# 2015
# Community Health Report

**Lewis & Clark County**
**Montana**

Lewis & Clark Public Health

St. Peter's Hospital

# Contents



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# Introduction

October 2015

Greetings, Lewis and Clark County residents,

*Melanie Reynolds, MPH*
*County Health Officer*

One of the hallmarks of public health is that it's evidence-based. That is, public health policy is informed by impartial data, including the data we collect on the local level regarding our community's health.

That's why Lewis and Clark Public Health and St. Peter's Hospital have teamed up to produce this report on a variety of public health indicators. These data give us a snapshot of the health of our county with regard to chronic disease, communicable disease, environmental health, mental health, and oral health.

As part of our collaboration, we also have conducted a telephone survey of 401 local residents to gauge their health conditions, behaviors, and preferences (see page 24). And we surveyed about 150 "key stakeholders" online to get their perceptions about the pressing health issues facing our community (see page 25). The stakeholders included professionals and citizens with special expertise in one or more health issues, as well as local policy makers.

*Nate Olson, CEO*
*St. Peter's Hospital*

This document, which includes both the data and the results of the community and stakeholder surveys, will serve as the basis for a community health-improvement planning process that we expect to launch together in late fall. They also will serve as a guide as both we and the hospital produce our own strategic plans and address our missions of improving health.

## Highlights from This Report

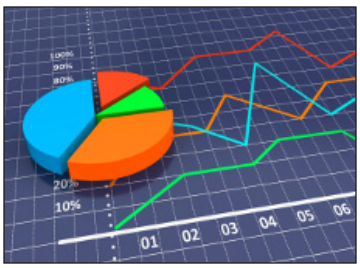
This report contains some intriguing and sometimes disturbing glimpses into our lives and health:

- Adults in Lewis and Clark County commit suicide at a higher rate than Americans in general (19.3 suicides per 100,000 population compared to 12.8). High school students are more likely to attempt suicide in our county (14.9% compared to 8.0% nationally).
- The rate of lung cancer in Lewis and Clark County is higher than that of the state and nation (51.0 cases per 100,000 population compared to 45.1 and 48.4, respectively). Rates of asthma and chronic obstructive pulmonary disease (COPD) are also higher here.
- High school students in Lewis and Clark County are less likely to binge drink than teens in Montana as a whole (19.0% compared to 23.5%), but they are more likely to text or email while driving (64.2% compared to 55.8%). Adult residents, on the other hand, are more likely to binge drink (24.1% compared to 16.8% nationally and 20.8% statewide).
- Lewis and Clark County has one of the lowest death rates from unintentional injury in the state (34.6 deaths per 100,000 compared to 41.3 statewide).
- County residents are less likely to be hospitalized with diabetes than Montanans in general (665.8 per 100,000 hospital admissions compared to 822.5).
- The proportion of county residents living below poverty level is lower both for adults (11.1%) and children (14.0%) than for other Montanans and Americans.
- County residents are less likely to be obese than Montanans and Americans in general (23.1% compared to 24.6% and 29.4%, respectively).
- Adult residents are less likely to get a flu shot than Montanans and Americans in general (34.8% do get immunized compared to 39.0% and 42.2%, respectively).

## The Next Step: We Need Your Input

This report is just a first step toward making our county a healthier place to live, work, and play. Next, we need to map out strategies for addressing these issues and improving our public health. We need your input and hope you'll join us as we prepare to take action.

If you have a comment about this report, or if you'd like to be involved in our community discussion of how to improve health, please contact us at **publichealth@lccountymt.gov.** We look forward to working with you!




# Methodology

This report is the result of a year-long collaboration between St. Peter's Hospital, the City-County Board of Health, and Lewis and Clark Public Health (formerly the Lewis and Clark City-County Health Department). The purpose of this report is to quantify, using scientific data, the health status and needs of Lewis and Clark County residents.

Statistics are essential when trying to evaluate and improve the health of families and communities. They provide scientific evidence upon which to base sound public-health policy decisions. They help to demonstrate whether the strategies we use to combat public health problems are effective and whether the money spent on them is money well spent. They help to identify trends that deserve our attention. And they help to identify where we should target community resources when those resources are limited.

Much of the data presented in this report were collected through the U.S. Census Bureau, state and national vital statistics reports, and the annual surveys of the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveys (YRBS). The latter two nationwide surveys collect health information as self-reported by adults and youth, respectively. In Montana, BRFSS is administered by the state Department of Public Health and Human Services, YRBS by the Montana Office of Public Instruction. Where other data sources were used, they are noted. Further citations are available in the "Resources" section at the end of this report.

In addition, St. Peter's Hospital commissioned a random telephone survey of 401 local residents to gauge their health conditions, behaviors, and preferences, along with an online survey of about 150 "key stakeholders" to get their perceptions about the pressing health issues facing our community. The stakeholders included professionals and citizens with special expertise in one or more health issues, as well as local policy makers.

We tried throughout this report to use the most recent data available. However, because we wanted to present accurate comparisons of national, state, and county data, we sometimes had to use the most recent year available for all three.

We also compared data in some instances with the Healthy People 2020 benchmarks, to better assess our status based on national goals. Healthy People was developed by a federal interagency work group to provide science-based, 10-year national objectives for improving the health of all Americans. More information about Healthy People 2020 is available online at www.healthypeople.gov.

Healthy People 2020 did not have benchmarks for every data set we used. In those cases, no benchmark is provided. In other cases where no data existed, or we were simply unable to find data, we have indicated so with the notation "**n/a**," or not available.

We hope this report will stimulate an informed public discussion of the health priorities of Lewis and Clark County residents. Only by working together can we expect to address these priorities in any meaningful way.

## Abbreviations and Symbols Used in This Report

**ACS:** American Community Survey, a database collection tool used by the U.S. Census Bureau

**BRFSS:** Behavioral Risk Factor Surveillance System, a nationwide survey that collects health information as self-reported by adults

**CDC:** U.S. Centers for Disease Control and Prevention

**HP 2020:** Healthy People 2020, a federally maintained database that includes national objectives for improving health

**n/a:** Not available or could not find the data

**PRC:** Professional Research Consultants, Inc., of Omaha, Nebraska. St. Peter's Hospital contracted with the company to conduct surveys of the local community and key stakeholders regarding health issues and perceptions (see pages 24-26).

**YPLL:** Years of potential life lost, an estimate of the average time a person would have lived if he or she had not died prematurely. The measure is used to help quantify social and economic loss due to premature death.

**YRBS:** Youth Risk Behavior Survey, a nationwide survey that collects health information self-reported by middle and high school students

Indicates that Lewis and Clark County performed comparatively well on a particular health indicator.

Indicates that Lewis and Clark County performed comparatively poorly on a particular health indicator.

# Demographics

Lewis and Clark County encompasses 3,498 square miles in west-central Montana on the eastern slopes of the Continental Divide. Its estimated population in 2013 was just over 65,000. Almost half (45%) live within the city limits of Helena, which is the county seat as well as the state capital. Other small, rural communities in the county include Augusta, East Helena, Lincoln, Canyon Creek, Craig, Marysville, and Wolf Creek.

The county experiences a continental climate with warm, dry summers and moderately cold winters. Mountains located to the north and east of the city sometimes deflect shallow masses of arctic air to the east, but at times cold air can be trapped in the valley for days, creating temperature inversions and causing poor air quality.

The demographic makeup of a community is an important basis for setting the community's health priorities. Different age, gender, and racial groups face different health concerns and require different types of public health interventions. So population estimates based on age, gender, and race are essential to consider when setting those priorities.

Residents of Lewis and Clark County are primarily white (94%) and well educated (94.8% are high school graduates and 38.4% have bachelor's degrees). The largest minorities are Hispanics (2.8%) and American Indians (2.2%). About a third of the county workforce holds government positions, which may contribute to their per capita personal income being higher than the state as a whole.

## Fast Facts

- **Population per square mile** (U.S. Census, 2010)
  - U.S.: 87.4
  - Montana: 6.8
  - Lewis & Clark County: 18.3
- **Median age** (U.S. Census, 2010)
  - U.S.: 37.2
  - Montana: 39.8
  - Lewis & Clark County: 40.9
- **Average family size** (ACS, 2011-2013)
  - U.S.: 3.25
  - Montana: 2.99
  - Lewis & Clark County: 2.94
- **Veteran population** (ACS, 2011-2013)
  - U.S.: 8.7%
  - Montana: 11.9%
  - Lewis & Clark County: 12.9%
- **Foreign-born population** (ACS, 2011-2013)
  - U.S.: 13.0%
  - Montana: 2.0%
  - Lewis & Clark County: 1.5%
- **Speak language other than English at home** (ACS, 2011-2013)
  - U.S.: 20.7%
  - Montana: 4.4%
  - Lewis & Clark County: 3.6%

## Population

| Region | 2010 Census | 2014 Estimate | Change |
|---|---|---|---|
| **United States** | 308,745,538 | 318,857,056 | + 3.2% |
| **Montana** | 989,415 | 1,023,579 | + 3.5% |
| **Lewis & Clark County** | 63,395 | 65,856 | + 3.9% |
| **City of Helena** | 28,190 | 29,943 | + 5.9% |
| **Helena Valley** | 22,587 | | n/a |
| **East Helena** | 1984 | 2060 | + 3.7% |
| **Lincoln** | 1013 | U.S. Census provides 2014 estimates of incorporated towns and cities only | |
| **Augusta** | 309 | | |
| **Marysville** | 80 | | |
| **Craig** | 43 | | |

U.S. Census Bureau, 2014 estimates

## Gender

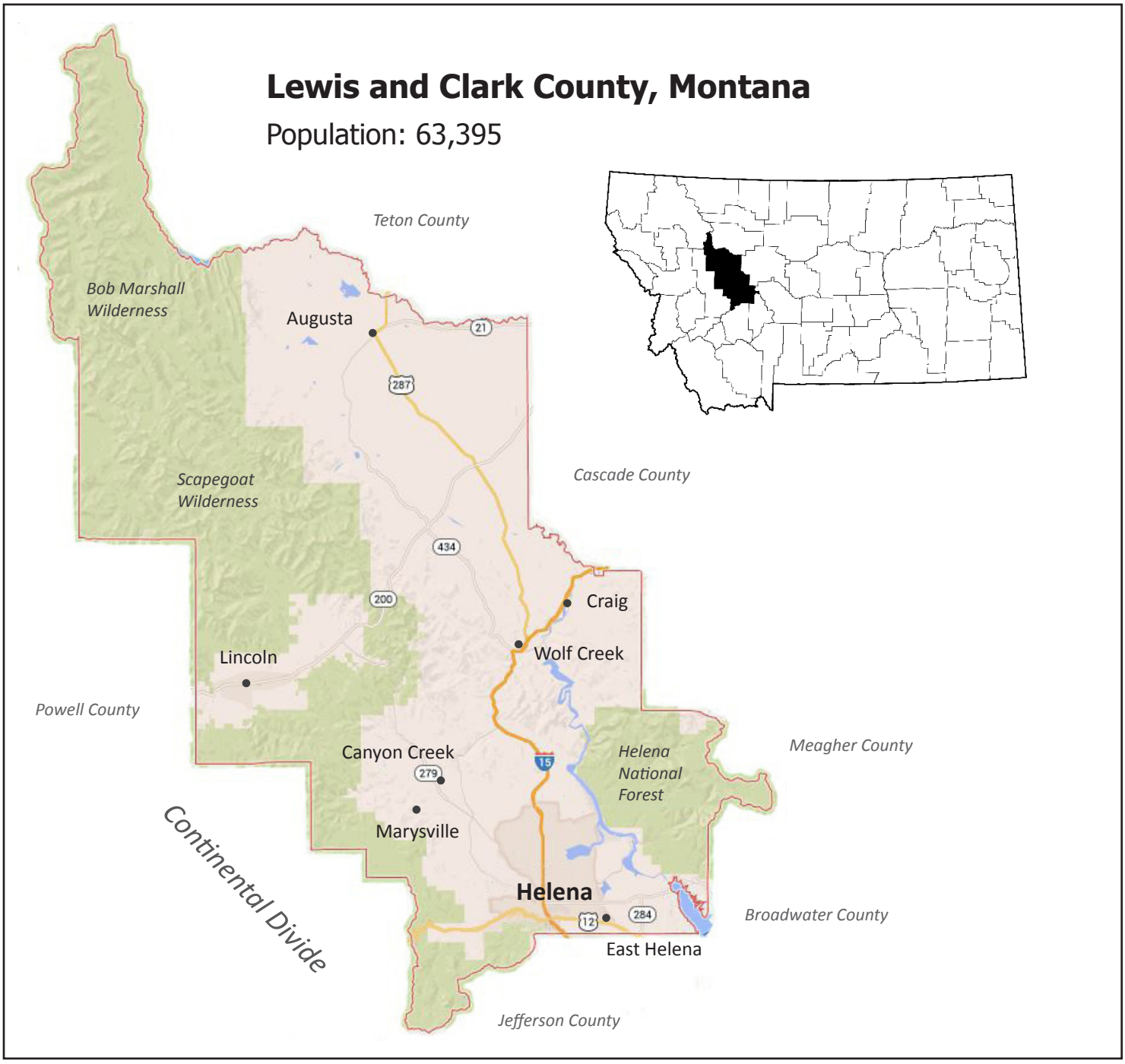
| Region | Male | Female |
|---|---|---|
| **United States** | 49.2% | 50.8% |
| **Montana** | 50.2% | 49.8% |
| **Lewis & Clark County** | 49.2% | 50.8% |
| **City of Helena*** | 48.0%* | 52.0%* |

U.S. Census Bureau, 2014 estimates
*2013 estimates (2014 not yet available)

## Age

| Age Group | U.S. | Montana | County |
|---|---|---|---|
| **Under age 5** | 6.2% | 6.0% | 5.9% |
| **Under age 18** | 23.1% | 22.0% | 21.8% |
| **65 and older** | 14.5% | 16.7% | 16.2% |

U.S. Census Bureau, 2014 estimates




## Race

| Population Group | U.S. | Montana | County |
|---|---|---|---|
| White | 77.7% | 89.5% | 94.0% |
| Hispanic or Latino | 17.1% | 3.3% | 2.8% |
| Black or African American | 13.2% | 0.6% | 0.6% |
| Asian | 5.3% | 0.8% | 0.7% |
| American Indian/Alaskan Native | 1.2% | 6.5% | 2.2% |

U.S. Census Bureau, 2013 estimates

### The Numbers Say:

*Lewis and Clark County residents tend to be older than Americans in general. They are more likely to be white and to have served in the military.*

# Length and Quality of Life

Length of life (mortality) and the extent of disease (morbidity) are crucial considerations when assessing the health of a community.

A total of 9,453 Montanans died in 2013, for a death rate of 930 per 100,000 people. Of those, 550 were residents of Lewis and Clark County (840 per 100,000). In 2009, by comparison, the state rate was 890 and the county rate was 880. Montana's death rate has been rising since the mid-1970s, mostly due to the aging of the population. The U.S. death rate has been on a long-term decline. The county rate appears to be following the national trend.

Another way to look at the burden of disease and injury is to look at "years of potential life lost." Deaths that occur before a person reaches life expectancy (considered age 75) are called premature deaths. They are often considered to be preventable and unnecessary. In Montana, about 20 percent of deaths are premature. Lewis and Clark County has a lower rate of premature deaths than the state as a whole. Still, in 2014, county residents lost about 6,900 years of life total due to premature and potentially preventable death.

Social and mental health are also vital measures of public health. Research has shown that psychological health, feelings, thoughts, and behaviors affect physical health. And mental health affects not only individuals, but families, communities, and society as a whole.

As in other parts of the country, chronic disease has surpassed communicable disease as the leading cause of death in Lewis and Clark County. Many of the risk factors for chronic disease are behavioral and, thus, preventable. These risk factors are addressed on page 15.

## Self-Reported Health Status

| Adult Population | U.S. | | Montana | | County | |
|---|---|---|---|---|---|---|
| | 2008-2010 | 2011-2013 | 2008-2010 | 2011-2013 | 2008-2010 | 2011-2013 |
| Fair or poor health | 14.5% | 16.9% | 14.5% | 16.1% | 11.5% | 15.6% |
| Have a disability | 23.2%* | 22.9%* | 24.3% | 28.4% | 26.4% | 26.0% |
| Activities limited because of health problems | 20.2% | 21.4% | 22.5% | 24.4% | 24.7% | 28.9% |

U.S. and MT Behavioral Risk Factor Surveillance System
Beginning in 2011, BRFSS data cannot be directly compared to data from previous years due to changes in methodology and sampling methods.
*U.S. data from Cornell University annual disability reports.

## Mental Health

| Adult Population | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2008-2010 | 2011-2013 | 2008-2010 | 2011-2013 | 2008-2010 | 2011-2013 | |
| Suicide rate (per 100,000 people)* | 12.1 | 12.8 | 21.1 | 22.3 | 15.8 | 19.3 | 10.2 |
| Poor mental health at least 1 of past 30 days** | 34.0% | 35.0% | 34.8% | 33.2% | 34.2% | 36.2% | n/a |

* U.S. and MT Vital Statistics
** U.S. and MT Behavioral Risk Factor Surveillance System. Beginning in 2011, BRFSS data cannot be directly compared to data from previous years due to changes in methodology and sampling methods.

| High School Population | U.S. | | Montana | | County | |
|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 |
| Attempted suicide | 7.8% | 8.0% | 6.5% | 7.9% | 13.8% | 14.9% |

Youth Risk Behavior Surveys

## Fast Facts

- 12.3% of Montana adults were being treated for mental disorders in 2012. (Behavioral Risk Factor Surveillance System)
- 35.6% of adult Montanans believed in 2012 that there is a stigma associated with mental illness. (Behavioral Risk Factor Surveillance System)

## Leading Causes of Death

| Cause of Death | Percentage of All Deaths | |
|---|---|---|
| | U.S. | Montana |
| Heart disease | 23.5% | 20.9% |
| Cancer | 22.5% | 21.0% |
| Chronic lower respiratory disease | 5.7% | 6.8% |
| Accidents | 5.0% | 6.3% |
| Stroke | 5.0% | 5.1% |
| Alzheimer's disease | 3.3% | 2.8% |
| Diabetes | 2.9% | 2.7% |
| Influenza and pneumonia | 2.2% | 2.2% |
| Kidney disease | 1.8% | 1.4% |
| Suicide | 1.6% | 2.5% |
| Liver disease | 1.4% | 1.6% |

U.S. and MT Vital Statistics, 2013

## Years of Potential Life Lost (YPLL)

| Cause of Death | Montana | |
|---|---|---|
| | No. of Deaths | Ave. YPLL |
| All causes | 44,285 | 18.5 years |
| Cancer | 9,593 | 12.8 |
| Chronic lower respiratory diseases | 28,741 | 9.2 |
| Chronic liver disease, cirrhosis | 667 | 20.5 |
| Diabetes | 1185 | 14.2 |
| Heart disease | 2,275 | 11.9 |
| Influenza and pneumonia | 823 | 16.4 |
| Kidney disease | 611 | 14.0 |
| Motor vehicle accidents | 1019 | 37.6 |
| Suicide | 1,099 | 31.9 |

MT Vital Statistics, 2008-2012

## Fast Facts

- Median age at death (U.S. and MT Vital Statistics, 2013):
  - U.S. 78.8 years
  - Montana: 78.5 years
    - Men: 75
    - Women: 82
    - American Indians: 60
- Birth defects and Sudden Infant Death Syndrome account for most deaths in Montana infants under age 1. (MT Vital Statistics, 2013)
- Unintentional injuries, especially those sustained in motor vehicle accidents, are the leading cause of death for Montanans ages 1-44. (MT Vital Statistics, 2013)
- Suicide is the second leading cause of death among Montanans aged 10-24. (Children's Safety Network, 2013)
- Heart disease and cancer account for most deaths in Montanans age 45 and older. (MT Vital Statistics, 2013)
- Infant death rate per 1,000 live births (US Preliminary Vital Statistics, 2011; MT Vital Statistics, 2013)
  - U.S.: 6.1
  - Montana: 5.4
  - Lewis & Clark County: 6.5
  - HP 2020 Target: 6.0
- Traffic fatality rate per 100,000 people (National Highway Traffic Safety Admin., 2013)
  - U.S. 10.4
  - Montana: 22.6
  - Lewis & Clark County: 10.7
  - HP 2020 Target: 12.4
- Percentage of driving fatalities involving alcohol impairment (National Highway Traffic Safety Admin., 2013)
  - U.S.: 31%
  - Montana: 40%
- Lewis and Clark County has one of the lowest death rates from unintentional injury in the state. (MT DPHHS, 2003-2012)
  - Montana: 41.3 per 100,000
  - Lewis & Clark County: 34.6 deaths per 100,000

## Cancer Deaths

| Rates per 100,000 people | US* | Montana* | County** | HP 2020 Target |
|---|---|---|---|---|
| All cancers | 173.8 | 163.8 | 171.3 | 161.4 |
| Prostate cancer | 22.3 | 24.8 | 24.0 | 21.8 |
| Breast cancer (females only) | 22.2 | 20.1 | 19.8 | 20.7 |
| Lung cancer | 48.4 | 45.1 | 51.0 | 45.5 |
| Colorectal cancer | 15.9 | 14.2 | 13.1 | 14.5 |
| Melanoma | 2.7 | 2.85 | n/a | 2.4 |

*National Cancer Institute, 2007-2011
**MT Vital Statistics, 2007-2011

### The Numbers Say:

*Lewis and Clark County residents are more likely to die of lung cancer than other Montanans and Americans.*

# Disease Burden (Morbidity)

| Chronic Disease in Adults | U.S. | Montana | County | HP 2020 Target |
|---|---|---|---|---|
| Ever diagnosed with asthma | 13.7% | 13.4% | 15.1% | n/a |
| Ever had a heart attack | 4.4% | 4.6% | 5.7% | n/a |
| Ever diagnosed with high blood pressure | 31.1% | 29.8% | 30.1% | 26.9% |
| Ever diagnosed with stroke | 2.9% | 3.2% | 2.2% | n/a |
| Ever diagnosed with diabetes | 9.8% | 7.6% | 6.6% | n/a |

U.S. and MT Behavioral Risk Factor Surveillance System, 2011-2013

| Cancer Incidence in Adults<br>Rates per 100,000 people | U.S.* | Montana | County |
|---|---|---|---|
| All cancers | 469.6 | 439.8 | 462.6 |
| Prostate cancer (males only) | 146.2 | 112.8 | 106.3 |
| Breast cancer (females only) | 121.9 | 115.7 | 96.4 |
| Lung cancer | 66.0 | 56.4 | 63.4 |
| Colorectal cancer | 44.8 | 36.9 | 39.1 |
| Melanomas of the skin | 19.7 | 24.9 | 26.2 |

MT Central Tumor Registry Annual Report, 2011-2013
* U.S. rates for 2010-2012

# Fast Facts

- 19.8% of high school students and 18.7% of middle school students in Lewis and Clark County have been diagnosed with asthma at some point in their lives. (Youth Risk Behavior Survey, 2013)
- 34.7% of Montanans age 44 or older were injured in a fall in the past year (Behavioral Risk Factor Surveillance System, 2012)

| Diseases Transmitted Person to Person* | County Ave. Annual No. of Cases | |
|---|---|---|
| | 2008-2010 | 2011-2013 |
| Chickenpox (Varicella) | 15 | 11 |
| Chlamydia | 139 | 156 |
| Gonorrhea | <5 | <5 |
| Hepatitis C | 42 | 66 |
| HIV | <5 | 0 |
| Influenza (all types) | 173 | 429 |
| Strep pneumonia | 8 | 8 |
| Respiratory syncytial virus (RSV) | 31 | 97 |
| Syphilis | <5 | < 5 |
| Tuberculosis | <5 | <5 |
| Whooping cough (Pertussis) | 8 | 52 |

Lewis and Clark Public Health Communicable Disease Reports
*Reflects only cases officially reported to health officials

| Diseases Transmitted by Food, Water, Animals* | County Ave. Annual No. of Cases | |
|---|---|---|
| | 2008-2010 | 2011-2013 |
| Norovirus | 24 | 28 |
| Campylobacteriosis | 10 | 16 |
| Salmonellosis | 12 | 10 |
| Giardiasis | 5 | 6 |
| Cryptosporidiosis | <5 | <5 |
| E. coli (all strains) | <5 | <5 |
| Hepatitis A | <5 | <5 |
| Hantavirus | 0 | 0 |
| West Nile virus | 0 | 0 |

Lewis and Clark Public Health Communicable Disease Reports
*Reflects only cases officially reported to health officials

## The Numbers Say:

*Lewis and Clark County residents are more likely to have asthma than other Montanans and Americans.*

## Inpatient Hospitalization Rates

| Inpatient Admissions for Select Injuries | 2011-2013 Rate per 100,000 | |
|---|---|---|
| | Montana | County |
| All unintentional injury | 538.6 | 410.4 |
| Falls | 268.7 | 193.8 |
| Motor vehicle accidents | 60.6 | 25.0 |
| Poisoning | 36.3 | 48.2 |
| Intentional self-harm | 106.5 | 116.9 |
| Traumatic brain injury | 91.3 | 55.2 |

Montana Hospital Discharge Data System

| Inpatient Admissions for Select Chronic Conditions | 2011-2013 Rate per 100,000 | |
|---|---|---|
| | Montana | County |
| Asthma | 47.7 | 67.0 |
| COPD | 716.8 | 860.1 |
| Heart disease | 746.7 | 743.9 |
| Diabetes (types 1 and 2) | 822.5 | 665.8 |

Montana Hospital Discharge Data System

## Emergency Room Visits

| Emergency Room Visits for Select Injuries | 2011-2013 Rate per 100,000 | |
|---|---|---|
| | Montana | County |
| All unintentional injury | 5901.8 | 5432.3 |
| Falls | 2020.0 | 2057.8 |
| Motor vehicle accidents | 520.0 | 446.1 |
| Poisoning | 95.4 | 102.7 |
| Intentional self-harm | 104.5 | 155.8 |
| Traumatic brain injury | 649.9 | 527.9 |

Montana Hospital Discharge Data System

| Emergency Room Visits for Select Chronic Conditions | 2011-2013 Rate per 100,000 | |
|---|---|---|
| | Montana | County |
| Asthma | 260.0 | 295.9 |
| COPD | 804.9 | 904.1 |
| Heart disease | 372.7 | 331.7 |
| Diabetes (types 1 and 2) | 1235.6 | 1142.1 |

Montana Hospital Discharge Data System


Photo courtesy of St. Peter's Hospital

### The Numbers Say:

*Lewis and Clark County residents are more likely to visit the emergency room or be hospitalized for intentionally harming themselves than other Montanans.*

# Maternal and Child Health

The health of pregnant women, mothers, and children are important indicators of the health of our community. Risk factors during pregnancy and birth can affect infant mortality or lead to lifelong health issues. A child whose mother receives little or no prenatal care is far more likely to experience chronic health problems. A woman who smokes or drinks during pregnancy may cause long-term damage to the child she bears. Babies born weighing less than 5 pounds, 8 ounces are at increased risk of serious health problems, some of which may be lifelong.

A total of 12,351 babies were born to Montana residents in 2013, for a birth rate of 12.2 per 1,000 people. Of those 772 were born to Lewis and Clark County residents (11.8 per 1,000). The Montana birth rate was in a long-term decline from the early 1980s to 1999. But the rate of births to Montana residents leveled off and even began to increase in the mid-2000s. Montana's birth rate is lower than the national rate.

| Health Indicator | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2004-2008 | 2011-2013 | 2004-2008 | 2011-2013 | 2004-2008 | 2011-2013 | |
| **Premature births (under 37 weeks gestation)** | 12.6% | 11.6% | 10.1% | 9.1% | 11.3% | 10.0% | 11.4% |
| **Low birth weight (under 5 lbs. 8 oz.)** | 8.2% | 8.0% | 7.3% | 7.2% | 8.8% | 8.1% | 7.8% |
| **Prenatal care in 1st trimester** | 81.2% | n/a | 83.9% | 72.4% | 88.3% | 80.8% | 77.9% |
| **Gestational diabetes during pregnancy** | 4.6% | n/a | 2.5% | 3.3% | 3.7% | 3.4% | n/a |
| **Smoked during pregnancy** | 11.2% | n/a | 18.3% | 16.3% | 19.1% | 17.3% | 1.4% |
| **Births to unmarried mothers** | 38.3% | 40.7% | n/a | 36.6% | n/a | 35.8% | n/a |
| **Teen pregnancy rate (per 1000 15-19 year olds)** | 40.6 | 31.9 | 36.3 | 37.2 | n/a | 35.8 | 36.2 |
| **Teen birth rate (per 1000 15-19 year olds)** | 40.6 | 29.1 | 36.3 | 28.6 | 36.3 | 26.0 | n/a |
| **Infants who are breastfed at 6 mos.*** | 43.3% | 49.4% * | n/a | 50.7% | n/a | n/a | 60.6% |

U.S. and MT Vital Statistics
* Breastfeeding data from National Immunization Survey. Not yet available for 2012, 2013.

## Fast Facts

- The proportion of unwed mothers has steadily increased over the past two decades. (US Vital Statistics)
- Mortality rate per 100,000 for children ages 1-14: (Kaiser Family Foundation, 2013)
  US: 16
  Montana: 17
- Nationally, infant mortality rates were more than 50% higher among teen mothers compared to older mothers (9.6 deaths per 1,000 births compared to 6.3) (Montana Teen Pregnancy Report, 2014)
- Newborns breastfed at discharge from hospital (U.S. and MT Vital Statistics, 2011-2013)
  US: 79.2% (2011 only)
  Montana: 85.4%
  Lewis & Clark County: 92.8%

# Factors That Influence Health

What makes some people healthy and others unhealthy? Many factors combine to affect the health of individuals and communities. These factors collectively are known as **determinants of health.** Scientists generally recognize five determinants of the health of a population, according to the Centers for Disease Control and Prevention. They are genes and biology, health behaviors, social and economic factors, physical environment, and medical care.

## Genes and Biology

Examples of biological and genetic determinants of health include:

- **Age.** For example, older adults are biologically more likely to be in poorer health than adolescents because of the physical and cognitive effects of aging.
- **Gender.** Men and women may acquire different diseases at different ages.
- **Heredity.** An individual may carry genes that increase their risk for certain diseases, like breast cancer, cystic fibrosis, or hemophilia.

Biological and genetic factors generally fall outside the scope of public health and so are not addressed in this report.

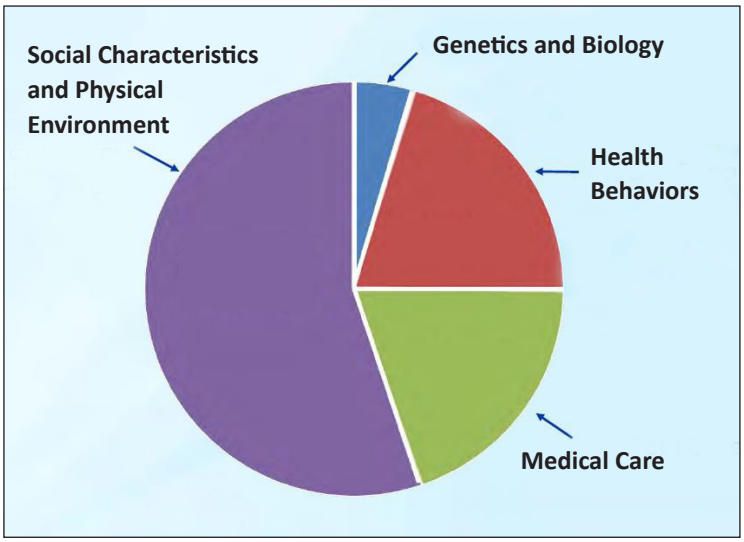
## Social and Economic Factors

Social determinants of health reflect social factors into which people are born, live, learn, play, work, and age. They impact a wide range of health, functioning, and quality-of-life outcomes.

Examples of social and economic factors include:

- Availability of resources to meet daily needs, such as educational and job opportunities, living wages, or healthful foods
- Social norms and attitudes, such as discrimination
- Exposure to crime, violence, and social disorder
- Social support and interactions
- Exposure to mass media and emerging technologies, such as the Internet or cell phones
- Socioeconomic conditions, such as concentrated poverty
- Quality schools
- Transportation options
- Public safety
- Residential segregation

## Relative Impact of Determinants of Health




Estimates of the extent to which each determinant of health influences population health. Scientists have not yet determined the precise contributions of each. (CDC)

## Health Behaviors

Individual behavior also plays a role in health outcomes. Many public health and health-care interventions focus on changing individual behaviors, such as substance abuse, diet, and physical activity. Positive changes in individual behavior can reduce the rates of chronic disease in this country, state, and county.

Examples of individual behavior determinants of health include:

- Diet
- Physical activity
- Tobacco use
- Alcohol and drug use
- Seat belt use
- Sleep pattern
- Hand washing

## Physical Environment

Humans interact with the environment constantly, and these interactions affect our length and quality of life. The World Health Organization (WHO) defines environment, as it relates to health, as "all the physical, chemical, and biological factors external to a person, and all the related behaviors." WHO estimates that environmental factors are responsible for about 25 percent of all disease. Our physical environment includes not only the natural environment, which is generally outside our control, but also the environment we build to live in, called the "built environment."

Examples of environmental factors include:

- Natural environment, such as plants, weather, and climate change
- Built environment, such as buildings and transportation
- Worksites, schools, and recreational settings
- Housing, homes, and neighborhoods
- Exposure to toxic substances and other physical hazards
- Physical barriers, especially for people with disabilities
- Aesthetic elements, such as good lighting, trees, or benches

Poor health outcomes are often made worse by the interaction between individuals and their social and physical environment. For example, millions of people in the United States live in places that have unhealthy levels of ozone or other air pollutants. Poor air quality can worsen asthma symptoms, especially in children.

## Medical Care

Access to health-care services and the quality of those services can greatly impact an individual's health. For example, when individuals don't have health insurance, they are less likely to participate in preventive care and more likely to delay medical treatment.

Barriers to accessing health services include:

- Lack of availability
- High cost
- Lack of insurance coverage
- Limited language access
- Inadequate transportation

These barriers to accessing health services lead to:

- Unmet health needs
- Delays in getting appropriate care
- Inability to get preventive services
- Hospitalizations and emergency room visits that could have been prevented

Photo courtesy of St. Peter's Hospital

# Social and Economic Factors

A range of personal, social, economic, and environmental factors can contribute to individual and population health. These factors – sometimes called **social determinants of health** – can be responsible for unequal and avoidable differences in health status in our communities. For example, people with a quality education and stable employment tend to be healthier throughout their lives.

Lewis and Clark County residents tend to be better educated, more likely to be employed, and better paid generally than other residents of the state and, in some cases, the nation. This bodes well for our overall health. But health inequities do exist in this county, especially for those who live in poverty. For example, residents who live on inadequate incomes may forego health insurance or may put off getting preventive health care because of the cost. They may not have transportation to see a health-care provider, or they may lack access to healthy, locally grown foods.

Lewis and Clark Public Health believes that all residents of Lewis and Clark County deserve an equal opportunity to make the choices that lead to good health. That means we need to focus not only on improving health care, but on continually improving such areas as education, childcare, housing, business, law, community planning, transportation, and agriculture. We must include a discussion of public health in all aspects of policy decisions. Read more about health inequities and disparities on pages 21-23.

## Economic Status

| | U.S. | Montana | County |
|---|---|---|---|
| **Proportion of population living below poverty level** | 15.9% | 15.8% | 11.1% |
| **Proportion of children (<18) living in poverty** | 22.4% | 20.6% | 14.0% |
| **Proportion of those age 65+ living in poverty** | 9.5% | 8.7% | 7.7% |
| **Proportion of American Indians living in poverty** | 29.2% | 39.1% | 27.5% |
| **Less than high school graduates living in poverty** | 27.9% | 24.5% | 22.1% |
| **Unemployed (age 16+)** | 5.9% | 4.7% | 3.9% |
| **Median household income** | $52,176 | $45,951 | $54,964 |
| **Mean household income** | $72, 897 | $60,925 | $66,800 |
| **Mortgage exceeds 35% of household income** | 26.0% | 25.0% | 20.2% |
| **Rent exceeds 35% of household income** | 43.3% | 38.0% | 33.0% |

U.S. Census Bureau, 2011-2013 estimates

## Social Status

| | U.S. | Montana | County |
|---|---|---|---|
| **Householder lives alone** | 27.7% | 30.1% | 30.5% |
| **Households with 1 or more children under age 18** | 32.4% | 27.8% | 27.6% |
| **Average family size** | 3.25 | 2.99 | 2.94 |
| **Males 15+ who never married** | 36.0% | 31.9% | 31.9% |
| **Females 15+ who never married** | 29.6% | 24.3% | 21.9% |
| **Unmarried women 15-50 who gave birth in past year** | 35.9% | 32.2% | 24.6% |
| **Grandparents responsible for grandchildren** | 38.2% | 50.0% | 25.0% |
| **Noninstitutionalized population with disability** | 12.3% | 13.3% | 12.2% |
| **Own the family home** | 64.0% | 67.3% | 71.4% |
| **Have no vehicle available** | 9.2% | 5.2% | 5.4% |
| **Foreign born** | 13.0% | 2.0% | 1.5% |

U.S. Census Bureau, 2011-2013 estimates

## Fast Facts

- 31.3% of the workforce in Lewis and Clark County is employed in government positions at an average annual wage of $48,547. (MT Department of Labor and Industry, 2010)
- Incidence rate of nonfatal occupational injuries and illnesses among state government workers (MT Department of Labor and Industry, 2012)
  U.S.: 4.4 per 100 FTE
  Montana: 3.9 per 100 FTE
- Incidence rate of nonfatal occupational injuries and illnesses among private industries (MT Department of Labor and Industry, 2012)
  U.S.: 3.4 per 100 FTE
  Montana: 5.0 per 100 FTE
- High school graduation rate by race, income (MT Office of Public Instruction, 2013-2014)
  Montana: 85.4%
  White: 88.3%
  American Indian: 65.0%
  Low income: 75.4%
  Helena: 86.8%
  White: 86.9%
  American Indian: 82.9%
  Low income: 73.4%

### The Numbers Say:

*On the whole, county residents are better educated and better paid than Montanans in general.*

## Top 10 Employers in County

| Industry | Annual Averages, 2010 |
|---|---|
| Government | 10,748 |
| Health Care and Social Assistance | 4,068 |
| Retail Trade | 3,857 |
| Accommodation and Food Service | 2,938 |
| Professional and Technical Services | 1,913 |
| Finance and Insurance | 1,826 |
| Administrative and Waste Services | 1,170 |
| Construction | 1,167 |
| Arts, Entertainment, and Recreation | 746 |
| Information | 743 |

MT Department of Labor and Industry, 2012

## Education

| Attainment Level | U.S. | Montana | County |
|---|---|---|---|
| Less than 9th grade education | 5.8% | 2.1% | 1.6% |
| High school graduate or higher | 86.2% | 92.6% | 94.8% |
| Bachelor's degree or higher | 29.1% | 28.9% | 38.4% |

U.S. Census Bureau, 2011-2013 estimates

## High School Graduation Rate

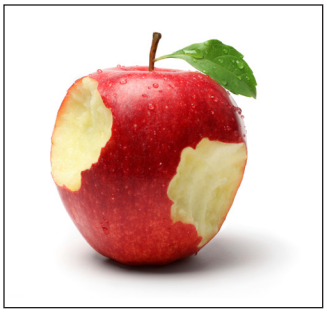
| Community | 2011-12 | 2012-13 | 2013-14 |
|---|---|---|---|
| U.S. | 81.0% | n/a | n/a |
| Montana | 83.9% | 84.4% | 85.4% |
| Helena | 83.1% | 86.7% | 86.8% |
| Augusta | 100% | 100% | 100% |
| Lincoln | 88.2% | 75.0% | 90.0% |
| **HealthyPeople 2020 Target** | | | **84.2%** |

National Center for Education Statistics
MT Office of Public Instruction

## Public Safety

| Offense(s) | Rate Per 100,000* | | No. of Cases** |
|---|---|---|---|
| | U.S. | Montana | County |
| Violent crime | 392.8 | 274.8 | 65 |
| Property crime | 2903.5 | 2514.0 | 355 |
| Murder | 4.7 | 2.7 | 2 |
| Rape | 27.0 | 36.0 | 14 |
| Aggravated assault | 245.5 | 218.8 | 49 |

Uniform Crime Reporting Statistics, 2010-2012
*Average rate per 100,000 people for 3-year period
**Average number of cases for 3-year period; no local rates available



# Health Behaviors

Our own individual behavior can directly affect our personal as well as population health. Chronic diseases – like cancer, heart disease, and diabetes – are the leading causes of death in our county, state, and nation. We can prevent, or at least reduce the risk of, these diseases through changes in our behavior.

For example, if a person quits smoking, his or her risk of developing heart disease or lung cancer is greatly reduced. Other examples of positive health behaviors include increasing physical activity, eating sensibly, and avoiding excessive drinking.

Young people sometimes put their health at risk by engaging in behaviors such as unprotected sex or use of alcohol, tobacco, or illicit drugs. These risky behaviors can have both immediate and lifelong health consequences.

Public health professionals assess health behaviors in a number of ways. One of the most comprehensive is the Behavioral Risk Factor Surveillance System (BRFSS), a collaborative effort of the Centers for Disease Control and Prevention working with individual state, tribal, and local governments. Since 1984, the BRFSS has been used annually to gather information from U.S. adults about a wide range of behaviors that affect their health.

The CDC also oversees a national school-based survey called the Youth Risk Behavior Survey (YRBS). It monitors health-risk behaviors that contribute to the leading causes of death and disability among middle and high school students. YRBS also measures the prevalence of obesity and asthma among youth.

When using data from these two surveys, it's important to keep in mind that the results are self-reported. In other words, participants are presumed to be honest and accurate in describing their own behaviors.

## Substance Use and Abuse

| Adult Behavior | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Engaged in binge drinking | 18.3% | 16.8% | 20.8% | 20.8% | 19.6% | 24.1% | 24.4% |
| Heavy drinker | 6.6% | 6.2% | 7.6% | 7.7% | 6.5% | 8.7% | n/a |
| Currently smoke cigarettes | 21.1% | 19.0% | 22.1% | 19.0% | 24.7% | 18.9% | 12.0% |
| Currently use smokeless tobacco | n/a | 4.3% | 7.1% | 8.0% | 8.6% | 7.1% | 0.3% |
| Have misused prescription drugs | | | 3.3% | n/a | n/a | n/a | 5.5% |

Behavioral Risk Factor Surveillance System

| High School Youth Behavior | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Currently drink alcohol | 38.7% | 34.9% | 38.3% | 37.1% | 41.3% | 36.4% | -- |
| Engaged in binge drinking | 21.9% | 20.8% | 25.2% | 23.5% | 27.8% | 19.0% | 22.7% |
| Drove while drinking alcohol | n/a | 10.0% | n/a | 12.6% | 14.5% | 12.6% | -- |
| Used ecstasy | 8.2% | 6.6% | 8.2% | 8.2% | 12.1% | 11.7% | -- |
| Currently smoke cigarettes | 18.1% | 15.7% | 16.5% | 15.2% | 18.9% | 18.4% | 16.0% |
| Currently use smokeless tobacco | 7.7% | 8.8% | 13.5% | 13.4% | 14.1% | 13.1% | 6.9% |
| Misused prescription drugs | 20.7% | 17.8% | 18.4% | 16.2% | 20.9% | 18.6% | 6.1% |

Youth Risk Behavior Survey

# Nutrition, Weight and Physical Activity

| Adult Behavior | U.S. | | Montana | | County | Region* | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2012 | 2013 | 2011 | 2013 | |
| Eat less than 1 serving of vegetables daily | n/a | 22.9% | n/a | 20.5% | 22.0% | n/a | n/a |
| Eat less than 1 serving of fruit daily | n/a | 39.2% | n/a | 38.6% | 35.3% | n/a | n/a |
| Participate in enough aerobic and muscle strengthening exercise to meet guidelines | 21.0% | 20.5% | 21.9% | 23.3% | 22.5% | n/a | n/a |
| Obese (Body Mass Index 30+) | 27.8% | 29.4% | 24.6% | 24.6% | n/a | 23.1% | 30.5% |

Behavioral Risk Factor Surveillance System

*2013 results were reported by region rather than county. Lewis & Clark County is part of the Southwest Region, which also includes Beaverhead, Broadwater, Deer Lodge, Gallatin, Granite, Jefferson, Madison, Meagher, Park, Powell, and Silver Bow counties.

| High School Youth Behavior | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Ate no fruit in past week | n/a | 10.6% | n/a | 8.8% | n/a | 8.8% | n/a |
| Ate no vegetables in past week | 5.7% | 6.6% | 3.5% | 3.9% | n/a | n/a | n/a |
| Drank 1 or more non-diet sodas a day | 27.8% | 27.0% | 23.4% | 18.2% | 18.3% | 17.3% | n/a |
| Ate no breakfast in past week | 13.1% | 13.7% | 11.2% | 11.7% | 10.9% | 12.4% | n/a |
| Not physically active 1 hour or more on at least 5 of last 7 days | 50.5% | 52.7% | 45.3% | 45.2% | 49.4% | 48.1% | n/a |
| Played video or computer games 3 or more hours a day on school days | 31.1% | 41.3 | 20.6% | 29.7% | 21.3% | 27.7% | 26.1% |
| Obese (Body Mass Index 30+) | n/a | n/a | 8.5% | 9.4% | n/a | n/a | 16.1% |

Youth Risk Behavior Survey

# Sexual Behavior

| High School Youth Behavior | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Have had sexual intercourse | 47.4% | 46.8% | 47.9% | 46.0% | 47.9% | 45.6% | 20.3% |
| Had sexual intercourse before age 13 | 6.2% | 5.6% | 4.4% | 4.3% | 7.7% | 6.2% | n/a |
| Have had 4 or more sexual partners | 15.3% | 15.0% | 15.0% | 14.7% | 17.2% | 14.4% | n/a |
| Use no method of birth control | 12.9% | 13.7% | 8.5% | 7.6% | 5.5% | 6.5% | 8.4% |

Youth Risk Behavior Survey

## Fast Facts

- There are 52 tobacco retailers in Lewis and Clark County. That works out to 0.79 retailers per 1,000 population. (MT Department of Public Health and Human Services, 2013)
- In 2012, 15.9% of Montanans said they drank soda that contained sugar every day. (Behavioral Risk Factor Surveillance System)
- In 2013, 37.0% of residents of the Southwest Region of Montana (which includes Lewis and Clark County) had ever been tested for HIV. (Behavioral Risk Factor Surveillance System)

## Other Risk Behaviors

| Adult Behavior | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Always wear a seat belt | 86.9% | 87.7% | 70.1% | 74.3% | 72.6% | 75.2% | n/a |
| Average less than 7 hours sleep a night | n/a | n/a | n/a | 30.9% | n/a | n/a | 29.2% |

Behavioral Risk Factor Surveillance System

| High School Youth Behavior | U.S. | | Montana | | County | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Never or rarely wear a bicycle helmet | 87.5% | 87.9% | 81.2% | 80.1% | 53.3% | 51.4% | n/a |
| Never or rarely wear a seat belt while driving | 7.7% | 7.6% | 11.2% | 10.1% | 12.8% | 9.3% | n/a |
| Text or email while driving | n/a | 41.4 | n/a | 55.8% | 48.0% | 64.2% | n/a |
| Carry a weapon (gun, knife, club) | 16.6% | 17.9% | 23.5% | 25.7% | 25.0% | 26.5% | n/a |
| Average less than 8 hours sleep a night | 68.6% | 68.3% | n/a | n/a | n/a | n/a | 33.1% |
| Use an indoor tanning device | 13.3% | 12.8% | n/a | n/a | n/a | 15.6% | 14.0% |
| Do not routinely use sunscreen | 89.2% | 89.9% | n/a | n/a | n/a | n/a | 88.8% |

Youth Risk Behavior Surveys

## Preventive Screenings

| Screening Test | U.S. | Montana | Region* | HP 2020 Target |
|---|---|---|---|---|
| Have had Pap test in past 3 years (women ages 18+) | 78.0% | 76.1% | 75.3% | 93.0% |
| Have had mammogram in past 2 years (women ages 40+) | 74.0% | 66.2% | 67.9% | 81.1% |
| Have had blood stool test in past 2 years (ages 50+) | 14.2% | 10.9% | 14.5% | 70.5%** |
| Have ever had colonoscopy or sigmoidoscopy (ages 50+) | 67.3% | 61.5% | 61.4% | |
| Have ever had cholesterol test | 80.1% | 78.9% | 80.7% | 82.1% |

Behavioral Risk Factor Surveillance System, 2012

*Lewis & Clark County is part of the Southwest Region, which also includes Beaverhead, Broadwater, Deer Lodge, Gallatin, Granite, Jefferson, Madison, Meagher, Park, Powell, and Silver Bow counties.

** Percentage who have had a colorectal screening based on most recent guidelines.

## Immunization Rates

| Children | U.S. | | Montana | | Region* | | HP 2020 Target |
|---|---|---|---|---|---|---|---|
| | 2011 | 2013 | 2011 | 2013 | 2011 | 2013 | |
| Received all age-appropriate vaccines (ages 19-35 months) | 68.5% | 70.4% | 59.6% | 65.4% | 67.6% | n/a | 80.0% |
| Received a flu vaccination | 49.7% | 58.9% | n/a | n/a | n/a | n/a | 80.0% |
| **Adolescents** | | | | | | | |
| Received 3+ doses of HPV (ages 13-17) | 34.8% | 37.6% | 39.8% | 28.3% | n/a | n/a | 80.0% |
| Received flu vaccination (ages 13-17) | n/a | 46.4% | n/a | n/a | n/a | n/a | 80.0% |
| **Adults** | | | | | | | |
| Immunized against pneumonia (ages 65+) | 70.0% | 69.5% | 69.6% | 69.9% | 71.9% | 71.5% | 90.0% |
| Received flu vaccination in past year (ages 65+) | 61.3% | 62.8% | 55.9% | 61.1% | 52.1% | 60.7% | 90.0% |
| Received flu vaccination in past year (all adults) | 41.1% | 42.2% | 33.7% | 32.9% | n/a | 34.8% | 80.0% |

Children and Youth: National Immunization Survey; Adults: Behavioral Risk Factor Surveillance System

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

# Physical Environment

Humans interact with the environment constantly. These interactions affect quality of life, years of healthy life lived, and health disparities. The World Health Organization (WHO) defines environment, as it relates to health, as "all the physical, chemical, and biological factors external to a person, and all the related behaviors." WHO attributes a quarter of all human disease to environmental factors. Environmental health consists of preventing or controlling disease, injury, and disability related to the interactions between people and their environment.

## Air Quality - Particulate Matter

| Year | Outdoor Air Quality | | |
|---|---|---|---|
| | Good | Watch | Poor |
| **2014** | 351 days | 11 days | 3 days |
| **2013** | 280 | 41 | 13 |
| **2012** | 354 | 9 | 3 |
| **2011** | 347 | 13 | 5 |
| **2010** | 330 | 24 | 11 |

Lewis & Clark Public Health

## Transportation to Work

| Commuting Method | U.S. | Montana | County | HP 2020 Target |
|---|---|---|---|---|
| **Walk** | 2.8% | 4.9% | 4.3% | 3.1% |
| **Bicycle*** | 0.6% | 1.0 - 2.0% | 1.6% | 0.6% |
| **Use public transportation** | 5.1% | 0.8% | 0.6% | 5.5% |
| **Drive alone** | 76.4% | 75.4% | 77.8% | n/a |

American Community Survey, 2009-2013 average
*American Community Survey Report 25, 2008-2012

### Air Quality Monitoring

The county has been at risk of violating EPA health-based standards for fine particulate matter ($PM_{2.5}$) for the past four years.

To address this, the health department monitors year-round the fine-particulate air pollution in a designated Air Pollution Control District that includes Helena, East Helena, and 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 ($PM_{2.5}$) includes soot, combustion byproducts, and liquid pollutants in the air.

### Air Quality Definitions

**Good:** 0-40 µg/m3 (micrograms per cubic meter) averaged over a 24-hour period with good dispersion

**Watch:** 40-75 µg/m3 averaged over a 24-hour period

**Poor:** 60-75 µg/m3 or greater averaged over a 24-hour period with moderate to poor dispersion

## Fast Facts

- Lewis and Clark County is home to 2 federal Superfund sites: ASARCO site in East Helena and Upper Tenmile Creek. Institutional controls to preserve remediation work have been adopted for East Helena and are under way for the Upper Tenmile.
- From 2008-2012, 7.5% of Helena residents walked to work and 3.3% bicycled. (American Community Surveys)
- The average national indoor radon level is 1.3 picocuries per liter. The average in Lewis and Clark County is 7.6 picocuries. (MT Dept. of Environmental Quality)
- The mean travel time to work for county residents 16 and older averaged 17.6 minutes in 2009-2013. That was comparable to the state rate of 18.0 minutes. (MT Department of Public Health and Human Services)

# Access to Health Care

Health-care resources in Lewis and Clark County are concentrated primarily in Helena, the county seat. The city is home to St. Peter's Hospital, a nonprofit medical center, and PureView Health Center, a federally qualified community health center that offers care to all, including those who are uninsured or underinsured. It also is home to the Leo Pocha Memorial Clinic, operated by the Helena Indian Alliance.

Residents of the county's rural communities often must drive long distances for medical care. A satellite clinic of PureView, Parker Health Center, is located in Lincoln. Lewis and Clark Public Health also has a nurse located in Augusta.

Access to health services affects a person's health and well-being. With regular and reliable access to medical care, individuals can help prevent disease and disability, detect and treat illnesses or other conditions, increase their quality of life, reduce their likelihood of premature death, and increase their life expectancy.

Lack of medical insurance and access to a primary care provider are two barriers that may impact a person's regular use of health services. As a consequence, chronic conditions, such as diabetes and heart disease, may remain undiagnosed or be poorly managed, increasing the likelihood of health complications.

With the implementation of the federal Affordable Care Act, millions more Americans now have increased access to health insurance. Under the ACA, most health plans must now cover a set of 10 essential health benefit categories. This includes important recommended preventive services for adults, women, and children at no cost to the patient, including blood pressure screening and immunizations. Estimates have shown that 76 million Americans became newly eligible for expanded preventive services under the ACA. This means that many more Americans have access to the services they need to keep them healthy.

## Barriers to Access

| Indicator | U.S. | Montana | County | HP 2020 Target |
|---|---|---|---|---|
| **Lacked health insurance (adults)** | 15.1% | 21.5% | 8.7% | 0.0% |
| **Had difficulty accessing health care in past year** | 39.9% | n/a | 50.6% | n/a |
| **Had difficulty getting doctor's appointment** | 17.0% | n/a | 26.4% | n/a |
| **Couldn't afford to see a doctor in past year** | 18.2% | 13.8%* | 12.8% | n/a |
| **Had difficulty finding a physician in past year** | 11.0% | n/a | 17.9% | n/a |
| **Transportation hindered doctor visit** | 9.4% | n/a | 4.6% | n/a |
| **Primary care doctors per 100,000 people** | 74.5 | 76.6 | 87.9 | n/a |
| **Had a specific source of ongoing care (adults)** | 76.3% | n/a | 69.5% | 95.0% |
| **Had a routine checkup in the past year** | 65.0% | 61.8% | 63.4% | n/a |
| **Made 2+ visits to emergency room in past year** | 8.9% | n/a | 9.3% | n/a |
| **Couldn't afford a prescription in past year** | 15.8% | n/a | 11.2% | n/a |
| **Visited dentist in past year** | 65.9% | 61.0% | 76.0% | 49.0% |
| **Had dental insurance** | 65.6% | n/a | 69.3% | n/a |

PRC Random Telephone Survey, 2015
*Behavioral Risk Factor Surveillance System, 2013

**The Numbers Say:** *Lewis and Clark County residents have difficulty finding a regular physician, although the total number of physicians per capita, cost, and transportation do not appear to be significant barriers.*

## Uninsured

| Age Group | U.S. | | Montana | | County | |
|---|---|---|---|---|---|---|
| | 2008-2010 | 2011-2013 | 2008-2010 | 2011-2013 | 2008-2010 | 2011-2013 |
| Overall rate | 15.9% | 14.8% | 17.0% | 17.7% | 11.6% | 10.5% |
| Adults (18-64) | 23.0% | 28.2% | 22.5% | 33.9% | 15.0% | 22.9% |
| Employed | n/a | 17.8% | 19.4% | 21.8% | 12.5% | 14.0% |
| Unemployed | n/a | 45.0% | 51.3% | 55.4% | 42.0% | 42.5% |
| Not in labor force | n/a | 21.8% | 12.3% | 24.6% | 8.7% | 12.3% |
| Children <18 | 9.8% | 7.3% | 12.6% | 10.9% | 9.0% | 5.1% |
| Healthy People 2020 Target | | | | | | 0% |

U.S. Census Bureau 3-year estimates

## Medicaid Enrollment and Expenditures

| Lewis & Clark County | |
|---|---|
| Average monthly enrollment | 5949 people |
| Percentage of population covered | 9.0% |
| County rank by enrollment | 26 |
| Expenditures | $51,921,1100 |
| Average expenditure per enrollee | $8,728 |
| County rank by expenditure per enrollee | 35 |

MT Department of Public Health and Human Services, 2013

## Health Care Workforce*

| Profession | Number | Profession | Number |
|---|---|---|---|
| Dentists | 61 | Pharmacists | 86 |
| Dental hygienists | 78 | Physicians and surgeons | 143 |
| EMTs and paramedics | 77 | Physician's assistants | 43 |
| LPNs and LVNs | 257 | Registered nurses | 854 |
| Nurse practitioners | 66 | School nurses** | 11 |

MT Department of Labor and Industry, 2014
* Includes professionals in Lewis and Clark, Broadwater, and Jefferson counties.
**Lewis & Clark County only

## Fast Facts

- Montana ranked 41st among states in its number of primary care physicians in 2014 per capita, compared to 36th in 2009 (America's Health Rankings)
- From November 2014 through February 2015, 54,886 Montanans signed up for health insurance through the marketplace created by passage of the federal Affordable Care Act. Of those, 3,053 lived within the 596 zip code area, which covers much of Lewis and Clark County, including the Helena area. This represents roughly 40% of those who were eligible for coverage. (U.S. Dept. of Health and Human Services)

### The Numbers Say:

*Residents of Lewis and Clark County are more likely to have health insurance than other Montanans and Americans.*

# Health Disparities and Inequities

**Health equity** is achieved when all of us have the opportunity to reach our full health potential and no one is disadvantaged because of socially determined circumstances. The issue of health equity is important because poor health can hinder socially disadvantaged groups from overcoming their social disadvantage. Health equity is sometimes called health justice.

**Health disparities** are factors that can systematically create greater obstacles to health for certain segments of the population. Many different populations may be affected by disparities and inequities, including:

- Racial and ethnic minorities
- Residents of rural areas
- Women, children, and the elderly
- People with inadequate incomes
- People with disabilities

Some of the ways that socially determined disparities can influence health include the availability of and access to:

- High-quality education
- Nutritious food
- Decent and safe housing
- Affordable and reliable public transportation
- Culturally sensitive health-care providers
- Health insurance
- Clean water and non-polluted air

As a community, we have a responsibility to recognize and address the impacts that social determinants have on health outcomes among our neighbors. Everyone deserves a fair chance to lead a healthy life. No one should be denied this chance because of who they are or their socioeconomic status.

Demographic statistics (see pages 4-5) show that Lewis and Clark County is very homogenous, even by Montana standards. The population is primarily white and relatively secure financially. The largest racial minority is the Hispanic/Latino population, which makes up 2.8% of the population. American Indians account for 2.2% of the population. There are no Indian reservations in the county.

But this doesn't mean there are no health inequities or disparities. Some of the factors that must be considered and addressed in our county are:

## Race and Ethnicity

Race and ethnicity are well-known health disparities. American Indians have long struggled with a higher burden of disease and a lower life expectancy than other Montanans. Although the American Indian population in Lewis and Clark County is small compared to that of other counties, it deserves our attention because the health disparity is so great. A study conducted by the Montana Department of Health and Human Services in 2013 showed that, on average, American Indians in our state have a life expectancy 20 years shorter than non-Indians. They're more likely to die of chronic liver disease and cirrhosis, type 2 diabetes, unintentional injuries, assaults and homicides, suicide, and chronic lower respiratory diseases.

These disparities may be due to lack of access to quality health care, education, nutrition, and employment. These are broad quality-of-life issues rooted in economic adversity and poor social conditions. We can't ignore them.

## Socioeconomic Status

Inequality in socioeconomic status (education, income, and occupation) widens the gap between those who are healthy and those who aren't. It's linked to a wide range of health problems, including low birthweight, heart disease, high blood pressure, arthritis, diabetes, and cancer. It's also associated with higher mortality.

Education is perhaps the most basic component of socioeconomic status because it shapes a person's future job opportunities and earning potential. It also provides knowledge and life skills that help an individual get easier access to resources that can promote their health. Research shows that early educational experiences, as well as how much education a person has, are important indicators of health status.

Research has also demonstrated a strong relationship between income and health. Individuals with higher income levels have the means to buy health insurance, which has a significant impact on their ability to access health care on a consistent basis. A higher income can provide better nutrition, housing, schooling, and recreation.

Residents with lower incomes and less education are more likely to live and work in worse physical environments. Poorer neighborhoods are more likely to be located near highways, industrial areas, and toxic waste sites, because land there is cheaper and there tends to be less resistance to polluting industries. This can lead to exposure to health-damaging agents in the environment, including lead, asbestos, carbon dioxide, and industrial waste. Housing quality is also generally poorer for low-income families.

Smoking and obesity are two risk factors that have been strongly linked to lower incomes. Low socioeconomic status is also associated with a more sedentary lifestyle and lower consumption of fiber and fresh fruits and vegetables.

Stress can affect health both directly and indirectly through its effects on health behavior. While people in all walks of life experience stress, those with lower incomes and education tend to live and work in more stressful circumstances and environments.

When it comes to socioeconomic status, Lewis and Clark County is fortunate from a population standpoint. County residents tend to be well educated. Ninety-five percent have graduated from high school, and 38% have gone on to get college degrees. That's well above the state and national average of 29%.

The median income in Lewis and Clark County is $54,960, which is higher than that of the state ($45,950) and nation ($52,180). Only 11% of residents are living below the poverty level, compared to 16% at the state and national level. However, among American Indians, that rate is 27.5%.

The county's socioeconomic status most likely reflects the fact that Helena is the capital city of Montana. Government (state, federal, and local) is the single largest employer.

Although the number of county residents who are disadvantaged in terms of education, employment, and income is relatively small, they still deserve our focus if we're to improve public health.

## Rural Living

The U.S. Census Bureau defines the term rural as open or sparsely settled land with settlements of less than 2,500 residents. With the exception of the southern tip of Lewis and Clark County, where Helena is located, this defines the county we live in.

Research shows that those who live in rural areas show more adverse health outcomes than those in metropolitan areas. For example, rural Americans have higher rates of preventable conditions such as obesity, diabetes, cancer, and injury, and higher rates of related high-risk health behaviors such as smoking, physical inactivity, poor diet, and limited use of seatbelts. Death from injury and suicide are more common in rural areas.

Access to health services in rural areas is a particular challenge since this population is disproportionately older, chronically ill, of lower income, and uninsured compared to people living in urban areas. Rural residents often have to travel longer distances to medical providers and may have limited emergency medical services nearby. In 2008, rural counties in the United States had on average 62.0 primary care physicians per 100,000 residents, compared to 79.5 for residents of urban areas. In 2011, 65% of primary care health professional shortage areas were in rural counties.

Of the 65,000 residents of Lewis and Clark County, about 20% live outside Helena and the Helena Valley in isolated settings or in communities of less than 2,500.

## Disability

Disability is part of life. Anyone may get a disabling impairment or chronic condition at any age.

It's important to remember that disabilities don't define people or their health, talents, and abilities. People with disabilities play an important and valued role in every community. All people, including those with disabilities, should have the opportunity to take part in daily activities that add to their growth, development, fulfillment, and community contribution.

Research shows that people with disabilities are often subject to health disparities. They're more likely to use tobacco, be overweight or obese, have high blood pressure, be under- or unemployed, have symptoms of psychological distress, and have difficulty getting the health care they need. They're less likely to visit the dentist, have preventive health screenings, and engage in fitness activities.

More than one of every four residents of our county (26%) reports having a disability. Even more (29%) say they have a health problem that limits their activities. That's higher than both the state (24%) and national (21%) rates.

## Age

Montana has one of the oldest populations in the country, according to the state Department of Public Health and Human Services. By 2025, the state is expected to rank between third and fifth in the nation in the percentage of adults 65 and older (compared to 14th in 2000). That means one of four Montanans will be elderly. In Lewis and Clark County, the percentage of people 65 and older (16.2%) is also higher than the national average (14.5%).

Older people are more likely to experience health disparities than the general population. They're more likely to have chronic diseases and to be heavy users of health-care services. They're also more likely to have disabilities and lower incomes. Alzheimer's is becoming an increasingly problematic public health issue that is associated with age.

At the national level, two of every three older Americans have multiple chronic conditions, and treatment for this population accounts for 66% of the country's health-care budget. Clearly, the needs of the aging population need to be given special consideration when it comes to public health.

Children also can be the subjects of health disparities. Low-income and minority children are more likely to have health problems than children who are white and more affluent. They're more likely to have higher rates of mortality and disability and to lack access to appropriate health care.

The Adverse Childhood Experience Study (ACES), conducted by the Centers for Disease Control and Prevention in partnership with Kaiser Permanente, has demonstrated that a child's exposure to abuse, neglect, and other traumatic experiences can have significant impacts on both short- and long-term physical and mental health.

Asthma and obesity are two conditions in which disparities in children's health are particularly evident. The underlying causes of these can be tied to individual, social, and environmental factors. In the case of asthma, factors can include poor air quality, exposure to pesticides, and substandard housing. Overweight in children can be tied to factors affecting poor, racial, and ethnic groups, including decreased availability of healthy foods and limited access to physical activity.

Lewis and Clark County is fortunate in that the percentage of children here who live in poverty (14%) is lower than the state and nation (22.4% and 20.6% respectively). Still, pockets of poverty exist, and low-income children deserve our attention so they can become healthy, thriving adults.

# Community Survey

In the summer of 2015, St. Peter's Hospital retained Professional Research Consultants, Inc., of Omaha, Nebraska, to conduct a random-sample telephone survey of community residents on their health conditions, behaviors, and preferences. St. Peter's partnered with Lewis and Clark Public Health to plan and develop the survey instrument.

A total of 401 telephone interviews were conducted from mid-June through August 2015. The assessment consisted of 147 survey items in interviews that averaged a length of 20-25 minutes. The survey had a maximum margin of error of 4.9%.

The following "areas of opportunity" represent the significant health needs of the community based on the information gathered through this survey and guidelines set forth in Healthy People 2020. A complete copy of the community survey results is available on the St. Peter's Hospital website at www.stpetes.org.

## Areas of Opportunity Identified Through Survey

| Health Indicator | | U.S. | Montana | County | HP 2020 Target |
|---|---|---|---|---|---|
| **Access to Health Care Services** | Had Difficulty Accessing Health Care in Past Year | 39.9% | n/a | 50.6% | n/a |
| | Have a Specific Source of Ongoing Medical Care | 76.3% | n/a | 69.5% | 95.0% |
| | Rate Local Health Care Fair or Poor | 16.4% | n/a | 32.2% | n/a |
| **Cancer** | Have Had Skin Cancer | 6.7% | 7.1% | 10.6% | n/a |
| | Have Been Screened for Colorectal Cancer (ages 50-75) | 75.1% | n/a | 64.7% | 70.5% |
| **Heart Disease & Stroke** | Ever Told Have High Cholesterol | 29.9% | 35.7% | 24.8% | 13.5% |
| **Injury & Violence** | Unintentional Injury Death Rate (per 100,000 people) | 39.2 | 55.8 | 46.7 | 36.4 |
| | Always Wear a Seat Belt (adults) | 84.8% | n/a | 79.0% | 92.0% |
| | Firearm-Related Death Rate (per 100,000 people) | 10.4 | 16.6 | 15.9 | 9.3 |
| | Have a Firearm in the Home | 34.7% | n/a | 63.2% | n/a |
| **Mental Health** | Suicide Death Rate (per 100,000 people) | 12.5 | 22.9 | 19.7 | 10.2 |
| **Nutrition, Physical Activity, Weight** | Have Low Food Access | 6.3% | 9.3% | 19.9% | n/a |
| | Are Obese (adults, BMI 30+) | 29.0% | 24.6% | 30.7% | 30.5% |
| | Got Medical Advice on Weight in Past Year | 23.7% | n/a | 13.1% | n/a |
| | Got Medical Advice on Physical Activity in Past Year | 44.0% | n/a | 37.2% | n/a |
| **Potentially Disabling Conditions** | Have Sciatica or Chronic Back Pain | 18.4% | n/a | 24.0% | n/a |
| | Are Deaf or Have Trouble Hearing | 10.3% | n/a | 14.3% | n/a |
| **Respiratory Diseases** | Death Rate from Chronic Lower Respiratory Disease (per 100,000 people) | 42.0 | 50.7 | 66.3 | n/a |
| | Have Had COPD Lung Disease | 8.6% | 6.5% | 11.3% | n/a |
| **Substance Abuse** | Rate of Drug-Induced Deaths (per 100,000 people) | 14.1 | 14.9 | 17.0 | 11.3 |

# Key Stakeholder Survey

To solicit input from key stakeholders – those individuals who have a broad interest in the health of the community – Professional Research Consultants also conducted an online key stakeholder survey during the summer of 2015. A list of 300 recommended participants was provided by Lewis and Clark Public Health and St. Peter's Hospital. The list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

PRI contacted the key stakeholders by email, introducing the purpose of the survey and providing a link to take the survey online. Reminder emails were sent as needed to increase participation. In all, 147 community stakeholders (49%) took part in the survey.

Input was gathered from several individuals whose organizations work with low-income and minority populations (including Hispanics, American Indians, the disabled, dual-language learners, the elderly, foster children, the homeless, the indigent, those with insurance barriers, Medicare/Medicaid recipients, those with mental illnesses, those with disabilities, single mothers, veterans, medically underserved populations, and those recovering from addiction.)

Key stakeholders were asked to rate the degree to which various health issues are a problem in their own community. Follow-up questions asked them to describe why they identify problem areas as such, and how these might be better addressed. Results of their ratings, as well as their verbatim comments, are included in the full report, which is available on the St. Peter's Hospital website, www.stpetes.org

These findings represent qualitative rather than quantitative data. The key stakeholder survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

## Participating Organizations

Area IV Agency on Aging
AWARE, Inc.
Bike Walk Helena
Bike Walk Montana
Carroll College (and Wellness Center)
Child Care Partnerships
City of East Helena
City-County Board of Health
City of Helena
Helena Community Development Dept.
Helena Public Works Dept.
Disability Rights Montana
ExplorationWorks Science Center
Family Promise of Greater Helena
Fifth Avenue Advertising
Florence Crittenton Home and Services
HealthCare for the Homeless
Healthy Mothers, Healthy Babies
Helena Area Chamber of Commerce
Helena Business Improvement District
Helena Citizens Council
Helena College
Helena Family YMCA
Helena Food Share
Helena Housing Authority
Helena Police Department
Helena Public Schools
Helena United Methodist Ministries
Helena Pediatrics Clinic
Kalmore Dental
Lewis and Clark Conservation District
Lewis and Clark Public Health
Montana Dept. of Environmental Quality
Montana Head Start Assocation
Montana Independent Living Project
Montana Mental Health Ombudsman Office
Montana No Kid Hungry
Montana Public Health Laboratory
Montana School Services Foundation
Montana State Legislature
Montana United Indian Association
Morrison Maierle, Inc.
Mountain View Family Health Care
PureView Health Center
Rocky Mountain Development Council Senior Companion Program
Safe Routes to School Committee
Sodexo School Food Services
South Hills Internal Medicine
St. Peter's Hospital
St. Peter's Hospital Board of Directors
St. Peter's Medical Group
The Friendship Center
The National Alliance on Mental Illness–Helena
United Way of the Lewis and Clark Area
Youth Connections Coalition
YWCA of Helena

# Key Stakeholder Survey Results

Key stakeholders prioritized health issues in Lewis and Clark County in the following order:

Major problem | Moderate problem | Minor problem | No problem

## 1 Mental Health

A full 7 in 10 key stakeholders taking part in the online survey characterized mental health as a "major problem" in the community.


*"We are severely short on mental health professionals. It is very difficult to impossible to access mental health care for many patients in need. The waiting times to get into the existing mental health professionals is quite long."*

*– Physician*

## 2 Substance Abuse

The greatest share of key stakeholders taking part in the survey characterized substance abuse as a "moderate problem" in the community.


*"People with substance abuse issues too often do not wish to change. Once they decide to try to change, it is not easy to figure out how to access help."*

*– Public Health*

## 3 Nutrition, Physical Activity and Weight

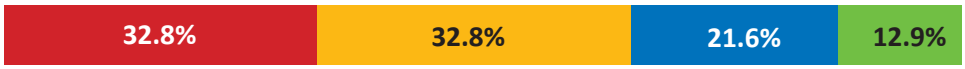
A large share of key stakeholders taking part in the survey characterized nutrition, physical activity, and weight as a "moderate problem" in the community.


*"Our environment is not designed to support individuals making healthy choices. Unhealthy foods are the least expensive. Time constraints and access prevent individuals from getting enough physical activity. It is easier to make unhealthy choices."*

*– Community/Business Leader*

## 4 Diabetes

Nearly one-third of key stakeholders taking part in the survey characterized diabetes as a "major problem" in the community, and an identical proportion characterized diabetes as a "moderate problem."




## 5 Heart Disease

The greatest share of key stakeholders taking part in the survey characterized heart disease and stroke as a "moderate problem" in the community.


### Other Issues

These issues also were of significant concern to key stakeholders who took the survey:

**Tobacco use:**
25.8% major problem
46.1% moderate problem

**Access to health-care services:**
24.8% major problem
50.4% moderate problem

**Dementia/Alzheimer's disease:**
24.6% major problem
47.5% moderate problem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