



Montana WIC Program, MT Dept. of Public Health and Human Services

Food bank data



Helena Food Share, July 2017-June 2018

Hearing

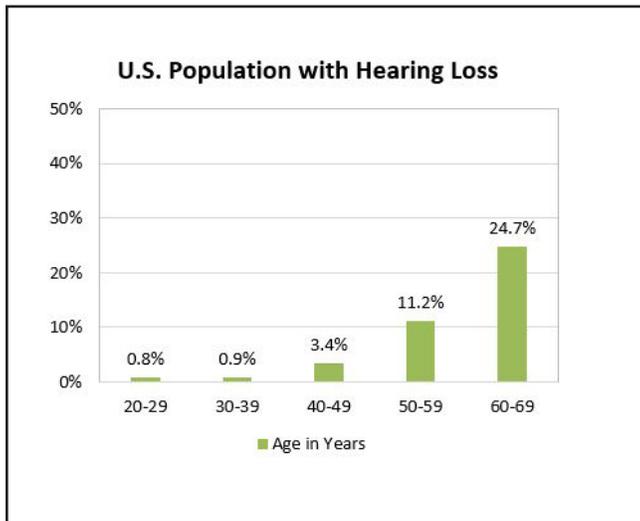
About 48 million Americans have a significant hearing loss, including a third of people over age 65, according to the Center for Hearing and Communication. This number is expected to climb as the population ages, since hearing loss correlates with age. The American Speech-Language-Hearing Association goes so far as to call it “a growing national epidemic.”

When hearing deteriorates with age, it can cause anger, fatigue, or loneliness. It can increase the risk to personal safety, impair memory, or reduce job performance and earning power.

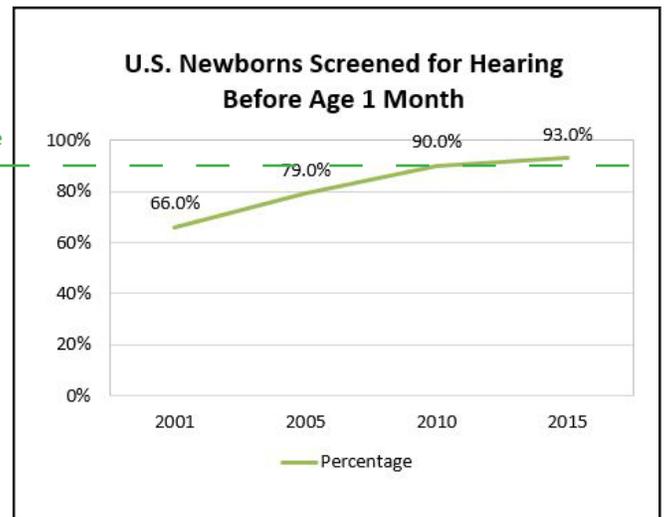
But hearing loss is not just an ailment of age. It can occur at birth or any other time of life. An estimated 5 of every 1,000 newborns come into the world with hearing loss. At this young age, it can impact language development, reading ability, and educational attainment.

Fortunately, through early diagnosis and intervention, children with hearing loss can develop speech and language skills on schedule with their peers. In fact, there have been many advances in all aspects of hearing health care, from the youngest infant to the eldest senior citizen. Treatment options vary depending on the extent of hearing loss, the age of onset, and individual lifestyle needs.

Noise is one of the leading causes of hearing loss. Limiting exposure to loud noises, including through the use of earplugs or other hearing protectors, can help to prevent hearing loss.



National Institute on Deafness and Other Communication Disorders



State-Based Early Hearing Detection and Intervention Program Network

23.8%
of Montana adults had
some amount of hearing
loss in 2014-2016

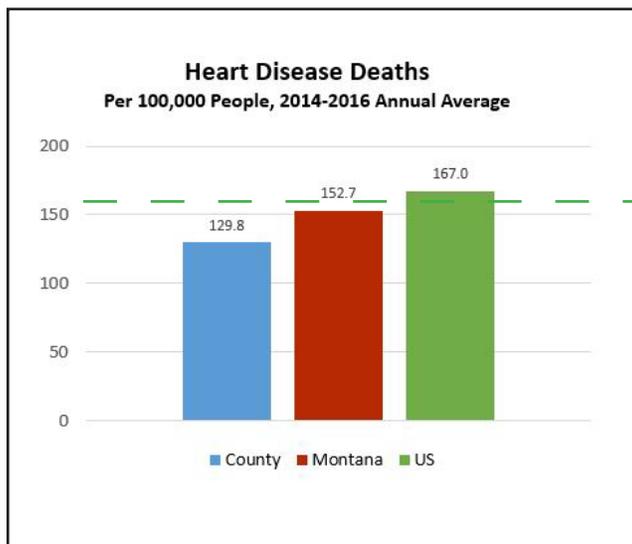
National Health Interview Survey, CDC

Heart Disease and Stroke

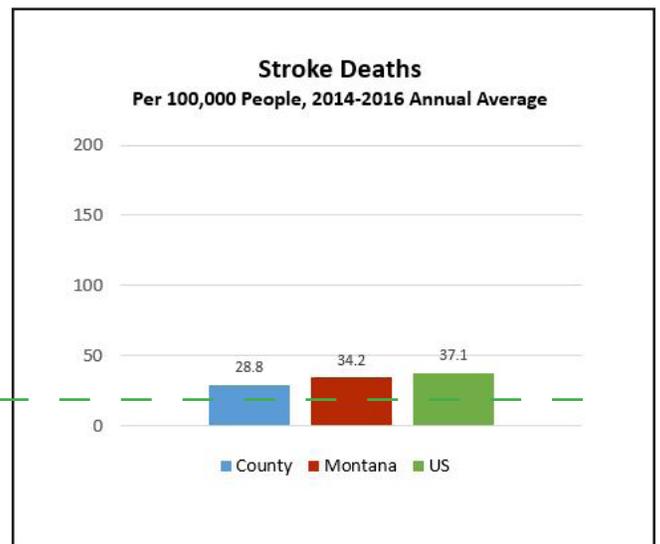
Heart disease is the leading cause of death in the county, state, and nation. Stroke comes in fifth. Together, they and other cardiovascular diseases are among the most widespread and costly health problems facing the nation today. They account for almost \$320 billion in health-care costs each year.

Fortunately, these diseases can be prevented. The leading controllable risk factors for heart disease and stroke are high blood pressure, high cholesterol, tobacco use, diabetes, poor diet, physical inactivity, and obesity.

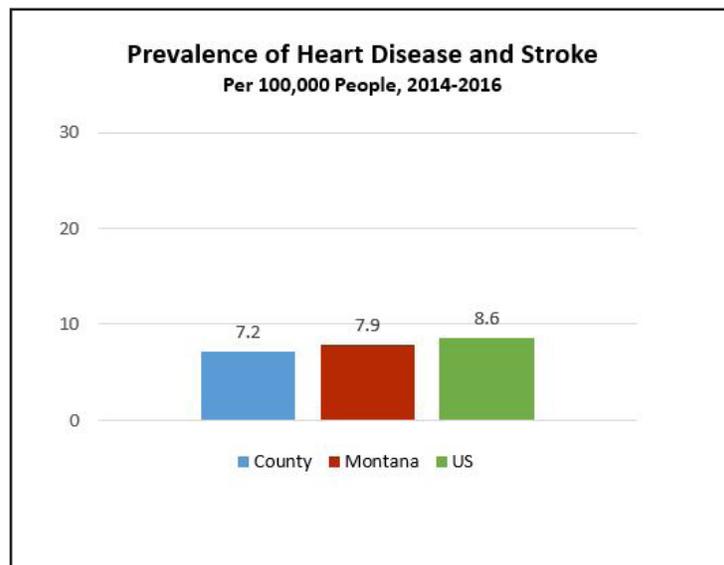
Over time, these risk factors cause changes in the heart and blood vessels that can lead to heart attacks, heart failure, and strokes. It's critical to address these factors early in life, but controlling them continues to be a challenge. For example, high blood pressure affects about a third of U.S. adults, and only about half of them have it under control.



2018 PRC Survey



2018 PRC Survey



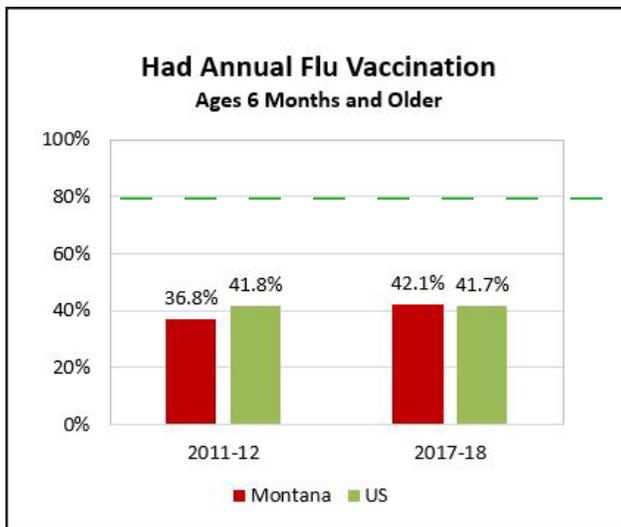
Behavioral Risk Factor Surveillance System

Immunizations

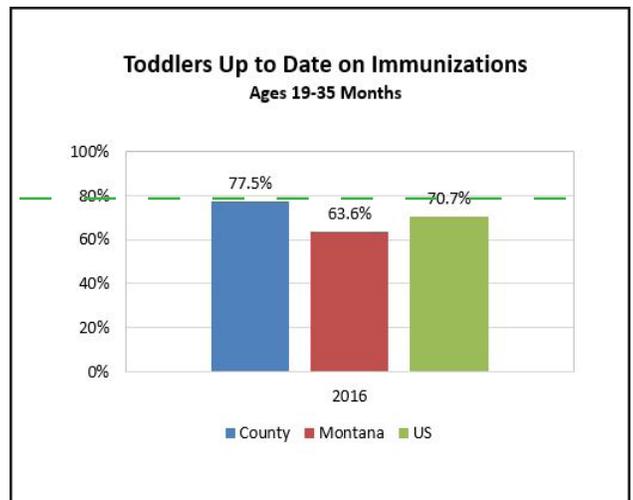
It's always better to prevent disease than to treat it after it occurs. Diseases that used to be common in this country and around the world – including polio, measles, diphtheria, pertussis (whooping cough), rubella (German measles), mumps, tetanus, rotavirus and Haemophilus influenzae type b (Hib) – can now be prevented by vaccination. That's why health departments all over the U.S. monitor vaccination coverage to understand how well their communities are protected against these vaccine-preventable diseases.

Vaccination coverage information is used to identify areas and groups with lower vaccination coverage so public health departments, health-care partners, and schools can take action to help improve vaccination coverage and protect everyone from potentially life-threatening, vaccine-preventable diseases. Immunizing individuals also helps to protect the health of the whole community, especially people who can't be immunized because they're too young or have medical reasons. This is sometimes referred to as "herd immunity."

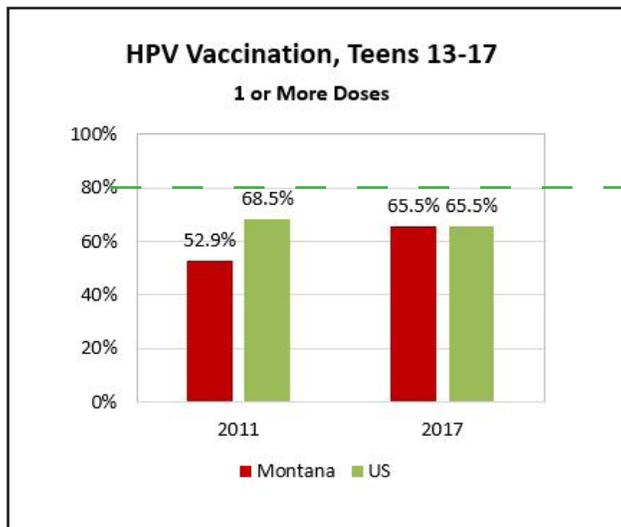
According to the Montana Immunization Program, 2.9% of all public and private K-12 students in Lewis and Clark County in 2016-17 had a religious or medical exemption from required vaccines.



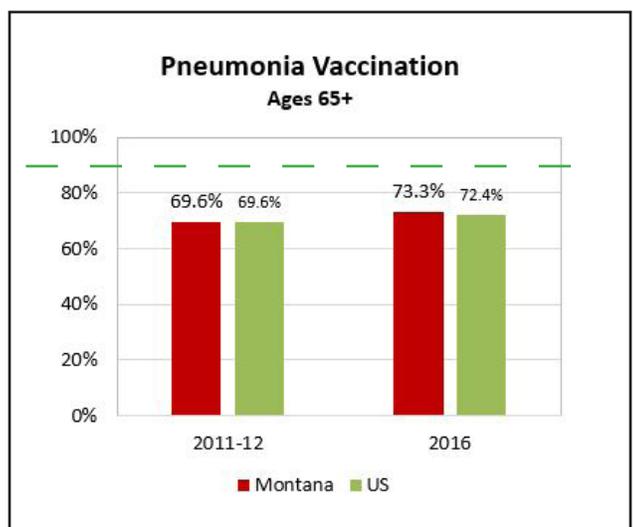
VaxView Database, CDC



MT Dept. of Public Health and Human Services



VaxView Database, CDC



VaxView Database, CDC

Infectious Disease

Life expectancy in the U.S. increased substantially in the 20th century -- from an average age of 47 at death to 77, according to the National Vital Statistics System. This was largely due to the fact that more children survived to adulthood. Immunizations were developed that helped these children and others survive many infectious diseases. But infectious diseases remain a major cause of illness, disability, and death.

About 42,000 adults and 300 children in the U.S. die each year from vaccine-preventable diseases, according to the CDC. Communities with pockets of unvaccinated and undervaccinated populations are at a higher risk for outbreaks. A huge focus of public health is to promote immunizations to help stop the personal, social, and financial burden of preventable illness.

In Lewis and Clark County, a significant increase in the number of sexually transmitted diseases – particularly chlamydia and gonorrhea – has worried public health professionals in recent years.

Diseases Transmitted Person to Person

Average Annual Number of Cases in the County

| Disease | 2008-2010 | 2011-2013 | 2014-2017 |
|----------------------------|-----------|-----------|-----------|
| Chickenpox (varicella) | 15 | 8 | <5 |
| Chlamydia | 139 | 156 | 242 |
| Gonorrhea | <5 | <5 | 16 |
| Hepatitis C | 42 | 66 | 50 |
| HIV | <5 | 0 | <5 |
| Influenza (all types) | 173 | 429 | 621 |
| Strep pneumonia | 8 | 8 | 7 |
| Syphilis | <5 | <5 | <5 |
| Tuberculosis | <5 | <5 | <5 |
| Whooping cough (pertussis) | 8 | 52 | 32 |

Lewis and Clark Public Health, Disease Control Division (reflects only cases officially reported)

Diseases Transmitted by Food, Water, Animals

Average Annual Number of Cases in the County

| Disease | 2008-2010 | 2011-2013 | 2014-2017 |
|-------------------------|-----------|-----------|-----------|
| Campylobacteriosis | 10 | 16 | 18 |
| Cryptosporidiosis | <5 | <5 | <5 |
| E. coli (all strains) | <5 | <5 | 6 |
| Giardiasis | 5 | 6 | <5 |
| Hepatitis A | <5 | <5 | <5 |
| Legionella | <5 | <5 | <5 |
| Norovirus | 24 | 28 | 22 |
| Rocky Mt. spotted fever | <5 | <5 | <5 |
| Salmonellosis | 12 | 10 | 19 |

Lewis and Clark Public Health, Disease Control Division (reflects only cases officially reported)

Lead Exposure

Lead is a metal that occurs naturally deep in the ground. Because it's widespread and easy to extract and work with, lead was used for hundreds of years in a variety of products found in and around homes, including paint, pipes, and gasoline.

Lead is no longer used in many products because scientists have linked exposure to lead to a number of health problems in adults and children. High blood-lead levels have been associated with heart problems, nerve disorders, decreased kidney function, fertility problems, and even cataracts. Pregnant women need to be particularly careful to avoid exposure, because lead can hurt fetal growth.

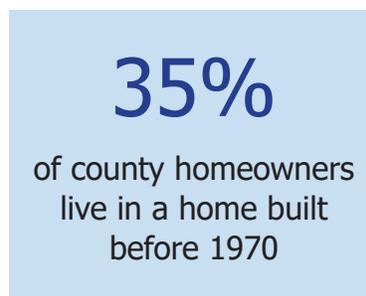
Children's rapidly developing bodies absorb lead more easily than adult bodies. Children under the age of 5 are especially vulnerable to the effects of lead in the blood, because their body, brain, and metabolism are still developing. Two-year-olds tend to have the highest blood-lead level concentration, because they put so many things into their mouth.

Lead can get into your body in two ways — through breathing it in or by eating it. For example, lead can enter the body through eating or inhaling paint dust or chips. The soil around your home can pick up lead from sources like exterior paint. Lead can also enter your drinking water through your plumbing.

Lead can still be found in lead-based paint used in older homes, contaminated soil, household dust, drinking water pumped through leaded pipes, lead crystal, lead-glazed pottery, airplane fuel, some toys, and some inexpensive metal jewelry. Until 1978, lead paint was commonly used on the interior and exterior of homes. Deteriorated lead paint in older houses remains the most common source of lead exposure for children in the United States. The paint industry stopped using lead in its products in 1978.

In addition to these typical sources of lead, East Helena is home to a Superfund site associated with a lead smelter that operated from 1888 until 2001. Smelting operations deposited heavy metals, arsenic, and other hazardous chemicals into the soil, surface water, and groundwater of East Helena and the Helena Valley.

Lewis and Clark Public Health, with funding from the U.S. Environmental Protection Agency, has a Lead Education and Assistance Program to remove lead and mitigate its effects in the East Helena area. Cleanup at the site is ongoing.



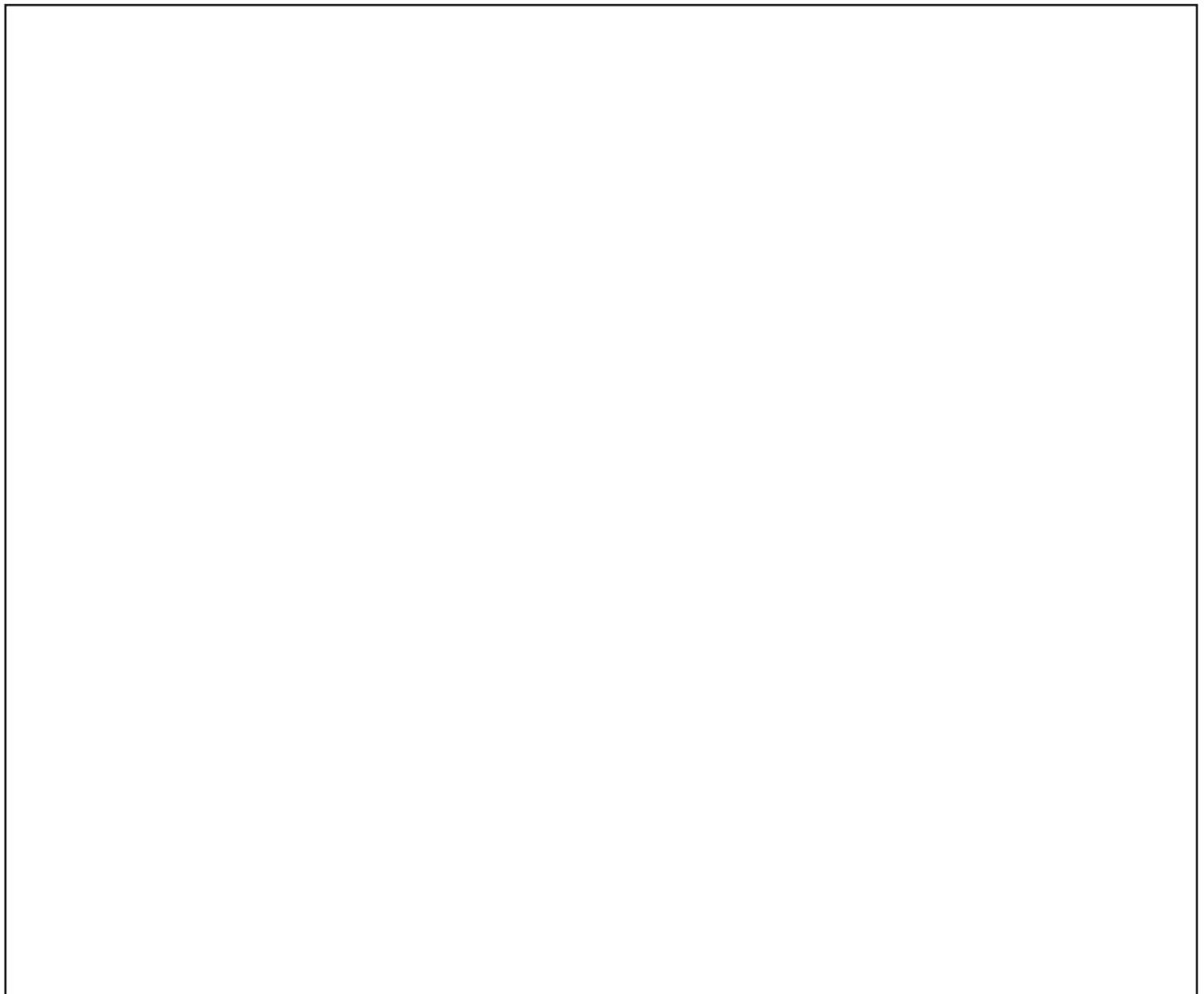
US Census Bureau

Life Expectancy

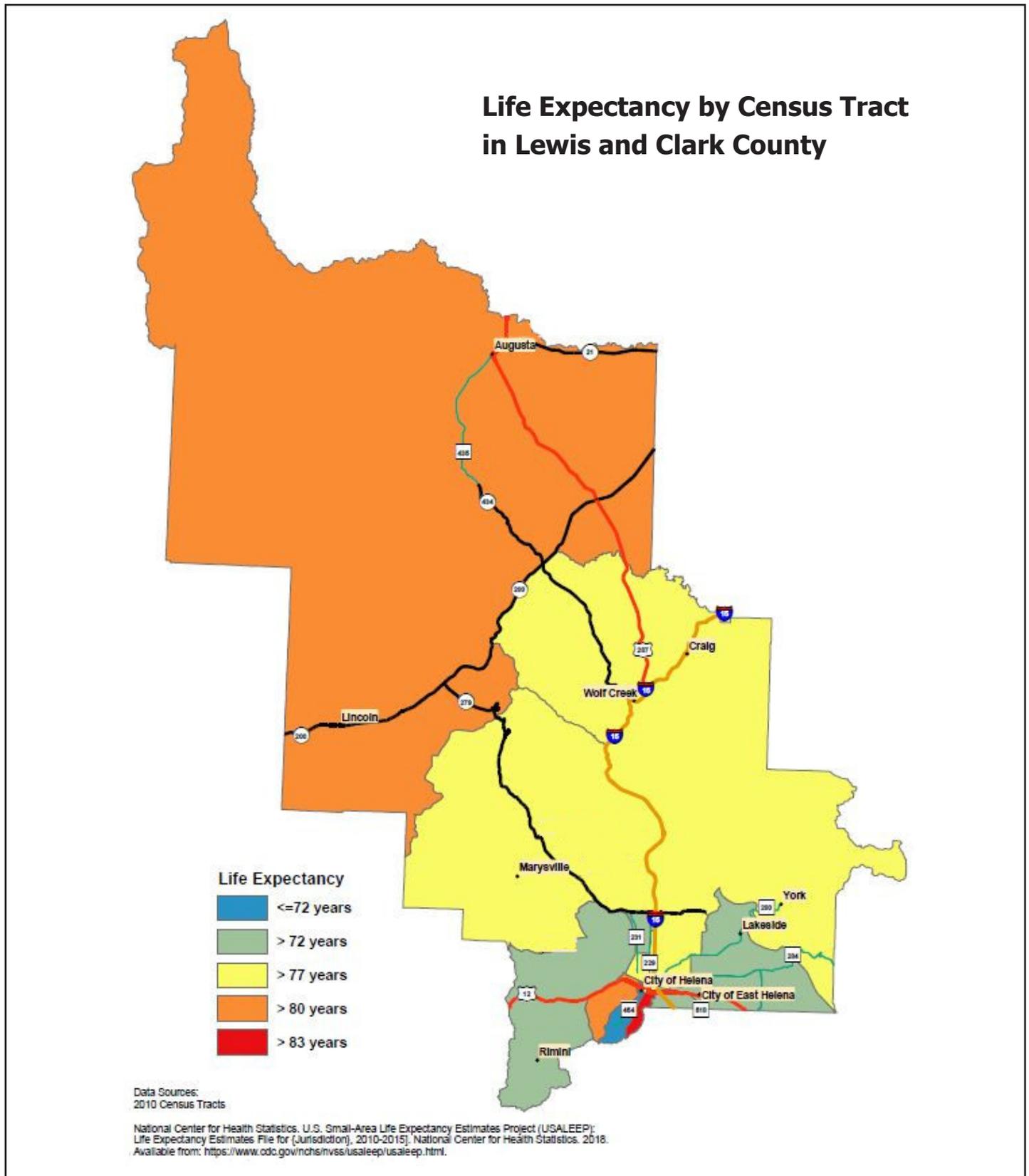
Evidence shows that a person’s ZIP Code can affect his or her health. Health disparities are often geographically concentrated. For example, areas that lack sidewalks and safe places to exercise have lower levels of physical activity and higher rates of obesity than areas that have these features. Neighborhoods with poor access to fresh fruits and vegetables and a high density of fast-food restaurants have higher rates of obesity than neighborhoods with good access and a low density. Areas with poor access to primary health care, compared with areas with good access, have lower levels of use of preventive health services and a higher burden of chronic disease.

Geographic areas with a constellation of risk factors, including those related to the social determinants of health, can lead to disproportionately poor health outcomes. Visualizing the distribution of health outcomes at small geographic scales, such as neighborhoods and ZIP codes, is therefore critical. It helps neighborhoods with the greatest need for help.

Life expectancy estimates are often used to compare population health across geographic regions because life expectancy is understood by the public, has well-established methodologies, and is influenced by many factors.



Life Expectancy: Countywide



Map produced by Lewis and Clark County GIS

Loneliness

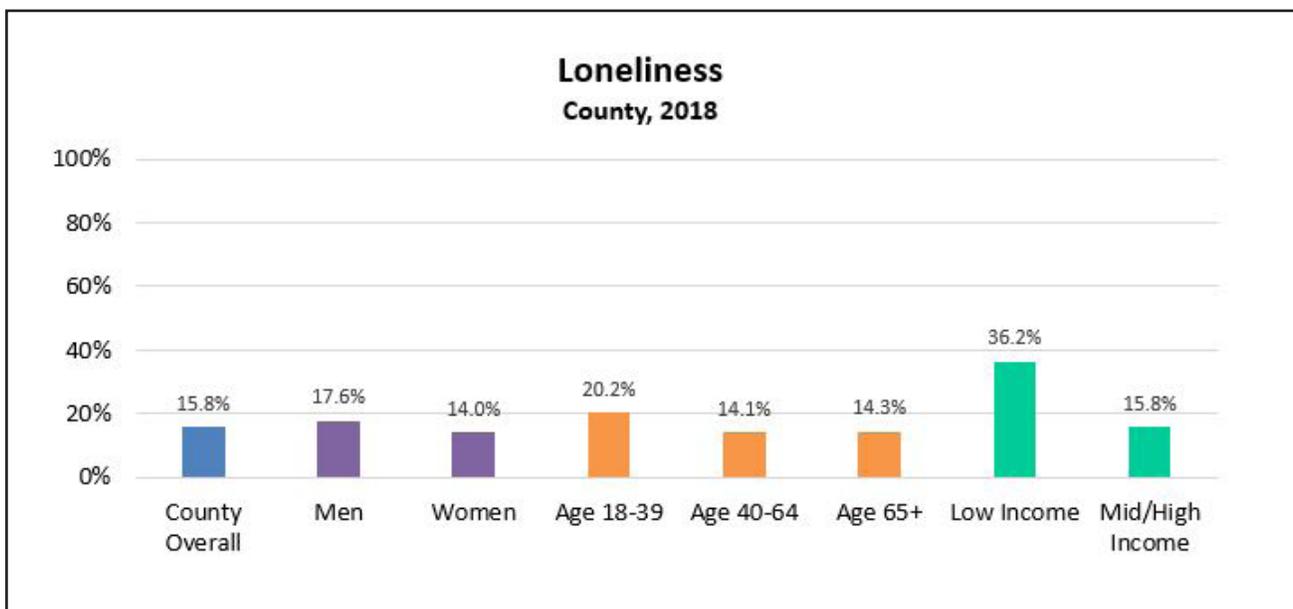
Loneliness is caused by a lack of meaningful social connections. You don't have to be alone to feel lonely.

Scientists are discovering that loneliness threatens physical as well as mental health in people of all ages and social and economic backgrounds. It's a special concern for older adults, because contact with friends decreases with age. Surveys show that more than 40% of American adults feel lonely. That rate has doubled since the 1980s, even though we now live in the most technologically connected period in human history.

People evolved to be social creatures. Building relationships helped early humans to find enough food and protect themselves from predators. That's why loneliness doesn't just make a person unhappy. It actually raises the levels of stress hormones and inflammation in the body and cuts down on the antibodies that fight infection. That increases the risk for high blood pressure, heart disease, cancer, arthritis, type 2 diabetes, anxiety, dementia, and even early death.

According to former U.S. Surgeon General Vivik Murthy, the impact of loneliness on a person's life expectancy is just as bad as smoking 15 cigarettes a day. Studies have shown that loneliness peaks in adolescence and young adulthood, and then again among the "oldest old." So as the population ages, the effect on public health is expected to increase.

This has discouraging implications for both public health and health-care costs. A 2014 study found that lonely people are more likely to visit the doctor. It helps to satisfy their need for interaction and stimulation.



2018 PRC Community Health Survey

15.8%

of county residents reported being lonely "often" or "sometimes."

2018 PRC Survey

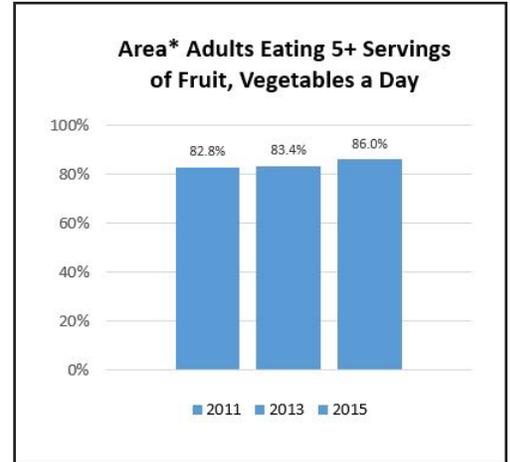
- **Loneliness Definition.** Professional Research Consultants Inc. (PRC) used the UCLA Loneliness Scale to establish whether respondents to their area survey could be defined as lonely. Respondents were asked: 1) do you feel isolated from others? 2) do you lack companionship? and 3) do you feel left out? The chart above shows the percentage who answered "often" or "some of the time" to the questions.

Nutrition

Science strongly supports the importance of good nutrition for overall health and for the growth and development of children. A healthy diet also helps reduce the risks for many health conditions, including obesity, malnutrition, anemia, heart disease, high blood pressure, type 2 diabetes, osteoporosis, and some cancers.

Yet most Americans need to improve some aspect of their diet, according to the U.S. Department of Health and Human Services. To achieve a healthy diet, we need to eat a variety of nutrient-dense foods from all food groups, especially whole grains, fruits, vegetables, low-fat or fat-free milk or milk products, and lean meats and other protein sources. We also need to limit our intake of saturated and trans fats, cholesterol, added sugars, sodium (salt), and alcohol. Finally, we should consume only enough calories to allow us to maintain a healthy weight.

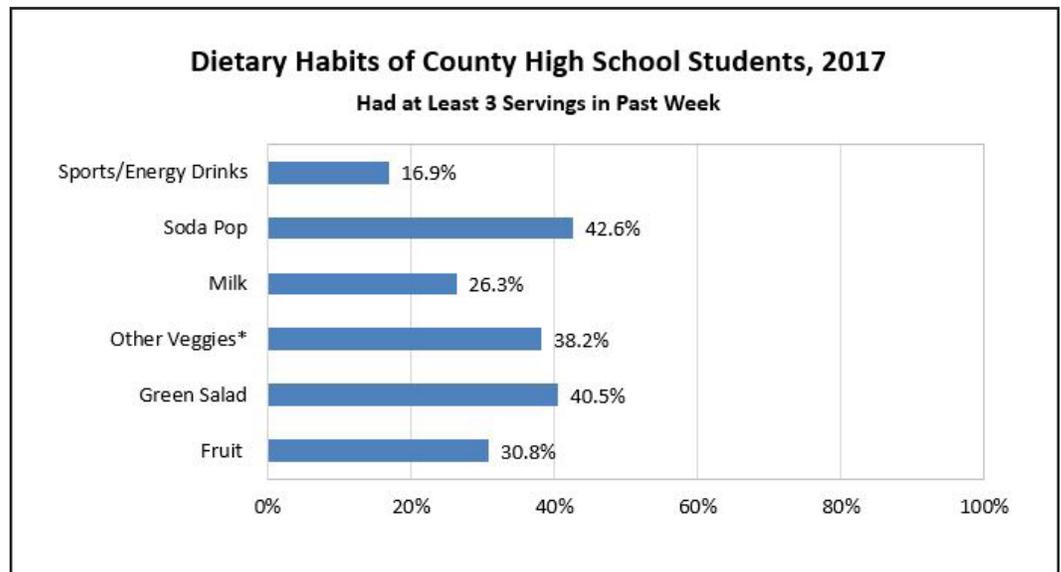
Efforts to improve diet and weight should not only address individual behaviors. They should also consider the policies and environments that support these behaviors in settings like schools, worksites, health-care organizations, and communities. In other words, we need to ensure that individuals have the knowledge and skills to make healthier choices, but also that healthier options are available and affordable. Limited access to supermarkets, grocery stores, or other sources of healthy and affordable food may make it harder for some to eat a healthy diet. Advertising can influence people’s – especially children’s – food choices.



Behavioral Risk Factor Surveillance System
 *Lewis and Clark County is part of BRFSS Southwest Region, which also includes Beaverhead, Broadwater, Deer Lodge, Gallatin, Granite, Jefferson, Madison, Meagher, Park, Powell, and Silver Bow counties.

11.9%
 of county high school students don't eat breakfast

2017 Youth Risk Behavior Survey



Lewis and Clark County High School Youth Risk Behavior Survey
 *Excluding potatoes and carrots

Oral Health

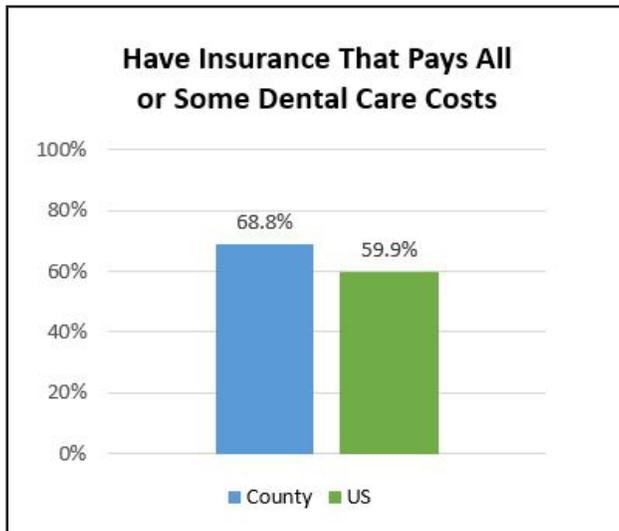
Good oral health is essential. It makes it possible to speak, smile, eat, and show our feelings through our facial expressions. Yet, oral diseases ranging from cavities to oral cancer cause pain and disability for millions of Americans.

Many studies have shown a link between oral health and overall health. And in the past two decades, an explosion of studies has shown connections between severe periodontal, or gum, disease and conditions like heart disease, diabetes, and stroke. So it just makes good sense to include brushing and flossing in our daily routines and to see a dentist regularly. Behaviors that can lead to poor oral health include smoking, drinking alcohol excessively, and eating sugary foods.

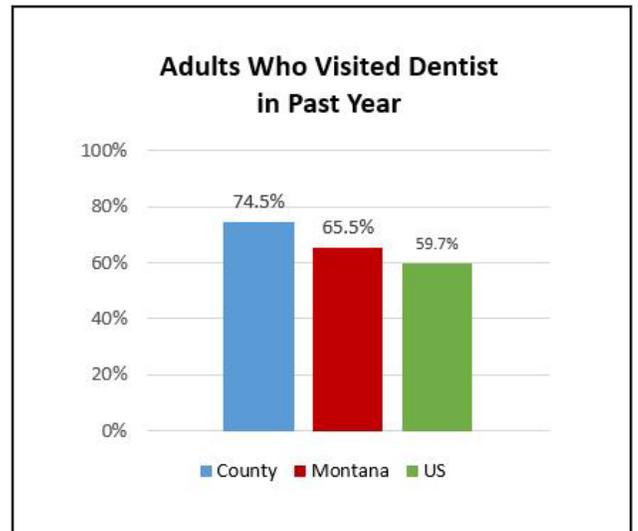
Oral health has improved significantly in the U.S. over the past 50 years. These gains mostly can be attributed to effective prevention and treatment efforts. One major success is community water fluoridation, which now benefits about 7 out of 10 Americans who get water through public water systems.

Still, almost half of U.S. adults aged 30 or older have signs of gum disease, according to the CDC. A quarter of adults has untreated cavities, and cavities are the most common chronic health problem among children in our country today.

Not surprisingly, those who have the least access to preventive services and dental treatment have the greatest rates of oral disease. Children from lower-income families are almost twice as likely to have cavities as kids from higher-income families, and they're much less likely to have dental sealants.



2018 PRC Community Health Survey



2018 PRC Community Health Survey

13.5%
of Montanans over age 65 had no natural teeth remaining in 2016

MT Dept. of Public Health and Human Services

26.4%
of students in the county had one or more cavities during the 2005-2016 school years

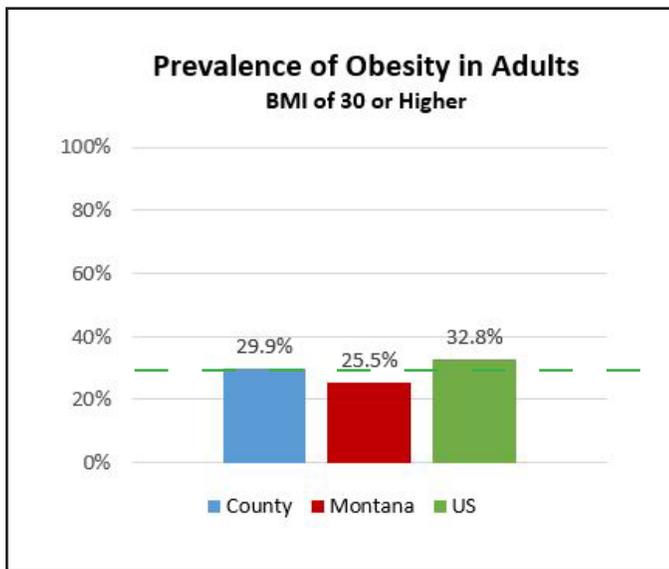
MT Dept. of Public Health and Human Services

Overweight and Obesity

Overweight and obesity in both adults and children are a growing and significant problem in the U.S. Compared to those at a healthy weight, people who are overweight or obese are at an increased risk for many serious diseases and health conditions. These include high blood pressure, type 2 diabetes, heart disease, osteoarthritis, sleep apnea, mental illness, and some cancers. Those who are obese have a 50-100% higher risk of dying at a younger age than other individuals.

Overweight is defined as having a body mass index (BMI) between 25 and 29.9. A person is considered obese if their BMI is 30 or higher.

Because weight is influenced by how much energy (calories) we consume and expend, improving diet and increasing activity are common ways to address this health problem. As new and innovative policy and environmental interventions to support diet and physical activity are implemented, it will be important to identify which are most effective. A better understanding of how to prevent unhealthy weight gain is also needed.



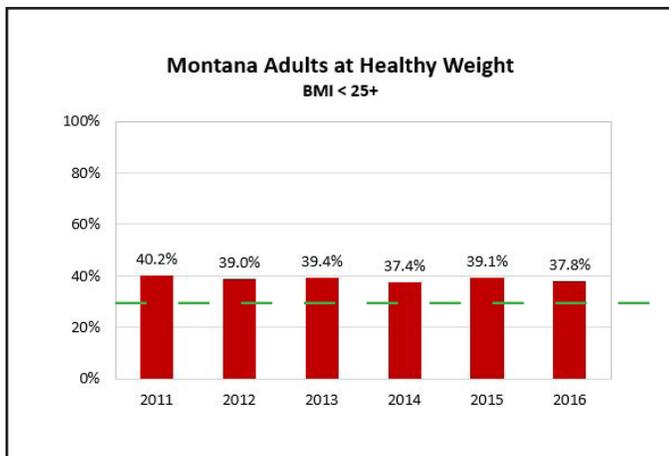
2018 PRC Community Health Survey

14.6%
of Montana high school students were overweight based on growth charts

2017 Youth Risk Behavior Survey

11.7%
of Montana high school students were obese based on growth charts

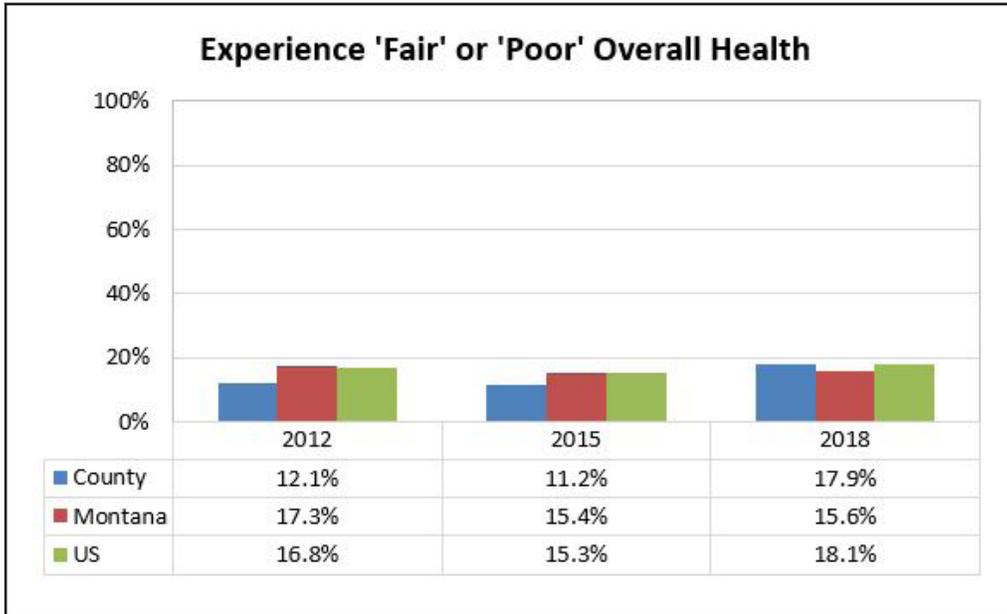
2017 Youth Risk Behavior Survey



Behavioral Risk Factor Surveillance System

Overall Health

Lewis and Clark County is relatively healthier than other parts of the nation and Montana, according to the Robert Wood Johnson Foundation, which produces annual county rankings. In the 2018 rankings, our county came in 7th healthiest of the 47 Montana counties that provided data. But we can't be complacent. Trend data indicate that in some areas, such as obesity, we're losing ground.

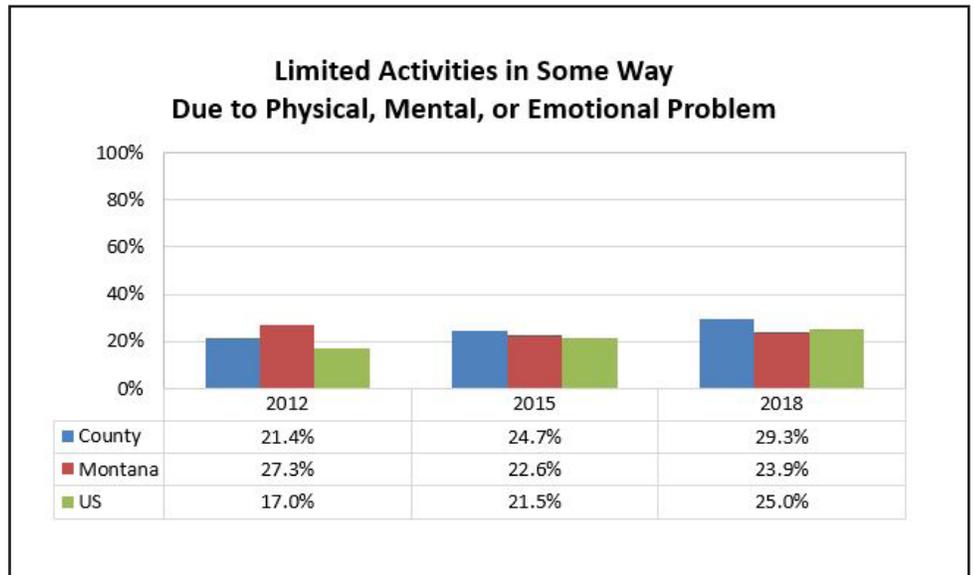


2018 PRC Community Health Survey

58.4%

of activity limitations are attributed to muscle and skeletal problems, like arthritis and bone or joint injuries

2018 PRC Community Health Survey



2018 PRC Community Health Survey

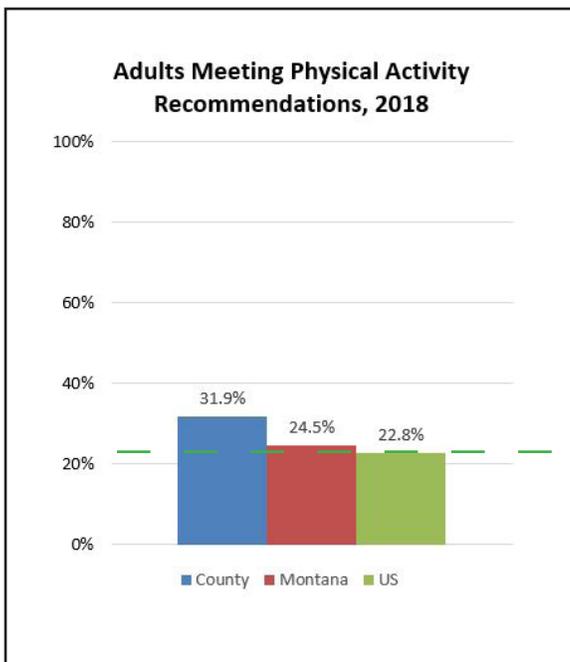
Physical Activity

The U.S. Department of Health and Human Services (HHS) released its second edition of *Physical Activity Guidelines for Americans* in November 2018. It provides evidence-based recommendations for children and adults to safely get the physical activity they need to stay healthy. Only 26% of men, 19% of women, and 20% of teens currently meet the recommendations, according to HHS.

According to the guidelines, these low levels of physical activity among Americans have significant health and economic consequences for the nation. Nearly \$117 billion dollars in annual health-care costs and 10% of all premature deaths can be attributed to failure to meet levels of aerobic physical activity recommended in the guidelines. Adults need 150 minutes of moderate-to-vigorous aerobic activity each week, with muscle strengthening activities on 2 days during the week to stay healthy. Youth ages 6-17 need 60 minutes of moderate-to-vigorous physical activity each day.

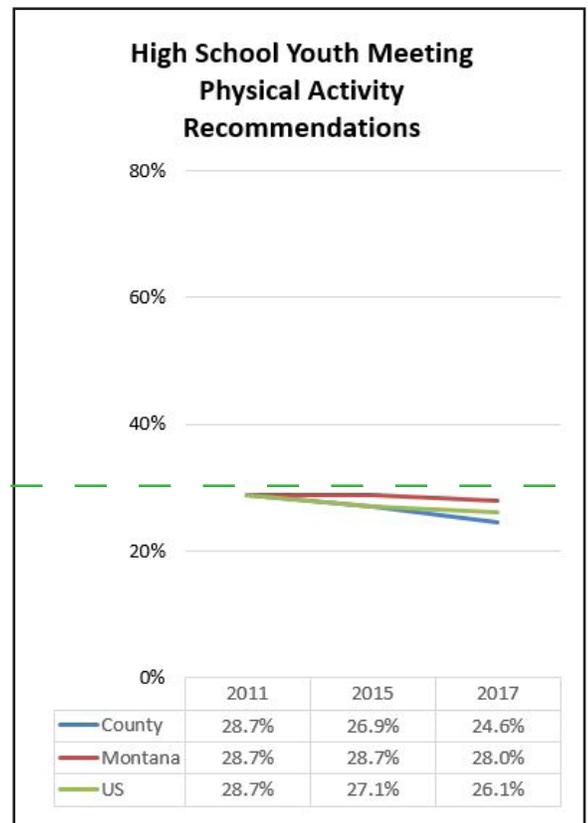
Regular physical activity can improve health and quality of life for people of all ages. Among adults and older adults, physical activity can lower the risk of heart disease, stroke, high blood pressure, type 2 diabetes, breast and colon cancer, falls, depression, and premature death. Among children and teens, it can improve bone health and heart and muscular fitness, reduce symptoms of depression, decrease levels of body fat, and improve thinking skills and concentration.

For people who are inactive, even small increases in physical activity can benefit health. New research shows that short periods of physical activity incorporated more often into the day is most beneficial.



2018 PRC Community Health Survey

See text above for definition of "meeting recommendations."

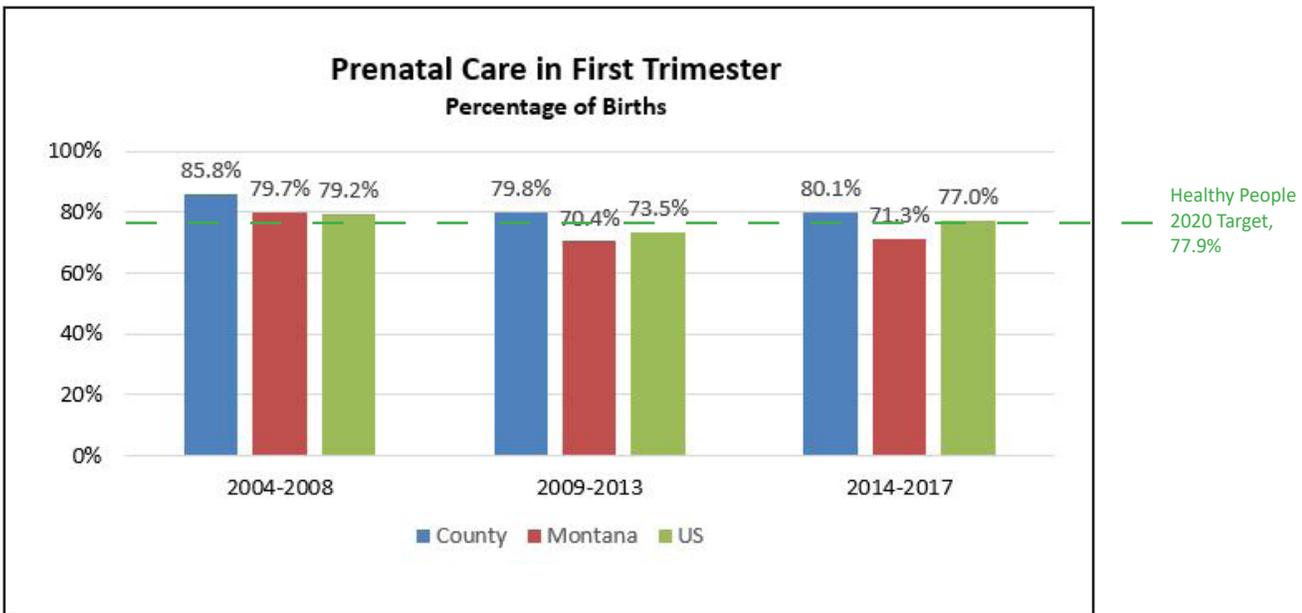


Youth Risk Behavior Surveys

Pregnancy

Pregnancy can provide an opportunity for women to identify any existing health risks they might have and prevent future health problems for themselves and their children. These risks may include heart disease, diabetes, depression, sexually transmitted diseases, poor nutrition, and unhealthy weight.

Pregnancy-related complications can be reduced by increasing access to quality care before pregnancy, during pregnancy, and between pregnancies. Women can help to ensure their health and that of their newborn by seeking prenatal care early, at least in the first few months of pregnancy; avoiding alcohol, tobacco products, and illicit drugs; maintaining a healthy weight; and taking folic acid and other supplements as a doctor recommends.



MT Dept. of Public Health and Human Services

Healthy People
2020 Target,
1.4%

15.9%
of county women
smoked during
pregnancy in the
period 2011-2015

MT Dept. of Public Health and Human Services

Radon

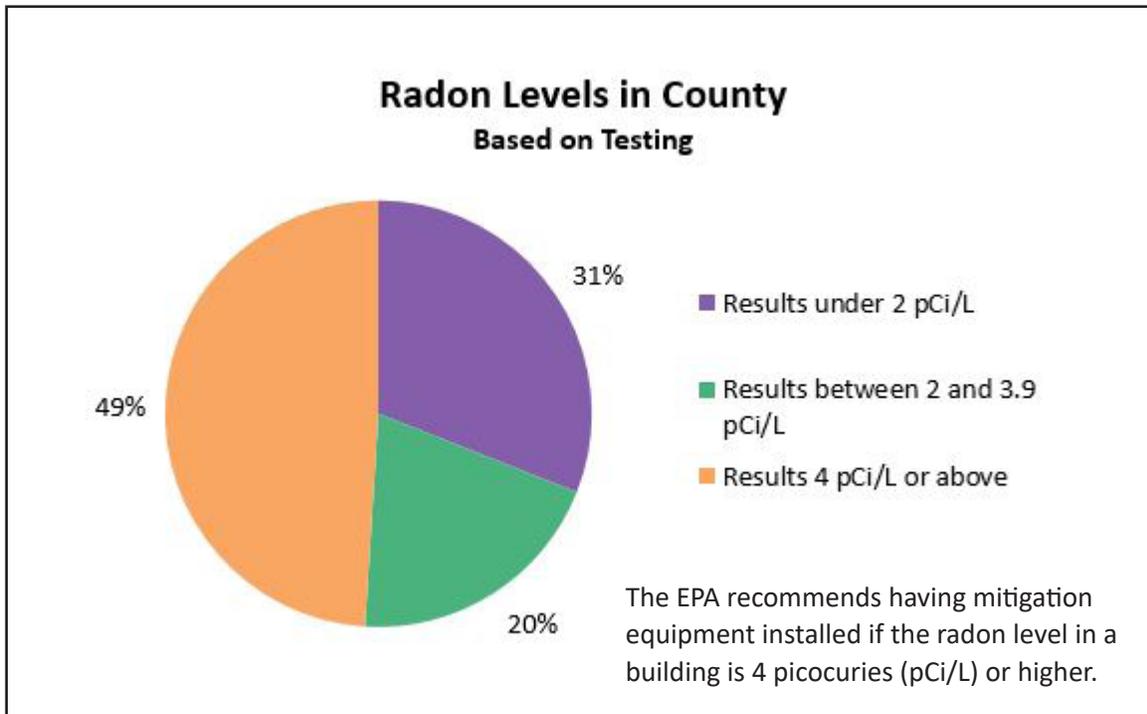
Radon is a radioactive gas formed by the natural decay of uranium in rock, soil, and water. It has no color, odor, or taste. Unless you test for it, there's no way of telling whether it's present. Radon can be found throughout the U.S., including in Montana and Lewis and Clark County. The geology of an area typically determines how much radon there is.

Radon gas decays into radioactive particles that can escape the ground and rise into the air we breathe. Most indoor radon comes from the soil or rock beneath a home or other building. Air pressure under the building forces the gas through floors and walls and into the building. Most of the gas moves through cracks and other openings. Once inside, the radon can become trapped and concentrated.

According to the U.S. Environmental Protection Agency (EPA), any exposure to radon carries some health risks. Radon is the second leading cause of lung cancer in the U.S. behind smoking. Children are at greater risk than adults from radon exposure because their metabolism is higher and they have more years ahead to accumulate long-term effects. If you smoke and are exposed to elevated radon levels, your risk of lung cancer is especially high. Breathing radon doesn't cause any short-term health effects like shortness of breath, coughing, headaches, or fever.

The EPA and U.S. Surgeon General recommend testing for radon in all homes below the third floor. Simple and inexpensive test kits are available at hardware stores and other retail outlets. You can also hire a licensed professional to test. The EPA recommends having mitigation equipment installed in a building if the radon level is 4 picocuries (pCi/L) or higher.

More information about radon, including a list of radon service providers, is available on the Montana Department of Environmental Quality website at deq.mt.gov/energy/radon



MT Dept. of Environmental Quality

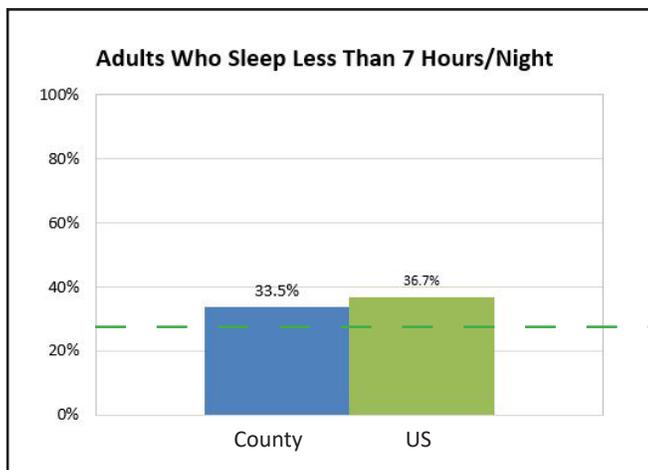
Sleep

Sleep, like nutrition and physical activity, is a critical determinant of health and well being. Sleep is a basic requirement for infant, child, and adolescent health and development. Sleep loss and untreated sleep disorders can influence an individual's behavior to the extent that it harms family health and interpersonal relationships. Fatigue and sleepiness can reduce productivity and increase the chance for mishaps, like medical errors and motor vehicle or industrial accidents.

Getting enough sleep can help an individual to fight off infection, perform well in school, and work effectively and safely. Sleep disorders and chronic inadequate sleep have been associated with heart disease, high blood pressure, obesity, diabetes, and death.

Sleep-disordered breathing (SDB), which includes sleep apnea, is another serious threat to health. SDB is characterized by intermittent obstruction of the airway or pauses in breathing. It may affect 20-40% of older adults. People with untreated SDB have 2-4 times the risk of heart attack and stroke. Obesity is a significant risk factor for SDB, and weight loss is associated with a decrease in SDB severity.

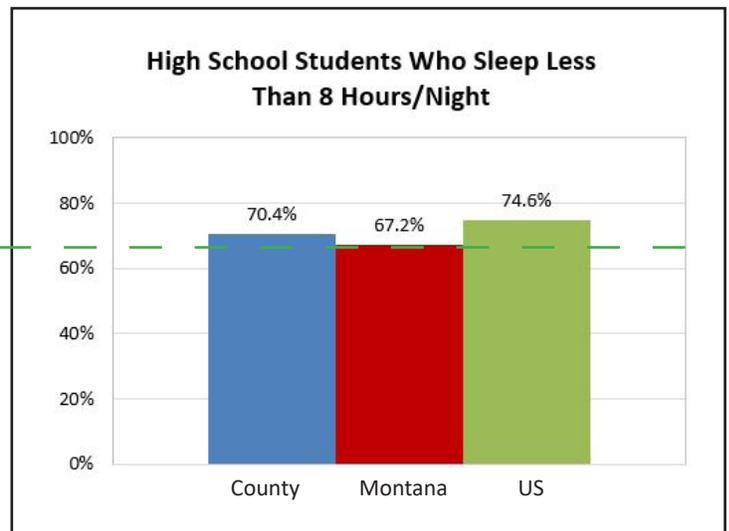
Without sleep health education, people often prioritize other activities over sleep and accept constant sleepiness and sleep disruption as inevitable. The CDC recommends 7 or more hours of sleep a night for adults and 8-10 hours for teens.



2018 PRC Community Health Survey

48.5%
of low-income county residents sleep less than 7 hours a night

2018 PRC Community Health Survey



2017 Youth Risk Behavior Survey

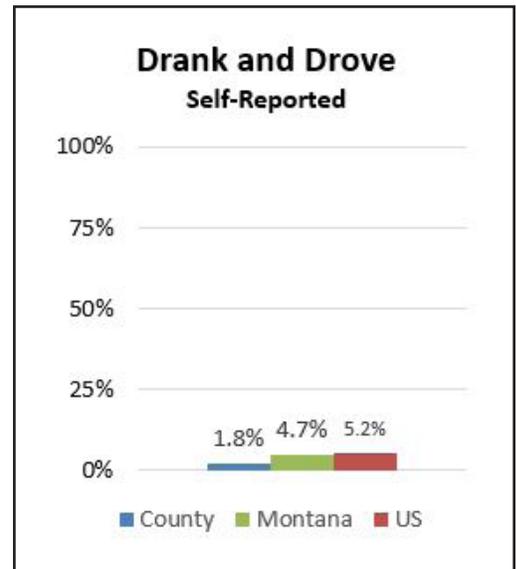
Substance Abuse: Adults and Alcohol

Substance use disorder includes abuse and misuse of legal drugs, like alcohol and prescription drugs, as well as illegal drug use. Substance use disorder causes a host of problems for individuals and communities. It often goes hand in hand with mental-health issues and chronic health problems. It can cause major disruptions within families.

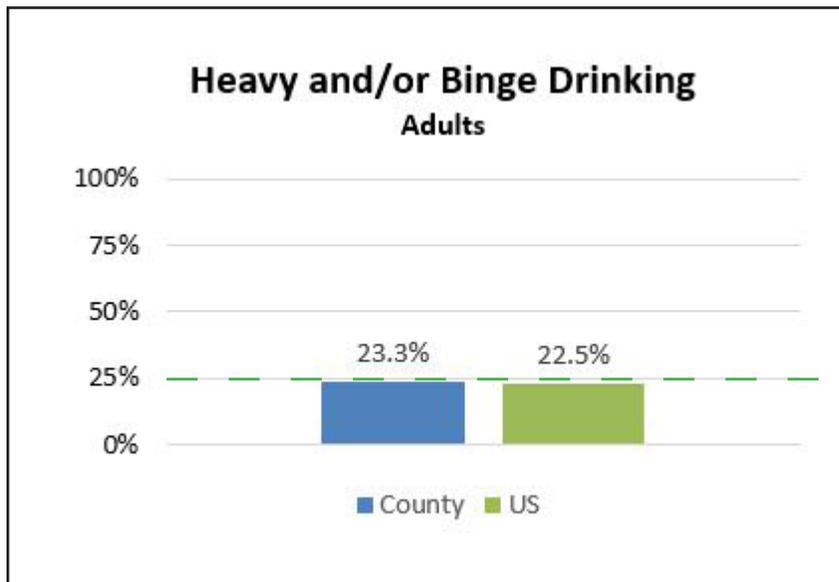
In the short-term, substance abuse can lead to teen pregnancy, sexually transmitted diseases, domestic violence, child abuse, vehicle crashes, crime, and suicide. In the long-term, it can lead to development of chronic diseases and other serious problems, including high blood pressure, heart disease, liver disease, some cancers, learning and memory problems, mental health problems, and social problems, including unemployment.

Advances in research have shown that substance abuse is a disorder that develops in adolescence and, for some people, evolves into a chronic disease that requires lifelong monitoring and care.

Social attitudes and political and legal responses to the use of alcohol and illicit drugs makes substance abuse one of the most complex public health issues to address.



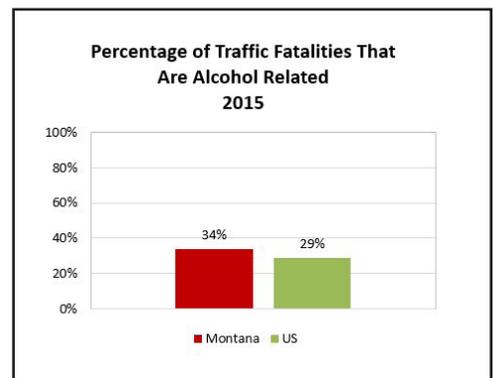
2018 PRC Community Health Survey



2018 PRC Community Health Survey

Healthy People
2020 Target,
25.4%

Montana continues to have one of the highest death rates in the nation caused by impaired drivers per mile traveled. Data from 2016 indicate that 45% of all traffic fatalities were the result of alcohol-impaired driving. This was up from 2015, when alcohol-impaired driving led to 34% of all traffic fatalities.



MT Dept. of Justice

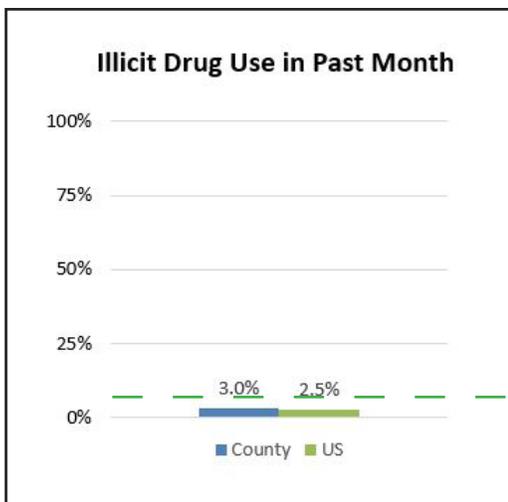
Substance Abuse: Adults and Drugs

Drug use can have a wide range of short- and long-term, direct and indirect effects. These effects often depend on which drug a person uses, how they take it, how much they take, their health at the time, and other factors. Short-term effects can range from changes in appetite, wakefulness, heart rate, blood pressure, and mood to heart attack, stroke, psychosis, overdose, and even death. These health effects may occur after just one use.

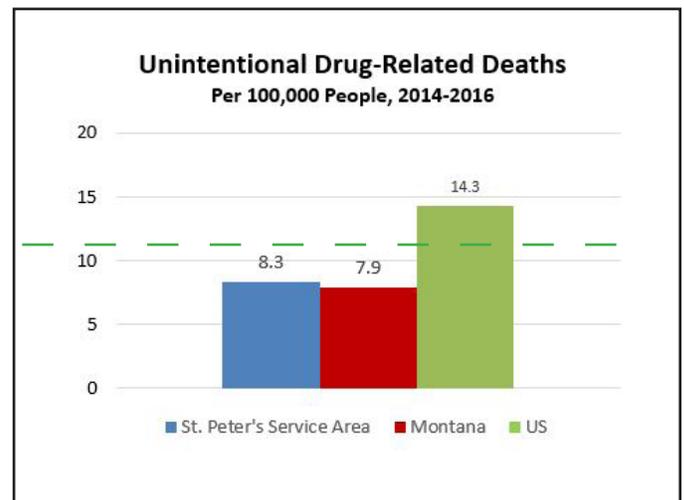
Longer-term effects can include heart or lung disease, cancer, mental illness, HIV/AIDS, and hepatitis, among others. Long-term drug use can also lead to addiction. Drug addiction is a brain disorder. Not everyone who uses drugs will become addicted, but for some, drug use can change how certain brain circuits work. These brain changes interfere with how people experience normal pleasures in life, their ability to control their stress level, their decision-making, and their ability to learn and remember. These changes make it much more difficult for someone to stop taking drugs even when they're having negative effects on their life and they want to quit.

Drug use can also have indirect effects on both the people who are taking drugs and on those around them. These can include affecting a person's nutrition; sleep; decision-making; impulsivity; and risk for trauma, violence, injury, and communicable diseases. Drug use can also affect babies born to women who use drugs while pregnant. Broader negative outcomes may be seen in education level, employment, housing, relationships, and criminal justice involvement.

Many people say they don't understand why or how other people become addicted to drugs. They may mistakenly think that those who use drugs lack moral principles or willpower and that they could stop their drug use simply by choosing to. In reality, drug addiction is a complex disease, and quitting usually takes more than good intentions or a strong will. Fortunately, researchers know more than ever about how drugs affect the brain. They've found treatments that can help people recover from drug addiction and lead productive lives.



2018 PRC Community Health Survey



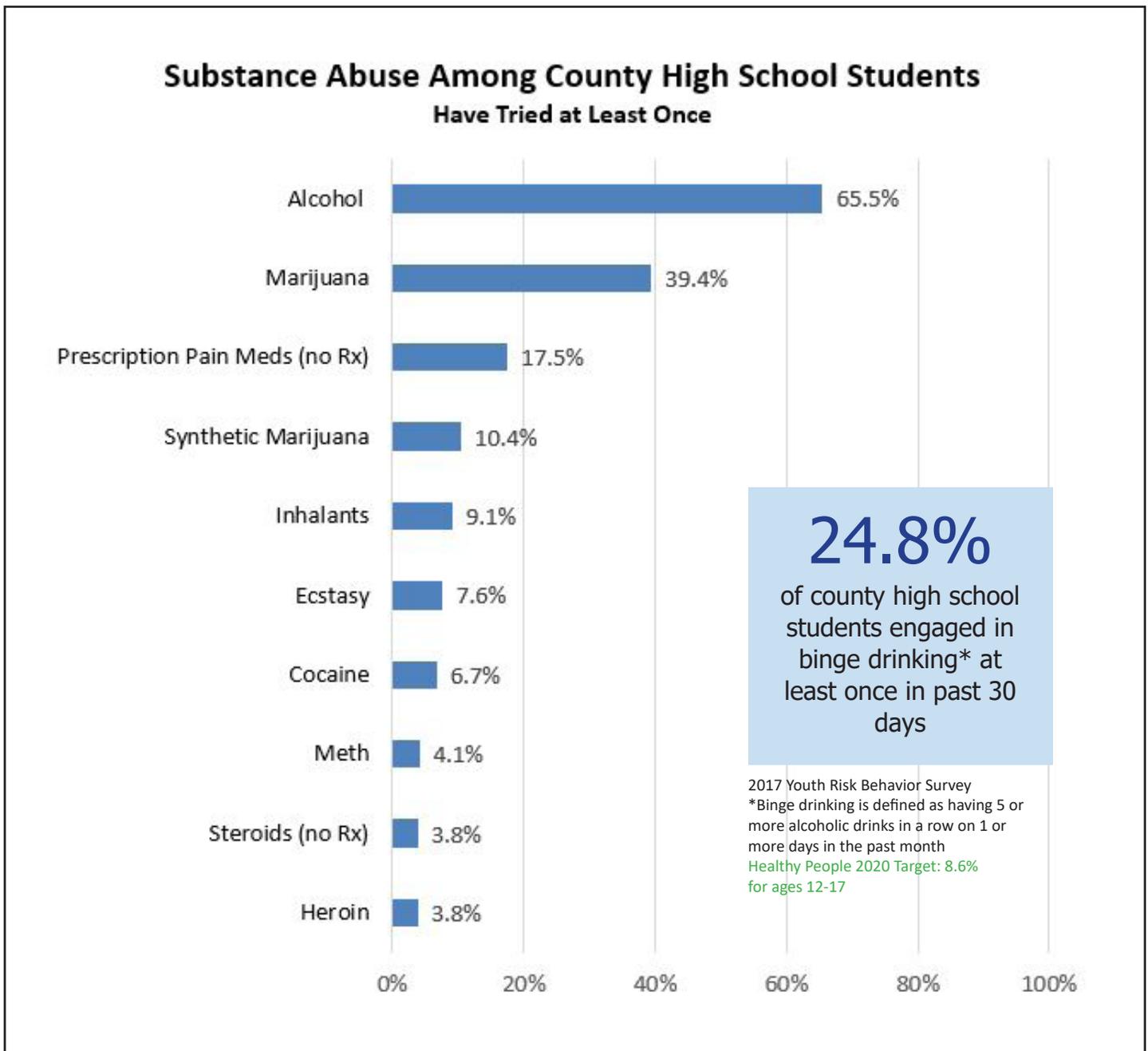
2018 PRC Community Health Survey

41.2%
of county residents said their life has been negatively affected by their own or someone else's substance abuse

2018 PRC Community Health Survey

Substance Abuse: Youth

Every 2 years, many school districts in Montana and nationwide conduct the Youth Risk Behavior Survey. It's a survey administered by the CDC through state and local partners to monitor 6 categories of health-related behaviors that contribute to leading causes of death and disability among youth and adults. These include alcohol and other drug use, tobacco use, unhealthy diet, inadequate physical activity, dangerous sexual behaviors, and behaviors that contribute to unintentional injuries and violence. The results below were self-reported by high school students in Lewis and Clark County in 2017.



2017 Youth Risk Behavior Survey

Suicide

Suicide is the 10th leading cause of death in the U.S., and the rate of suicides has increased by 30% since 2001. Tragically, the burden of suicide is even higher in Montana and Lewis and Clark County than in the nation as a whole. It's the 6th leading cause of death in our state, and we had the highest suicide rate of all states for 2012-2016, according to the Pew Charitable Trusts.

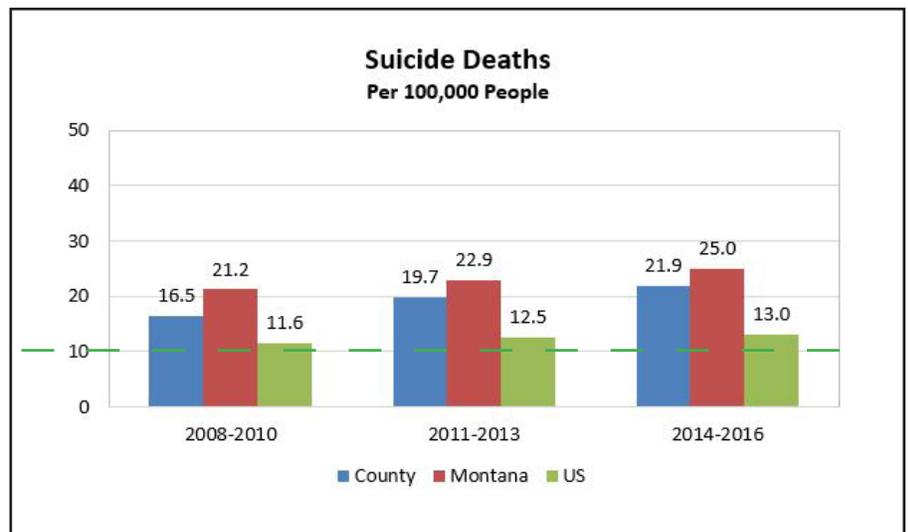
According to the World Health Organization, there is no health without mental health. Mental illnesses, like depression and anxiety, affect people's ability to engage in behaviors that improve their health. In turn, problems with physical health, such as chronic disease, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

Suicidal behavior is associated with a wide variety of social factors, but it correlates most highly with:

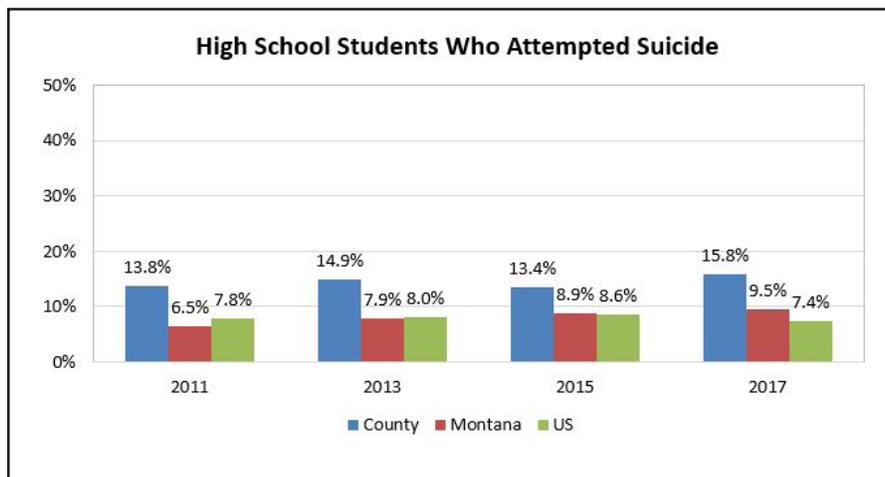
- Social isolation (being isolated from peers or having troubled social relationships);
- Social disorganization (society lacks the regulatory constraints necessary to control the behavior of its members);
- Downward social mobility; and
- Rural residency.

About 90% of those who complete suicide suffer from mental illness, according to the state health department. The most frequent diagnosis is major depression, and the 2nd most frequent is alcoholism.

Healthy People
2020 Target,
10.2



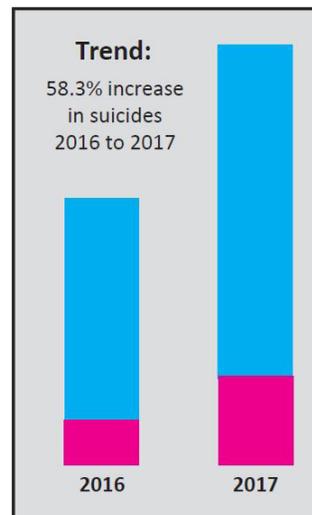
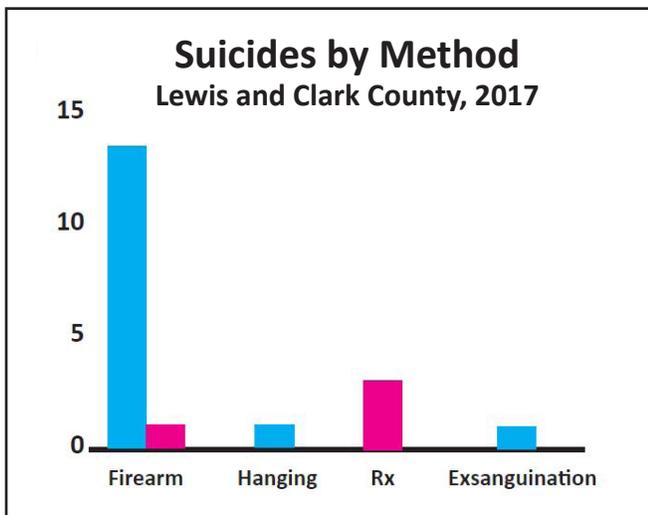
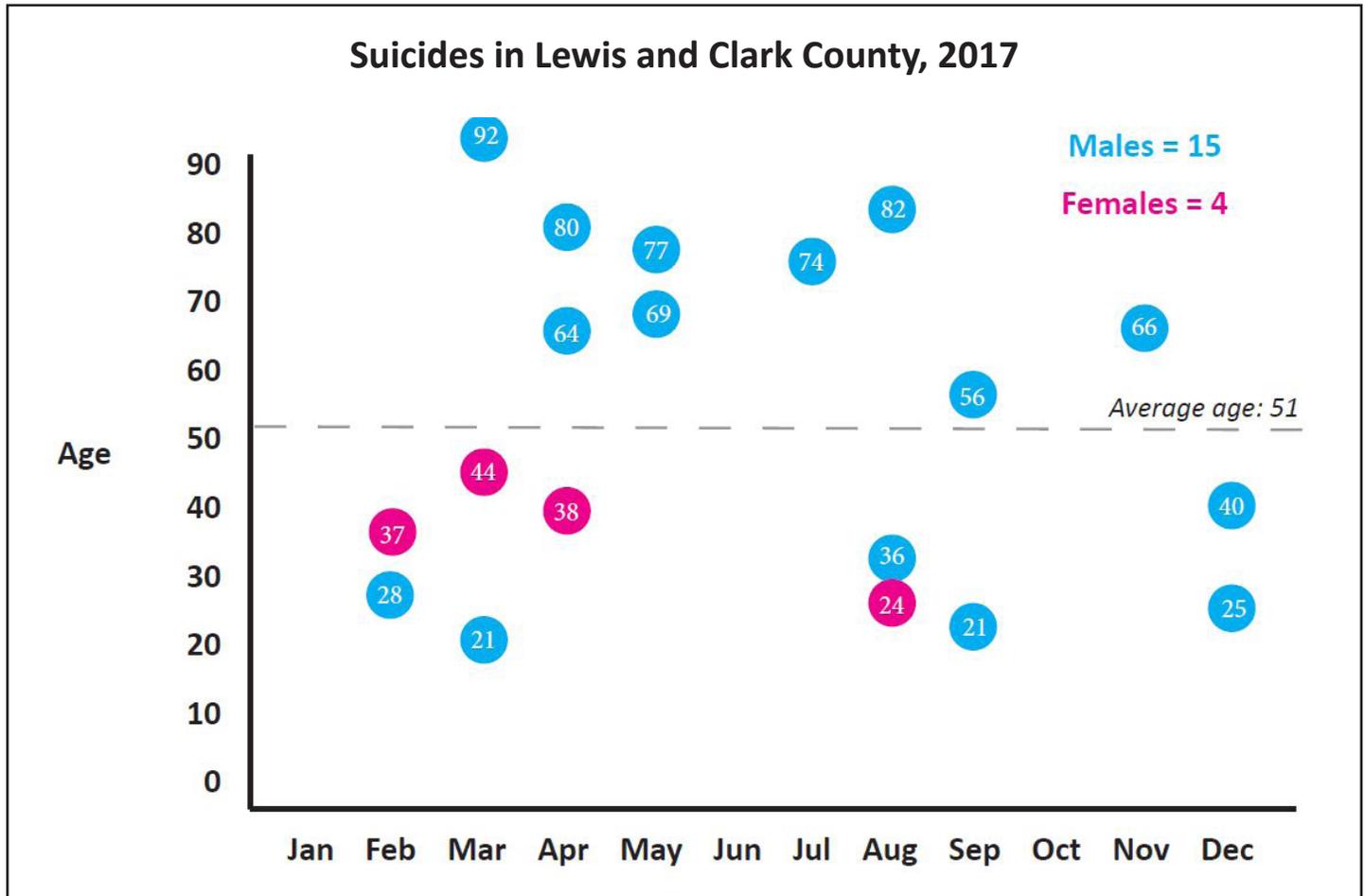
PRC Community Health Surveys



Youth Risk Behavior Surveys

Suicide

Suicide has been an issue of great concern in Lewis and Clark County. It has ranked first among the county's top health priorities for almost a decade. In 2018, the county formed a Suicide Prevention Coalition to address this issue. Based on data from the county coroner, it chose to focus its current efforts on suicides among working-age men.



All data this page courtesy of Lewis and Clark County Coroner

■ Men
■ Women

Tobacco Use

Tobacco use is the single most preventable cause of death and disease in the U.S. It causes more deaths than HIV, illegal drug use, alcohol use, motor-vehicle crashes, suicides, and murders combined.

Smoking reached its peak in the 1960s, when about 40% of Americans smoked. Since then, the nation has made great strides toward eliminating the habit. This has been due in part to a 1964 Surgeon General’s report that provided scientific evidence on the impacts of smoking on health. Policies limiting indoor smoking and the development of medications and other aids to quitting smoking have also contributed.

But the development of e-cigarettes and other new forms of tobacco delivery have threatened that progress. In 2014, e-cigarettes became the most commonly used tobacco product among middle and high school students.

Tobacco use contributes to diseases like cancer, heart disease, and lung diseases. Secondhand smoke extends the risks to others. When a pregnant woman uses tobacco, she raises the risk of having a premature birth, low birth-weight baby, stillbirth, or infant death.

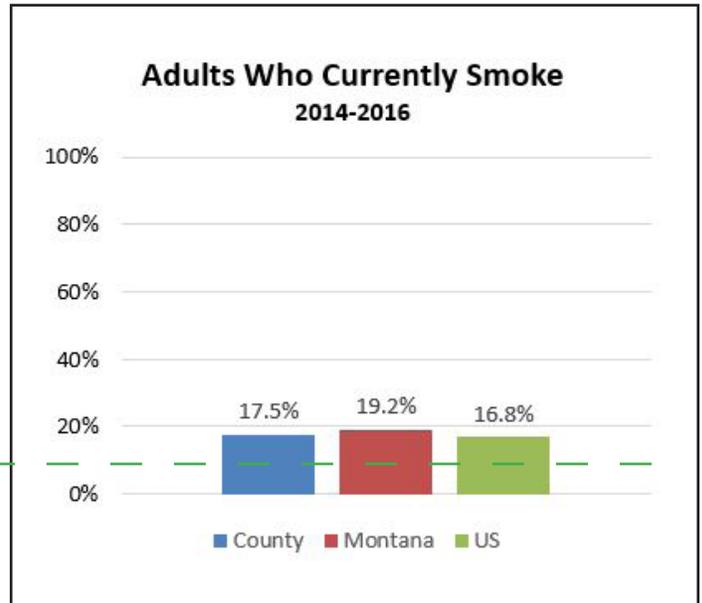
21.3%
of county high school students use e-cigarettes and other vaping products

2017 Youth Risk Behavior Survey

6.5%
of adults in the county use e-cigarettes and other vaping products

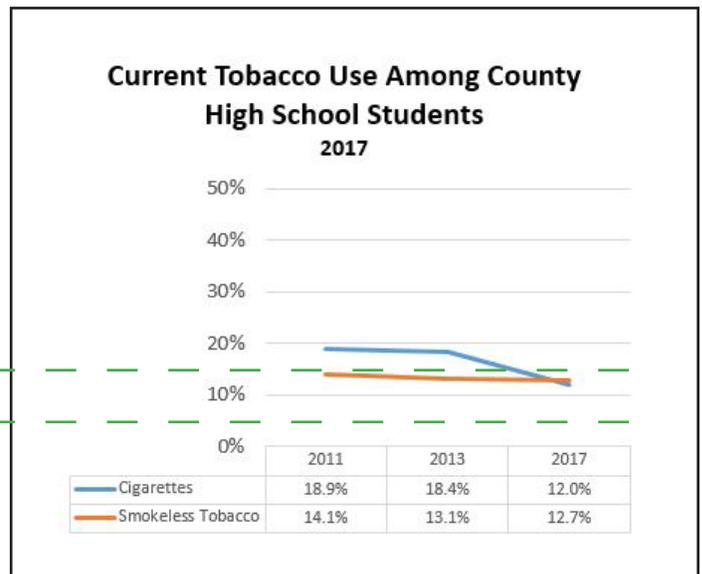
2018 PRC Community Health Survey

Healthy People
2020 Target,
12.0%



Behavioral Risk Factor Surveillance System

Healthy People
2020 Targets,
Cigs 16.0%
Smokeless 6.9%



2017 Youth Risk Behavior Survey

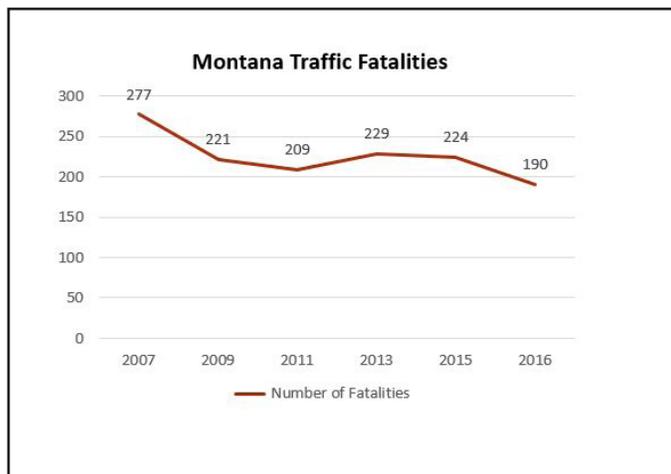
Traffic Safety: Motorized Vehicles

Montana had 186 motor vehicle fatalities in 2017, according to the National Safety Council. This was a significant decrease of 17% (38 fatalities) from 2015. In 2017, 12 people died in car crashes in Lewis and Clark County.

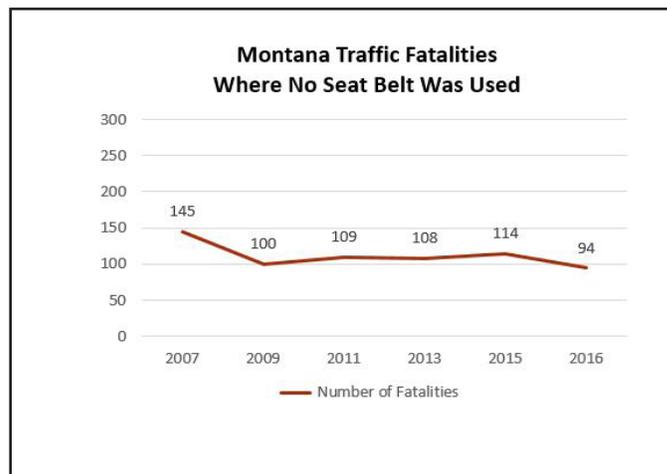
One of the best ways drivers and passengers can protect themselves is to buckle up. In 2016, seat-belt use in passenger vehicles saved an estimated 14,668 lives nationwide, according to the National Highway Traffic Safety Administration. Most people recognize the lifesaving value of the seat belt – the national use rate is at 90.1% – but nearly 27.5 million Americans still don't buckle up. Montana currently has a secondary enforcement law for seat-belt use. Although many attempts have been made to pass legislation making it a primary offense, those have consistently failed.

Distracted driving claimed 3,450 lives nationwide in 2016. Distracted driving is any activity that diverts attention from driving. Texting is the most alarming. Sending or reading a text takes your eyes off the road for 5 seconds. At 55 mph, that's like driving the length of an entire football field with your eyes closed.

Montana motorcycle fatalities decreased during 2016. There were 17 motorcycle fatalities as compared to 24 during 2015. This represents a 30% decrease and is the lowest number of fatalities Montana has had during the past 10 years. Of these, 12 (71%) were over the age of 40. Deaths of motorcyclists not wearing a helmet dropped from 18 in 2015 to 12 in 2016, also a 30% decrease.



MT Dept. of Transportation

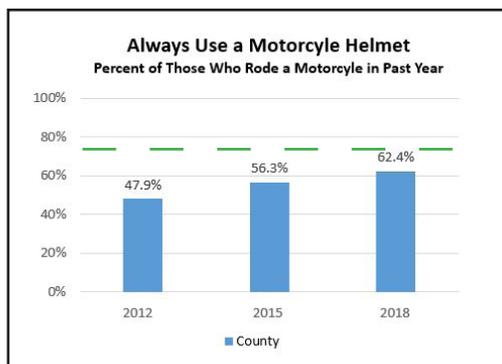


MT Dept. of Transportation

82.2%
of county residents say they "always" wear a seat belt when driving or riding in a vehicle

2018 PRC Community Health Survey

Healthy People 2020 Target, 92%



2018 PRC Community Health Survey

Healthy People 2020 Target, 74.0%

59.8%
of county high school students say they "always" wear a seat belt when driving

2017 Youth Risk Behavior Survey

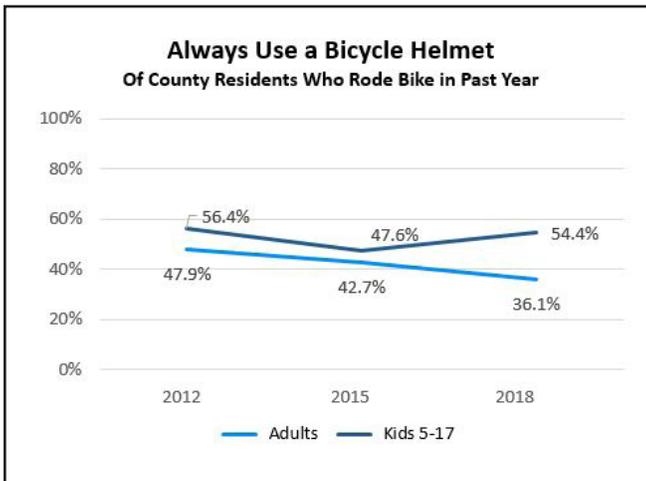
Traffic Safety: Pedestrians and Non-Motorized Vehicles

From 2009 through 2013, a total of 35 crashes involving bicycles were reported in the Greater Helena Area, according to the Greater Helena Long-Range Transportation Plan, 2014 Update. Of these, 24 were within the Helena city limits, and 23 (66%) occurred at intersections, driveways, roadway access points, or other junctions. One occurred during bad weather, 1 at night, and 3 at dusk or dawn. During this 5-year period, only 1 bicycle-motor vehicle crash was fatal.

There were 70 pedestrian-related crashes recorded from 2009 through 2013 in the Greater Helena Area. Of those, 53 were within the Helena city limits, and 39 were at intersections, driveways, roadway access points, or were otherwise intersection-related. Seven occurred during bad weather, 2 were at dawn or dusk, and 20 at night. All 6 fatal crashes occurred either during morning and evening commutes or late at night. Only one crash was reported to be alcohol-related, and it didn't result in any fatalities. GIS maps generated using 1991-1995 data show 64 pedestrian crashes reported within Helena city limits. This would indicate a drop in pedestrian crashes of about 17% (from 64 to 53).

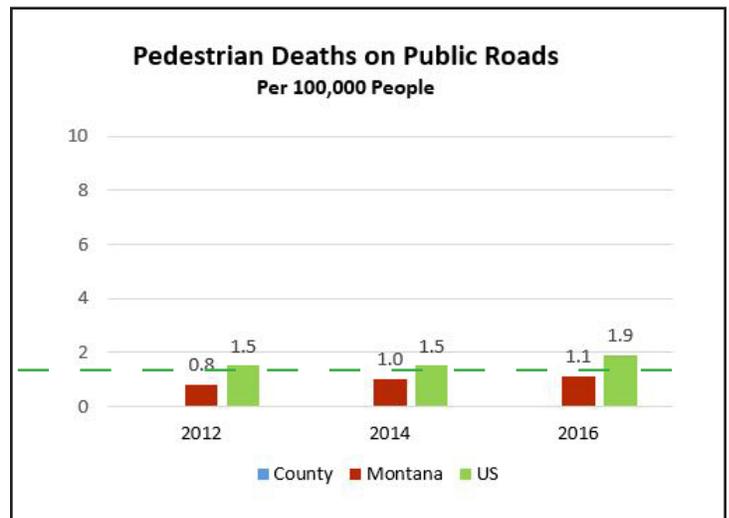
The City of Helena has adopted a Complete Streets policy that requires streets to have appropriate features to accommodate and coordinate all modes of transportation, both motorized and non-motorized, as well as people of all ages and abilities. The city also revised its Engineering and Design Standards and subdivision regulations in 2013 to require bike lanes on major streets. The design guidelines also address sidewalk widths, sight distance, traffic calming and many other aspects of transportation design.

It's important that bicyclists, pedestrians, and motorists understand how to operate safely on the roadway together. Non-motorized travelers should strive to be predictable and readily visible.



2018 PRC Community Health Survey

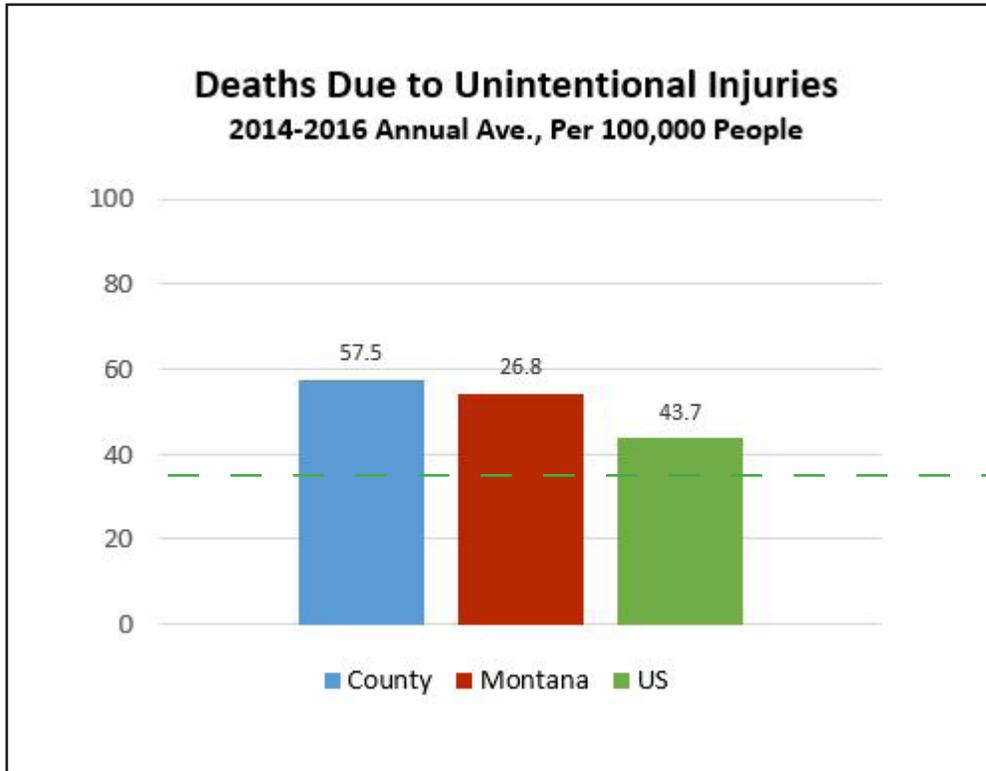
Healthy People
2020 Target,
1.4



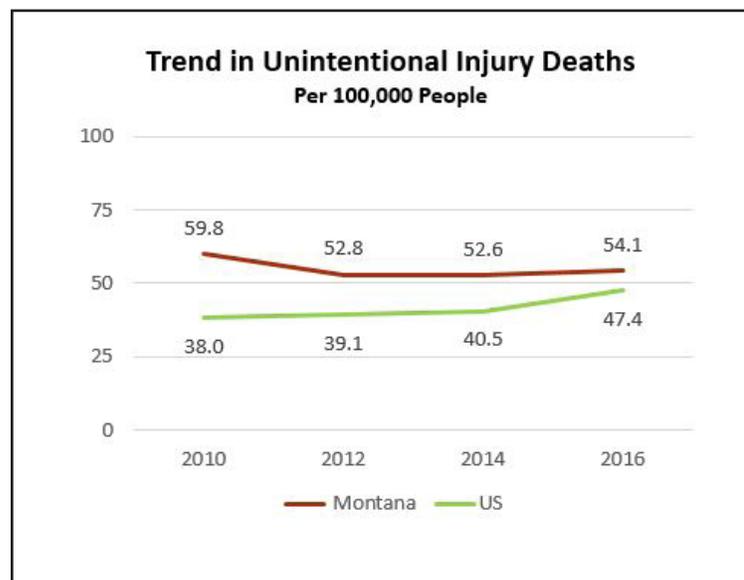
HealthyPeople.gov

Unintentional Injuries

Unintentional injuries are the 3rd leading cause of death in Lewis and Clark County after heart disease and cancer. Most of these deaths are due to falls, motor-vehicle crashes, and poisoning, including accidental drug overdoses. See the Falls and Traffic Safety pages for more information.



2018 PRC Community Health Survey



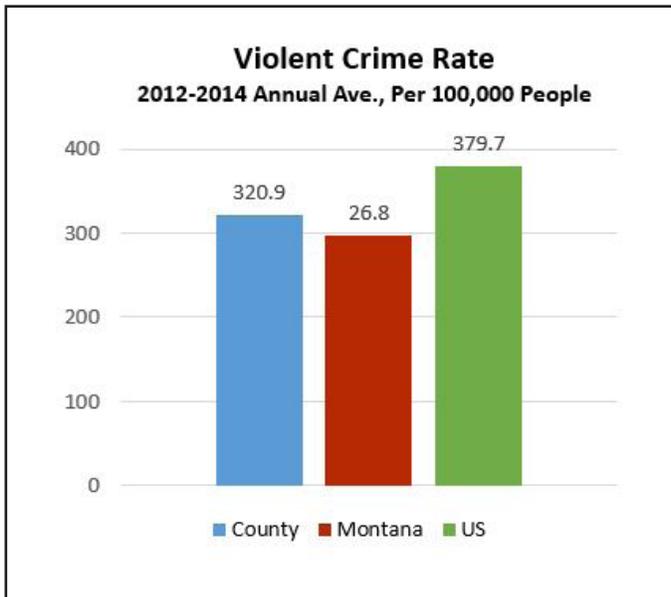
National Center for Health Statistics

Violence

The violent crime rate in Lewis and Clark County is higher than that of the state as a whole but lower than the rate for the U.S.

In Montana, the number of people murdered by their intimate partner increased 139% in recent years, according to the Montana Department of Justice. For Native Americans, the increase was 150%. Firearms continue to be the most frequently used weapons. Fewer than half of the killings involved people with mental-health issues.

According to the Montana Board of Crime Control, in 2017 Lewis and Clark County had the 3rd highest rate of rapes (1.2 rapes per 1,000 people) in the state after Hill and Golden Valley Counties.



2018 PRC Community Health Survey

13.5%
of county residents said they've been hurt by an intimate partner

2018 PRC Community Health Survey

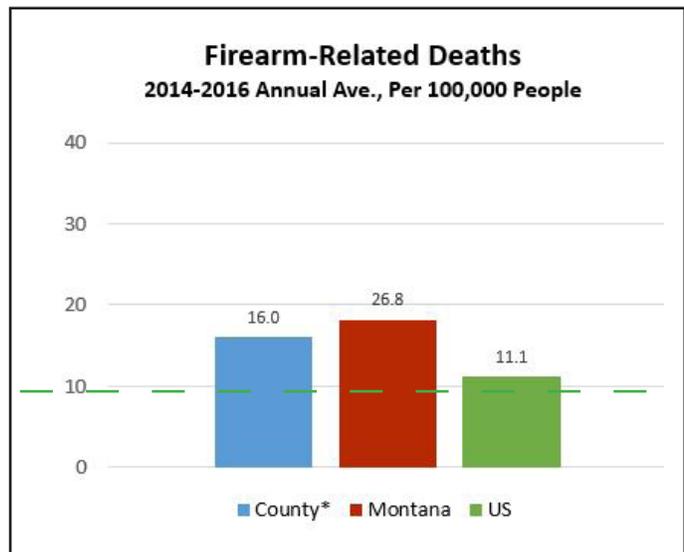
20.4%
of county high school students said they have been electronically bullied

2017 Youth Risk Behavior Survey

10.5%
of county high school students said they were threatened or injured with a weapon on school property

2017 Youth Risk Behavior Survey

Healthy People 2020 Target, 9.3



2018 PRC Community Health Survey

*County data is for 2012-2016, County Health Rankings, Robert Wood Johnson

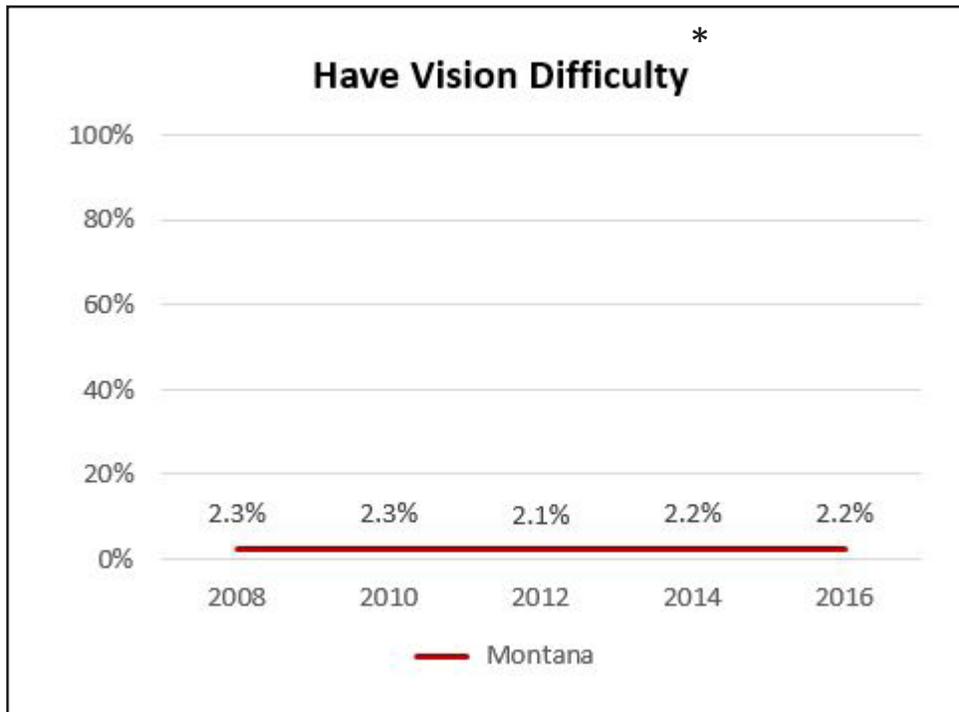
Vision

Vision is an essential part of everyday life. It influences how we learn, communicate, work, play, and interact with the world. Yet millions of Americans live with visual impairment, and many more remain at risk for eye disease and preventable eye injuries.

The eyes are an important but often overlooked part of overall health. Although some vision impairments are preventable, many people don't get recommended screenings and exams. A visit to an eye-care professional for a comprehensive dilated-eye exam can help to detect common vision problems and eye diseases, including diabetic retinopathy, glaucoma, cataract, and age-related macular degeneration.

These common vision problems often have no early warning signs. If an eye-care professional detects a problem, he or she can prescribe corrective eyewear, medicine, or surgery to keep vision loss to a minimum and help people see their best.

Healthy vision can help to ensure that you have a healthy and active lifestyle well into your later years.



US Census Bureau, American Community Surveys

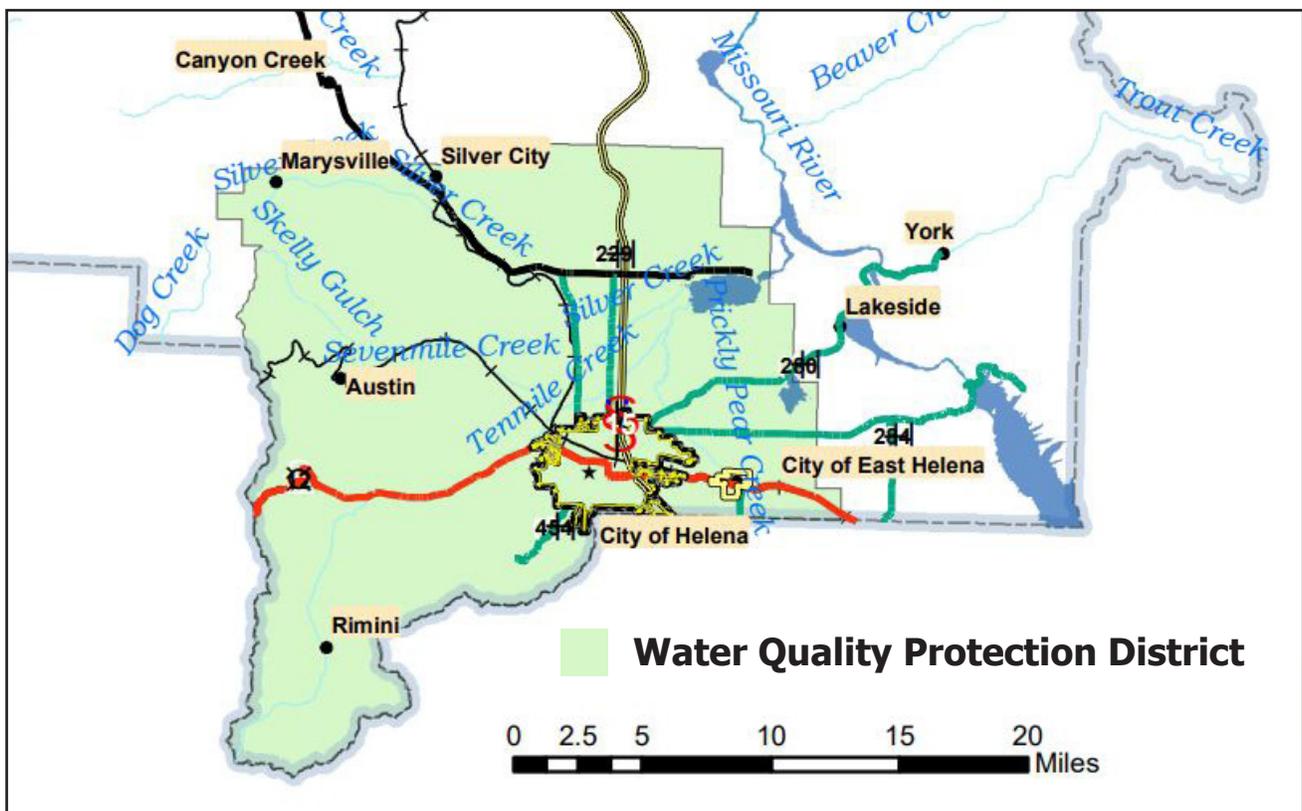
*Vision difficulty refers to individuals who reported having serious trouble seeing even when wearing glasses or contact lenses, as well as those who are blind or unable to see at all.

Water Quality

Clean drinking water is essential for the health of any community. The Safe Drinking Water Act (SDWA) is the primary federal law that ensures clean and safe drinking water in public water supplies. Under SDWA, public water supplies are required to meet federal drinking water standards that include regular and rigorous testing for chemical and microbial contaminants.

In 1992, Lewis and Clark County created a Water Quality Protection District to preserve, protect, and improve water quality in the greater Helena area.

In 2016, 65.4% of Missoula County residents had homes connected to public water supplies. This is just slightly higher than in 2014, when 63.8% of the population was served by public water supplies. Nationally according to Healthy People 2020 environmental health statistics, 93.2% of people get their water from public water supplies that meet the SDWA. The Healthy People 2020 target is 91%, well above the Missoula County level. Other HP2020 water quality objectives include water conservation by reducing per capita domestic water withdrawals and reducing waterborne disease outbreaks.



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