

# 2016-17 Community Health Needs Assessment Report

## Yellowstone County, Montana

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*Sponsored by:*

- *Billings Clinic*
- *RiverStone Health*
- *St. Vincent Healthcare*

*By:*

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# Table of Contents

|   |           |
|---|-----------|
| <b>Introduction</b>                             | <b>7</b>  |
| <b>Project Overview</b>                         | <b>8</b>  |
| Project Goals                                   | 8         |
| Methodology                                     | 8         |
| <b>Summary of Findings</b>                      | <b>18</b> |
| Significant Health Needs of the Community       | 18        |
| Summary of Key Informant Concerns               | 20        |
| Summary Tables: Comparisons With Benchmark Data | 23        |
| <b>Community Description</b>                    | <b>45</b> |
| <b>Population Characteristics</b>               | <b>46</b> |
| Total Population                                | 46        |
| Urban/Rural Population                          | 48        |
| Age   | 49        |
| Race & Ethnicity                                | 51        |
| Linguistic Isolation                            | 53        |
| <b>Social Determinants of Health</b>            | <b>55</b> |
| Poverty   | 55        |
| Education                                       | 58        |
| Employment                                      | 59        |
| Housing Insecurity                              | 59        |
| Food Insecurity                                 | 61        |
| <b>General Health Status</b>                    | <b>63</b> |
| <b>Overall Health Status</b>                    | <b>64</b> |
| Evaluation of Health Status                     | 64        |
| Activity Limitations                            | 66        |
| Caregiving                                      | 68        |
| <b>Mental Health</b>                            | <b>70</b> |
| Evaluation of Mental Health Status              | 70        |
| Depression                                      | 72        |
| Stress  | 74        |
| Suicide   | 76        |
| Mental Health Treatment                         | 78        |
| Key Informant Input: Mental Health              | 80        |
| <b>Modifiable Health Risks</b>                  | <b>87</b> |
| <b>Actual Causes of Death</b>                   | <b>88</b> |

|  |            |
|--|------------|
| <b>Nutrition</b>   | <b>89</b>  |
| Daily Recommendation of Fruits/Vegetables                  | 90         |
| Access to Fresh Produce                                    | 91         |
| Sugar-Sweetened Beverages                                  | 94         |
| Health Advice About Diet & Nutrition                       | 95         |
| <b>Physical Activity</b>                                   | <b>96</b>  |
| Leisure-Time Physical Activity                             | 96         |
| Activity Levels  | 98         |
| Health Advice About Physical Activity & Exercise           | 103        |
| Access to Physical Activity                                | 103        |
| Barriers to Physical Activity                              | 104        |
| Attempts at Increased Activity                             | 105        |
| Awareness of the 5-2-1-0 Health Message                    | 107        |
| <b>Weight Status</b>                                       | <b>108</b> |
| Adult Weight Status  | 108        |
| Children’s Weight Status                                   | 112        |
| Key Informant Input: Nutrition, Physical Activity & Weight | 113        |
| <b>Substance Abuse</b>                                     | <b>118</b> |
| Age-Adjusted Cirrhosis/Liver Disease Deaths                | 118        |
| Alcohol Use  | 120        |
| Age-Adjusted Drug-Induced Deaths                           | 122        |
| Illicit Drug Use   | 123        |
| Alcohol & Drug Treatment                                   | 124        |
| Negative Effects of Substance Abuse                        | 125        |
| Key Informant Input: Substance Abuse                       | 126        |
| <b>Tobacco Use</b>   | <b>133</b> |
| Cigarette Smoking  | 133        |
| Other Tobacco Use  | 136        |
| Health Advice About Tobacco Use                            | 139        |
| Key Informant Input: Tobacco Use                           | 139        |
| <b>Death, Disease &amp; Chronic Conditions</b>             | <b>142</b> |
| <b>Leading Causes of Death</b>                             | <b>143</b> |
| Distribution of Deaths by Cause                            | 143        |
| Age-Adjusted Death Rates for Selected Causes               | 143        |
| <b>Cardiovascular Disease</b>                              | <b>145</b> |
| Age-Adjusted Heart Disease & Stroke Deaths                 | 145        |
| Prevalence of Heart Disease & Stroke                       | 148        |
| Cardiovascular Risk Factors                                | 149        |
| Key Informant Input: Heart Disease & Stroke                | 155        |

|  |            |
|--|------------|
| <b>Cancer</b>  | <b>158</b> |
| Age-Adjusted Cancer Deaths   | 158        |
| Cancer Incidence   | 161        |
| Prevalence of Cancer   | 162        |
| Cancer Screenings  | 163        |
| Key Informant Input: Cancer  | 168        |
| <b>Respiratory Disease</b>   | <b>171</b> |
| Age-Adjusted Respiratory Disease Deaths                                | 172        |
| Key Informant Input: Respiratory Disease                               | 176        |
| <b>Injury &amp; Violence</b>   | <b>178</b> |
| Unintentional Injury   | 178        |
| Intentional Injury (Violence)  | 184        |
| Key Informant Input: Injury & Violence                                 | 188        |
| <b>Diabetes</b>  | <b>191</b> |
| Age-Adjusted Diabetes Deaths   | 191        |
| Prevalence of Diabetes   | 193        |
| Key Informant Input: Diabetes  | 195        |
| <b>Alzheimer's Disease</b>   | <b>199</b> |
| Age-Adjusted Alzheimer's Disease Deaths                                | 199        |
| Progressive Confusion/Memory Loss                                      | 200        |
| Key Informant Input: Dementias, Including Alzheimer's Disease          | 201        |
| <b>Kidney Disease</b>  | <b>204</b> |
| Age-Adjusted Kidney Disease Deaths                                     | 204        |
| Prevalence of Kidney Disease   | 205        |
| Key Informant Input: Chronic Kidney Disease                            | 206        |
| <b>Potentially Disabling Conditions</b>                                | <b>208</b> |
| Arthritis, Osteoporosis, & Chronic Back Conditions                     | 208        |
| Key Informant Input: Arthritis, Osteoporosis & Chronic Back Conditions | 209        |
| Vision & Hearing Impairment  | 210        |
| Key Informant Input: Vision & Hearing                                  | 211        |
| <b>Infectious Disease</b>  | <b>213</b> |
| <b>HIV</b>   | <b>214</b> |
| HIV Prevalence   | 215        |
| HIV Testing  | 216        |
| Key Informant Input: HIV/AIDS  | 216        |
| <b>Sexually Transmitted Diseases</b>                                   | <b>218</b> |
| Chlamydia & Gonorrhea  | 218        |
| Safe Sexual Practices  | 219        |
| Key Informant Input: Sexually Transmitted Diseases                     | 220        |

|   |            |
|---|------------|
| <b>Immunization &amp; Infectious Diseases</b>           | <b>221</b> |
| Key Informant Input: Immunization & Infectious Diseases | 221        |
| <b>Births</b>   | <b>222</b> |
| <b>Prenatal Care</b>                                    | <b>223</b> |
| <b>Birth Outcomes &amp; Risks</b>                       | <b>225</b> |
| Low-Weight Births                                       | 225        |
| Infant Mortality  | 226        |
| Key Informant Input: Infant & Child Health              | 227        |
| <b>Family Planning</b>                                  | <b>230</b> |
| Births to Teen Mothers                                  | 230        |
| Key Informant Input: Family Planning                    | 231        |
| <b>Access to Health Services</b>                        | <b>234</b> |
| <b>Health Insurance Coverage</b>                        | <b>235</b> |
| Type of Healthcare Coverage                             | 235        |
| Lack of Health Insurance Coverage                       | 235        |
| <b>Difficulties Accessing Healthcare</b>                | <b>237</b> |
| Difficulties Accessing Services                         | 237        |
| Barriers to Healthcare Access                           | 238        |
| Accessing Healthcare for Children                       | 240        |
| Key Informant Input: Access to Healthcare Services      | 241        |
| <b>Health Literacy</b>                                  | <b>245</b> |
| Understanding Health Information                        | 245        |
| Completing Health Forms                                 | 246        |
| Population With Low Health Literacy                     | 247        |
| <b>Primary Care Services</b>                            | <b>249</b> |
| Access to Primary Care                                  | 249        |
| Specific Source of Ongoing Care                         | 250        |
| Utilization of Primary Care Services                    | 251        |
| <b>Emergency Room Utilization</b>                       | <b>253</b> |
| <b>Advance Directives</b>                               | <b>255</b> |
| <b>Oral Health</b>                                      | <b>257</b> |
| Dental Insurance  | 257        |
| Dental Care   | 259        |
| Key Informant Input: Oral Health                        | 261        |
| <b>Vision Care</b>                                      | <b>263</b> |
| <b>Local Resources</b>                                  | <b>264</b> |
| <b>Perceptions of Local Healthcare Services</b>         | <b>265</b> |
| <b>Healthcare Resources &amp; Facilities</b>            | <b>267</b> |

|  |            |
|--|------------|
| Hospitals & Federally Qualified Health Centers (FQHCs)             | 267        |
| <b>Resources Available to Address the Significant Health Needs</b> | <b>268</b> |

## **Appendices** **272**

|  |            |
|--|------------|
| <b>Appendix I: IRS Form 990, Schedule H Compliance</b>                   | <b>273</b> |
| <b>Appendix II: Public Health Accreditation</b>                          | <b>274</b> |
| <u>Adherence to Public Health Accreditation Standards</u>                | 274        |
| <b>Appendix III: Data Resources for Yellowstone County</b>               | <b>275</b> |
| <b>Appendix IV: Yellowstone County Community Health Improvement Plan</b> |            |
| <b>Progress to Date</b>  | <b>277</b> |
| 2014-17 Workgroup Update   | 277        |

# Introduction



**Professional Research Consultants, Inc.**

## Project Overview

### Project Goals

This Community Health Needs Assessment, a follow-up to similar studies conducted in 2005, 2010 and 2014, is a systematic, data-driven approach to determining the health status, behaviors and needs of residents in Yellowstone County, Montana. Subsequently, this information may be used to inform decisions and guide efforts to improve community health and wellness, including serving as the basis for the county's Community Health Improvement Plan (CHIP).

A Community Health Needs Assessment provides information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status. This Community Health Needs Assessment will serve as a tool toward reaching three basic goals:

- **To improve residents' health status, increase their life spans, and elevate their overall quality of life.** A healthy community is not only one where its residents suffer little from physical and mental illness, but also one where its residents enjoy a high quality of life.
- **To reduce the health disparities among residents.** By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at-risk for various diseases and injuries. Intervention plans aimed at targeting these individuals may then be developed to combat some of the socio-economic factors which have historically had a negative impact on residents' health.
- **To increase accessibility to preventive services for all community residents.** More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans, and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

This assessment was conducted on behalf of The Alliance by Professional Research Consultants, Inc. (PRC). PRC is a nationally recognized healthcare consulting firm with extensive experience conducting Community Health Needs Assessments such as this in hundreds of communities across the United States since 1994.

### Methodology

This assessment incorporates data from both quantitative and qualitative sources. Quantitative data input includes primary research (the PRC Community Health Survey) and secondary research (vital statistics and other existing health-related data); these quantitative components allow for trending and comparison to benchmark data at the state and national levels. Qualitative data input includes primary research gathered through an Online Key Informant Survey.



### PRC Community Health Survey

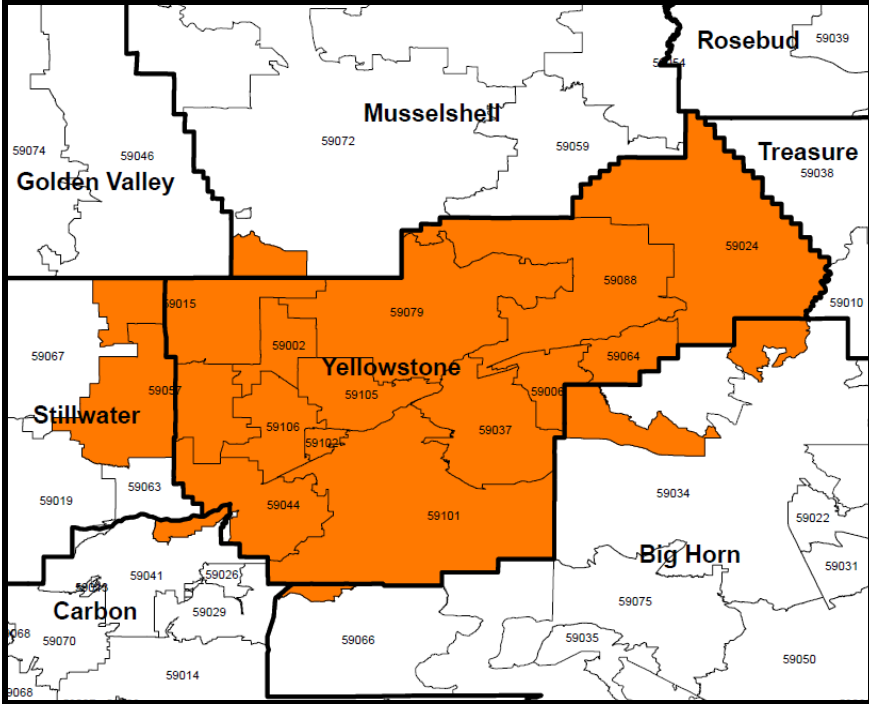
#### Survey Instrument

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues.

The final survey instrument was developed by The Alliance (supported by Billings Clinic, RiverStone Health, and St. Vincent Healthcare) and PRC, based on input provided from the Community Health Needs Assessment Advisory Group. This group was comprised of representatives from the Billings Gazette, Montana State University Billings, Rocky Mountain Health Network, United Way, Human Resource Development Council, Advanced Care Hospital, and the Yellowstone County Commissioner’s Office. The survey is similar to the previous surveys used in the region, allowing for data trending.

#### Community Defined for This Assessment

The study area for the survey effort (referred to as “Yellowstone County” in this report) includes each of the residential ZIP Codes significantly represented in the county. Yellowstone County is a common patient base among the three collaborating entities sponsoring this study—RiverStone Health’s jurisdictional authority is only within the county, which is a shared primary service area with both Billings Clinic and St. Vincent Healthcare. This community definition is illustrated in the following map.



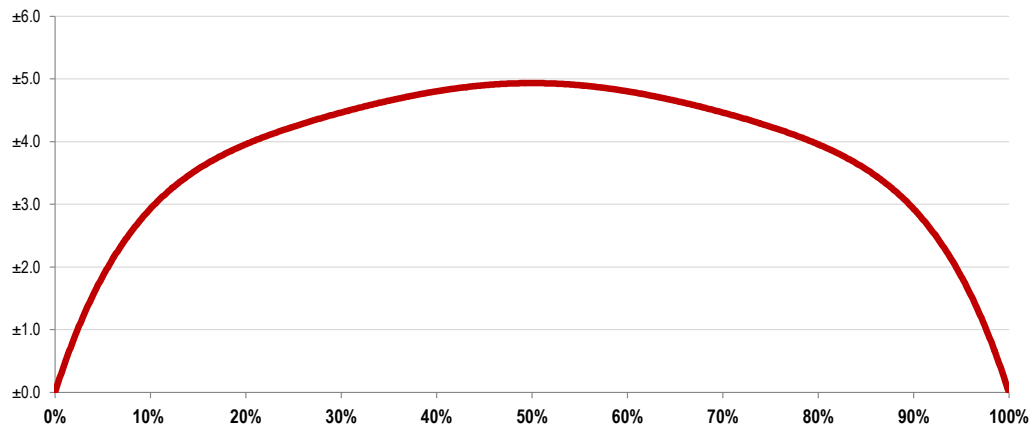
### Sample Approach & Design

A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the *PRC Community Health Survey*. Thus, to ensure the best representation of the population surveyed, a telephone interview methodology — one that incorporates both landline and cell phone interviews — was employed. The primary advantages of telephone interviewing are timeliness, efficiency, and random-selection capabilities.

The sample design used for this effort consisted of a random sample of 400 individuals age 18 and older in Yellowstone County, Montana (which included 124 parents who also provided information about a child in the household). All administration of the surveys, data collection and data analysis was conducted by Professional Research Consultants, Inc. (PRC).

For statistical purposes, the maximum rate of error associated with a sample size of 400 respondents is  $\pm 4.9\%$  at the 95 percent level of confidence.

### Expected Error Ranges for a Sample of 400 Respondents at the 95 Percent Level of Confidence



Note: • The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

- Examples: • If 10% of the sample of 400 respondents answered a certain question with a "yes," it can be asserted that between 7.1% and 12.9% ( $10\% \pm 2.9\%$ ) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 45.1% and 54.9% ( $50\% \pm 4.9\%$ ) of the total population would respond "yes" if asked this question.

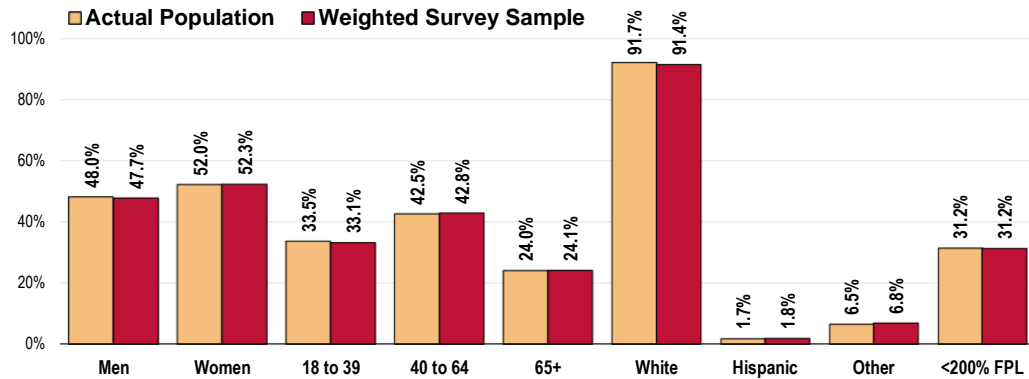
### Sample Characteristics

To accurately represent the population studied, PRC strives to minimize bias through application of a proven telephone methodology and random-selection techniques. And, while this random sampling of the population produces a highly representative sample, it is a common and preferred practice to "weight" the raw data to improve this representativeness even further. This is accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (poststratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely gender, age, race, ethnicity, and poverty status) and a statistical application package applies

weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The following chart outlines the characteristics of the Yellowstone County sample for key demographic variables, compared to actual population characteristics revealed in census data. [Note that the sample consisted solely of area residents age 18 and older; data on children were given by proxy by the person most responsible for that child's healthcare needs, and these children are not represented demographically in this chart.]

### Population & Survey Sample Characteristics (Yellowstone County, 2017)



Sources:   
 • Census 2010, Summary File 3 (SF 3). US Census Bureau.   
 • 2017 PRC Community Health Survey, Professional Research Consultants, Inc.

Further note that the poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household (*e.g., the 2016 guidelines place the poverty threshold for a family of four at \$24,300 annual household income or lower*). In sample segmentation: **“low income”** refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice the poverty threshold; **“mid/high income”** refers to those households living on incomes which are twice or more the federal poverty level.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

### Online Key Informant Survey

To solicit input from key informants, those individuals who have a broad interest in the health of the community, an Online Key Informant Survey was also implemented as part of this process. A list of recommended participants was provided by the sponsors; this list included names and contact information for healthcare providers, public health representatives, government representatives, educators, business leaders, 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.

Key informants were contacted 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, 194 community stakeholders took part in the Online Key Informant Survey, as outlined below:

| Online Key Informant Survey Participation |                |                      |
|---|----------------|----------------------|
| Key Informant Type                        | Number Invited | Number Participating |
| Community Leader                          | 106            | 64                   |
| Healthcare Provider                       | 53             | 41                   |
| Educator                                  | 41             | 32                   |
| Government Representative                 | 40             | 24                   |
| Business Leader                           | 42             | 17                   |
| Public Health Representative              | 18             | 16                   |

Final participation included representatives of the organizations outlined below.

- 13th Judicial District Court
- Abundant Health Services
- Adult Resource Alliance of Yellowstone County
- Advanced Care Hospital of Montana
- Alternatives, Inc.
- American Lutheran Church
- Angela's Piazza
- Beartooth Elementary School
- Big Brothers Big Sisters of Yellowstone County
- Big Sky Economic Development
- Big Sky Senior Services
- Big Sky State Games
- Billings Association of Realtors®
- Billings Career Center
- Billings Catholic Schools
- Billings Chamber of Commerce
- Billings City Council
- Billings Clinic
- Billings Community Foundation
- Billings Family Violence Task Force
- Billings Family YMCA
- Billings Fire Department
- Billings First Congregational Church

- Billings Jaycees
- Billings Metropolitan Transit System
- Billings Police Department
- Billings Public Library Foundation (BPLF)
- Billings Public Schools
- Billings TrailNet
- Boys and Girls Clubs of Yellowstone County
- Canyon Creek School
- CASA of Yellowstone County
- Children's Mental Health Bureau
- City of Billings
- City of Billings, Community Development Division
- City of Billings, Parks and Recreation Department
- City of Billings, Planning and Community Services Department
- City of Billings, Public Works Department
- City-County Planning Division, Billings and Yellowstone County
- Community Crisis Center
- CTA Architects Engineers
- Department of Corrections
- District 7 Human Resources Development Council
- Dress for Success Billings
- Early Childhood Intervention
- Eggart Engineering and Construction (EEC)
- Elder Grove School
- Employee Benefit Management Services (EBMS), Inc.
- Faith Chapel
- Family Service, Inc.
- First English Lutheran Church
- First Interstate Bank
- Foster Grandparent Program
- Friendship House of Christian Services
- Girl Scouts of Montana and Wyoming
- Global Peace Foundation
- Head Start, Inc.
- Housing Authority of Billings
- Huntley Project Senior Housing Coalition
- iChange Billings
- Indian Health Board of Billings
- Indian Health Service
- Last Best News
- Laurel School District
- Legislative Interim Child, Families and HHS Committee
- Lockwood Fire District 8
- Lockwood School District #26
- Mental Health Center
- Montana Action for Healthy Kids
- Montana BioScience Alliance
- Montana Department of Public Health & Human Services (DPHHS)
- Montana Healthcare Foundation
- Montana House of Representatives
- Montana Knights of Columbus
- Montana Legal Services Association
- Montana Migrant and Seasonal Farmworkers Council, Inc.
- Montana State Senate
- Montana State University Billings (MSUB)
- MSU Extension, Expanded Food and Nutrition Education Program
- National Alliance on Mental Illness

- Parents, Let's Unite for Kids (PLUK)
- Passages Women's Facility
- Peace Lutheran Church
- Pioneer Park Task Force
- Rimrock Foundation
- Rimrock Neighborhood Task Force
- RiverStone Health
- Rocky Mountain College
- Rocky Mountain Health Network, Inc.
- Rocky Mountain Tribal Epidemiology Center
- Rocky Mountain Tribal Leaders Council
- Special Olympics Montana
- St. Bernard Catholic Church
- St. John's Lutheran Ministries
- St. Vincent De Paul
- St. Vincent Healthcare
- The Billings Gazette
- The Children's Clinic, P.C.
- The Family Tree Center
- The Goodman Group
- Tumbleweed Runaway Program
- United Way of Yellowstone County
- VA Montana Healthcare
- Volunteers of America
- Walla Walla University-Billings Campus
- Yellowstone AIDS Project
- Yellowstone County Extension Service
- Yellowstone Families, Early Head Start
- Yellowstone Valley Women's Magazine
- Yellowstone Youth Crisis Network
- Youth Dynamics
- YWCA
- YWCA Gateway House

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

**Minority/medically underserved populations represented:**

*African-Americans, agricultural workers, American Indians, Asians, cancer patients, children, college students, those with co-occurring disorders, criminal offenders, diabetics, those with disabilities, the elderly, English as a Second Language, those with high blood pressure, Hispanics, HIV/AIDS patients, homeless individuals, Hutterites, immigrants, those lacking healthcare access, LGBT, low income, Medicare/Medicaid recipients, the mentally ill, multi-racial individuals, pregnant teens, runaways, rural residents, Samoans, single men, single parents, those living on the south side, substance abusers, teens living on their own, uninsured/underinsured residents, veterans, victims of violence, women*

In the online survey, key informants 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 throughout this report as they relate to the various other data presented.

*NOTE: These findings represent qualitative rather than quantitative data. The Online Key Informant 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.*

## Public Health, Vital Statistics & Other Data

A variety of existing (secondary) data sources was consulted to complement the research quality of this Community Health Needs Assessment. Data for Yellowstone County were obtained from the following sources (specific citations are included with the graphs throughout this report):

- Center for Applied Research and Environmental Systems (CARES)
- Centers for Disease Control & Prevention, Office of Infectious Disease, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
- Centers for Disease Control & Prevention, Office of Public Health Science Services, Center for Surveillance, Epidemiology and Laboratory Services, Division of Health Informatics and Surveillance (DHIS)
- Centers for Disease Control & Prevention, Office of Public Health Science Services, National Center for Health Statistics
- Community Commons
- ESRI ArcGIS Map Gallery
- National Cancer Institute, State Cancer Profiles
- OpenStreetMap (OSM)
- US Census Bureau, American Community Survey
- US Census Bureau, County Business Patterns
- US Census Bureau, Decennial Census
- US Department of Agriculture, Economic Research Service
- US Department of Health & Human Services
- US Department of Health & Human Services, Health Resources and Services Administration (HRSA)
- US Department of Justice, Federal Bureau of Investigation
- US Department of Labor, Bureau of Labor Statistics

## Benchmark Data

### *Trending*

Similar surveys were administered in Yellowstone County in 2005, 2010 and 2014 by PRC on behalf of the sponsors. Trending data, as revealed by comparison to prior survey results, are provided throughout this report whenever available. Historical data for secondary data indicators are also included for the purposes of trending.

### *Montana Risk Factor Data*

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data represent the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trends Data* published online by the Centers for Disease Control and Prevention. State-level vital statistics are also provided for comparison of secondary data indicators.

### *Nationwide Risk Factor Data*

Nationwide risk factor data, which are also provided in comparison charts, are taken from either the 2013 or 2015 PRC National Health Survey; the methodological approach for these national studies is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence. National-level vital statistics are also provided for comparison of secondary data indicators.

### *Healthy People 2020*

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:



- Encourage collaborations across communities and sectors.
- Empower individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People strives to:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.
- Provide measurable objectives and goals that are applicable at the national, State, and local levels.
- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.
- Identify critical research, evaluation, and data collection needs.

### **Determining Significance**

Differences noted in this report represent those determined to be significant. For survey-derived indicators (which are subject to sampling error), statistical significance is determined based on confidence intervals (at the 95 percent confidence level) using question-specific samples and response rates. For secondary data indicators (which do not carry sampling error, but might be subject to reporting error), "significance," for the purpose of this report, is determined by a 5% variation from the comparative measure.

### **Information Gaps**

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.



For example, certain population groups — such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish — are not represented in the survey data. Other population groups — for example, pregnant women, lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups — might not be identifiable or might not be represented in numbers sufficient for independent analyses.

Also, additional secondary data sources exist beyond those included in this assessment that might further inform health issues in the community. In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly medical conditions that are not specifically addressed.

## Summary of Findings

### Significant Health Needs of the Community

The following “areas of opportunity” represent the significant health needs of the community, based on the information gathered through this Community Health Needs Assessment and the guidelines set forth in Healthy People 2020. From these data, opportunities for health improvement exist in the area with regard to the following health issues (see also the summary tables presented in the following section).

The Areas of Opportunity were determined after consideration of various criteria, including: standing in comparison with benchmark data (particularly national data); identified trends; the preponderance of significant findings within topic areas; the magnitude of the issue in terms of the number of persons affected; and the potential health impact of a given issue.

| Areas of Opportunity Identified Through This Assessment |  |
|---|--|
| <b>Access to Healthcare Services</b>                    | <ul style="list-style-type: none"> <li>• Barriers to Access                             <ul style="list-style-type: none"> <li>○ Cost of Prescriptions</li> <li>○ Appointment Availability</li> <li>○ Finding a Physician</li> </ul> </li> <li>• Ratings of Local Healthcare</li> </ul>  |
| <b>Cancer</b>   | <ul style="list-style-type: none"> <li>• <i>Cancer is a leading cause of death</i></li> <li>• Cancer Deaths                             <ul style="list-style-type: none"> <li>○ Including Prostate Cancer and Colorectal Cancer Deaths</li> </ul> </li> <li>• Cancer Incidence                             <ul style="list-style-type: none"> <li>○ Including Prostate Cancer Incidence</li> </ul> </li> <li>• Female Breast Cancer Screening</li> <li>• Cervical Cancer Screening</li> </ul> |
| <b>Dementia, Including Alzheimer's Disease</b>          | <ul style="list-style-type: none"> <li>• Alzheimer's Disease Deaths</li> <li>• Progressive Memory Loss/Confusion</li> </ul>  |
| <b>Diabetes</b>   | <ul style="list-style-type: none"> <li>• Prevalence of Borderline/Pre-Diabetes</li> </ul>  |
| <b>Heart Disease &amp; Stroke</b>                       | <ul style="list-style-type: none"> <li>• <i>Cardiovascular disease is a leading cause of death</i></li> <li>• Stroke Deaths</li> <li>• High Blood Pressure Prevalence</li> </ul>   |
| <b>Infant Health &amp; Family Planning</b>              | <ul style="list-style-type: none"> <li>• Low-Weight Births</li> <li>• Infant Mortality</li> </ul>  |
| <b>Injury &amp; Violence</b>                            | <ul style="list-style-type: none"> <li>• Motor Vehicle Crash Deaths</li> <li>• Seatbelt Usage</li> <li>• Firearm-Related Deaths</li> <li>• Firearm Prevalence                             <ul style="list-style-type: none"> <li>○ Including in Homes With Children</li> </ul> </li> <li>• Firearm Storage/Safety</li> </ul>   |

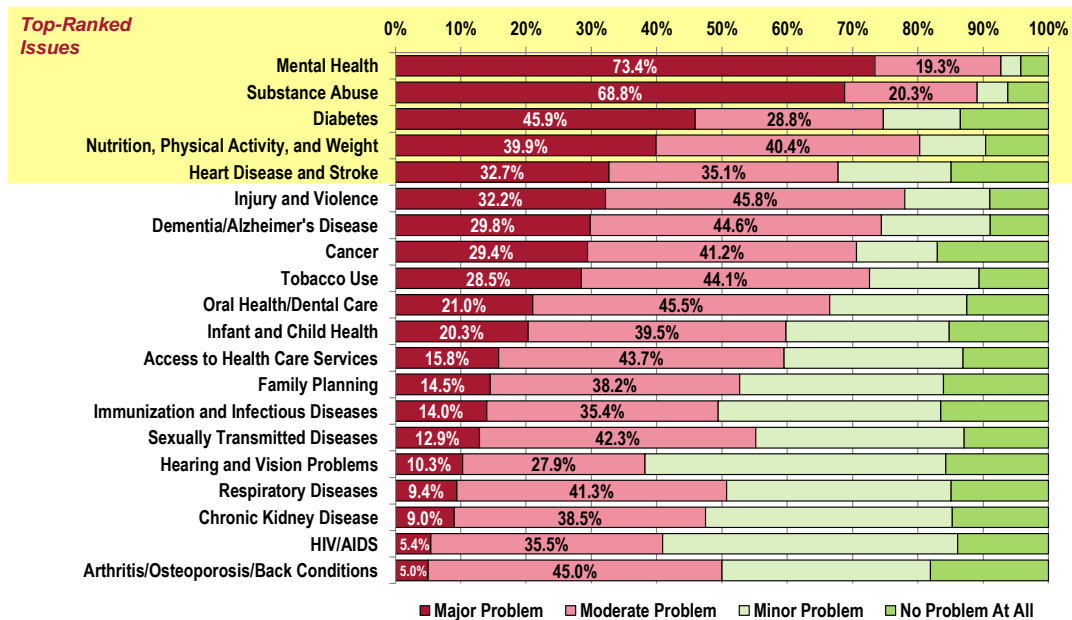
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| <b>Areas of Opportunity (continued)</b>          |   |
|--|---|
| <b>Mental Health</b>                             | <ul style="list-style-type: none"> <li>• “Fair/Poor” Mental Health</li> <li>• Diagnosed Depression</li> <li>• Suicide Deaths</li> <li>• Suicide Ideation</li> </ul> |
| <b>Nutrition, Physical Activity &amp; Weight</b> | <ul style="list-style-type: none"> <li>• Obesity [Adults]</li> </ul>  |
| <b>Potentially Disabling Conditions</b>          | <ul style="list-style-type: none"> <li>• Activity Limitations</li> <li>• Sciatica/Back Pain Prevalence</li> <li>• Blindness/Vision Trouble</li> </ul>               |
| <b>Respiratory Diseases</b>                      | <ul style="list-style-type: none"> <li>• Chronic Lower Respiratory Disease (CLRD) Deaths</li> <li>• Pneumonia/Influenza Deaths</li> </ul>                           |
| <b>Substance Abuse</b>                           | <ul style="list-style-type: none"> <li>• Cirrhosis/Liver Disease Deaths</li> <li>• Drug-Induced Deaths</li> <li>• Personal Impact of Substance Abuse</li> </ul>     |
| <b>Tobacco Use</b>                               | <ul style="list-style-type: none"> <li>• Cigarette Smoking Prevalence</li> </ul>  |

## Summary of Key Informant Concerns

In the Online Key Informant Survey, community stakeholders were asked to rate the degree to which each of 20 health issues is a problem in their own community, using a scale of “major problem,” “moderate problem,” “minor problem” or “no problem at all.” The following chart summarizes their responses; these findings are also outlined throughout this report, along with the qualitative input describing reasons for their concerns. Note that these are based on the perceptions of those taking part in the online key informant survey and do not necessarily take into account the additional data collected in this community health needs assessment.

### Key Informants: Relative Position of Health Topics as Problems in the Community



### Prioritization of Health Needs

On Thursday, November 10, 2016, The Alliance convened a group of community stakeholders (representing a cross-section of community-based agencies and organizations) to evaluate, discuss and prioritize health issues for community, based on findings of this Community Health Needs Assessment (CHNA). Professional Research Consultants, Inc. (PRC) began the meeting with a presentation of key findings from the CHNA, highlighting the significant health issues identified from the research (see Areas of Opportunity above).

Following the data review, PRC answered any questions and facilitated a group dialogue, allowing participants to advocate for any of the health issues discussed. Next participants were provided an overview of the prioritization exercise that followed.

In order to assign priority to the identified health needs (i.e., Areas of Opportunity), a wireless audience response system was used in which each participant was able to register his/her ratings using a small remote keypad. The participants were asked to evaluate each health issue along two criteria:

- **Scope & Severity** — The first rating was to gauge the magnitude of the problem in consideration of the following:
  - How many people are affected?
  - How does the local community data compare to state or national levels, or Healthy People 2020 targets?
  - To what degree does each health issue lead to death or disability, impair quality of life, or impact other health issues?

Ratings were entered on a scale of 1 (not very prevalent at all, with only minimal health consequences) to 10 (extremely prevalent, with very serious health consequences).

- **Ability to Impact** — A second rating was designed to measure the perceived likelihood of the hospital having a positive impact on each health issue, given available resources, competencies, spheres of influence, etc. Ratings were entered on a scale of 1 (no ability to impact) to 10 (great ability to impact).

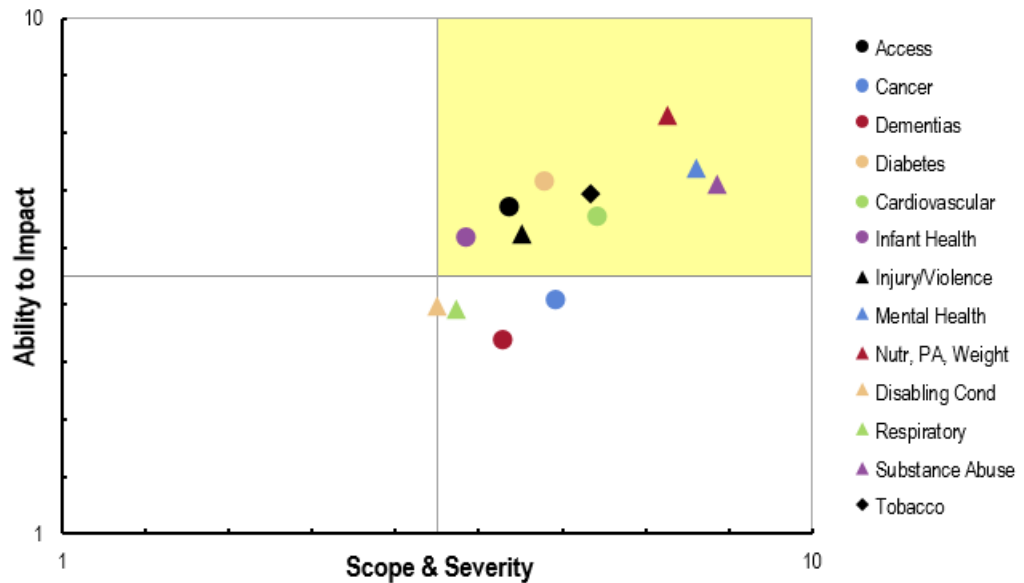
Individuals' ratings for each criteria were averaged for each tested health issue, and then these composite criteria scores were averaged to produce an overall score. This process yielded the following prioritized list of community health needs:

1. Nutrition, Physical Activity, & Weight
2. Mental Health
3. Substance Abuse
4. Tobacco Use
5. Diabetes

- 6. Heart Disease & Stroke
- 7. Access to Healthcare Services
- 8. Injury & Violence
- 9. Infant Health & Family Planning
- 10. Cancer
- 11. Respiratory Diseases
- 12. Dementias, Including Alzheimer's Disease
- 13. Potentially Disabling Conditions

Plotting these overall scores in a matrix illustrates the intersection of the Scope & Severity and the Ability to Impact scores. Below, those issues placing in the upper right (shaded) quadrant represent health needs rated as most severe, with the greatest ability to impact.

**Prioritization of Community Issues**



## Summary Tables: Comparisons With Benchmark Data

The following tables provide an overview of indicators in Yellowstone County, including trend data. These data are grouped to correspond with the Focus Areas presented in Healthy People 2020.

















### *Reading the Summary Tables*


- In the following charts, Yellowstone County results are shown in the larger, blue column.
- The columns to the right of the Yellowstone County column provide comparisons between the county and any available state and national findings, and Healthy People 2020 targets. Symbols indicate whether Yellowstone County compares favorably (☀️), unfavorably (🌧️), or comparably (👉) to these external data.

### *Trending*








- Trending is shown in the pink columns to the far right of the following tables. For the purposes of these tables:
  - Trending analyses for survey-derived indicators are performed among all consecutive data years and also between the most current (2017) data and baseline (earliest available) data. Significance is determined based on the associated confidence intervals.
  - For secondary data indicators (e.g., deaths, births, infectious disease), trends represent point-to-point changes between the most current reporting period and the earliest presented in this report (typically representing the span of 7-10 years). For these, differences are marked as significant if there is a variance greater than  $\pm 5\%$  between the current and baseline measures.









*Note that blank table cells signify that data are not available or are not reliable for that area and/or for that indicator.*








| Social Determinants                            | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|--|--------------------|--|---|---|
|  |                    | vs. MT   | vs. US  | vs. HP2020  |
| Linguistically Isolated Population (Percent)   | 0.6                |  0.4      |  4.7       |   |
| Population in Poverty (Percent)                | 12.5               |  15.3     |  15.6      |   |
| Population Below 200% FPL (Percent)            | 31.2               |  36.2     |  34.5      |   |
| Children Below 200% FPL (Percent)              | 40.5               |  44.5     |  44.2      |   |
| No High School Diploma (Age 25+, Percent)      | 7.6                |  7.6      |  13.7      |   |
| Unemployment Rate (Age 16+, Percent)           | 3.3                |  4.1      |  5.3       |   |
| % Worry/Stress Over Rent/Mortgage in Past Year | 27.7               |  |  31.6    |   |
|  |                    |  better |  similar |  worse |




















| Yellowstone County Trends   |               |               |   |
|---|---------------|---------------|---|
| 2005 vs. 2010   | 2010 vs. 2014 | 2014 vs. 2017 | Baseline vs. Current Data §   |
|   |               |               |   |
|   |               |               |   |
|   |               |               |   |
|   |               |               |   |
|   |               |               | <br>(2.9 vs. 3.3)* |
|   |               |               |   |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |               |               |   |



















































| Overall Health                | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|-------------------------------|--------------------|--|---|---|
|                               |                    | vs. MT   | vs. US  | vs. HP2020  |
| % "Fair/Poor" Physical Health | 15.4               |  15.4   |  18.3    |   |
| % Activity Limitations        | 29.6               |  23.1   |  20.0    |   |
|                               |                    |  better |  similar |  worse |

























| Yellowstone County Trends   |   |   |   |
|---|---|---|---|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
|  (10.5 vs. 17.1)   |  (17.1 vs. 16.3) |  (16.3 vs. 15.4) |  (10.5 vs. 15.4) |
|  (24.3 vs. 25.7)   |  (25.7 vs. 22.4) |  (22.4 vs. 29.6) |  (24.3 vs. 29.6) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |   |   |   |









| Access to Health Services                                  | Yellowstone County | Yellowstone County vs. Benchmarks  |  |   |
|--|--------------------|--|--|---|
|  |                    | vs. MT   | vs. US   | vs. HP2020  |
| % [Age 18-64] Lack Health Insurance                        | 7.4                |  16.2 |  10.1   |  0.0 |
| % Difficulty Accessing Healthcare in Past Year (Composite) | 42.0               |  |  35.0  |   |
| % Inconvenient Hrs Prevented Dr Visit in Past Year         | 10.3               |  |  14.4 |   |
| % Cost Prevented Getting Prescription in Past Year         | 14.5               |  |  9.5  |   |
| % Cost Prevented Physician Visit in Past Year              | 12.1               |  |  11.5 |   |













| Yellowstone County Trends   |   |   |   |
|---|---|---|---|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
|  (13.1 vs. 18.6)   |  (18.6 vs. 16.7)   |  (16.7 vs. 7.4)    |  (13.1 vs. 7.4)    |
|  (33.9 vs. n/a)   |   |  (35.3 vs. 42.0)  |  (33.9 vs. 42.0)  |
|  (10.7 vs. 8.3)  |  (8.3 vs. 11.6)  |  (11.6 vs. 10.3) |  (10.7 vs. 10.3) |
|  (13.5 vs. 12.6) |  (12.6 vs. 12.0) |  (12.0 vs. 14.5) |  (13.5 vs. 14.5) |
|  (13.4 vs. 13.7) |  (13.7 vs. 16.0) |  (16.0 vs. 12.1) |  (13.4 vs. 12.1) |










| Access to Health Services (continued)                | Yellowstone County | Yellowstone County vs. Benchmarks  |  |  | Yellowstone County Trends   |   |   |   |
|--|--------------------|--|--|--|---|---|---|---|
|  |                    | vs. MT   | vs. US   | vs. HP2020   | 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
| % Difficulty Getting Appointment in Past Year        | 25.4               |  |  15.4   |  |  (14.2 vs. 12.7)   |  (12.7 vs. 18.7)   |  (18.7 vs. 25.4)   |  (14.2 vs. 25.4)   |
| % Difficulty Finding Physician in Past Year          | 9.7                |  |  8.7    |  |  (4.3 vs. 6.2)     |  (6.2 vs. 8.0)     |  (8.0 vs. 9.7)     |  (4.3 vs. 9.7)     |
| % Transportation Hindered Dr Visit in Past Year      | 5.6                |  |  5.0    |  |  (3.8 vs. 5.6)     |  (5.6 vs. 5.9)     |  (5.9 vs. 5.6)     |  (3.8 vs. 5.6)     |
| % Language/Culture Prevented Care in Past Year       | 0.7                |  |  1.7    |  |   |   |   |   |
| % Skipped Prescription Doses to Save Costs           | 13.9               |  |  10.2   |  |  (14.3 vs. 17.3)   |  (17.3 vs. 14.1)   |  (14.1 vs. 13.9)   |  (14.3 vs. 13.9)   |
| % Difficulty Getting Child's Healthcare in Past Year | 4.8                |  |  3.9    |  |  (3.2 vs. 2.0)     |  (2.0 vs. 2.8)     |  (2.8 vs. 4.8)     |  (3.2 vs. 4.8)     |
| % Have Completed Advance Directive Documents         | 41.3               |  |  33.7  |  |   |   |   |   |
| % Low Health Literacy                                | 17.3               |  |  23.3 |  |   |   |   |   |
| Primary Care Doctors per 100,000                     | 83.0               |  76.6 |  74.5 |  |   |   |   |   |
| % [Age 18+] Have a Specific Source of Ongoing Care   | 81.3               |  |  74.0 |  95.0 |  (84.0 vs. 82.0) |  (82.0 vs. 81.7) |  (81.7 vs. 81.3) |  (84.0 vs. 81.3) |


| Access to Health Services (continued)                | Yellowstone County | Yellowstone County vs. Benchmarks   |  |  |
|--|--------------------|---|--|--|
|  |                    | vs. MT  | vs. US   | vs. HP2020   |
| % [Age 18-64] Have a Specific Source of Ongoing Care | <b>79.8</b>        |  73.1    |  89.4     |  |
| % [Age 65+] Have a Specific Source of Ongoing Care   | <b>85.4</b>        |  76.8    |  100.0    |  |
| % Have Had Routine Checkup in Past Year              | <b>67.8</b>        |  63.6    |  70.5     |  |
| % Child Has Had Checkup in Past Year                 | <b>84.1</b>        |   |  89.3     |  |
| % Two or More ER Visits in Past Year                 | <b>6.1</b>         |   |  8.5      |  |
| % Rate Local Healthcare "Fair/Poor"                  | <b>10.7</b>        |   |  14.2     |  |
|  |                    |  better |  similar |  worse |











































| Yellowstone County Trends   |   |   |   |
|---|---|---|---|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
|  (84.0 vs. 81.8)   |  (81.8 vs. 78.2) |  (78.2 vs. 79.8) |  (84.0 vs. 79.8) |
|  (85.0 vs. 82.7)   |  (82.7 vs. 97.7) |  (97.7 vs. 85.4) |  (85.0 vs. 85.4) |
|  (57.2 vs. 62.9)   |  (62.9 vs. 64.7) |  (64.7 vs. 67.8) |  (57.2 vs. 67.8) |
|  (72.6 vs. 84.3)   |  (84.3 vs. 78.3) |  (78.3 vs. 84.1) |  (72.6 vs. 84.1) |
|  (7.3 vs. 8.6)   |  (8.6 vs. 5.8)   |  (5.8 vs. 6.1)   |  (7.3 vs. 6.1)   |
|  (6.7 vs. 8.3)   |  (8.3 vs. 11.0)  |  (11.0 vs. 10.7) |  (6.7 vs. 10.7)  |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |   |   |   |











| Arthritis, Osteoporosis & Chronic Back Conditions | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|---|--------------------|--|---|---|
|   |                    | vs. MT   | vs. US  | vs. HP2020  |
| % [50+] Arthritis/Rheumatism                      | 38.1               |  |  32.0    |   |
| % [50+] Osteoporosis                              | 12.4               |  |  8.7     |  5.3   |
| % Sciatica/Chronic Back Pain                      | 27.7               |  |  19.4    |   |
| % Caregiver to a Friend/Family Member             | 24.4               |  |  20.9    |   |
|   |                    |  better |  similar |  worse |











| Yellowstone County Trends   |  |  |  |
|---|--|--|--|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data §  |
| <br>(36.3 vs. 35.6)  | <br>(35.6 vs. 39.3) | <br>(39.3 vs. 38.1) | <br>(36.3 vs. 38.1) |
| <br>(11.9 vs. 9.2)   | <br>(9.2 vs. 10.9)  | <br>(10.9 vs. 12.4) | <br>(11.9 vs. 12.4) |
| <br>(22.3 vs. 20.0)  | <br>(20.0 vs. 19.8) | <br>(19.8 vs. 27.7) | <br>(22.3 vs. 27.7) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |  |  |  |








| Cancer                                    | Yellowstone County | Yellowstone County vs. Benchmarks   |   |   |
|---|--------------------|---|---|---|
|   |                    | vs. MT  | vs. US  | vs. HP2020  |
| Cancer (Age-Adjusted Death Rate)          | 158.1              |  155.2 |  163.6 |  161.4 |
| Lung Cancer (Age-Adjusted Death Rate)     | 41.5               |  39.7  |  43.4  |  45.5  |
| Prostate Cancer (Age-Adjusted Death Rate) | 20.7               |  20.0  |  19.2  |  21.8  |




| Yellowstone County Trends |               |               |   |
|---------------------------|---------------|---------------|---|
| 2005 vs. 2010             | 2010 vs. 2014 | 2014 vs. 2017 | Baseline vs. Current Data §   |
|                           |               |               | <br>(172.4 vs. 158.1)* |
|                           |               |               |   |
|                           |               |               |   |

| Cancer (continued)                             | Yellowstone County | Yellowstone County vs. Benchmarks  |  |  | Yellowstone County Trends   |   |   |   |
|--|--------------------|--|--|--|---|---|---|---|
|  |                    | vs. MT   | vs. US   | vs. HP2020   | 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
| Female Breast Cancer (Age-Adjusted Death Rate) | 15.4               |  20.0   |  20.9   |  20.7   |   |   |   |   |
| Colorectal Cancer (Age-Adjusted Death Rate)    | 15.4               |  13.7   |  14.6   |  14.5   |   |   |   |   |
| Prostate Cancer Incidence per 100,000          | 149.8              |  133.5  |  131.7  |  |   |   |   |   |
| Female Breast Cancer Incidence per 100,000     | 120.8              |  124.2  |  123.0  |  |   |   |   |   |
| Lung Cancer Incidence per 100,000              | 61.2               |  58.6   |  63.7   |  |   |   |   |   |
| Colorectal Cancer Incidence per 100,000        | 40.1               |  41.3   |  41.9   |  |   |   |   |   |
| Cervical Cancer Incidence per 100,000          | 7.4                |  6.5    |  7.7    |  |   |   |   |   |
| % Skin Cancer                                  | 7.2                |  6.8  |  7.7  |  |  (5.5 vs. 8.4)   |  (8.4 vs. 6.8)   |  (6.8 vs. 7.2)   |  (5.5 vs. 7.2)   |
| % Cancer (Other Than Skin)                     | 8.3                |  7.5  |  7.7  |  |  (6.4 vs. 5.7)   |  (5.7 vs. 7.5)   |  (7.5 vs. 8.3)   |  (6.4 vs. 8.3)   |
| % [Women 50-74] Mammogram in Past 2 Years      | 76.4               |  73.0 |  80.3 |  81.1 |  (86.9 vs. 76.4) |  (76.4 vs. 76.1) |  (76.1 vs. 76.4) |  (86.9 vs. 76.4) |
| % [Women 21-65] Pap Smear in Past 3 Years      | 69.5               |  81.3 |  84.8 |  93.0 |  (78.8 vs. 80.8) |  (80.8 vs. 74.0) |  (74.0 vs. 69.5) |  (78.8 vs. 69.5) |

| Cancer (continued)                           | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|--|--------------------|--|---|---|
|  |                    | vs. MT   | vs. US  | vs. HP2020  |
| % [Age 50+] Sigmoid/Colonoscopy Ever         | 78.3               |  66.8   |  75.6    |   |
| % [Age 50+] Blood Stool Test in Past 2 Years | 31.5               |  10.7   |  31.8    |   |
| % [Age 50-75] Colorectal Cancer Screening    | 75.0               |  62.4   |  74.5    |  70.5  |
|  |                    |  better |  similar |  worse |

| Yellowstone County Trends   |  |  |  |
|---|--|--|--|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data §  |
| <br>(62.6 vs. 76.0)  | <br>(76.0 vs. 68.2) | <br>(68.2 vs. 78.3) | <br>(62.6 vs. 78.3) |
| <br>(35.6 vs. 23.7)  | <br>(23.7 vs. 31.4) | <br>(31.4 vs. 31.5) | <br>(35.6 vs. 31.5) |
|   |  | <br>(71.0 vs. 75.0) | <br>(71.0 vs. 75.0) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |  |  |  |

| Chronic Kidney Disease                   | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|--|--------------------|--|---|---|
|  |                    | vs. MT   | vs. US  | vs. HP2020  |
| Kidney Disease (Age-Adjusted Death Rate) | 8.6                |  9.3    |  13.2    |   |
| % Kidney Disease                         | 1.4                |  2.6    |  3.6     |   |
|  |                    |  better |  similar |  worse |






| Yellowstone County Trends   |               |  |  |
|---|---------------|--|--|
| 2005 vs. 2010   | 2010 vs. 2014 | 2014 vs. 2017  | Baseline vs. Current Data §  |
|   |               |  | <br>(10.8 vs. 8.6)* |
|   |               | <br>(2.0 vs. 1.4) | <br>(2.0 vs. 1.4)   |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |               |  |  |


| Dementias, Including Alzheimer's Disease                | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|---|--------------------|-----------------------------------|---------|------------|
|   |                    | vs. MT                            | vs. US  | vs. HP2020 |
| Alzheimer's Disease (Age-Adjusted Death Rate)           | 33.1               | 20.2                              | 24.2    |            |
| % [Age 45+] Increasing Confusion/Memory Loss in Past Yr | 19.9               |                                   | 12.8    |            |
|   |                    | better                            | similar | worse      |





| Yellowstone County Trends   |               |               |                             |
|---|---------------|---------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014 | 2014 vs. 2017 | Baseline vs. Current Data § |
|   |               |               | (19.8 vs. 33.1)*            |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |               |               |                             |





| Diabetes  | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|---|--------------------|-----------------------------------|---------|------------|
|   |                    | vs. MT                            | vs. US  | vs. HP2020 |
| Diabetes Mellitus (Age-Adjusted Death Rate)         | 19.9               | 19.3                              | 21.1    | 20.5       |
| % Diabetes/High Blood Sugar                         | 9.2                | 8.8                               | 14.5    |            |
| % Borderline/Pre-Diabetes                           | 10.1               |                                   | 5.7     |            |
| % [Non-Diabetes] Blood Sugar Tested in Past 3 Years | 50.6               |                                   | 55.1    |            |
|   |                    | better                            | similar | worse      |







| Yellowstone County Trends   |                |                 |                             |
|---|----------------|-----------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017   | Baseline vs. Current Data § |
|   |                |                 | (20.3 vs. 19.9)*            |
| (8.7 vs. 12.1)  | (12.1 vs. 8.6) | (8.6 vs. 9.2)   | (8.7 vs. 9.2)               |
|   |                | (7.1 vs. 10.1)  | (7.1 vs. 10.1)              |
|   |                | (51.8 vs. 50.6) | (51.8 vs. 50.6)             |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |                |                 |                             |



| Family Planning                            | Yellowstone County | Yellowstone County vs. Benchmarks   |  |  |
|--|--------------------|---|--|--|
|  |                    | vs. MT  | vs. US   | vs. HP2020   |
| Births to Teenagers Under Age 20 (Percent) | 6.3                | <br>7.0    | <br>7.1     |  |
|  |                    | <br>better | <br>similar | <br>worse |

| Yellowstone County Trends   |               |               |   |
|---|---------------|---------------|---|
| 2005 vs. 2010   | 2010 vs. 2014 | 2014 vs. 2017 | Baseline vs. Current Data §   |
|   |               |               | <br>(9.5 vs. 6.3)* |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |               |               |   |
























































| Hearing & Other Sensory or Communication Disorders | Yellowstone County | Yellowstone County vs. Benchmarks   |  |  |
|--|--------------------|---|--|--|
|  |                    | vs. MT  | vs. US   | vs. HP2020   |
| % Deafness/Trouble Hearing                         | 11.4               |   | <br>8.6     |  |
|  |                    | <br>better | <br>similar | <br>worse |

| Yellowstone County Trends   |   |  |   |
|---|---|--|---|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017  | Baseline vs. Current Data §   |
| <br>(9.7 vs. 9.7)  | <br>(9.7 vs. 12.1) | <br>(12.1 vs. 11.4) | <br>(9.7 vs. 11.4) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |   |  |   |

| Heart Disease & Stroke                          | Yellowstone County | Yellowstone County vs. Benchmarks  |  |  |
|---|--------------------|--|--|--|
|   |                    | vs. MT   | vs. US   | vs. HP2020   |
| Diseases of the Heart (Age-Adjusted Death Rate) | 147.8              | <br>151.0 | <br>169.1 | <br>156.9 |
| Stroke (Age-Adjusted Death Rate)                | 39.1               | <br>35.7  | <br>36.5  | <br>34.8  |

| Yellowstone County Trends |               |               |   |
|---------------------------|---------------|---------------|---|
| 2005 vs. 2010             | 2010 vs. 2014 | 2014 vs. 2017 | Baseline vs. Current Data §   |
|                           |               |               | <br>(167.9 vs. 147.8)* |
|                           |               |               | <br>(48.2 vs. 39.1)*   |



| Heart Disease & Stroke (continued)                       | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   | Yellowstone County Trends   |   |   |   |
|--|--------------------|--|---|---|---|---|---|---|
|  |                    | vs. MT   | vs. US  | vs. HP2020  | 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
| % Heart Disease (Heart Attack, Angina, Coronary Disease) | 6.7                |  |  6.9       |   |  (5.1 vs. 8.1)   |  (8.1 vs. 5.9)     |  (5.9 vs. 6.7)     |  (5.1 vs. 6.7)     |
| % Stroke   | 2.1                |  2.7      |  2.6       |   |  (3.3 vs. 2.3)   |  (2.3 vs. 3.3)     |  (3.3 vs. 2.1)     |  (3.3 vs. 2.1)     |
| % Blood Pressure Checked in Past 2 Years                 | 95.4               |  |  93.6      |  92.6    |  (94.6 vs. 97.2)   |  (97.2 vs. 95.5)   |  (95.5 vs. 95.4)   |  (94.6 vs. 95.4)   |
| % Told Have High Blood Pressure (Ever)                   | 37.3               |  29.3     |  36.5      |  26.9    |  (26.1 vs. 32.4)   |  (32.4 vs. 33.7)   |  (33.7 vs. 37.3)   |  (26.1 vs. 37.3)   |
| % [HBP] Taking Action to Control High Blood Pressure     | 90.5               |  |  92.5      |   |  (88.9 vs. 94.4)   |  (94.4 vs. 83.7)   |  (83.7 vs. 90.5)   |  (88.9 vs. 90.5)   |
| % Cholesterol Checked in Past 5 Years                    | 90.9               |  73.8     |  87.4      |  82.1    |  (77.7 vs. 86.5)   |  (86.5 vs. 89.7)   |  (89.7 vs. 90.9)   |  (77.7 vs. 90.9)   |
| % Told Have High Cholesterol (Ever)                      | 30.0               |  |  33.5      |  13.5    |  (28.5 vs. 28.6)   |  (28.6 vs. 25.7)   |  (25.7 vs. 30.0)   |  (28.5 vs. 30.0)   |
| % [HBC] Taking Action to Control High Blood Cholesterol  | 82.7               |  |  84.2    |   |  (83.6 vs. 91.3)   |  (91.3 vs. 79.8) |  (79.8 vs. 82.7) |  (83.6 vs. 82.7) |
| % 1+ Cardiovascular Risk Factor                          | 84.2               |  |  83.0    |   |  (89.1 vs. 87.4)   |  (87.4 vs. 81.7) |  (81.7 vs. 84.2) |  (89.1 vs. 84.2) |
|  |                    |  better |  similar |  worse | § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |   |   |   |

| HIV                                     | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|---|--------------------|-----------------------------------|---------|------------|
|   |                    | vs. MT                            | vs. US  | vs. HP2020 |
| HIV Prevalence per 100,000              | 95.7               | 46.4                              | 353.2   |            |
| % [Age 18-44] HIV Test in the Past Year | 14.8               |                                   | 21.3    |            |
|   |                    | better                            | similar | worse      |













| Yellowstone County Trends   |                |                |                             |
|---|----------------|----------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data § |
|   |                |                |                             |
| (9.1 vs. 12.4)  | (12.4 vs. 8.4) | (8.4 vs. 14.8) | (9.1 vs. 14.8)              |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |                |                |                             |




| Injury & Violence Prevention                     | Yellowstone County | Yellowstone County vs. Benchmarks |        |            |
|--|--------------------|-----------------------------------|--------|------------|
|  |                    | vs. MT                            | vs. US | vs. HP2020 |
| Unintentional Injury (Age-Adjusted Death Rate)   | 34.4               | 54.4                              | 39.7   | 36.4       |
| Motor Vehicle Crashes (Age-Adjusted Death Rate)  | 12.7               | 19.9                              | 10.5   | 12.4       |
| % "Always" Wear Seat Belt                        | 80.7               | 72.1                              | 87.9   | 92.0       |
| % Child [Age 5-17] "Always" Wears Bicycle Helmet | 49.5               |                                   | 54.2   |            |
| [65+] Falls (Age-Adjusted Death Rate)            | 44.0               | 75.9                              | 57.2   | 47.0       |





| Yellowstone County Trends |                 |                 |                             |
|---------------------------|-----------------|-----------------|-----------------------------|
| 2005 vs. 2010             | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
|                           |                 |                 | (35.5 vs. 34.4)*            |
| (76.8 vs. 78.3)           | (78.3 vs. 78.6) | (78.6 vs. 80.7) | (76.8 vs. 80.7)             |
| (36.2 vs. 45.1)           | (45.1 vs. 38.5) | (38.5 vs. 49.5) | (36.2 vs. 49.5)             |















| Injury & Violence Prevention (continued)            | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|---|--------------------|-----------------------------------|---------|------------|
|   |                    | vs. MT                            | vs. US  | vs. HP2020 |
| Firearm-Related Deaths (Age-Adjusted Death Rate)    | 17.0               | 16.5                              | 10.4    | 9.3        |
| % Firearm in Home                                   | 56.8               |                                   | 33.8    |            |
| % [Homes With Children] Firearm in Home             | 53.2               |                                   | 31.0    |            |
| % [Homes With Firearms] Weapon(s) Unlocked & Loaded | 16.6               |                                   | 20.4    |            |
| Homicide (Age-Adjusted Death Rate)                  | 4.9                | 3.0                               | 5.2     | 5.5        |
| Violent Crime per 100,000                           | 260.1              | 277.9                             | 395.5   |            |
| % Victim of Violent Crime in Past 5 Years           | 2.4                |                                   | 2.3     |            |
| % Victim of Domestic Violence (Ever)                | 15.3               |                                   | 15.1    |            |
|   |                    | better                            | similar | worse      |

| Yellowstone County Trends   |                 |                 |                             |
|---|-----------------|-----------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
|   |                 |                 | (13.9 vs. 17.0)*            |
| (53.5 vs. 59.1)   | (59.1 vs. 55.9) | (55.9 vs. 56.8) | (53.5 vs. 56.8)             |
| (55.0 vs. 65.2)   | (65.2 vs. 66.0) | (66.0 vs. 53.2) | (55.0 vs. 53.2)             |
| (9.9 vs. 14.0)  | (14.0 vs. 9.7)  | (9.7 vs. 16.6)  | (9.9 vs. 16.6)              |
|   |                 |                 |                             |
|   |                 |                 |                             |
| (4.0 vs. 2.3)   | (2.3 vs. 1.4)   | (1.4 vs. 2.4)   | (4.0 vs. 2.4)               |
|   | (14.7 vs. 15.8) | (15.8 vs. 15.3) | (14.7 vs. 15.3)             |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |                 |                 |                             |

| Maternal, Infant & Child Health               | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|---|--------------------|--|---|---|
|   |                    | vs. MT   | vs. US  | vs. HP2020  |
| No Prenatal Care in First Trimester (Percent) | 22.4               |  26.7   |  22.1    |  22.1  |
| Low Birthweight Births (Percent)              | 8.0                |  7.4    |  8.0     |  7.8   |
| Infant Death Rate                             | 6.8                |  5.8    |  5.9     |  6.0   |
|   |                    |  better |  similar |  worse |

| Yellowstone County Trends   |               |               |   |
|---|---------------|---------------|---|
| 2005 vs. 2010   | 2010 vs. 2014 | 2014 vs. 2017 | Baseline vs. Current Data §   |
|   |               |               | <br>(25.5 vs. 22.4)* |
|   |               |               | <br>(7.0 vs. 8.0)*   |
|   |               |               | <br>(6.4 vs. 6.8)*   |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |               |               |   |

| Mental Health & Mental Disorders            | Yellowstone County | Yellowstone County vs. Benchmarks  |  |            |
|---|--------------------|--|--|------------|
|   |                    | vs. MT   | vs. US   | vs. HP2020 |
| % "Fair/Poor" Mental Health                 | 13.4               |  |  15.5  |            |
| % Diagnosed Depression                      | 25.3               |  20.4 |  17.9 |            |
| % Symptoms of Chronic Depression (2+ Years) | 31.0               |  |  29.9 |            |
| % Have Considered Suicide                   | 14.2               |  |  |            |

| Yellowstone County Trends  |  |  |  |
|--|--|--|--|
| 2005 vs. 2010  | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data §  |
| <br>(6.9 vs. 10.1)   | <br>(10.1 vs. 10.6)  | <br>(10.6 vs. 13.4)  | <br>(6.9 vs. 13.4)   |
|  |  | <br>(21.2 vs. 25.3) | <br>(21.2 vs. 25.3) |
| <br>(25.7 vs. 25.0) | <br>(25.0 vs. 26.9) | <br>(26.9 vs. 31.0) | <br>(25.7 vs. 31.0) |
| <br>(8.1 vs. 10.2)  | <br>(10.2 vs. 9.7)  | <br>(9.7 vs. 14.2)  | <br>(8.1 vs. 14.2)  |










| Mental Health & Mental Disorders (continued)     | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|--|--------------------|-----------------------------------|---------|------------|
|  |                    | vs. MT                            | vs. US  | vs. HP2020 |
| Suicide (Age-Adjusted Death Rate)                | 22.8               | 23.4                              | 12.7    | 10.2       |
| % Have Ever Sought Help for Mental Health        | 35.5               |                                   | 27.4    |            |
| % [Those With Diagnosed Depression] Seeking Help | 92.4               |                                   | 91.7    |            |
| % Taking Rx/Receiving Mental Health Trtmt        | 20.3               |                                   | 13.6    |            |
| % Unable to Get Mental Health Svcs in Past Yr    | 3.5                |                                   | 4.4     |            |
| % Typical Day Is "Extremely/Very" Stressful      | 11.7               |                                   | 11.7    |            |
|  |                    | better                            | similar | worse      |













| Yellowstone County Trends   |                 |                 |                             |
|---|-----------------|-----------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
|   |                 |                 | (18.4 vs. 22.8)*            |
| (24.1 vs. 24.5)   | (24.5 vs. 27.0) | (27.0 vs. 35.5) | (24.1 vs. 35.5)             |
|   |                 | (85.0 vs. 92.4) | (85.0 vs. 92.4)             |
|   |                 |                 |                             |
|   |                 |                 |                             |
| (9.5 vs. 11.6)  | (11.6 vs. 12.6) | (12.6 vs. 11.7) | (9.5 vs. 11.7)              |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |                 |                 |                             |









| Nutrition, Physical Activity & Weight              | Yellowstone County | Yellowstone County vs. Benchmarks |        |            | Yellowstone County Trends |                 |                 |                             |
|--|--------------------|-----------------------------------|--------|------------|---------------------------|-----------------|-----------------|-----------------------------|
|  |                    | vs. MT                            | vs. US | vs. HP2020 | 2005 vs. 2010             | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
| % Eat 5+ Servings of Fruit or Vegetables per Day   | 30.8               |                                   | 27.4   |            | (34.9 vs. 40.6)           | (40.6 vs. 40.1) | (40.1 vs. 30.8) | (34.9 vs. 30.8)             |
| % "Very/Somewhat" Difficult to Buy Fresh Produce   | 23.3               |                                   | 21.9   |            |                           |                 | (23.5 vs. 23.3) | (23.5 vs. 23.3)             |
| Population With Low Food Access (Percent)          | 23.8               | 26.9                              | 23.6   |            |                           |                 |                 |                             |
| % Food Insecure                                    | 16.9               |                                   | 25.9   |            |                           |                 |                 |                             |
| % 7+ Sugar-Sweetened Drinks in Past Week           | 29.8               |                                   | 30.2   |            |                           |                 |                 |                             |
| % Medical Advice on Nutrition in Past Year         | 36.0               |                                   | 39.2   |            | (31.4 vs. n/a)            |                 | (35.9 vs. 36.0) | (31.4 vs. 36.0)             |
| % Healthy Weight (BMI 18.5-24.9)                   | 32.1               | 35.2                              | 32.9   | 33.9       | (35.8 vs. 25.4)           | (25.4 vs. 31.9) | (31.9 vs. 32.1) | (35.8 vs. 32.1)             |
| % Overweight (BMI 25+)                             | 65.6               | 63.0                              | 65.2   |            | (62.7 vs. 72.9)           | (72.9 vs. 65.7) | (65.7 vs. 65.6) | (62.7 vs. 65.6)             |
| % Obese (BMI 30+)                                  | 34.4               | 26.4                              | 33.4   | 30.5       | (23.9 vs. 26.0)           | (26.0 vs. 32.6) | (32.6 vs. 34.4) | (23.9 vs. 34.4)             |
| % Children [Age 5-17] Overweight (85th Percentile) | 28.8               |                                   | 24.2   |            | (33.8 vs. 24.3)           | (24.3 vs. 28.7) | (28.7 vs. 28.8) | (33.8 vs. 28.8)             |
| % Children [Age 5-17] Obese (95th Percentile)      | 14.4               |                                   | 9.5    | 14.5       | (17.5 vs. 15.4)           | (15.4 vs. 15.1) | (15.1 vs. 14.4) | (17.5 vs. 14.4)             |











| Nutrition, Physical Activity & Weight (continued)                | Yellowstone County | Yellowstone County vs. Benchmarks |         |            | Yellowstone County Trends |                 |                 |                             |
|--|--------------------|-----------------------------------|---------|------------|---------------------------|-----------------|-----------------|-----------------------------|
|  |                    | vs. MT                            | vs. US  | vs. HP2020 | 2005 vs. 2010             | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
| % No Leisure-Time Physical Activity                              | 18.0               | 19.6                              | 27.9    | 32.6       | (26.3 vs. 22.4)           | (22.4 vs. 23.7) | (23.7 vs. 18.0) | (26.3 vs. 18.0)             |
| % Meeting Physical Activity Guidelines                           | 24.3               | 23.3                              | 23.6    | 20.1       |                           |                 |                 |                             |
| Recreation/Fitness Facilities per 100,000                        | 16.9               | 12.9                              | 9.7     |            |                           |                 |                 |                             |
| % Medical Advice on Physical Activity in Past Year               | 43.6               |                                   | 44.0    |            | (36.8 vs. n/a)            |                 | (41.7 vs. 43.6) | (36.8 vs. 43.6)             |
| % 3+ Hours per Day of Total Screen Time                          | 53.8               |                                   |         |            |                           |                 |                 |                             |
| % Want to be More Active But Feel Unsafe                         | 5.8                |                                   |         |            |                           | (6.5 vs. 10.8)  | (10.8 vs. 5.8)  | (6.5 vs. 5.8)               |
| % Increased Physical Activity Through Everyday Behaviors/Past Yr | 68.6               |                                   |         |            |                           |                 | (72.0 vs. 68.6) | (72.0 vs. 68.6)             |
| % Aware of the 5-2-1-0 Health Message                            | 37.9               |                                   |         |            |                           |                 | (31.3 vs. 37.9) | (31.3 vs. 37.9)             |
| % Child [Age 2-17] Physically Active 1+ Hours per Day            | 70.8               |                                   | 47.9    |            |                           |                 | (42.8 vs. 70.8) | (42.8 vs. 70.8)             |
| % Child [Age 5-17] 3+ Hours per Day of Total Screen Time         | 21.7               |                                   |         |            |                           |                 |                 |                             |
|  |                    | better                            | similar | worse      |                           |                 |                 |                             |

§ For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "\*\*"), data years can vary, but typically represent a span of 7 to 10 years.





| Oral Health                                  | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|--|--------------------|--|---|---|
|  |                    | vs. MT   | vs. US  | vs. HP2020  |
| % [Age 18+] Dental Visit in Past Year        | 68.0               |  62.6   |  67.2    |  49.0  |
| % Child [Age 2-17] Dental Visit in Past Year | 88.1               |  |  90.7    |  49.0  |
| % Have Dental Insurance                      | 69.7               |  |  66.5    |   |
|  |                    |  better |  similar |  worse |




| Yellowstone County Trends   |  |  |  |
|---|--|--|--|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data §  |
| <br>(63.9 vs. 70.0)  | <br>(70.0 vs. 62.9) | <br>(62.9 vs. 68.0) | <br>(63.9 vs. 68.0) |
| <br>(78.1 vs. 83.4)  | <br>(83.4 vs. 75.1) | <br>(75.1 vs. 88.1) | <br>(78.1 vs. 88.1) |
| <br>(56.2 vs. 58.9)  | <br>(58.9 vs. 58.9) | <br>(58.9 vs. 69.7) | <br>(56.2 vs. 69.7) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |  |  |  |










| Respiratory Diseases                          | Yellowstone County | Yellowstone County vs. Benchmarks  |  |            |
|---|--------------------|--|--|------------|
|   |                    | vs. MT   | vs. US   | vs. HP2020 |
| CLRD (Age-Adjusted Death Rate)                | 53.9               |  49.9  |  41.4  |            |
| Pneumonia/Influenza (Age-Adjusted Death Rate) | 13.3               |  14.1 |  15.1 |            |
| % COPD (Lung Disease)                         | 8.4                |  6.8  |  9.5  |            |
| % [Adult] Currently Has Asthma                | 9.5                |  9.6  |  9.5  |            |









| Yellowstone County Trends  |   |   |   |
|--|---|---|---|
| 2005 vs. 2010  | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data §   |
|  |   |   | <br>(60.1 vs. 53.9)*  |
|  |   |   | <br>(10.8 vs. 13.3)* |
| <br>(6.8 vs. 7.3) | <br>(7.3 vs. 6.9)  | <br>(6.9 vs. 8.4)  | <br>(6.8 vs. 8.4)    |
| <br>(8.0 vs. 9.0) | <br>(9.0 vs. 11.1) | <br>(11.1 vs. 9.5) | <br>(8.0 vs. 9.5)    |



| Respiratory Diseases (continued)    | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|-------------------------------------|--------------------|--|---|---|
|                                     |                    | vs. MT   | vs. US  | vs. HP2020  |
| % [Child 0-17] Currently Has Asthma | 12.5               |  | <br>6.5  |   |
|                                     |                    |  better |  similar |  worse |

| Yellowstone County Trends   |  |   |   |
|---|--|---|---|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017   | Baseline vs. Current Data §   |
|   | <br>(8.5 vs. 4.4) | <br>(4.4 vs. 12.5) | <br>(8.5 vs. 12.5) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |  |   |   |

| Sexually Transmitted Diseases                       | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|---|--------------------|--|---|---|
|   |                    | vs. MT   | vs. US  | vs. HP2020  |
| Gonorrhea Incidence per 100,000                     | 65.5               | <br>42.8  | <br>110.7  |   |
| Chlamydia Incidence per 100,000                     | 450.2              | <br>412.9 | <br>456.1  |   |
| % [Unmarried 18-64] 3+ Sexual Partners in Past Year | 11.2               |  | <br>10.3   |   |
| % [Unmarried 18-64] Using Condoms                   | 32.1               |  | <br>44.5 |   |
|   |                    |  better |  similar |  worse |







| Yellowstone County Trends   |  |  |  |
|---|--|--|--|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data §  |
|   |  |  |  |
| <br>(5.3 vs. 8.8)  | <br>(8.8 vs. 11.5)    | <br>(11.5 vs. 11.2)   | <br>(5.3 vs. 11.2)    |
| <br>(32.0 vs. 42.5)  | <br>(42.5 vs. 42.2) | <br>(42.2 vs. 32.1) | <br>(32.0 vs. 32.1) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |  |  |  |







| Substance Abuse                                   | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|---|--------------------|-----------------------------------|---------|------------|
|   |                    | vs. MT                            | vs. US  | vs. HP2020 |
| Cirrhosis/Liver Disease (Age-Adjusted Death Rate) | 12.9               | 12.6                              | 10.2    | 8.2        |
| % Current Drinker                                 | 60.5               | 59.6                              | 59.7    |            |
| % Excessive Drinker                               | 20.3               |                                   | 22.2    | 25.4       |
| % Drinking & Driving in Past Month                | 2.3                |                                   | 4.1     |            |
| Drug-Induced Deaths (Age-Adjusted Death Rate)     | 16.4               | 14.6                              | 14.6    | 11.3       |
| % Illicit Drug Use in Past Month                  | 1.0                |                                   | 3.0     | 7.1        |
| % Ever Sought Help for Alcohol or Drug Problem    | 3.7                |                                   | 4.1     |            |
| % Life Negatively Affected by Substance Abuse     | 45.5               |                                   | 32.2    |            |
|   |                    | better                            | similar | worse      |

| Yellowstone County Trends   |                 |                 |                             |
|---|-----------------|-----------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
|   |                 |                 | (11.4 vs. 12.9)*            |
| (57.4 vs. 58.5)   | (58.5 vs. 59.7) | (59.7 vs. 60.5) | (57.4 vs. 60.5)             |
| (17.2 vs. 14.7)   | (14.7 vs. 19.9) | (19.9 vs. 20.3) | (17.2 vs. 20.3)             |
| (2.9 vs. 2.6)   | (2.6 vs. 3.1)   | (3.1 vs. 2.3)   | (2.9 vs. 2.3)               |
|   |                 |                 | (13.1 vs. 16.4)*            |
| (1.6 vs. 1.0)   |                 | (n/a vs. 1.0)   | (1.6 vs. 1.0)               |
| (3.8 vs. 4.8)   | (4.8 vs. 5.2)   | (5.2 vs. 3.7)   | (3.8 vs. 3.7)               |
|   |                 |                 |                             |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |                 |                 |                             |

| Tobacco Use  | Yellowstone County | Yellowstone County vs. Benchmarks |         |            |
|--|--------------------|-----------------------------------|---------|------------|
|  |                    | vs. MT                            | vs. US  | vs. HP2020 |
| % Current Smoker   | 19.6               | 19.9                              | 14.0    | 12.0       |
| % Someone Smokes at Home   | 10.5               |                                   | 10.2    |            |
| % [Nonsmokers] Someone Smokes in the Home                        | 3.7                |                                   | 3.9     |            |
| % [Household With Children] Someone Smokes in the Home           | 8.9                |                                   | 10.2    |            |
| % Currently Use Electronic Cigarettes                            | 4.8                |                                   | 3.8     |            |
| % Use Smokeless Tobacco  | 3.5                | 7.6                               | 3.0     | 0.3        |
| % [Tobacco Users] Received Advice to Quit Using Tobacco Products | 68.4               |                                   |         |            |
|  |                    | better                            | similar | worse      |

| Yellowstone County Trends   |                 |                 |                             |
|---|-----------------|-----------------|-----------------------------|
| 2005 vs. 2010   | 2010 vs. 2014   | 2014 vs. 2017   | Baseline vs. Current Data § |
| (18.3 vs. 13.8)   | (13.8 vs. 11.7) | (11.7 vs. 19.6) | (18.3 vs. 19.6)             |
| (15.6 vs. 9.1)  | (9.1 vs. 9.9)   | (9.9 vs. 10.5)  | (15.6 vs. 10.5)             |
|   |                 | (6.7 vs. 3.7)   | (6.7 vs. 3.7)               |
| (12.6 vs. 6.9)  | (6.9 vs. 8.5)   | (8.5 vs. 8.9)   | (12.6 vs. 8.9)              |
|   |                 |                 |                             |
| (5.1 vs. 6.6)   | (6.6 vs. 7.6)   | (7.6 vs. 3.5)   | (5.1 vs. 3.5)               |
|   |                 | (69.0 vs. 68.4) | (69.0 vs. 68.4)             |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |                 |                 |                             |

| Vision                     | Yellowstone County | Yellowstone County vs. Benchmarks  |   |   |
|----------------------------|--------------------|--|---|---|
|                            |                    | vs. MT   | vs. US  | vs. HP2020  |
| % Blindness/Trouble Seeing | 10.8               |  4.4    |  7.3     |   |
| % Eye Exam in Past 2 Years | 61.6               |  |  59.3    |   |
|                            |                    |  better |  similar |  worse |

| Yellowstone County Trends   |  |  |  |
|---|--|--|--|
| 2005 vs. 2010   | 2010 vs. 2014  | 2014 vs. 2017  | Baseline vs. Current Data §  |
| <br>(6.5 vs. 8.4)  | <br>(8.4 vs. 8.6) | <br>(8.6 vs. 10.8)  | <br>(6.5 vs. 10.8)  |
| (63.4 vs. n/a)  |  | <br>(59.3 vs. 61.6) | <br>(63.4 vs. 61.6) |
| § For survey indicators, this represents baseline findings (earliest year available) vs. 2017 (current findings). For secondary data indicators (those marked with a "**"), data years can vary, but typically represent a span of 7 to 10 years. |  |  |  |

# Community Description



**Professional Research Consultants, Inc.**

## Population Characteristics

### Total Population

Yellowstone County, the focus of this Community Health Needs Assessment, encompasses 2,633.28 square miles and houses a total population of 151,965 residents, according to latest census estimates.

**Total Population**  
(Estimated Population, 2010-14)

|                           | Total Population | Total Land Area<br>(Square Miles) | Population Density<br>(Per Square Mile) |
|---------------------------|------------------|-----------------------------------|---|
| <b>Yellowstone County</b> | 151,965          | 2,633.28                          | 57.71                                   |
| <b>Montana</b>            | 1,006,370        | 145,546.56                        | 6.91                                    |
| <b>United States</b>      | 314,107,083      | 3,531,932.26                      | 88.93                                   |

Sources: 

- US Census Bureau American Community Survey 5-year estimates.
- Retrieved June 2016 from Community Commons at <http://www.chna.org>.

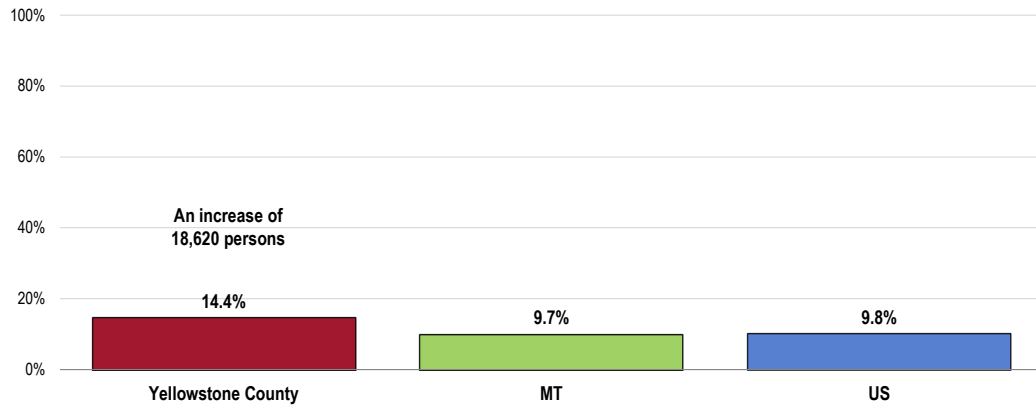
### Population Change 2000-2010

A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

**Between the 2000 and 2010 US Censuses, the population of Yellowstone County increased by 18,620 persons, or 14.4%.**

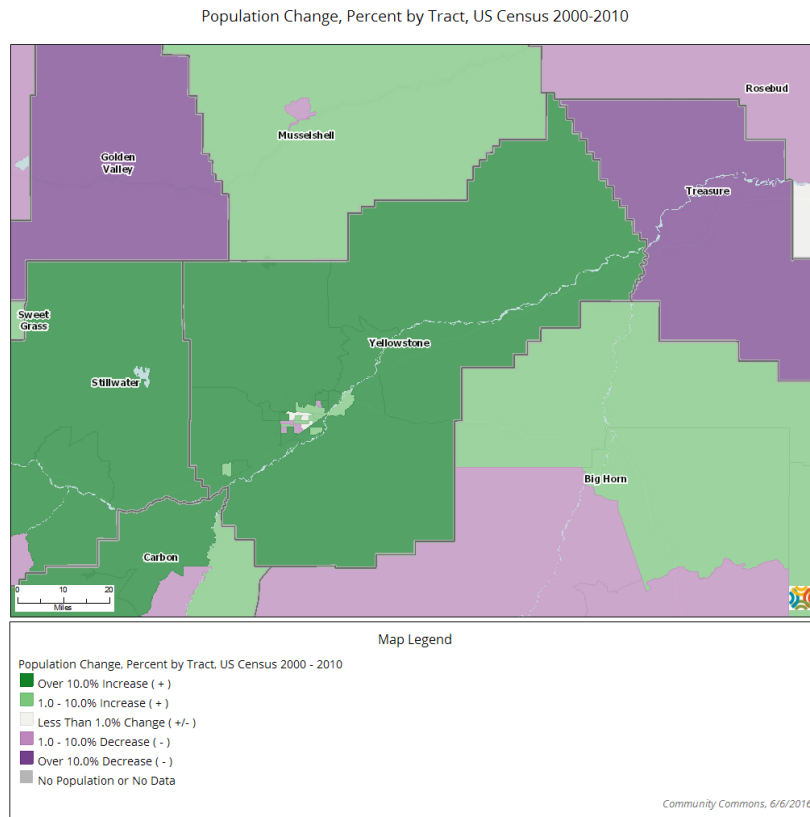
- A greater proportional increase than seen across both the state and the nation overall.

### Change in Total Population (Percentage Change Between 2000 and 2010)



Sources: • Retrieved June 2016 from Community Commons at <http://www.chna.org>.  
 • US Census Bureau Decennial Census (2000-2010).  
 Notes: • A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

Though most of Yellowstone County increased in population, note the small areas in purple where the population decreased over time.



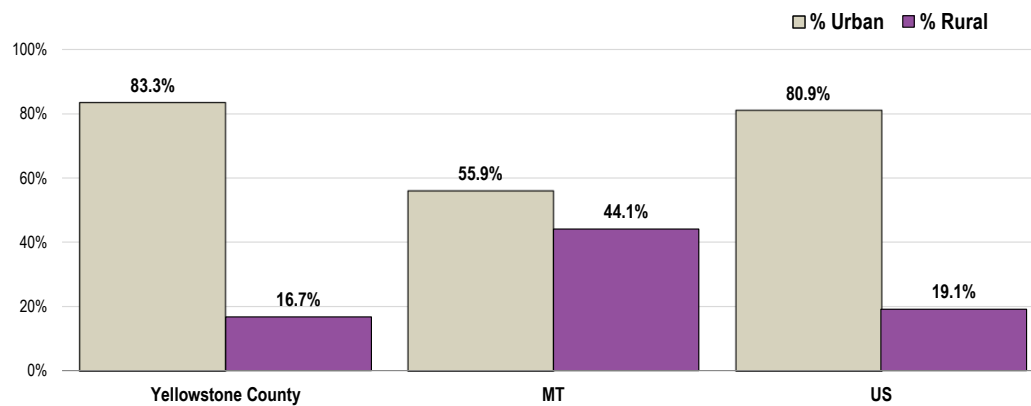
## Urban/Rural Population

Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

**Yellowstone County is predominantly urban, with 83.3% of the population living in areas designated as urban.**

- Note that a similar proportion of the national population lives in urban areas, although the urban population is much lower in Montana overall.

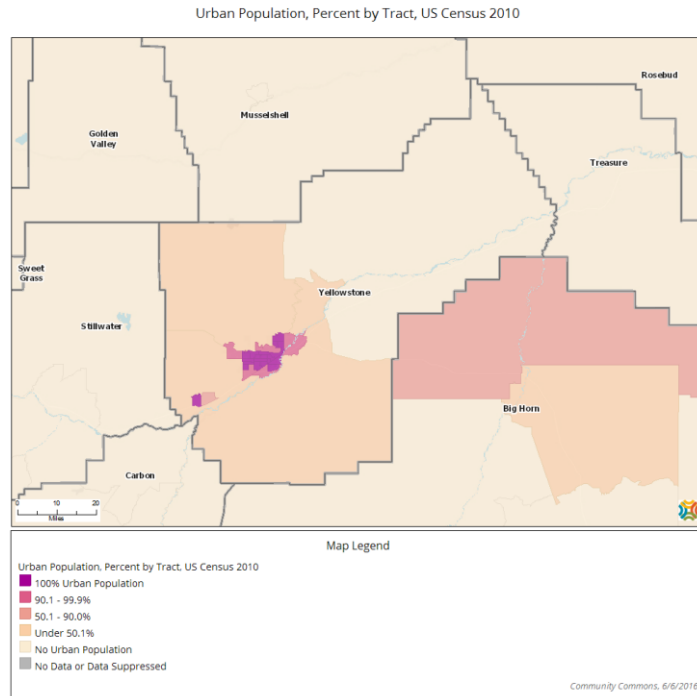
### Urban and Rural Population (2010)



- Sources:
- US Census Bureau Decennial Census (2010).
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

- Note the following map outlining the urban population in Yellowstone County census tracts as of 2010.





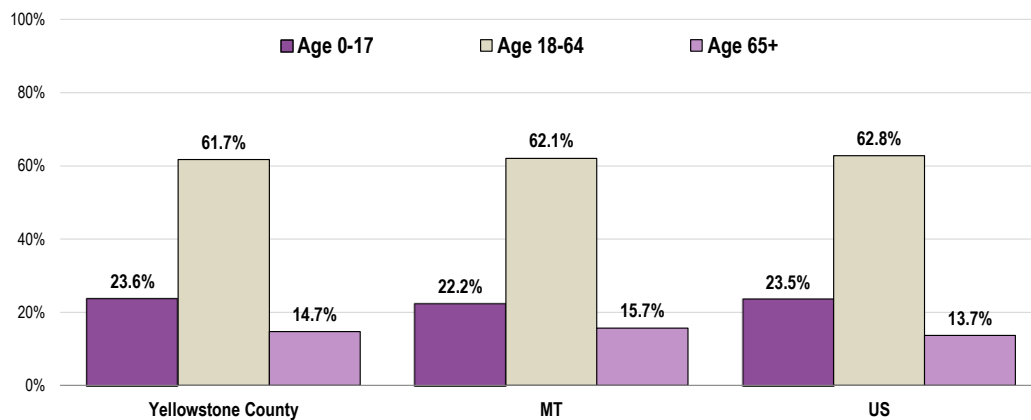
## Age

It is important to understand the age distribution of the population as different age groups have unique health needs which should be considered separately from others along the age spectrum.

**In Yellowstone County, 23.6% of the population are infants, children or adolescents (age 0-17); another 61.7% are age 18 to 64, while 14.7% are age 65 and older.**

- The percentage of older adults (65+) is similar to that found statewide and nationally.

### Total Population by Age Groups, Percent (2010-14)

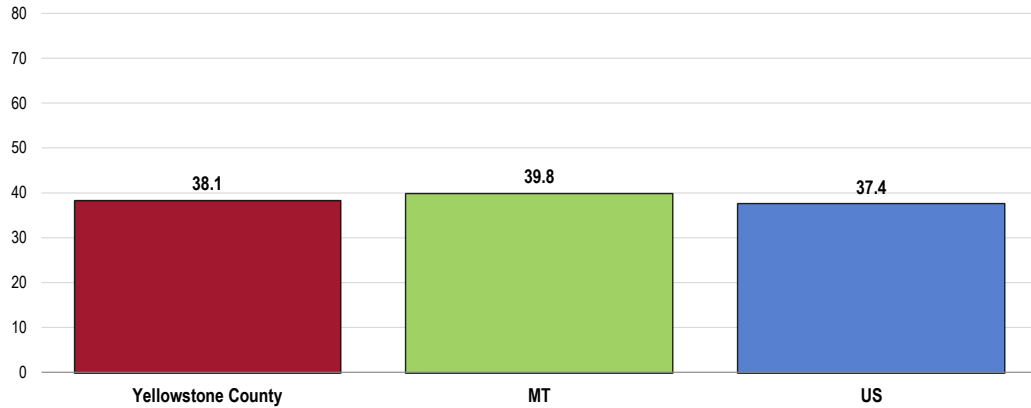


- Sources:
- US Census Bureau American Community Survey 5-year estimates.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.

### Median Age

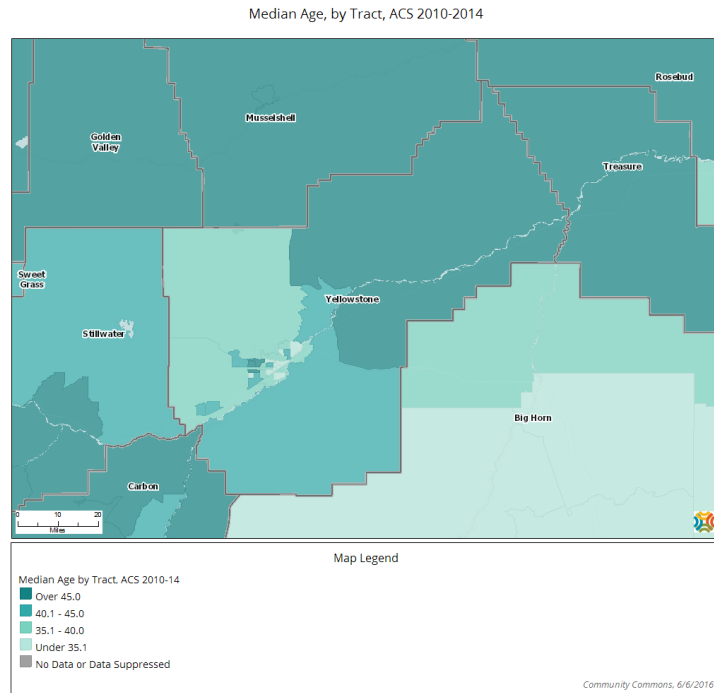
The median age in Yellowstone County is similar to both statewide and nationwide findings.

### Median Age (2010-14)



- Sources:
- US Census Bureau American Community Survey 5-year estimates.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.

- The following map provides an illustration of the median age in Yellowstone County, segmented by census tract.



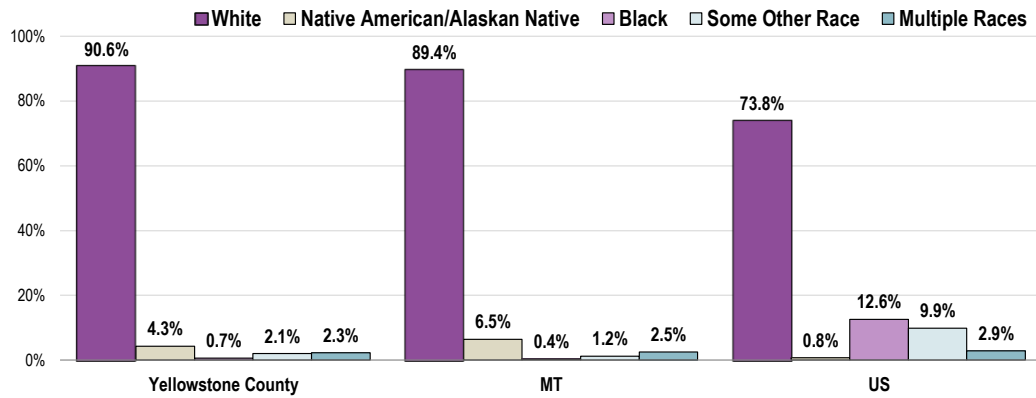
## Race & Ethnicity

### Race

In looking at race independent of ethnicity (Hispanic or Latino origin), 90.6% of residents of Yellowstone County are White, 4.3% are Native American and 0.7% are Black.

- This is generally similar to the state racial distribution.
- Nationally, the US population is less White, more Black, less Native American and more “other” race.

**Total Population by Race Alone, Percent**  
(2010-14)



Sources:
 

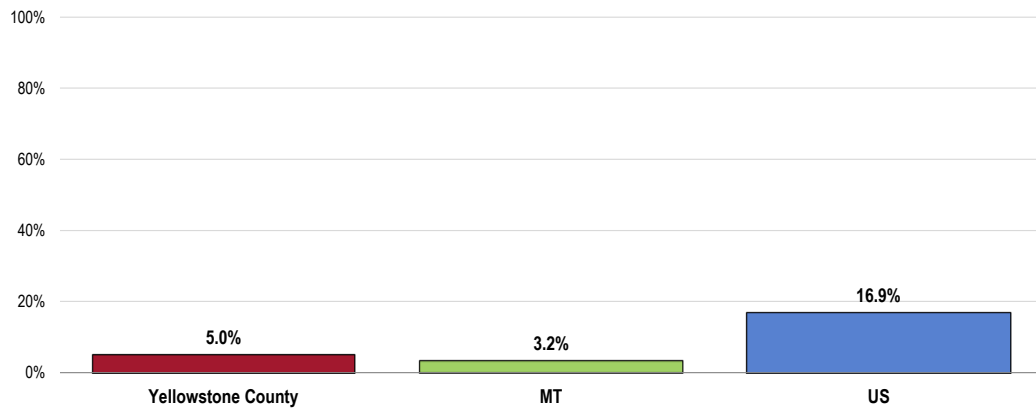
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved June 2016 from Community Commons at <http://www.chna.org>.

### Ethnicity

A total of 5.0% of Yellowstone County residents are Hispanic or Latino.

- Slightly higher than the state percentage.
- Much lower than the nationwide percentage.

## Hispanic Population (2010-14)



Sources: 

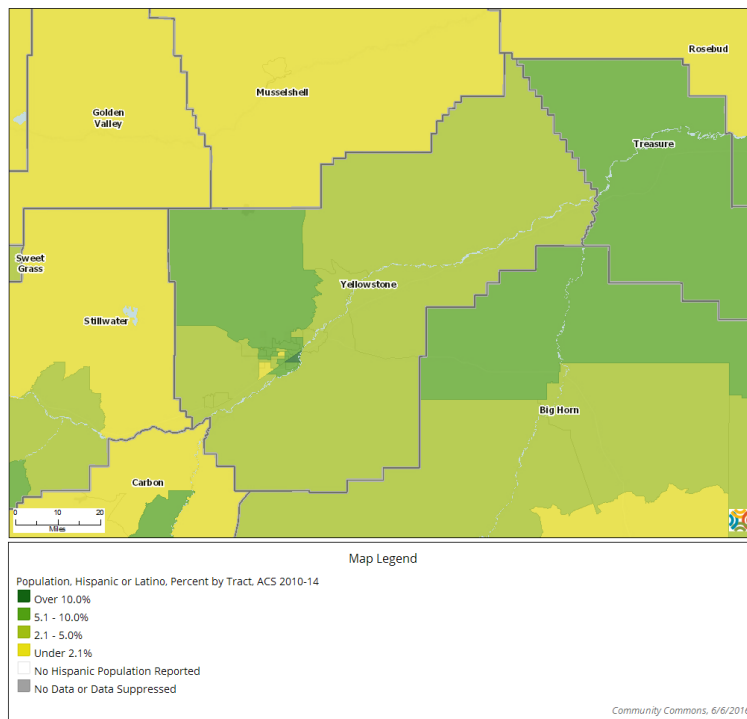
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved June 2016 from Community Commons at <http://www.chna.org>.

Notes: 

- Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

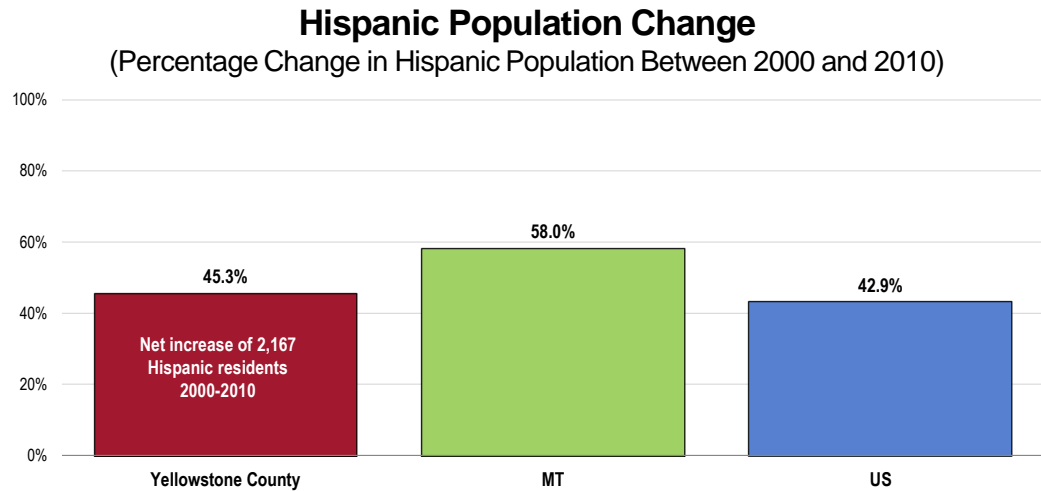
- The Hispanic population appears to be most concentrated in the northwestern portion of the county.

Population Hispanic or Latino, Percent by Tract, ACS 2010-2014



Between 2000 and 2010, the Hispanic population in Yellowstone County increased by 2,167 or 45.3%.

- Lower (in terms of percentage growth) than found statewide.
- Higher (in terms of percentage growth) than found nationally.



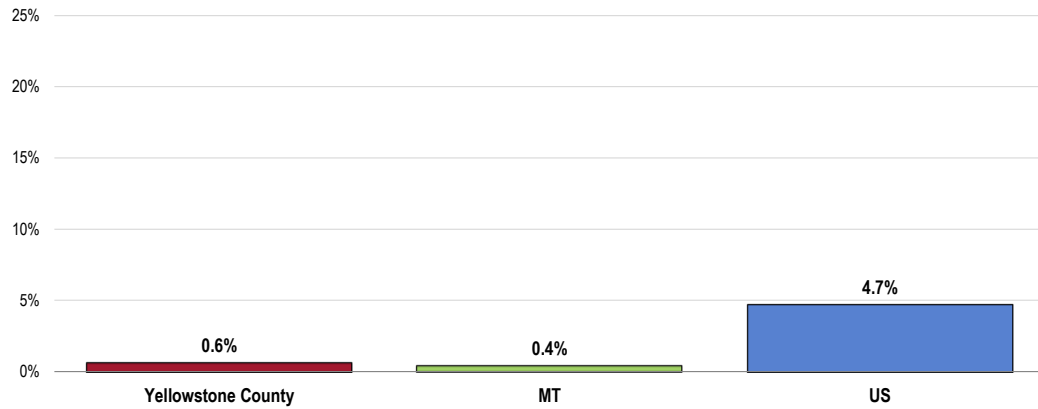
Sources: • US Census Bureau Decennial Census (2000-2010).  
• Retrieved June 2016 from Community Commons at <http://www.chna.org>.

## Linguistic Isolation

A total of 0.6% of the Yellowstone County population age 5 and older live in a home in which no persons age 14 or older is proficient in English (speaking only English, or speaking English “very well”).

- Slightly higher than found statewide.
- Much lower than found nationally.

## Linguistically Isolated Population (2010-14)



Sources: 

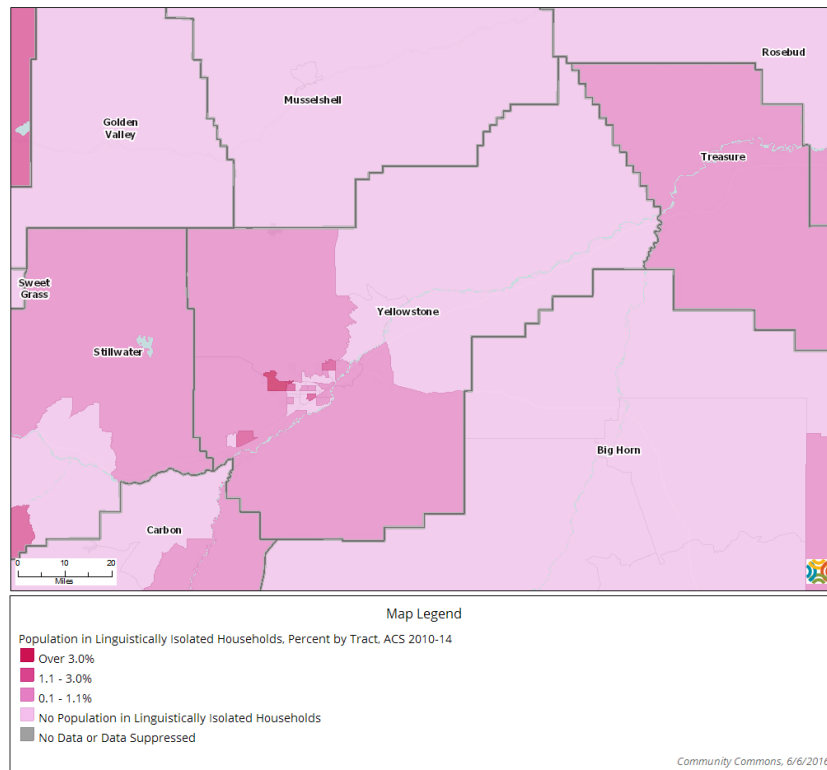
- US Census Bureau American Community Survey 5-year estimates.
- Retrieved June 2016 from Community Commons at <http://www.chna.org>.

Notes: 

- This indicator reports the percentage of the population age 5+ who live in a home in which no person age 14+ speaks only English, or in which no person age 14+ speak a non-English language and speak English "very well."

- Note the following map illustrating linguistic isolation in Yellowstone County.

Population in Linguistically Isolated Households, Percent by Tract, ACS 2010-2014



## Social Determinants of Health

### About Social Determinants

Health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well and staying active, not smoking, getting the recommended immunizations and screening tests, and seeing a doctor when we are sick all influence our health. Our health is also determined in part by access to social and economic opportunities; the resources and supports 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. The conditions in which we live explain in part why some Americans are healthier than others and why Americans more generally are not as healthy as they could be.

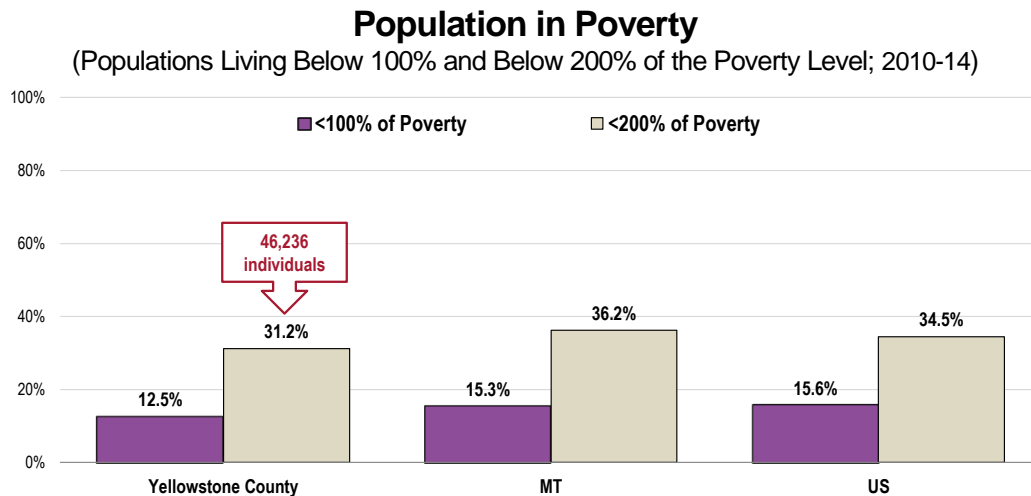
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Poverty

The latest census estimate shows **12.5% of the Yellowstone County population living below the federal poverty level.**

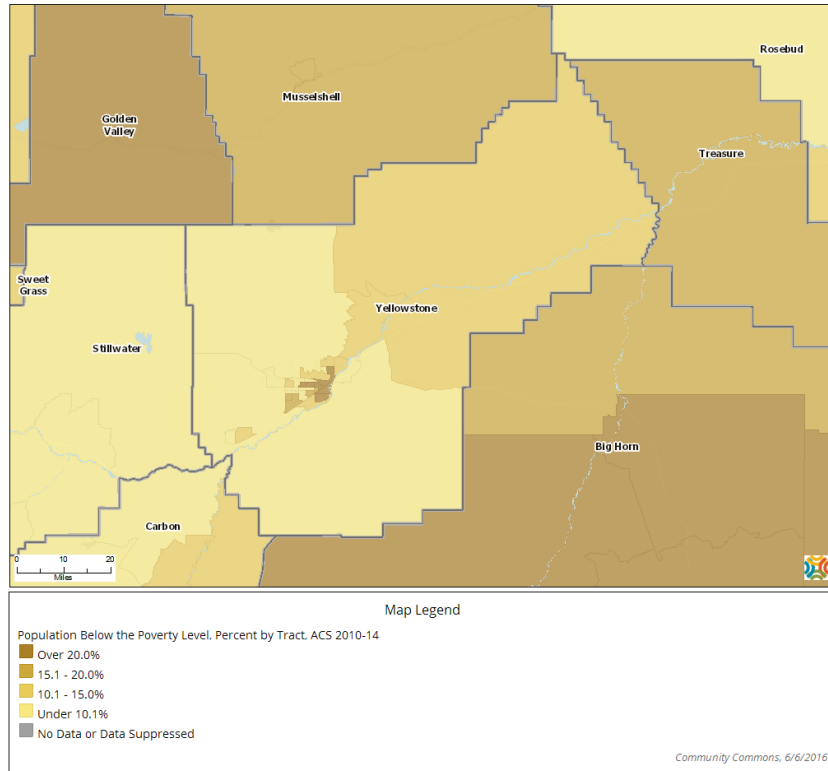
**In all, 31.2% of Yellowstone County residents (an estimated 46,236 individuals) live below 200% of the federal poverty level.**

- Lower than the proportions reported statewide and nationally.

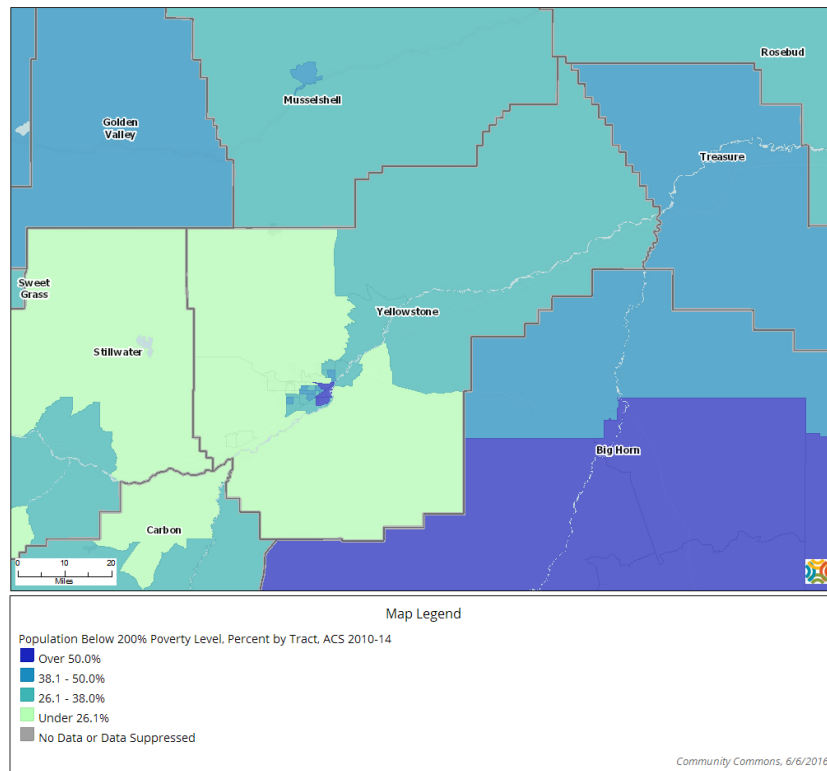


- Sources:
- US Census Bureau American Community Survey 5-year estimates.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- Poverty is considered a key driver of health status. This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

Population Below Poverty Level, Percent by Tract, ACS 2010-2014



Population Below 200% of Poverty, Percent by Tract, ACS 2010-2014



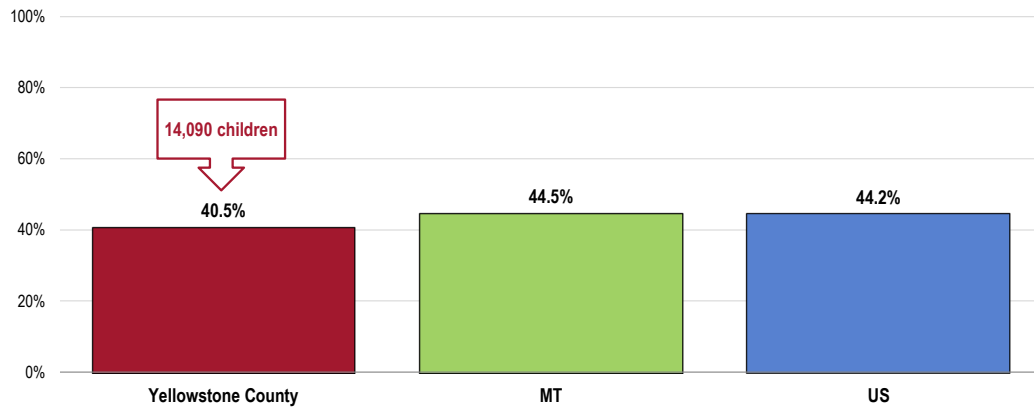


### Children in Low-Income Households

Additionally, 40.5% of Yellowstone County children age 0-17 (representing an estimated 14,090 children) live below the 200% poverty threshold.

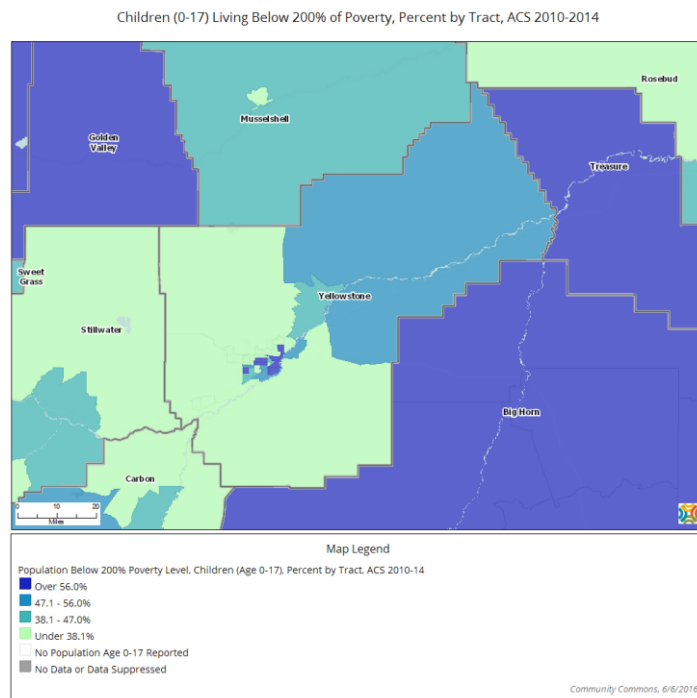
- Below the proportions found statewide and nationally.

### Percent of Children in Low-Income Households (Children 0-17 Living Below 200% of the Poverty Level, 2010-14)



- Sources:
- US Census Bureau American Community Survey 5-year estimates.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator reports the percentage of children aged 0-17 living in households with income below 200% of the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

- The concentration of children in lower-income households is illustrated in the map below by census tract.



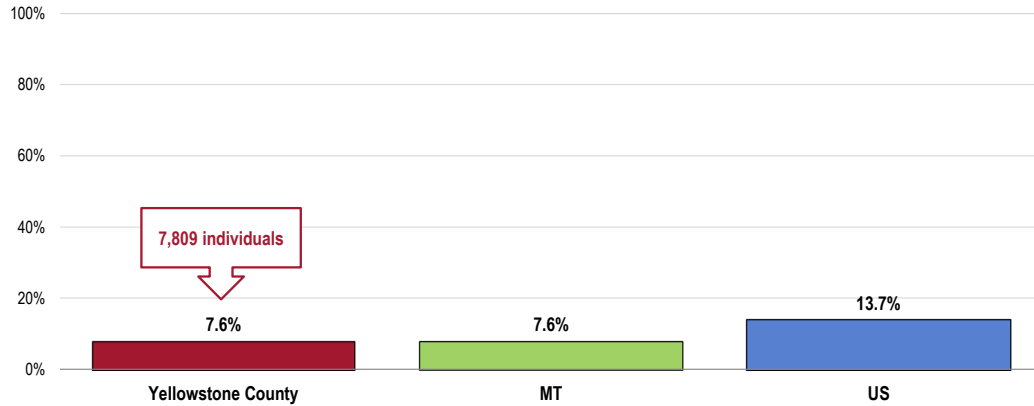
## Education

Among the Yellowstone County population age 25 and older, an estimated 7.6% (over 7,800 people) do not have a high school education.

- Identical to that found statewide.
- More favorable than found nationally.

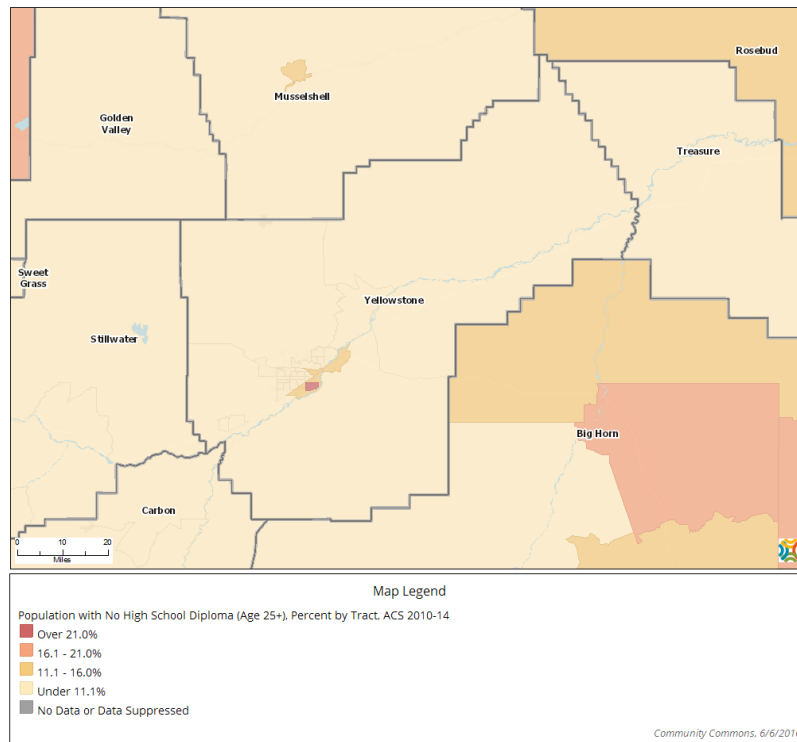
### Population With No High School Diploma

(Population Age 25+ Without a High School Diploma or Equivalent, 2010-14)



- Sources:
- US Census Bureau American Community Survey 5-year estimates.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator is relevant because educational attainment is linked to positive health outcomes.

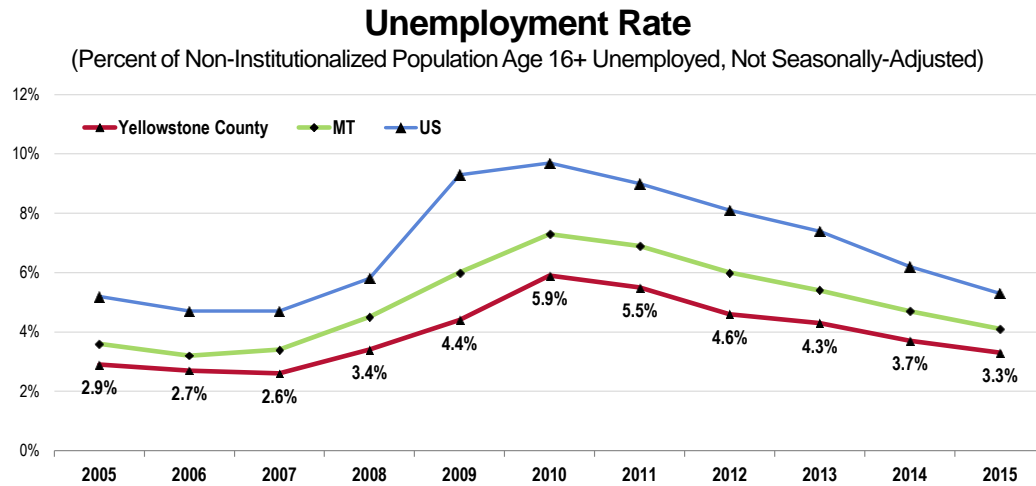
Population With No High School Diploma, Percent by Tract, ACS 2010-2014



## Employment

According to data derived from the US Department of Labor, the unemployment rate in Yellowstone County in 2015 was 3.3%.

- More favorable than the statewide and national unemployment rates.
- TREND: Unemployment for Yellowstone County has trended downward since 2010, echoing the state and national trends.

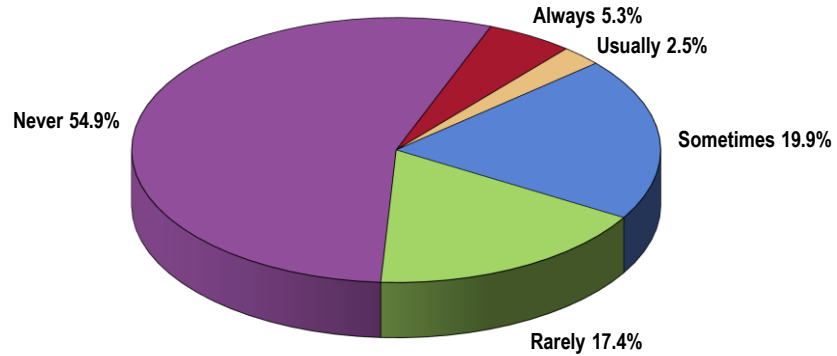


- Sources:
- US Department of Labor, Bureau of Labor Statistics.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

## Housing Insecurity

While most surveyed adults rarely, if ever, worry about the cost of housing, a considerable share (27.7%) do, reporting that they were “sometimes,” “usually” or “always” worried or stressed about having enough money to pay their rent or mortgage in the past year.

### Frequency of Worry or Stress Over Paying Rent/Mortgage in the Past Year (Yellowstone County, 2017)

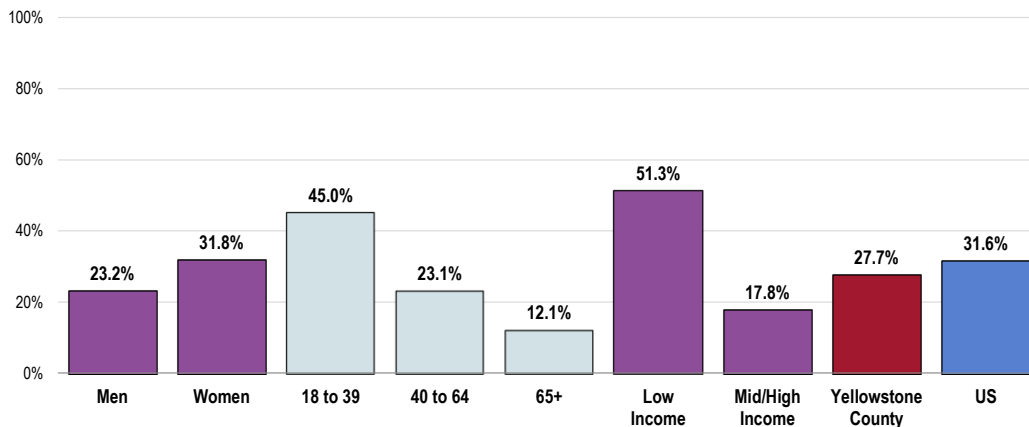


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 81]  
 Notes: • Asked of all respondents.

- Compared to the US prevalence, the Yellowstone County proportion of adults who worried about paying for rent or mortgage in the past year is similar.
- Adults more likely to report housing insecurity include younger adults and residents living at lower incomes (note the negative association with age).

Charts throughout this report (such as that here) detail survey findings among key demographic groups – namely by gender, age groupings, and income (based on poverty status).

### “Always/Usually/Sometimes” Worried About Paying Rent/Mortgage in the Past Year (Yellowstone County, 2017)



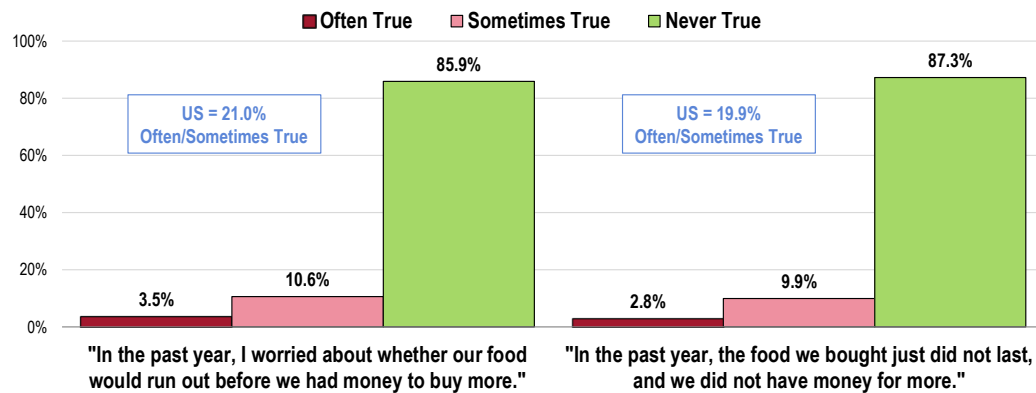
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 81]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Food Insecurity

In the past year, 14.1% of Yellowstone County adults “often” or “sometimes” worried about whether their food would run out before they had money to buy more.

A total of 12.7% report a time in the past year (“often” or “sometimes”) when the food they bought just did not last, and they did not have money to get more.

### Food Insecurity (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 104-105]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Reflects the total sample of respondents.

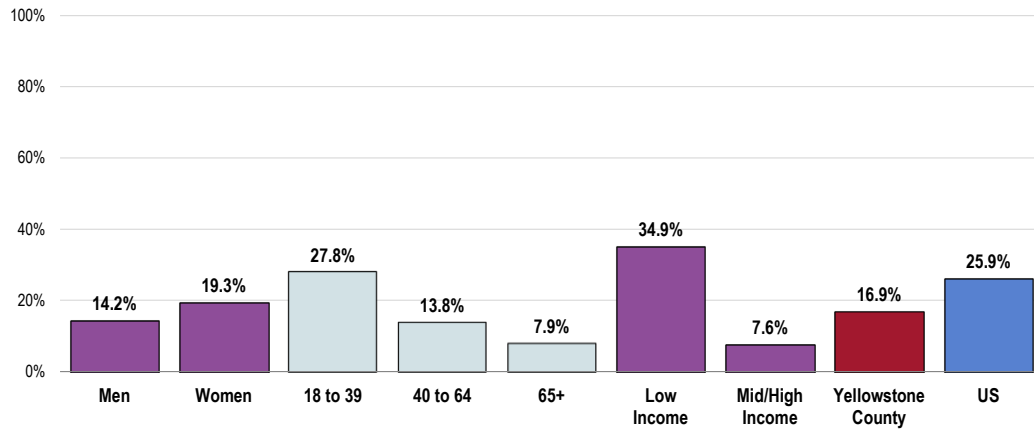
Overall, 16.9% of community residents are determined to be “food insecure,” having run out of food in the past year and/or been worried about running out of food.

- Compared to US data, the Yellowstone County level of food insecurity is more favorable.

Adults more likely affected by food insecurity include:

- Adults age 18 to 39 (negative association with age).
- Residents living at lower incomes.

## Food Insecurity (Yellowstone County, 2017)



Sources: 

- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 169]

Notes: 

- Asked of all respondents.

- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.

# General Health Status



**Professional Research Consultants, Inc.**

## Overall Health Status

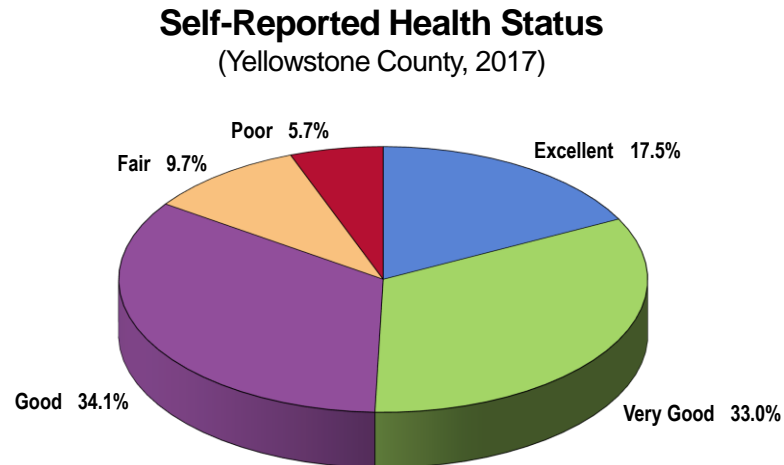
### Evaluation of Health Status

The initial inquiry of the PRC Community Health Survey asked respondents the following:

"Would you say that in general your health is: excellent, very good, good, fair or poor?"

**Just over one-half (50.5%) of Yellowstone County adults rate their overall health as "excellent" or "very good."**

- Another 34.1% gave "good" ratings of their overall health.



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]  
Notes: • Asked of all respondents.

#### NOTE:

Differences noted in the text represent significant differences determined through statistical testing.

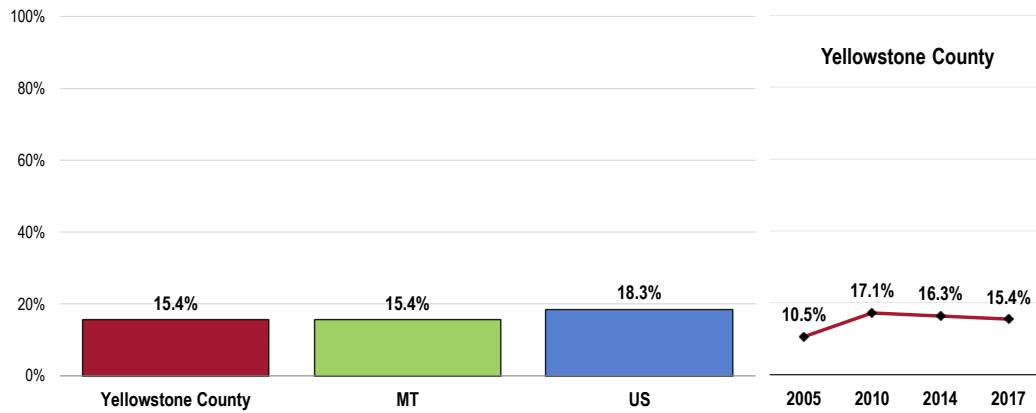
Trends are measured against baseline data – i.e., the earliest year that data are available or that is presented in this report.

**However, 15.4% of Yellowstone County adults believe that their overall health is "fair" or "poor."**

- Similar to statewide and national findings.
- TREND: A statistically significant increase has occurred when comparing "fair/poor" overall health reports to 2005 survey results (note that current findings are similar to 2010 and 2014 findings).



### Experience “Fair” or “Poor” Overall Health



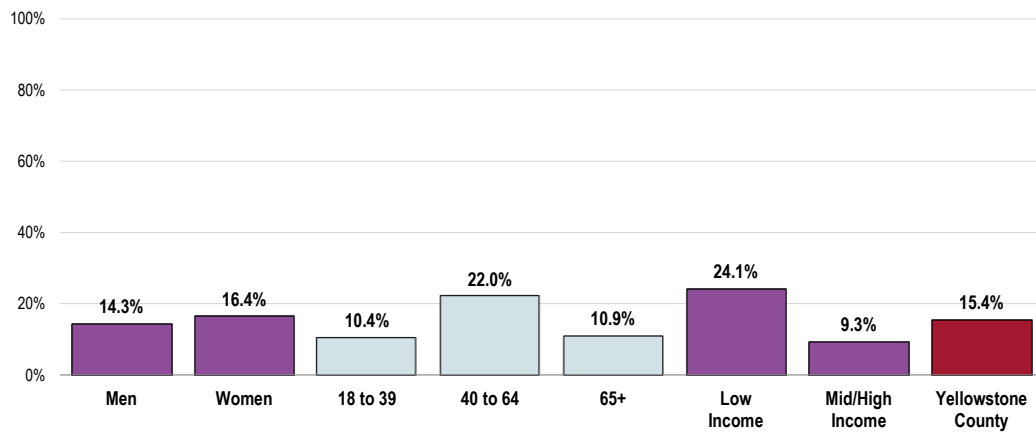
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 5]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

Adults more likely to report experiencing “fair” or “poor” overall health include:

- Adults age 40 to 64.
- Residents living at lower incomes.

### Experience “Fair” or “Poor” Overall Health (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

## Activity Limitations

### About Disability & Health

An individual can get a disabling impairment or chronic condition at any point in life. Compared with people without disabilities, people with disabilities are more likely to:

- Experience difficulties or delays in getting the health care they need.
- Not have had an annual dental visit.
- Not have had a mammogram in past 2 years.
- Not have had a Pap test within the past 3 years.
- Not engage in fitness activities.
- Use tobacco.
- Be overweight or obese.
- Have high blood pressure.
- Experience symptoms of psychological distress.
- Receive less social-emotional support.
- Have lower employment rates.

There are many social and physical factors that influence the health of people with disabilities. The following three areas for public health action have been identified, using the International Classification of Functioning, Disability, and Health (ICF) and the three World Health Organization (WHO) principles of action for addressing health determinants.

- **Improve the conditions of daily life** by: encouraging communities to be accessible so all can live in, move through, and interact with their environment; encouraging community living; and removing barriers in the environment using both physical universal design concepts and operational policy shifts.
- **Address the inequitable distribution of resources among people with disabilities and those without disabilities** by increasing: appropriate health care for people with disabilities; education and work opportunities; social participation; and access to needed technologies and assistive supports.
- **Expand the knowledge base and raise awareness about determinants of health for people with disabilities** by increasing: the inclusion of people with disabilities in public health data collection efforts across the lifespan; the inclusion of people with disabilities in health promotion activities; and the expansion of disability and health training opportunities for public health and health care professionals.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

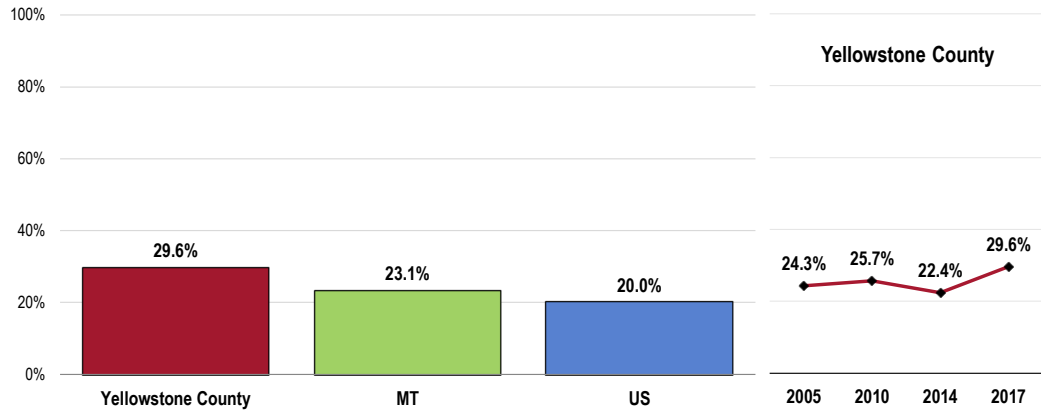
**A total of 29.6% of Yellowstone County adults are limited in some way in some activities due to a physical, mental or emotional problem.**

- Less favorable than the prevalence statewide and nationally.
- **TREND:** Marks a statistically significant increase in activity limitations since 2014, but is statistically similar to 2005 and 2010 findings.

#### RELATED ISSUE:

See also *Potentially Disabling Conditions in the Death, Disease & Chronic Conditions* section of this report.

### Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem



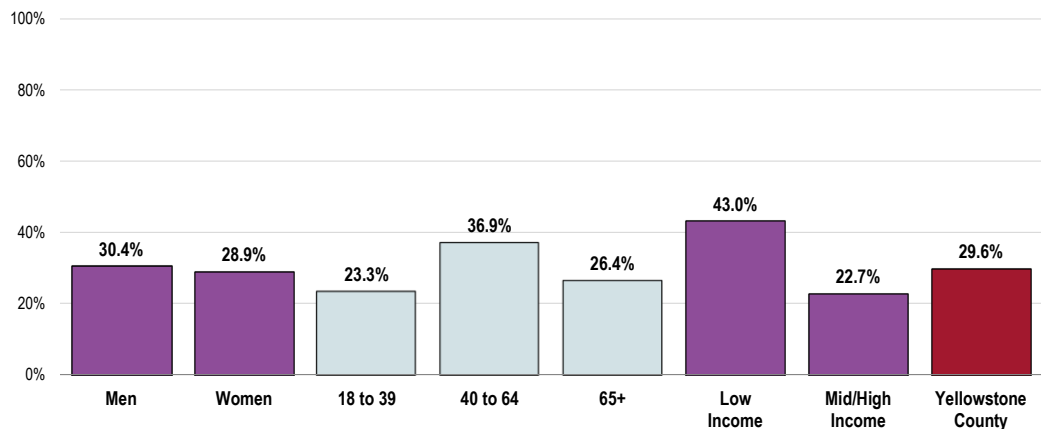
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 128]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

In looking at responses by key demographic characteristics, these adults are statistically more likely to report some type of activity limitation:

- Adults age 40 to 64.
- Community members with low incomes.

### Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem (Yellowstone County, 2017)

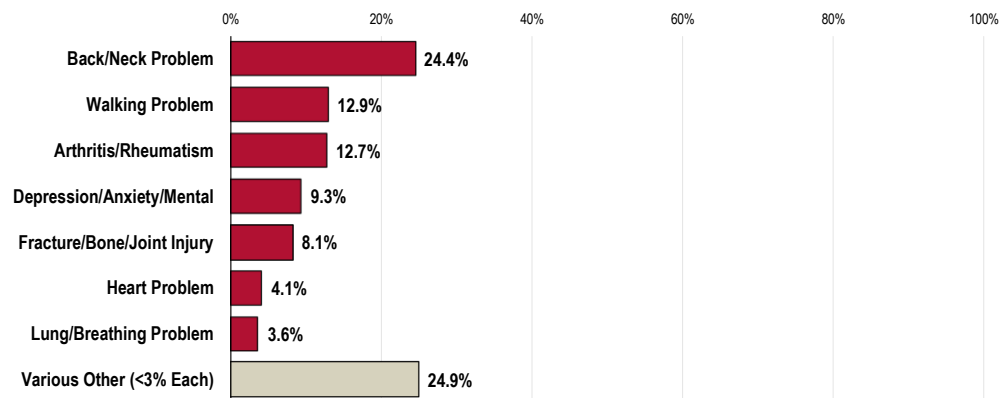


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Among persons reporting activity limitations, these are most often attributed to musculo-skeletal issues, such as back/neck problems, fractures or bone/joint injuries, arthritis/rheumatism, or difficulty walking.

Other limitations noted with some frequency include those related to mental health (depression, anxiety), heart conditions, or lung/breathing problems.

**Type of Problem That Limits Activities**  
(Among Those Reporting Activity Limitations; Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 129]  
Notes: • Asked of those respondents reporting activity limitations.

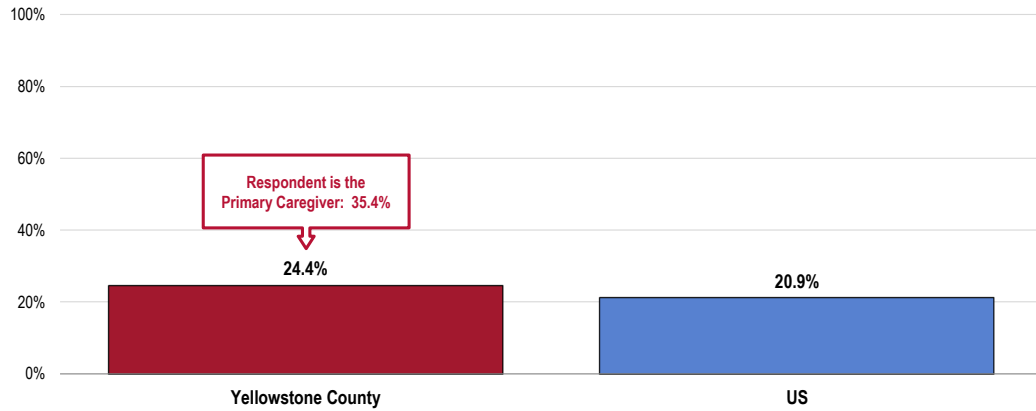
## Caregiving

**A total of 24.4% of Yellowstone County adults currently provide care or assistance to a friend or family member who has a health problem, long-term illness, or disability.**

- [Similar to the national finding.](#)

Of these adults, 35.4% are the **primary** caregiver for the individual receiving care.

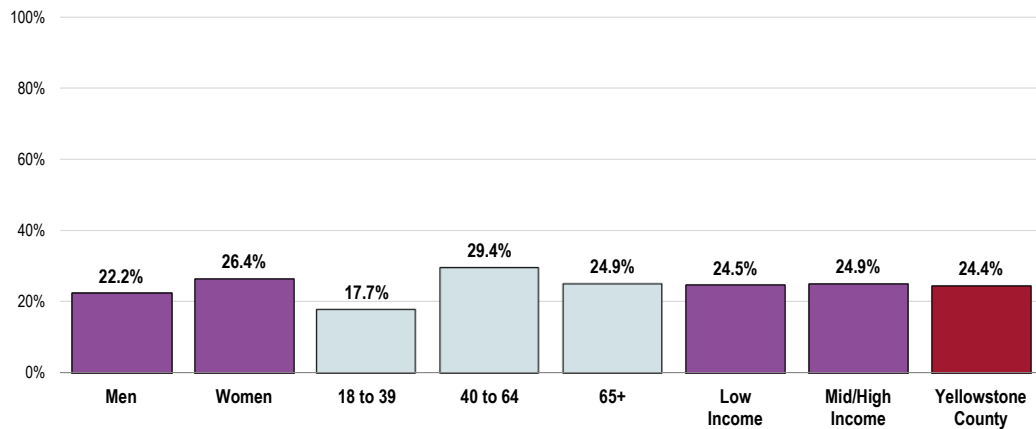
### Act as Caregiver to a Friend or Relative with a Health Problem, Long-Term Illness, or Disability



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 130-131]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- The prevalence of caregivers in the community is statistically higher among adults between the ages of 40 and 64.

### Act as Caregiver to a Friend or Relative with a Health Problem, Long-Term Illness, or Disability (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 130]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Mental Health

### About Mental Health & Mental Disorders

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community or society. Mental disorders are health conditions that are characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning. Mental disorders contribute to a host of problems that may include disability, pain, or death. Mental illness is the term that refers collectively to all diagnosable mental disorders. Mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases.

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical 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.

The existing model for understanding mental health and mental disorders emphasizes the interaction of social, environmental, and genetic factors throughout the lifespan. In behavioral health, researchers identify: **risk factors**, which predispose individuals to mental illness; and **protective factors**, which protect them from developing mental disorders. Researchers now know that the prevention of mental, emotional, and behavioral (MEB) disorders is inherently interdisciplinary and draws on a variety of different strategies. Over the past 20 years, research on the prevention of mental disorders has progressed. The major areas of progress include evidence that:

- MEB disorders are common and begin early in life.
- The greatest opportunity for prevention is among young people.
- There are multiyear effects of multiple preventive interventions on reducing substance abuse, conduct disorder, antisocial behavior, aggression, and child maltreatment.
- The incidence of depression among pregnant women and adolescents can be reduced.
- School-based violence prevention can reduce the base rate of aggressive problems in an average school by 25 to 33%.
- There are potential indicated preventive interventions for schizophrenia.
- Improving family functioning and positive parenting can have positive outcomes on mental health and can reduce poverty-related risk.
- School-based preventive interventions aimed at improving social and emotional outcomes can also improve academic outcomes.
- Interventions targeting families dealing with adversities, such as parental depression or divorce, can be effective in reducing risk for depression in children and increasing effective parenting.
- Some preventive interventions have benefits that exceed costs, with the available evidence strongest for early childhood interventions.
- Implementation is complex, it is important that interventions be relevant to the target audiences.
- In addition to advancements in the prevention of mental disorders, there continues to be steady progress in treating mental disorders as new drugs and stronger evidence-based outcomes become available.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

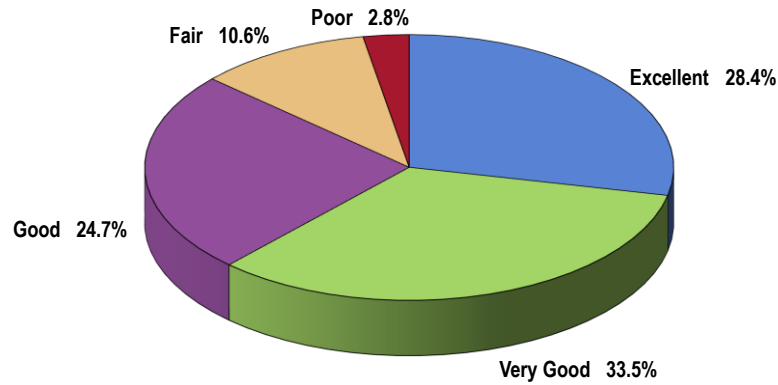
### Evaluation of Mental Health Status

**A total of 61.9% of Yellowstone County adults rate their overall mental health as “excellent” or “very good.”**

- Another 24.7% gave “good” ratings of their own mental health status.

“Now thinking about your mental health, which includes stress, depression and problems with emotions, would you say that, in general, your mental health is: excellent, very good, good, fair or poor?”

### Self-Reported Mental Health Status (Yellowstone County, 2017)

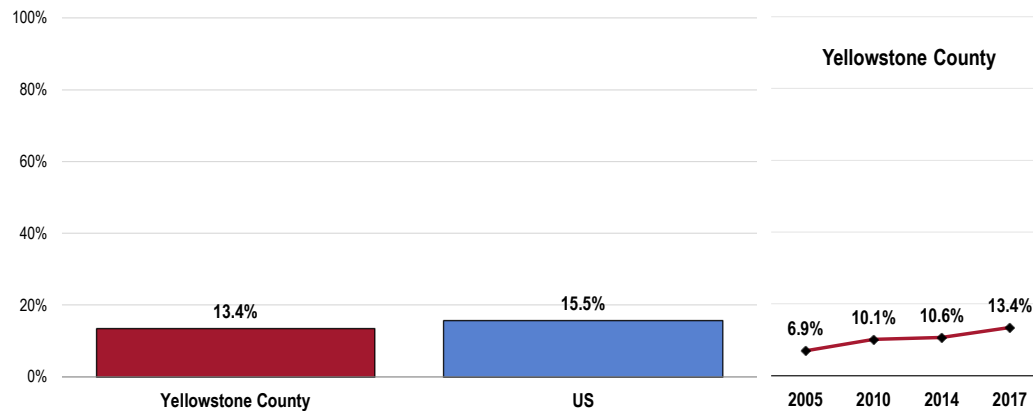


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 116]  
 Notes: • Asked of all respondents.

**A total of 13.4% of Yellowstone County adults, however, believe that their overall mental health is “fair” or “poor.”**

- Similar to the “fair/poor” response reported nationally.
- TREND: Over time, this response has increased to be significantly higher than seen in 2005.

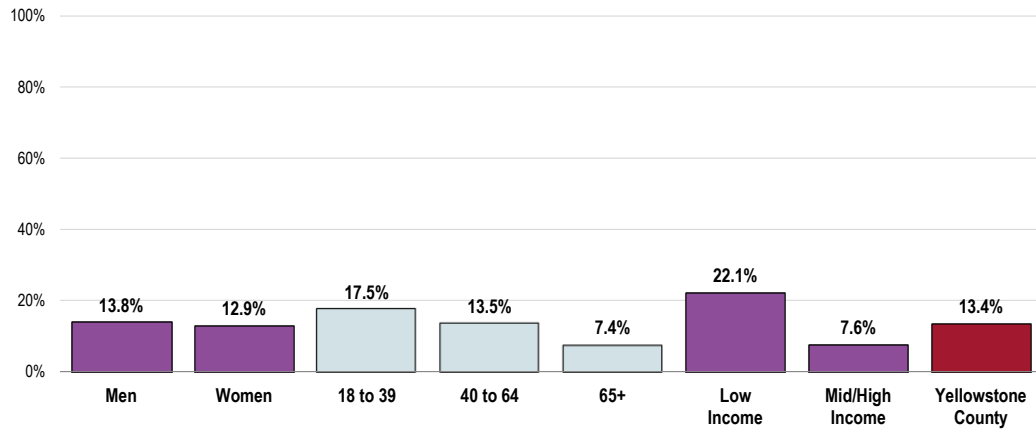
### Experience “Fair” or “Poor” Mental Health



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 116]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- Adults age 18-39 and lower-income residents are much more likely to report experiencing “fair/poor” mental health than their demographic counterparts.

## Experience “Fair” or “Poor” Mental Health (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 116]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

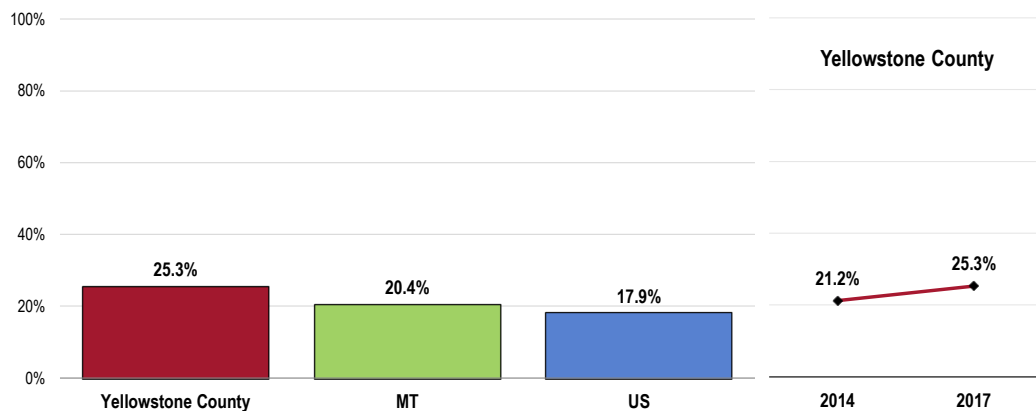
## Depression

### Diagnosed Depression

Around one-fourth (25.3%) of Yellowstone County adults have been diagnosed by a physician as having a depressive disorder (such as depression, major depression, dysthymia, or minor depression).

- Higher than found statewide and nationally.
- TREND: Statistically similar to 2014 survey findings.

### Have Been Diagnosed With a Depressive Disorder



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 119]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.  
 • Depressive disorders include depression, major depression, dysthymia, or minor depression.

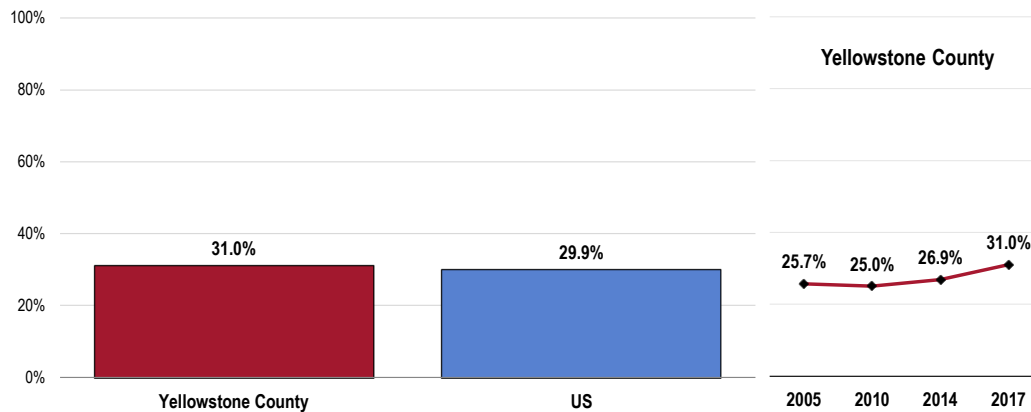


### Symptoms of Chronic Depression

A total of 31.0% of Yellowstone County adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (symptoms of chronic depression).

- Comparable to national findings.
- TREND: The prevalence has not changed significantly since 2005.

### Have Experienced Symptoms of Chronic Depression



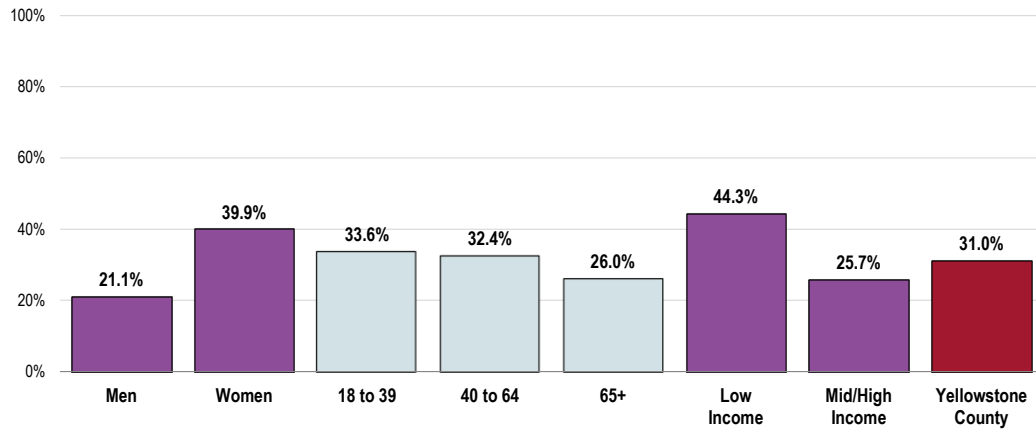
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 117]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.  
 • Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.

Note that the prevalence of chronic depression is notably higher among:

- Women.
- Adults with lower incomes.

## Have Experienced Symptoms of Chronic Depression (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 117]  
 Notes: • Asked of all respondents.  
 • Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Stress

Less than one-half of Yellowstone County adults consider their typical day to be "not very stressful" (32.7%) or "not at all stressful" (12.4%).

RELATED ISSUE:

See also *Substance Abuse* in the **Modifiable Health Risks** section of this report.

- Another 43.2% of survey respondents characterize their typical day as "moderately stressful."

## Perceived Level of Stress On a Typical Day (Yellowstone County, 2017)

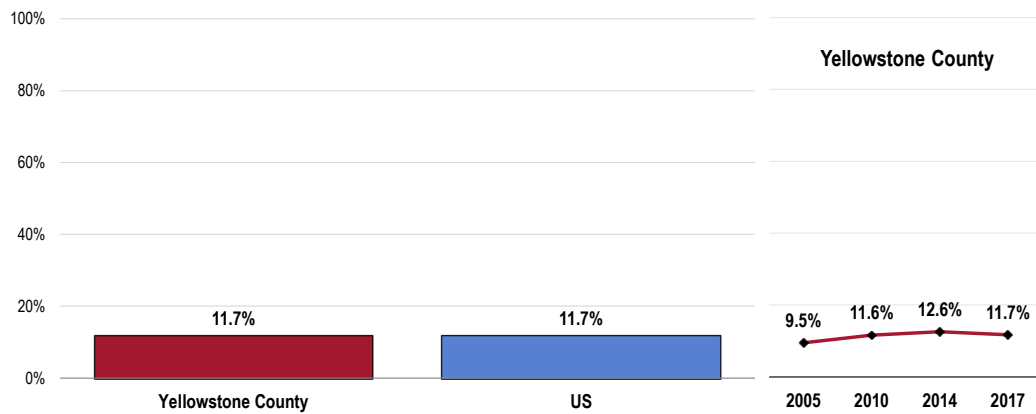


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 118]  
 Notes: • Asked of all respondents.

In contrast, 11.7% of Yellowstone County adults experience “very” or “extremely” stressful days on a regular basis.

- Identical to national findings.
- TREND: Statistically unchanged over time.

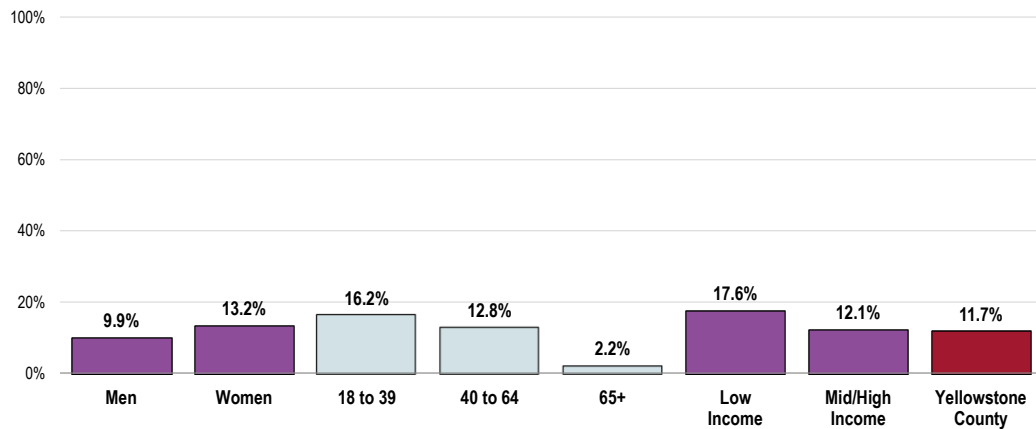
### Perceive Most Days As “Extremely” or “Very” Stressful



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 118]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- Note that high stress levels are negatively associated with age.

### Perceive Most Days as “Extremely” or “Very” Stressful (Yellowstone County, 2017)



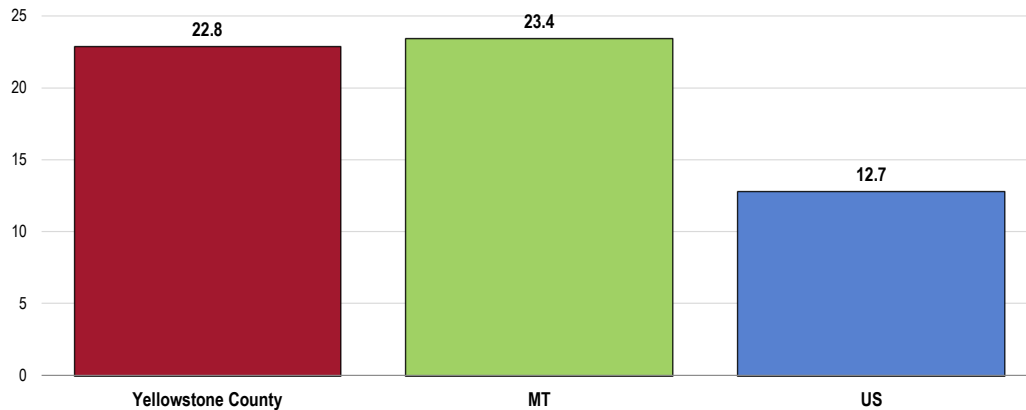
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 118]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

## Suicide

Between 2012 and 2014, there was an annual average age-adjusted suicide rate of 22.8 deaths per 100,000 population in Yellowstone County.

- Similar to the statewide rate.
- Higher than the national rate.
- Fails to satisfy the Healthy People 2020 target of 10.2 or lower.

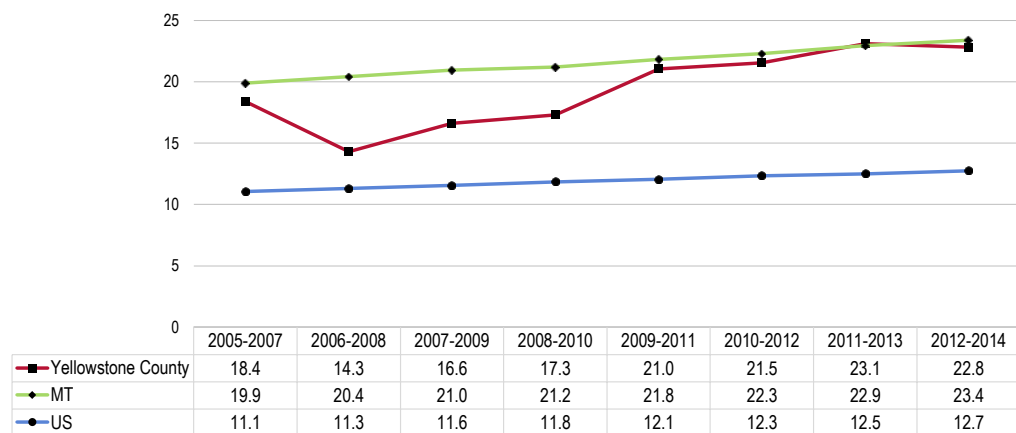
**Suicide: Age-Adjusted Mortality**  
(2012-14 Annual Average Deaths per 100,000 Population)  
Healthy People 2020 Target = 10.2 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MHMD-1]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** The area suicide rate has climbed sharply over much of the past decade.

**Suicide: Age-Adjusted Mortality Trends**  
(Annual Average Deaths per 100,000 Population)  
Healthy People 2020 Target = 10.2 or Lower



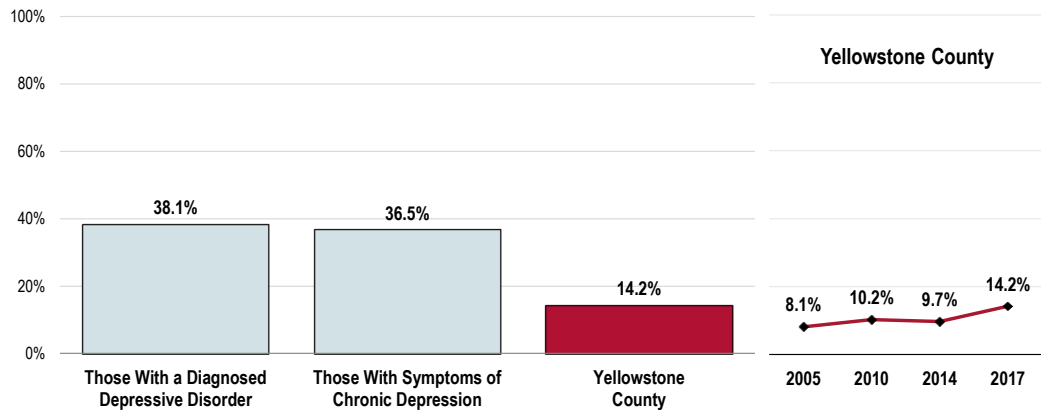
- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MHMD-1]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### Suicide Ideation

**A total of 14.2% of Yellowstone County adults acknowledge having considered suicide at some point in their lives.**

- The prevalence is much higher among adults with a depressive disorder and/or symptoms of chronic depression.
- TREND: Has increased significantly since 2014.

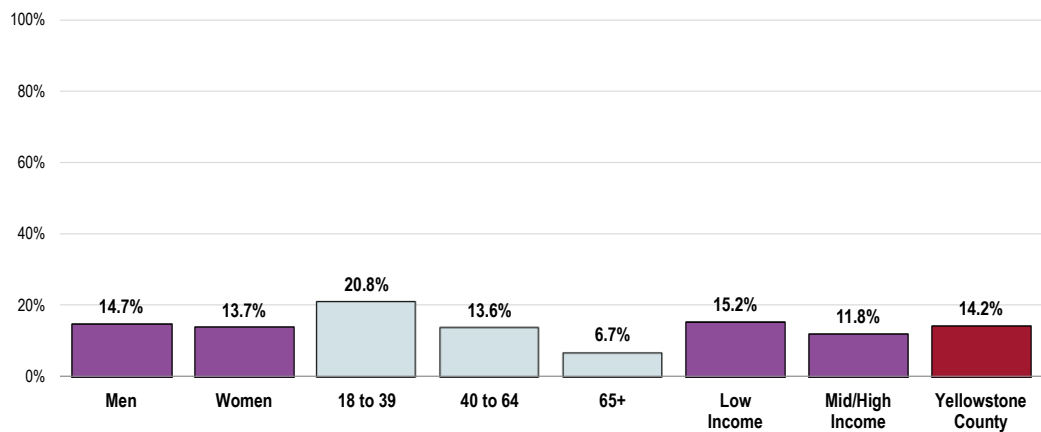
### Have Considered Suicide



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 313]  
 Notes: • Asked of all respondents.

- The percentage of adults considering suicide is significantly higher among younger adults (note the negative association with age).

### Have Considered Suicide (Yellowstone County, 2017)



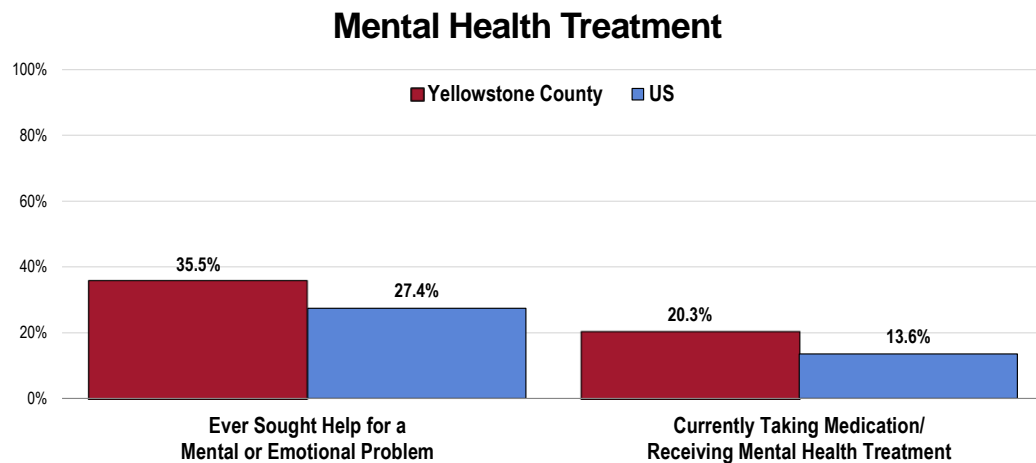
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 313]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Mental Health Treatment

A total of 35.5% of Yellowstone County adults acknowledge having ever sought professional help for a mental or emotional problem.

A total of 20.3% are currently taking medication or receiving treatment from a doctor or other health professional for some type of mental health condition or emotional problem.

- Compared to national findings, the proportion of Yellowstone County residents seeking help for a mental or emotional problem is higher, as is the proportion currently taking medication or receiving treatment for their mental health.



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 120-121]

• 2015 PRC National Health Survey, Professional Research Consultants, Inc.

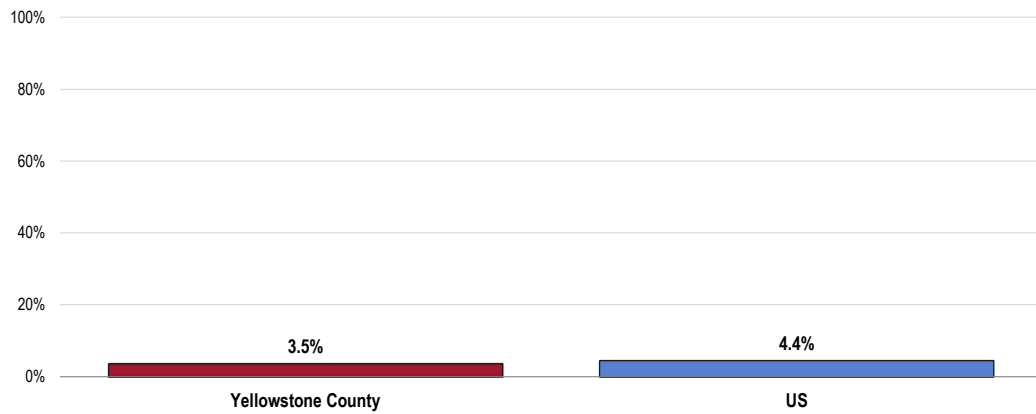
Notes: • Reflects the total sample of respondents.

## Difficulty Accessing Mental Health Services

A total of 3.5% of Yellowstone County adults report a time in the past year when they needed mental health services, but were not able to get them.

- Similar to the national finding.

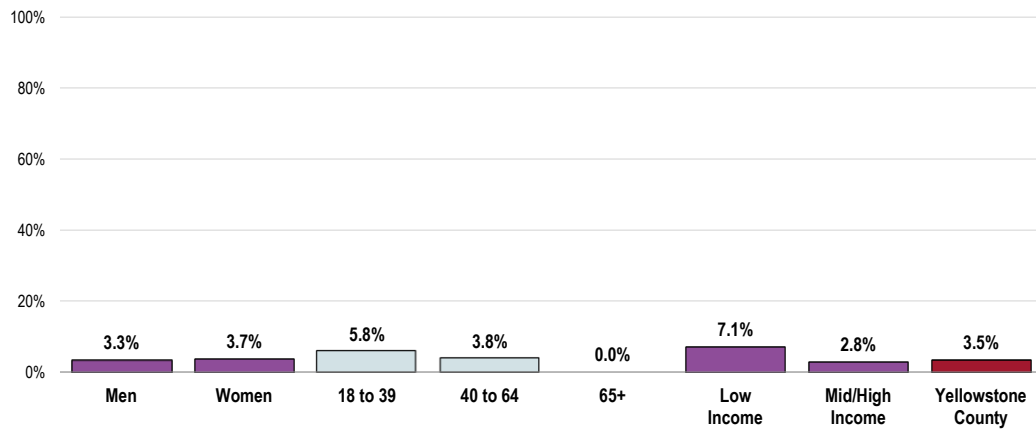
### Unable to Get Mental Health Services When Needed in the Past Year



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 122]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- Note that access difficulty is notably more prevalent among adults under age 65.

### Unable to Get Mental Health Services When Needed in the Past Year (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 122]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Among the 10 persons citing difficulties accessing mental health services in the past year, these are predominantly attributed to **lack of doctors**; reasons mentioned less frequently include barriers such as lack of services, cost or lack of insurance, lack of transportation, poor communication, and personal health reasons.

## Key Informant Input: Mental Health

Nearly three-fourths of key informants taking part in an online survey characterized *Mental Health* as a “major problem” in the community.

### Perceptions of Mental Health as a Problem in the Community (Key Informants, 2017)

■ Major Problem ■ Moderate Problem ■ Minor Problem ■ No Problem At All



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: ● Asked of all respondents.

### Challenges

Among those rating this issue as a “major problem,” the following represent what key informants see as the main challenges for persons with mental illness:

#### Access to Providers

*Lack of providers and access to providers, especially for certain groups like youth. The Community Crisis Center does a great job, but it's not really geared toward teens or kids. There's still some stigma associated with mental illness, which might make people less inclined to seek help until things have progressed to a crisis situation. Primary care providers aren't always comfortable treating mental illness. Medications for mental illness can be expensive and some individuals might not afford them. A "cowboy" mentality and social isolation make it difficult for individuals to seek help. Combine those factors with easy access to firearms, and there's a high risk for suicide. We also have individuals self-medicating with drugs and alcohol, instead of seeking help- either due to access or stigma. - Healthcare Provider*

*Montana does not have an adequate number of psychiatrists. And because of the shortage in psychiatric care, many go without a proper diagnosis, which creates more problems for those with mental health problems (like the wrong medications due to improper diagnosis). And worse: self-medication (like illegal drugs) or abuse of the wrong type of prescription medication (like opiate painkillers). I believe that inadequate funding for psychiatric residencies and overall funding for mental health service providers are our biggest challenges - unless you count the underlying reasons for mental health issues, like poverty, joblessness, generational lack of ability to learn about resources, and the accompanying problems like homelessness and abuse that result from poverty. Montana is a poor state, and women and children disproportionately represent our poor, thus becoming our mentally ill, our drug addicted and our incarcerated. - Government Representative*

*Very limited psychiatry services, waiting lists, or not accepting new patients at other clinics. Cost associated with psychiatry services, as few providers accept Medicaid. Limited after-care follow-up services once they have psych hospitalization. Limited training in schools and police departments as to mental health needs in the community and how to address. - Public Health Representative*

*The biggest issue is getting help and actually being able to see a mental health specialist. There just aren't enough for the amount of mental health issues that are in our community. I am seeing an increase in mental health issues in children. If a child has these issues, it is often hard to find inexpensive or affordable resources for families. Unfortunately, this often results in kids going undiagnosed (and therefore untreated) until a major episode (i.e., having to call emergency services). Suicide/suicide attempts by our young people is also on the rise. Challenges are community awareness regarding mental health issues and actually being able to access the help needed. - Educator*

*Severe shortage of mental health providers with prescriptive authority. Long waits for access to psychiatry for low-income/underserved populations. - Public Health Representative*



*Lack of providers- both physician and counselors. Great distances involved (60% of our referral area is classified as "frontier" by the federal government, which is below rural in regards to population density). Heavy drug and alcohol can be both the cart and the horse. - Healthcare Provider*

*Access to care. There are not enough psychiatrists to serve the population, and most of the good professionals- other than psychiatrists- are not accepting new patients. - Healthcare Provider*

*Lack of professional resources, psychiatrists, and few acute care beds for individuals with mental illness. - Healthcare Provider*

*There aren't enough psychiatrists. Patients needing new medication are sent to the ER, where they are evaluated for suicidal tendencies and then leave without medication. It is up to a five-month wait to get into a specialist. - Educator*

*Lack of access to mental health professionals is a major concern for families that do not have transportation, nor the resources to pay for ongoing therapy and medications. - Educator*

*Lack of mental health providers. Ambulance and other first responders are overwhelmed when 911 calls come in for mental health or related emergencies (intoxication, for example) and have no option but to take patients to the hospital emergency department. - Business Leader*

*Mental health psychiatrist shortage, lack of prescribers for seriously mentally ill, co-occurring disorders, mental health training and supervision for clinical hours, emergency intervention needs. - Public Health Representative*

*Not enough providers; people are unable to get in to see providers. It can take months for a new patient. No PCP support - should have psych resources in the clinics so patients can see psych when seeing medical. RiverStone had this but stopped. Drugs are expensive and difficult to get. RiverStone may help; the CCC does, but it's still expensive. Homelessness is a real issue; people without homes are more prone to MH issues and are less likely to get and take meds, etc. Housing is expensive and not easy to get into if the patient has any kind of record. - Healthcare Provider*

*Access to mental health providers is extremely limited, particularly for children. Families can wait months to see a counselor. Mental health supports for individuals who speak Spanish or other languages is nonexistent. Good mental health practices are not encouraged at a community level - no public awareness about postpartum depression, limited attention to precursors to suicide...the community simply doesn't talk about the widespread mental health challenges. - Educator*

*I worked with many patients who desperately needed mental health care. But in Billings, there are not enough mental health providers/resources to assist. Wait lists are long to see psychiatrists, and the ones who may not have wait lists don't accept certain insurances, or have other criteria that narrow the scope for care. Many people can't afford to get mental health care or don't seek resources for assistance. Several I've seen are either low income or homeless and have other needs to meet, as well. - Public Health Representative*

*Huge shortage of mental health professionals. - Public Health Representative*

*There seems to be a big shortage of psychiatrists; help is very expensive, and too many people end up in the emergency room because they are not getting the treatment they need. - Business Leader*

*Not enough mental health professions (lack of access). Social stigma. Related substance abuse for self-medicating. - Educator*

*Access to providers and follow-up care/advocacy - Community Leader*

*There is a lack of providers and a poor coordination of providers. - Community Leader*

*Too many people in need, too few practitioners. - Community Leader*

*Lack of access to care. Minimal number of providers. - Healthcare Provider*

*Not enough mental health providers, especially for those without insurance. - Healthcare Provider*

*Finding physicians for treatment and counseling. - Community Leader*

*Access to Mental Health professionals. Funding for medications and therapy. Stigma. Community knowledge regarding mental health issues. - Community Leader*

*There is a lack of doctors to help. There is also a lack of places for them to go. - Community Leader*

*Finding enough case workers to make sure that mentally challenged individuals have the programming, care and follow-through that they need to lead as productive of a life as possible. - Educator*

*Shortage of psychiatrists. Difficulty in getting timely appointments. Insufficient health coverage available to all residents. - Healthcare Provider*

*Lack of access to psychiatrists, instability of community mental health center. - Public Health Representative*

*The biggest challenges are access to specialty care, especially access to psychiatrists. - Public Health Representative*

*Decreased number of providers. - Educator*

*Limited access to psychiatry - Public Health Representative*

*We are desperately short on psychiatrists, and many physicians are not willing to treat severe mental illness. - Community Leader*

*Resources for people with mental health to obtain care with psychiatry and counseling. - Public Health Representative*

*Complete lack of qualified practitioners and little- if any- access by lower income groups to care. - Educator*

*Available mental health treatment specialists and psychiatry is very limited. - Government Representative*

### Access to Care/Services

*Access to care is by far the biggest barrier in Yellowstone County. Yellowstone County houses a large percentage of patients in need of mental health care and has a small amount of resources available in the way of psychiatric care. - Public Health Representative*

*Lack of resources for outpatient and inpatient mental health, whether a patient is insured or not. We as a community and a nation address it on the backend through ED visits, violence, suicide, and jail- And pay those higher costs, rather than appropriately funding mental health services to prevent many of these things from occurring. - Healthcare Provider*

*Waiting lists. The inability of non-profits to refer clients who need help. I have heard nonprofits talk about calling several mental health professionals to get help for clients and experiencing waiting lists, barriers to getting clients to appointments, and lack of responsiveness on the part of providers (not returning calls, etc.). - Community Leader*

*I only know of one crisis center for mental health issues in town. I work in higher education, where we are seeing exponential increases in mental health issues with incoming students. Students have gone to the crisis center for treatment, only to be let out after a couple of hours and then end up back there only when more harm to self occurs. - Community Leader*

*Finding easy access to resources, or having an access point to find mental health needs. I have witnessed many people needing access to mental health facilities. But because of the demand, it seems that the institution that can provide some health is too full or does not have room for the person. Lack of insurance seems to be another hurdle in order to get the mental health they need. I definitely feel that our community is lacking in the amount of resources available for an ever-growing demand for mental health professionals. - Educator*

*Limited access to ongoing care, due to limited resources. Long waiting periods. A secondary issue is the willingness of the affected person to seek care and maintain a medication regimen when warranted. Offenders who are in community placements are ineligible for Medicare and services. Homelessness and addiction are also factors in the failure to seek care. - Community Leader*

*Access to care. As an educator, I have seen case after case where students or family members have been unable to access care/counseling for their issues. Although it is not as common, we do see a real need for services to students with eating disorders. - Educator*

*Timely access to professional appointments and psychiatrists. Not an adequate supply of community-based programs for case management. Sustainable reimbursement for the Community Mental Health Center. - Healthcare Provider*

*I think the biggest issue is getting treatment to those who need it. The downtown effort has been successful with the inebriate program, but how many of our homeless and other residents suffer from mental illness and have no way of receiving treatment? - Government Representative*

*The biggest challenges include: long-term support for people with chronic mental illness, housing and employment opportunities, and long-term medical and counseling services. For a person with a mental illness, there has to be a grouping of wrap around services that deal with acute episodes and with leading a normalized life. Also important is access to a psychiatrist with expertise in prescribing and monitoring psychotropic medications. Getting in to see a psychiatrist is difficult; wait periods are long. - Government Representative*

*The perceived length of time it will take to get into see someone once an individual admits to themselves that they need some help. Then the problem with people going off their medications once they have gotten assistance because they feel good, so they don't need the medication. - Community Leader*

*Mental health services. While this is getting better, it still needs a lot of attention. The range of mental health problems is vast, and not one place can meet the needs of all people. Education and being encouraged to seek help remain of utmost importance. - Business Leader*

*Terrible lack of access to care. Even when there is access, it isn't always great. Needs to be a community-wide focus. - Healthcare Provider*

*People with mental health issues need more medical and social services. - Community Leader*

*Access to mental health services is limited; when available, there are long wait times. - Community Leader*

*Lack of resources and professionals, places to deal with the spectrum of issues, and help for families who have people in the system. - Government Representative*

*Address the problem with the people that need help. Too often, people cannot find help. - Community Leader*

*Access to help, proper diagnosis and affordability are the greatest obstacles, in my opinion. - Community Leader*

*Accessing services, staying connected to service providers and participating in treatment plans. - Community Leader*

*Access to care, as well as decreased stigma to get the help they need. - Public Health Representative*

*Access to support. Those in highest need are most frequently least able to access services. - Educator*

*Lack of resources and ability to manage themselves. - Community Leader*

*Accessing quality services to meet their needs. - Community Leader*

*Lack of services, lack of access to care. - Healthcare Provider*

*Lack of access to quality continued care. - Healthcare Provider*

*Not having available services. - Healthcare Provider*

*Access to treatment, stigma of mental illness. - Community Leader*

*Access to care, lack of coordination of care. - Community Leader*

*Availability of resources for treating persons with mental illness. - Healthcare Provider*

*Not enough mental health services in schools - Educator*

*Lack of services for young adults. - Business Leader*

*Lack of resources/providers. - Healthcare Provider*

*Lack of help and support for them. - Community Leader*

*Access. Limited resources. - Government Representative*

*Access to care. Cost. - Business Leader*

*Access to care. - Healthcare Provider*

*Access. - Educator*

### **Denial/Stigma**

*There is still a stigma that comes with mental health, and many people are unaware of the options for assistance to these problems. Youth mental health awareness is increasing, but it appears that self-injurious behaviors and suicide are still common among our youth. From what I understand, adult mental health treatment is more difficult to access. Oftentimes, we are able to meet our children's mental health needs, but then we send them back into the same environment with guardians who are still struggling from their own mental health issues and have not had as much success with treatment. - Community Leader*

*What if we put mental health care before physical health care? Instead of requiring an annual physical, require an annual session with a mental health provider. There is still a stigma surrounding this topic that needs to be addressed. I suspect there is a shortage of mental health professionals. Those with PTSD or addiction may not be aware of the services provided to them. Don't forget about everyday people, too, struggling with relationships, or women suffering from the baby blues; the list is, unfortunately, really long. We are all vulnerable to mental health issues at any point in our lives. - Business Leader*

*Not everyone gets the help they need when they have mental health issues. I work with seniors, and loneliness and depression are huge. I refer people to resources, but for many people- especially older citizens- there is a stigma in going for help. - Community Leader*

*Stigma, lack of awareness of resources available in the community, funding and payment issues. - Healthcare Provider*

*The stigma or culture of not seeking help. The lack of psychiatrists available. The high fiscal cost of accessing the services needed. - Public Health Representative*

*Overcoming the fear of speaking up and asking for help. Community support. Consistent access to care. - Business Leader*

*Stigma and lack of available resources. - Healthcare Provider*

*Stigma, lack of acceptance that mental health is a health issue. Lack of education on resources within our community and the lack of funds to pay for mental health care. - Community Leader*

### **Affordable Care/Services**

*Access to affordable and adequate treatment is the biggest challenge. The paperwork burden, appointment wait time, and transportation to services need to be improved greatly. There also needs to be providers who represent the racial backgrounds of the patients they serve as a means to increase the trust of the patients and the knowledge of heritage/culture that may be essential to a holistic treatment plan. - Educator*

*Individuals with mental health issues in many cases do not receive the treatment they need, due to lack of funds to pay or a long waiting list to get into providers. - Community Leader*

*The need outstrips system capacity for services, especially for those who cannot pay for what they need. - Business Leader*

*The ability to pay for services. - Community Leader*

*Access and affordability - Community Leader*

*Cost, access to care, stigma. - Healthcare Provider*

*Limited access without income. - Healthcare Provider*

*Not enough resources, can't afford. - Business Leader*

*Finding affordable care. Stigma and lack of public acceptance. - Business Leader*

### **Prevalence/Incidence**

*Many of my clients battle mental illness, either diagnosed or undiagnosed. This is a major barrier to them in categories, such as keeping a job, having reliable income, relationships, substance abuse, hygiene and other health needs. I have found that some of my clients struggle with being able to afford their medications that help them function successfully and finding free or low-cost counseling to help them heal or cope. I've notice grief counseling is a need of some of my clients, as well. - Community Leader*

*Mental health is very high for all races in Yellowstone County. - Healthcare Provider*

*Second to substance abuse, I feel this is the largest health issue in Yellowstone County. I work for a nonprofit, where the overwhelming majority of families have at least one family member who needs mental health services, and the family struggles to find the appropriate help. - Community Leader*

*A high number of patients admitted to the hospitals for medical conditions also have mental health components. There is a shortage of mental health providers, so patients cannot be seen in a timely manner. - Healthcare Provider*

*Have had family members and friends who have had mental problems. - Community Leader*

*This is the largest issue that has a serious impact on our community. - Community Leader*

*Mental illness. Suicide rate. Stigma - Government Representative*

### **Health Education**

*Lack of education regarding mental illness is an issue. People continue to stigmatize mental health issues, and many people are not properly diagnosed or do not stay on a regular schedule of care. Also, environments do not change, due to lack of knowledge and resources. - Educator*

*There is a 'cowboy-up' attitude in Montana that still looks at mental health as a personal issue, not a health issue. Counseling is expensive. Many mental health issues also are exacerbated by the large drug/alcohol abuse issues. - Educator*

*Individuals suffering from mental health conditions do not always realize the severity of their condition and they do not understand than can get help. Those who do seek help find it cost-prohibitive to continue with a care plan/treatment consistently. - Community Leader*

*Lack of understanding of what mental health issues truly are; stigma about having a mental health issue; accessibility to doctors and medicines. - Business Leader*

*Outreach to those in need. Knowledge as to where to go. Access and cost to that resource. Stigma for some. Lack of collaboration and networking for effective success. - Community Leader*

### Vulnerable Populations

Growing numbers of Native youth experiencing PTSD, depression, anxiety, ADHD or other mental health issues, and not enough resources to address this. - Educator

Racism. Institutional power systems that consciously and unconsciously make decisions that cut against vulnerable populations. - Community Leader

Under-resourced populations- including low income people, the homeless and people of color- do not have the same access to mental health resources, either because of financial reasons or the stigma often associated with access mental health services. - Public Health Representative

### Disease Management

Those who have mental health issues and are over the age of 18 often seem to believe they do not have a mental health issue, or do not take their medication on a continuous cycle; therefore, they then have a crisis or episode of some sort. They also have a tendency to self-medicate by using other substances, such as alcohol or drugs, often exacerbating the systems. Those under the age of 18 are being identified either by parents/guardians or school personnel or other family members and then are being directed to services, which are covered if the child is on Medicaid- and only for a short period of time, but usually not if on private insurance. - Community Leader

Using prescribed drugs as instructed, illegal drug and alcohol abuse. Ability to seek and sustain employment. Lack of housing and transportation. Suicidal behavior. - Community Leader

The issue is that they are suffering with mental health problems and often don't take their medications. There are people with mental health problems living on the streets and walking around downtown. Sometimes I worry that they are not harmless. - Community Leader

### National Issue

I think mental health is a growing concern nationally. As we've addressed some of the stigma of mental health and better understand how to support loved ones experiencing mental health challenges, more people are requesting these services. The problem is when these services are unavailable due to cost, hours, and availability of providers/appointments. I also believe many community members involved in corrective facilities (and even on IEPs in schools) could benefit from access to comprehensive mental health screening and treatment. - Public Health Representative

Mental health is probably the primary concern for every community across the country. Particular to eastern Montana, there is very limited access to mental health professionals. Montana is always in the top 3 for suicide rate, which is not a statistic to be proud of. - Healthcare Provider

We as a nation have felt the problems that come with poor mental health. - Government Representative

### Suicide Rate

Our rate of suicide is one of the highest in the nation for adults, teens and youth. We have access issues for connecting to mental health professionals for both counseling and outpatient services. The number of designated beds for mental health patients is limited and usually at capacity. Designated beds in psychiatric-designated facilities are minimal and do not meet the needs of the region. There is stigma around mental health that keeps parents from seeking help at earliest presentation of symptoms. There is stigma that keeps patients from seeking help for themselves. There is confusion about where to get help and whether a patient should talk to a primary care provider, seek a counselor, reach out to a psychiatrist or psychologist, or to seek immediate help at an emergency department. Mental health issues can affect relationships, the ability to maintain a job, and reduce sound decision making. The outcome is a financial drain and reduces the health of our community. - Healthcare Provider

Suicide prevention education. We are number one per capital. - Community Leader

High suicide. - Healthcare Provider

### Comorbidities

Dually-diagnosed persons (mental health and substance abuse). Persons medicating mental illness with legal and illegal drugs. There are almost no psychiatric services available, and wait lists are unacceptable. Billings Clinic PAC evaluation process is too long- 5-10 hours. - Public Health Representative

Many criminal actions involve co-occurring mental health and substance abuse issues. Significant number of suicides. - Government Representative



### **Social Isolation**

*Social isolation leads to problems with maintaining good mental health, good physical health, and may be connected with worse health outcomes. In the outlying rural communities, especially, a lack of transportation options and lack of community facilities mean people can become very isolated. - Healthcare Provider*

*Social connectivity, and the reason is 1960s zoning for suburbia and the automobile. - Government Representative*

### **Socioeconomic Factors**

*If you pay attention in our community, it is well-known that our homelessness problem and our substance abuse problems are all linked to a lack of mental health care availability. The psychiatric center at Billings Clinic is often at capacity. Many who need treatment then end up crowding our jails. - Business Leader*

*They are unable to secure jobs and housing; thus, their situation is worsened. - Community Leader*

### **Lack of Funding**

*Not enough state and federal funds put into community mental health centers - Community Leader*

*Lack of funding for those professionals that provide appropriate and effective mental health services. There is a lack of family-based interventions, rather than individual services. Family support is critical to affecting change regarding this issue. Access and feeling welcomed in an environment that is healthy for American Indians is a problem. Everything is so "sterile" (such as no noise), to "office like" (hospital setting, rich appearance, etc.). - Community Leader*

### **Environmental Contributors**

*People walk around downtown, drinking, homeless. Many other people are in such a hurry to get things done that it stresses them to the maximum. I think two problems are big for mental health: 1) Automobile-Induced Malbehavioral Dis-adjustment Disorder (jerks because of cars), and 2. This place is the center of one of the largest genocides that took place in the history of the planet, and we ignore it, while there is something underneath that stews. There is much sacred land in Montana. It's not happy, and it makes others unhappy. - Government Representative*

### **Medicare/Medicaid**

*People that I know have serious mental health issues. They are relegated to using Medicaid, which has strict limitations, and the level of qualifications for providers is not what it needs to be. Why can't people with mental health issues see a clinical psychologist or a psychiatrist? Medicaid allows them to see a minimally qualified person, such as a LCPC or human services person, but that is not adequate. - Educator*

### **Coordination of Care**

*Coordinating the vast resources available in the community and making sure services are aligned between organizations. Getting care at the right place, by the right people. The two hospitals have a tremendous opportunity to integrate behavioral health into their systems, which would help immensely. - Healthcare Provider*

# Modifiable Health Risks



Professional Research Consultants, Inc.

## Actual Causes of Death

### About Contributors to Mortality

A 1999 study (an update to a landmark 1993 study), estimated that as many as 40% of premature deaths in the United States are attributed to behavioral factors. This study found that behavior patterns represent the single-most prominent domain of influence over health prospects in the United States. The daily choices we make with respect to diet, physical activity, and sex; the substance abuse and addictions to which we fall prey; our approach to safety; and our coping strategies in confronting stress are all important determinants of health.

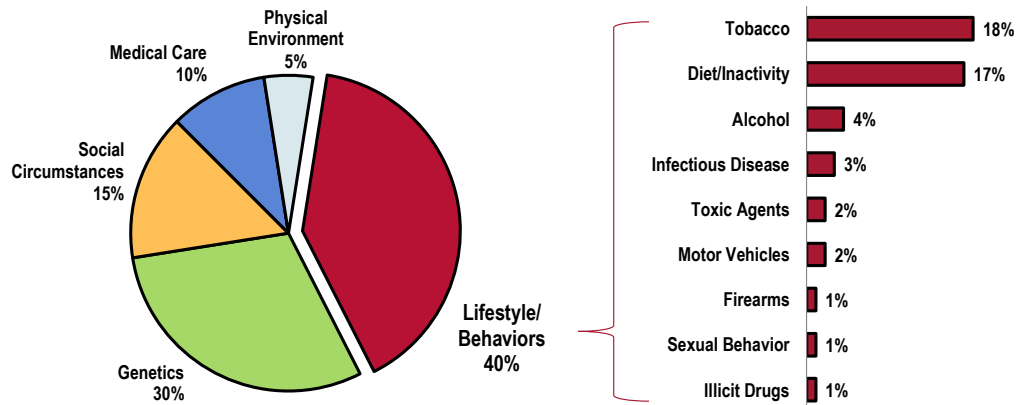
The most prominent contributors to mortality in the United States in 2000 were **tobacco** (an estimated 435,000 deaths), **diet and activity** patterns (400,000), **alcohol** (85,000), **microbial agents** (75,000), **toxic agents** (55,000), **motor vehicles** (43,000), **firearms** (29,000), **sexual behavior** (20,000), and **illicit use of drugs** (17,000). Socioeconomic status and access to medical care are also important contributors, but difficult to quantify independent of the other factors cited. Because the studies reviewed used different approaches to derive estimates, the stated numbers should be viewed as first approximations.

These analyses show that smoking remains the leading cause of mortality. However, poor diet and physical inactivity may soon overtake tobacco as the leading cause of death. These findings, along with escalating healthcare costs and aging population, argue persuasively that the need to establish a more preventive orientation in the US healthcare and public health systems has become more urgent.

- Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, PhD, MSc; Julie L. Gerberding, MD, MPH. "Actual Causes of Death in the United States." JAMA, 291(2004):1238-1245.

While causes of death are typically described as the diseases or injuries immediately precipitating the end of life, a few important studies have shown that the actual causes of premature death (reflecting underlying risk factors) are often preventable.

### Factors Contributing to Premature Deaths in the United States



Sources: • "The Case For More Active Policy Attention to Health Promotion"; (McGinnis, Williams-Russo, Knickman) Health Affairs. Vol. 32. No. 2. March/April 2002.  
 "Actual Causes of Death in the United States"; (Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, PhD, MSc; Julie L. Gerberding, MD, MPH.) JAMA. 291 (2000) 1238-1245.



## Nutrition

### About Healthful Diet & Healthy Weight

Strong science exists supporting the health benefits of eating a healthful diet and maintaining a healthy body weight. Efforts to change diet and weight should address individual behaviors, as well as the policies and environments that support these behaviors in settings such as schools, worksites, healthcare organizations, and communities.

The goal of promoting healthful diets and healthy weight encompasses increasing household food security and eliminating hunger.

Americans with a healthful diet:

- Consume a variety of nutrient-dense foods within and across the food groups, especially whole grains, fruits, vegetables, low-fat or fat-free milk or milk products, and lean meats and other protein sources.
- Limit the intake of saturated and trans fats, cholesterol, added sugars, sodium (salt), and alcohol.
- Limit caloric intake to meet caloric needs.

Diet and body weight are related to health status. Good nutrition is important to the growth and development of children. A healthful diet also helps Americans reduce their risks for many health conditions, including: overweight and obesity; malnutrition; iron-deficiency anemia; heart disease; high blood pressure; dyslipidemia (poor lipid profiles); type 2 diabetes; osteoporosis; oral disease; constipation; diverticular disease; and some cancers.

Diet reflects the variety of foods and beverages consumed over time and in settings such as worksites, schools, restaurants, and the home. Interventions to support a healthier diet can help ensure that:

- Individuals have the knowledge and skills to make healthier choices.
- Healthier options are available and affordable.

**Social Determinants of Diet.** Demographic characteristics of those with a more healthful diet vary with the nutrient or food studied. However, most Americans need to improve some aspect of their diet.

Social factors thought to influence diet include:

- Knowledge and attitudes
- Skills
- Social support
- Societal and cultural norms
- Food and agricultural policies
- Food assistance programs
- Economic price systems

**Physical Determinants of Diet.** Access to and availability of healthier foods can help people follow healthful diets. For example, better access to retail venues that sell healthier options may have a positive impact on a person's diet; these venues may be less available in low-income or rural neighborhoods.

The places where people eat appear to influence their diet. For example, foods eaten away from home often have more calories and are of lower nutritional quality than foods prepared at home.

Marketing also influences people's—particularly children's—food choices.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

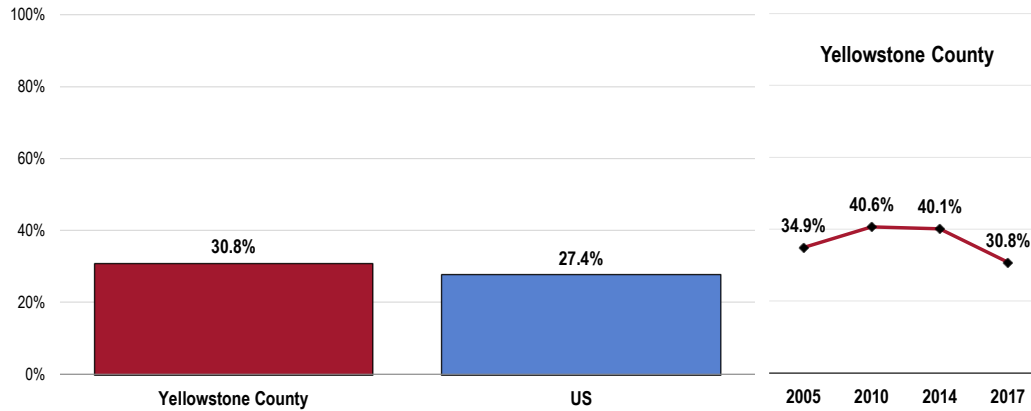
## Daily Recommendation of Fruits/Vegetables

A total of 30.8% of Yellowstone County adults report eating five or more servings of fruits and/or vegetables per day.

To measure fruit and vegetable consumption, survey respondents were asked multiple questions, specifically about the foods and drinks they consumed on the day prior to the interview.

- Comparable to national findings.
- TREND: Fruit/vegetable consumption has decreased significantly since 2010 and 2014, but is statistically similar to 2005 findings.

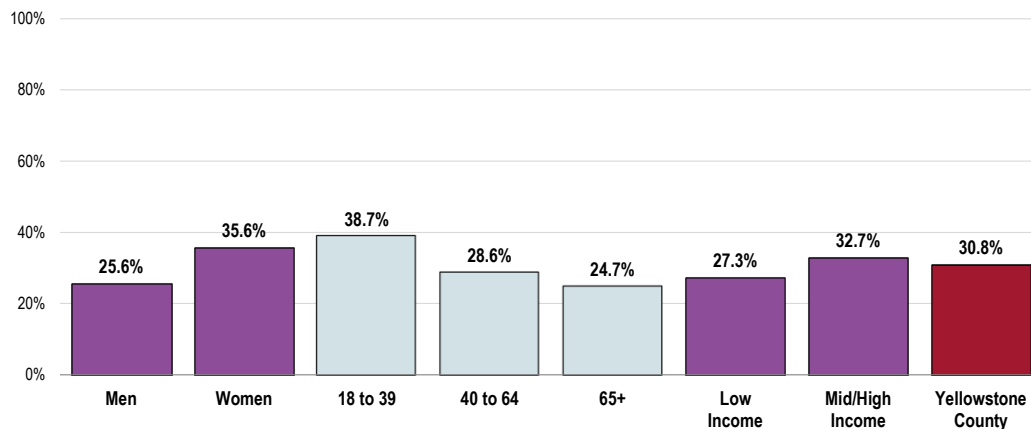
### Consume Five or More Servings of Fruits/Vegetables Per Day



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 168]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.  
 • For this issue, respondents were asked to recall their food intake on the previous day.

- Area men are less likely to get the recommended servings of daily fruits/vegetables, as are older adults (age 40 and over).

### Consume Five or More Servings of Fruits/Vegetables Per Day (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 168]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 • For this issue, respondents were asked to recall their food intake on the previous day.

## Access to Fresh Produce

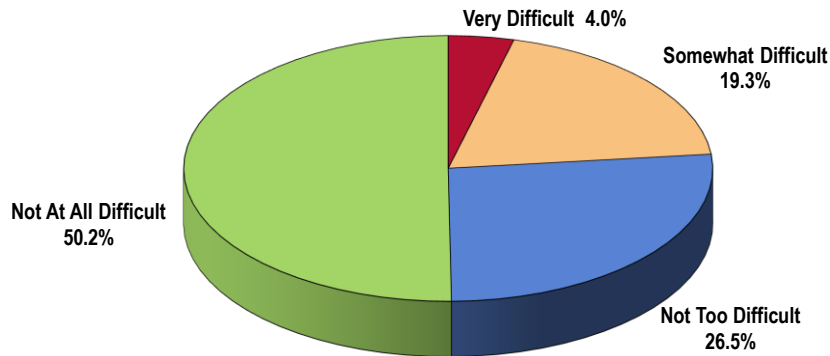
### Difficulty Accessing Fresh Produce

While most report little or no difficulty, 23.3% of Yellowstone County adults find it “very” or “somewhat” difficult to access affordable, fresh fruits and vegetables.

Respondents were asked:

“How difficult is it for you to buy fresh produce like fruits and vegetables at a price you can afford? Would you say: Very Difficult, Somewhat Difficult, Not Too Difficult, or Not At All Difficult?”

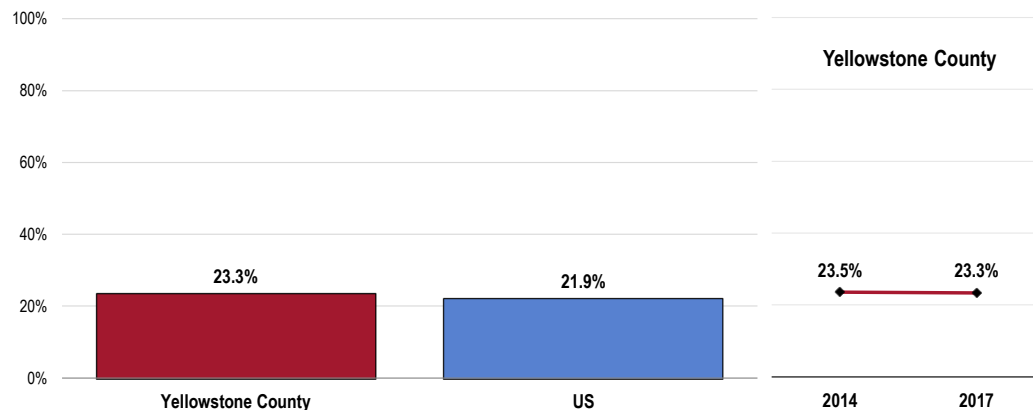
### Level of Difficulty Finding Fresh Produce at an Affordable Price (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 103]  
Notes: • Asked of all respondents.

- Similar to national findings.
- TREND: Statistically similar to the prevalence found in 2014.

### Find It “Very” or “Somewhat” Difficult to Buy Affordable Fresh Produce

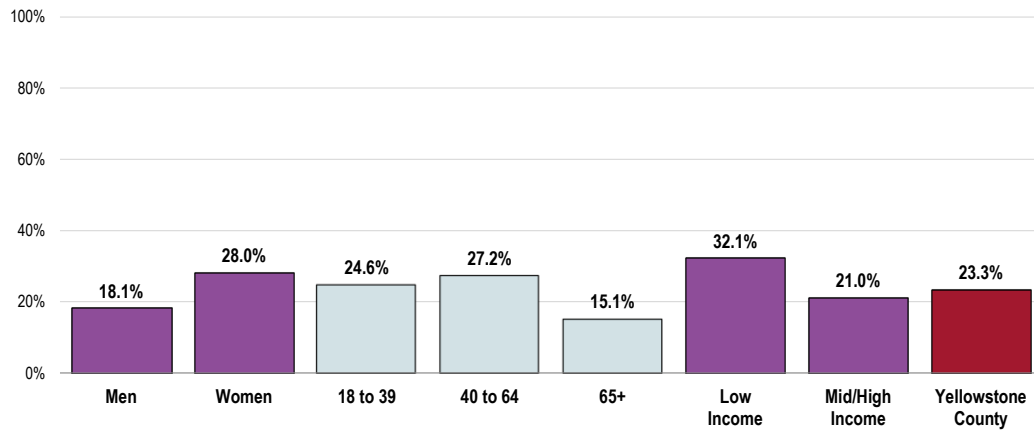


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 103]  
• 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
Notes: • Asked of all respondents.

Those more likely to report difficulty getting fresh fruits and vegetables include:

- Women.
- Adults age 40 to 64.

### Find It “Very” or “Somewhat” Difficult to Buy Affordable Fresh Produce (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 103]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

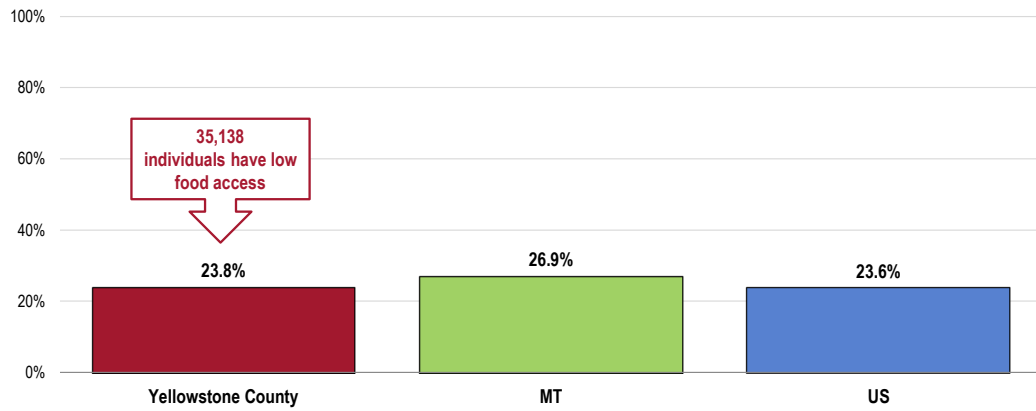
A food desert is defined as a low-income area where a significant number or share of residents is far from a supermarket, where "far" is more than 1 mile in urban areas and more than 10 miles in rural areas.

### Low Food Access (Food Deserts)

US Department of Agriculture data show that 23.8% of the Yellowstone County population (representing over 35,100 residents) have low food access or live in a “food desert,” meaning that they do not live near a supermarket or large grocery store.

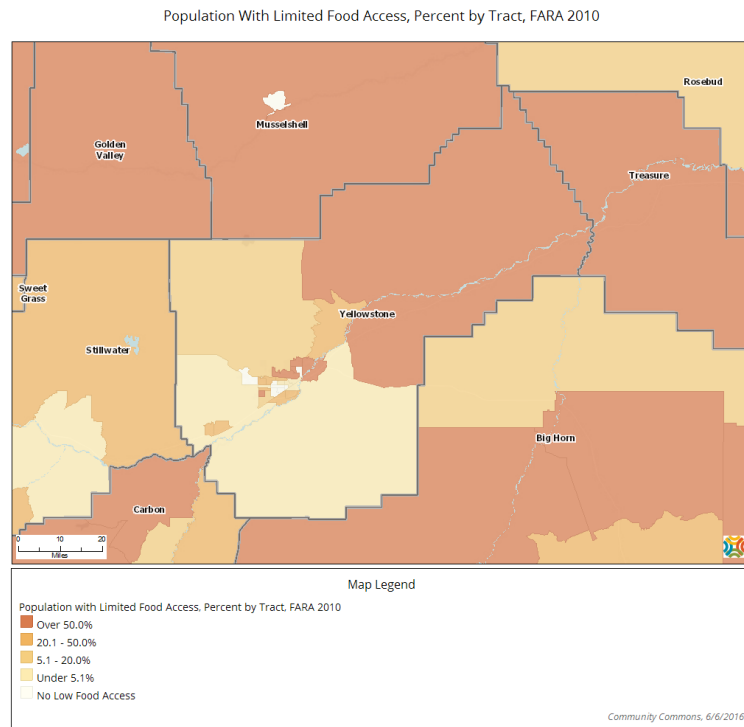
- More favorable than statewide findings.
- Nearly identical to national findings.

### Population With Low Food Access (Percent of Population That Is Far From a Supermarket or Large Grocery Store, 2010)



- Sources:
- US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas (FARA).
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator reports the percentage of the population living in census tracts designated as food deserts. A food desert is defined as low-income areas where a significant number or share of residents is far from a supermarket, where "far" is more than 1 mile in urban areas and more than 10 miles in rural areas. This indicator is relevant because it highlights populations and geographies facing food insecurity.

- The following map provides an illustration of food deserts by census tract. Note the large share of residents with limited food access in the northeastern section of Yellowstone County.

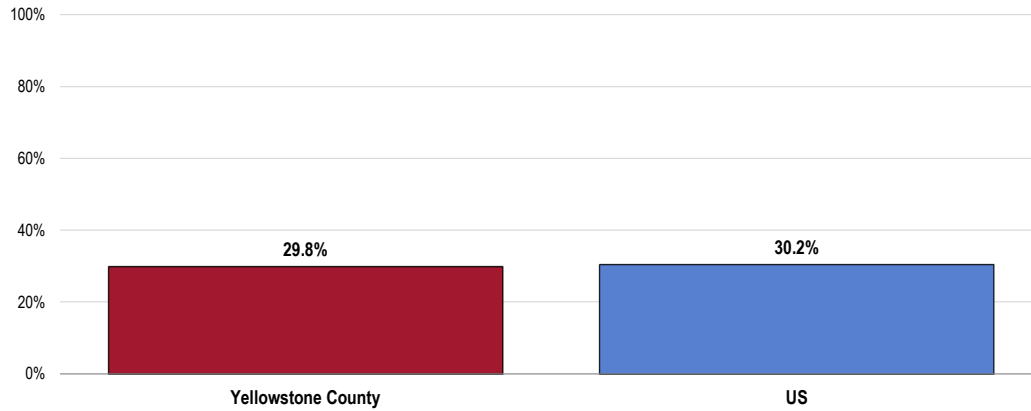


## Sugar-Sweetened Beverages

A total of 29.8% of Yellowstone County adults report drinking an average of at least one sugar-sweetened beverage per day in the past week.

- Similar to national findings.

### Had Seven or More Sugar-Sweetened Beverages in the Past Week



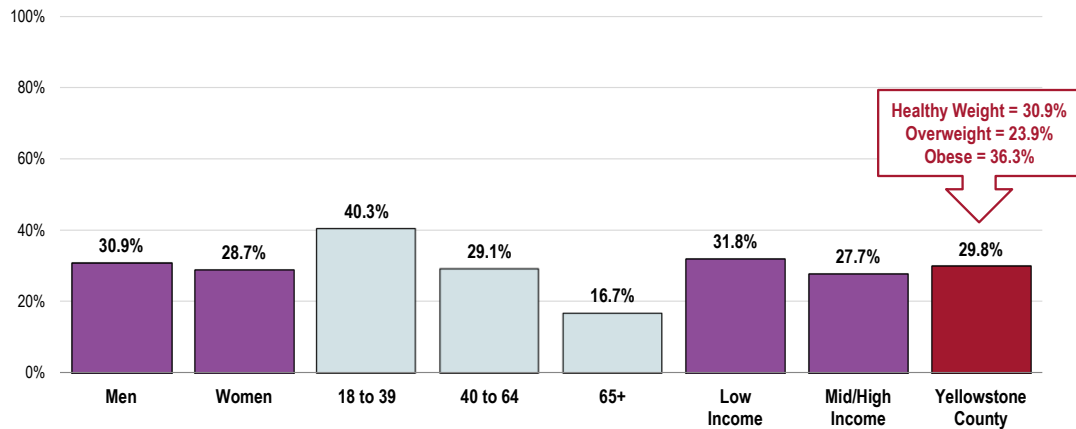
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 212]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

Those more likely to consume this level of sugar-sweetened beverages include:

- Younger adults (note the negative association with age).
- Obese residents.

### Had Seven or More Sugar-Sweetened Beverages in the Past Week (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 212]

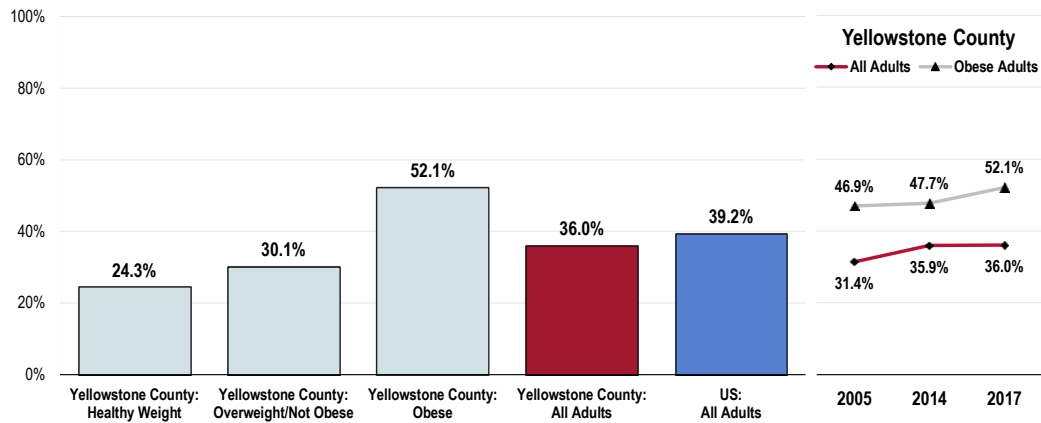
Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with defined poverty status up to incomes just above the FPL, earning up to twice the poverty threshold; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Health Advice About Diet & Nutrition

A total of 36.0% of survey respondents acknowledge that a physician counseled them about diet and nutrition in the past year.

- Statistically comparable to national findings.
- TREND: Statistically unchanged since 2005.
  - Among obese adults, findings are statistically unchanged over time as well.
- Note: Among overweight/obese respondents, 41.7% report receiving diet/nutrition advice (meaning that over one-half did not).

### Have Received Advice About Diet and Nutrition in the Past Year From a Physician, Nurse, or Other Health Professional (By Weight Classification)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 302]  
 • 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

## Physical Activity

### About Physical Activity

Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Among adults and older adults, physical activity can lower the risk of: early death; coronary heart disease; stroke; high blood pressure; type 2 diabetes; breast and colon cancer; falls; and depression. Among children and adolescents, physical activity can: improve bone health; improve cardiorespiratory and muscular fitness; decrease levels of body fat; and reduce symptoms of depression. For people who are inactive, even small increases in physical activity are associated with health benefits.

Personal, social, economic, and environmental factors all play a role in physical activity levels among youth, adults, and older adults. Understanding the barriers to and facilitators of physical activity is important to ensure the effectiveness of interventions and other actions to improve levels of physical activity.

Factors **positively** associated with adult physical activity include: postsecondary education; higher income; enjoyment of exercise; expectation of benefits; belief in ability to exercise (self-efficacy); history of activity in adulthood; social support from peers, family, or spouse; access to and satisfaction with facilities; enjoyable scenery; and safe neighborhoods.

Factors **negatively** associated with adult physical activity include: advancing age; low income; lack of time; low motivation; rural residency; perception of great effort needed for exercise; overweight or obesity; perception of poor health; and being disabled. Older adults may have additional factors that keep them from being physically active, including lack of social support, lack of transportation to facilities, fear of injury, and cost of programs.

Among children ages 4 to 12, the following factors have a positive association with physical activity: gender (boys); belief in ability to be active (self-efficacy); and parental support.

Among adolescents ages 13 to 18, the following factors have a positive association with physical activity: parental education; gender (boys); personal goals; physical education/school sports; belief in ability to be active (self-efficacy); and support of friends and family.

Environmental influences positively associated with physical activity among children and adolescents include:

- Presence of sidewalks
- Having a destination/walking to a particular place
- Access to public transportation
- Low traffic density
- Access to neighborhood or school play area and/or recreational equipment

People with disabilities may be less likely to participate in physical activity due to physical, emotional, and psychological barriers. Barriers may include the inaccessibility of facilities and the lack of staff trained in working with people with disabilities.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Leisure-Time Physical Activity

**A total of 18.0% of Yellowstone County adults report no leisure-time physical activity in the past month.**

- Similar to statewide findings.
- Notably more favorable than national findings.

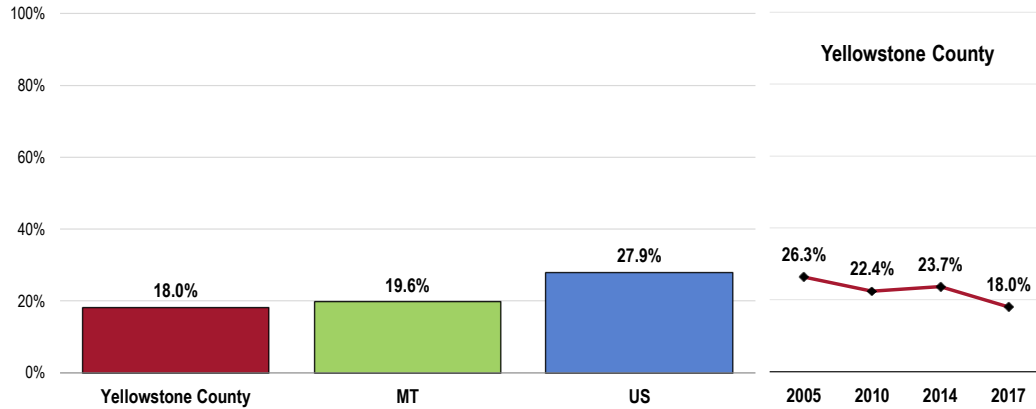
Leisure-time physical activity includes any physical activities or exercises (such as running, calisthenics, golf, gardening, walking, etc.) which take place outside of one's line of work.



- Satisfies the Healthy People 2020 target (32.6% or lower).
- TREND: Leisure-time physical activity has improved significantly since 2014.

### No Leisure-Time Physical Activity in the Past Month

Healthy People 2020 Target = 32.6% or Lower



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 106]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective PA-1]

Notes: • Asked of all respondents.

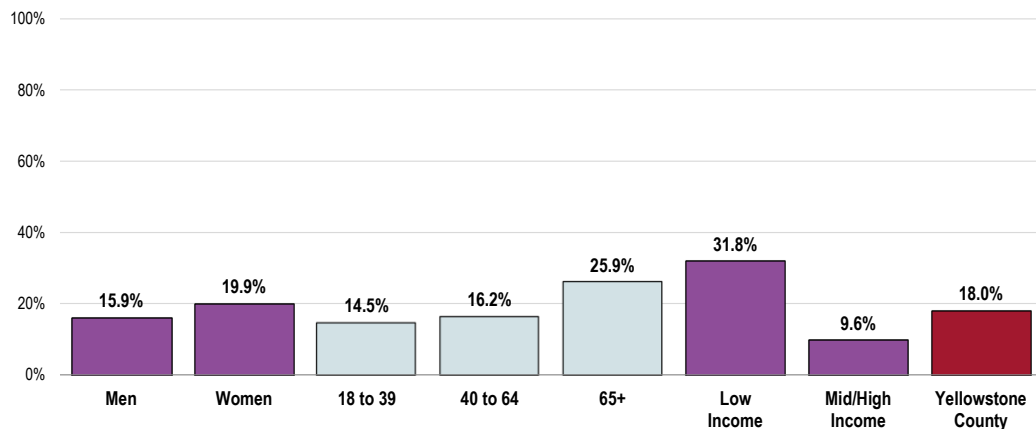
Lack of leisure-time physical activity in the area is higher among:

- Seniors (65+).
- Lower-income residents.

### No Leisure-Time Physical Activity in the Past Month

(Yellowstone County, 2017)

Healthy People 2020 Target = 32.6% or Lower



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 106]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective PA-1]

Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Activity Levels

### Adults

#### Recommended Levels of Physical Activity

Adults should do 2 hours and 30 minutes a week of moderate-intensity (such as walking), or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity **aerobic** physical activity (such as jogging), or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. The guidelines also recommend that adults do **muscle-strengthening** activities, such as push-ups, sit-ups, or activities using resistance bands or weights. These activities should involve all major muscle groups and be done on two or more days per week.

The report finds that nationwide nearly 50 percent of adults are getting the recommended amounts of aerobic activity and about 30 percent are engaging in the recommended muscle-strengthening activity.

- 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. [www.cdc.gov/physicalactivity](http://www.cdc.gov/physicalactivity)
- Learn more about CDC's efforts to promote walking by visiting <http://www.cdc.gov/vitalsigns/walking>.

#### Aerobic & Strengthening Physical Activity

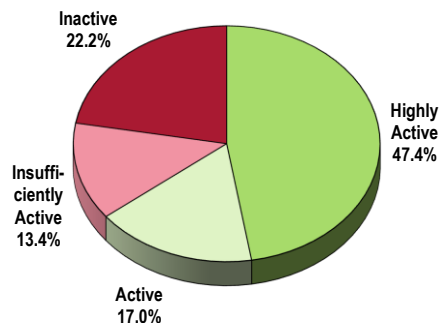
Based on reported physical activity intensity, frequency and duration over the past month, **35.6% of Yellowstone County adults are found to be “insufficiently active” or “inactive.”**

**A total of 62.5% of Yellowstone County adults do not participate in any types of physical activities or exercises to strengthen their muscles.**

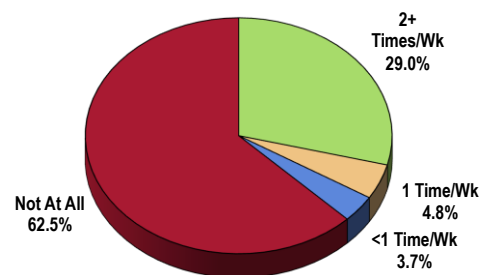
Survey respondents were asked about the types of physical activities they engaged in during the past month, as well as the frequency and duration of these activities.

- “Inactive” includes those reporting no aerobic physical activity in the past month.
- “Insufficiently active” includes those with the equivalent of 1-150 minutes of aerobic physical activity per week.
- “Active” includes those with 150-300 minutes of weekly aerobic physical activity.
- “Highly active” includes those with >300 minutes of weekly aerobic physical activity.

**Participation in Physical Activities**  
(Yellowstone County, 2017)



**Aerobic Activity**



**Strengthening Activity**

Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 113, 173]

Notes: • Reflects the total sample of respondents.

• In this case, “inactive” aerobic activity represents those adults participating in no aerobic activity in the past week; “insufficiently active” reflects those respondents with 1–149 minutes of aerobic activity in the past week; “active” adults are those with 150–300 minutes of aerobic activity per week; and “highly active” adults participate in 301+ minutes of aerobic activity weekly.

**Recommended Levels of Physical Activity**

**Nearly one-fourth (24.3%) of Yellowstone County adults regularly participate in adequate levels of both aerobic and strengthening activities (meeting physical activity recommendations).**

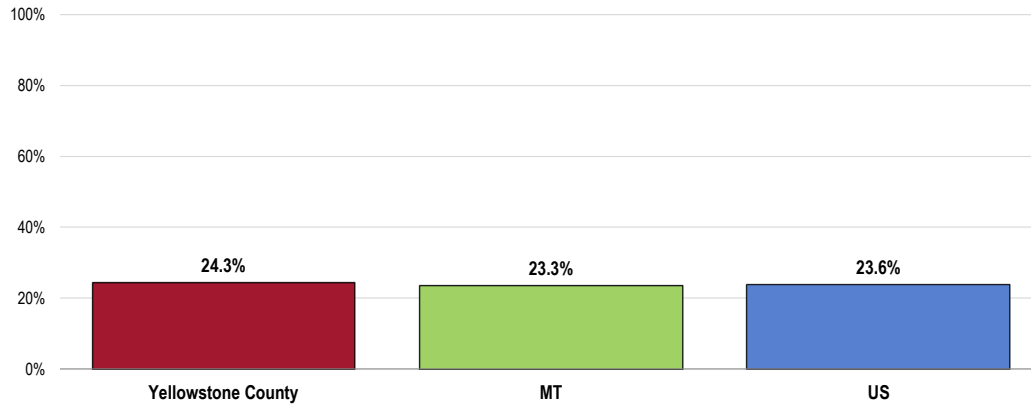
- Similar to both statewide and national findings.
- Statistically similar to the Healthy People 2020 target (20.1% or higher).

"Meeting physical activity recommendations" includes adequate levels of both aerobic and strengthening activity:

**Aerobic** activity is at least 150 minutes per week of light to moderate activity or 75 minutes per week of vigorous physical activity or an equivalent combination of both; and

**Strengthening** activity is at least 2 sessions per week of exercise designed to strengthen muscles.

**Meets Physical Activity Recommendations**  
 Healthy People 2020 Target = 20.1% or Higher



Sources:
 

- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 174]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2013 Montana data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective PA-4]

 Notes:
 

- Asked of all respondents.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice per week.

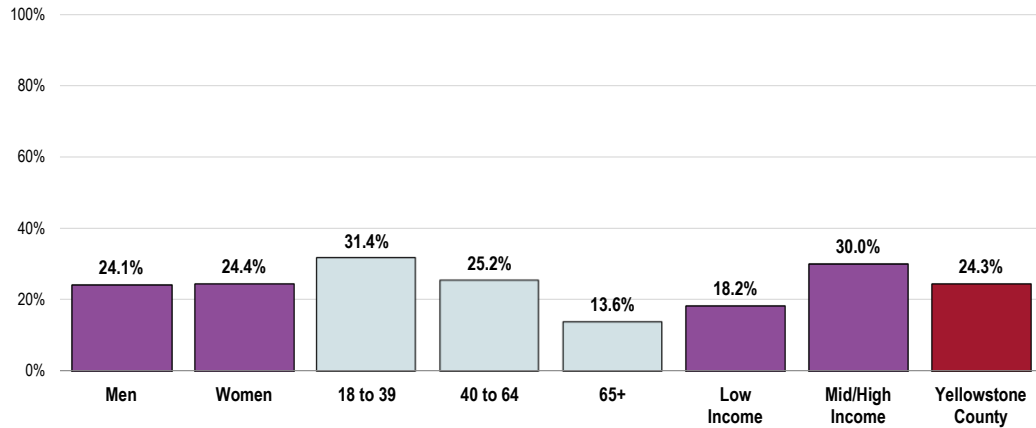
Those less likely to meet physical activity requirements include:

- Seniors (65+); note the negative association with age.
- Community members living on lower incomes.

## Meets Physical Activity Recommendations

(Yellowstone County, 2017)

Healthy People 2020 Target = 20.1% or Higher



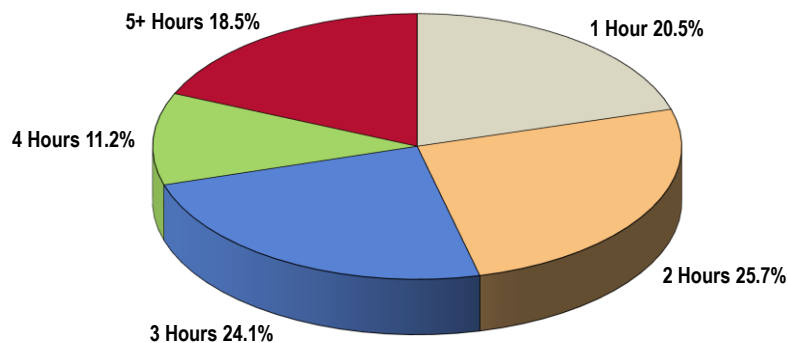
- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 174]
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective PA-4]
- Notes:
- Asked of all respondents.
  - Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
  - Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice per week.

### Screen Time

A total of 53.8% of Yellowstone County adults spend three or more hours on screen time (whether television or computer, Internet, video games, etc.) per day.

- Note the 18.5% of respondents who report spending 5+ hours on screen time per day.

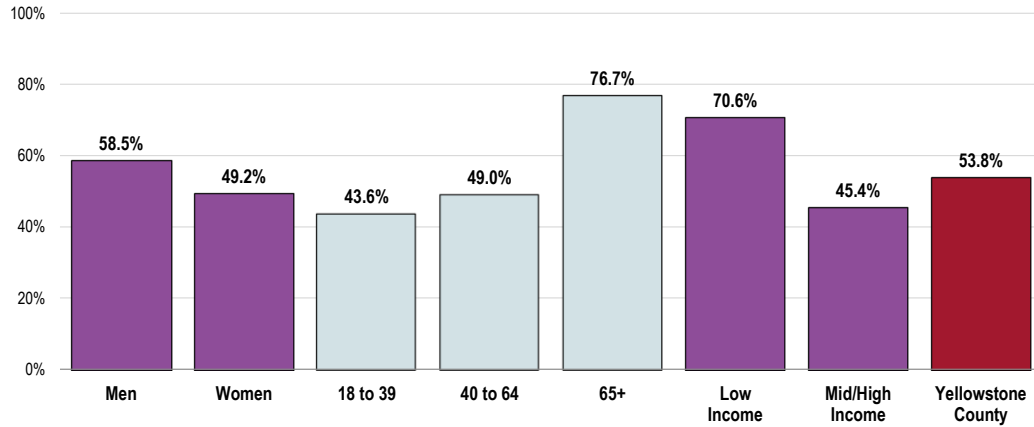
### Screen Time (Yellowstone County, 2017)



- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 311]
- Notes:
- Asked of all respondents.

- Three or more hours of screen time per day is noted more often by the senior and low-income populations.

**Three or More Hours of Total Screen Time  
(TV, Computer, Video Games, Etc., for Entertainment)  
(Yellowstone County, 2017)**



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 311]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 • "Three or more hours" includes reported screen time of 180 minutes or more per day.

**Children**

**Recommended Levels of Physical Activity**

Children and adolescents should do 60 minutes (1 hour) or more of physical activity each day.

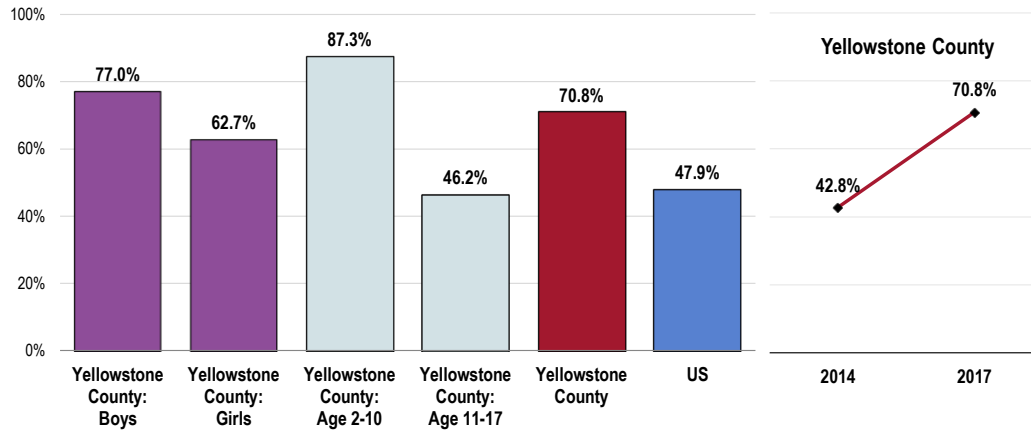
- 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. [www.cdc.gov/physicalactivity](http://www.cdc.gov/physicalactivity)

***Recommended Levels of Physical Activity***

**Among Yellowstone County children age 2 to 17, 70.8% are reported to have had 60 minutes of physical activity on each of the seven days preceding the interview (1+ hours per day).**

- Much more favorable than found nationally.
- No statistical difference by gender.
- By age, children 11 to 17 are less likely to get the recommended daily physical activity than those age 2 to 10.
- TREND: This measure has increased considerably since last reported in 2014.

### Child Is Physically Active for One or More Hours per Day (Among Parent Respondents on Behalf of Children Age 2-17)

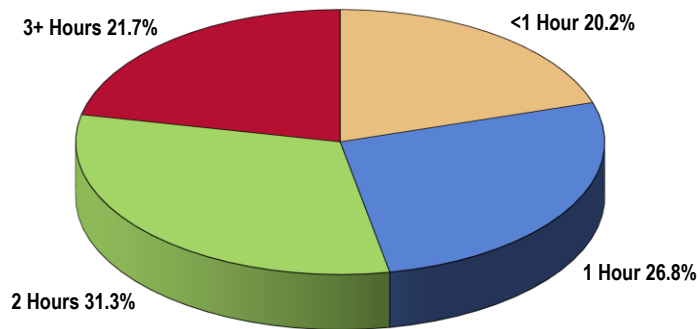


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 142]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents with children age 2-17 at home.  
 • Includes children reported to have one or more hours of physical activity on each of the seven days preceding the survey.

#### Screen Time

A total of 21.7% of Yellowstone County children aged 5 to 17 spend three or more hours on screen time (whether television or computer, Internet, video games, etc.) per day.

### Children’s Screen Time (Among Parent Respondents on Behalf Children Age 5-17; Yellowstone County, 2017)



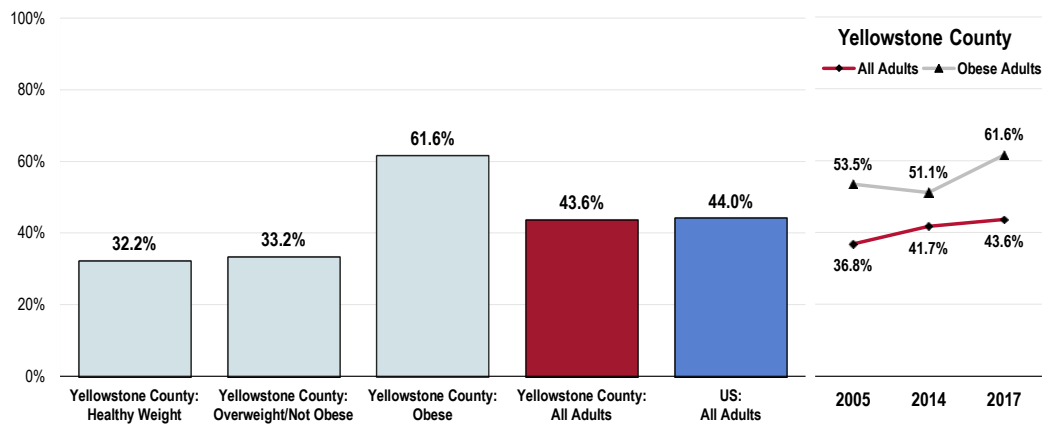
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 314]  
 Notes: • Asked of respondents with a child aged 5 to 17 in the household.

## Health Advice About Physical Activity & Exercise

A total of 43.6% of Yellowstone County adults report that their physician has asked about or given advice to them about physical activity in the past year.

- Similar to the national average.
- TREND: Has increased significantly since 2005.
  - Among obese adults, this indicator has not changed significantly over time (*It is important to keep in mind the small sample sizes which these percentages represent when making trend comparisons over time.*)
- Note: 48.0% of overweight/obese Yellowstone County respondents say that they have talked with their doctor about physical activity/exercise in the past year.

### Have Received Advice About Exercise in the Past Year From a Physician, Nurse, or Other Health Professional (By Weight Classification)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 303]  
 • 2013 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

## Access to Physical Activity

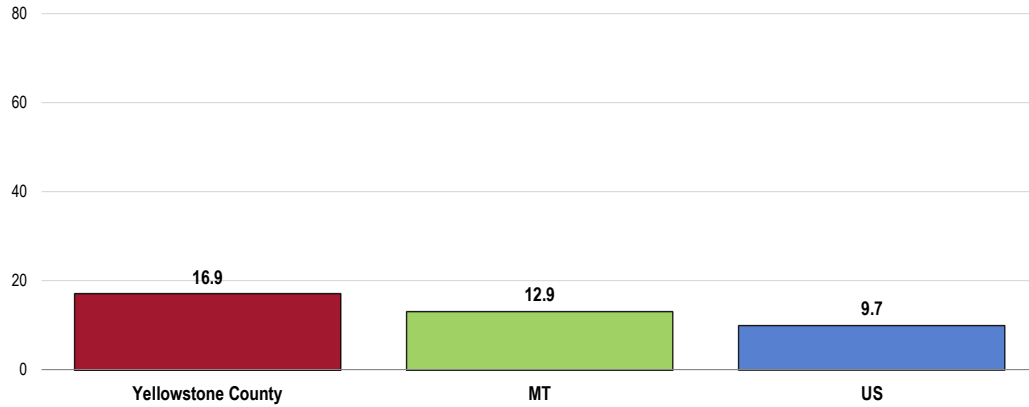
In 2013, there were 16.9 recreation/fitness facilities for every 100,000 population in Yellowstone County.

- Above what is found statewide and nationally.

Here, recreation/fitness facilities include establishments engaged in operating facilities which offer "exercise and other active physical fitness conditioning or recreational sports activities."

Examples include athletic clubs, gymnasiums, dance centers, tennis clubs, and swimming pools.

### Population With Recreation & Fitness Facility Access (Number of Recreation & Fitness Facilities per 100,000 Population, 2013)



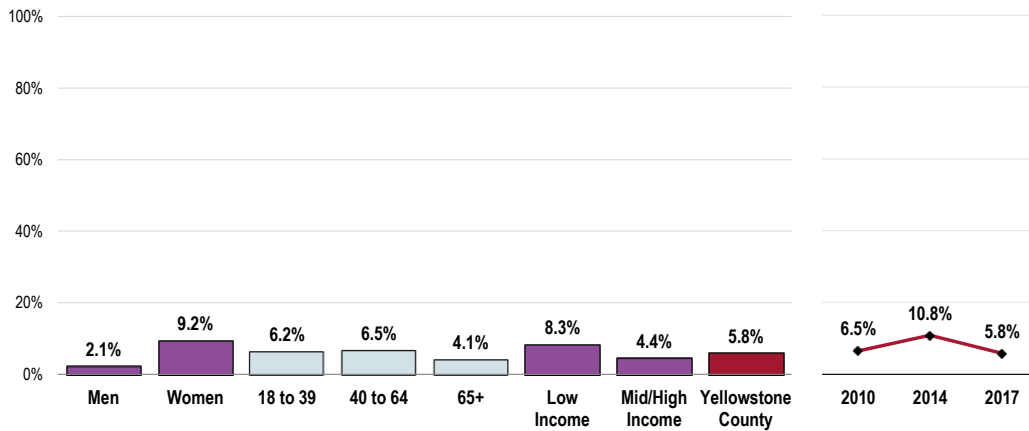
Sources: • US Census Bureau, County Business Patterns. Additional data analysis by CARES.  
 • Retrieved June 2016 from Community Commons at <http://www.chna.org>.  
 Notes: • Recreation and fitness facilities are defined by North American Industry Classification System (NAICS) Code 713940, which include *Establishments engaged in operating facilities which offer "exercise and other active physical fitness conditioning or recreational sports activities"*. Examples include athletic clubs, gymnasiums, dance centers, tennis clubs, and swimming pools. This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

### Barriers to Physical Activity

A total of 5.8% of survey respondents report that they wanted to be more physically active in the past year but felt unsafe due to factors such as crime or traffic.

- TREND: Following a significant rise in 2014, current findings are statistically similar to previous survey findings.
- Highest in women.

### Wanted to be More Physically Active in the Past Year But Felt Unsafe Due to Factors Such as Traffic and/or Crime (Yellowstone County, 2017)



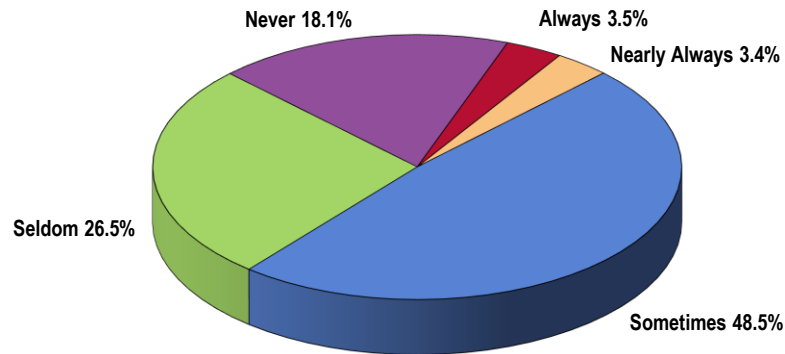
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 307]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.



**A total of 6.9% of respondents report that poor weather “always” or “nearly always” negatively affects their decision to be physically active outdoors.**

- In contrast, 44.6% of respondents report that poor weather “seldom” or “never” negatively affects their decision.

### **Decision to be Physically Active Outdoors is Negatively Affected by Poor Weather** (Yellowstone County, 2017)



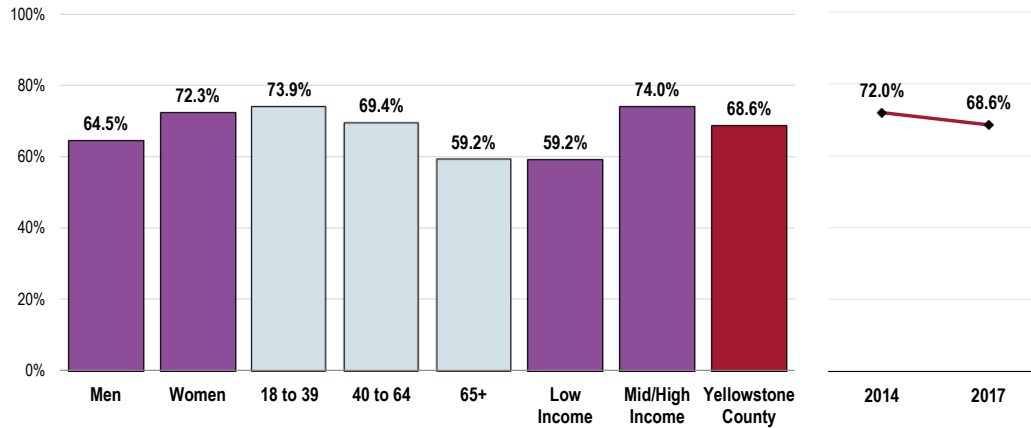
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 308]  
Notes: • Asked of all respondents.

### **Attempts at Increased Activity**

**Most county residents (68.6%) attempted to increase their physical activity over the past year through everyday behavioral changes like taking the stairs, parking farther from destinations, walking or biking instead of driving, etc.**

- TREND: Statistically similar to the 2014 survey results.
- The prevalence is lower among Yellowstone County seniors and residents with low incomes.

### Made an Attempt in the Past Year to Increase Activity Through Changes to Everyday Behavior (Yellowstone County, 2017)

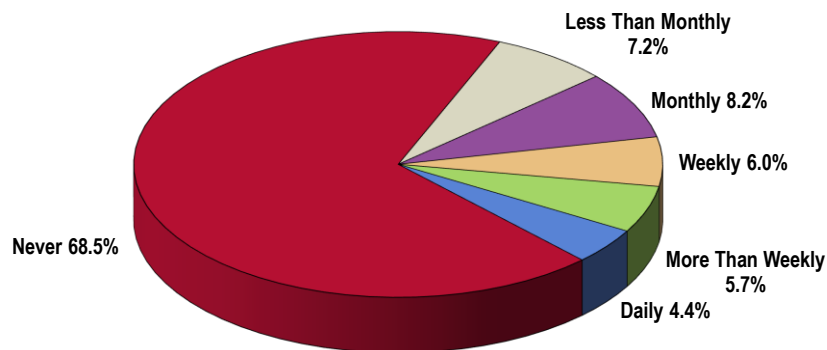


Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 309]  
 Notes: ● Asked of all respondents.  
 ● Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 ● In this case, everyday behavior might include taking the stairs instead of the elevator, parking farther from a destination, walking or biking instead of driving, etc.

**Of the total sample of respondents, 68.5% report "never" walking, biking, or using public transportation for their daily commute.**

- On the other hand, 16.1% of respondents walk, bike, or utilize public transportation for their commute at least weekly.

### Frequency of Walking, Biking, or Using Public Transportation for Daily Commute (Yellowstone County, 2017)



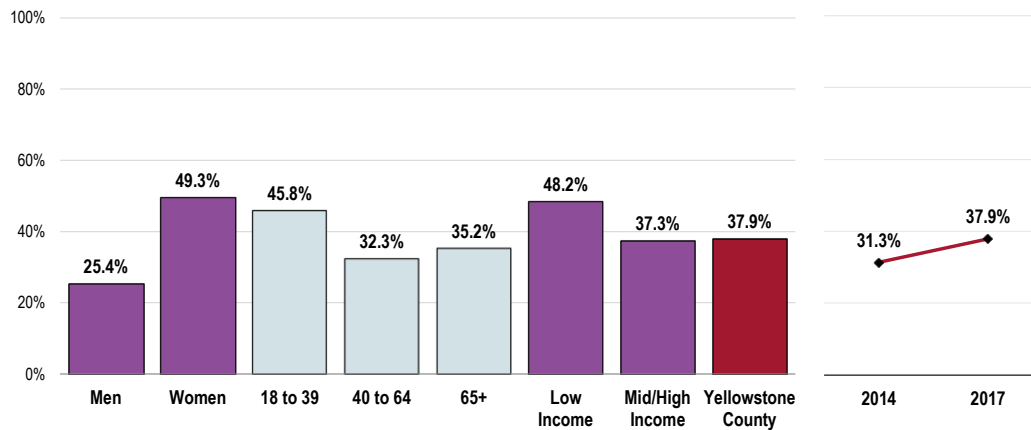
Sources: ● 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 310]  
 Notes: ● Asked of all respondents.

## Awareness of the 5-2-1-0 Health Message

Nearly 4 in 10 Yellowstone County adults (37.9%) have heard of the communitywide health message 5-2-1-0 (meaning 5 servings of fruits and vegetables, 2 hours or less of screen time, 1 hour of physical activity, and zero sugary beverages).

- TREND: Since 2014, awareness of this message has statistically increased in Yellowstone County.
- The prevalence is lowest among men and adults age 40 and older in the county.

### Awareness of 5-2-1-0 Health Message (Yellowstone County, 2017)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 312]

Notes: • Asked of all respondents.

• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

• The 5-2-1-0 health message refers to 5 servings of fruit and vegetables, 2 hours or less of screen time, 1 hour of physical activity, and 0 sugary beverages daily.

## Weight Status

### About Overweight & Obesity

Because weight is influenced by energy (calories) consumed and expended, interventions to improve weight can support changes in diet or physical activity. They can help change individuals' knowledge and skills, reduce exposure to foods low in nutritional value and high in calories, or increase opportunities for physical activity. Interventions can help prevent unhealthy weight gain or facilitate weight loss among obese people. They can be delivered in multiple settings, including healthcare settings, worksites, or schools.

The social and physical factors affecting diet and physical activity (see Physical Activity topic area) may also have an impact on weight. Obesity is a problem throughout the population. However, among adults, the prevalence is highest for middle-aged people and for non-Hispanic black and Mexican American women. Among children and adolescents, the prevalence of obesity is highest among older and Mexican American children and non-Hispanic black girls. The association of income with obesity varies by age, gender, and race/ethnicity.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m<sup>2</sup>). To estimate BMI using pounds and inches, use: [weight (pounds)/height squared (inches<sup>2</sup>)] x 703.

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m<sup>2</sup> and obesity as a BMI ≥30 kg/m<sup>2</sup>. The rationale behind these definitions is based on epidemiological data that show increases in mortality with BMIs above 25 kg/m<sup>2</sup>. The increase in mortality, however, tends to be modest until a BMI of 30 kg/m<sup>2</sup> is reached. For persons with a BMI ≥30 kg/m<sup>2</sup>, mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100 percent above that of persons with BMIs in the range of 20 to 25 kg/m<sup>2</sup>.

- Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

### Adult Weight Status

| Classification of Overweight and Obesity by BMI | BMI (kg/m <sup>2</sup> ) |
|---|--------------------------|
| Underweight                                     | <18.5                    |
| Normal  | 18.5 – 24.9              |
| Overweight                                      | 25.0 – 29.9              |
| Obese   | ≥30.0                    |

Source: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

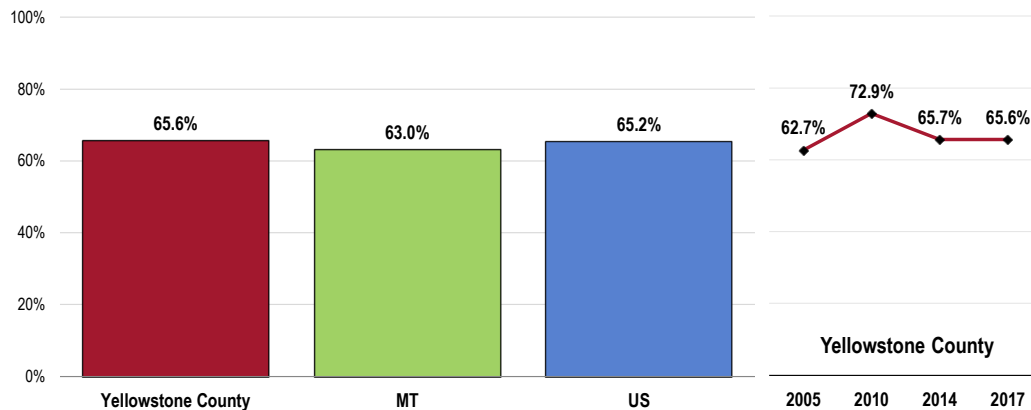
## Overweight Status

Nearly two-thirds (65.6%) of Yellowstone County adults are overweight.

Here, "overweight" includes those respondents with a BMI value  $\geq 25$ .

- Comparable to the Montana and national prevalence.
- TREND: Despite a significant peak in 2010, the overweight prevalence is statistically similar to 2005 and 2014 findings.

**Prevalence of Total Overweight**  
(Percent of Adults With a Body Mass Index of 25.0 or Higher)



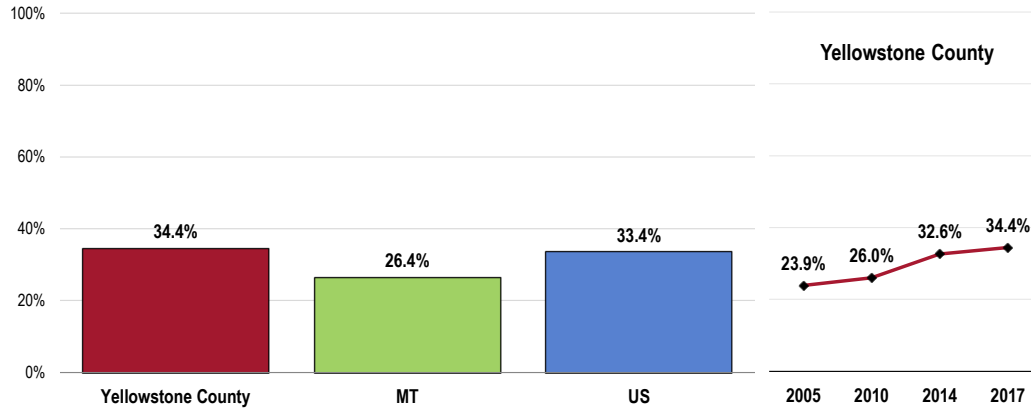
- Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 176]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
  - Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.
- Notes:
- Based on reported heights and weights, asked of all respondents.
  - The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

A total of 34.4% of Yellowstone County adults are obese.

"Obese" (also included in overweight prevalence discussed previously) includes respondents with a BMI value  $\geq 30$ .

- Less favorable than Montana findings.
- Similar to US findings.
- Statistically similar to the Healthy People 2020 target (30.5% or lower).
- TREND: Obesity has increased significantly since 2005.

### Prevalence of Obesity (Percent of Adults With a Body Mass Index of 30.0 or Higher) Healthy People 2020 Target = 30.5% or Lower

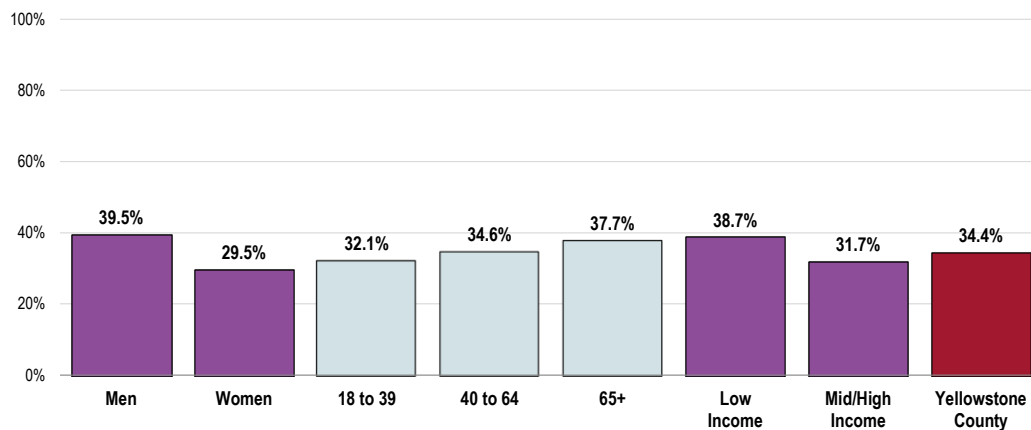


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 176]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective NWS-9]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.

Notes: • Based on reported heights and weights, asked of all respondents.  
 • The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

- Obesity is significantly more prevalent among men than women.

### Prevalence of Obesity (Percent of Adults With a BMI of 30.0 or Higher; Yellowstone County, 2017) Healthy People 2020 Target = 30.5% or Lower



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 176]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective NWS-9]

Notes: • Based on reported heights and weights, asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 • The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

### Weight Status and Income

Despite some variance, the weight status distribution among low-income adults is statistically similar to the distribution among mid/high-income adults given the associated sample sizes.

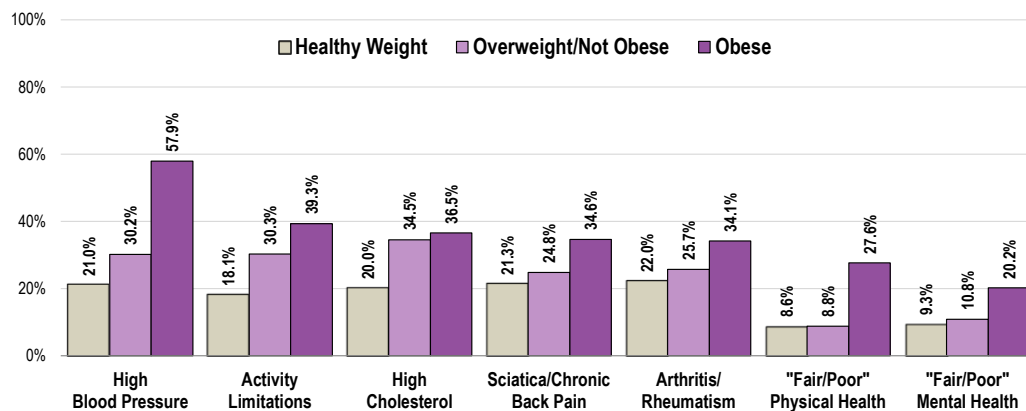
|   | Low Income | Mid/High Income |
|---|------------|-----------------|
| <b>Underweight</b> (BMI < 18.5)             | 3.3%       | 1.5%            |
| <b>Healthy Weight</b> (BMI 18.5-24.9)       | 29.2%      | 33.9%           |
| <b>Overweight/Not Obese</b> (BMI 25.0-29.9) | 28.8%      | 32.9%           |
| <b>Obese</b> (BMI 30+)                      | 38.7%      | 31.7%           |

### Relationship of Overweight With Other Health Issues

Overweight and obese adults are more likely to report a number of adverse health conditions. Among these are:

- High blood pressure.
- Activity limitations.
- High cholesterol.
- Sciatica/chronic back pain.
- Arthritis/rheumatism.
- “Fair” or “poor” physical health.
- “Fair” or “poor” mental health.

### Relationship of Overweight With Other Health Issues (By Weight Classification; Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 5, 27, 28, 116, 128, 147, 148]  
 Notes: • Based on reported heights and weights, asked of all respondents.

## Children’s Weight Status

### About Weight Status in Children & Teens

In children and teens, body mass index (BMI) is used to assess weight status – underweight, healthy weight, overweight, or obese. After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child's BMI number among children of the same sex and age.

BMI-for-age weight status categories and the corresponding percentiles are shown below:

- Underweight <5<sup>th</sup> percentile
- Healthy Weight ≥5<sup>th</sup> and <85<sup>th</sup> percentile
- Overweight ≥85<sup>th</sup> and <95<sup>th</sup> percentile
- Obese ≥95<sup>th</sup> percentile

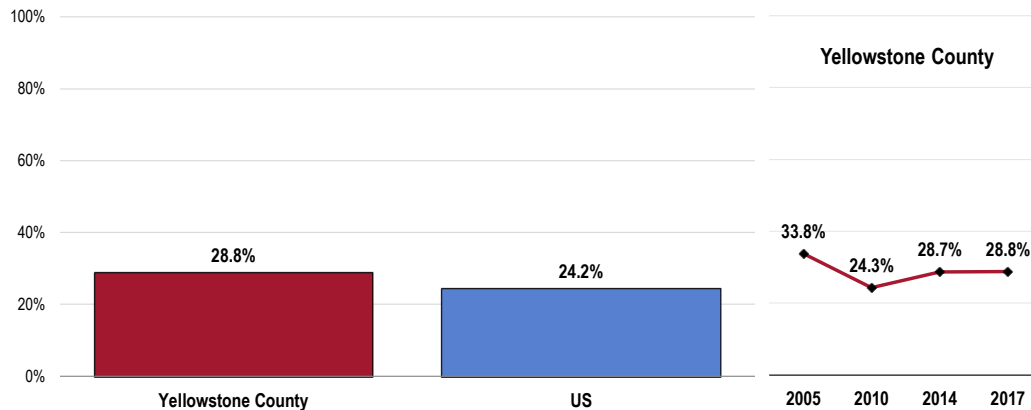
• Centers for Disease Control and Prevention

**Based on the heights/weights reported by surveyed parents, 28.8% of Yellowstone County children age 5 to 17 are overweight or obese (≥85<sup>th</sup> percentile).**

- Statistically comparable to that found nationally.
- TREND: Statistically unchanged since 2005.

### Child Total Overweight Prevalence

(Children Age 5-17 Who Are Overweight/Obese; BMI in the 85<sup>th</sup> Percentile or Higher)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 180]

• 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents with children age 5-17 at home.

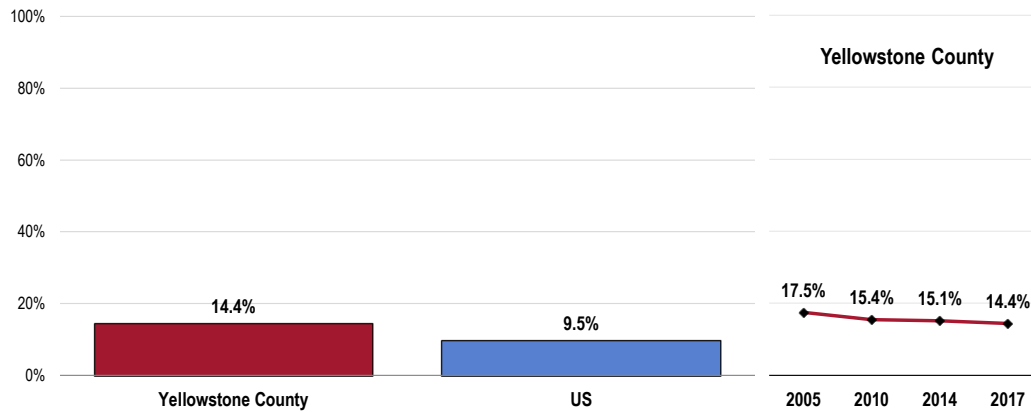
• Overweight among children is determined by children’s Body Mass Index status at or above the 85<sup>th</sup> percentile of US growth charts by gender and age.



Further, 14.4% of area children age 5 to 17 are obese (≥95th percentile).

- Statistically similar to the national percentage.
- Nearly identical to the Healthy People 2020 target (14.5% or lower for children age 2-19).
- TREND: The decrease in child obesity since 2005 is not statistically significant.

### Child Obesity Prevalence (Children Age 5-17 Who Are Obese; BMI in the 95<sup>th</sup> Percentile or Higher) Healthy People 2020 Target = 14.5% or Lower

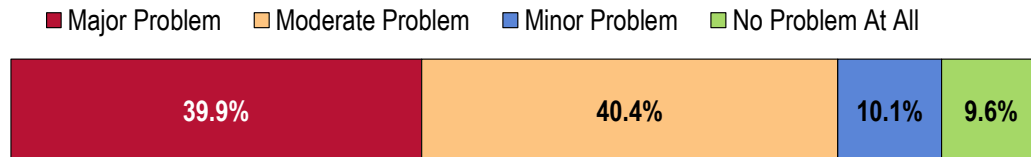


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 180]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective NWS-10.4]  
 Notes: • Asked of all respondents with children age 5-17 at home.  
 • Obesity among children is determined by children's Body Mass Index status equal to or above the 95<sup>th</sup> percentile of US growth charts by gender and age.

### Key Informant Input: Nutrition, Physical Activity & Weight

Slightly more key informants taking part in an online survey characterized *Nutrition, Physical Activity & Weight* as a “moderate problem” than as a “major problem” in the community.

### Perceptions of Nutrition, Physical Activity, and Weight as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

## Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

### Obesity

*Our community still faces an uphill battle against overweight and obesity. Progress is being made, but as a community, there are not enough affordable, year-round resources for physical activity and nutrition. Many individuals who are diagnosed with overweight/obesity also need access to mental health care. The weight may be a response to depression, isolation, lack of engagement, and we need to stop focusing only on school-based programs and youth. - Public Health Representative*

*The obesity rate for Yellowstone County continues to rise. Too many diseases can be avoided by maintaining a healthy weight, such as heart disease, diabetes, etc. - Healthcare Provider*

*We as a nation have become overweight and obese. In our community, food access in the low income areas; it's more difficult to have fresh produce. Many might find it easier to visit the gas station or fast food restaurant for convenience. Technology over the years has improved and can also affect physical activity. Children (as well as adults) sit much more, using new devices, contributing to weight gain. - Public Health Representative*

*Overall increasing rates of obesity, sedentary lifestyle. National problem. - Healthcare Provider*

*Even though there are more people going to the gym or making use of the bike and walking trails throughout the city of Billings, when you really "people watch", there is a tremendous number of people who are overweight and not even capable of walking a block. It is a challenge that people don't want to realize that what they are doing and how it will negatively impact them as they get older. - Community Leader*

*Our community seems overweight and under-exercised. Outside of paid programs in town, I am not aware of where I can speak to someone about a plan to overcome weight loss. - Community Leader*

*Number of obese children being seen in schools/medical facilities. - Public Health Representative*

*Significant number of overweight and out-of-shape people. Mainly due to apathy. - Government Representative*

*High rates of obesity and overweight citizens. Too many residents, especially children, are too sedentary. - Public Health Representative*

*Obesity contributes to so many other health issues. - Community Leader*

*Obesity highly prevalent. - Healthcare Provider*

### Health Education

*Too much information and misinformation are often more damaging than not enough information. Once again, I am going to point to the school systems needing to do more. There are some very cool things being done in Billings: after-school physical activity programs at the elementary schools, breakfast programs at some of the high schools, and things like the Gardener's Market. However, despite mounds of overwhelming evidence of how effective physical activity is at increasing student achievement, decreasing behavioral problems, helping students with learning disabilities, increasing knowledge retention (through physiological responses like an increase in BDNF), assisting in weight management, and all around just making people happier, it continues to be the most neglected and cut portion of our educational system. The lack of structured physical activity built into the curriculum of K-12 schools is extremely anti-educational. Poverty and not knowing how to shop on a budget, also. - Educator*

*There is limited nutritional knowledge and lack of resources for physical activity in the community. Children are not encouraged to undertake physical activity during the day. - Educator*

*Lack of education and access to healthy foods. It can be expensive and time-consuming to eat well. - Public Health Representative*

*Lack of acceptance and affordability of education and support to maintain or gain a healthy lifestyle. - Community Leader*

*Education. - Educator*

*Education, cost of healthy foods. - Community Leader*

*Lack of education, poor eating habits, lack of physical activity. - Community Leader*

*Lack of education and free opportunities. - Educator*

### Access to Healthful Food

There are several barriers. Money for healthy eating; to eat healthy typically costs more. Lack of programs aimed at healthy eating, lots of convenient fast food. Yellowstone County is large and difficult for some patients to walk/ride/bike to work or to school, etc. Financial barriers to obtaining a gym membership. A great portion of people are overweight or obese already. Many people have other underlying conditions that make it difficult to get exercise and lose weight, or keep a healthy weight. Depending on income or lifestyle, don't have time as an option to exercise. - Public Health Representative

The cost of eating healthy. The education around eating healthy is not available. - Healthcare Provider

With an increase in food prices and the decline in SNAP benefits, oftentimes our families do not have the ability/financial means to have the fresh fruits and veggies. I am seeing an increase in the number of kids that are overweight – due, in my opinion, to this. There are also many latchkey kids that go home in the afternoons and must stay inside until parents are off work - often late into the evening. The kids play video games or watch TV. – Educator

Classes on food security, community gardens, improve access to food in food deserts. Encourage economic development in these areas. Not enough money to buy the appropriate food needed for a healthy diet, let alone a gym membership - Community Leader

Limited access to high-quality, organic food. Fast food is not food. It is a composite of toxic chemicals. But, it is cheaper than good food. Lack of responsibility and accountability of individuals to maintain a healthy lifestyle. It is all about diet and exercise. - Educator

Access to local, nutritious food. Billings is rapidly becoming a food desert with the lack of local, organic food producers. Local and organic for Billings has become Bozeman and Missoula. This puts us in a precarious situation if there is a "food crash" like is happening in many places in the world. If fossil fuels ever become cost-prohibitive, will Billings become a place where affordable, nutritious food is available? - Community Leader

### Built Environment

Lack of trails, sidewalks, and bike paths. Fast food culture and overeating. Lack of education in public schools about the dangers of excessive weight. - Business Leader

Food deserts and lack of safe built environment limit access to nutritious food and lifestyle activities for many people in our county, including in some areas of Billings. More employers need to embrace employee health and limit the junk food brought into work. - Community Leader

Our community leaders need to change their way of thinking. Always worried about the cost of a bike lane, sidewalk or side path, but the cost of taking care of a resident that is obese, heart disease, etc. is much more costly. For some reason, they will not make that connection. Need to make sure we have transportation systems that work for everyone to access healthy foods, medical services, etc. Along with infrastructure, we need to make people feel safe on the infrastructure to encourage an active lifestyle. - Government Representative

Too many options for fast food. A culture that eats fast food and a lot of fat. A culture that drinks a lot of beer. People who can't fathom getting on a bike or walking any distance- even in a parking lot to get to a store. Some streets that do not accommodate pedestrians in lower income areas. - Community Leader

Access to exercise. Affordable local healthy food alternatives in the South Side. - Healthcare Provider

Bike paths in more middle and upper-class communities, not in the lower income areas. Easy and inexpensive access to unhealthy, fast foods. Gyms and health care facilities are cost-prohibitive for many. - Healthcare Provider

Cars and their impact on required "floor space", increase in time to walk and bike and an under-trained high level of city staff who make poor decisions towards subdivisions and away from neighborhood units. - Government Representative

### Nutrition

Overall, I think our American society as a whole shares these challenges with the need for instant gratification and convenience, which means we don't always make the best decisions regarding food and exercise (myself included!). I think there is plenty of education and opportunity in Yellowstone County to address these issues; it's getting people to actually DO it. - Business Leader

Some of it relates to the individuals and families not following the recommendations for healthy eating and regular physical activity. Also many families are not able to provide the food needed to sustain the family. - Community Leader

*Proper nutrition with fruit/vegetables, etc. is expensive, and low income folks cannot afford. The food bank gives out food, but I've been there; the fresh produce is few and far between and often not edible. Family Services gives out food but don't have capacity for many. There isn't an emphasis on physical activity and no incentive for people to monitor their weight; even PCPs are reluctant to counsel patients about their weight. Billings does a poor job with trails, walking paths, and parks when compared to other cities. Our parks are poorly maintained and stark, compared to almost any other like-sized community I have been to. - Healthcare Provider*

*Some of our students are couch surfing, and for them and all of our students, the attention to diet is lacking. I know of no effective method of dealing with this issue. - Educator*

### **Lifestyle**

*Screen time is a problem for our youth. It is so incredibly common for kids to have some sort of handheld device that they can check social media or play games on. It is not nearly as common to teach our kids how to utilize technology to better our health and physical capabilities. It is also difficult to guide healthy eating when fresh fruits and vegetables tend to be more pricy than fast food and processed food. Part of this is helping lower income families understand how they may access fresh foods at a lower cost. Often times, the resources are not presented to people as often as they should be. - Community Leader*

*Fast food businesses, restaurants, too few physical workout sites. - Government Representative*

*Culture of "eating out." Fast foods, junk foods. Little experience of families eating dinner together. - Healthcare Provider*

*Lack of adequate nutrition and physical activity in the schools and the community contribute to an unhealthy weight for the county. - Public Health Representative*

*Mostly the people, themselves. There are many, many resources, but you have to participate. - Government Representative*

*Sedentary lifestyles and poor diet, leading to complications of chronic disease. - Healthcare Provider*

*Maintaining or developing a healthy, balanced lifestyle. - Healthcare Provider*

*Diet. Consumption of fast foods, soda, junk food and prepared food. - Community Leader*

*Culture. - Educator*

### **Insufficient Physical Activity**

*Lack of physical education in public schools is leading to a society that does not value physical activity, sports and other exercise. - Government Representative*

*Tendency to favor less strenuous activities. - Government Representative*

*Biggest challenges for people with intellectual disabilities is inactivity and good role models. For many people with intellectual disabilities they live in social isolation. This equates to inactivity for lack of social interaction. And without good role models, poor eating habits develop with obesity and other related health issues developing from being an active part of a healthy community. - Community Leader*

*More individuals are spending more time in sedentary positions--have replaced outdoor or physical activities with increased time at work and/or screen time. Community members are choosing lower cost/more convenient food choices (i.e. high sodium/high fat choices through processed foods or fast food selections rather than fresh, whole, non-processed foods. - Healthcare Provider*

*People with disabilities in the community typically lack physical activity and have issues with nutrition and weight. - Community Leader*

### **Access to Care/Services**

*Clinical and social support. - Healthcare Provider*

*Access, cost, education. - Business Leader*

*Support, build environment, nutrition education. Change in curriculum in the school that does not schedule for PE and recess. - Public Health Representative*

### **Comorbidities**

*This topic ties to diabetes. - Healthcare Provider*

*Same issue as for heart disease and diabetes. So many people seem to lack the motivation for change of lifestyle. - Public Health Representative*

*Currently, most of our chronic medical problems (like diabetes, heart disease, cancer) are very much related to poor nutrition, physical inactivity and excessive weight. - Healthcare Provider*

### **Socioeconomic Status**

*Poverty is the biggest challenge related to nutrition, physical activity and weight. When people live in poverty and do not have adequate funds for transportation, they will buy cheap available food like that found in convenience stores within walking distance of where they live. The "food" in convenience stores is void of nutrition for the most part, though, and consists of simple carbohydrates and saturated fats and provides little to no nutrition. Many of our poor live in "food deserts," where they do not have access at all to fresh vegetables and organically grown produce. When people are starved of nutrition, they do not have the energy to seek physical activity. And the combination of lack of good nutrition, junk food and inactivity leads to obesity, type 2 diabetes, cardiovascular disease, etc. - Government Representative*

*This is less of a concern for the more affluent part of Yellowstone County, but I feel that the underprivileged suffer greatly from a lack of access to quality resources around this. - Community Leader*

### **Workforce Issues**

*Lack of work-based wellness programs and support for healthy food options. Lack of active transportation options and community support. Culture of eating fast food and drinking sugary drinks. - Public Health Representative*

*Accepting that this is the starting place for almost all health-related issues. This issue kills workforce productivity. - Business Leader*

### **Vulnerable Populations**

*Nutrition, physical activity and weight is a very high issue in American Indian/Alaska Natives in our community. - Healthcare Provider*

*Obesity, especially on the reservations. Pollution from the refineries. - Healthcare Provider*

### **Prevalence/Incidence**

*Largest issue that if addressed could have the biggest impact economically. - Community Leader*

## Substance Abuse

### About Substance Abuse

Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include:

- Teenage pregnancy
- Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- Other sexually transmitted diseases (STDs)
- Domestic violence
- Child abuse
- Motor vehicle crashes
- Physical fights
- Crime
- Homicide
- Suicide

Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes. Social attitudes and political and legal responses to the consumption of alcohol and illicit drugs make substance abuse one of the most complex public health issues. In addition to the considerable health implications, substance abuse has been a flash-point in the criminal justice system and a major focal point in discussions about social values: people argue over whether substance abuse is a disease with genetic and biological foundations or a matter of personal choice.

Advances in research have led to the development of evidence-based strategies to effectively address substance abuse. Improvements in brain-imaging technologies and the development of medications that assist in treatment have gradually shifted the research community's perspective on substance abuse. There is now a deeper understanding of substance abuse as a disorder that develops in adolescence and, for some individuals, will develop into a chronic illness that will require lifelong monitoring and care.

Improved evaluation of community-level prevention has enhanced researchers' understanding of environmental and social factors that contribute to the initiation and abuse of alcohol and illicit drugs, leading to a more sophisticated understanding of how to implement evidence-based strategies in specific social and cultural settings.

A stronger emphasis on evaluation has expanded evidence-based practices for drug and alcohol treatment. Improvements have focused on the development of better clinical interventions through research and increasing the skills and qualifications of treatment providers.

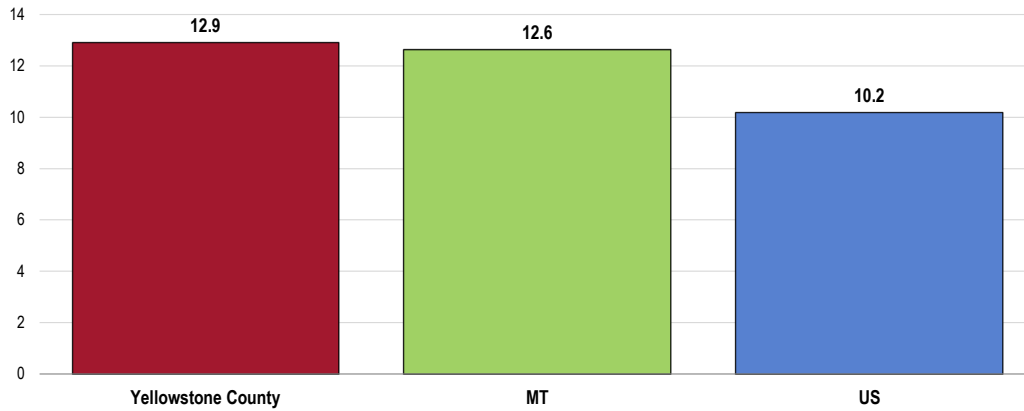
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### **Age-Adjusted Cirrhosis/Liver Disease Deaths**

**Between 2012 and 2014, Yellowstone County reported an annual average age-adjusted cirrhosis/liver disease mortality rate of 12.9 deaths per 100,000 population.**

- Similar to the statewide rate.
- Higher than the national rate.
- Fails to satisfy the Healthy People 2020 target (8.2 or lower).

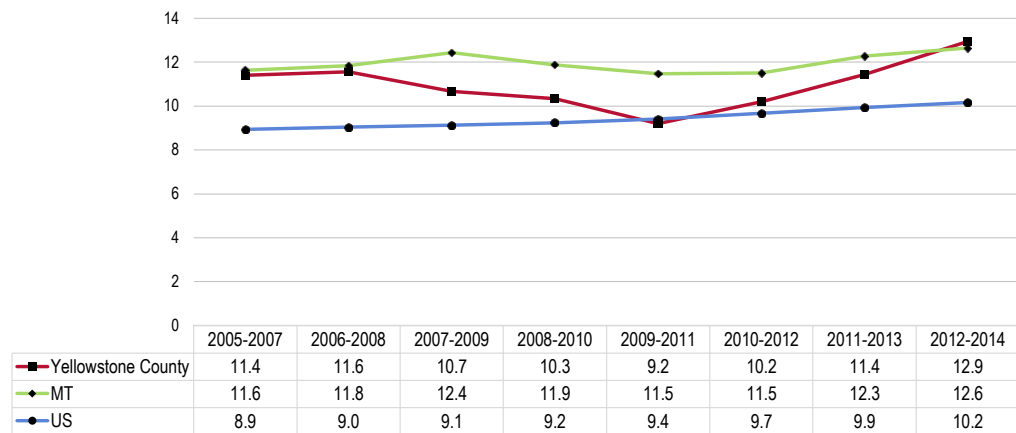
### Cirrhosis/Liver Disease: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 8.2 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-11]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** The mortality rate in Yellowstone County trended downward from 2006 to 2011 and has since trended upward.

### Cirrhosis/Liver Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 8.2 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-11]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

## Alcohol Use

### Excessive Drinking

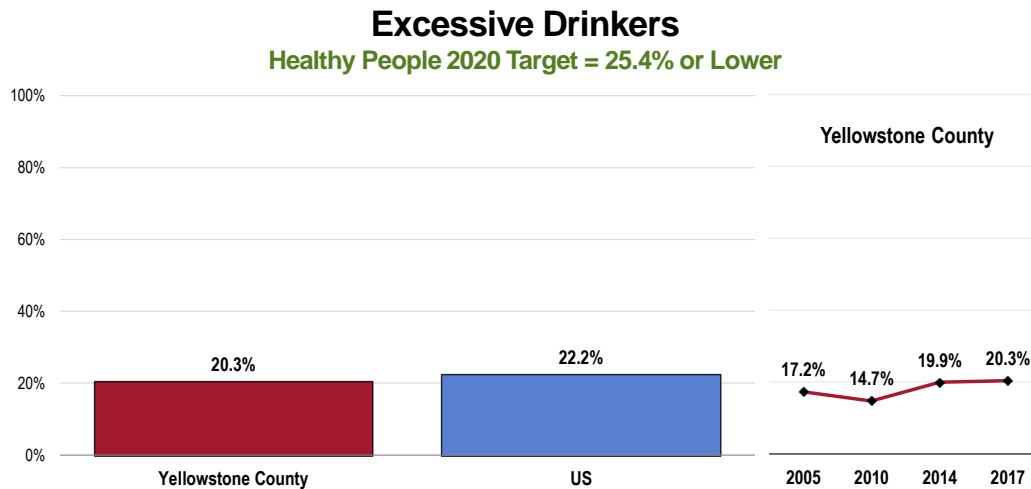
**A total of 20.3% of area adults are excessive drinkers (heavy and/or binge drinkers).**

“Excessive drinking” includes heavy and/or binge drinkers:

- **Heavy drinkers** include men reporting 2+ alcoholic drinks per day or women reporting 1+ alcoholic drink per day in the month preceding the interview.
- **Binge drinkers** include men reporting 5+ alcoholic drinks or women reporting 4+ alcoholic drinks on any single occasion during the past month.

- Similar to the national proportion.
- Satisfies the Healthy People 2020 target (25.4% or lower).
- **TREND:** Excessive drinking has increased significantly since 2010, but is statistically similar to the 2005 and 2014 levels.

**RELATED ISSUE:**  
See also *Stress* in the **Mental Health** section of this report.



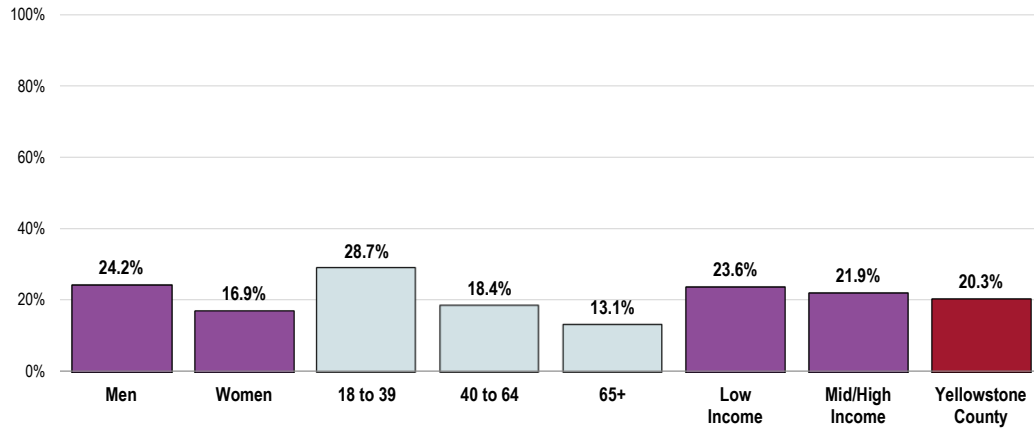
- Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 189]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-15]
- Notes:
- Asked of all respondents.
  - Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

- Excessive drinking is more prevalent among young adults (18-39); note the negative association with age.



## Excessive Drinkers (Yellowstone County, 2017)

Healthy People 2020 Target = 25.4% or Lower



- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 189]
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-15]
- Notes:
- Asked of all respondents.
  - Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
  - Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

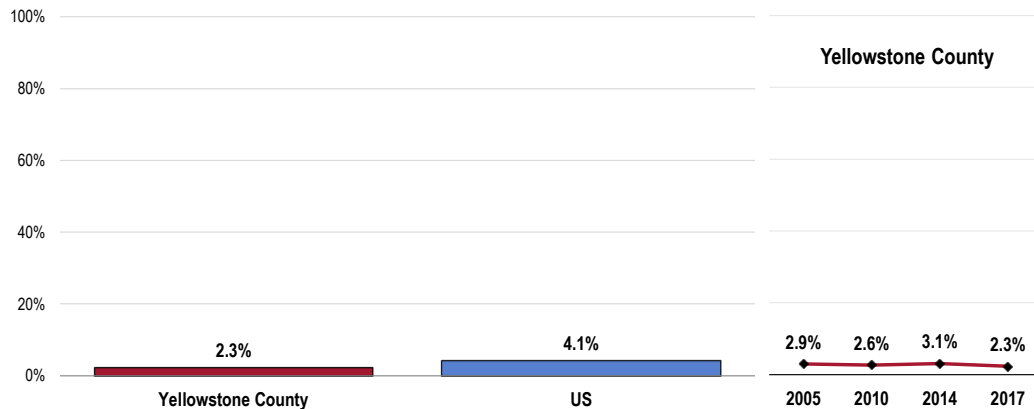
### Drinking & Driving

**A total of 2.3% of Yellowstone County adults acknowledge having driven a vehicle in the past month after they had perhaps too much to drink.**

- Similar to the national findings.
- **TREND:** The drinking and driving prevalence has not changed significantly since 2005.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that the actual incidence of drinking and driving in the community is likely higher.

### Have Driven in the Past Month After Perhaps Having Too Much to Drink



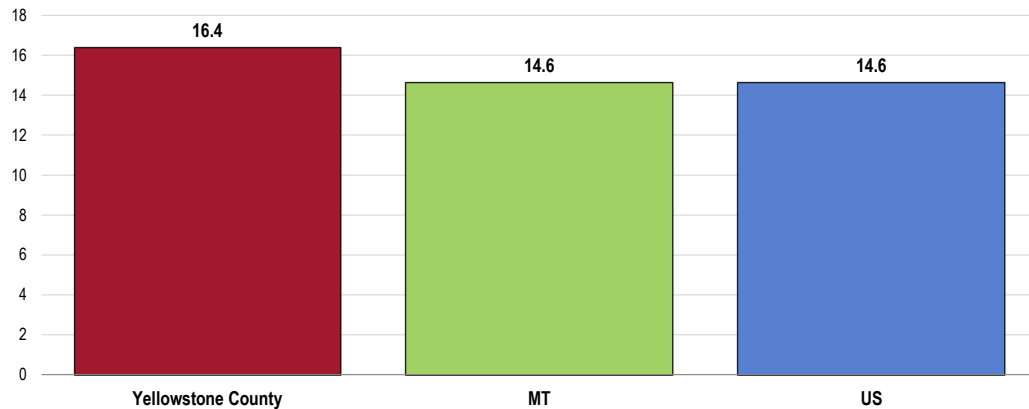
- Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 66]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Notes:
- Asked of all respondents.

## Age-Adjusted Drug-Induced Deaths

Between 2012 and 2014, there was an annual average age-adjusted drug-induced mortality rate of 16.4 deaths per 100,000 population in Yellowstone County.

- Higher than the statewide and national rates.
- Fails to satisfy the Healthy People 2020 target (11.3 or lower).

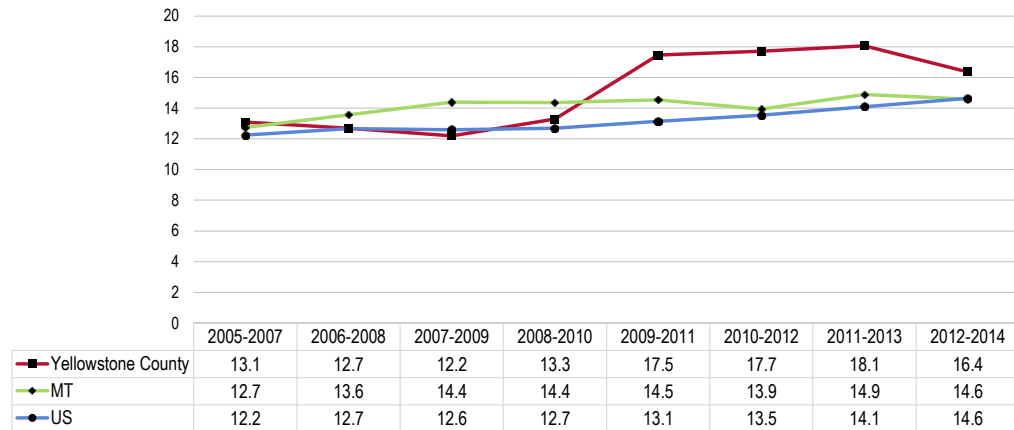
### Drug-Induced Deaths: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 11.3 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-12]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** The mortality rate has increased in the region over the past decade mostly due to a jump in rates during years 2011 through 2013. Statewide and nationwide, rates have increased more gradually.

## Drug-Induced Deaths: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 11.3 or Lower



Sources: 

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- UD Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-12].

Notes: 

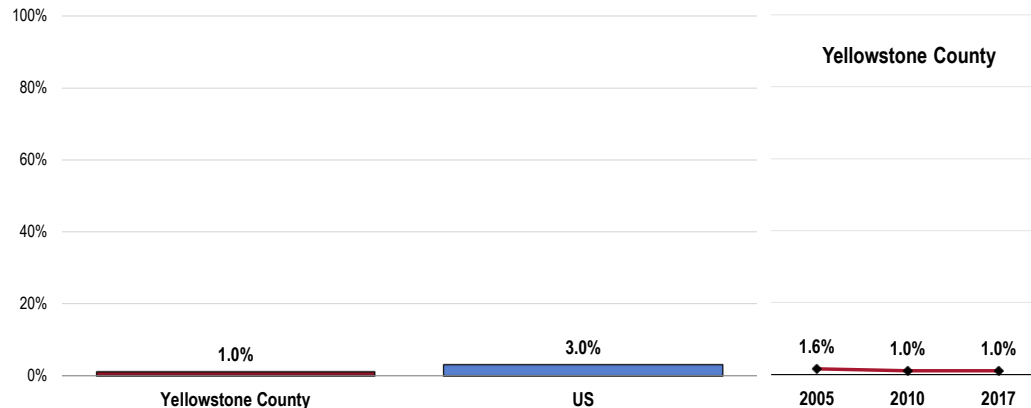
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

## Illicit Drug Use

**A total of 1.0% of Yellowstone County adults acknowledge using an illicit drug in the past month.**

- Better than found nationally.
- Satisfies the Healthy People 2020 target of 7.1% or lower.
- TREND: Statistically unchanged since 2005.

## Illicit Drug Use in the Past Month Healthy People 2020 Target = 7.1% or Lower



Sources: 

- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 67]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-13.3]

Notes: 

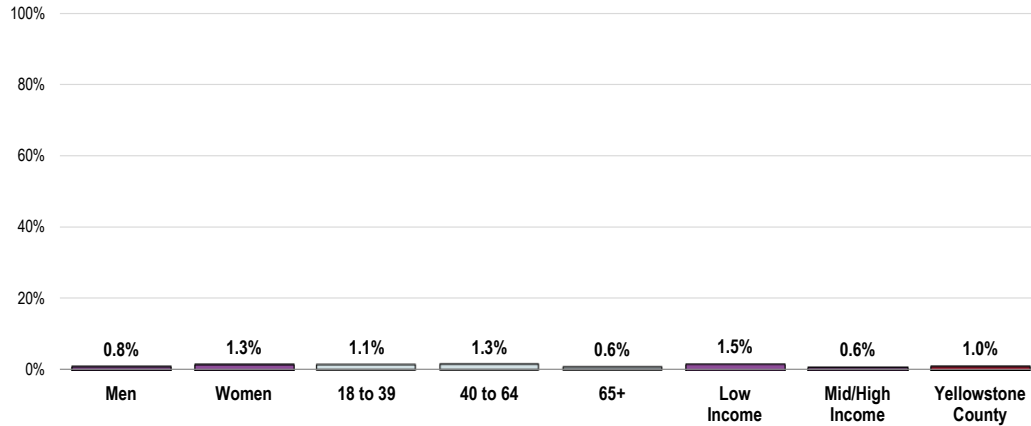
- Asked of all respondents.

For the purposes of this survey, "illicit drug use" includes use of illegal substances or of prescription drugs taken without a physician's order.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that actual illicit drug use in the community is likely higher.

- There are no statistical differences in illicit drug use among the following demographic characteristics.

### Illicit Drug Use in the Past Month (Yellowstone County, 2017) Healthy People 2020 Target = 7.1% or Lower



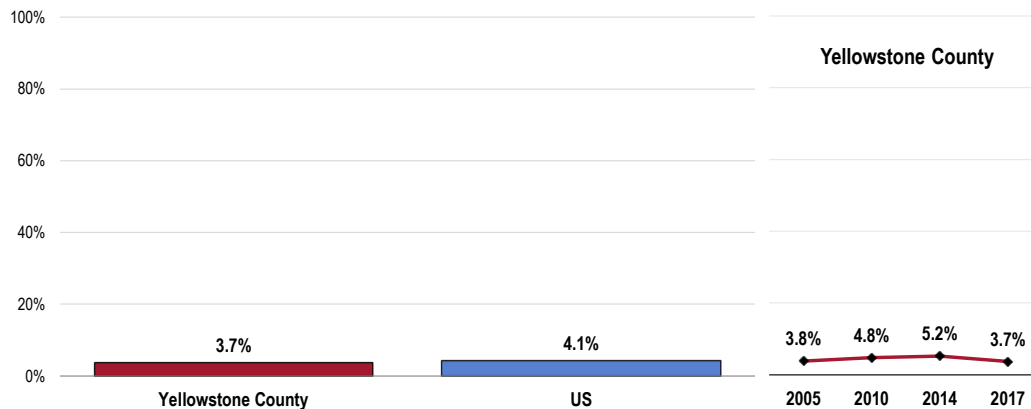
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 67]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective SA-13.3]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Alcohol & Drug Treatment

A total of 3.7% of Yellowstone County adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

- Similar to national findings.
- TREND: Statistically unchanged over time.

### Have Ever Sought Professional Help for an Alcohol/Drug-Related Problem



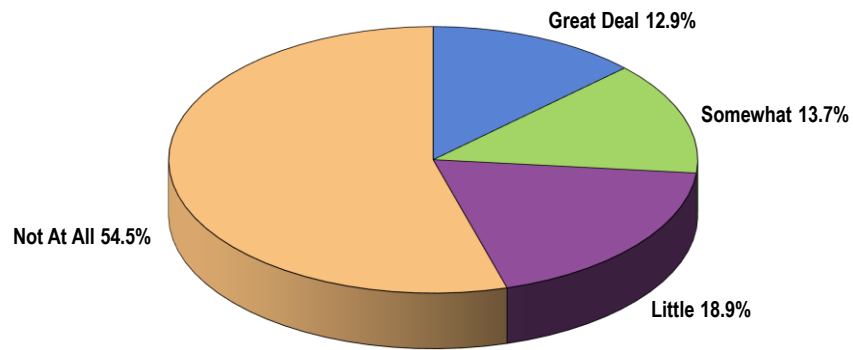
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 68]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

## Negative Effects of Substance Abuse

Area adults were also asked to what degree their lives have been negatively affected by substance abuse (whether their own abuse or that of another).

In all, most respondents have not been negatively affected (54.5% “not at all” responses).

**Degree to Which Life Has Been Negatively Affected by Substance Abuse (Self or Other’s)**  
(Yellowstone County, 2017)

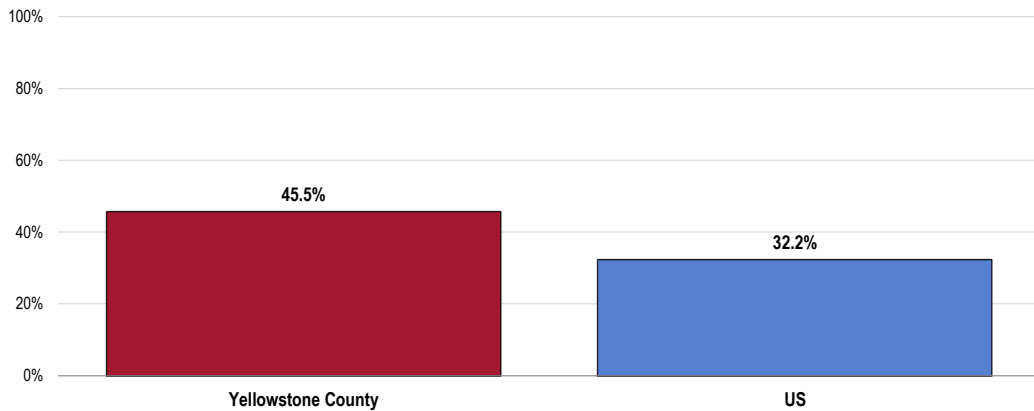


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 69]  
Notes: • Asked of all respondents.

In contrast, 45.5% of survey respondents indicate that their lives have been negatively affected by substance abuse, including 12.9% who gave “a great deal” responses.

- The prevalence of area adults whose lives have been negatively affected by substance abuse is notably higher than the national response.

## Life Has Been Negatively Affected by Substance Abuse (by Self or Someone Else)

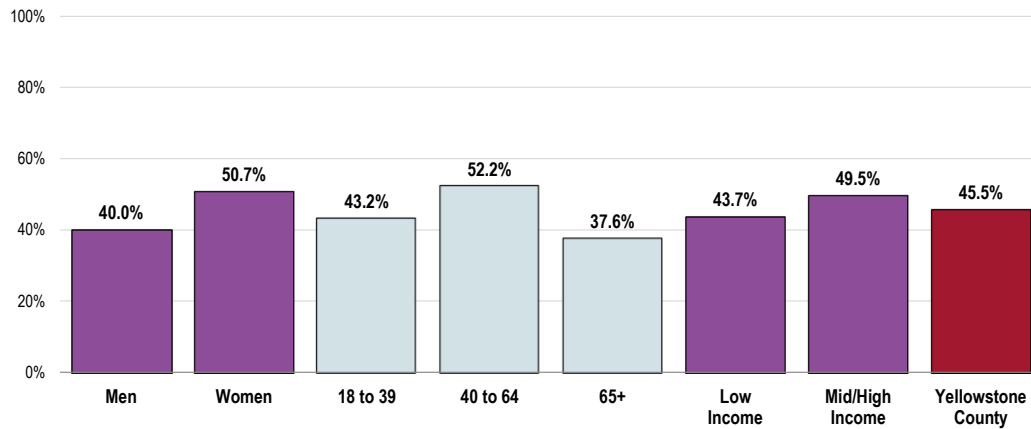


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 69]  
• 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
Notes: • Asked of all respondents.

The prevalence of survey respondents whose lives have been negatively impacted by substance abuse, whether their own abuse or that of another, is higher among the following:

- Women.
- Adults age 40 to 64.

### Life Has Been Negatively Affected by Substance Abuse (by Self or Someone Else) (Yellowstone County, 2017)

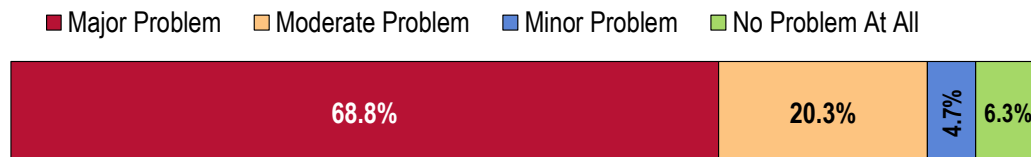


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 69]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Key Informant Input: Substance Abuse

Over two-thirds of key informants taking part in an online survey characterized *Substance Abuse* as a "major problem" in the community.

### Perceptions of Substance Abuse as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

## Barriers to Treatment

Among those rating this issue as a “major problem,” the greatest barriers to accessing substance abuse treatment are viewed as:

### Affordable Care/Services

*There are several wonderful options for those dealing with addictions. The challenges lie in costs for residential treatment. Treatment programs are expensive, and many families seem to have difficulty paying. The other challenges I see have to do with those in addictive cycles and having the necessary motivation to seek treatment. - Community Leader*

*It is nearly impossible for low income people to get inpatient treatment. "Free" beds are limited, and the state treatment program has a waiting list. - Educator*

*Cost of programs that help an individual; not enough providers, compared to the number of addicts seeking help. I have several families where an individual is waiting for treatment beds to open up. In the meantime, they waffle back and forth on going into treatment and continue to use while awaiting the help. - Educator*

*It appears that there is a lack of affordable substance abuse treatment options in Yellowstone County. Although more organizations are becoming more focused on substance abuse, as well as mental health, it appears that there are still a limited number of organizations that offer substance abuse treatment. Prescription drug misuse seems to be a continued problem, along with the growing number of young adults using synthetic drugs. - Community Leader*

*Substance abuse treatment is costly, and access is often delayed by waiting lists. Abusers are often in denial, and the window of opportunity for willingness to participate in treatment is short. We need outreach in the community and resources that can overcome denial. Greater access to inpatient treatment and intensive outpatient treatment is needed. - Community Leader*

*It is expensive, and one has to have insurance that will pay. Only one in Billings. Most won't take patients with a felony in their past. We arrest and lock up folks, rather than trying to have education/support/facilities that are available to actively assist folks. We overlook the amount that Montana as a state consumes in alcohol, which is often the precursor to using other things. Many providers still prescribe pain meds indiscriminately. - Healthcare Provider*

*Cost, which insurance is now covering some of this. I think cost to go to a Rimrock Foundation is a barrier. Lack of a support structure for someone who has gone through treatment; they may end up back in the same situation that got them there in the first place. - Business Leader*

*The greatest barriers to accessing substance abuse treatment are the high cost and the low number of spots available for patients. - Public Health Representative*

*Cost of inpatient and outpatient care for the uninsured and underinsured. - Healthcare Provider*

*Not affordable. Access to evidenced-based practices not available to those without significant financial resources. Stigma is huge. - Government Representative*

*Not enough care that is affordable. Fine for persons that have insurance, but even then, limited choices. - Healthcare Provider*

*Treatment facilities for low-income people. Wait lists on treatment facilities. - Government Representative*

*High cost of treatment. Lack of affordable resources. Stigma and lack of public acceptance. Lack of personal responsibility. - Business Leader*

*Money to pay for treatment. Motivation to enter treatment. Returning home to the same environment and reusing. - Healthcare Provider*

*The greatest barriers to accessing needed substance abuse include: cost of treatment- which usually needs to be long-term- access to licensed chemical abuse counselors, funding for drug courts, and lack of time for judges to participate in drug courts (busy dockets), - Government Representative*

*Cost of going to treatment facility, which is ineffective a lot of times because the person goes back to the environment they came from, with the same influencers that surrounded them when they became addicted. - Community Leader*

*Cost for the residence programs. - Community Leader*

*Cost, insurance, not enough facilities for treatment. - Public Health Representative*

*Cost and access to suboxone and methadone - Public Health Representative*

*Cost. Many families do not have the resources necessary to provide treatment to addicted family members. - Educator*

*Lack of enough affordable, available treatment. - Community Leader Access to local rehab without income or insurance. - Healthcare Provider*

*Free, confidential support. - Educator*

*Cost, education and options. - Business Leader*

*Cost. - Government Representative*

*Cost and available space. - Government Representative*

*Cost of treatment, waiting time to start treatment, lack of affordable drug-free housing. - Business Leader*

### Access to Care/Services

*Lack of resources to address addiction. Lack of public awareness/education on the consequences of addiction to the individual, the family, and the boarder community. Willingness to accept consequences and pay for them. - Healthcare Provider*

*There isn't anywhere for people to go to get the help they need. Unless you have insurance and \$4000 cash, you're out of luck in Billings. Going to the other facilities can take months to get into. Addicts need to have more care available to help them get off the drugs. The state-run programs are like a jail, rather than a safe haven. - Educator*

*There is a lack of access to inpatient care for those who need, in particular at the time they agree to treatment. We must be able to get people admitted as soon as possible (within hours) when they agree to treatment. They often become unwilling to proceed with treatment if they have to wait. - Public Health Representative*

*Meth and opioids. Emphasis on incarceration, rather than on treatment, is damaging to individuals and societies. - Healthcare Provider*

*There is such a large need for help in this area and just not enough places that can give the care needed. - Government Representative*

*Lack of programs to treat co-occurring (mental health and chemical dependency) disorders. Lack of "family treatment" programs. Lack of support systems for individuals in outpatient treatment (i.e. childcare, transportation). - Community Leader*

*Waiting lists, the cost and stigma associated with getting help. Insurance treats this differently than a physical ailment. Meth and prescription abuse are epidemic, which contributes to impairing people's ability to stay sober. Proximity to reservations, which have very pronounced CD issues. - Public Health Representative*

*Treatment facilities are limited and provide inadequate results. Post-treatment facilities, support groups, and infrastructure are even more limited. Most troubling, the community sends a clear message about the irrelevance of substance abuse with the relentless growth of casinos in Billings; one would assume that the community actually encourages the conditions of substance abuse. From an economic development side, the community needs to work on business development that supports quality of life, rather than simply acquiescing to the incessant building of casinos on every corner. - Educator*

*Not enough programs to address substance abuse early. Mental health care can prevent substance abuse. When community members are intercepted, the interventions are too often correctional, such as overcrowding in jail, versus diversion-based. - Public Health Representative*

*Limited options for treatment, places to go and inpatient facilities. - Healthcare Provider*

*Resources are scarce and expensive. - Community Leader*

*A lack of space in the local treatment center. Funding is also a problem for many of those I work with. - Community Leader*

*Counseling/medical treatment. - Educator*

*Open beds and reasonable treatment centers. - Community Leader*

*Not adequate facilities for treatment, both for illicit drug use and alcohol. - Public Health Representative*

*Treatment facilities are limited, and space is not often available. - Healthcare Provider*

*Lack of long-term treatment resources. - Healthcare Provider*

*Enough treatment centers versus jails - Community Leader*

*Not enough local places and financial assistance for alcohol and meth treatment. - Educator*

*New treatment that implants medication. Patients adhering to their treatment is a problem. Access to treatment is also a barrier. - Community Leader*

*Addiction treatment and supports to encourage treatment. - Educator*



Lack of resources. - Educator

### Prevalence/Incidence

Substance abuse is wide-ranging. It's alcohol and prescription drug abuse (opioids and other pain medications) to illegal drugs (meth and marijuana). It is unclear to me if there are enough providers to help those who want help. Cost for treatment may also be a barrier. - Business Leader

Substance use moving more into mainstream medicine. How does primary care deploy SBIRT effectively and make sure that specialty substance use providers are readily available to provide care to individuals with moderate to severe substance use disorders? - Healthcare Provider

Alcohol abuse. The number of DUI's in our county is way too high, and the number of abuse and assault crimes that are tied to alcohol abuse seems significant from reports in the media. - Government Representative

Working for a local nonprofit that works with families across the socioeconomic spectrum, this issue hands-down is one of the largest struggles that is faced in Yellowstone County. - Community Leader

I have had several clients whose dependence on alcohol or illegal drugs has been a serious barrier to keeping a job, stable housing and has even ruined relationships and has caused them to lose their children. It is impossible to be successful if you have an addiction of this nature. - Community Leader

High population of meth users in our community and meth access. - Healthcare Provider

High incidence of substance use without access to inpatient services. - Public Health Representative

Number of patients with alcohol or drug use, all ages. - Public Health Representative

Meth use high, and heroin showing up. - Healthcare Provider

Meth use has become pervasive, as well as the abuse of street and prescription drugs. The greatest barrier is a lack of programs and people's fear of a punitive process. - Public Health Representative

Many people in the community use drugs, both illegal and prescription. - Educator

Terrible issue. I see the impact of this disease every day, since I work downtown. - Community Leader

Drug/Alcohol. Ongoing issue in families that we serve. Also, often related to untreated mental health issues, and they self-medicate through drug/alcohol. - Educator

### Denial/Stigma

Denial of a problem. No desire to get help. I think a large part of our population associates substance abuse with the drunk and homeless on the corner of the street. It is so much bigger than that. There needs to be places people feel like they can go that don't put them in the same category. Rimrock Foundation does a good job getting their name out, but I am unsure if cost is a hindrance to some who need help. - Business Leader

Stigma and a bias that this is a law enforcement issue; crime and incarceration versus an addiction. Adequate insurance coverage for treatment and recovery. - Healthcare Provider

Stigma, losing their children, losing their benefits (SNAP, TANF, etc.), and not enough treatment slots available, creating long wait times. - Business Leader

People who not willing to make a commitment to changing their lives. Cost. Open spaces to accept folks. - Educator

Those that abuse are not likely to go into treatment, and if they do, they do not complete the program. Many abusers do not want to quit and/or do not have the will to change. Too many drugs, and they are readily acceptable. - Community Leader

Stigma, desire, access and cost. - Healthcare Provider

The desire to leave the abuse behind, and the cost of the treatment programs. - Community Leader

Wanting to stop using. Funding for treatment. Bed availability for inpatient treatment. Fear. Stigma. - Community Leader

Stigma, lack of supportive housing, community culture surrounding drug abuse. - Community Leader

People deny that there is a problem. - Community Leader

### Diagnosis/Treatment

The biggest barrier is the inability recognize the addiction and/or to identify the need for treatment. - Community Leader

In my opinion, substance abuse is personal and is not dealt with in a timely manner in families and, therefore, in the community. - Educator

*Similar to mental health, people will not admit or may not be able to recognize they have a problem; therefore, they cannot get treated. Additionally, services are limited for treatment. - Public Health Representative*

*Identification of a problem, cultural acceptance of alcohol at social settings. - Healthcare Provider*

*The abuser does not seek the necessary help or always follow through with recommended treatment until the condition is very advanced. Lax laws for (especially) marijuana are contributing to more abuse that leads to more meth use. - Healthcare Provider*

*Awareness of the problem. Willingness to admit there is a problem. Being able to recognize symptoms which are different from those of alcohol. - Community Leader*

*Physicians under-diagnosing the problem. - Community Leader*

*Interventions and lifestyle supports. - Healthcare Provider*

### **Lack of Providers**

*We are so short on qualified addiction counselors in Yellowstone County that we cannot begin to access needed substance abuse. Couple that shortage with the shortage of facilities and beds available for willing candidates, and the problem becomes critical. Until we can accommodate the growing number of individuals with addiction issues with immediate interventions, we will continue to see this issue grow in our community. - Educator*

*Lack of treatment providers and stigma associated with substance abuse. Individuals using substances like meth aren't given treatment options through the legal system, which really address the length of time actually needed for treatment. In-patient treatment programs can be expensive and don't always have the capacity to take someone when they are ready for treatment. Individuals are using substances like alcohol and prescription drugs to self-medicate for underlying mental health challenges like depression and anxiety. Some of those substances are socially acceptable and easily accessible. For individuals newly into sobriety, it's challenging to find sober housing and/or places to engage in social activities without exposure to alcohol. - Healthcare Provider*

*Not enough providers for treatment, limited available spots for treatment, engaging patients in their health. Underlying mental health issues, either undertreated or not treated. Other factors influencing engagement in obtaining treatment. - Public Health Representative*

*Only one substance abuse provider. No community organization with focus on serving low-income substance abusers. - Public Health Representative*

*Access to practitioners. Very few qualified professionals in Billings. - Healthcare Provider*

*Lack of providers and lack of funds to compensate providers. - Government Representative*

*Not enough trained substance abuse workers and counselors. Public awareness. - Educator*

### **Lack of Funding**

*Funding, access, getting people to get treatment. - Community Leader*

*Lack of funding for the most part, and Billings has a very high need for substance abuse treatment, especially in American Indian/Alaska Natives in our community. - Healthcare Provider*

*Funding, lack of available treatment beds. - Community Leader*

*Funding. - Healthcare Provider*

*Funding and programs specific to youth that are not residential-based. - Community Leader*

### **Accessibility**

*The easy availability of all substances, and lack of parental control. - Government Representative*

*The drugs are (it seems) very accessible. How to help law enforcement address this growing problem. Also, the need to addressing the reason why people abuse. Getting to the root of the problem.*

*Likewise, avenues for treatment, accessibility, and cost needs to be addressed. - Community Leader*

*Drugs easy to access - Healthcare Provider*

### **Addiction**

*The addiction itself and then finding care that will be available at a cost that the individual can afford. - Community Leader*

*Addiction. Not enough therapists that are affordable. Lack of beds that people can access. - Community Leader*

*Meth sucks. Its rapid impact on brain chemistry turns normal people into addicts in weeks. Need to address the addiction and keep people out of jail. - Government Representative*

**Criminality**

*Our community and state have horrible laws related to minors in possession, and driving under the influence. We give so many chances and little support for those who get a DUI. We perpetuate the stereotype of Montana being a drunk state and do nothing for those who are found guilty of these crimes that endanger lives. - Community Leader*

*Substance abuse is seen as a criminal issue and not a health issue. - Community Leader*

*National and local understandings that substance abuse should happen through law enforcement. - Community Leader*

**Substance Abuse**

*Most cases of drug abuse are self-medication for a mental health issue. - Government Representative*

*In part, the same barriers that exist for mental health treatment pertain to substance abuse. But at the national level, there is debate about the appropriate treatment. Drug court vs. incarceration, for example. - Community Leader*

*I believe mental health issues are a result of the substance abuse problems. - Healthcare Provider*

**Cultural Acceptance**

*I have recently realized that those who solicit drugs into the community are people who do not actually use the drugs themselves. In this case, it could be very difficult to track down these people since they are not obvious drug abusers. - Educator*

*The acceptance of the use of drugs. - Community Leader*

**Health Education**

*Lack of preventative education and care. Dysfunctional life styles. - Community Leader*

*Knowledge of the assistance that is available, and the desire to get off the substance. - Community Leader*

**Culture**

*Understanding the culture of the persons or clients being served. Using various approaches to treatment and recovery. Alternatives interventions that are extremely effective but are a little more costly, such as Equine Wellness and Healing. Building relationship by those individuals involved with a client's treatment or recovery. The medical model doesn't promote this. - Community Leader*

**Community Attitude**

*Alcohol abuse and our willingness to accept that it is a nexus for many health and crime issues in our community. We glorify the use of alcohol. - Business Leader*

**Drinking and Driving**

*Too much beer. The culture here is all about drinking and driving. People overserve, and it's normal to drink six beers and drive home. - Government Representative*

**Insurance Issues**

*Benefit coverage/cost, limited access. - Healthcare Provider*

**Poverty**

*Poverty, depression. - Business Leader*

### Most Problematic Substances

Key informants (who rated this as a “major problem”) clearly identified **alcohol** as the most problematic substance abused in the community, followed by **methamphetamine/other amphetamines** and **prescription medications**.

|  | Most Problematic | Second-Most Problematic | Third-Most Problematic | Total Mentions |
|--|------------------|-------------------------|------------------------|----------------|
| Alcohol  | 56.1%            | 34.1%                   | 7.7%                   | <b>40</b>      |
| Methamphetamines or Other Amphetamines         | 34.1%            | 34.1%                   | 12.8%                  | <b>33</b>      |
| Prescription Medications                       | 7.3%             | 14.6%                   | 38.5%                  | <b>24</b>      |
| Heroin or Other Opioids                        | 2.4%             | 2.4%                    | 15.4%                  | <b>8</b>       |
| Marijuana                                      | 0.0%             | 2.4%                    | 15.4%                  | <b>7</b>       |
| Over-The-Counter Medications                   | 0.0%             | 7.3%                    | 2.6%                   | <b>4</b>       |
| Cocaine or Crack                               | 0.0%             | 2.4%                    | 5.1%                   | <b>3</b>       |
| Club Drugs<br>(e.g. MDMA, GHB, Ecstasy, Molly) | 0.0%             | 2.4%                    | 0.0%                   | <b>1</b>       |
| Inhalants                                      | 0.0%             | 0.0%                    | 2.6%                   | <b>1</b>       |

## Tobacco Use

### About Tobacco Use

Tobacco use is the single most preventable cause of death and disease in the United States. Scientific knowledge about the health effects of tobacco use has increased greatly since the first Surgeon General's report on tobacco was released in 1964.

Tobacco use causes:

- Cancer
- Heart disease
- Lung diseases (including emphysema, bronchitis, and chronic airway obstruction)
- Premature birth, low birth weight, stillbirth, and infant death

There is no risk-free level of exposure to secondhand smoke. Secondhand smoke causes heart disease and lung cancer in adults and a number of health problems in infants and children, including: severe asthma attacks; respiratory infections; ear infections; and sudden infant death syndrome (SIDS).

Smokeless tobacco causes a number of serious oral health problems, including cancer of the mouth and gums, periodontitis, and tooth loss. Cigar use causes cancer of the larynx, mouth, esophagus, and lung.

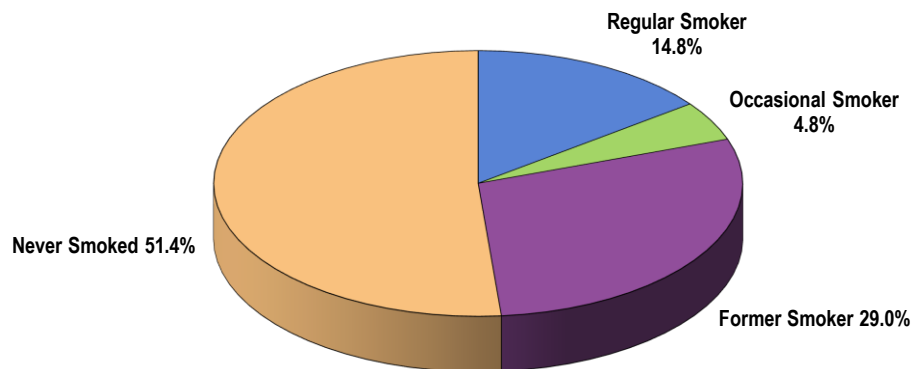
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

## Cigarette Smoking

### Cigarette Smoking Prevalence

A total of 19.6% of Yellowstone County adults currently smoke cigarettes, either regularly (14.8% every day) or occasionally (4.8% on some days).

**Cigarette Smoking Prevalence**  
(Yellowstone County, 2017)



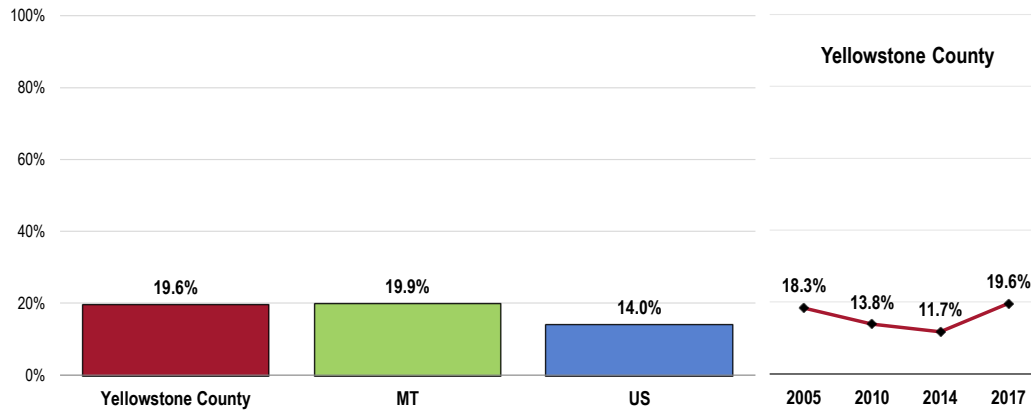
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 181]  
Notes: • Asked of all respondents.

- Similar to statewide findings.
- Less favorable than national findings.
- Fails to satisfy the Healthy People 2020 target (12% or lower).

- **TREND:** The smoking percentage decreased significantly from 2005 to 2014 but then increased to a rate statistically similar to 2005 findings.

### Current Smokers

Healthy People 2020 Target = 12.0% or Lower



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 181]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective TU-1.1]

Notes: • Asked of all respondents.  
 • Includes regular and occasional smokers (those who smoke cigarettes every day or on some days).

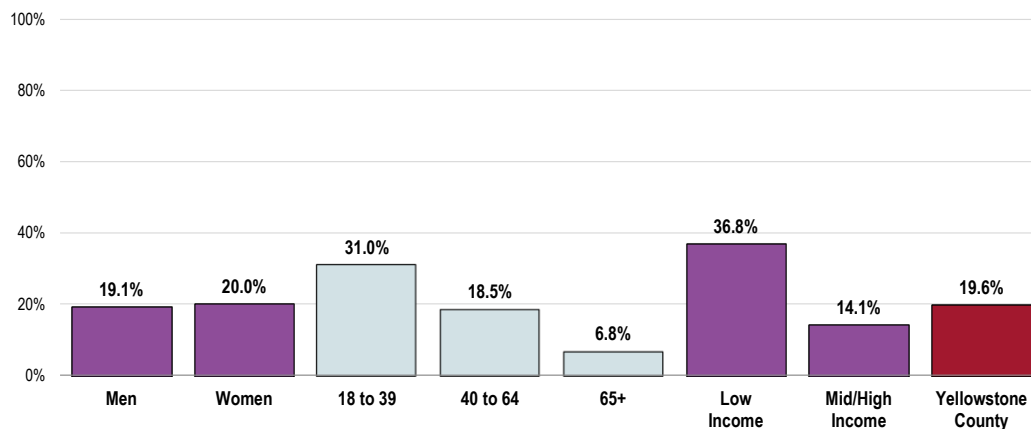
Cigarette smoking is more prevalent among:

- Adults under 40 (negative association with age).
- Lower-income residents.

### Current Smokers

(Yellowstone County, 2017)

Healthy People 2020 Target = 12.0% or Lower



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 181]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective TU-1.1]

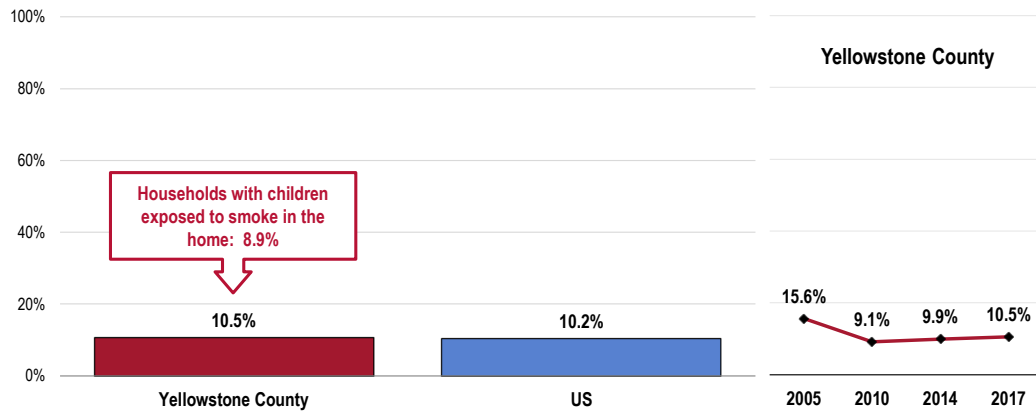
Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 • Includes regular and occasion smokers (every day and some days).

### Environmental Tobacco Smoke

A total of 10.5% of Yellowstone County adults (including smokers and nonsmokers) report that a member of their household has smoked cigarettes in the home an average of 4+ times per week over the past month.

- Similar to national findings.
- TREND: Findings from the past three surveys have remained statistically lower than found in 2005.
- Note that 8.9% of Yellowstone County children are exposed to cigarette smoke at home, similar to what is found nationally.

### Member of Household Smokes at Home



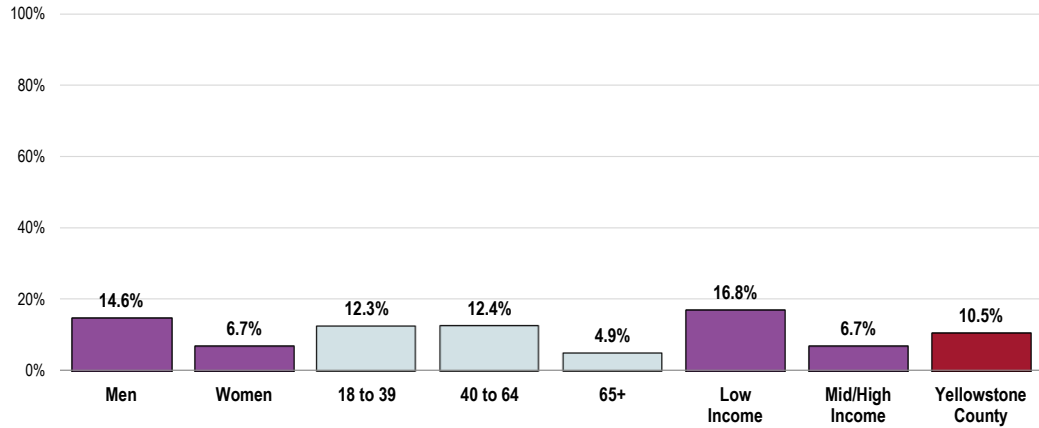
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 58, 184]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.  
 • "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

Regular exposure to smoke in the home is higher among:

- Men.
- Adults age 40 to 64.
- Residents with lower incomes.

## Member of Household Smokes At Home (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 58]

- Notes:
- Asked of all respondents.
  - Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
  - "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

## Smoking Cessation

### About Reducing Tobacco Use

Preventing tobacco use and helping tobacco users quit can improve the health and quality of life for Americans of all ages. People who stop smoking greatly reduce their risk of disease and premature death. Benefits are greater for people who stop at earlier ages, but quitting tobacco use is beneficial at any age.

Many factors influence tobacco use, disease, and mortality. Risk factors include race/ethnicity, age, education, and socioeconomic status. Significant disparities in tobacco use exist geographically; such disparities typically result from differences among states in smoke-free protections, tobacco prices, and program funding for tobacco prevention.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

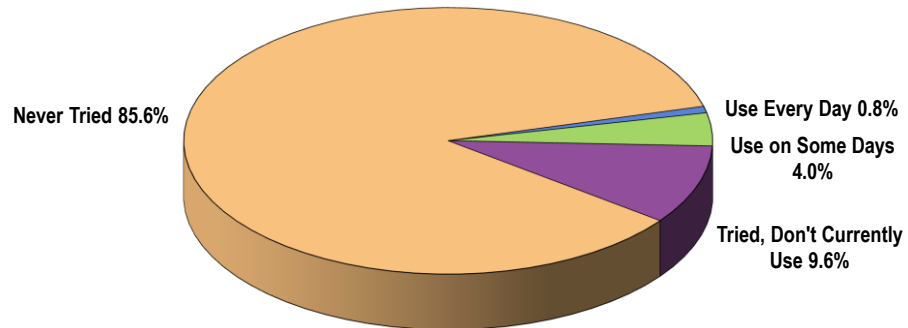
## Other Tobacco Use

### Electronic Cigarettes

**A total of 4.8% of Yellowstone County adults currently use electronic cigarettes ("e-cigarettes"), either regularly (0.8% every day) or occasionally (4.0% on some days).**



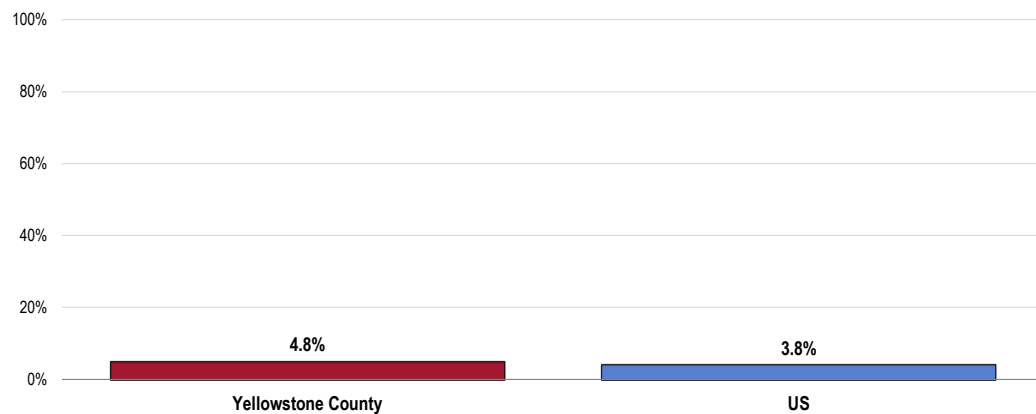
### Electronic Cigarette Use (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 208]  
 Notes: • Asked of all respondents.

- Similar to national findings.

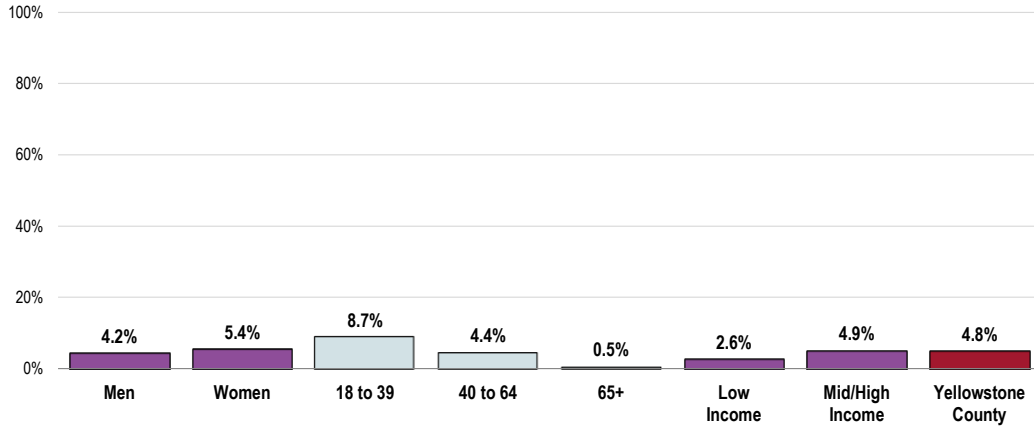
### Currently Use Electronic Cigarettes (Every Day or on Some Days)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 208]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.  
 • Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

- Note the negative association between electronic cigarette use and age.

## Currently Use Electronic Cigarettes (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 208]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 • Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

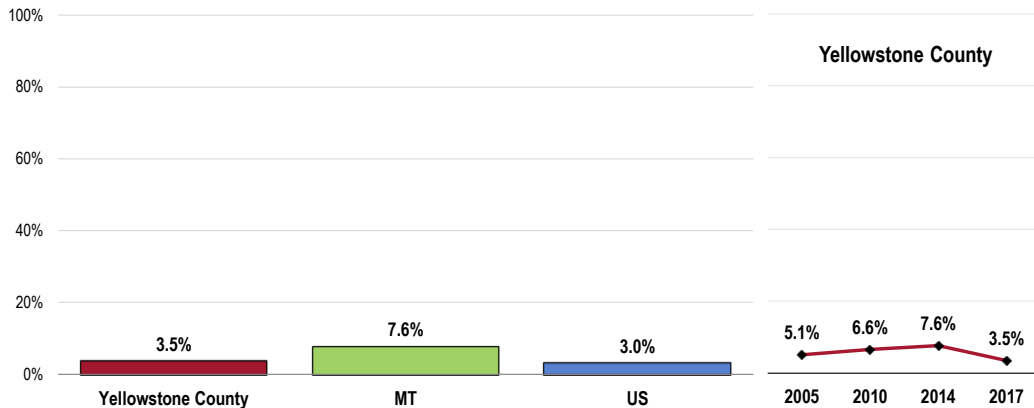
## Smokeless Tobacco

**A total of 3.5% of Yellowstone County adults use some type of smokeless tobacco every day or on some days.**

- Lower than the state percentage.
- Comparable to the national percentage.
- Fails to satisfy the Healthy People 2020 target (0.3% or lower).
- TREND: Denotes a significant decrease since 2014, but is statistically similar to baseline 2005 findings.

Examples of smokeless tobacco include chewing tobacco, snuff, or "snus."

## Currently Use Smokeless Tobacco HP2020 Goal = 0.3% or Lower



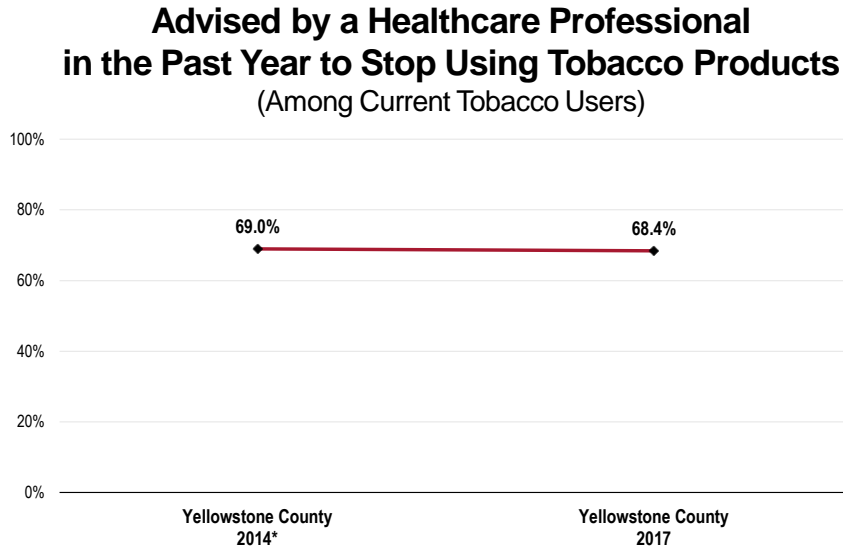
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 59]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 Montana data.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective TU-1.2]  
 Notes: • Asked of all respondents.  
 • Smokeless tobacco includes chewing tobacco or snuff.

While e-cigarettes do not involve the burning of tobacco, most do contain nicotine derived from tobacco, and are therefore considered tobacco products.

## Health Advice About Tobacco Use

A high percentage (68.4%) of current tobacco users (those using cigarettes, smokeless tobacco, or e-cigarettes) say that a doctor, nurse or other health professional has recommended in the past year that they stop using tobacco products.

- **TREND:** Statistically similar to 2014 findings (note that in the prior survey, this question was only asked of respondents using cigarettes, smokeless tobacco, or cigars).

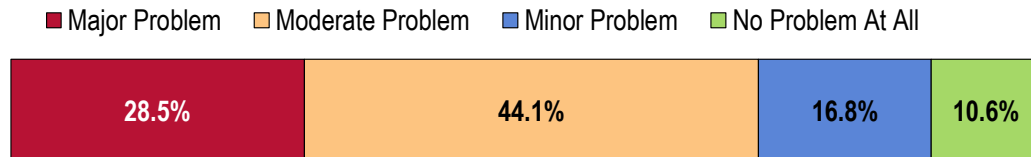


- Sources:
- PRC Community Health Surveyss, Professional Research Consultants, Inc. [Item 306]
- Notes:
- Current tobacco users include respondents using cigarettes, smokeless tobacco, or electronic cigarettes.
  - \*In previous surveys, this question was only asked of respondents using cigarettes, smokeless tobacco, or cigars.

## Key Informant Input: Tobacco Use

The greatest share of key informants taking part in an online survey characterized *Tobacco Use* as a “moderate problem” in the community.

### Perceptions of Tobacco Use as a Problem in the Community (Key Informants, 2017)



- Sources:
- PRC Online Key Informant Survey, Professional Research Consultants, Inc.
- Notes:
- Asked of all respondents.

## Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

### Prevalence/Incidence

*Kids are still picking up the habit. The drain on our health care system from the complications from long-term smoking is immense. I include the problem of vaping and other nicotine delivery systems in this. - Community Leader*

*I believe that this is a major problem, because the majority of people that I am acquainted with have either tried, used, or currently used some form of tobacco. All types of tobacco use has become very popular, and I see it happening all around us. - Educator*

*Adults still smoke, and new smokers are still being recruited. Smokers are allowed to smoke in outdoor public places, including city parks, where there are many children. - Healthcare Provider*

*Smokers are careless where and when they smoke and subject neighbors and co-workers to secondhand smoke. Strides have been made to correct this problem, but there is still a ways to go. - Community Leader*

*Vast number of younger people still smoking, in spite of knowledge of health implications. - Public Health Representative*

*Every day I see people walking around Billings and smoking. I get out of my car in the parking garage, and I have to walk through a cloud of smoke to leave the building. When I walk into the building where my office is, there is almost always a group of people near the door smoking. Even if you don't smoke, you can't get away from it. - Business Leader*

*Despite 50 years of unquestionable science, we still have about 1 of every 5 adults who smoke! - Public Health Representative*

*While smoking is less visible, the use of chew continues to be widespread, with little public attention on the topic. - Educator*

*I see many people still smoking, even though there is a lot of negative ads against it. - Community Leader*

*Any use at all is a major problem. - Community Leader*

*There are still many people smoking, and young people are starting daily. - Educator*

*I see a lot of smokers. It seems like I see more here than in many other rural states. - Community Leader*

*The short-term- and especially long-term- health toll is staggering. - Government Representative*

*Cigarettes are smoked all over town. - Community Leader*

*I believe they feel older and more social to everyone else. Or want to be socially cool. - Government Representative*

*You can't go anywhere without seeing someone smoking or using chewing tobacco. - Community Leader*

*Tobacco use in all forms is a major issue in the community. - Educator*

*Despite education about the risks of tobacco use, the community is still using tobacco regularly and our youth is engaging in other behaviors related to tobacco use without accurate information about the associated risk. - Educator*

*Youth Risk Behavior data. - Community Leader*

### E-Cigarettes and Smokeless Tobacco

*Through observation, it appears that the e-cigarette has offered a new avenue for tobacco addiction. I do not see an increase in the number of smokeless tobacco users, although I think this issue is higher among teens in our area; however, I do see the use of e-cigarettes as a major problem. - Educator*

*Chewing and electronic cigarettes are now popular amongst our youth. It is tough when some of our students are legally able to obtain tobacco products (age 18) but are still in high school. My wish would be to increase the age to 21, just like alcohol, and maybe stop some of them from starting at age 18 in an effort to prove their adult status. - Educator*

*Both smokeless and cigarettes are cultural issues. Marlboro Man image. - Healthcare Provider*

*While cigarette smoking may be on the decline because of Montana's Clean Indoor Air Act, Montanans are still using smokeless tobacco or e-cigarettes. I personally know many men who dip regularly. It's part of their culture. - Business Leader*

*Use of chew tobacco in school-age youth. E-cigs and vaping appear to be everywhere. - Public Health Representative*

*E-cigarettes are not helping decrease the use of tobacco products. As well as continued advertising, too many different populations to use tobacco. - Public Health Representative*

*Even though the use of tobacco has reduced somewhat in recent years, the use of e-cigarettes has caused some increasing problems. - Community Leader*

### **Addiction**

*I find that an addiction like tobacco use can cause clients to make very irrational decisions when it comes to money (like buying cigarettes when you cannot even afford your rent, or diapers). Many of my clients express interest in quitting, but I have heard many times that it is not an easy thing to do. It is also damaging to your health, causing cancer, heart problems, breathing problems and dental issues. I have several clients suffering from tobacco-induced illnesses. - Community Leader*

*People have been addicted to tobacco for centuries. - Educator*

*Addictive nature of nicotine. – Educator*

*Nicotine is very addictive - Public Health Representative*

### **Related Health Issues**

*Tobacco use goes hand-in-hand with many other health problems. Cancer seems to be at a rising rate, and the risks for secondhand smoke (even thirdhand smoke) are being proven now. Although smoking and the use of smokeless tobacco products are becoming more frowned upon, most work environments still have a significant amount of smokers. - Community Leader*

*We as a city have seen the many health problems that come from tobacco use. - Government Representative*

*Tobacco use is a major risk factor in many medical conditions: CAD, diabetes, lung and respiratory compromise, CVA, etc. - Public Health Representative*

*Smoking is tied to cancer and is an easy solution to decreasing lung cancer, in particular. - Healthcare Provider*

### **Health Education**

*A lack of awareness of the risks of tobacco smoke, especially secondhand smoke. Easy access to purchasing tobacco. Limited resources in helping in tobacco cessation. Screening and treatment are not a top priority when seeing a provider. - Public Health Representative*

*As an active tobacco user who wants support in quitting, I am unaware of how where to go for free resources in town. - Community Leader*

*Lack of education, support and preventative options. - Community Leader*

### **Advertising**

*Strong advertising, especially directed at youth. - Government Representative*

### **Vulnerable Populations**

*Tobacco use is very high in American Indian/Alaska Natives in our community. - Healthcare Provider*

# Death, Disease & Chronic Conditions



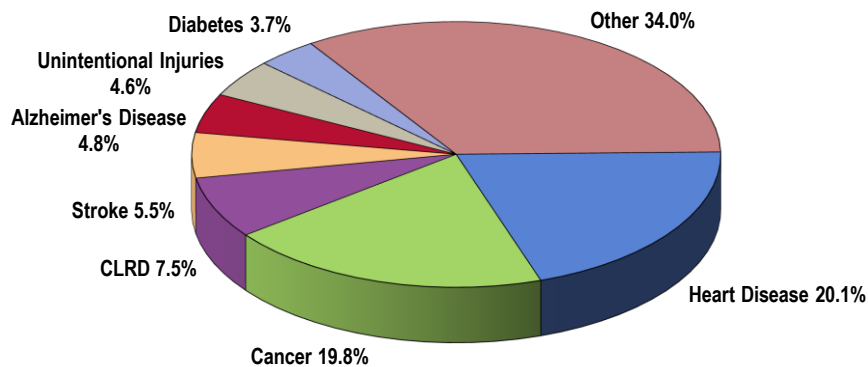
**Professional Research Consultants, Inc.**

## Leading Causes of Death

### Distribution of Deaths by Cause

Together, cardiovascular disease (heart disease and stroke) and cancers accounted for nearly one-half of all deaths in Yellowstone County in 2014.

**Leading Causes of Death**  
(Yellowstone County, 2014)



- Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
• CLRD is chronic lower respiratory disease.

### Age-Adjusted Death Rates for Selected Causes

In order to compare mortality in the region with other localities (in this case, Montana and the United States), it is necessary to look at *rates* of death — these are figures which represent the number of deaths in relation to the population size (such as deaths per 100,000 population, as is used here).

Furthermore, in order to compare localities without undue bias toward younger or older populations, the common convention is to adjust the data to some common baseline age distribution. Use of these “age-adjusted” rates provides the most valuable means of gauging mortality against benchmark data, as well as *Healthy People 2020* targets.

The following chart outlines 2012-2014 annual average age-adjusted death rates per 100,000 population for selected causes of death in Yellowstone County.

Each of these is discussed in greater detail in subsequent sections of this report.

For infant mortality data, see [Birth Outcomes & Risks](#) in the [Births](#) section of this report.

## Age-Adjusted Death Rates for Selected Causes (2012-14 Deaths per 100,000 Population)

|   | Yellowstone County | MT    | US    | HP2020 |
|---|--------------------|-------|-------|--------|
| <b>Malignant Neoplasms (Cancers)</b>            | 158.1              | 155.2 | 163.6 | 161.4  |
| <b>Diseases of the Heart</b>                    | 147.8              | 151.0 | 169.1 | 156.9* |
| <b>Chronic Lower Respiratory Disease (CLRD)</b> | 53.9               | 49.9  | 41.4  | n/a    |
| <b>Cerebrovascular Disease (Stroke)</b>         | 39.1               | 35.7  | 36.5  | 34.8   |
| <b>Unintentional Injuries</b>                   | 34.4               | 54.4  | 39.7  | 36.4   |
| <b>Alzheimer's Disease</b>                      | 33.1               | 20.2  | 24.2  | n/a    |
| <b>Intentional Self-Harm (Suicide)</b>          | 22.8               | 23.4  | 12.7  | 10.2   |
| <b>Diabetes Mellitus</b>                        | 19.9               | 19.3  | 21.1  | 20.5*  |
| <b>Firearm-Related</b>                          | 17.0               | 16.5  | 10.4  | 9.3    |
| <b>Drug-Induced</b>                             | 16.4               | 14.6  | 14.6  | 11.3   |
| <b>Pneumonia/Influenza</b>                      | 13.3               | 14.1  | 15.1  | n/a    |
| <b>Cirrhosis/Liver Disease</b>                  | 12.8               | 12.6  | 10.2  | 8.2    |
| <b>Motor Vehicle Deaths</b>                     | 12.7               | 19.9  | 10.5  | 12.4   |
| <b>Kidney Diseases</b>                          | 8.6                | 9.3   | 13.2  | n/a    |

Sources: 

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov>.

Note: 

- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population and coded using ICD-10 codes.
- \*The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart; the Diabetes target is adjusted to reflect only diabetes mellitus-coded deaths.



## Cardiovascular Disease

### About Heart Disease & Stroke

Heart disease is the leading cause of death in the United States, with stroke following as the third leading cause. Together, heart disease and stroke are among the most widespread and costly health problems facing the nation today, accounting for more than \$500 billion in healthcare expenditures and related expenses in 2010 alone. Fortunately, they are also among the most preventable.

The leading modifiable (controllable) risk factors for heart disease and stroke are:

- High blood pressure
- High cholesterol
- Cigarette smoking
- Diabetes
- Poor diet and physical inactivity
- Overweight and obesity

The risk of Americans developing and dying from cardiovascular disease would be substantially reduced if major improvements were made across the US population in diet and physical activity, control of high blood pressure and cholesterol, smoking cessation, and appropriate aspirin use.

The burden of cardiovascular disease is disproportionately distributed across the population. There are significant disparities in the following based on gender, age, race/ethnicity, geographic area, and socioeconomic status:

- Prevalence of risk factors
- Access to treatment
- Appropriate and timely treatment
- Treatment outcomes
- Mortality

Disease does not occur in isolation, and cardiovascular disease is no exception. Cardiovascular health is significantly influenced by the physical, social, and political environment, including: maternal and child health; access to educational opportunities; availability of healthy foods, physical education, and extracurricular activities in schools; opportunities for physical activity, including access to safe and walkable communities; access to healthy foods; quality of working conditions and worksite health; availability of community support and resources; and access to affordable, quality healthcare.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

## Age-Adjusted Heart Disease & Stroke Deaths

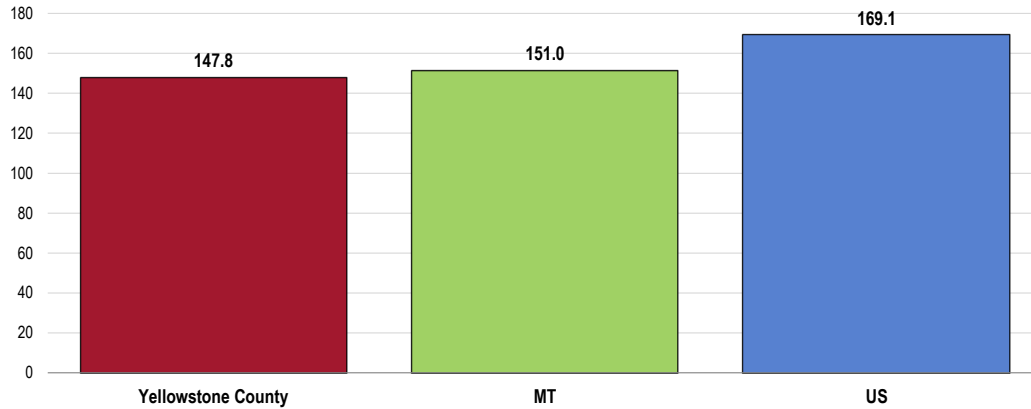
### Heart Disease Deaths

**Between 2012 and 2014 there was an annual average age-adjusted heart disease mortality rate of 147.8 deaths per 100,000 population in Yellowstone County.**

- Comparable to statewide findings.
- Lower than the national rate.
- Satisfies the Healthy People 2020 target of 156.9 or lower (as adjusted to account for all diseases of the heart).

The greatest share of cardiovascular deaths is attributed to heart disease.

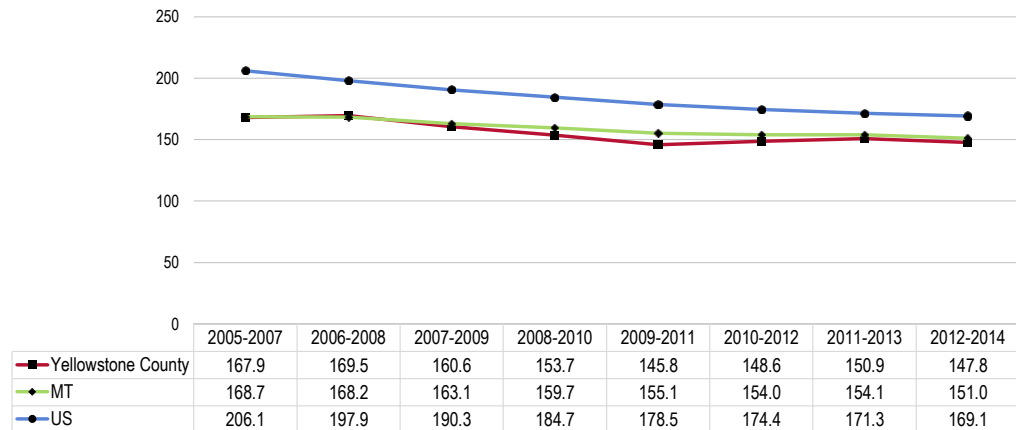
### Heart Disease: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 156.9 or Lower (Adjusted)



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-2]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
  - The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

- **TREND:** The heart disease mortality rate has decreased in Yellowstone County, echoing the decreasing trends across Montana and the US overall.

### Heart Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 156.9 or Lower (Adjusted)



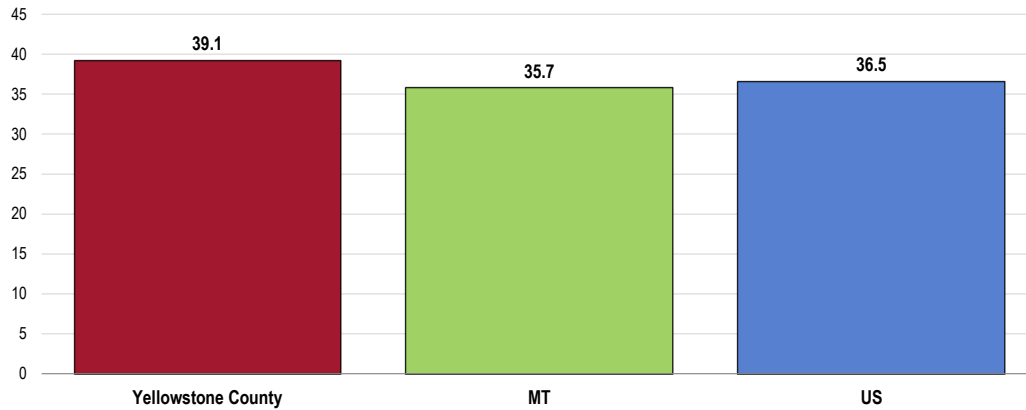
- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-2]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
  - The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

### Stroke Deaths

Between 2012 and 2014, there was an annual average age-adjusted stroke mortality rate of 39.1 deaths per 100,000 population in Yellowstone County.

- Less favorable than the Montana and national rates.
- Fails to satisfy the Healthy People 2020 target of 34.8 or lower.

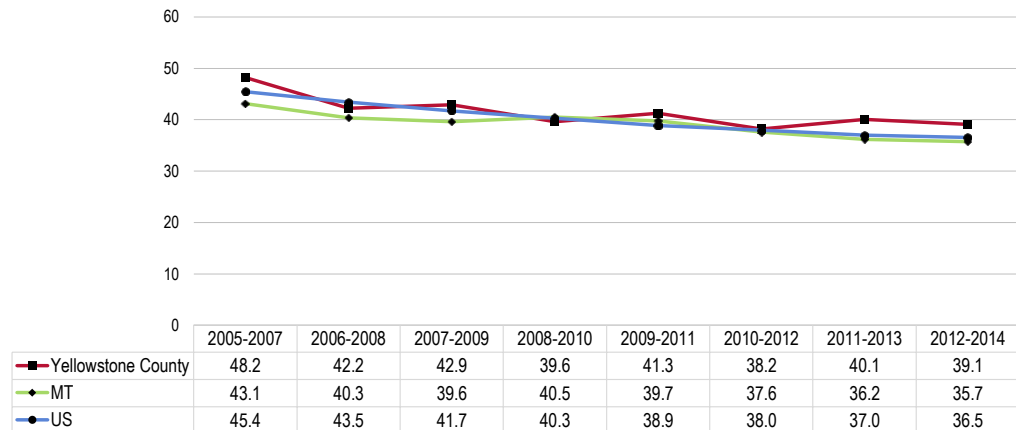
**Stroke: Age-Adjusted Mortality**  
(2012-14 Annual Average Deaths per 100,000 Population)  
Healthy People 2020 Target = 34.8 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-3]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: Despite fluctuations, the stroke rate has declined in recent years, echoing the trends reported across Montana and the US overall.

**Stroke: Age-Adjusted Mortality Trends**  
(Annual Average Deaths per 100,000 Population)  
Healthy People 2020 Target = 34.8 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-3]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

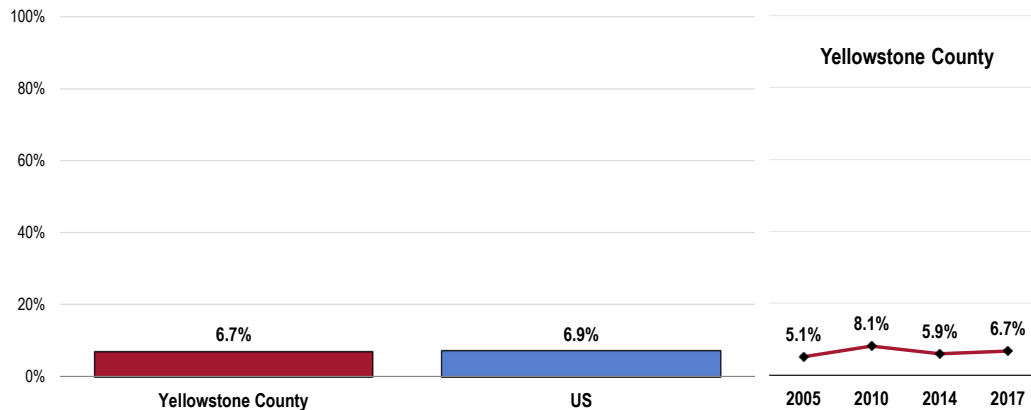
## Prevalence of Heart Disease & Stroke

### Prevalence of Heart Disease

A total of 6.7% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina or heart attack.

- Nearly identical to the national prevalence.
- TREND: Has remained statistically unchanged since 2005.

### Prevalence of Heart Disease

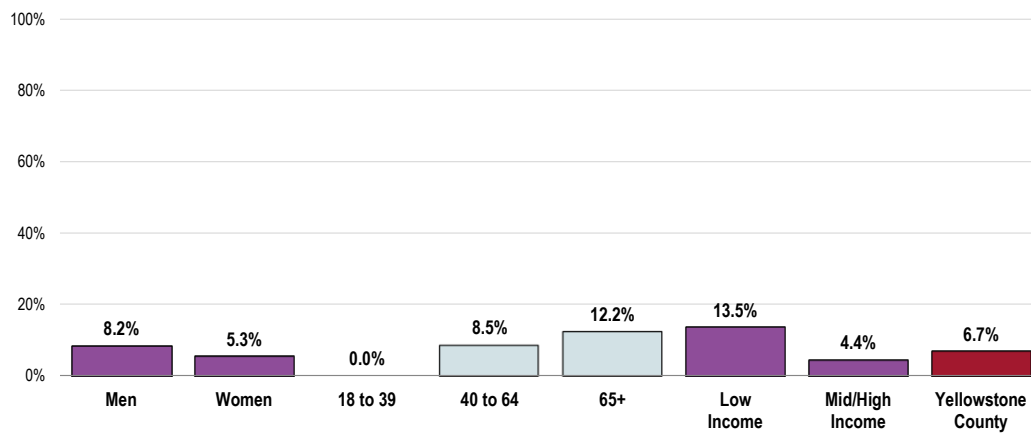


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 146]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.  
 • Includes diagnoses of heart attack, angina or coronary heart disease.

Adults more likely to have been diagnosed with chronic heart disease include:

- Adults over age 40, especially seniors.
- Residents with low incomes.

### Prevalence of Heart Disease (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 146]  
 Notes: • Asked of all respondents.  
 • Includes diagnoses of heart attack, angina or coronary heart disease.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

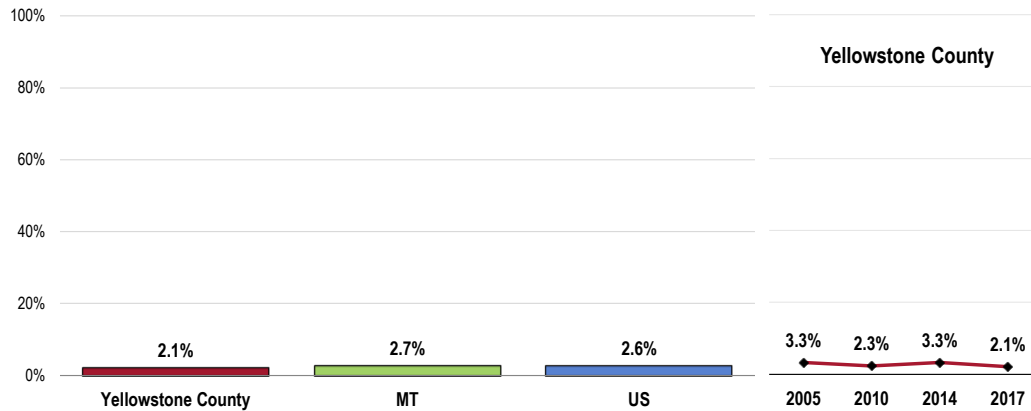
Respondents were told that a stroke is also called a "brain attack" or a blood clot in the brain.

### Prevalence of Stroke

**A total of 2.1% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).**

- Similar to statewide and national findings.
- TREND: Stroke prevalence has not varied significantly over time.

### Prevalence of Stroke



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 35]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 Montana data.

Notes: • Asked of all respondents.  
 • The previous surveys as well as the national survey did not mention that a stroke is also called a "brain attack" or a blood clot in the brain.

## Cardiovascular Risk Factors

### About Cardiovascular Risk

Controlling risk factors for heart disease and stroke remains a challenge. High blood pressure and cholesterol are still major contributors to the national epidemic of cardiovascular disease. High blood pressure affects approximately 1 in 3 adults in the United States, and more than half of Americans with high blood pressure do not have it under control. High sodium intake is a known risk factor for high blood pressure and heart disease, yet about 90% of American adults exceed their recommendation for sodium intake.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### High Blood Pressure

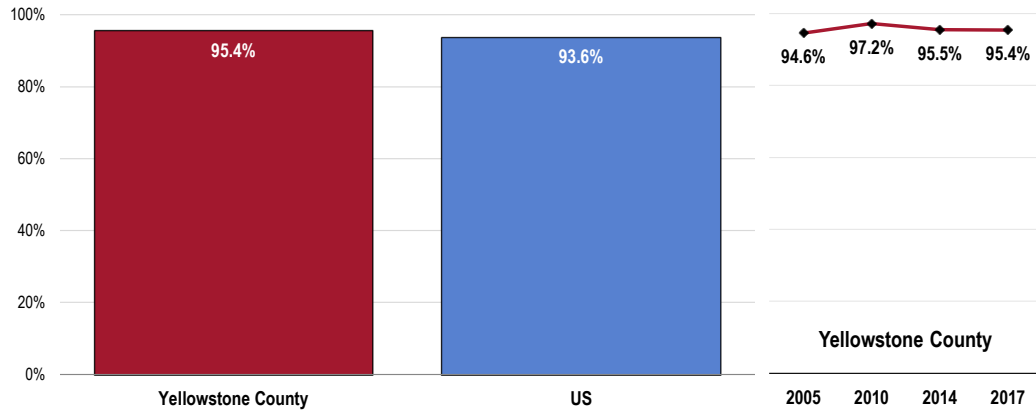
#### High Blood Pressure Testing

**A total of 95.4% of Yellowstone County adults have had their blood pressure tested within the past two years.**

- Similar to national findings.
- Satisfies the Healthy People 2020 target (92.6% or higher).
- TREND: Statistically unchanged since 2005.

## Have Had Blood Pressure Checked in the Past Two Years

Healthy People 2020 Target = 92.6% or Higher



Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 44]  
 ● 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 ● US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-4]  
 Notes: ● Asked of all respondents.

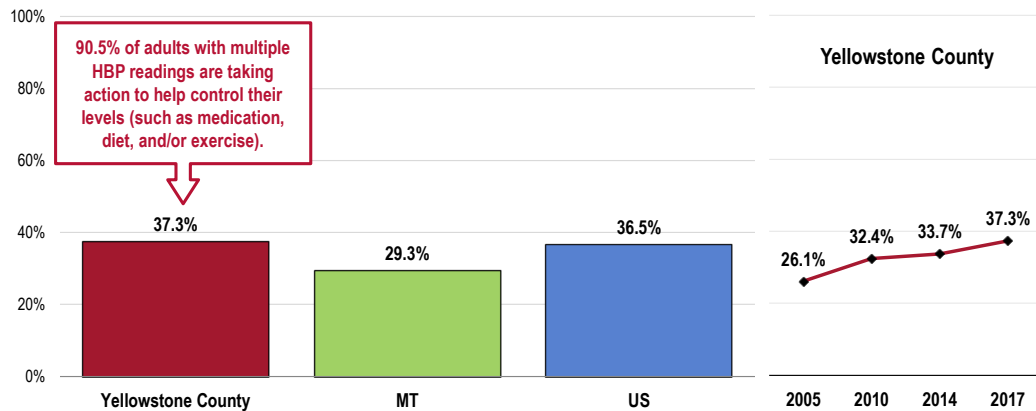
### Prevalence of High Blood Pressure

**A total of 37.3% of Yellowstone County adults have been told at some point that their blood pressure was high.**

- Less favorable than the Montana prevalence.
- Similar to the national prevalence.
- Fails to satisfy the Healthy People 2020 target (26.9% or lower).
- TREND: Marks a statistically significant increase since 2005.
- Among adults with multiple high blood pressure readings, 90.5% are taking action to lower their blood pressure (such as medication, change in diet, and/or exercise).

### Prevalence of High Blood Pressure

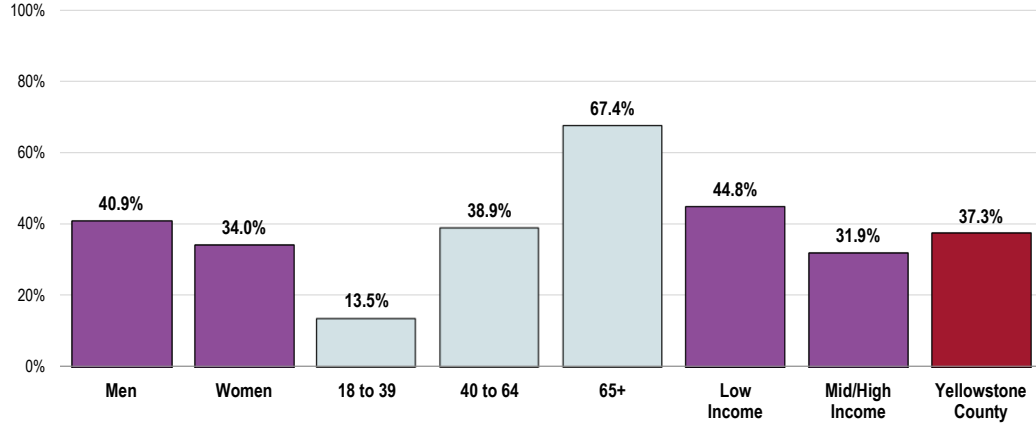
Healthy People 2020 Target = 26.9% or Lower



Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 43, 147]  
 ● Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2013 Montana data.  
 ● 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 ● US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-5.1]  
 Notes: ● Asked of all respondents.

- Note the positive association between high blood pressure and age, with over two-thirds of seniors reporting a high blood pressure reading.
- Lower-income residents are more likely to have high blood pressure as well.

**Prevalence of High Blood Pressure**  
 (Yellowstone County, 2017)  
 Healthy People 2020 Target = 26.9% or Lower



Sources:
 

- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 147]
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-5.1]

 Notes:
 

- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

**High Blood Cholesterol**

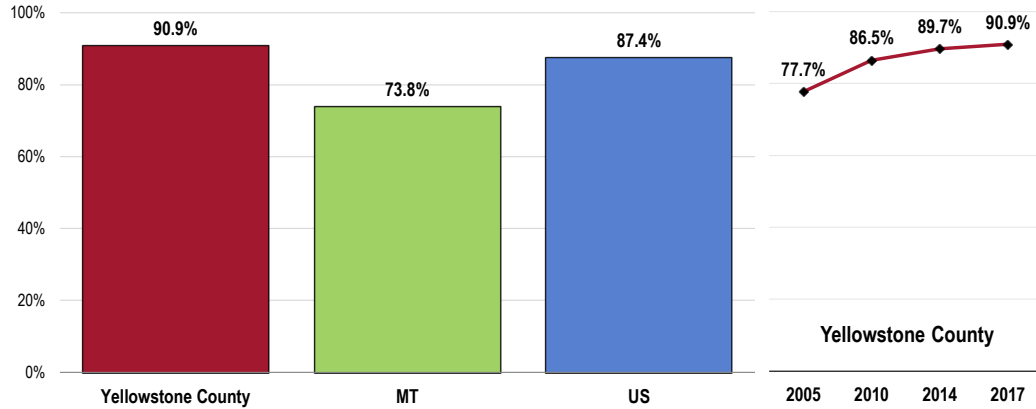
*Blood Cholesterol Testing*

**A total of 90.9% of Yellowstone County adults have had their blood cholesterol checked within the past five years.**

- Much more favorable than Montana findings and more favorable than found nationally.
- Satisfies the Healthy People 2020 target (82.1% or higher).
- TREND: Denotes a statistically significant increase since 2005 and 2010.

## Have Had Blood Cholesterol Levels Checked in the Past Five Years

Healthy People 2020 Target = 82.1% or Higher



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 47]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2013 Montana data.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-6]

Notes: • Asked of all respondents.

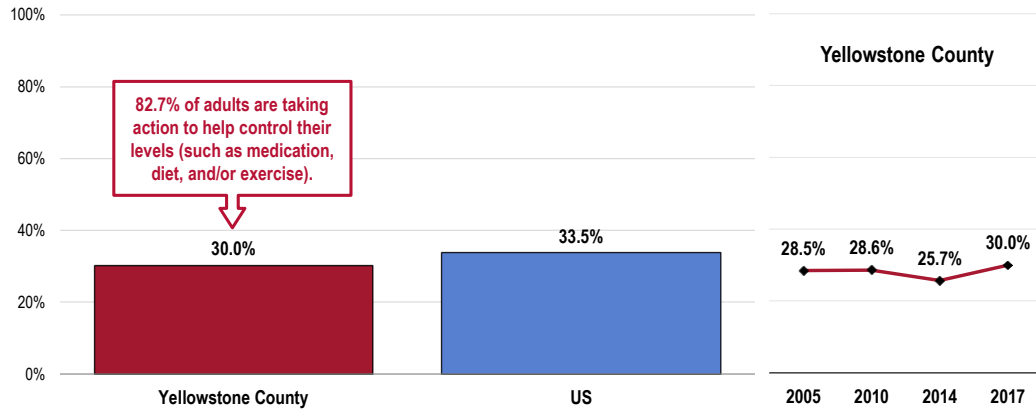
### Prevalence of High Blood Cholesterol

**Three in 10 adults have been told by a health professional that their cholesterol level was high.**

- Similar to the national prevalence.
- More than twice the Healthy People 2020 target (13.5% or lower).
- TREND: Statistically unchanged since 2005.
- Among adults with high blood cholesterol readings, 82.7% are taking action to lower their numbers (such as medication, change in diet, and/or exercise).

### Prevalence of High Blood Cholesterol

Healthy People 2020 Target = 13.5% or Lower



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 46, 148]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-7]

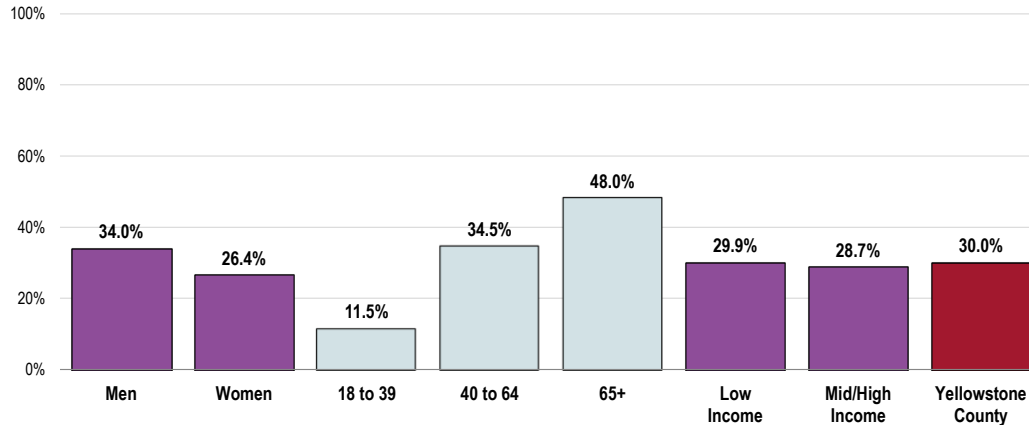
Notes: • Asked of all respondents.



- Further note that the prevalence of high blood cholesterol increases sharply with age.

## Prevalence of High Blood Cholesterol (Yellowstone County, 2017)

Healthy People 2020 Target = 13.5% or Lower



- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 148]
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective HDS-7]
- Notes:
- Asked of all respondents.
  - Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### About Cardiovascular Risk

Individual level risk factors which put people at increased risk for cardiovascular diseases include:

- High Blood Pressure
  - High Blood Cholesterol
  - Tobacco Use
  - Physical Inactivity
  - Poor Nutrition
  - Overweight/Obesity
  - Diabetes
- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Three health-related behaviors contribute markedly to cardiovascular disease:

**Poor nutrition.** People who are overweight have a higher risk for cardiovascular disease. Almost 60% of adults are overweight or obese. To maintain a proper body weight, experts recommend a well-balanced diet which is low in fat and high in fiber, accompanied by regular exercise.

**Lack of physical activity.** People who are not physically active have twice the risk for heart disease of those who are active. More than half of adults do not achieve recommended levels of physical activity.

**Tobacco use.** Smokers have twice the risk for heart attack of nonsmokers. Nearly one-fifth of all deaths from cardiovascular disease, or about 190,000 deaths a year nationally, are smoking-related. Every day, more than 3,000 young people become daily smokers in the US

Modifying these behaviors is critical both for preventing and for controlling cardiovascular disease. Other steps that adults who have cardiovascular disease should take to reduce their risk of death and disability include adhering to treatment for high blood pressure and cholesterol, using aspirin as appropriate, and learning the symptoms of heart attack and stroke.

- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

### Total Cardiovascular Risk

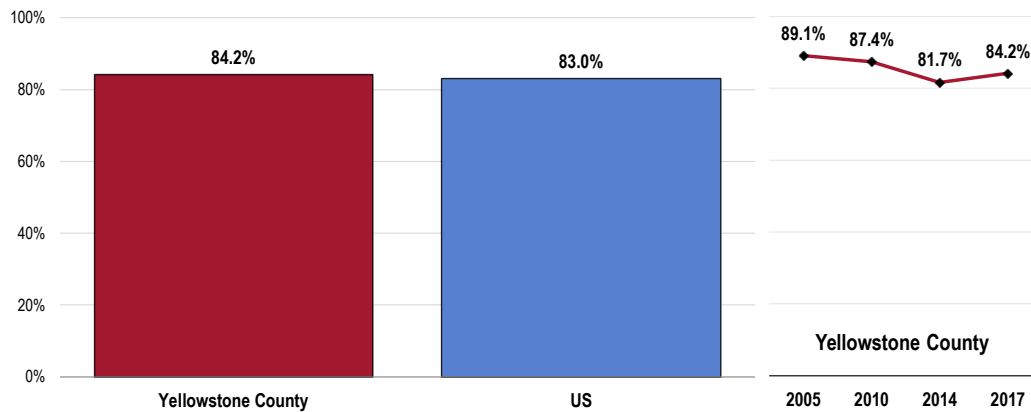
A total of 84.2% of Yellowstone County adults report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

- Similar to national findings.
- TREND: Has decreased significantly since 2005.

**RELATED ISSUE:**

See also Nutrition & Overweight, Physical Activity & Fitness and Tobacco Use in the Modifiable Health Risk section of this report.

### Present One or More Cardiovascular Risks or Behaviors

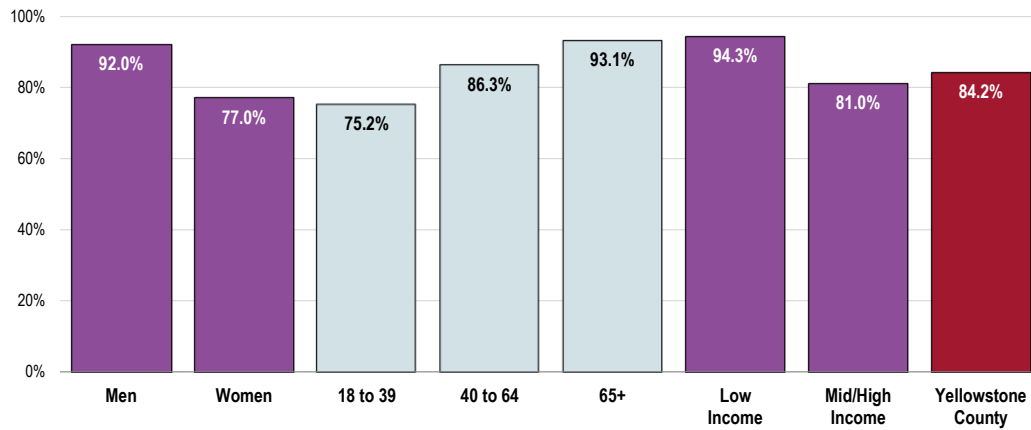


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 149]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.  
 • Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.

Adults more likely to exhibit cardiovascular risk factors include:

- Men.
- Adults age 40 and older, and especially seniors.
- Community members living at low incomes.

### Present One or More Cardiovascular Risks or Behaviors (Yellowstone County, 2017)

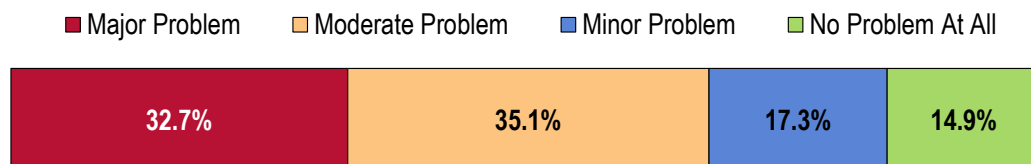


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 149]  
 Notes: • Asked of all respondents.  
 • Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Key Informant Input: Heart Disease & Stroke

Key informants taking part in an online survey more often characterized *Heart Disease & Stroke* as a "moderate problem" than as a "major problem" in the community.

### Perceptions of Heart Disease and Stroke as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

#### Prevalence/Incidence

*Number of patients seen with these diagnoses often lead to need for additional in-home services or long-term care placement. - Public Health Representative*

*There are more and younger people being admitted to hospitals with cardiac disease, which leads to stroke. - Healthcare Provider*

*Heart disease and stroke are a major problem in Yellowstone County. A great percentage of the population are overweight and/or obese. Several have limited access to resources for information for healthy eating and lifestyle. Many people don't understand they are at risk for heart disease and stroke. Limited ability to exercise or health issues making it difficult to exercise is also one reason. - Public Health Representative*

*It may be due more to social media, events, and more light being shown on the problem. We recently had a speaker at one of our trainings to talk about stroke prevention. I work with seniors, so heart disease and stroke risks are in everyone's mind. Plus, more and more medicines say that it increases the chance of stroke. I know, since I'm on one. - Community Leader*

*Heart disease and stroke tend to be common problems across the US and go up when diabetes risks and cases go up. I personally know of many Billings residents who have heart disease issues. - Community Leader*

*Incidence rates continue to rise as the number of residents at a healthy weight continues to decline. - Healthcare Provider*

*Congestive heart failure and heart disease are common conditions for many of our residents. - Healthcare Provider*

*I just know many people who have heart/stroke issues, so maybe my perception is skewed. - Educator*

*A significant number of citizens suffer from heart disease. - Government Representative*

*My wife had heart disease for many years. - Community Leader*

*Because they are so commonly reported. - Healthcare Provider*

*I have seen what this can do in my own family. - Government Representative*

*I was a heart surgeon. - Educator*

### **Aging Population**

*Heart disease and stroke frequently are concerns for the elderly population. Many public facilities such as schools and churches have defibrillators visibly available. Children in schools have experienced heart-related emergencies. - Community Leader*

*Again, the large number of elderly- and especially the number of people who live in rural areas, even in Yellowstone County- make it harder to get rapid treatment in event of a stroke. - Educator*

*As our population ages, there is an increased risk of heart disease and stroke. That coupled with the obesity rate of the county makes this a major problem. - Public Health Representative*

*Aging population and obesity epidemic. - Business Leader*

*The number of senior citizens with the problem. - Community Leader*

*Aging population, not enough education. - Business Leader*

*This is a function of the aging of the population, plus our culture and society: the lack of healthy eating, and lack of regular exercise that is age-appropriate. - Educator*

### **Leading Cause of Death**

*Heart disease and stroke is the number one cause of death. - Healthcare Provider*

*It is one of the leading causes of death in the US. Heart disease and stroke can be linked to obesity, poor nutrition and tobacco use. Much of this can be from lack of knowledge and food access. Working in health care, I've seen many people in the community with high blood pressure and high cholesterol, and they still don't do much about it besides using medication. Healthier lifestyle changes are important to educate people on how to prevent the risk of heart disease and stroke. - Public Health Representative*

*Heart disease is one of the top causes for death and suffering. A stroke can cause great disability for the patient. We have prevention information available frequently. - Community Leader*

*Large number of deaths with many modifiable risk factors. - Public Health Representative*

*Life-and-death conditions, and the critical lifestyle issues that are so hard to change. - Business Leader*

*Major source of death and disability. - Healthcare Provider*

*One of the top causes of death and disability. - Healthcare Provider*

### **Lifestyle**

*Poor choices in lifestyle, eating habits, lack of good nutrition, overweight and a sedentary generation. - Community Leader*

*Today's society creates an atmosphere of stress and fatigue when it comes to our personal professions. The expectation is to have a balanced lifestyle, but the reality doesn't always translate into practice, and the expectation of our jobs and supervisors don't allow for self-care. Poor eating habits is another major contributor to poor health, thus resulting into heart disease and stroke. Exercising on your own is not always that easy. - Community Leader*

*Lifestyle and obesity present increased risks. - Healthcare Provider*

*Lifestyle choices. More obesity; while more people are going to gyms, there is a great number of people who just are not motivated to make a lifestyle change to become healthier. Also, the aging of our community. - Community Leader*

*Major issue because of the lifestyles led by the population. The need for regular exercise and healthy diet. - Public Health Representative*

### **Access to Healthful Food**

*Access to healthy foods and physical activity. Why our local leaders do not understand the cost to our community and continue to deny supporting access to healthy foods and infrastructure that can encourage physical activity. - Government Representative*

*It's difficult to access healthy foods, even within the hospitals. - Government Representative*

### **Tobacco Use**

*Smoking, limited physical activity and poor eating habits- due not just to individual behavior, but lack of access to affordable, healthy options year-round- are all very large challenges in our community and lead to heart disease and stroke. - Public Health Representative*

*Cigarette smoking, diabetes, high blood pressure, overweight and obesity all contribute. - Public Health Representative*

### **National Issue**

*It is a national problem. We continue to see many people with heart attacks and other heart problems. - Business Leader*

*National statistics show that it is a major issue, whether it's in the forefront locally or not. - Business Leader*

### **Health Education**

*Lack of education of the availability of pre-health options and lack of financial resources to pay for medical care. - Community Leader*

*Diet and lack of knowledge regarding symptoms. - Healthcare Provider*

### **Lifestyle**

*Montana is notoriously a state for living a wild life of drinking, tobacco use, foods high in fat, and exercise limited to the demands of work after high school sports. We are not a state that invests in life-long sports as a means to manage our wellness. - Educator*

### **Socioeconomic Status**

*Due to poverty or living in rural areas, and/or general lack of access to proper nutrition and exercise, many in Montana suffer from poor cardiovascular health, especially as they age. - Government Representative*

### **Vulnerable Populations**

*Heart disease and stroke is very high in American Indian/Alaska Natives in our community. - Healthcare Provider*

### **Obesity**

*Obesity contributes greatly to these diseases and is not under control in Yellowstone County. - Public Health Representative*

## Cancer

### About Cancer

Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in five 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: use of tobacco products; physical inactivity and poor nutrition; obesity; and ultraviolet light exposure. Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus. In the past decade, overweight and obesity have emerged as new risk factors for developing certain cancers, including colorectal, breast, uterine corpus (endometrial), and kidney cancers. The impact of the current weight trends on cancer incidence will not be fully known for several decades. Continued focus on preventing weight gain will lead to lower rates of cancer and many chronic diseases.

Screening is effective in identifying some types of cancers (see US Preventive Services Task Force [USPSTF] recommendations), including:

- Breast cancer (using mammography)
- Cervical cancer (using Pap tests)
- Colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy)
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

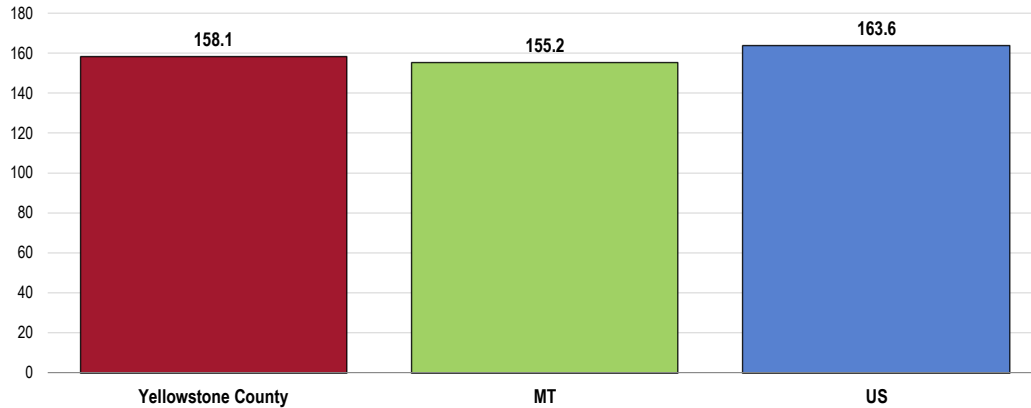
## Age-Adjusted Cancer Deaths

### All Cancer Deaths

**Between 2012 and 2014, there was an annual average age-adjusted cancer mortality rate of 158.1 deaths per 100,000 population in Yellowstone County.**

- Comparable to the statewide and national rates.
- Comparable to the Healthy People 2020 target of 161.4 or lower.

### Cancer: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 161.4 or Lower

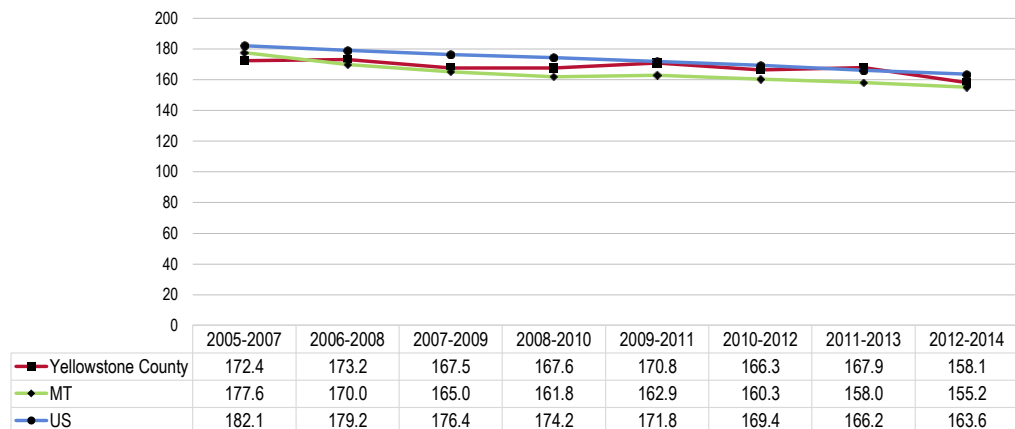


Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.

Notes: • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective C-1]  
• Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: Overall, cancer mortality has decreased over the past decade in Yellowstone County; the same trend is apparent both statewide and nationwide.

### Cancer: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 161.4 or Lower



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.

Notes: • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective C-1]  
• Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

## Cancer Deaths by Site

**Lung cancer is by far the leading cause of cancer deaths in Yellowstone County.**

Other leading sites include prostate cancer among men, breast cancer among women, and colorectal cancer (both genders).

As can be seen in the following chart (referencing 2012-2014 annual average age-adjusted death rates):

- The Yellowstone County **lung cancer** death rate is similar to both the state rate and national rates.
- The Yellowstone County **prostate cancer** death rate is similar to the state rate and statistically higher than the national rate.
- The Yellowstone County **female breast cancer** death rate is lower than both the Montana and US rates.
- The Yellowstone County **colorectal cancer** death rate is higher than both the state and national rates.

Note that each of the Yellowstone County cancer death rates detailed below satisfies the related Healthy People 2020 target except for colorectal cancer mortality.

### Age-Adjusted Cancer Death Rates by Site (2012-14 Annual Average Deaths per 100,000 Population)

|                             | Yellowstone County | MT           | US           | HP2020       |
|-----------------------------|--------------------|--------------|--------------|--------------|
| <b>ALL CANCERS</b>          | <b>158.1</b>       | <b>155.2</b> | <b>163.6</b> | <b>161.4</b> |
| <b>Lung Cancer</b>          | <b>41.5</b>        | <b>39.7</b>  | <b>43.4</b>  | <b>45.5</b>  |
| <b>Prostate Cancer</b>      | <b>20.7</b>        | <b>20.0</b>  | <b>19.2</b>  | <b>21.8</b>  |
| <b>Female Breast Cancer</b> | <b>15.4</b>        | <b>20.0</b>  | <b>20.9</b>  | <b>20.7</b>  |
| <b>Colorectal Cancer</b>    | <b>15.4</b>        | <b>13.7</b>  | <b>14.6</b>  | <b>14.5</b>  |

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.  
• US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov>



## Cancer Incidence

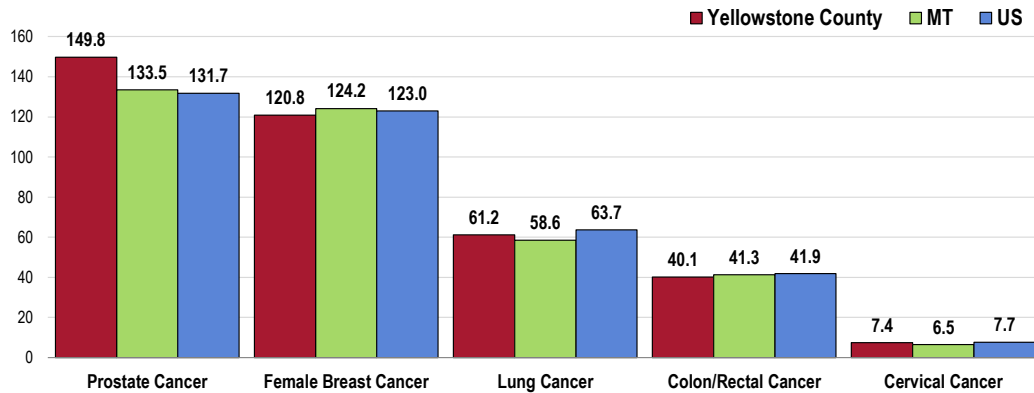
Incidence rates reflect the number of newly diagnosed cases in a given population in a given year, regardless of outcome. Here, these rates are also age-adjusted.

- Note below that the county prostate cancer incidence rate is significantly higher than both state and national rates.

"Incidence rate" or "case rate" is the number of new cases of a disease occurring during a given period of time.

It is usually expressed as cases per 100,000 population per year.

**Cancer Incidence Rates by Site**  
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2008-12)



- Sources:
- State Cancer Profiles.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

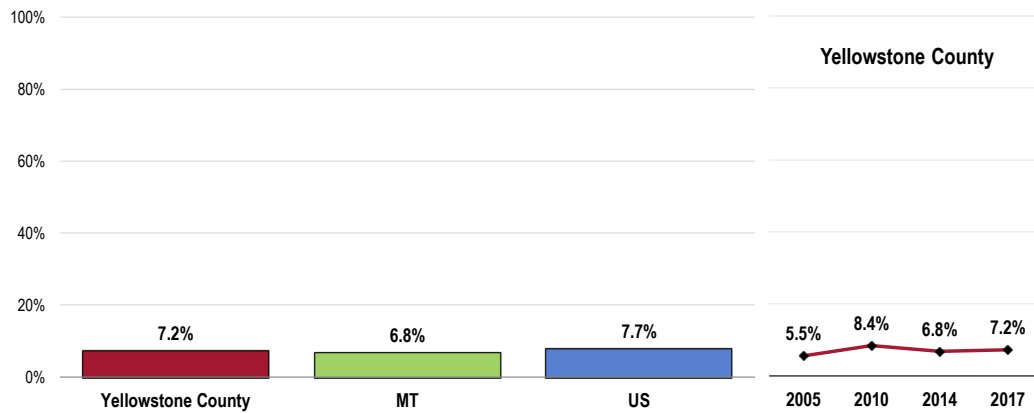
## Prevalence of Cancer

### Skin Cancer

A total of 7.2% of surveyed Yellowstone County adults report having been diagnosed with skin cancer.

- Similar to what is found statewide and nationally.
- TREND: The prevalence of skin cancer has remained statistically unchanged over time.

### Prevalence of Skin Cancer



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 30]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

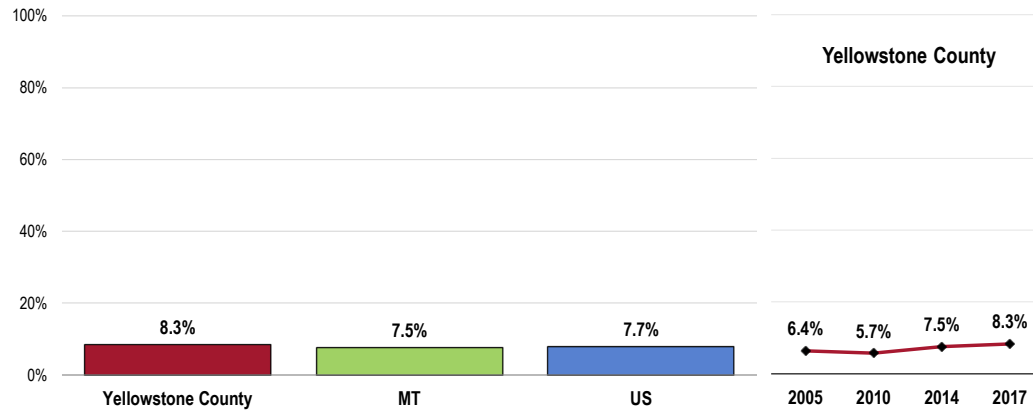
Notes: • Asked of all respondents.

### Other Cancer

A total of 8.3% of survey respondents have been diagnosed with some type of (non-skin) cancer.

- Similar to the statewide and national percentages.
- TREND: The prevalence of cancer is statistically unchanged since 2005.

## Prevalence of Cancer (Other Than Skin Cancer)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 29]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

### Cancer Risk

**RELATED ISSUE:**

See also [Nutrition & Overweight](#), [Physical Activity & Fitness](#) and [Tobacco Use](#) in the **Modifiable Health Risk** section of this report.

#### About Cancer Risk

Reducing the nation's cancer burden requires reducing the prevalence of behavioral and environmental factors that increase cancer risk.

- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
- According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and physical activity factors, including obesity.
- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

### Cancer Screenings

The American Cancer Society recommends that both men and women get a cancer-related checkup during a regular doctor's checkup. It should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Screening levels in the community were measured in the PRC Community Health Survey relative to three cancer sites: female breast cancer (mammography); cervical cancer (Pap smear testing); and colorectal cancer (sigmoidoscopy and fecal occult blood testing).

## Female Breast Cancer Screening

### About Screening for Breast Cancer

The US Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women age 40 and older.

Rationale: The USPSTF found fair evidence that mammography screening every 12-33 months significantly reduces mortality from breast cancer. Evidence is strongest for women age 50-69, the age group generally included in screening trials. For women age 40-49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller, than it is for older women. Most, but not all, studies indicate a mortality benefit for women undergoing mammography at ages 40-49, but the delay in observed benefit in women younger than 50 makes it difficult to determine the incremental benefit of beginning screening at age 40 rather than at age 50.

The absolute benefit is smaller because the incidence of breast cancer is lower among women in their 40s than it is among older women. The USPSTF concluded that the evidence is also generalizable to women age 70 and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. The absolute probability of benefits of regular mammography increase along a continuum with age, whereas the likelihood of harms from screening (false-positive results and unnecessary anxiety, biopsies, and cost) diminish from ages 40-70. The balance of benefits and potential harms, therefore, grows more favorable as women age. The precise age at which the potential benefits of mammography justify the possible harms is a subjective choice. The USPSTF did not find sufficient evidence to specify the optimal screening interval for women age 40-49.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

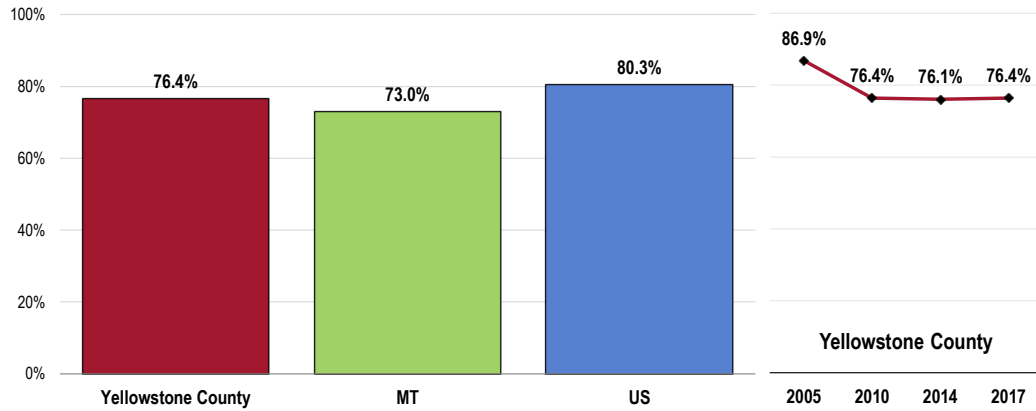
### *Mammography*

**Among women age 50-74, 76.4% have had a mammogram within the past 2 years.**

- Statistically comparable to statewide and national findings.
- Statistically similar to the Healthy People 2020 target (81.1% or higher).
- TREND: Mammogram testing decreased significantly from 2005 to 2010 and has remained stable since.

## Have Had a Mammogram in the Past Two Years (Among Women Age 50-74)

Healthy People 2020 Target = 81.1% or Higher



- Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 151]
  - Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective C-17]
- Notes:
- Reflects female respondents 50-74.

## Cervical Cancer Screenings

### About Screening for Cervical Cancer

The US Preventive Services Task Force (USPSTF) strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix.

**Rationale:** The USPSTF found good evidence from multiple observational studies that screening with cervical cytology (Pap smears) reduces incidence of and mortality from cervical cancer. Direct evidence to determine the optimal starting and stopping age and interval for screening is limited. Indirect evidence suggests most of the benefit can be obtained by beginning screening within 3 years of onset of sexual activity or age 21 (whichever comes first) and screening at least every 3 years. The USPSTF concludes that the benefits of screening substantially outweigh potential harms.

The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.

**Rationale:** The USPSTF found limited evidence to determine the benefits of continued screening in women older than 65. The yield of screening is low in previously screened women older than 65 due to the declining incidence of high-grade cervical lesions after middle age. There is fair evidence that screening women older than 65 is associated with an increased risk for potential harms, including false-positive results and invasive procedures. The USPSTF concludes that the potential harms of screening are likely to exceed benefits among older women who have had normal results previously and who are not otherwise at high risk for cervical cancer.

The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease.

**Rationale:** The USPSTF found fair evidence that the yield of cytologic screening is very low in women after hysterectomy and poor evidence that screening to detect vaginal cancer improves health outcomes. The USPSTF concludes that potential harms of continued screening after hysterectomy are likely to exceed benefits.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

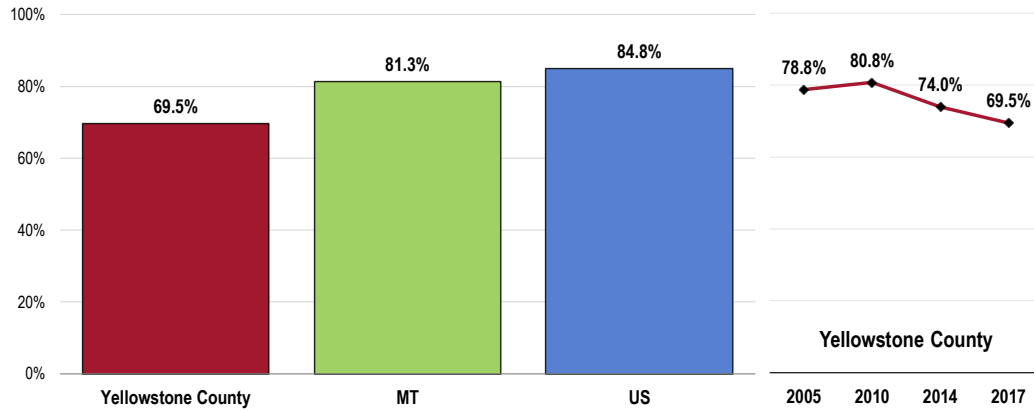
### *Pap Smear Testing*

**Among Yellowstone County women age 21 to 65, 69.5% have had a Pap smear within the past 3 years.**

- Considerably less favorable than Montana and national findings.
- Fails to satisfy the Healthy People 2020 target (93% or higher).
- TREND: Has decreased significantly since 2010, but is statistically similar to baseline 2005 survey findings.

## Have Had a Pap Smear in the Past Three Years (Among Women Age 21-65)

Healthy People 2020 Target = 93.0% or Higher



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 152]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective C-15]

Notes: • Reflects female respondents age 21 to 65.

## Colorectal Cancer Screenings

### About Screening for Colorectal Cancer

The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years.

The evidence is convincing that screening for colorectal cancer with fecal occult blood testing, sigmoidoscopy, or colonoscopy detects early-stage cancer and adenomatous polyps. There is convincing evidence that screening with any of the three recommended tests (FOBT, sigmoidoscopy, colonoscopy) reduces colorectal cancer mortality in adults age 50 to 75 years. Follow-up of positive screening test results requires colonoscopy regardless of the screening test used.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

### Colorectal Cancer Screening

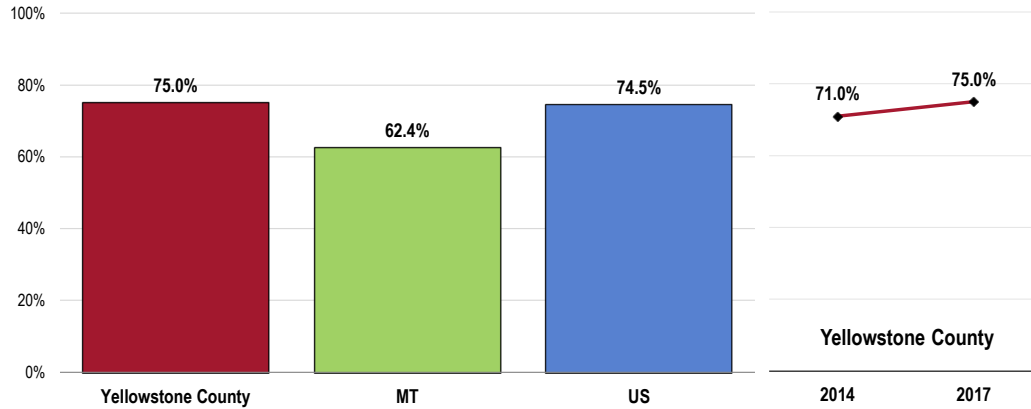
**Among adults age 50-75, three-fourths (75.0%) have had an appropriate colorectal cancer screening.**

- Notably more favorable than statewide findings.
- Similar to national findings.
- Statistically similar to the Healthy People 2020 target (70.5% or higher).
- TREND: Since 2014, screening has not changed significantly.

"Appropriate colorectal cancer screening" includes a fecal occult blood test within the past year and/or a lower endoscopy (sigmoidoscopy or colonoscopy) within the past 10 years.

## Have Had a Colorectal Cancer Screening (Among Adults Age 50-75)

Healthy People 2020 Target = 70.5% or Higher

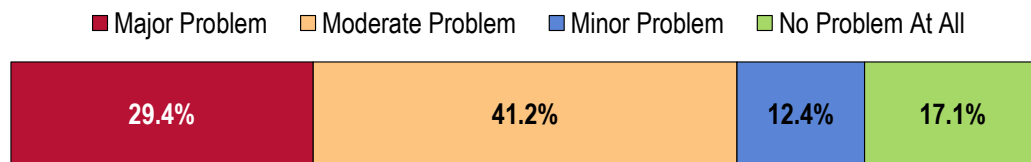


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 155]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective C-16]  
 Notes: • Asked of all respondents age 50 through 75.  
 • In this case, the term "colorectal screening" refers to adults age 50-75 receiving a FOBT (fecal occult blood test) in the past year and/or a lower endoscopy (sigmoidoscopy/colonoscopy) in the past 10 years.

### Key Informant Input: Cancer

The greatest share of key informants taking part in an online survey characterized **Cancer** as a "moderate problem" in the community.

### Perceptions of Cancer as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

#### Prevalence/Incidence

*There are many kinds of cancer that affect members of my community. People are living longer, which means the likelihood of developing cancer is greater. Cancer touches every family member and friend of the patient. The treatment is expensive, exhausting, and for some types, the expected results are limited. - Educator*

*I grew up in a different state, and I do not remember ever hearing or seeing as many people diagnosed as I have in the eight years living here. - Community Leader*



*Billings has one of the largest health-providing communities in the state and region. The city is also a "working-class" community, where people are exposed to point-source chemicals, and the three oil plants provide the community with more than enough toxic chemicals. I would think between the sugar factory and oil plants, people who live downtown and/or south-side may be at higher risk. However, everybody knows somebody who has died of cancer. - Government Representative*

*Cancer causes loss to our community. Cancer threatens quality of life during treatment through loss of physical and emotional stability. Cancer is a financial drain for patients and families. Cancer is a financial drain for the community and health care organizations as the medication, technology and treatments are expensive and ongoing. Cancer often causes disruption in the workforce and may put employment at risk. Cancer negatively touches the patient, friends, family and our community. And often the treatment extends for years. We need to find a way to support our patients, to find access to research that puts the disease at bay, and to support every effort to find a cure. - Healthcare Provider*

*Cancer seems to be the cause of so many deaths, especially those who are middle-aged. It is a national issue. - Educator*

*Visit regularly with people who have experienced recent cancer diagnosis in self, family members and friends. Visit regularly with those who are providing transportation and respite to individuals who are undergoing cancer treatment. Regular view death notices with attributes to cancer. - Community Leader*

*When you look at the great cancer facilities we have in our community, you know they are that way for a reason. The number of individuals affected by cancer in our community- in those more rural communities that use our facilities- is astonishing. - Business Leader*

*The existence of cancer is not new in our community. That being said, there is a major breakdown in the knowledge level and use of cancer screenings in our community by adults at or nearing the 50-year mark. - Educator*

*I based this on the large number of people that I know who have/are battling cancer or are in remission. The local Relay for Life is a record-breaking event, for both fundraising and particularization, which indicates that many in the community are either directly or indirectly affected. - Business Leader*

*Due to the number diagnosed and the high costs associated with treatment. - Public Health Representative*

*There seems to be a great number of people with this disease, and we do not make progress. - Community Leader*

*High percentage of individuals being diagnosed, and there is a lack of confidence in our healthcare options. - Community Leader*

*Seeing people in stores with heads shaven. Attention drawn to problem through fundraising in media. Knowing people who have or have had cancer. - Community Leader*

*So many people have to fight this in its many forms. - Government Representative*

*We have a large number of Billings residents who have cancer - Community Leader*

*Cancer touches every life in Yellowstone County and covers so many types. - Community Leader*

*It affects so many. No information why it is more prevalent here or not. - Government Representative*

*Cancer is the most reported. - Healthcare Provider*

### **Affordable Care/Services**

*Large number of people diagnosed yearly, causing a financial burden to patients and families. Limited resources available to help. - Public Health Representative*

*I have recently gone through cancer treatment. It was expensive, and I was amazed at the number going through treatment. - Business Leader*

*Cancer shows itself in many different parts of the body, and the treatment can be very costly. We do have the advantage of having great facilities for treatment. - Community Leader*

*Sometimes a known drug is available, which is very helpful, and people cannot access it because they don't have enough of the right insurance. It is available to only a few because of its expense. - Community Leader*

*Billings is fortunate to have excellent services in this area of practice. The main concern here would be cost of treatment and early identification in those who do not participate in preventive practices and wellness care. - Community Leader*

### Lack of Screenings

*I believe it's a combination of factors, revolving around a lack of understanding, people not getting screened, or a lack of engaging in a positive lifestyle to lower the risk. In many cases, folks who are socio-economically deprived have to make choices that put them at risk. Oftentimes, it's the type of food or addictive personalities that lead to bad habits in a variety of ways. - Community Leader*

*Cancer screening rates have continued to decline, which will lead to more late-stage diagnoses of disease, making it more difficult to treat. - Healthcare Provider*

*Individuals not receiving annual screenings for early detection. - Healthcare Provider*

*Lack of pre-screening or preventive options. - Community Leader*

### Environmental Contributors

*Due to increasing environmental toxicants (air, food, and water), we are seeing rapid increases in many forms of cancer, some of which used to be rare. Only at the community level can we address these issues. – Educator*

*Cancer raises its head in unsuspecting ways with folks who are very healthy. I think it's a major problem because of all of the pesticides and insecticides that are used to develop abundant crops. We are ingesting poison without our knowing it. - Healthcare Provider*

*Agriculture uses a great deal of chemicals as do the 3 refineries in the area. Plus the Native American population seems to have a higher degree of health issues. - Community Leader*

### Vulnerable Populations

*Number one cause of death in Plains Indians. - Healthcare Provider*

*We have high rates and low early detection rates among underserved populations. - Public Health Representative*

*Cancer is a leading cause of death in American Indian/Alaska Natives in our community. - Healthcare Provider*

### Health Education

*Lack of education. - Educator*

*I believe that people ignore symptoms that may indicate they have the possibility of cancer. And then when they finally get it checked, the cancer has advanced to a more advanced stage, and the treatment becomes more intense. - Community Leader*

### Impact on Families/Caregivers

*A cancer diagnosis is life altering for the person, as well as their family and friends. This anguish and upheaval can last far beyond "remission." – Educator*

*It is mentally, physically, and financially draining on the person, the family and the community. - Community Leader*

### Access to Services

*Lack of competent, accurate and cost-reasonable health care. - Community Leader*

*It is hard to get an appointment. There is an increasing need. - Business Leader*

### Coordination of Care

*Lack of coordinated care among all the medical providers; no communication, no coordinated plan of action - Educator*

## Respiratory Disease

### About Asthma & COPD

Asthma and chronic obstructive pulmonary disease (COPD) are significant public health burdens. Specific methods of detection, intervention, and treatment exist that may reduce this burden and promote health.

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. 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 enable individuals who have asthma to lead active lives.

COPD is a preventable and treatable disease characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases (typically from exposure to cigarette smoke). Treatment can lessen symptoms and improve quality of life for those with COPD.

The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the healthcare system, the burden of respiratory diseases also falls on society; it is paid for with higher health insurance rates, lost productivity, and tax dollars. Annual healthcare expenditures for asthma alone are estimated at \$20.7 billion.

**Asthma.** The prevalence of asthma has increased since 1980. However, deaths from asthma have decreased since the mid-1990s. The causes of asthma are an active area of research and involve both genetic and environmental factors.

Risk factors for asthma currently being investigated include:

- Having a parent with asthma
- Sensitization to irritants and allergens
- Respiratory infections in childhood
- Overweight

Asthma affects people of every race, sex, and age. However, significant disparities in asthma morbidity and mortality exist, in particular for low-income and minority populations. Populations with higher rates of asthma include: children; women (among adults) and boys (among children); African Americans; Puerto Ricans; people living in the Northeast United States; people living below the Federal poverty level; and employees with certain exposures in the workplace.

While there is not a cure for asthma yet, there are diagnoses and treatment guidelines that are aimed at ensuring that all people with asthma live full and active lives.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

[NOTE: COPD was changed to chronic lower respiratory disease (CLRD) with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.]

Note: COPD was changed to chronic lower respiratory disease (CLRD) in 1999 with the introduction of ICD-10 codes.

CLRD — which includes asthma, chronic bronchitis, emphysema, and other lower respiratory illnesses — is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.

## Age-Adjusted Respiratory Disease Deaths

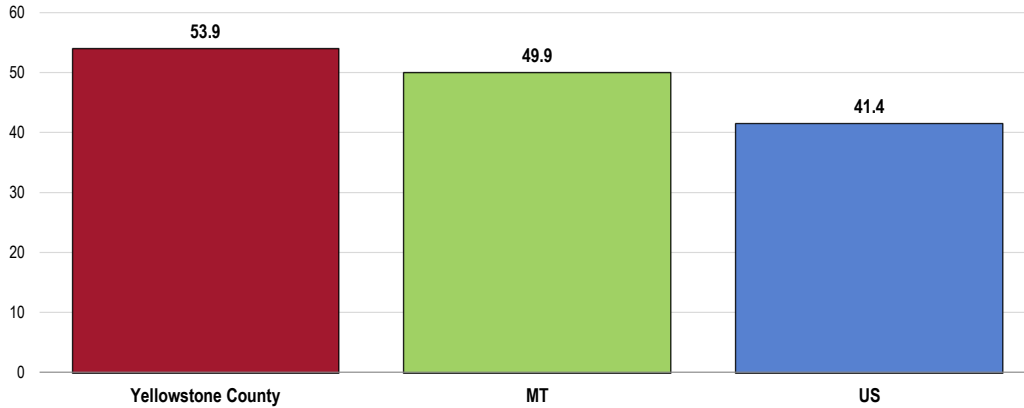
### Chronic Lower Respiratory Disease Deaths (CLRD)

Between 2012 and 2014, there was an annual average age-adjusted CLRD mortality rate of 53.9 deaths per 100,000 population in Yellowstone County.

- Higher than the statewide and national rates.

Note: COPD was changed to chronic lower respiratory disease (CLRD) in 1999 with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.

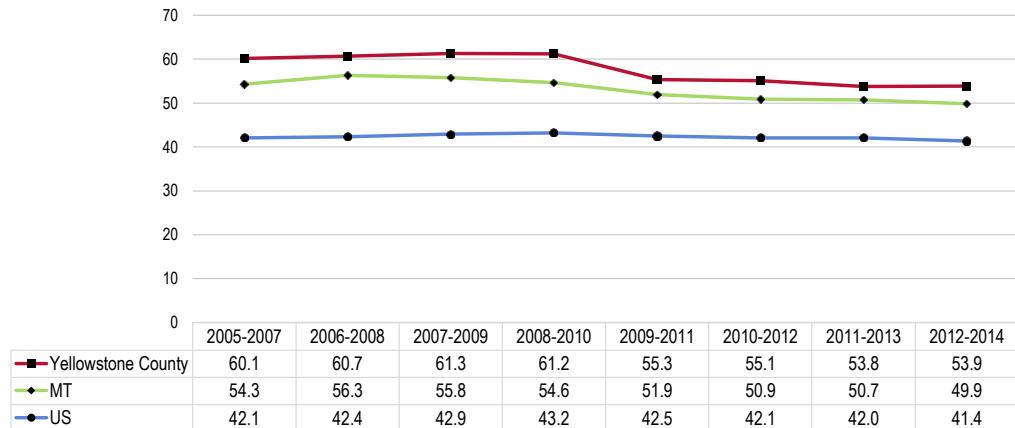
**CLRD: Age-Adjusted Mortality**  
(2012-14 Annual Average Deaths per 100,000 Population)



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
  - CLRD is chronic lower respiratory disease.

- **TREND:** CLRD mortality in Yellowstone County has decreased over time, mirroring the trend reported statewide. Nationwide rates have remained relatively constant over time.

**CLRD: Age-Adjusted Mortality Trends**  
(Annual Average Deaths per 100,000 Population)



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
  - CLRD is chronic lower respiratory disease.

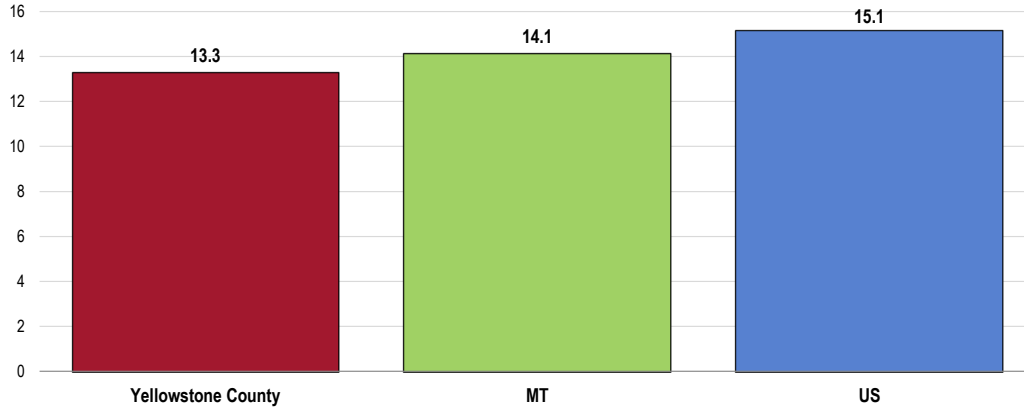
### Pneumonia/Influenza Deaths

Between 2012 and 2014, Yellowstone County reported an annual average age-adjusted pneumonia influenza mortality rate of 13.3 deaths per 100,000 population.

- Lower than found statewide and nationally.

For prevalence of vaccinations for pneumonia and influenza, see also *Immunization & Infectious Disease*.

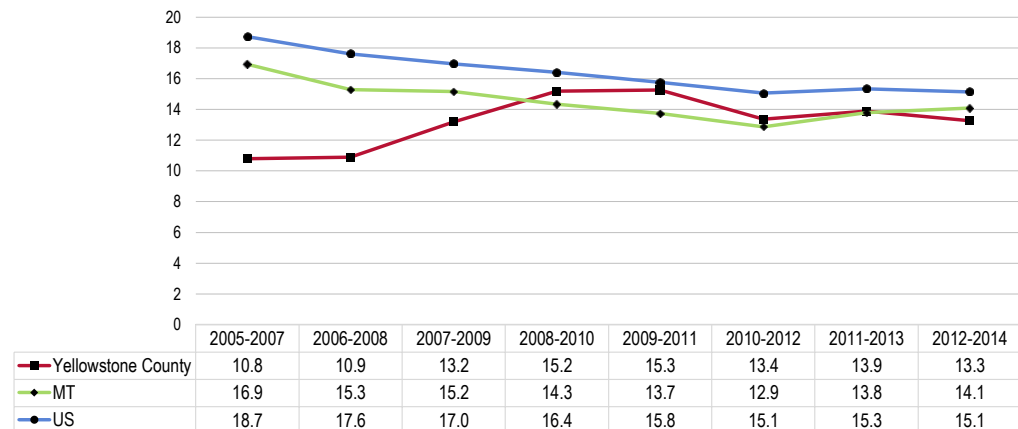
### Pneumonia/Influenza: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population)



- Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: In Yellowstone County, pneumonia/influenza mortality trended upward in the late 2000s, but has since declined somewhat.

### Pneumonia/Influenza: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



- Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

## Asthma

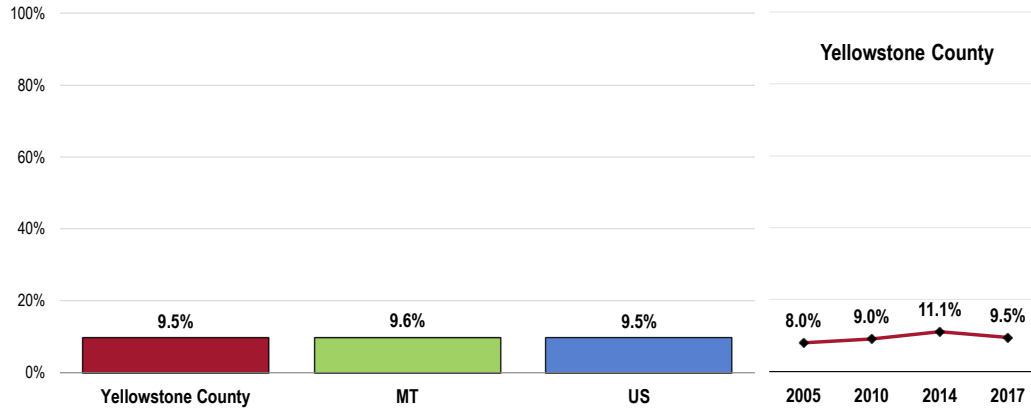
### Adults

Survey respondents were next asked to indicate whether they suffer from or have been diagnosed with various respiratory conditions, including asthma and COPD.

**A total of 9.5% of Yellowstone County adults currently suffer from asthma.**

- Nearly identical to the statewide and national prevalence.
- **TREND:** The prevalence of adults with current asthma has not changed significantly since 2005.

### Adult Asthma: Current Prevalence

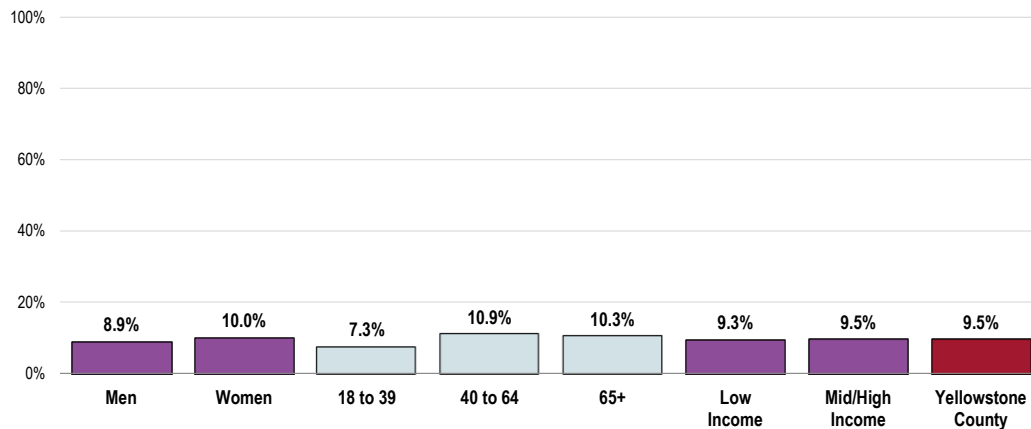


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 156]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.

Notes: • Asked of all respondents.  
 • Includes those who have ever been diagnosed with asthma, and who report that they still have asthma.

- The prevalence of asthma is statistically similar across key demographic characteristics.

### Currently Have Asthma (Yellowstone County, 2017)



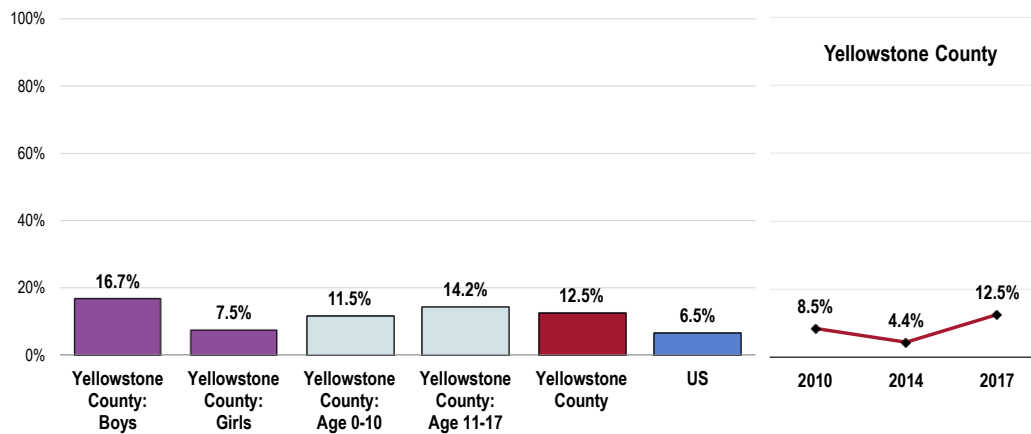
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 156]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

**Children**

**Among Yellowstone County children under age 18, 12.5% currently have asthma.**

- Statistically comparable to national findings.
- TREND: Has increased significantly since 2014, but is statistically similar to the 2010 findings.
- Viewed by age and gender, differences in childhood asthma prevalence are not statistically significant.

**Childhood Asthma: Current Prevalence**  
(Among Parent Respondents on Behalf of Children Age 0-17)

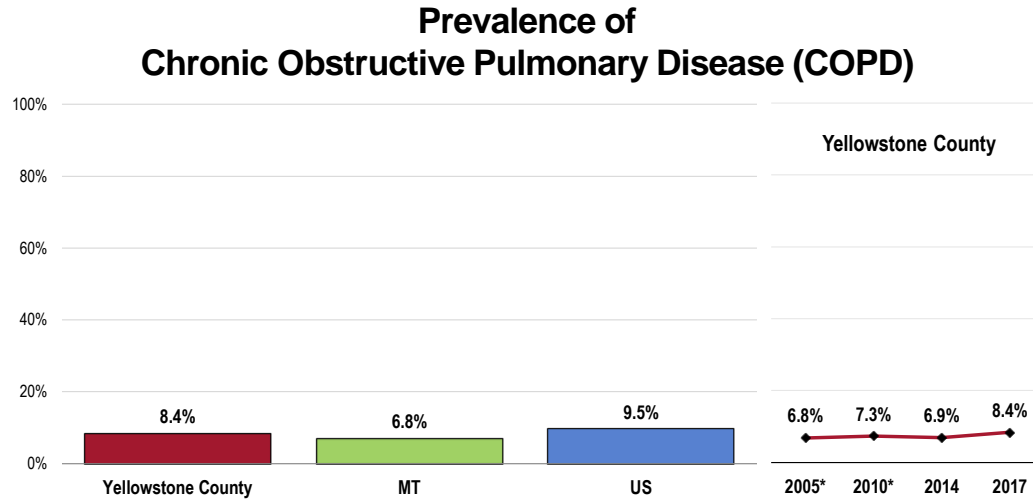


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 157]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents with children 0 to 17 in the household.  
 • Includes children who have ever been diagnosed with asthma, and whom are reported to still have asthma.

**Chronic Obstructive Pulmonary Disease (COPD)**

**A total of 8.4% of Yellowstone County adults suffer from chronic obstructive pulmonary disease (COPD, including emphysema and bronchitis).**

- Similar to the state and national prevalence.
- TREND: In comparing to all previous surveys, the change in prevalence to current findings is not statistically significant.
- NOTE: in previous surveys, this question was asked slightly differently; respondents in 2005 and 2010 were asked if they had ever been diagnosed with “chronic lung disease, including bronchitis or emphysema,” rather than “COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema” as is asked in 2014 and 2017.



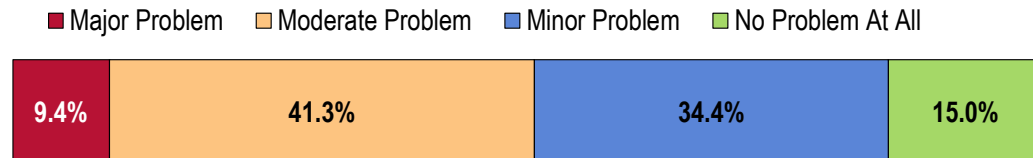
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 24]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.  
 • Includes those having ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.  
 • \*In 2005 and 2010 data, the term "chronic lung disease" was used, which also included bronchitis or emphysema.

## Key Informant Input: Respiratory Disease

The greatest share of key informants taking part in an online survey characterized *Respiratory Disease* as a “moderate problem” in the community.

### Perceptions of Respiratory Diseases as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

## Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

### Prevalence/Incidence

*My family has lived here four generations. Whenever others come to the city, they have breathing problems - especially in children. I believe the oil factories produce too much pollution and should be moved away from population centers with a bussing service. - Government Representative*

*Increased asthma in children. Pneumonia and influenza. Aging population with COPD from smoking. - Public Health Representative*

*I do not know much about respiratory diseases other than those that affect children. I would imagine that many people struggle with the disease and with proper medication and lifestyle. - Educator*



*The many persons dragging around oxygen tanks. Seems to be a lot more than there used to be. Smoking remains high in the area. NPRC is frequently on television and are criticizing air quality. - Public Health Representative*

*Common occurrence and diagnosis in our resident population. - Healthcare Provider*

*My wife had respiratory problems. - Community Leader*

#### ***Vulnerable Populations***

*Respiratory diseases are very high in American Indian/Alaska Natives in our community. - Healthcare Provider*

#### ***Health Education***

*Lack of education, support and affordability of care. - Community Leader*

#### ***Tobacco Use***

*Smoking is a major issue in the community. - Educator*

## Injury & Violence

### About Injury & Violence

Injuries and violence are widespread in society. Both unintentional injuries and those caused by acts of violence are among the top 15 killers for Americans of all ages. Many people accept them as “accidents,” “acts of fate,” or as “part of life.” However, most events resulting in injury, disability, or death are predictable and preventable.

Injuries are the leading cause of death for Americans ages 1 to 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 approximately 1 in 10 sustains a nonfatal injury serious enough to be treated in a hospital emergency department.

Beyond their immediate health consequences, injuries and violence have a significant impact on the well-being of Americans by contributing to:

- Premature death
- Disability
- Poor mental health
- High medical costs
- Lost productivity

The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities.

Numerous factors can affect the risk of unintentional injury and violence, including individual behaviors, physical environment, access to health services (ranging from pre-hospital and acute care to rehabilitation), and social environment (from parental monitoring and supervision of youth to peer group associations, neighborhoods, and communities).

Interventions addressing these social and physical factors have the potential to prevent unintentional injuries and violence. Efforts to prevent unintentional injury may focus on:

- Modifications of the environment
- Improvements in product safety
- Legislation and enforcement
- Education and behavior change
- Technology and engineering

Efforts to prevent violence may focus on:

- Changing social norms about the acceptability of violence
- Improving problem-solving skills (for example, parenting, conflict resolution, coping)
- Changing policies to address the social and economic conditions that often give rise to violence

• Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

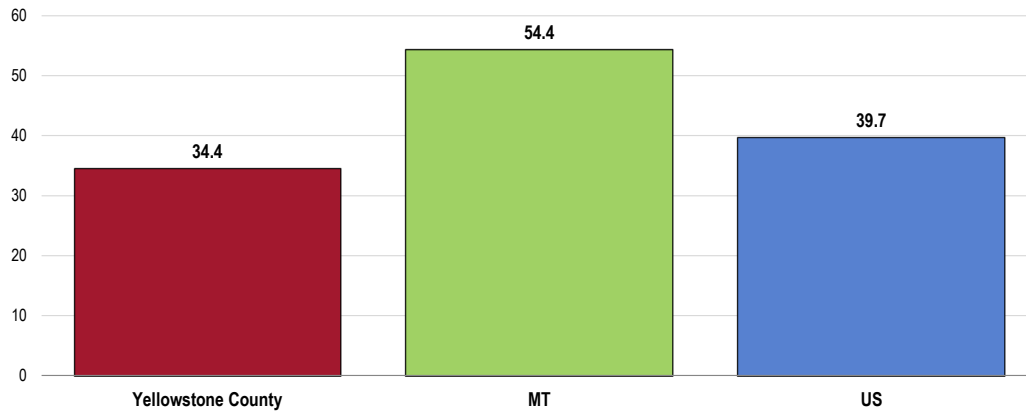
## Unintentional Injury

### Age-Adjusted Unintentional Injury Deaths

**Between 2012 and 2014, there was an annual average age-adjusted unintentional injury mortality rate of 34.4 deaths per 100,000 population in Yellowstone County.**

- Much more favorable than the Montana rate and more favorable than the US figure.
- Satisfies the Healthy People 2020 target (36.4 or lower).

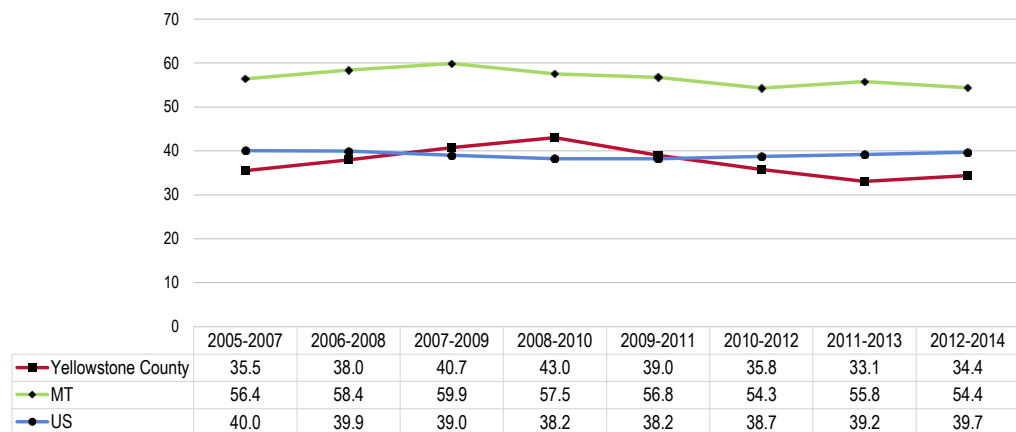
### Unintentional Injuries: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 36.4 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IVP-11]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** Over the years, the unintentional injury mortality rate in Yellowstone County gradually increased and then decreased, resulting in a rate that is similar to that seen 10 years earlier.

### Unintentional Injuries: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 36.4 or Lower

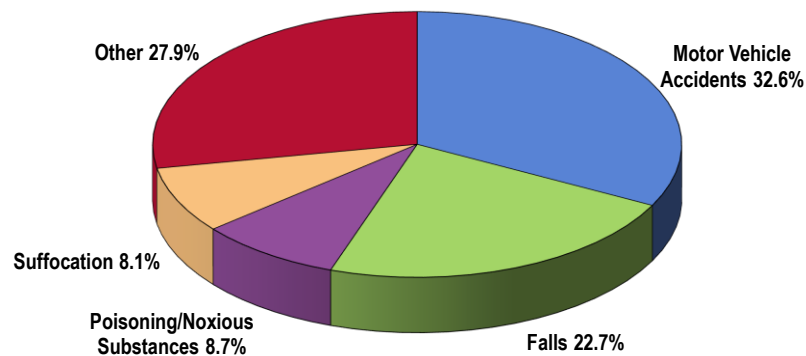


- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IVP-11]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### Leading Causes of Accidental Death

Motor vehicle accidents, falls, poisoning (including accidental drug overdose), and suffocation accounted for most accidental deaths in Yellowstone County between 2012 and 2014.

#### Leading Causes of Accidental Death (Yellowstone County, 2012-14)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.

Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).

#### *Selected Injury Deaths*

The following chart outlines mortality rates for drug-induced deaths (both intentional and unintentional overdoses), motor vehicle crashes, and falls (among adults age 65 and older).

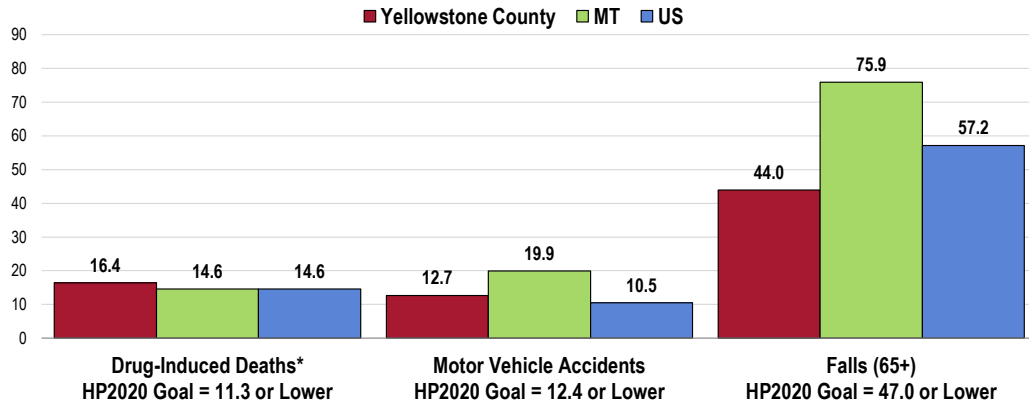
**These Yellowstone County annual average age-adjusted mortality rates are worse than US rates for:**

- Motor vehicle accidents.
- Drug-related deaths.

**Yellowstone County mortality rates are worse than state rates for:**

- Drug-related deaths.

## Select Injury Death Rates (By Cause of Death; Annual Average Deaths per 100,000 Population)



Sources: 

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IVP-13.1, IVP-23.2, SA-12]

Notes: 

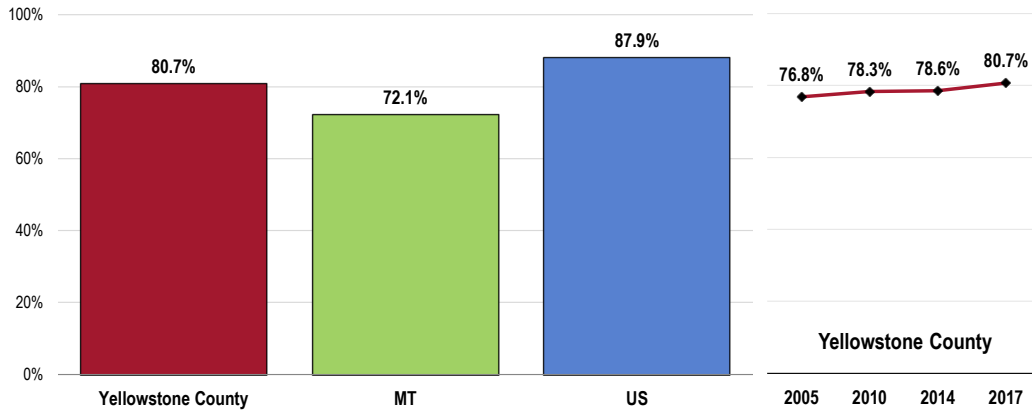
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- \*Drug-induced deaths include both intentional and unintentional drug overdoses.

### Seat Belt Usage

**Most Yellowstone County adults (80.7%) report “always” wearing a seat belt when driving or riding in a vehicle.**

- More favorable than the percentage reported throughout Montana.
- Less favorable than the percentage found nationally.
- Fails to satisfy the Healthy People 2020 target of 92.0% or higher.
- TREND: The increase seen over time is not statistically significant.

### “Always” Wear a Seat Belt When Driving or Riding in a Vehicle Healthy People 2020 Target = 92.0% or Higher



Sources: 

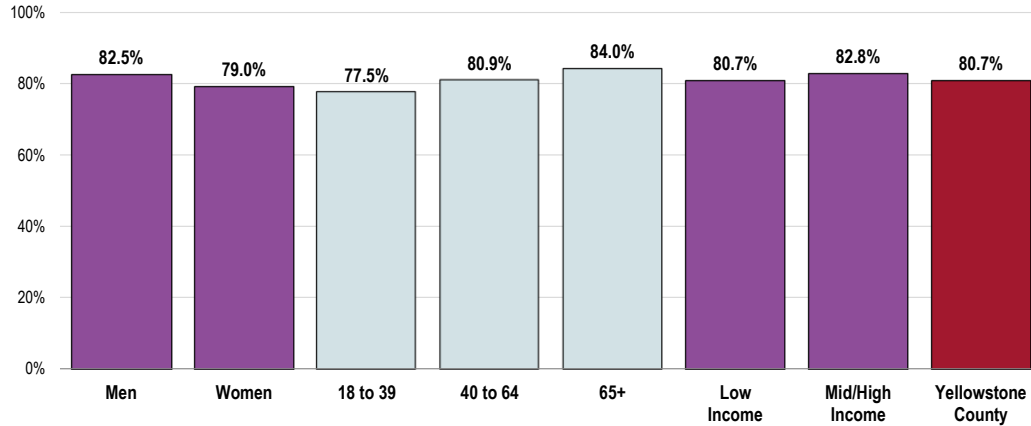
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 305]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IPV-15]

Notes: 

- Asked of all respondents.

- Consistent seat belt usage is not statistically different across the following population segments.

**“Always” Wear a Seat Belt  
When Driving or Riding in a Vehicle**  
(Yellowstone County, 2017)  
Healthy People 2020 Target = 92.0% or Higher



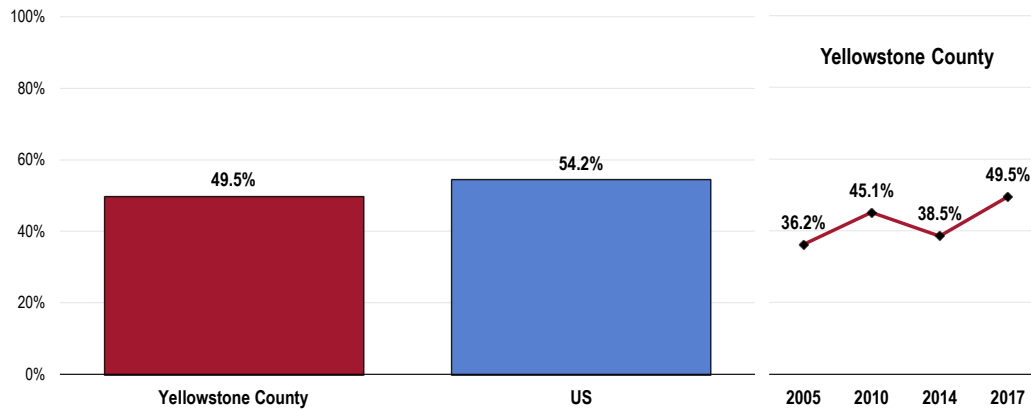
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 305]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IPV-15]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

**Bicycle Safety**

**Nearly one-half of Yellowstone County children age 5 to 17 (49.5%) are reported to “always” wear a helmet when riding a bicycle.**

- Statistically similar to the national prevalence.
- TREND: Statistically unchanged over time. *(It is important to keep in mind that the subsample of households with children carries a wider associated error rate).*

**Child “Always” Wears a Helmet When Riding a Bicycle**  
(Among Parent Respondents on Behalf of Children Age 5-17)



Sources: • PRC Community Health Survey, Professional Research Consultants, Inc. [Item 315]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents with children age 5 to 17 at home.

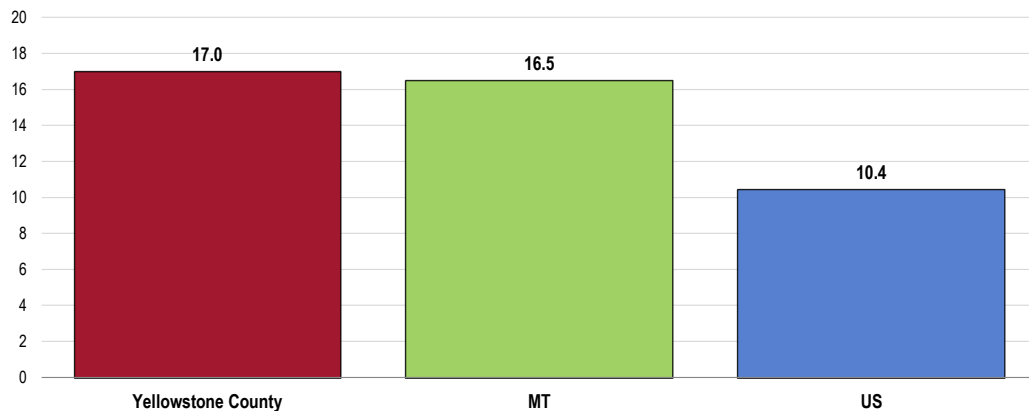
## Firearm Safety

### Age-Adjusted Firearm-Related Deaths

Between 2012 and 2014, there was an annual average age-adjusted rate of 17.0 deaths per 100,000 population due to firearms in Yellowstone County.

- Similar to that found statewide.
- Higher than found nationally.
- Fails to satisfy the Healthy People 2020 objective (9.3 or lower).

### Firearms-Related Deaths: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 9.3 or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IVP-30]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### Presence of Firearms in Homes

Overall, more than one-half of Yellowstone County adults (56.8%) have a firearm kept in or around their home.

- Much higher than the national prevalence.
- Among Yellowstone County households with children, 53.2% have a firearm kept in or around the house (notably higher than reported nationally).

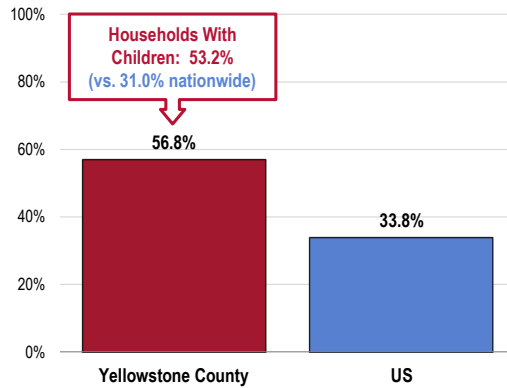
Among Yellowstone County households with firearms, 16.6% report that there is at least one weapon that is kept unlocked and loaded.

- Statistically similar to that found nationally.

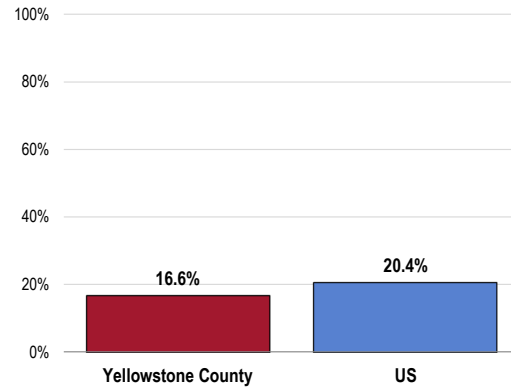
Survey respondents were further asked about the presence of weapons in the home:

"Are there any firearms now kept in or around your home, including those kept in a garage, outdoor storage area, truck, or car? For the purposes of this inquiry, 'firearms' include pistols, shotguns, rifles, and other types of guns, but do NOT include starter pistols, BB guns, or guns that cannot fire."

### Have a Firearm Kept in or Around the Home



### Firearms Kept Unlocked, Loaded (Among Households With Firearms)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 51, 159-160]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.  
 • In this case, firearms include pistols, shotguns, rifles, and other types of guns; this does not include starter pistols, BB guns, or guns that cannot fire.

## Intentional Injury (Violence)

### Age-Adjusted Homicide Deaths

Between 2012 and 2014, there was an annual average age-adjusted homicide rate of 4.9 deaths per 100,000 population in Yellowstone County.

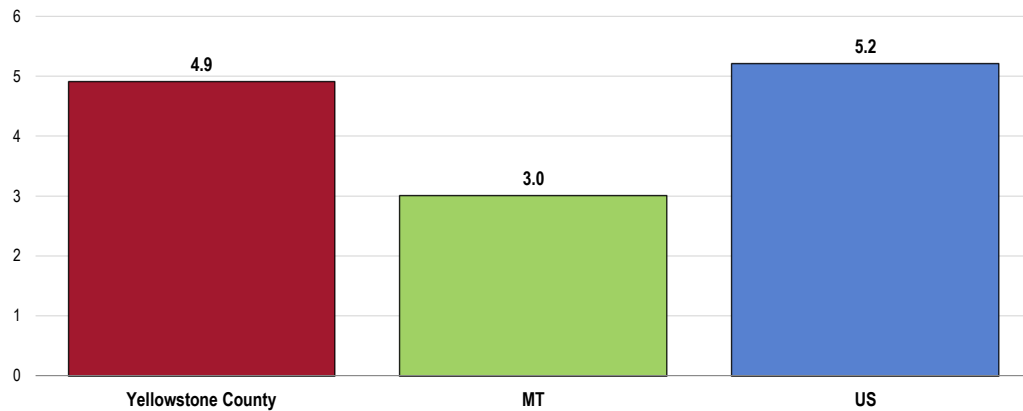
- Less favorable than the rate found statewide.
- More favorable than the national rate.
- Satisfies the Healthy People 2020 target of 5.5 or lower.

RELATED ISSUE:

See also *Suicide* in the **Mental Health** section of this report.

### Homicide: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 5.5 or Lower



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective IVP-29]  
 Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
 • Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.



## Violent Crime

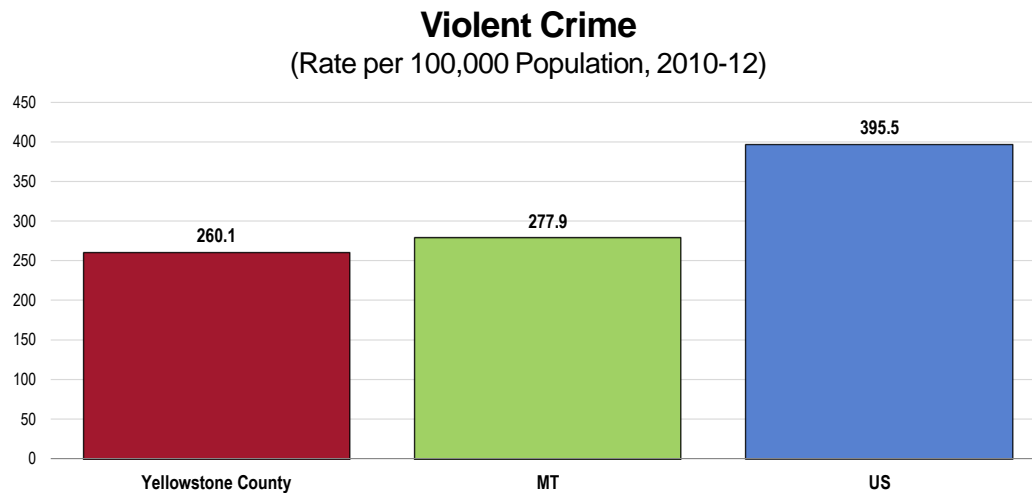
### Violent Crime Rates

**Between 2010 and 2012, there were a reported 260.1 violent crimes per 100,000 population in Yellowstone County.**

- Lower than the Montana rate and especially the national rate for the same period.

Violent crime is composed of four offenses (FBI Index offenses): murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault.

Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.



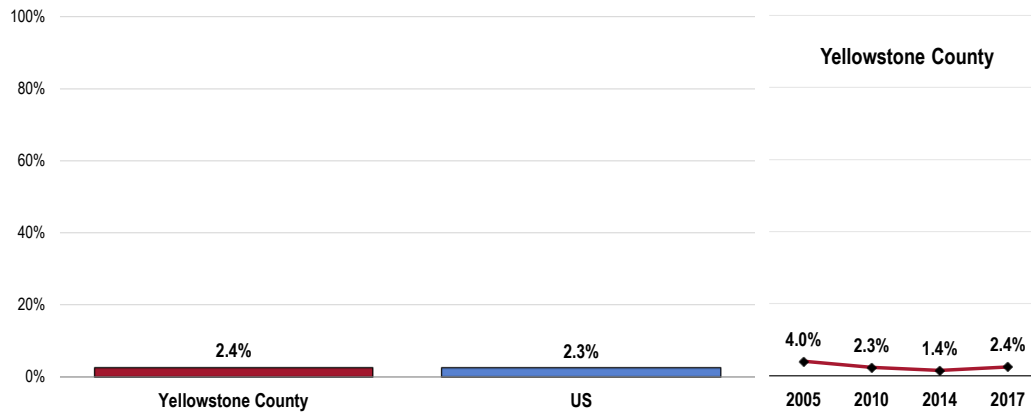
- Sources:
- Federal Bureau of Investigation, FBI Uniform Crime Reports.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator reports the rate of violent crime offenses reported by the sheriff's office or county police department per 100,000 residents. Violent crime includes homicide, rape, robbery, and aggravated assault. This indicator is relevant because it assesses community safety.
  - Participation by law enforcement agencies in the UCR program is voluntary. Sub-state data do not necessarily represent an exhaustive list of crimes due to gaps in reporting. Also, some institutions of higher education have their own police departments, which handle offenses occurring within campus grounds; these offenses are not included in the violent crime statistics, but can be obtained from the Uniform Crime Reports Universities and Colleges data tables.

### Community Violence

**A total of 2.4% of surveyed Yellowstone County adults acknowledge being the victim of a violent crime in the area in the past five years.**

- Nearly identical to national findings.
- TREND: This proportion decreased significantly from 2005 to 2014, but is currently statistically similar to all previous survey findings.

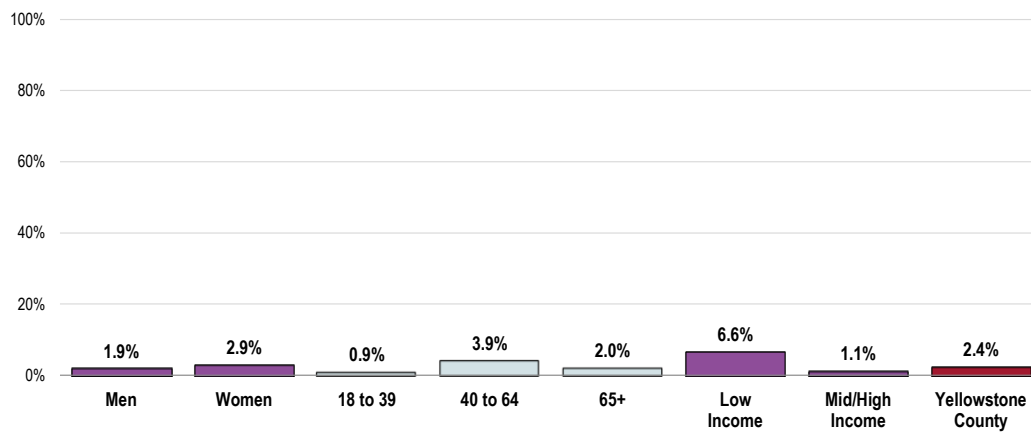
### Victim of a Violent Crime in the Past Five Years



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 49]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- While it appears to be higher among low-income residents, reports of violence are not statistically different across the tested demographic segments.

### Victim of a Violent Crime in the Past Five Years (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 49]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

**Family Violence**

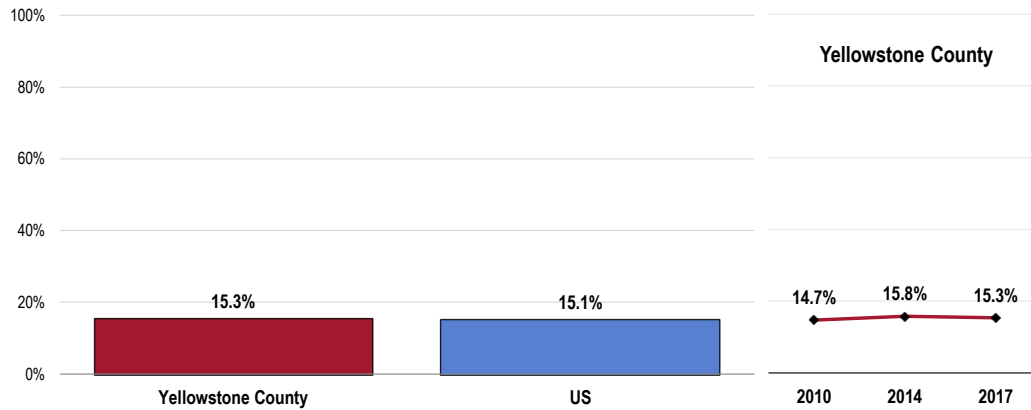
**A total of 15.3% of Yellowstone County adults acknowledge that they have ever been hit, slapped, pushed, kicked, or otherwise hurt by an intimate partner.**

Respondents were told:

"By an intimate partner, I mean any current or former spouse, boyfriend, or girlfriend. Someone you were dating, or romantically or sexually intimate with would also be considered an intimate partner."

- Nearly identical to national findings.
- TREND: Over time, the prevalence of domestic violence has remained statistically unchanged.

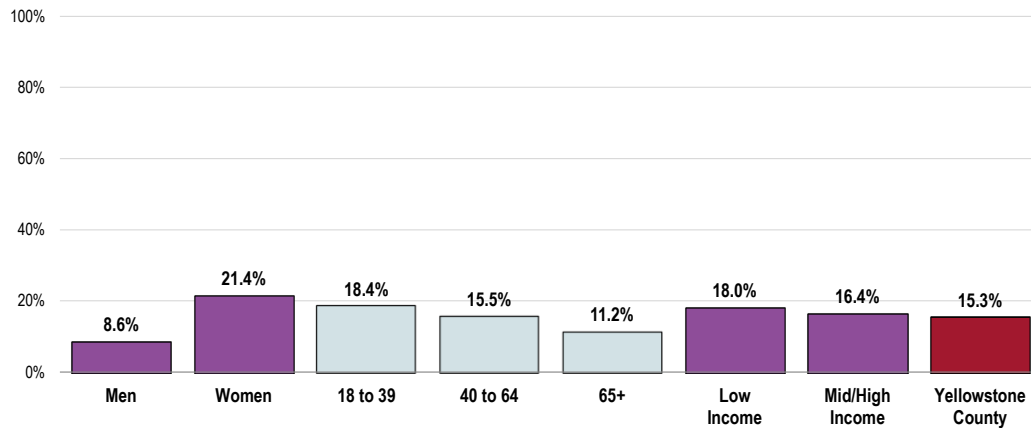
**Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner**



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 50]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- Reports of domestic violence are notably higher among women in Yellowstone County.

**Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner (Yellowstone County, 2017)**



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Key Informant Input: Injury & Violence

The largest share of key informants taking part in an online survey characterized *Injury & Violence* as a “moderate problem” in the community.

### Perceptions of Injury and Violence as a Problem in the Community

(Key Informants, 2017)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: ● Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### *Prevalence/Incidence of Violence*

*Violence and injury are two very different, but severe problems. Violence in the form of domestic violence, gun violence, etc., seems to be in the headlines constantly. Maybe that is more perception than reality, but it is enough to cause fear and make others question the quality of life in Billings. Unintended injury related to gun violence, lack of seatbelt use, etc., are also growing concerns locally.*  
- Public Health Representative

*These days, the Yellowstone County news revolves around violent crimes that occur daily. It is scary to hear about the amount of violence and injury that occurs around us so frequently.* - Educator

*The newspaper and local television stations have covered what seem to be random acts of violence among our community members, such as the beating of people on the rims and the random stabbings that have taken place downtown.* - Community Leader

*Believe that there is violent crimes in Billings. Hands-free law is not enforced. No enforcement of speed limits. Not enough police officers for adequate patrolling, protection and law enforcement.* - Public Health Representative

*Increasing violent crime rates, driving under the influence, increased drug use* - Public Health Representative

*The newspaper does a great job, unfortunately, portraying a lot of crime in Yellowstone County,* - Public Health Representative

*After the last couple of weeks, I am concerned about the violence in our community. Two women have recently been violently injured.* - Community Leader

*Violent crime is increasing, resulting in more serious injuries.* - Government Representative

*Injury and violence is frequently in the news.* - Community Leader

*As our community grows, the amount of violence increases. Domestic violence grows, and violence related to drug abuse is increasing.* - Government Representative

*Crime is on the rise.* - Business Leader

*Injury and violence is very high in Yellowstone County.* - Healthcare Provider

#### *Motor Vehicle Accidents*

*Drinking and driving has been such a part of the Western culture that only now it is starting to change. Violence as part of the homeless situation is also common. Interpersonal violence in the home is still a significant issue.* - Healthcare Provider

*Motor vehicle injuries. Concerns about helmet and seat belt use, increase in intimate partner violence, record number of children in foster care.* - Public Health Representative

*Aggressive vehicle drivers. Dangerous to other vehicles, pedestrians and bicycles. Total disregard for rules and safety of others. There is an ad campaign for vehicle/bike interactions "give them the 'hi' road," but it is more like "give them the 'finger.'" - Public Health Representative*

*Yellowstone County, like the rest of Montana, has one of the highest rates of motor vehicle accident fatalities in the US. This region, likewise, has a very high rate of accidents. The cost of workman's compensation is relatively high. - Healthcare Provider*

*Montana is frequently higher than national averages in injury and violence, but particularly injury. We do not have a primary seat belt law or mandatory helmet use, leading to more injury. - Healthcare Provider*

*Road rage, rage in general, and incidents of violence are increasing or are being more emphasized in the Gazette. Our safety committee recently noted that in years past, persons could advocate their position and let people know they felt aggrieved. Today, one would be foolish to do so, as the response is much more likely to be violent. Violence seems to have become an acceptable response. - Public Health Representative*

*Distracted and aggressive driving. - Healthcare Provider*

*Just based on what I've seen in the news, lots of injuries from traffic accidents and domestic violence situations. Things that could be prevented. - Business Leader*

*News coverage about motor vehicle accidents/deaths, lots of domestic violence, as well as that fueled by substance abuse. Also, law enforcement and judicial system seem not to prioritize these, and any sentences are light. - Healthcare Provider*

### **Alcohol/Drug Use**

*Montana is a drinking state, where drinking and driving are entrenched into the mindset. The rise of meth addiction is also increasing the level of violence in our community. Racism plays a part in the rate of injury and violence against minority people, especially women. - Educator*

*Mostly related to alcohol and drug use, but injury and violence continue to be the leading cause of mortality and morbidity among young Native Americans. - Healthcare Provider*

*Increased reports of violent crime in the county, due to both the sale and use of drugs and alcohol. Jail overcrowding. Drunk driving that goes repeatedly unpunished. Threats of mass violence. - Community Leader*

*Meth and heroin use is rising in our community, evidenced by our overcrowded courts and jail. - Community Leader*

*It's increasing because of the increased use of drugs; firearms that are easily available; the poor, who do not have jobs, thus increase violence/abuse in the home, etc. - Healthcare Provider*

*Due to the availability of drugs, the reactions of users becomes more desperate, therefore increasing violence. People cause more accidents under the influence of drugs. - Community Leader*

*Primarily in conjunction with addiction. It seems that in the last few years, there's been an up-tick in violent crimes. Again, the cost to our community with these incidents is high. - Government Representative*

*Alcohol, drugs (particularly Meth), unsafe roads, guns. - Healthcare Provider*

### **Domestic Violence**

*Domestic violence is rampant in the community, and there is little public attention on the issue. Child welfare cases are skyrocketing, with virtually no community engagement on the issue. The expectation that people should be safe in the community, and able to speak up to ask for help, is not present. - Educator*

*I can't pick up the newspaper without reading of multiple domestic violence arrests. It seems to be pretty prevalent in Montana. - Community Leader*

*Violence, especially domestic violence, is a big problem in our community. Untreated mental health issues and substance abuse are big contributors. - Community Leader*

*Crime and domestic abuse, often driven by meth use, seems to be increasing. - Business Leader*

*The Zonta Club of Billings has focused the last 3 years on domestic violence awareness. A read of the sheriff's reports constantly indicate calls surrounding this issue. Human trafficking is another aspect that has only recently gotten attention. - Business Leader*

*In my field, I see a multitude of domestic violence victims/survivors of all ages/sexes. - Community Leader*

*Domestic violence. - Educator*

**Gun Violence**

*Too many guns in the hands of unstable people. Use of drugs. - Government Representative*

*It seems that there has been an increase in our community with shootings, domestic violence, and auto/motorcycle accidents. The news media has been actively reporting more and more of these incidences. - Educator*

*Gun violence is a big problem in Yellowstone County. The increase in the number of shootings and murders is terrible. We have to do better. We need stronger gun laws. We need to teach gun safety in all of our schools. We need to limit concealed weapons permits. Domestic violence has increased significantly. We need alternative treatment to sending people to jail. If someone is injured in an accident and was not wearing a seatbelt, it is against the law to tell the jury that the plaintiff was not wearing a seat belt. That is wrong. If a person is negligent and doesn't wear a seat belt, that person should be responsible. We need a primary and mandatory seat belt law. We need a law to stop people from riding 4-wheelers on our streets with no seat belts, no helmets, etc. We need a mandatory helmet law for people riding motorcycles. - Business Leader*

**Child Abuse**

*In Yellowstone County child abuse has increased significantly. Professionals working in this area (e.g. law enforcement, social service agencies) report that child abuse and neglect is closely tied to drug use--particularly meth and heroin. The county has also seen an up-tick in murders and violent encounters that are also related to drug use. There was a period of time when meth use declined, but it is now in a major resurgence. Also, the misuse of opioids has increased. - Government Representative*

**Lack of Resources**

*We do not have enough workers in the CPS/APS system. They are overworked, not paid enough to keep them there, and they have no accountability- APS is really not there for many people. There is a huge problem with domestic abuse, but very little education or awareness - even to healthcare workers. - Healthcare Provider*

**Denial/Stigma**

*Fear of abuse and stigma associated with victimization. - Healthcare Provider*

**Trauma**

*Increasing trauma. - Educator*

## Diabetes

### About Diabetes

Diabetes mellitus occurs when the body cannot produce or respond appropriately to insulin. Insulin is a hormone that the body needs to absorb and use glucose (sugar) as fuel for the body's cells. Without a properly functioning insulin signaling system, blood glucose levels become elevated and other metabolic abnormalities occur, leading to the development of serious, disabling complications. Many forms of diabetes exist; the three common types are Type 1, Type 2, and gestational diabetes. Effective therapy can prevent or delay diabetic complications.

Diabetes mellitus:

- Lowers life expectancy by up to 15 years.
- Increases the risk of heart disease by 2 to 4 times.
- Is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness.

The rate of diabetes mellitus continues to increase both in the United States and throughout the world. Due to the steady rise in the number of persons with diabetes mellitus, and possibly earlier onset of type 2 diabetes mellitus, there is growing concern about the possibility that the increase in the number of persons with diabetes mellitus and the complexity of their care might overwhelm existing healthcare systems.

People from minority populations are more frequently affected by type 2 diabetes. Minority groups constitute 25% of all adult patients with diabetes in the US and represent the majority of children and adolescents with type 2 diabetes.

Lifestyle change has been proven effective in preventing or delaying the onset of type 2 diabetes in high-risk individuals.

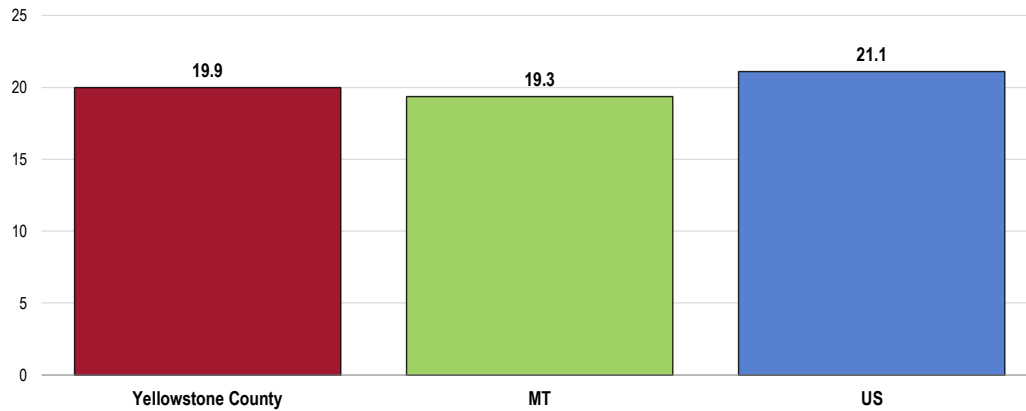
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Age-Adjusted Diabetes Deaths

**Between 2012 and 2014, there was an annual average age-adjusted diabetes mortality rate of 19.9 deaths per 100,000 population in Yellowstone County.**

- Similar to that found statewide.
- Statistically less favorable than found nationally.
- Similar to the Healthy People 2020 target (20.5 or lower, adjusted to account for diabetes mellitus-coded deaths).

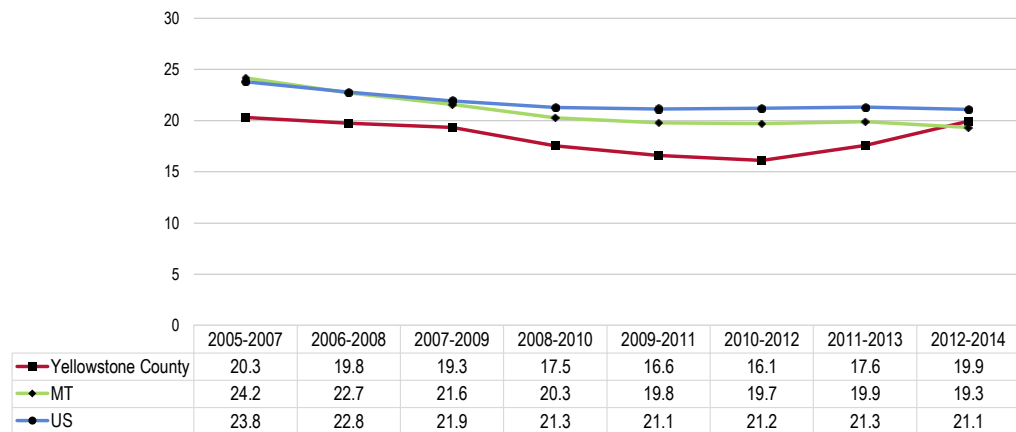
### Diabetes: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 20.5 or Lower (Adjusted)



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective D-3]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
  - The Healthy People 2020 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.

- **TREND:** Diabetes mortality in Yellowstone County trended decreased for much of the past decade, but has begun to rise in recent years.

### Diabetes: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2020 Target = 20.5 or Lower (Adjusted)



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective D-3]
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
  - The Healthy People 2020 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.



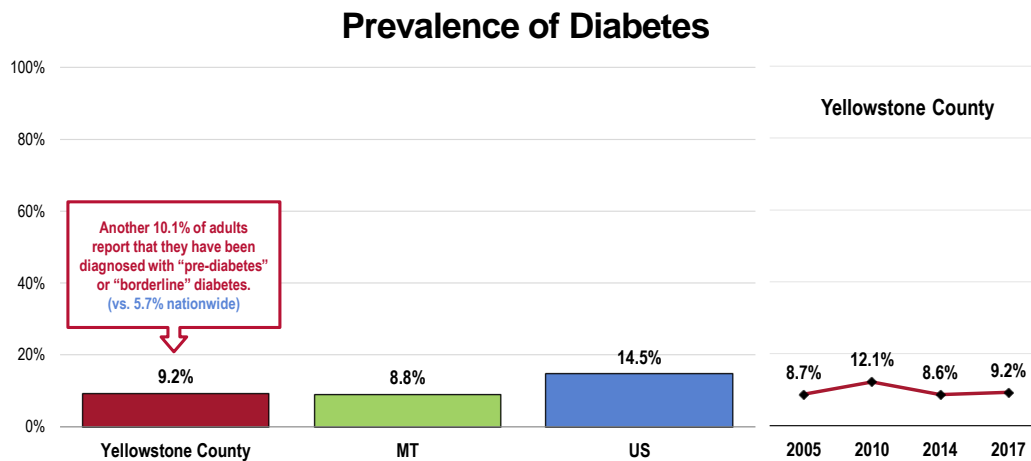
## Prevalence of Diabetes

A total of 9.2% of Yellowstone County adults report having been diagnosed with diabetes.

- Similar to the statewide proportion.
- Better than the national proportion.
- TREND: Statistically unchanged since 2005.

In addition to the prevalence of diagnosed diabetes referenced above, another 10.1% of Yellowstone County adults report that they have “pre-diabetes” or “borderline diabetes.”

- Worse than the US prevalence.



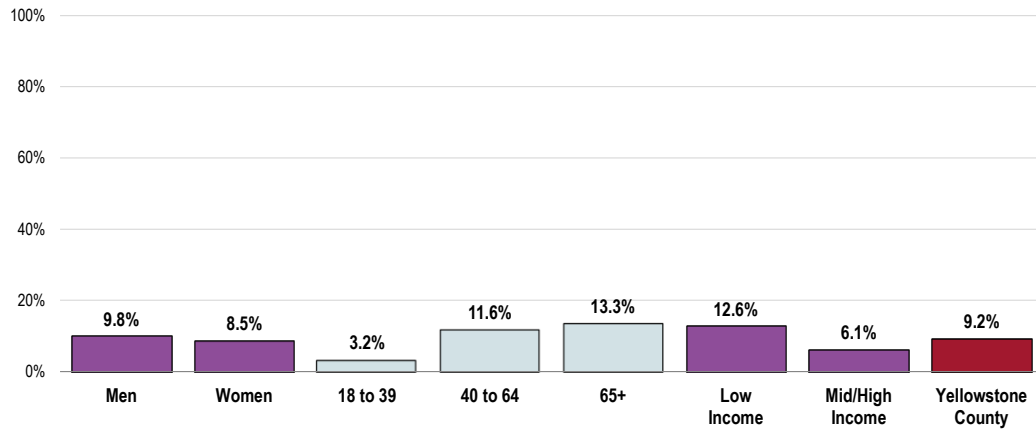
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 158]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.

Notes: • Asked of all respondents.

A higher prevalence of diagnosed diabetes (excluding pre-diabetes or borderline diabetes) is reported among:

- Older adults (note the positive association between diabetes and age).

### Prevalence of Diabetes (Yellowstone County, 2017)



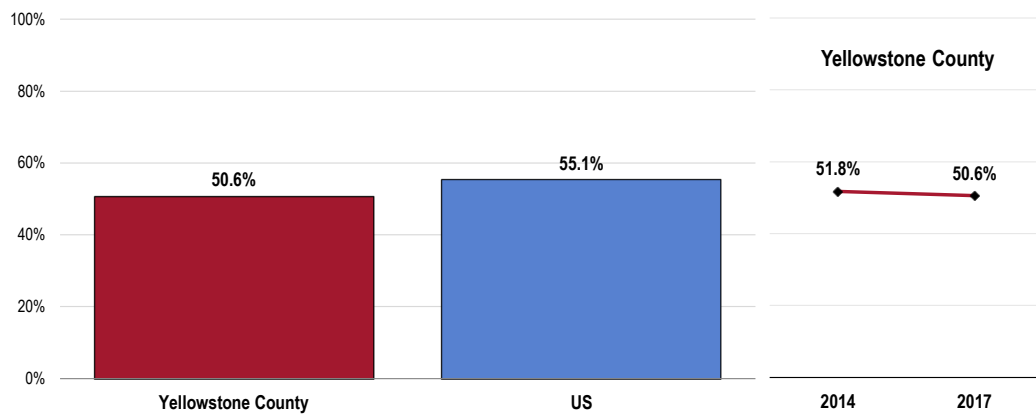
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 158]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.  
 • Excludes gestational diabetes (occurring only during pregnancy).

### Diabetes Testing

Of area adults who have not been diagnosed with diabetes, one-half (50.6%) report having had their blood sugar level tested within the past three years.

- Statistically similar to the national proportion.
- TREND: Statistically similar to the proportion reported in 2014.

### Have Had Blood Sugar Tested in the Past Three Years (Among Nondiabetics)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 39]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of respondents who have not been diagnosed with diabetes.

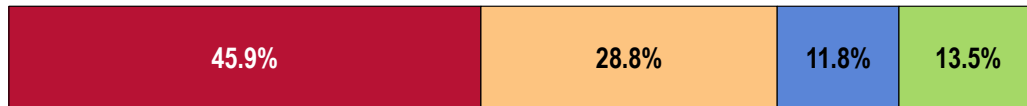
## Key Informant Input: Diabetes

A high percentage of key informants taking part in an online survey characterized *Diabetes* as a “major problem” in the community.

### Perceptions of Diabetes as a Problem in the Community

(Key Informants, 2017)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: ● Asked of all respondents.

## Challenges

Among those rating diabetes as a “major problem,” the biggest challenges for people with diabetes are seen as:

### Prevalence/Incidence

*Diabetes is a challenge, due to the varied age ranges and degrees of onset that community members encounter. I know both young and old who struggle with living a balanced life. There seems to be a spike in the number of juvenile diabetes cases. - Educator*

*Diabetes is growing at an alarming rate for all ages and especially high in American Indian/Alaska Natives. - Healthcare Provider*

*American Indian prevalence. - Healthcare Provider*

*Met many people with this problem when my wife was on dialysis and during my years working in Billings. - Community Leader*

*I've noticed an increase in childhood diabetes. I think nutrition has suffered in our fast-food/processed-based diets, especially for children. For the poor or elderly, lack of insurance to pay for proper medications is an issue. - Educator*

*I work for a local nonprofit and see a very specific section of the community who is impacted by this more heavily than others. - Community Leader*

*It is an epidemic that is out of control, and we don't have the resources to cope with the panoply of expressions. - Educator*

*Increasing onset and challenges with management of the disease. - Business Leader*

*Increasing prevalence, and eating and sedentary habits. - Educator*

*There are a lot of people with diabetes in this community. - Community Leader*

### Disease Management

*It is a chronic disease that requires tremendous adherence to management and lifestyle changes. This chronic disease can greatly diminish quality of life. Diabetes often presents with other co-occurring diseases. Patients may not be able to achieve their own personal lifestyle goals or professional lifestyle goals. The cost to treat diabetes is high and is a cost to our community and nation. Furthermore, the presence of childhood diabetes is rising and this disease, its causes, and treatment must be taken seriously now to make significant change in our society. The reduction of diabetes will have a positive effect on finances, productivity, health and happiness of our community. - Healthcare Provider*

*The biggest challenge for someone with diabetes is finding ways to manage your diabetes, including diet, exercise, lifestyle modification programs and access to quality and affordable healthcare. - Public Health Representative*

*Engaging and staying active in their care. There are many patients we see that are attempting to manage their diabetes mellitus, but have underlying issues (alcohol and substance abuse, mental health, situational/housing) that prevent or make it difficult to manage their diabetes mellitus. - Public Health Representative*

*Treatment. Accessing and then being able to comply/participate in treatment plan. - Community Leader*

*Mostly their own refusal to follow recommendations and medical plans set out by their physician. Insurance companies should also reach out with information on local programs that would help. - Government Representative*

*As with kidney disease, financial concerns, failure to succeed at self-regulation, and inconsistent follow-through by those affected. Requires a great deal of outreach and potential in-home monitoring. - Community Leader*

*I see what happens when people cannot control this. A real problem in the Native American population. - Government Representative*

*Regular medical care and monitoring and education. - Public Health Representative*

*Medication compliance. - Healthcare Provider*

*Self-monitoring. - Healthcare Provider*

### **Health Education**

*We have the benefit of education workshops provided through our hospitals in prevention for those at risk, but more people need to take advantage of these opportunities and also to follow through with making healthy changes. - Community Leader*

*There is a generally poor understanding of the disease, including prevention, interventions and ramifications to health. There is not an adequate healthy eating response available for many, and exercise is not a routine part of life for many of these persons. - Public Health Representative*

*Education, ability to pay for the medication. - Healthcare Provider*

*Access to education about wellness and prevention. - Healthcare Provider*

*Education and resources to maintain a healthy lifestyle while living with diabetes. - Educator*

*Prevention of diabetes. Accessing and attending education and ongoing support. - Healthcare Provider*

*Understanding how diabetes is associated with diet, exercise and how diabetes can affect other health organs/systems. - Public Health Representative*

*Pre-screening, access and acceptance of education and the support required to succeed. Access and affordability of nutritious food and planning. - Community Leader*

*Access to education, care and medications. Individuals are lacking in nutritional knowledge and how it affects their disease. - Community Leader*

*Access to diabetes education services and consistent monitoring/accountability. - Business Leader*

### **Lifestyle**

*Developing a comprehensive plan to change the individual's lifestyle to better control their diabetes and limit the consequences of the disease. - Healthcare Provider*

*Diet and lifestyle is having a huge impact on younger generations. Most notably Native kids who are genetically more at risk. - Government Representative*

*Epidemic of overeating. - Business Leader*

*Individuals' lack of attention to weight and nutrition. Monitoring blood sugar levels. - Healthcare Provider*

*Controlling weight, diet. - Government Representative*

*Type 2 and its relationship to healthy eating and exercise. Access to healthy foods and encouraging physical activity. - Government Representative*

*Lack of regular care, exercise and diet. - Business Leader*

*Lifestyle modification. - Healthcare Provider*

*Changing their lifestyle and managing their condition. - Community Leader*

### Nutrition

*The biggest challenge with diabetes is what people are putting in their bodies. It is a lack of knowledge of how to eat healthy on a low budget, combined with ignorance on what we are really putting into our bodies when we consume so many food-like items, instead of whole foods. Having more locally grown produce accessible to our community (instead of exporting 90%, then importing 90%), and especially the way we treat health and nutrition in the K-12 educational system are huge contributors to this problem. The approach to health education of only helping those that already have diabetes or pre-diabetes only takes care of half the problem. We need to do more to prevent the disease in the first place. - Educator*

*Proper nutrition. What education we get in regards to healthy eating is not what we actually practice, although we have an awareness of health hazards regarding diet and exercise. Practicing healthy eating is not an easy, as our way of life is pretty ingrained. - Community Leader*

*The greatest challenge is the disconnect for our community between food intake, lack of exercise and metabolic syndrome, thus leading to undiagnosed diabetes. Access to managed care and medication is a challenge for those with limited means. Motivation for healthier living can be a challenge for the disenfranchised. - Community Leader*

*This goes along with nutrition and physical health. Rising number of people diagnosed yearly. Motivation to change seems to be a big issue. - Public Health Representative*

*The ability to prepare proper meals for their illness, and the built environment that encourages activity. - Business Leader*

*Getting the nutritional counseling they need. - Community Leader*

### Obesity

*Many of the community members are overweight, and their children are also overweight and don't exercise enough. - Educator*

*The persistence of obesity, despite numerous efforts to curb the trend, makes it hard to reduce diabetes risks and cases. Low income workers have trouble accessing healthy lower-sugar or less-processed foods. - Community Leader*

*Getting to a healthy weight is the biggest challenge facing those at-risk for diabetes and those who have already been diagnosed. - Healthcare Provider*

*Cars! People are so fat and never walk. It is difficult to find access to healthy foods within a walkable or drivable distance. - Government Representative*

*Obesity is a leading cause of type two diabetes, and obesity is an increasing issue. - Public Health Representative*

### Access to Healthful Food

*Access to affordable healthy food choices in rural frontier communities is a hazard to the health of our community. Kids don't grow up with the expectation of fresh produce being their top choice for what to eat, how to eat it, and what it does for them. Our rural frontier communities don't offer healthy activities that are new and exciting to people of all ages. Sadly, there are always bars in these small one-horse towns, but not a public gym, pool, climbing wall, ice rink, or other fitness options, appropriate for all ages and family activities. Our area has many excellent doctors to treat patients with diabetes, but our communities don't offer much to inspire wellness that prevents diabetes. - Educator*

*Having attractive foods, which are low in sugar, easily available. Having a community of people with whom they can share their challenges and resources they have found. - Community Leader*

*Access to healthy meals; affording four medical visits per year - Public Health Representative*

*Easy access to healthy food and appropriate exercise. - Business Leader*

### Vulnerable Populations

*Many Natives on reservation don't have adequate transportation to get into Billings for medical care and dialysis. - Educator*

*Access to care for certain segments of our population like Native Americans. Access to good nutrition for low income individuals. - Healthcare Provider*

*Underserved populations (especially low-income and Native American) have very high rates of diabetes. Increasing access to timely primary care with an established primary care provider is the biggest step to be taken for these populations. - Public Health Representative*

*People living in poverty without sufficient foods, health care and transportation. - Community Leader*

*Native Americans are in crisis with this disease. - Healthcare Provider*

#### **Affordable Care/Services**

*Financially and physically draining for person and family. The fact that people can potentially prevent or control their disease through lifestyle choices, yet choose not to, is the biggest challenge. - Community Leader*

*People with limited resources who are not able to afford their medications or lack primary care providers who can help them manage their disease. - Healthcare Provider*

*Lack of funding to buy supplies and inability to control especially with seniors - Community Leader*

#### **Access to Providers**

*Probably the shortage of good doctors. - Business Leader*

*Access to services, minimal specialists in community, large Native American population/behavior and choices, obesity. - Healthcare Provider*

#### **Diagnosis/Treatment**

*Undiagnosed pre-diabetes or diabetes. After diagnosis, non-compliance with blood glucose checks, following medication and diet guidelines, affording prescriptions and diabetes supplies. - Business Leader*

#### **Transportation**

*Transportation to and from dialysis treatment from Laurel and eastern Yellowstone County. Long wait periods. Neuropathy. Poor Nutrition. Obesity. - Community Leader*

## Alzheimer's Disease

### About 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 is not a disease itself, but rather a set of symptoms. Memory loss is a common symptom of dementia, although memory loss by itself does not mean a person has dementia. Alzheimer's disease is the most common cause of dementia, accounting for the majority of all diagnosed cases.

Alzheimer's disease is the 6th leading cause of death among adults age 18 years and older. Estimates vary, but experts suggest that up to 5.1 million Americans age 65 years and older have Alzheimer's disease. These numbers are predicted to more than double by 2050 unless more effective ways to treat and prevent Alzheimer's disease are found.

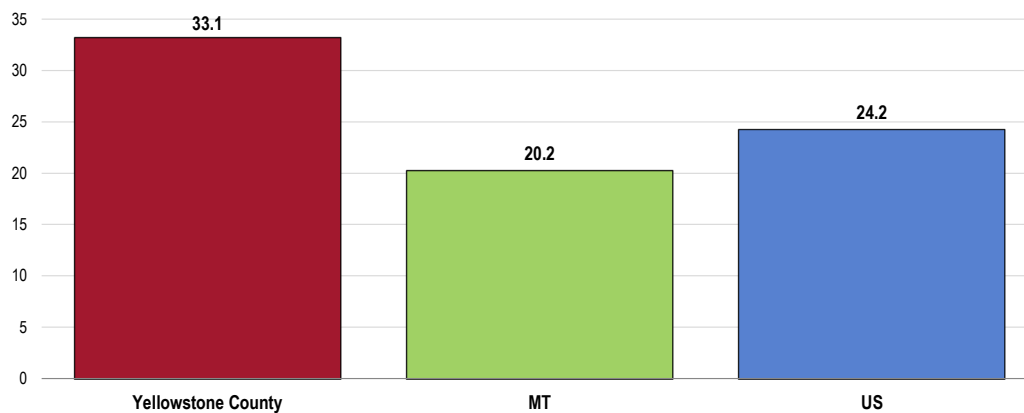
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Age-Adjusted Alzheimer's Disease Deaths

Between 2012 and 2014, there was an annual average age-adjusted Alzheimer's disease mortality rate of 33.1 deaths per 100,000 population in Yellowstone County.

- Considerably less favorable than the statewide and national rates.

### Alzheimer's Disease: Age-Adjusted Mortality (2012-14 Annual Average Deaths per 100,000 Population)

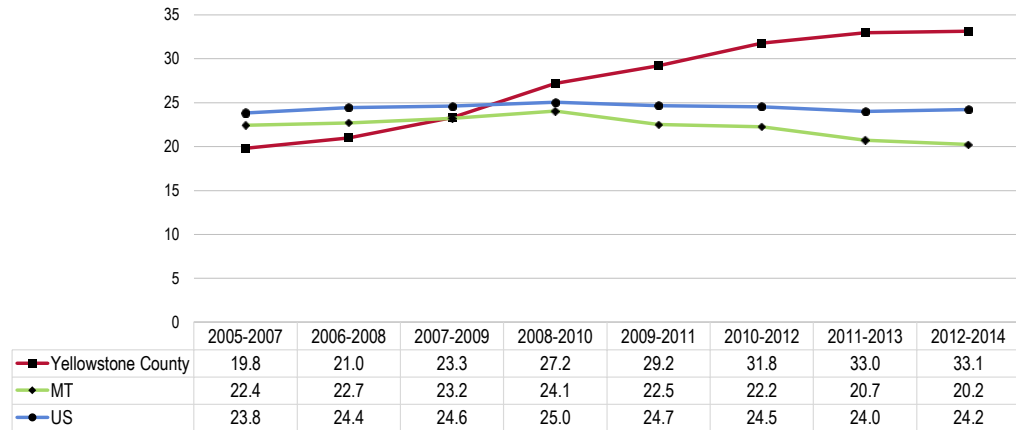


Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.

Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** Alzheimer's disease mortality has increased greatly in Yellowstone County over the past decade, while statewide rates have decreased slightly, and national rates have remained stable.

### Alzheimer's Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



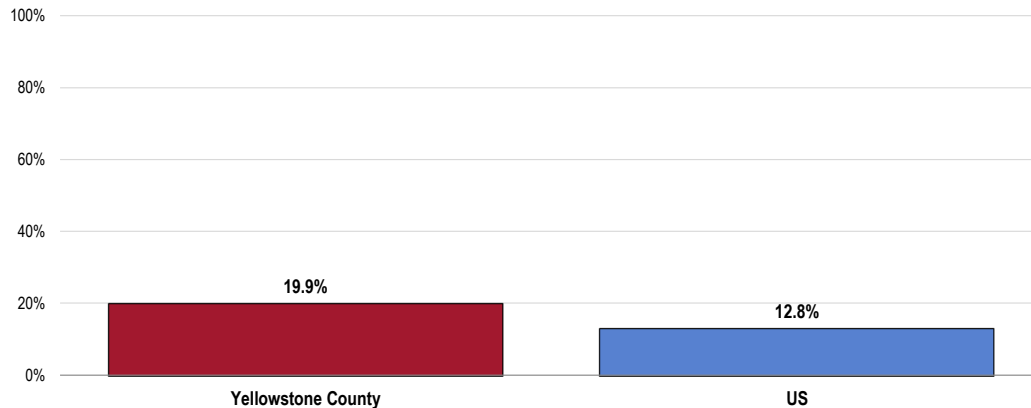
Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.  
 Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
 • Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### Progressive Confusion/Memory Loss

Nearly one-fifth (19.9%) of adults age 45 and older report experiencing confusion or memory loss in the past year that is happening more often or getting worse.

- Above the US prevalence.

### Experienced Increasing Confusion/Memory Loss in Past Year (Among Respondents Age 45 and Older)

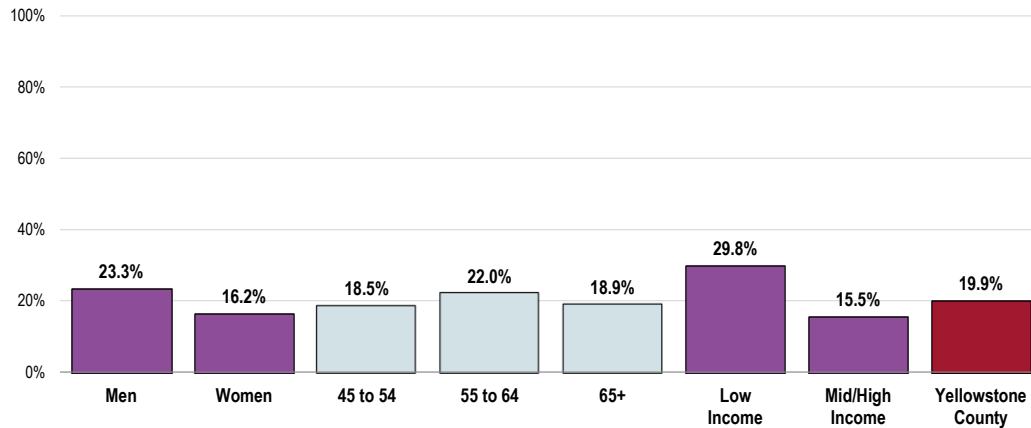


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 127]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of those respondents age 45 and older.



- A higher prevalence of progressive confusion/memory loss is reported among residents living at lower incomes.

### Experienced Increasing Confusion/Memory Loss in Past Year (Among Respondents Age 45 and Older; Yellowstone County, 2017)



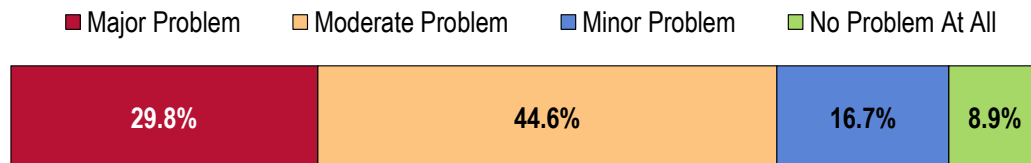
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 127]  
 Notes: • Asked of those respondents age 45 and older.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Key Informant Input: Dementias, Including Alzheimer's Disease

Key informants taking part in an online survey are most likely to consider *Dementias, Including Alzheimer's Disease* as a "moderate problem" in the community.

### Perceptions of Dementia/Alzheimer's Disease as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

#### Aging Population

*As the population ages, we will see more individuals with dementia/Alzheimer's. Our community has some services in place, but it is difficult to find appropriate living arrangements for this population, as many of the facilities have waiting lists. The affordability is also an issue. - Healthcare Provider*

*Changing demographics. Montana has one of the largest elderly populations in the country, and Billings is near the top of the list in Montana. The cost of long-term nursing home care is very high. - Business Leader*

*Billings has a good-sized population of elderly. Many do not have family nearby for support or to catch the warning signs early. - Educator*

*The number of elderly people who may develop dementia/Alzheimer's is large, and there are not enough memory care/skilled nursing facilities available at affordable rates. Reimbursement for Medicaid is too low to allow nonprofit skilled nursing centers to provide care that it is needed. For-profit assisted living businesses do not want to do memory care, since there is no profit in it. We also do not have enough nurses and CNAs to fill the jobs in skilled nursing care. Wages are too low to compete with hospital positions. The labor shortage is only going to get worse as the number of patients grows in the next five to ten years. Affordable care is the issue. Home health care might be part of the solution. Obviously having a continuum of care would be optimal in order to manage the various stages of Alzheimer's. We need a plan for providing this continuum of care and a realistic estimate of cost. - Government Representative*

*Baby boomers, lack of social supports, financial issues accessing care, caregiving and home care for low to middle income families. - Healthcare Provider*

*With the increase in the percentage of people living longer in Yellowstone County, the percentage of people with dementia will continue to increase. Assistance for caregivers with increase, as well as memory care in facilities. Also training for people who work in the aging field to help them identify and assist family members who are searching for the "whys." - Community Leader*

*Montana has a burgeoning senior population among whom the majority of Alzheimer's and dementia cases are found. Due to the fact our elders make up a large proportion of our population, and many suffer from these age-related diseases, combined with the fact that fewer and fewer seniors are preparing financially for their care as they age. This may be due to lack of funds or inability to prepare financially. They call it the "gray tsunami" of Montana. Montanans are aging at a rate that our current tax base can't support. When you factor in the higher level of care necessary for those with Alzheimer's and dementia-related health issues, we will be facing a crisis if we do not address the growing health needs of our older populations. - Government Representative*

*Identification of older adults, especially those living in poverty. Not enough affordable care available to allow them to have assistance for caregivers in their own homes, unaffordable good care in nursing homes without losing everything. - Community Leader*

*Rapidly aging population, high cost of care for dementia, lack of workforce for high-level elder care. - Business Leader*

*Because of the aging of our community, there are increased numbers of people who are at risk of developing dementia and the societal costs are large and increasing. - Healthcare Provider*

*Growing problem in the nation, being personalized within the senior population in Yellowstone County on a very regular basis. Increased number of memory care facilities in the county. Conferences aimed at educating about disease. Legislatures becoming more interested in the topic and developing a plan addressing the disease. - Community Leader*

*Community is aging. More and more cases of dementia. - Business Leader*

*Aging population. - Healthcare Provider*

### **Prevalence/Incidence**

*Significant prevalence and no strong care supports in place, particularly for those with challenging behaviors. - Healthcare Provider*

*The number of individuals in need appears to be growing fast. Perhaps the level of support is keeping pace, but if not, this could be a major problem. - Educator*

*It may be because this issue has been in the news more in the recent years, but I seem to encounter more and more people whose lives are affected by dementia/Alzheimer's. I think the problem is getting more attention and hopefully will get solutions to solve or deal with it. - Community Leader*

*I have contacts with numerous clients who are experiencing/appear to be experiencing decline in cognitive functioning and who do not seem to have community resources/caretakers/assistance. - Community Leader*

*Have more than one friend who has family who has this, or has died from these problems. - Community Leader*

*Many people are affected, and it is hard to find care. - Business Leader*

*I see many people with this and how it affects their lives and their families. - Government Representative*

*It is and will continue to dominate mental and health care because of the rapidly rising post-65 age group. - Community Leader*

*It affects more people each year. No cure, just management of symptoms. - Business Leader*  
*There has been an increase of diagnoses and caregivers requiring assistance. - Community Leader*  
*Increasing prevalence. - Educator*

### **Impact on Families/Caregivers**

*It is a major burden on family caregivers when respite care cannot be afforded. Very few facilities for males when they become hostile, as the family is told they can't be cared for and they are moved frequently. - Healthcare Provider*

*This disease is like cancer because it drains the person physically, mentally and financially. The lack of services to care for this person- without going bankrupt- is scary. - Community Leader*

*This is such a drain on families, both emotionally and financially. - Public Health Representative*

*This is a disease that can be a great burden for the family, both financially and emotionally, and will perhaps be more prevalent as our aging population increases. - Community Leader*

*Impacts and costs of home health care. Impact to those who choose or cannot afford care and have to care for family member on their own. Support services. - Government Representative*

### **Diagnosis/Treatment**

*Increase in number of people misdiagnosed or not getting help, due to limited resources - Community Leader*

*No cure has been found to even slow it down, much less cure it. It is a deadly disease. - Community Leader*

*Under-diagnosed, not enough geriatricians to care for this population. - Healthcare Provider*

*Requires a great deal of education and information to diagnose. Denial, gradual nature of change in some cases, and isolation are factors. - Community Leader*

### **Health Education**

*Not enough means to educate and offer support to families and patients. There are not facilities able to take these patients if it means a locked unit; most have quit because they don't have the staff to care for them. - Healthcare Provider*

*We are not prepared for the future, and we have no plan for 2<sup>nd</sup>- and 3<sup>rd</sup>-phase cases of dementia. - Government Representative*

### **National Issue**

*I feel as though this is a national struggle, not just a local one. I don't know a single person in or out of Yellowstone County who hasn't been effected by dementia or Alzheimer's. - Community Leader*

*I think it's a major problem in many communities. As we live longer, our chances increase to suffer from dementia or Alzheimer's disease. - Business Leader*

### **Affordable Care/Services**

*Low-cost planning for advanced care, estate or insurance planning for seniors to protect them before they develop dementia or other diseases or need nursing home care. Support services to help them stay at home. - Healthcare Provider*

*Lack of affordable resources for patients - Government Representative*

### **Access to Care/Services**

*Lack of resources to help older patients who are no longer able to care for themselves. - Healthcare Provider*

*Lack of facilities to treat/house these patients. - Healthcare Provider*

### **Access to Providers**

*Lack of providers to care for patients and long-term care facilities. - Public Health Representative*

## Kidney Disease

### About Chronic Kidney Disease

Chronic kidney disease and end-stage renal disease are significant public health problems in the United States and a major source of suffering and poor quality of life for those afflicted. They are responsible for premature death and exact a high economic price from both the private and public sectors. Nearly 25% of the Medicare budget is used to treat people with chronic kidney disease and end-stage renal disease.

Genetic determinants have a large influence on the development and progression of chronic kidney disease. It is not possible to alter a person's biology and genetic determinants; however, environmental influences and individual behaviors also have a significant influence on the development and progression of chronic kidney disease. As a result, some populations are disproportionately affected. Successful behavior modification is expected to have a positive influence on the disease.

Diabetes is the most common cause of kidney failure. The results of the Diabetes Prevention Program (DPP) funded by the national Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) show that moderate exercise, a healthier diet, and weight reduction can prevent development of type 2 diabetes in persons at risk.

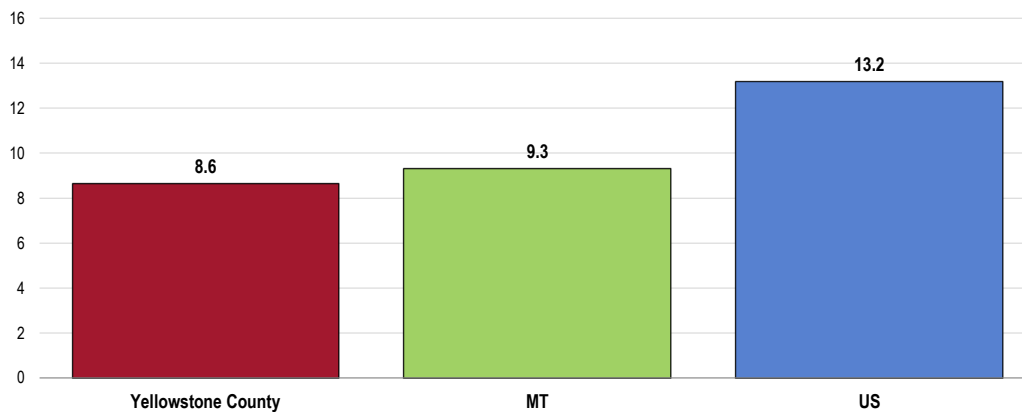
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Age-Adjusted Kidney Disease Deaths

**Between 2012 and 2014 there was an annual average age-adjusted kidney disease mortality rate of 8.6 deaths per 100,000 population in Yellowstone County.**

- Lower than both the rate found statewide and nationally.

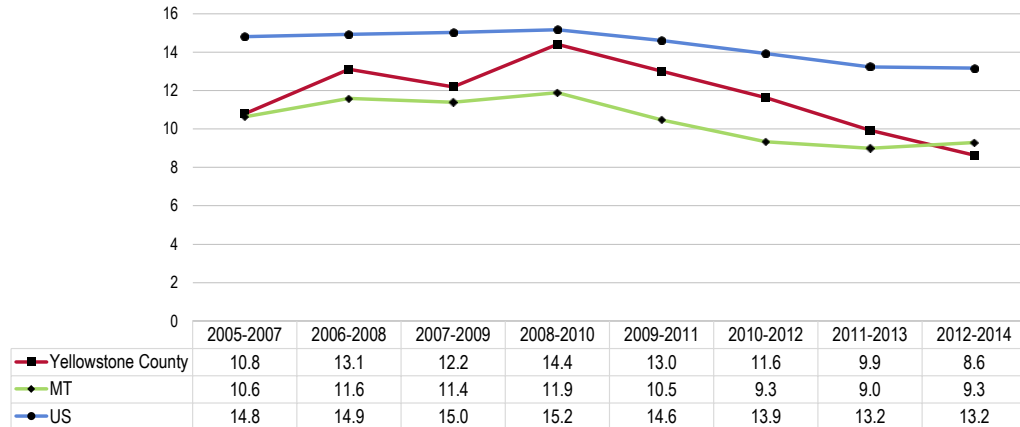
**Kidney Disease: Age-Adjusted Mortality**  
(2012-14 Annual Average Deaths per 100,000 Population)



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
  - Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** Since 2008, the kidney disease mortality rate in Yellowstone County has trended downward at a faster pace than seen in across Montana and the US overall.

### Kidney Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



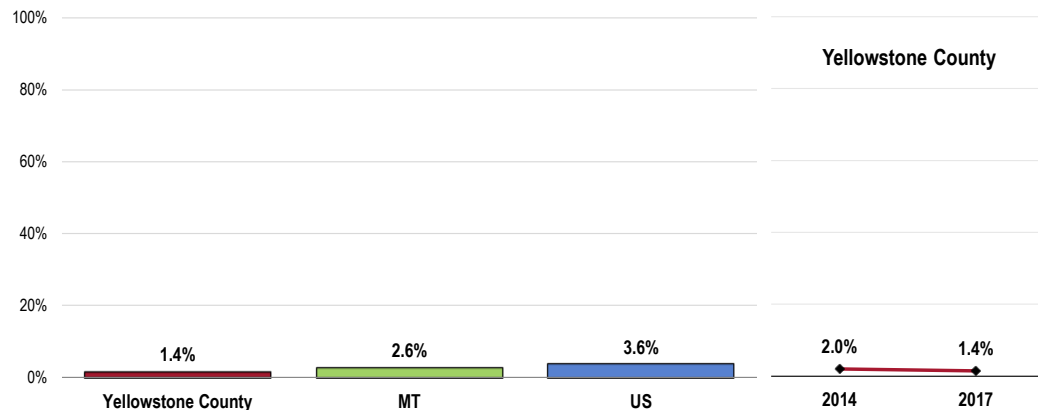
Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.  
 Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).  
 • Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### Prevalence of Kidney Disease

**A total of 1.4% of Yellowstone County adults report having been diagnosed with kidney disease.**

- Similar to the statewide proportion.
- Lower than the US figure.
- **TREND:** Statistically similar to previous survey findings.

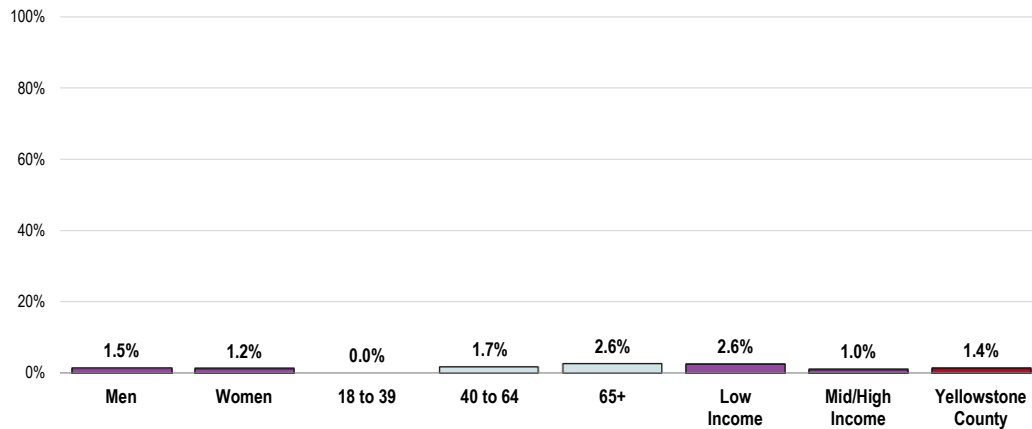
### Prevalence of Kidney Disease



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 32]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- The prevalence of kidney disease does not vary significantly among the following demographic segments.

### Prevalence of Kidney Disease (Yellowstone County, 2017)

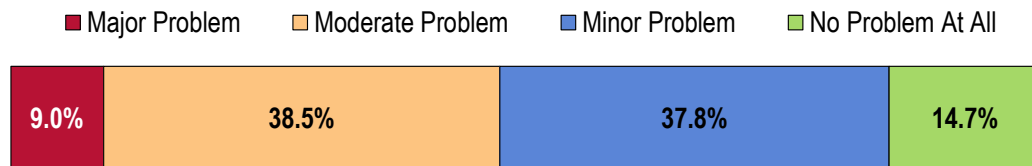


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 32]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Key Informant Input: Chronic Kidney Disease

Slightly more key informants taking part in an online survey characterized *Chronic Kidney Disease* as a "moderate problem" than as a "minor problem" in the community.

### Perceptions of Chronic Kidney Disease as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a "major problem," reasons related to the following:

#### Vulnerable Populations

*Large numbers of American Indians with kidney disease. - Healthcare Provider*

*Very high risk in American Indian/Alaska natives. - Healthcare Provider*

*The rate of diabetes is higher in this region, in part due to the higher population of American Indians, who are at great risk for diabetes. Diabetes includes kidney disease and dialysis, and in a rural frontier region, these services are critical. Many people have to drive a great distance several times a week for dialysis. - Educator*

*I work with the Native community, this is a significant problem for elderly Natives. – Educator*

*High percent of American Indian population in Billings and from area reservations, high rate of diabetes in nation. - Community Leader*

*Speaking again to the offender population, it is difficult to establish connections on a consistent basis. Financial considerations, transience, and substance abuse are major factors in care. - Community Leader*

### **Prevalence/Incidence**

*We have a growing number of patients on dialysis related to diabetic nephropathy. The need for dialysis is outgrowing our capabilities. - Healthcare Provider*

*Increase in number of people needing dialysis, and lack of transportation to receive treatment. - Community Leader*

*Met many citizens with kidney problems when my wife was on dialysis, so know this first-hand. - Community Leader*

### **Access to Care/Services**

*Due to need for dialysis, transportation to dialysis and the challenges with getting reliable transportation to dialysis several days a week. - Public Health Representative*

### **Comorbidities**

*Diabetes. – Educator*

## Potentially Disabling Conditions

### About Arthritis, Osteoporosis & Chronic Back Conditions

There are more than 100 types of arthritis. Arthritis commonly occurs with other chronic conditions, such as diabetes, heart disease, and obesity. Interventions to treat the pain and reduce the functional limitations from arthritis are important, and may also enable people with these other chronic conditions to be more physically active. Arthritis affects 1 in 5 adults and continues to be the most common cause of disability. It costs more than \$128 billion per year. All of the human and economic costs are projected to increase over time as the population ages. There are interventions that can reduce arthritis pain and functional limitations, but they remain underused. These include: increased physical activity; self-management education; and weight loss among overweight/obese adults.

Osteoporosis is a disease marked by reduced bone strength leading to an increased risk of fractures (broken bones). In the United States, an estimated 5.3 million people age 50 years and older have osteoporosis. Most of these people are women, but about 0.8 million are men. Just over 34 million more people, including 12 million men, have low bone mass, which puts them at increased risk for developing osteoporosis. Half of all women and as many as 1 in 4 men age 50 years and older will have an osteoporosis-related fracture in their lifetime.

Chronic back pain is common, costly, and potentially disabling. About 80% of Americans experience low back pain in their lifetime. It is estimated that each year:

- 15%-20% of the population develop protracted back pain.
- 2-8% have chronic back pain (pain that lasts more than 3 months).
- 3-4% of the population is temporarily disabled due to back pain.
- 1% of the working-age population is disabled completely and permanently as a result of low back pain.

Americans spend at least \$50 billion each year on low back pain. Low back pain is the:

- 2<sup>nd</sup> leading cause of lost work time (after the common cold).
- 3<sup>rd</sup> most common reason to undergo a surgical procedure.
- 5<sup>th</sup> most frequent cause of hospitalization.

Arthritis, osteoporosis, and chronic back conditions all have major effects on quality of life, the ability to work, and basic activities of daily living.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### **Arthritis, Osteoporosis, & Chronic Back Conditions**

**Nearly two-fifths (38.1%) of Yellowstone County adults age 50 and older report suffering from arthritis or rheumatism.**

- Statistically comparable to that found nationwide.

**A total of 12.4% Yellowstone County adults age 50 and older have osteoporosis.**

- Similar to that found nationwide.
- More than twice the Healthy People 2020 target of 5.3% or lower.

**A total of 27.7% of Yellowstone County adults (18 and older) suffer from chronic back pain or sciatica.**

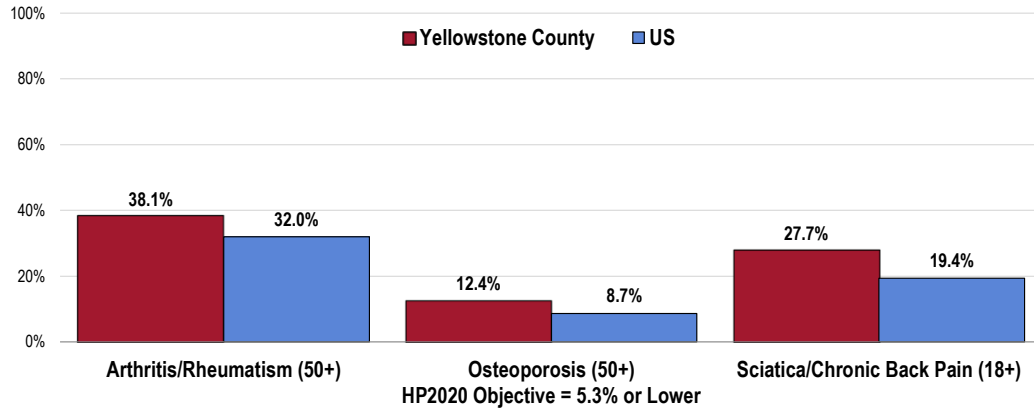
- Less favorable than that found nationwide.

#### RELATED ISSUE:

See also *Activity Limitations* in the **General Health Status** section of this report.



### Prevalence of Potentially Disabling Conditions



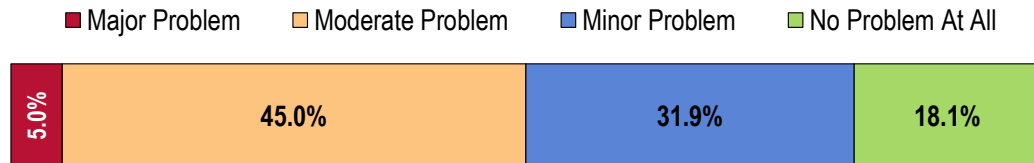
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 28, 161-162]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective AOCBC-10]

Notes: • The sciatica indicator reflects the total sample of respondents; the arthritis and osteoporosis columns reflect adults age 50+.

### Key Informant Input: Arthritis, Osteoporosis & Chronic Back Conditions

A plurality of key informants taking part in an online survey characterized *Arthritis, Osteoporosis & Chronic Back Conditions* as a “moderate problem” in the community.

### Perceptions of Arthritis/Osteoporosis/Back Conditions as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### Aging Population

*These conditions are of concern, especially to the older population. Our older population is increasing in numbers. - Community Leader*

*Having regular exposure to the senior population, I hear consistently from people who suffer from back pain and mobility issues. Many of those individuals claim to be using prescribed narcotics on a daily basis to function with their pain. - Community Leader*

### Prevalence/Incidence

*There is a widespread and unappreciated epidemic of orthopedic and musculoskeletal problems in adults, which limit community members' participation in activities, both at work and for health. These problems are limited people's activity, leading to obesity and other health issues. - Healthcare Provider*

*They are so common, and most sufferers don't report them because there is so little that can be done to prevent or treat them. - Healthcare Provider*

### Access to Care/Services

*I have heard people talk about their trouble getting in to see a doctor. - Business Leader*

## Vision & Hearing Impairment

### About Vision

Vision is an essential part of everyday life, influencing how Americans of all ages 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 injury.

The eyes are an important, but often overlooked, part of overall health. Despite the preventable nature of some vision impairments, many people do not receive 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 a problem is detected, an eye care professional can prescribe corrective eyewear, medicine, or surgery to minimize vision loss and help a person see his or her best.

Healthy vision can help to ensure a healthy and active lifestyle well into a person's later years. Educating and engaging families, communities, and the nation is critical to ensuring that people have the information, resources, and tools needed for good eye health.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

#### RELATED ISSUE:

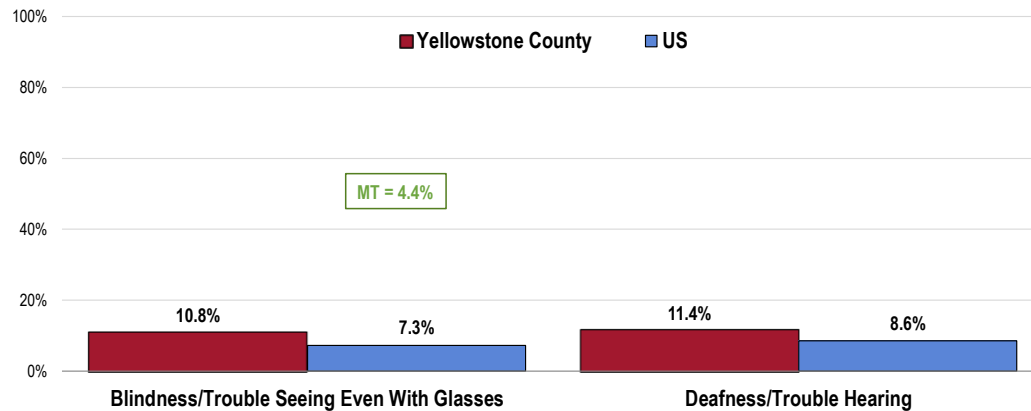
See also *Vision Care* in the *Access to Health Services* section of this report.

### Vision and Hearing Trouble

**A total of 10.8% of Yellowstone County adults are blind or have trouble seeing even when wearing corrective lenses, and 11.4% are deaf or have trouble hearing.**

- The prevalence of blindness or trouble seeing is higher in Yellowstone County than found statewide and nationally.
- Deafness or trouble hearing in Yellowstone County is similar to the national prevalence.

## Prevalence of Blindness/Deafness



- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 25-26]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
  - Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2014 Montana data.
- Notes:
- Reflects the total sample of respondents.

## Hearing Trouble

### About Hearing & Other Sensory or Communication Disorders

An impaired ability to communicate with others or maintain good balance can lead many people to feel socially isolated, have unmet health needs, have limited success in school or on the job. Communication and other sensory processes contribute to our overall health and well-being. Protecting these processes is critical, particularly for people whose age, race, ethnicity, gender, occupation, genetic background, or health status places them at increased risk.

Many factors influence the numbers of Americans who are diagnosed and treated for hearing and other sensory or communication disorders. These may include social determinants (social and economic standings, age of diagnosis, cost/stigma of wearing a hearing aid, and unhealthy lifestyle choices) or biological determinants (genetics, viral or bacterial infections, sensitivity to certain drugs or medications, injury, and aging).

As the nation's population ages and survival rates for medically fragile infants and for people with severe injuries and acquired diseases improve, the prevalence of sensory and communication disorders is expected to rise.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

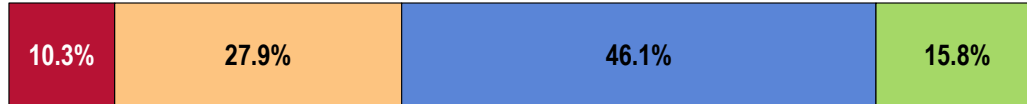
## Key Informant Input: Vision & Hearing

Key informants taking part in an online survey most often characterized *Vision & Hearing* as a “minor problem” in the community.

## Perceptions of Hearing and Vision as a Problem in the Community

(Key Informants, 2017)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: ● Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### Aging Population

*The aging population is characterized by decreased acuity and increased disease in all of the senses. - Educator*

*Vision problems seem to be very pronounced in the elderly, and prevention is addressed but not connecting with many persons. Hearing loss seems very common as persons age in our area. Again, preventative measures are not effectively used by many people. - Public Health Representative*

*Montana has a burgeoning senior population, which our current tax base will not be able to support unless we proactively address the growing percentage of elders and their lack of planning and/or inability to plan for their care as they age. It has been my experience that unless one can afford private pay or private insurance coverage for vision and hearing, there is little to no help for those too poor to afford it. I believe this is due to lack of affordable coverage and lack of coverage, and/or lack of sufficient coverage from Medicaid and/or Medicare. - Government Representative*

*Aging population. - Community Leader*

#### Affordable Care/Services

*Individuals do not have funding to cover hearing and vision conditions and, therefore, do not seek care. - Community Leader*

*The patient may not have income to cover the cost of service. - Healthcare Provider*

#### Insurance Issues

*Most insurances do not cover hearing or vision care for patients. Lack of adequate resources for financial assistance for corrective lenses. - Public Health Representative*

*Senior citizens cannot afford hearing aids, since it's not covered by Medicare. - Community Leader*

#### Access to Care/Services for Children

*Children with hearing and vision issues that require specialized care must travel out of state, especially when there are related chronic medical conditions. - Community Leader*

#### Environmental Contributors

*Technology noise pollution is creating more hearing problems. Are we addressing this? - Healthcare Provider*

#### Health Education

*Education of the availability of pre-screening and health access. - Community Leader*

# Infectious Disease



**Professional Research Consultants, Inc.**

## HIV

### About HIV

The HIV epidemic in the United States continues to be a major public health crisis. An estimated 1.1 million Americans are living with HIV, and 1 in 5 people with HIV do not know they have it. HIV continues to spread, leading to about 56,000 new HIV infections each year.

HIV is a preventable disease, and effective HIV prevention interventions have been proven to reduce HIV transmission. People who get tested for HIV and learn that they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their sex or drug-using partners. More than 50% of new HIV infections occur as a result of the 21% of people who have HIV but do not know it.

In the era of increasingly effective treatments for HIV, people with HIV are living longer, healthier, and more productive lives. Deaths from HIV infection have greatly declined in the United States since the 1990s. As the number of people living with HIV grows, it will be more important than ever to increase national HIV prevention and healthcare programs.

There are gender, race, and ethnicity disparities in new HIV infections:

- Nearly 75% of new HIV infections occur in men.
- More than half occur in gay and bisexual men, regardless of race or ethnicity.
- 45% of new HIV infections occur in African Americans, 35% in whites, and 17% in Hispanics.

Improving access to quality healthcare for populations disproportionately affected by HIV, such as persons of color and gay and bisexual men, is a fundamental public health strategy for HIV prevention.

People getting care for HIV can receive:

- Antiretroviral therapy
- Screening and treatment for other diseases (such as sexually transmitted infections)
- HIV prevention interventions
- Mental health services
- Other health services

As the number of people living with HIV increases and more people become aware of their HIV status, prevention strategies that are targeted specifically for HIV-infected people are becoming more important.

Prevention work with people living with HIV focuses on:

- Linking to and staying in treatment.
- Increasing the availability of ongoing HIV prevention interventions.
- Providing prevention services for their partners.

Public perception in the US about the seriousness of the HIV epidemic has declined in recent years. There is evidence that risky behaviors may be increasing among uninfected people, especially gay and bisexual men. Ongoing media and social campaigns for the general public and HIV prevention interventions for uninfected persons who engage in risky behaviors are critical.

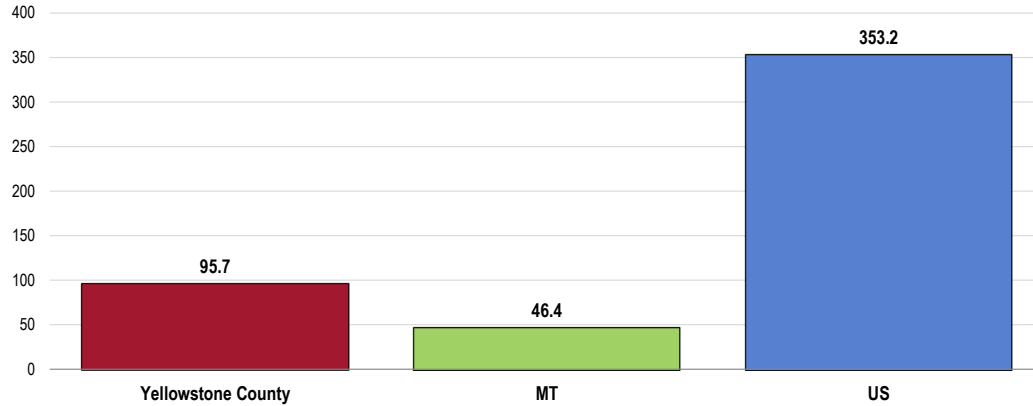
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

## HIV Prevalence

In 2013, there was a prevalence of 95.7 HIV cases per 100,000 population in Yellowstone County.

- Less favorable than the statewide prevalence.
- Much more favorable than the national prevalence.

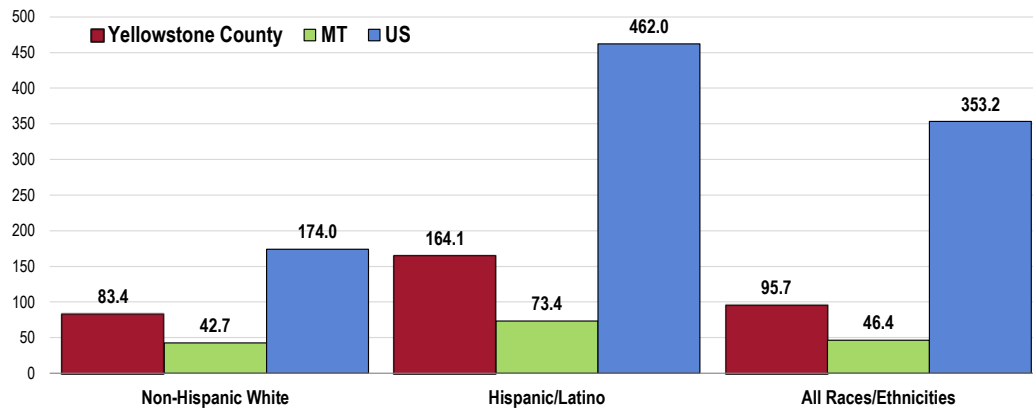
**HIV Prevalence**  
(Prevalence Rate of HIV per 100,000 Population, 2013)



- Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.

- By race and ethnicity, HIV prevalence in Yellowstone County is higher among Hispanics than non-Hispanic Whites, although to a lesser degree than found nationally (but to a higher degree than found statewide).

**HIV Prevalence Rate by Race/Ethnicity**  
(Prevalence Rate of HIV per 100,000 Population, 2013)



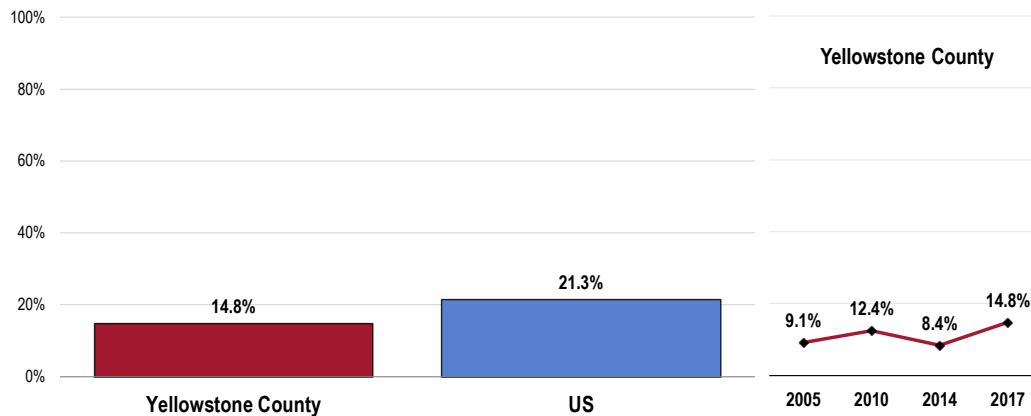
- Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.

## HIV Testing

Among Yellowstone County adults age 18-44, 14.8% report that they have been tested for HIV in the past year.

- Statistically comparable to the proportion found nationwide.
- TREND: Testing prevalence has remained statistically unchanged since 2005.

### Tested for HIV in the Past Year (Among Adults Age 18-44)

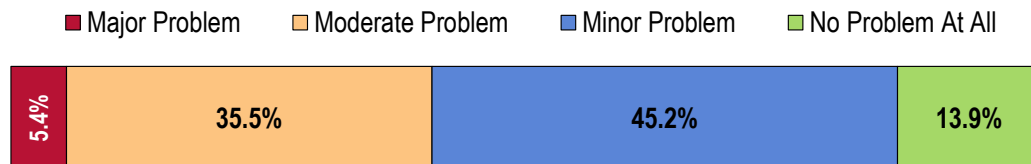


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 167]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Reflects respondents age 18 to 44.

## Key Informant Input: HIV/AIDS

Key informants taking part in an online survey most often characterized *HIV/AIDS* as a “minor problem” in the community.

### Perceptions of HIV/AIDS as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.



## Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

### *Health Education*

*Working with a correctional population, I see that there is a need for education on an ongoing basis. Billings addresses this well at present, but this should continue. Meth continues to be a major drug of choice, and this underlines the need for education and treatment. - Community Leader*

*I think that there is a lack of education related to safe sex, and an even greater lack of appropriate testing facilities. - Community Leader*

*Lack of education. - Educator*

### *Denial/Stigma*

*There is still a negative stigma attached to it. Younger generations are not receiving good information of the deadly disease. More information needs to be given to our youth that are very sexually active, as well as exposed to the drug scene. - Educator*

### *Prevalence/Incidence*

*HIV/AIDS is very high in Yellowstone County. - Healthcare Provider*

## Sexually Transmitted Diseases

### About Sexually Transmitted Diseases

STDs refer to more than 25 infectious organisms that are transmitted primarily through sexual activity. Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as: reproductive health problems; fetal and perinatal health problems; cancer; and facilitation of the sexual transmission of HIV infection.

Because many cases of STDs go undiagnosed—and some common viral infections, such as human papillomavirus (HPV) and genital herpes, are not reported to CDC at all—the reported cases of chlamydia, gonorrhea, and syphilis represent only a fraction of the true burden of STDs in the US. Untreated STDs can lead to serious long-term health consequences, especially for adolescent girls and young women. Several factors contribute to the spread of STDs.

**Biological Factors.** STDs are acquired during unprotected sex with an infected partner. Biological factors that affect the spread of STDs include:

- **Asymptomatic nature of STDs.** The majority of STDs either do not produce any symptoms or signs, or they produce symptoms so mild that they are unnoticed; consequently, many infected persons do not know that they need medical care.
- **Gender disparities.** Women suffer more frequent and more serious STD complications than men do. Among the most serious STD complications are pelvic inflammatory disease, ectopic pregnancy (pregnancy outside of the uterus), infertility, and chronic pelvic pain.
- **Age disparities.** Compared to older adults, sexually active adolescents ages 15 to 19 and young adults ages 20 to 24 are at higher risk for getting STDs.
- **Lag time between infection and complications.** Often, a long interval, sometimes years, occurs between acquiring an STD and recognizing a clinically significant health problem.

**Social, Economic and Behavioral Factors.** The spread of STDs is directly affected by social, economic, and behavioral factors. Such factors may cause serious obstacles to STD prevention due to their influence on social and sexual networks, access to and provision of care, willingness to seek care, and social norms regarding sex and sexuality. Among certain vulnerable populations, historical experience with segregation and discrimination exacerbates these factors. Social, economic, and behavioral factors that affect the spread of STDs include: racial and ethnic disparities; poverty and marginalization; access to healthcare; substance abuse; sexuality and secrecy (stigma and discomfort discussing sex); and sexual networks (persons “linked” by sequential or concurrent sexual partners).

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Chlamydia & Gonorrhea

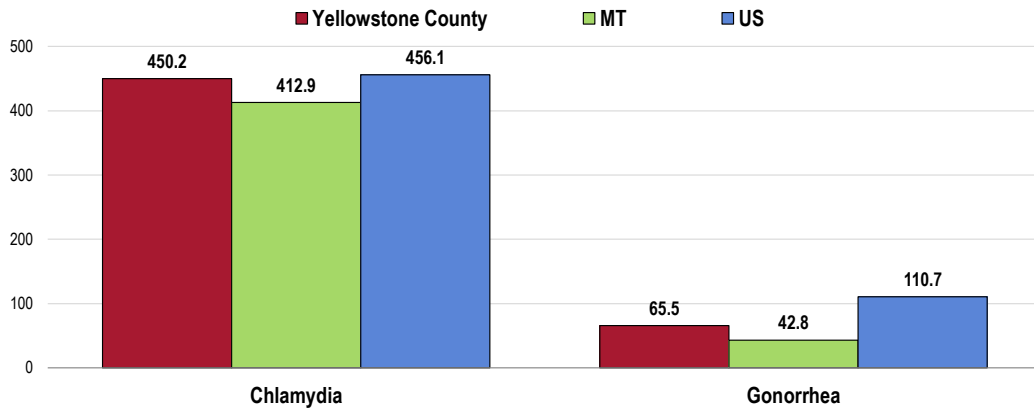
**In 2014, the chlamydia incidence rate in Yellowstone County was 450.2 cases per 100,000 population.**

- Higher than the Montana incidence rate.
- Similar to the national incidence rate.

**The Yellowstone County gonorrhea incidence rate in 2014 was 65.5 cases per 100,000 population.**

- Higher than the Montana incidence rate.
- Lower than the national incidence rate.

### Chlamydia & Gonorrhea Incidence (Incidence Rate per 100,000 Population, 2014)



Sources: 

- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
- Retrieved June 2016 from Community Commons at <http://www.chna.org>.

 Notes: 

- This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

### Safe Sexual Practices

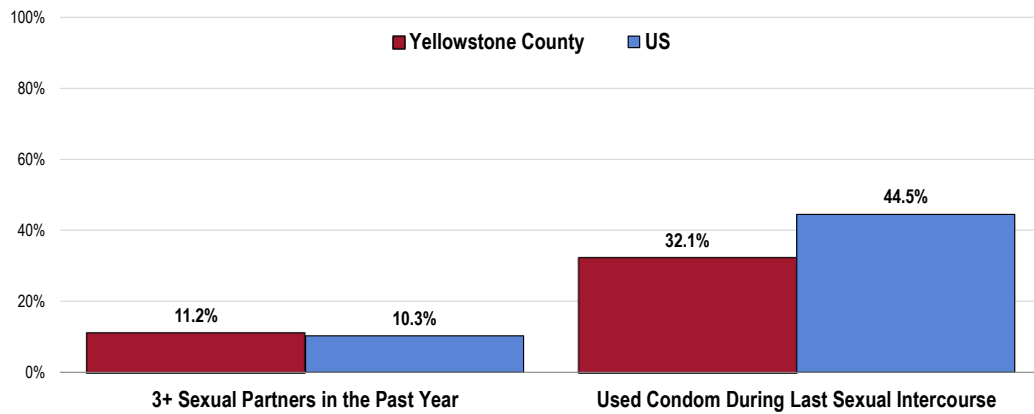
Among unmarried Yellowstone County adults under the age of 65, the majority cites having one (47.8%) or no (33.4%) sexual partners in the past 12 months. However, 11.2% report three or more sexual partners in the past year.

- Comparable to that reported nationally.

A total of 32.1% of unmarried Yellowstone County adults age 18 to 64 report that a condom was used during their last sexual intercourse.

- Statistically similar to national findings.

### Sexual Risk (Unmarried Adults Age 18-64)



Sources: 

- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 97-98]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.

 Notes: 

- Reflects unmarried respondents under the age of 65.

## Key Informant Input: Sexually Transmitted Diseases

A plurality of key informants taking part in an online survey characterized *Sexually Transmitted Diseases* as a “moderate problem” in the community.

### Perceptions of Sexually Transmitted Diseases as a Problem in the Community

(Key Informants, 2017)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All



Sources: ● PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: ● Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### Prevalence/Incidence

*STD's are very difficult problems we face in the community. Lack of safe sex practices. Difficulty contacting patients for treatment or obtaining contacts for treatment. - Public Health Representative*

*The number of cases of STD's has skyrocketed in the areas of chlamydia and gonorrhea among teens and young adults. This- along with the upswing in HIV diagnoses- indicates an issue in the community. - Educator*

*The numbers are rising of those who have been tested positive and the individuals they name as contacts. - Public Health Representative*

*The rates of gonorrhea and chlamydia have been dramatically rising in Yellowstone County for the past couple of years. - Public Health Representative*

*STD's are continuing to rise because Billings is a hub for services in south, central and eastern Montana. Drug use is also contributing to the rise. - Public Health Representative*

*High rates of gonorrhea and chlamydia. Low use of barrier protection. - Healthcare Provider*

*Limited community education and awareness as to increase in STD's. - Public Health Representative*

*See my answers related to HIV/AIDS. - Community Leader*

*Increased gonorrhea, syphilis and chlamydia through unprotected sexual encounters. Increased illegal drug use, change in community with shifting mobility in population where incidence is present. - Public Health Representative*

*Sexually transmitted diseases run very high for all races in Yellowstone County. - Healthcare Provider*

*I have read that it is a big problem. - Educator*

*Sexually transmitted diseases. - Healthcare Provider*

#### Health Education

*Working with teen parents, I have learned that schools offer little to no education about STD's. Families are not always equipped to handle such a heavy topic alone, so children and teens are not made aware of the risks. - Educator*

*I'm not sure if they have information on this issue. - Government Representative*

#### Unprotected Sex

*Non-compliance with proven prevention protocols. - Educator*

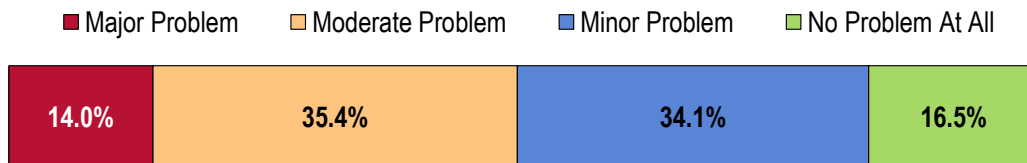
*People are sexually active - Public Health Representative*

## Immunization & Infectious Diseases

### Key Informant Input: Immunization & Infectious Diseases

Key informants taking part in an online survey similarly characterized *Immunization & Infectious Diseases* as a “moderate problem” or as a “minor problem” in the community.

### Perceptions of Immunization and Infectious Diseases as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### Childhood Immunizations

*I believe that these are a problem everywhere, not just our county. Again, I believe it is due to ignorance on immunizations. Education on immunizations comes in such a "boring" form, while it is much "sexier" to believe in conspiracy theories about things like immunizations causing diseases, when in reality they prevent them. Again, this is something that needs to be worked into the K-12 education system, and knowledge of immunizations needs to be shared in a more straightforward way. I know way too many people in our community who refuse to get a flu vaccine because they believe that it can never work. Ignorance is the biggest issues with immunization. - Educator*

*Lack of awareness for young mothers. - Educator*

*I think the media plays a large role in un-immunized children. I would like to see more of our health care teams collaborate to combat the stigma on immunizations. - Healthcare Provider*

*Immunization is an issue with some families of children with autism. - Community Leader*

#### Health Education

*The resources are available, but people often take their responsibilities too lightly. We need to continue education activities. A second issue is cost of services. For most areas of concern, it's likely because of cost related to the service. – Educator*

#### Super-Bugs

*I do think that the medical community needs to be super-vigilant of antibiotic resistant microbes that can be hard to treat. - Government Representative*

#### Prevalence/Incidence

*Immunization and infectious diseases are very high in Yellowstone County. - Healthcare Provider*

#### Vulnerable Populations

*We have a lot of transients in our town. - Business Leader*

# Births



Professional Research Consultants, Inc.

## Prenatal Care

### About Infant & Child Health

Improving the well-being of mothers, infants, and children is an important public health goal for the US. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the healthcare system. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and inter-conception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. Many factors can affect pregnancy and childbirth, including pre-conception health status, age, access to appropriate healthcare, and poverty.

Infant and child health are similarly influenced by socio-demographic factors, such as family income, but are also linked to the physical and mental health of parents and caregivers. There are racial and ethnic disparities in mortality and morbidity for mothers and children, particularly for African Americans. These differences are likely the result of many factors, including social determinants (such as racial and ethnic disparities in infant mortality; family income; educational attainment among household members; and health insurance coverage) and physical determinants (i.e., the health, nutrition, and behaviors of the mother during pregnancy and early childhood).

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

Early and continuous prenatal care is the best assurance of infant health.

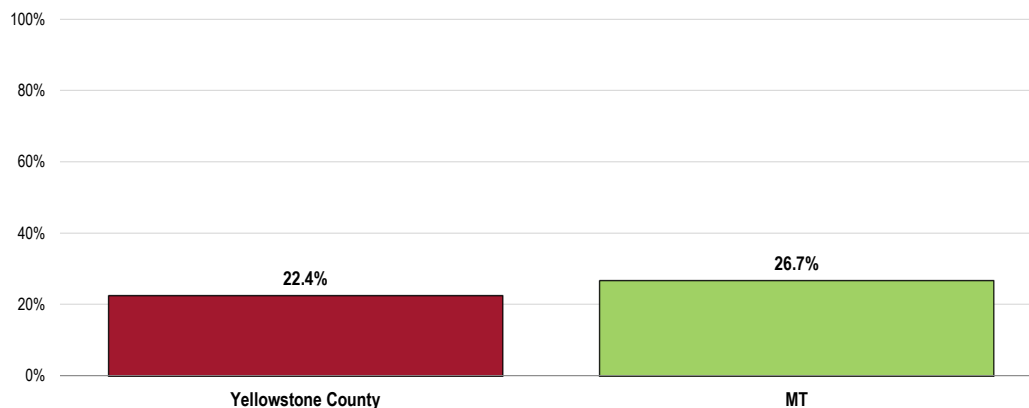
**Between 2012 and 2014, 22.4% of all Yellowstone County births were to mothers who did not receive prenatal care in the first trimester of pregnancy.**

- More favorable than the Montana proportion.
- Similar to the Healthy People 2020 target (22.1% or lower).

### Lack of Prenatal Care in the First Trimester

(Percentage of Live Births, 2012-14)

Healthy People 2020 Target = 22.1% or Lower



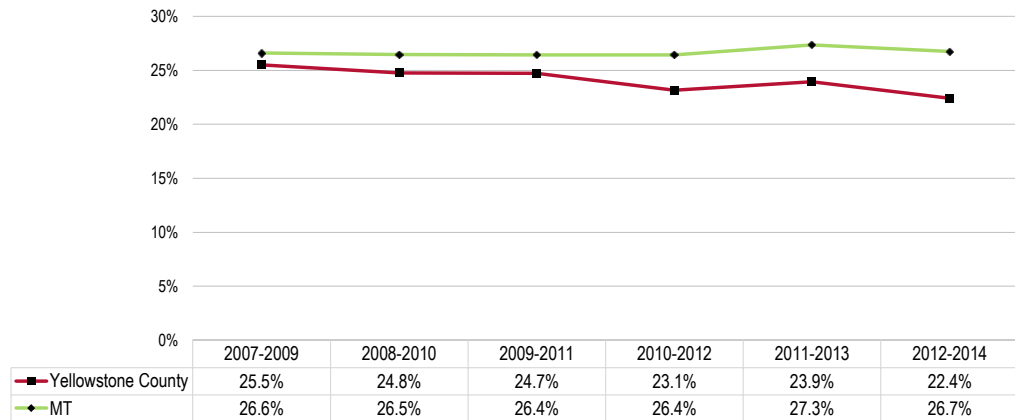
Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted August 2017.

Note: • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-10.1]  
 • This indicator reports the percentage of women who do not obtain prenatal care during their first trimester of pregnancy. This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. This indicator can also highlight a lack of access to preventive care, a lack of health, knowledge insufficient provider outreach, and/or social barriers preventing utilization of services.

- **TREND:** Since 2007, there has been a significant reduction in the proportion of Yellowstone County births for which the mother did not receive prenatal care in the first trimester.

### Lack of Prenatal Care in the First Trimester (Percentage of Live Births)

Healthy People 2020 Target = 22.1% or Lower



- Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted August 2017.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-10.1]
- Note:
- This indicator reports the percentage of women who do not obtain prenatal care during their first trimester of pregnancy. This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. This indicator can also highlight a lack of access to preventive care, a lack of health, knowledge insufficient provider outreach, and/or social barriers preventing utilization of services.



## Birth Outcomes & Risks

### Low-Weight Births

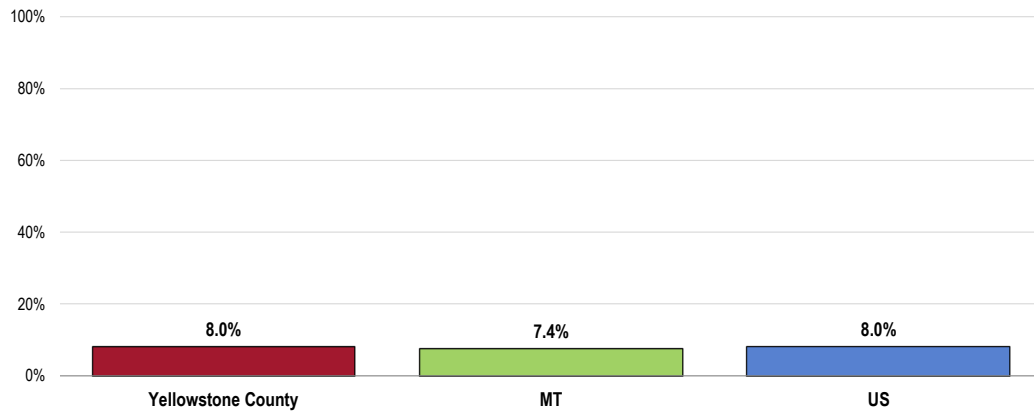
**A total of 8.0% of 2012-2014 Yellowstone County births were low-weight.**

- Just above the Montana proportion.
- Identical to the national proportion.
- Similar to the Healthy People 2020 target (7.8% or lower).

Low birthweight babies, those who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth, are much more prone to illness and neonatal death than are babies of normal birthweight.

Largely a result of receiving poor or inadequate prenatal care, many low-weight births and the consequent health problems are preventable.

**Low-Weight Births**  
(Percent of Live Births, 2012-14)  
**Healthy People 2020 Target = 7.8% or Lower**

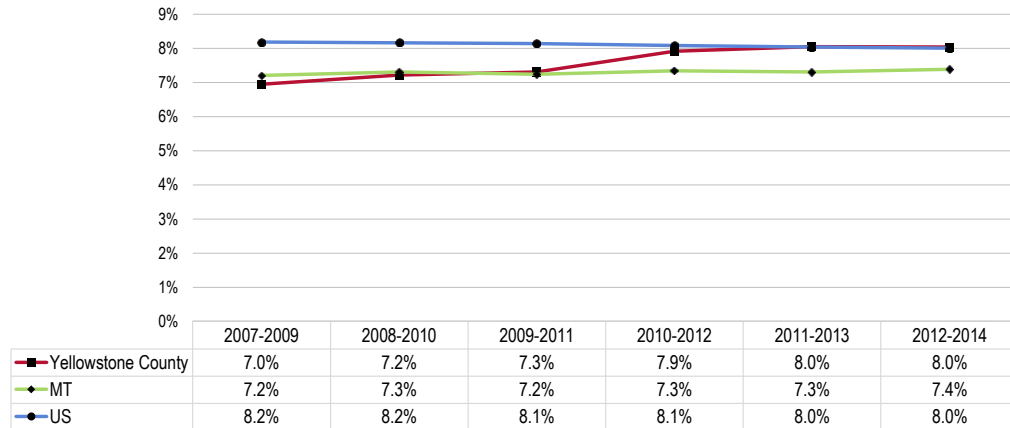


Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted August 2017.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-8.1]  
 Note: • This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

- **TREND:** Over time, the percentage of low-weight births in Yellowstone County has statistically increased whereas statewide and nationally, rates have remained stable.

### Low-Weight Births (Percent of Live Births)

Healthy People 2020 Target = 7.8% or Lower



Sources: 

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted August 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-8.1]

Note: 

- This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

### Infant Mortality

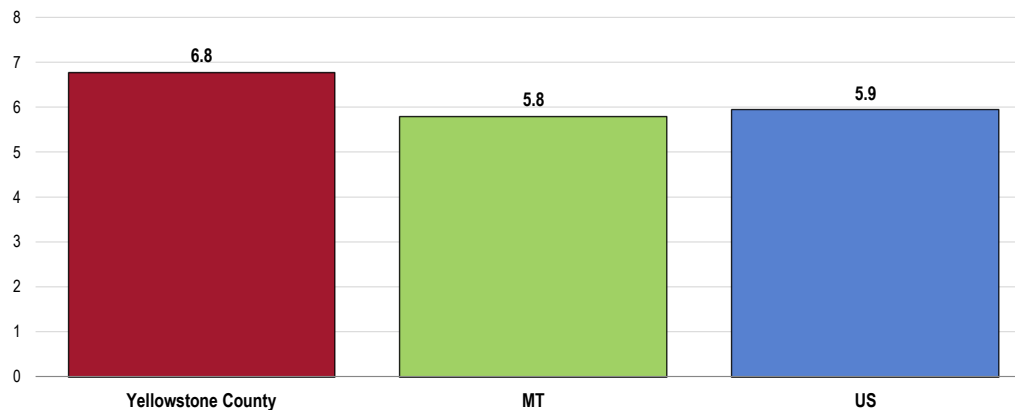
Between 2012 and 2014, there was an annual average of 6.8 infant deaths per 1,000 live births.

- Less favorable than the Montana and national rates.
- Fails to satisfy the Healthy People 2020 target of 6.0 per 1,000 live births.

Infant mortality rates reflect deaths of children less than one year old per 1,000 live births.

### Infant Mortality Rate (Annual Average Infant Deaths per 1,000 Live Births, 2012-14)

Healthy People 2020 Target = 6.0 or Lower



Sources: 

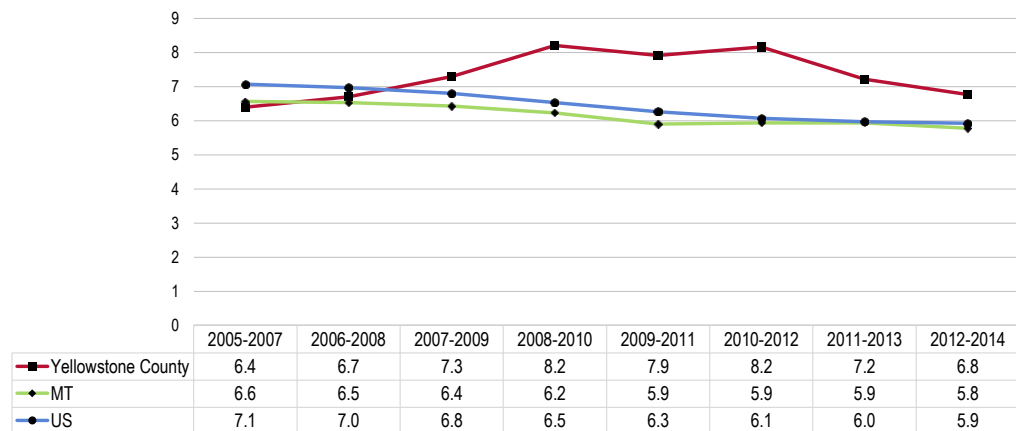
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-1.3]

Notes: 

- Infant deaths include deaths of children under 1 year old.
- This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.

- **TREND:** After a period of higher rates, the infant mortality rate in Yellowstone County has returned to a rate similar to that reported from 2005 to 2007. State and national rates have trended downward slightly.

### Infant Mortality Rate (Annual Average Infant Deaths per 1,000 Live Births) Healthy People 2020 Target = 6.0 or Lower



Sources:
 

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2017.
- Centers for Disease Control and Prevention, National Center for Health Statistics.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-1.3]

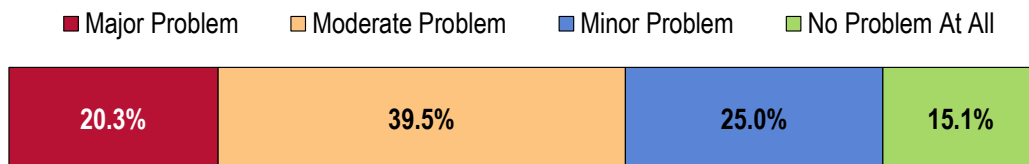
 Notes:
 

- Rates are three-year averages of deaths of children under 1 year old per 1,000 live births.

## Key Informant Input: Infant & Child Health

Key informants taking part in an online survey generally characterized *Infant & Child Health* as a “moderate problem” in the community.

### Perceptions of Infant and Child Health as a Problem in the Community (Key Informants, 2017)



Sources:
 

- PRC Online Key Informant Survey, Professional Research Consultants, Inc.

 Notes:
 

- Asked of all respondents.

## Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

### Access to Care/Services

*Unless parents are already dialed into available services, they struggle to make connections that address the needs of young children. The need for support services becomes increasingly important for new young families trying to find their way. - Community Leader*

*Lack of specialty care for children. - Community Leader*

*Access to services, parent participation in healthcare/wellness, and lack of access to adequate services in schools. - Community Leader*

*Many of the new parents in the community lack both the resources- financial, as well as the educational level- to care for infants and children as needed. - Educator*

### Socioeconomic Factors

*There are many homeless children in Billings. Many don't have long-term relationships with a care provider. We have had a huge increase in the number of abuse and neglect cases in Yellowstone County. The high school dropout rate is unacceptably high. We have to do better. This is a reflection on our community, and we are failing. - Business Leader*

*Mothers who are poor, who do not have healthcare or know how to get pre-natal care. - Healthcare Provider*

*Too many children born into poverty with only one parent, or grandparents to take care of them financially and emotionally. Children living in homes with physical, mental and drug abuse. Food scarcity, parents who are not educated enough to have a good paying job, low or no wages, etc. - Community Leader*

*Poverty - Educator*

### Child Abuse & Neglect

*Child abuse and neglect has been reported with rapidly increasing frequency in the past few years. - Business Leader*

*Abuse and neglect of children. Understaffed/overworked social service workers. - Healthcare Provider*

*Child abuse and neglect cases are rapidly increasing in our community. I strongly believe that universal home visiting for all pregnant mothers and families with young children would help identify potential problems and reduce instances of child abuse and neglect. - Community Leader*

*I am concerned with the numbers of children that are overwhelming the Child Protective System across the state and particularly in Yellowstone County. It appears that they system is broken and is not being fixed for the benefit of the child. The effects will be children with health and mental health issues into the future. The CHIP program has gone a long way to assist families to be able to get medical assistance for their children. - Community Leader*

### Prevention

*Levels of compliance with required childhood immunizations prior to school attendance is not satisfactory. - Healthcare Provider*

*Few children eligible for early intervention actually receive it. - Community Leader*

*Infants and children who do not receive appropriate physical and/or mental health care are less likely to grow up as healthy, productive individuals. Particularly in our underserved population. - Healthcare Provider*

*Limited well-child checks being completed. Immunizations not current. - Public Health Representative*

### Health Education

*Community understanding of infant/child health needs is low, access to quality services is challenging, and engagement with medical professionals is limited. Pediatricians seem rushed and have little time to build relationships with families. Parents often have to see whoever is available, further limiting the kind of relationship-building that can lead to identification of illness, developmental delays or other health indicators. Because the relationship is limited, quality of life issues - nutrition, behavioral support, developmental progress - are rarely discussed. - Educator*

*This relates closely with family planning. If the individual is not prepared or does not want the child, then the likelihood of them actually tending to it is very small. - Public Health Representative*

Availability of education and care for less advantaged families. - Healthcare Provider

### **Alcohol/Drug Use**

As the use of meth increases, the health of infants and children is jeopardized. Addicts are not concerned with routine healthcare for their children, nor are they concerned for their nutritional, emotional, and spiritual needs. Meth is costing our community the next generation of children who are born addicted, neglected, and likely to have learning problems. - Educator

Again, from the correctional perspective, many mothers who are offenders do not seek pre-natal care or follow through on this. The reasons are financial and often related to drug and alcohol abuse during pregnancy. These conditions may lead to physical challenges for infants and children, developmental issues, and other concerns that require special care that may not be sought or supported by caretakers. Nutrition, pre-natal care and follow-up on special needs are major concerns. - Community Leader

Too many children born into drug addiction. Low-income mothers lack parenting skills and resources. - Public Health Representative

### **Disease Management**

Families don't access interventions and options available, and choose to handle things on their own. - Healthcare Provider

Lack of patient compliance. - Educator

### **Teen Pregnancies**

Infant and child health has become an issue, due to the number of teenage parents who are compromised, due to drug and alcohol addiction alone. We are experiencing an entire generation of children who do not know a stable home environment. This compromises vaccinations, healthy eating, hygiene... And the list goes on. - Educator

### **Parenting Issues**

Families do not seem to have the time to engage with their children. Many (due to jobs) don't plan for proper meals, put their children in front of television rather than read to them, and ignore their basic needs. - Community Leader

### **Unplanned Pregnancies**

Unplanned pregnancies in young women. Abstinence-only policy in schools, instability of families with many more children in the foster care system. - Public Health Representative

## Family Planning

### Births to Teen Mothers

#### About Teen Births

The negative outcomes associated with unintended pregnancies are compounded for adolescents. Teen mothers:

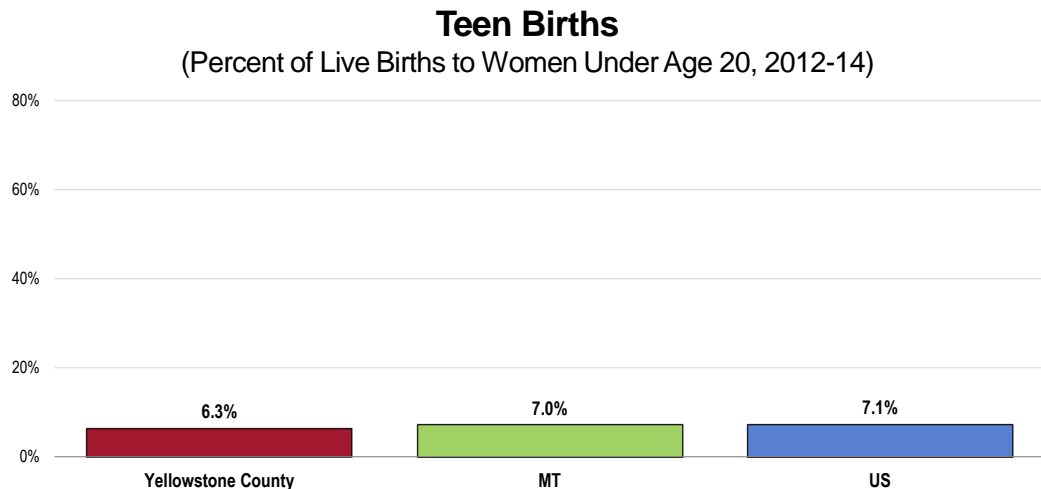
- Are less likely to graduate from high school or attain a GED by the time they reach age 30.
- Earn an average of approximately \$3,500 less per year, when compared with those who delay childbearing.
- Receive nearly twice as much Federal aid for nearly twice as long.

Similarly, early fatherhood is associated with lower educational attainment and lower income. Children of teen parents are more likely to have lower cognitive attainment and exhibit more behavior problems. Sons of teen mothers are more likely to be incarcerated, and daughters are more likely to become adolescent mothers.

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

**Between 2012 and 2014, a total of 6.3% of all live births were to women under age 20.**

- Lower than both the Montana and national proportions.

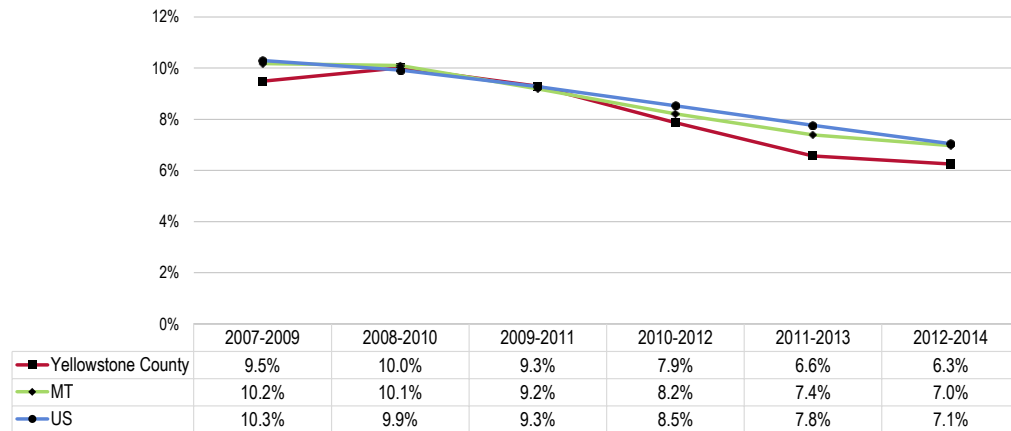


Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted August 2017.

Notes: • This indicator reports the percentage of live births to women under the age of 20. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.

- **TREND:** This proportion has decreased significantly in Yellowstone County since 2007, echoing the trends seen statewide and nationwide.

### Teen Births (Percent of Live Births to Women Under Age 20)

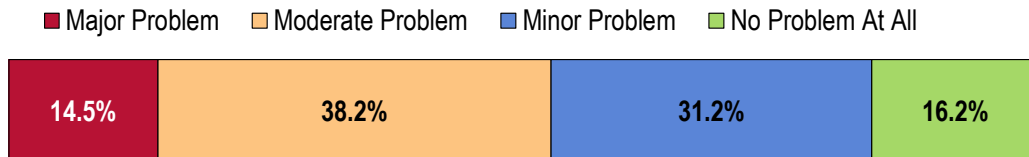


Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted August 2017.  
 Notes: • This indicator reports the percentage of live births to women under the age of 20. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.

### Key Informant Input: Family Planning

Key informants taking part in an online survey most often characterized **Family Planning** as a “moderate problem” in the community.

### Perceptions of Family Planning as a Problem in the Community (Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### Unplanned Pregnancies

*Kids that are cared for emotionally and physically are often the kids who do well in school, who become good community citizens, and the kids that have the foundation to make good life choices. Women (and men) should have the choice to have a baby when she is ready and capable of caring for a child's emotional and physical needs. Caring for children who are underserved and at-risk comes at a high financial cost to our community. It is a priority that we support women and their partners to make decisions that encourage parents to care for themselves so that they can care for their children. A community needs to provide access to family planning services for education and access for all adults to make the right decisions for their own health and for the health of their partners and/or their children. - Healthcare Provider*

*Anecdotally, unplanned pregnancies seem to be a concern in our community. I believe abstinence-only education in our schools is a major cause and concern. - Public Health Representative*

*Unplanned and unwanted/undesired pregnancies have become an increasing issue in many populations, including teens. Education and materials are non-existent and contribute greatly to this issue. - Public Health Representative*

*Numerous dysfunctional relationship problems and situations with casual sexual activity and post care, versus preventative care. Education, at times, happens after, and then a child is involved. - Community Leader*

### **Single Parent Families**

*Because women and children are so disproportionately represented as Montana's at and below poverty level populations, it is clear that these families need assistance with preventive care and family planning services. - Government Representative*

*The majority of my clients are single mothers, coming to me because they are homeless, have no income or have significant barriers to housing or employment. I'm not sure if my clients don't believe in birth control (I know that can be a cultural or religious stance), but from what I have witnessed, my clients cannot afford the children they have and they often are passed on to a family member to care for, when it is not that family member's responsibility. I think if my clients knew how readily available (and free) it is to get birth control or condoms, a lot of unplanned pregnancies could be avoided. For most of my clients, I would say more children only adds more problems to their already full plate. - Community Leader*

*Unwed mothers and/or families that have too many children without being able to support. Falls on social services. - Government Representative*

### **Health Education**

*Adolescent family planning is not readily available, and no information is provided within the context of the school system for family planning and adolescent pregnancy prevention. Yellowstone County has been trending up with births to teen mothers. - Public Health Representative*

*Conservative factors that limit education. - Government Representative*

*More education for high school students about birth control. Financial fitness classes on what it really takes to support yourself/what it means financially to be a parent, how many hours you need to work, and at what wage to be independent. - Community Leader*

### **Teen Pregnancies**

*There are many young people who have children without the benefit of proper prenatal or postnatal care and do not use contraceptives. Lack of education and age play a major factor, as well as not taking advantage of the educational options provided by La Vie and Planned Parenthood. - Healthcare Provider*

*Number of young parents, need for education regarding parenting. Services for low income families. - Public Health Representative*

*Yellowstone County has a very high rate of family planning issues and teen pregnancy. - Healthcare Provider*

### **Planned Parenthood**

*The bad reputation for Planned Parenthood and inability for young adults to get needed help when they don't have insurance. - Community Leader*

*Stigma associated with Planned Parenthood. Should be encouraging education and pro-activeness. - Government Representative*

*Not enough support for Planned Parenthood. - Business Leader*

### **Resources**

*I believe the resources are there, but they aren't being used. Many of the families I work with through the nonprofit I work for struggle with unplanned families. - Community Leader*

*I think that there are misconceptions as to what is available in the community. Working with teen parents, I have learned that they are nervous or afraid to talk to their parents about birth control, and they do not know where to go or how to pay for birth control. Myths related to the subject are an issue, as well. - Educator*



**Access**

*Insurance has made it easier to pay for supplies. The ability to see a doctor is difficult or still plagued with stigma. - Business Leader*

*Cost, access, and insurance. - Business Leader*

**Cultural/Personal Beliefs**

*The issue of family planning has been politicized. Unfortunately, real needs are being ignored, and the issue has been demonized. - Government Representative*

**Childhood Trauma**

*Burgeoning number of abused and neglected children in foster care system. Many babies being placed in protective care at birth. - Business Leader*

# Access to Health Services



Professional Research Consultants, Inc.

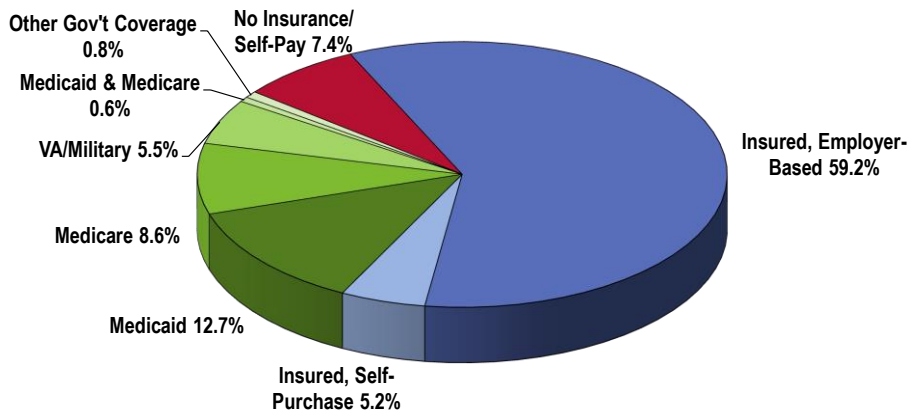
## Health Insurance Coverage

### Type of Healthcare Coverage

A total of 64.4% of Yellowstone County adults age 18 to 64 report having healthcare coverage through private insurance. Another 28.2% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

Survey respondents were asked a series of questions to determine their healthcare insurance coverage, if any, from either private or government-sponsored sources.

**Healthcare Insurance Coverage**  
(Among Adults Age 18-64; Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 190]  
Notes: • Reflects respondents age 18 to 64.

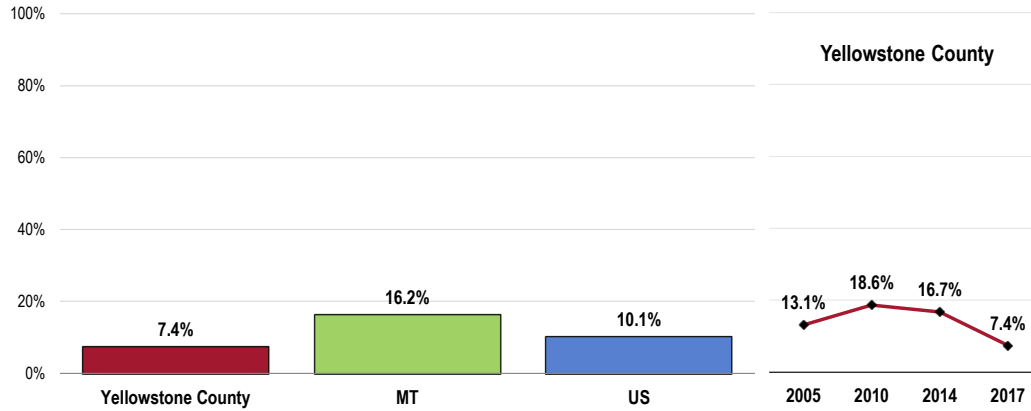
### Lack of Health Insurance Coverage

Among adults age 18 to 64, 7.4% report having no insurance coverage for healthcare expenses.

Here, lack of health insurance coverage reflects respondents age 18 to 64 (thus, excluding the Medicare population) who have no type of insurance coverage for healthcare services – neither private insurance nor government-sponsored plans (e.g., Medicaid).

- More favorable than the state finding.
- Similar to the national finding.
- The Healthy People 2020 target is universal coverage (0% uninsured).
- TREND: Denotes a statistically significant increase in insurance coverage over the past two years.

### Lack of Healthcare Insurance Coverage (Among Adults Age 18-64) Healthy People 2020 Target = 0.0% (Universal Coverage)



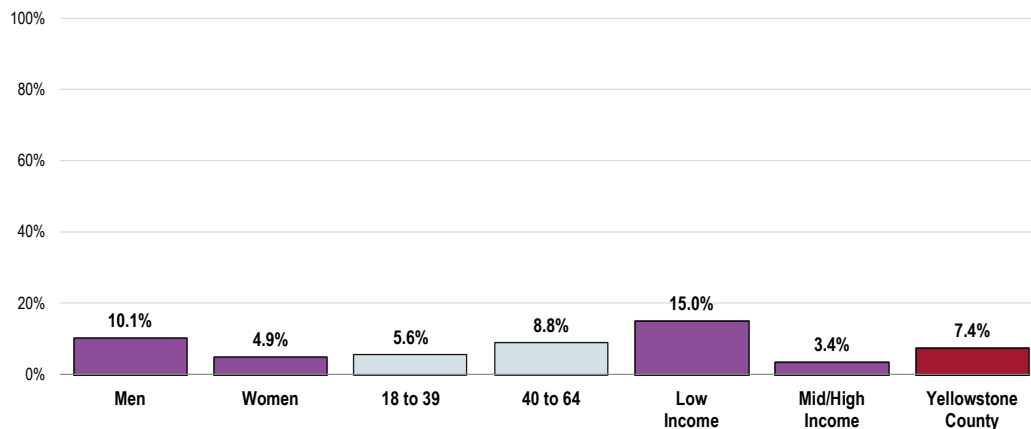
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 190]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective AHS-1]

Notes: • Asked of all respondents under the age of 65.

The following population segments are more likely to be without healthcare insurance coverage:

- Residents living at lower incomes (note the 15.0% uninsured prevalence among low-income adults).

### Lack of Healthcare Insurance Coverage (Among Adults Age 18-64; Yellowstone County, 2017) Healthy People 2020 Target = 0.0% (Universal Coverage)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 190]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective AHS-1]

Notes: • Asked of all respondents under the age of 65.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Difficulties Accessing Healthcare

### About Access to Healthcare

Access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone. It impacts: overall physical, social, and mental health status; prevention of disease and disability; detection and treatment of health conditions; quality of life; preventable death; and life expectancy.

Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires three distinct steps: 1) Gaining entry into the health care system; 2) Accessing a health care location where needed services are provided; and 3) Finding a health care provider with whom the patient can communicate and trust.

- Healthy People 2020 (www.healthypeople.gov)

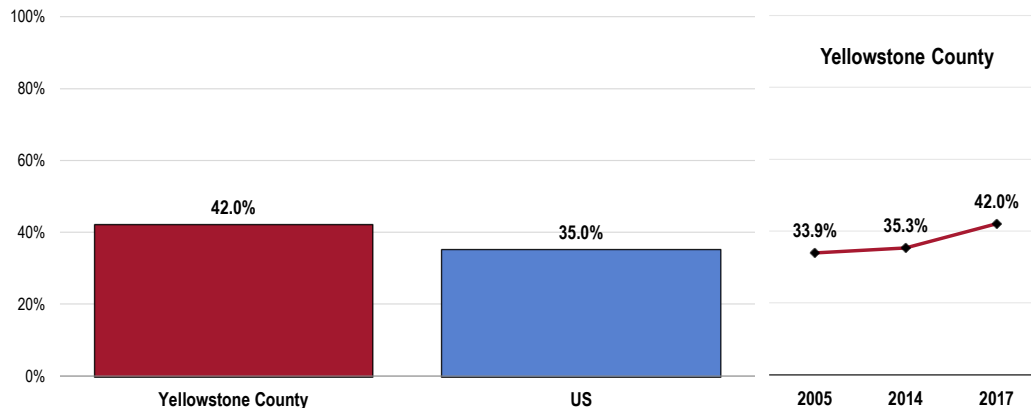
### Difficulties Accessing Services

A total of 42.0% of Yellowstone County adults report some type of difficulty or delay in obtaining healthcare services in the past year.

- Less favorable than national findings.
- TREND: Has increased in prevalence since 2005.

This indicator reflects the percentage of the total population experiencing problems accessing healthcare in the past year, regardless of whether they needed or sought care.

### Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year

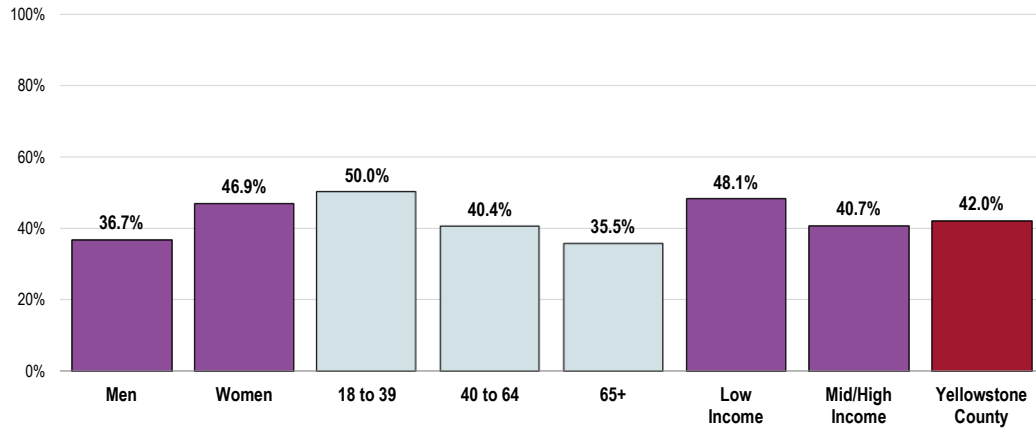


- Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 194]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Notes:
- Asked of all respondents.
  - Represents the percentage of respondents experiencing one or more barriers to accessing healthcare in the past 12 months.

Note that the following demographic groups more often report difficulties accessing healthcare services:

- Women.
- Adults under the age of 40 (negative association with age).

## Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 194]  
 Notes: • Asked of all respondents.  
 • Represents the percentage of respondents experiencing one or more barriers to accessing healthcare in the past 12 months.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

To better understand healthcare access barriers, survey participants were asked whether any of seven types of barriers to access prevented them from seeing a physician or obtaining a needed prescription in the past year.

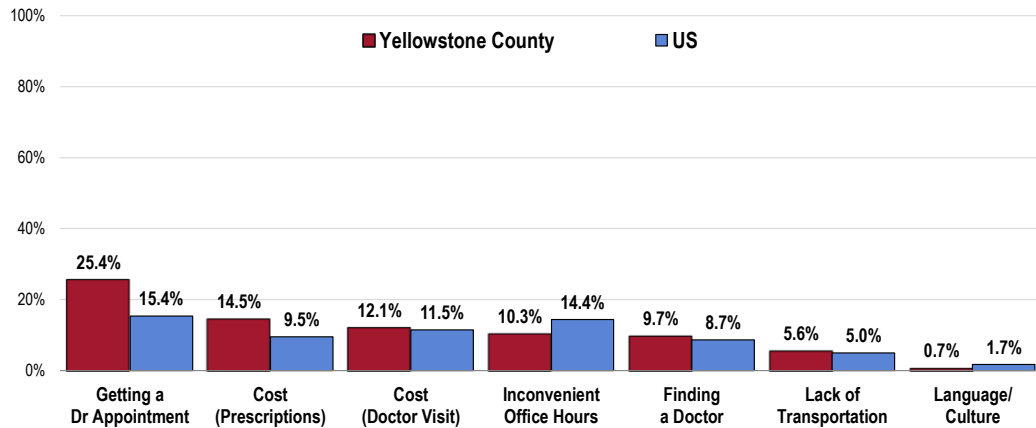
Again, these percentages reflect the total population, regardless of whether medical care was needed or sought.

### Barriers to Healthcare Access

Of the tested barriers, difficulty getting a doctor's appointment impacted the greatest share of Yellowstone County adults (25.4% say that lack of appointment availability prevented them from obtaining a visit to a physician in the past year).

- The proportion of Yellowstone County adults impacted was statistically comparable to or better than that found nationwide for each of the tested barriers with the exceptions of appointment availability and prescription cost.

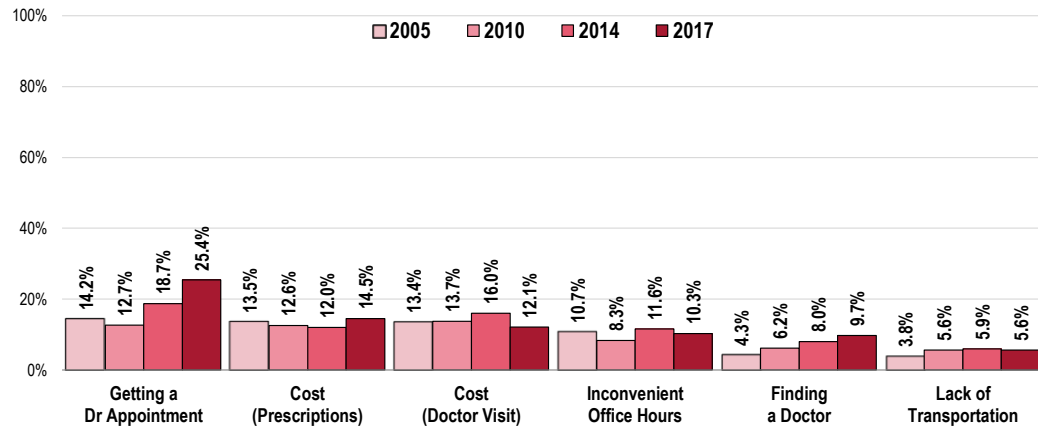
### Barriers to Access Have Prevented Medical Care in the Past Year



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 7-13]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- **TREND:** Both difficulty getting an appointment and difficulty finding a physician have increased in prevalence since 2005 (all other barriers have not changed significantly over time).

### Barriers to Access Have Prevented Medical Care in the Past Year (Yellowstone County)



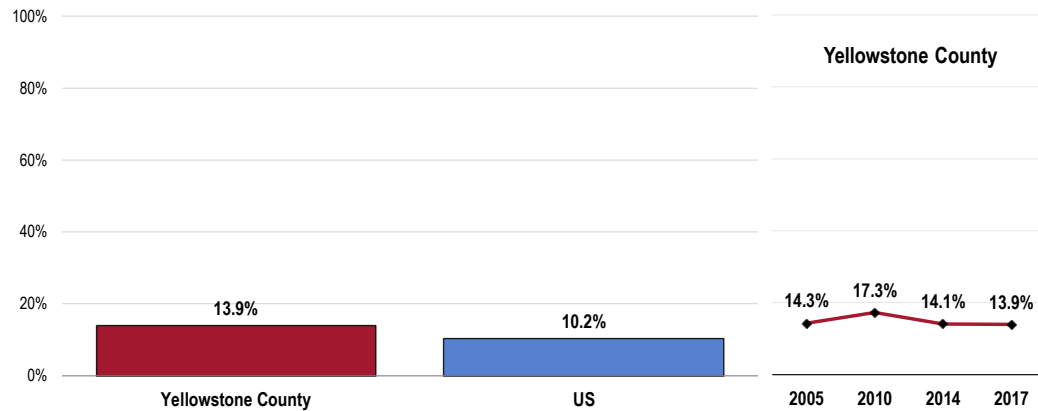
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 7-13]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Prescriptions

Among all Yellowstone County adults, 13.9% skipped or reduced medication doses in the past year in order to stretch a prescription and save money.

- Comparable to national findings.
- **TREND:** Statistically unchanged since 2005.

### Skipped or Reduced Prescription Doses in Order to Stretch Prescriptions and Save Money

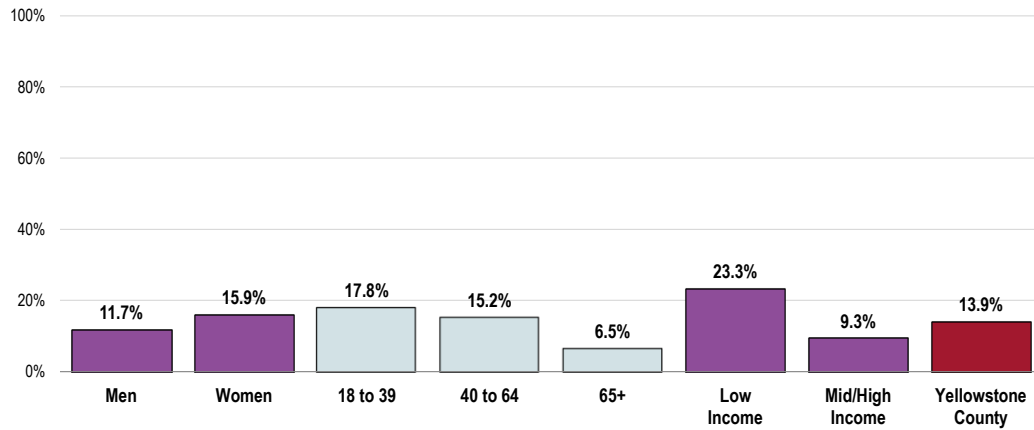


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 14]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

Adults more likely to have skipped or reduced their prescription doses include:

- Adults under age 65 (negative association with age).
- Respondents with lower incomes.

### Skipped or Reduced Prescription Doses in Order to Stretch Prescriptions and Save Money (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 14]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Accessing Healthcare for Children

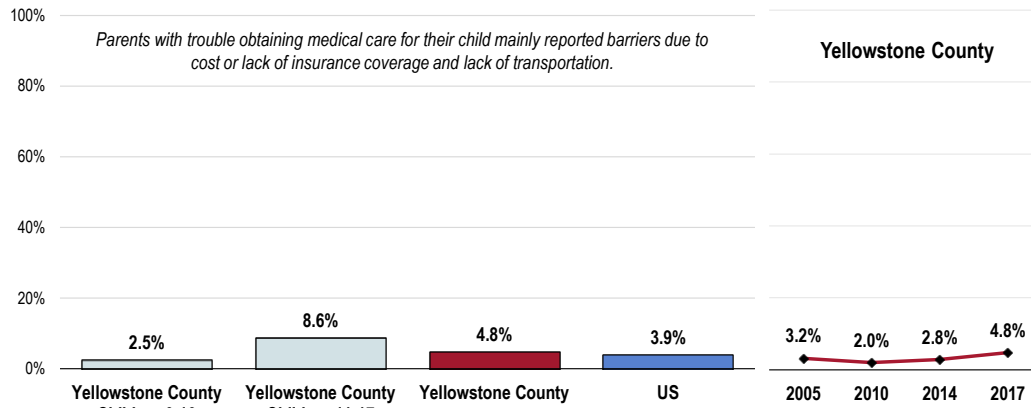
**A total of 4.8% of parents say there was a time in the past year when they needed medical care for their child, but were unable to get it.**

- Similar to what is reported nationwide.
- TREND: Has remained statistically unchanged since 2005.
- There is no statistical difference in access when viewed by child's age.

Surveyed parents were also asked if, within the past year, they experienced any trouble receiving medical care for a randomly-selected child in their household.



## Had Trouble Obtaining Medical Care for Child in the Past Year (Among Parent Respondents on Behalf of Children Age 0-17)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 136-137]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents with children 0 to 17 in the household.

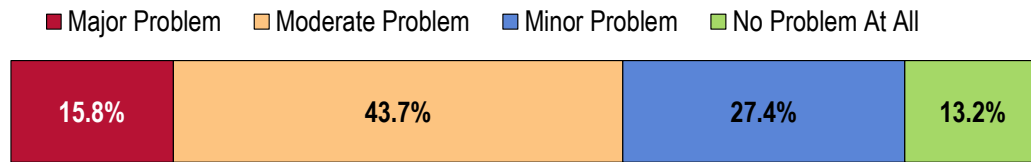
Among the parents experiencing difficulties, the majority cited **cost/lack of insurance** or **lack of transportation** as the primary reasons.

### Key Informant Input: Access to Healthcare Services

Key informants taking part in an online survey most often characterized **Access to Healthcare Services** as a “moderate problem” in the community.

### Perceptions of Access to Healthcare Services as a Problem in the Community

(Key Informants, 2017)



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### Affordable Care/Services

*I think too many of our affordable providers, especially for specialty care like dental and mental health, cannot keep up with demand. Without Medicaid expansion, insurance and ability to utilize service affordably remains a challenge. - Public Health Representative*

*By accessing, I don't mean that the facilities don't exist. I mean that the very limited financial resources for utilizing free or affordable health care make it very difficult for those in low economic communities to obtain them. - Educator*

*Historically underserved populations need to learn how to better access care, especially primary care, in lieu of ED services. As more people gain coverage through expanded Medicaid and the health insurance marketplace, we need to improve health insurance literacy. More primary care is needed, and we need to direct low-income people- with or without coverage- to RiverStone Health Clinic, as it is better prepared to serve that population than the hospital practices. - Public Health Representative*

*Folks who are poor, who either do not have transportation to get the care or who do not know how to access it. - Healthcare Provider*

*High cost. How to pay for Medicaid expansion. Lack of transparency in pricing. Disparities in costs between insured patients who receive major discounts, and everyone else. - Business Leader*

*Income-based services have long wait times for service. - Community Leader*

*Affordability of care. - Government Representative*

### **Transportation**

*Access to services, such as transportation, insurance issues with coverage, stigma associated with medical and mental health issues, limited number of options available for accessing different providers. - Healthcare Provider*

*Billings is working on building a trail system, but the City Council is resisting the Complete Streets designation to encourage alternate forms of transportation. This would include safe routes for bicyclists, walkers/runners, wheelchairs/walkers. The city should also consider zoning changes to encourage small businesses within residential areas, so residents can walk or bike to a grocery store, coffee shop, pharmacy, etc. This would require waiving the requirement for large plots of land for parking. All of these, along with public transportation would allow residents to be healthier. That might reduce the incidents of chronic diseases (heart, diabetes, respiratory). - Business Leader*

*Lack of public transportation. - Educator*

*Transportation, money and lack of providers. - Healthcare Provider*

*Transportation ability to get to and from services. Ability to pay for the services needed. Lack of professionals in the field, specifically mental health service providers. - Public Health Representative*

### **Lack of Primary Care Providers**

*The limited number of primary care doctors and the inability to connect with the people who need services the most. Also, the lack of education with the public on services that are available. - Community Leader*

*Services are limited, and patients are needing care that they cannot receive, due to lack of providers or limited hours. - Public Health Representative*

*The turnover of our healthcare providers has been so rapid that it is hard for patients to form and maintain a relationship. You meet a caregiver, and then they are gone. Cost is a factor for many people. It can also take a very long time to get an appointment with some specialists. I called one dermatology practice, and it was going to be more than 3 months before I could get an appointment. Then they asked, "Do you really need to see someone?" - Business Leader*

*Not enough mid-levels. - Educator*

### **Homelessness**

*Homeless people. There simply is no place for many people to stay. Discrimination against unmarried couples, and gay and lesbian couples. There is no place to help homeless children. All of these people need shelter and access to healthcare. They also need and deserve a long-term relationship with healthcare providers. It is not enough to simply say you can go to RiverStone or a hospital. People want and need long-term relationships that build trust and understanding. - Business Leader*

*One of the biggest issues I see in the community is the abundance of homeless individuals. In my opinion, this population (sadly) make up the majority of those who abuse tobacco, drugs, and alcohol, as well as lack the needed healthcare to get help. This is a major problem in the community because oftentimes alcohol and drug use leads to violence and injury, which is also a major issue in Yellowstone County. - Educator*

*Community perpetuation of homelessness. Over-incarceration of adults for minor offenses. - Healthcare Provider*

*Homelessness, no primary care source, no follow-up, no compliance with care. - Healthcare Provider*

### Specialists

*There is a shortage of some medical specialties, including neurology, cardiac, and internal medicine. As we grow in size, it is important that we can meet the demands of the region. - Community Leader*

*Fewer and fewer specialty health care providers. Long wait time for appointments. Transportation, especially for the elderly, who are located outside of the city. - Community Leader*

*Waiting times of up to a year for specialists in many areas and in mental health, in particular. This is unacceptable when hospitals and clinics can build buildings but cannot care for their patients. - Community Leader*

*Services for individuals with specialized needs. - Community Leader*

### Behavioral Health Services

*Mental health access and substance abuse access care. - Educator*

*Lack of available services, especially for mental health service and substance abuse. - Community Leader*

*The biggest challenges are access to psychiatrists and treatment for substance use disorders at the level of care needed by the patient at the time they are ready to access that care, especially inpatient treatment. There is also a shortage of access to follow-up care for people once they are released from inpatient care for both psychiatric and SUDs. - Public Health Representative*

### Health Education

*Lack of understanding of health insurance and health care costs. This area of health care costs and what is covered by one's insurance (very rarely does one know what they are going to pay until AFTER a procedure is done) is one of the most misunderstood and least transparent parts of our whole health "care" system. - Educator*

*Lack of easy online access to best practices for general health interventions. - Healthcare Provider*

*Information to reach all residents. - Educator*

### Vulnerable Populations

*One of the biggest challenges to accessing health care is just where power is distributed in the community. Though we have a large proportion of Native American peoples, we have very little for those populations in access to power. We have largely operated with a charity model in that we throw money at them every once in a while and expect that to rectify the problem or make it go away. That still leaves the institution in place with very few Native American people making decisions around distribution of care, providing cultural models that would pave the way for care, or assisting Native American people to become health care providers. That needs to be rectified. Also, we take a "frontier" approach to health care and medicine. We talk about the health care we have in positive ways, based on the technology we have in place. Evaluations need to be done around holistic sensibilities that ask about basic health care issues: community health, well-being, and food. - Community Leader*

*Individuals with intellectual disabilities oftentimes are dependent on caregivers/gatekeepers for access to health care services. They do not always have the wherewithal to ensure access. Furthermore, many (if not most) clinicians are not trained to care for people with intellectual disabilities, making it difficult for this population to seek consultation, diagnostic work and treatment. This is exacerbated by a low income population that is unable to pay for health care services. - Community Leader*

### Coordination

*Coordination of care between organizations. Health information exchange. - Public Health Representative*

*Working more formally with Tribal Health Organizations or Federal Indian Organizations would be a great benefit to address these health issues. - Community Leader*

### Emergency Room

*Too many people just go to the emergency rooms because they either do not have or do not know how to get health care coverage. Mental health care, especially, is unavailable to many, and the jail is left with dealing with way too many people with mental health issues. - Government Representative*

*Access to ALS emergency care is slower than most communities in neighboring states. Lack of Fire-based ALS services is obvious. - Government Representative*

**Insurance Issues**

Offenders have insurance issues and custody concerns that limit access to health care. This population generally has not addressed routine wellness care or dealt consistently with chronic or acute issues. Medical records are often incomplete or hard to obtain. - Community Leader

**Socioeconomic Factors**

Social determinants of health. People need access to food and a safe shelter as a fundamental need that must be in place in order to address their health care needs. - Public Health Representative

**Community Attitude**

Not valuing primary care. Too much emphasis on specialty medicine. - Public Health Representative

**Alcohol/Drug Use**

Substance abuse, Alzheimer's information and resources. - Community Leader

**Medicare/Medicaid**

Medicaid rules for billable services. - Community Leader

**Social Support**

Social support. - Healthcare Provider

**Type of Care Most Difficult to Access**

Key informants (who rated this as a “major problem”) most often identified **mental health care** and **substance abuse treatment** as the most difficult to access in the community, with over half of respondents including **mental health care** as their first mention.

|  | Most Difficult to Access | Second-Most Difficult to Access | Third-Most Difficult to Access | Total Mentions |
|--|--------------------------|---------------------------------|--------------------------------|----------------|
| Mental Health Care                     | 58.6%                    | 25.9%                           | 3.8%                           | 25             |
| Substance Abuse Treatment              | 10.3%                    | 44.4%                           | 15.4%                          | 19             |
| Primary Care                           | 3.4%                     | 7.4%                            | 11.5%                          | 6              |
| Elder Care                             | 0.0%                     | 7.4%                            | 15.4%                          | 6              |
| Specialty Care                         | 10.3%                    | 0.0%                            | 7.7%                           | 5              |
| Pain Management                        | 3.4%                     | 3.7%                            | 11.5%                          | 5              |
| Dental Care                            | 0.0%                     | 11.1%                           | 7.7%                           | 5              |
| Chronic Disease Care                   | 6.9%                     | 0.0%                            | 7.7%                           | 4              |
| Palliative Care                        | 0.0%                     | 0.0%                            | 7.7%                           | 2              |
| Adolescent/Youth Shelter Care Services | 3.4%                     | 0.0%                            | 0.0%                           | 1              |
| Obesity and Lifestyle                  | 3.4%                     | 0.0%                            | 0.0%                           | 1              |
| Nutrition Services                     | 0.0%                     | 0.0%                            | 3.8%                           | 1              |
| Prenatal Care                          | 0.0%                     | 0.0%                            | 3.8%                           | 1              |
| Vision Care                            | 0.0%                     | 0.0%                            | 3.8%                           | 1              |

# Health Literacy

## Understanding Health Information

### Written & Spoken Information

Respondents were read:

“You can find written health information on the internet, in newspapers and magazines, on medications, at the doctor’s office, in clinics, and many other places.

How often is health information written in a way that is easy for you to understand?

How often is health information spoken in a way that is easy for you to understand?”

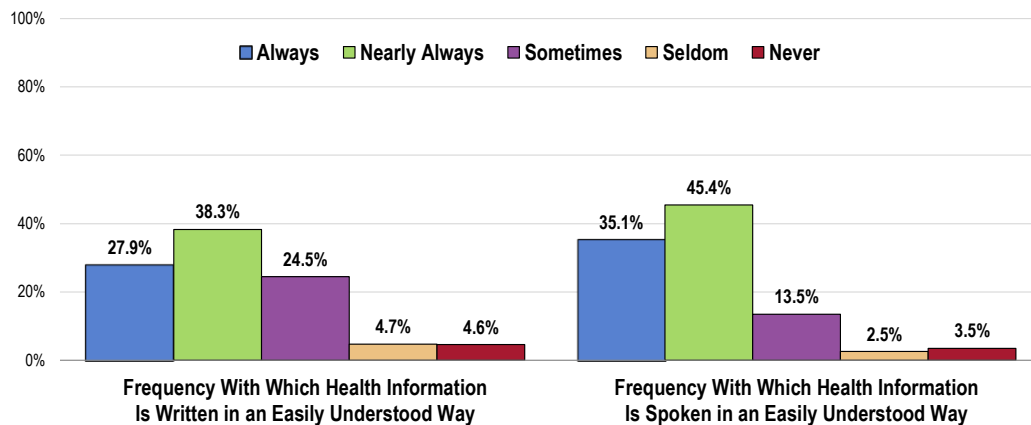
When asked about the frequency with which health information is written in an easily understood way, 66.2% of Yellowstone County adults said “always” or “nearly always.”

- On the other hand, 9.3% of Yellowstone County adults consider **written** health information to be difficult to understand, including 4.6% who gave “never” reports.

When asked about spoken health information, 80.5% stated that this is “always” or “nearly always” easy for them to understand.

- On the other hand, 6.0% of Yellowstone County adults consider **spoken** health information to be difficult to understand, including 3.5% who gave “never” reports.

**Understanding Health Information**  
(Yellowstone County, 2017)



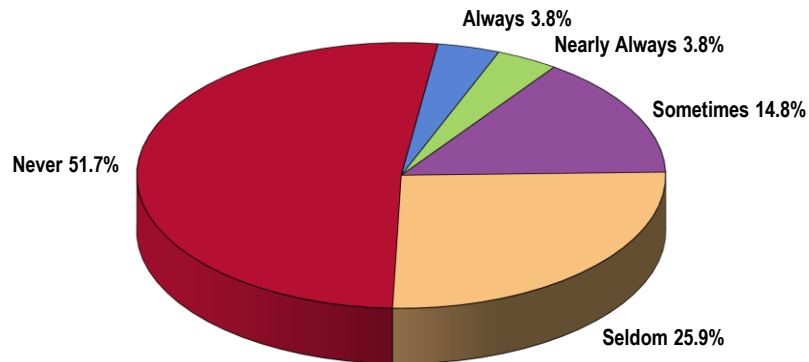
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 87, 89]  
Notes: • Asked of all respondents.

### Help Reading Health Information

More than three-fourths (77.6%) of Yellowstone County adults report “seldom” or “never” needing help reading health information.

- Another 14.8% of community adults “sometimes” need someone to help them read health information.
- Note that 7.6% of residents “always” or “nearly always” need help reading health information.

### Frequency of Needing Someone to Help Read Health Information (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 88]  
 Notes: • Asked of all respondents.

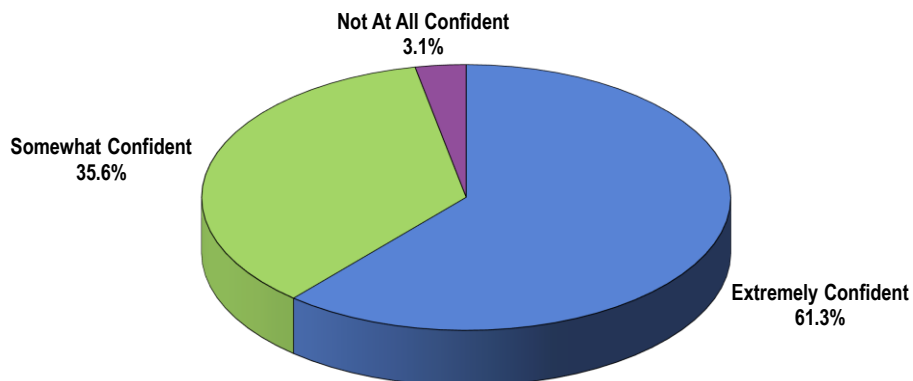
### Completing Health Forms

Asked to describe their confidence in filling out health forms, most survey respondents are “extremely confident” (61.3%).

Examples of health forms include insurance forms, questionnaires, doctor’s office forms, and other forms related to health and healthcare.

- Another 35.6% of community adults are “somewhat confident” in their own ability to fill out health forms.
- However, 3.1% of respondents gave “not at all confident” ratings.

### Self-Perceived Confidence in Ability to Fill Out Health Forms (Yellowstone County, 2017)



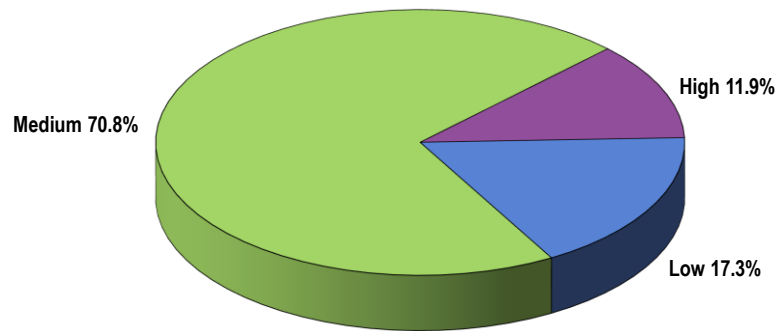
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 90]  
 Notes: • Asked of all respondents.  
 • In this case, health forms include insurance forms, questionnaires, doctor’s office forms, and other forms related to health and healthcare.

## Population With Low Health Literacy

Among Yellowstone County survey respondents, 11.9% are considered to be of high health literacy, while 70.8% have medium health literacy, and the remaining 17.3% are considered to be of low health literacy.

Low health literacy is defined as those respondents who "seldom/never" find written or spoken health information easy to understand, and/or who "always/ nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

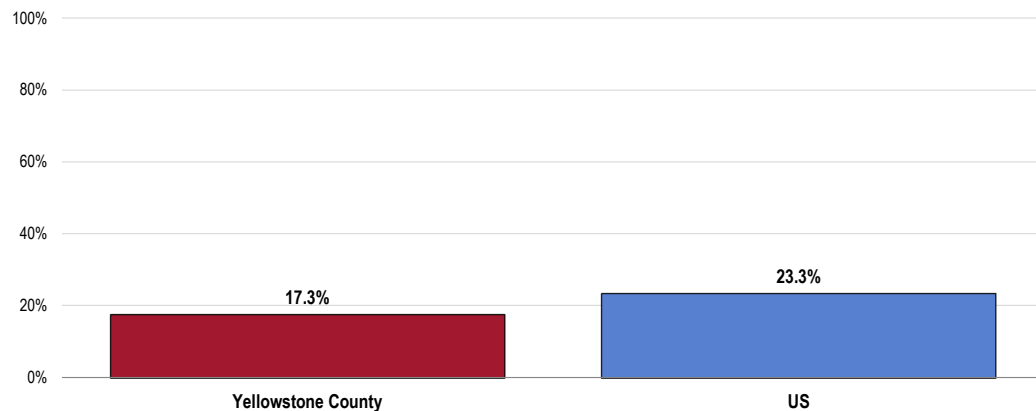
**Level of Health Literacy**  
(Yellowstone County, 2017)



- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 195]
- Notes:
- Asked of all respondents.
  - Respondents with low health literacy are those who "seldom/never" find written or spoken health information easy to understand, and/or who "always/nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

- The prevalence of Yellowstone County adults with low levels of health literacy is more favorable than the national average.

## Low Health Literacy

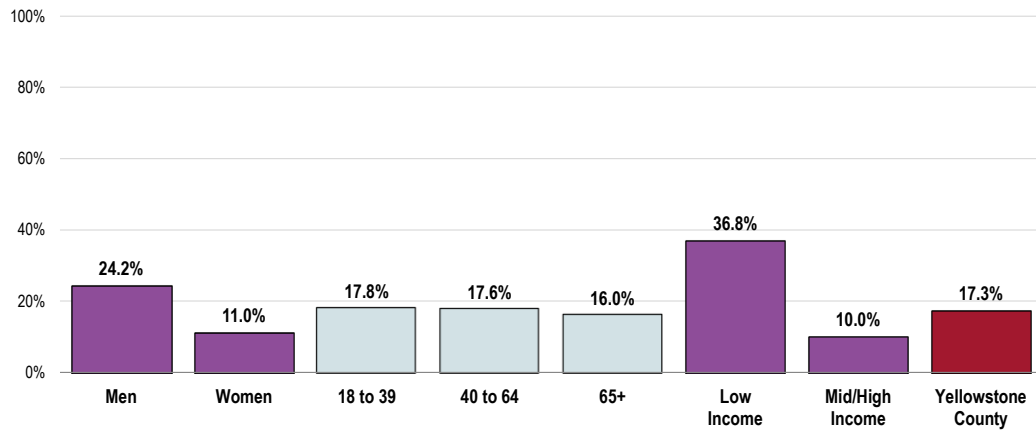


- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 195]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Notes:
- Asked of all respondents.
  - Respondents with low health literacy are those who "seldom/never" find written or spoken health information easy to understand, and/or who "always/nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.

These local adults are more likely to have low health literacy levels:

- Men.
- Low-income residents.

### Low Health Literacy (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 195]

- Notes:
- Asked of all respondents.
  - Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
  - Respondents with low health literacy are those who "seldom/never" find written or spoken health information easy to understand, and/or who "always/nearly always" need help reading health information, and/or who are "not at all confident" in filling out health forms.



## Primary Care Services

### About Primary Care

Improving health care services depends in part on ensuring that people have a usual and ongoing source of care. People with a usual source of care have better health outcomes and fewer disparities and costs. Having a primary care provider (PCP) as the usual source of care is especially important. PCPs can develop meaningful and sustained relationships with patients and provide integrated services while practicing in the context of family and community. Having a usual PCP is associated with:

- Greater patient trust in the provider
- Good patient-provider communication
- Increased likelihood that patients will receive appropriate care

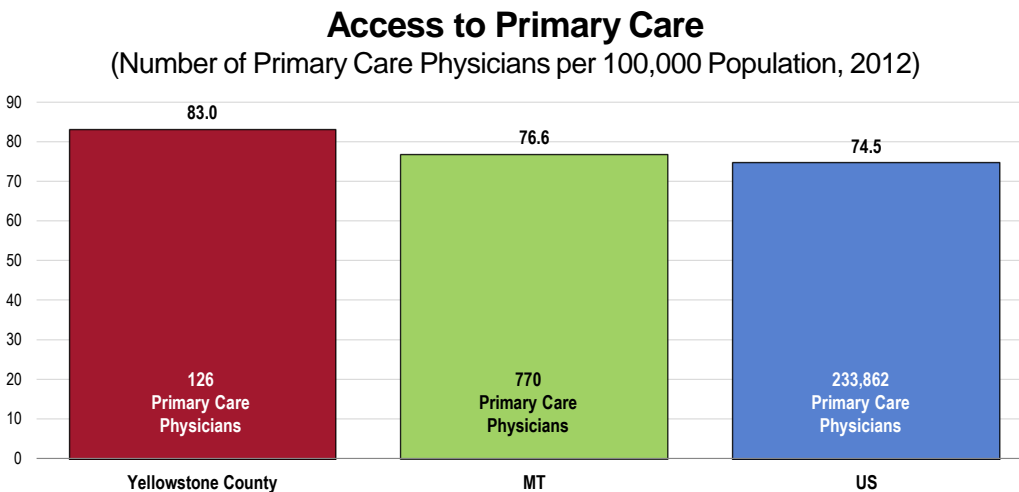
Improving health care services includes increasing access to and use of evidence-based preventive services. Clinical preventive services are services that: **prevent** illness by detecting early warning signs or symptoms before they develop into a disease (primary prevention); or **detect** a disease at an earlier, and often more treatable, stage (secondary prevention).

- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Access to Primary Care

In Yellowstone County in 2012, there were 126 primary care physicians, translating to a rate of 83.0 primary care physicians per 100,000 population.

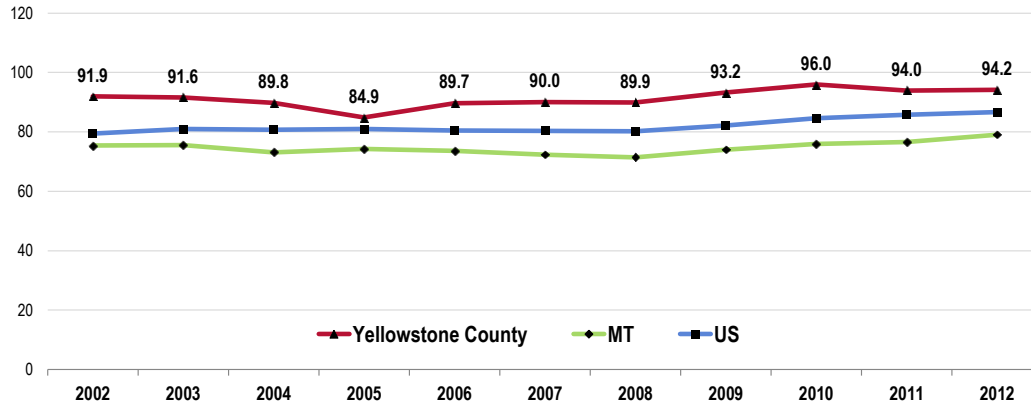
- Above the primary care physician-to-population ratios found statewide and nationally.



- Sources:
- US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File.
  - Retrieved June 2016 from Community Commons at <http://www.chna.org>.
- Notes:
- This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

- **TREND:** Access to primary care (in terms of the ratio of primary care physicians to population) has not changed greatly over the past decade in Yellowstone County; the same can be said both statewide and nationally.

### Trends in Access to Primary Care (Number of Primary Care Physicians per 100,000 Population)



Sources: 

- US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File.
- Retrieved June 2016 from Community Commons at <http://www.chna.org>.

  
 Notes: 

- This indicator is relevant because a shortage of health professionals contributes to access and health status issues.
- These figures represent all primary care physicians practicing patient care, including hospital residents. In counties with teaching hospitals, this figure may differ from the rate reported in the previous chart.

### Specific Source of Ongoing Care

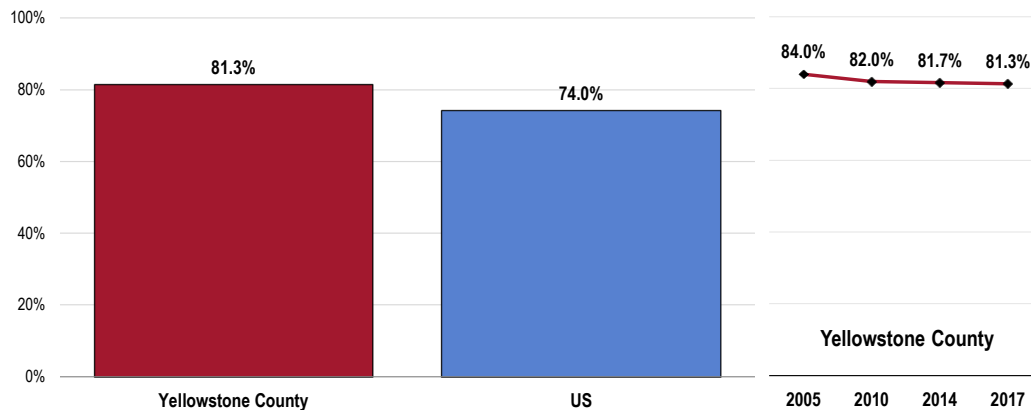
**A total of 81.3% of Yellowstone County adults were determined to have a specific source of ongoing medical care.**

- Higher than national findings.
- Fails to satisfy the Healthy People 2020 objective (95% or higher).
- TREND: Statistically, there has been no change in prevalence since 2005.

Having a specific source of ongoing care includes having a doctor's office, clinic, urgent care center, walk-in clinic, health center facility, hospital outpatient clinic, HMO or prepaid group, military/VA clinic, or some other kind of place to go if one is sick or needs advice about his or her health. This resource is crucial to the concept of "patient-centered medical homes" (PCMH).

A hospital emergency room is not considered a specific source of ongoing care in this instance.

### Have a Specific Source of Ongoing Medical Care Healthy People 2020 Target = 95.0% or Higher



Sources: 

- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 191]
- 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective AHS-5.1]

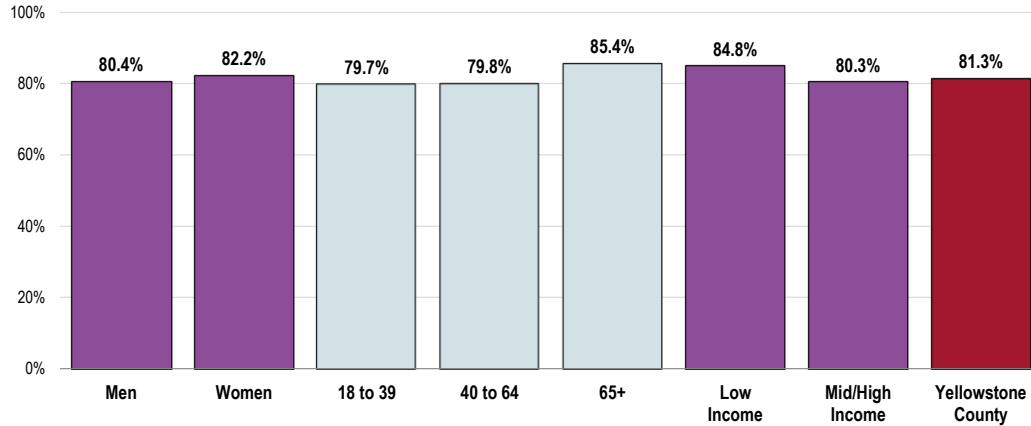
  
 Notes: 

- Asked of all respondents.

- When viewed by demographic characteristics, none of the following population segments are statistically more likely than another to have a specific source of ongoing care.

## Have a Specific Source of Ongoing Medical Care (Yellowstone County, 2017)

Healthy People 2020 Target = 95.0% or Higher



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 191-193]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective AHS-5.1]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

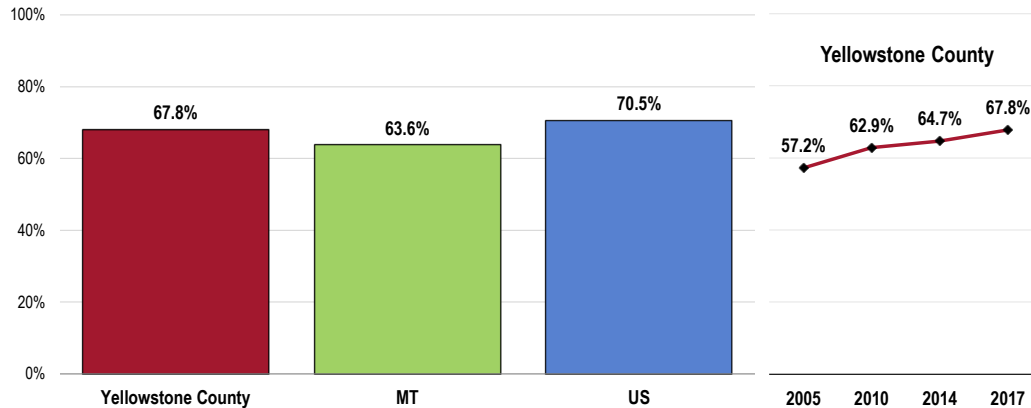
## Utilization of Primary Care Services

### Adults

Around two-thirds of adults (67.8%) visited a physician for a routine checkup in the past year.

- Similar to state and national findings.
- TREND: In comparing to baseline 2005 data, the increase in prevalence is statistically significant.

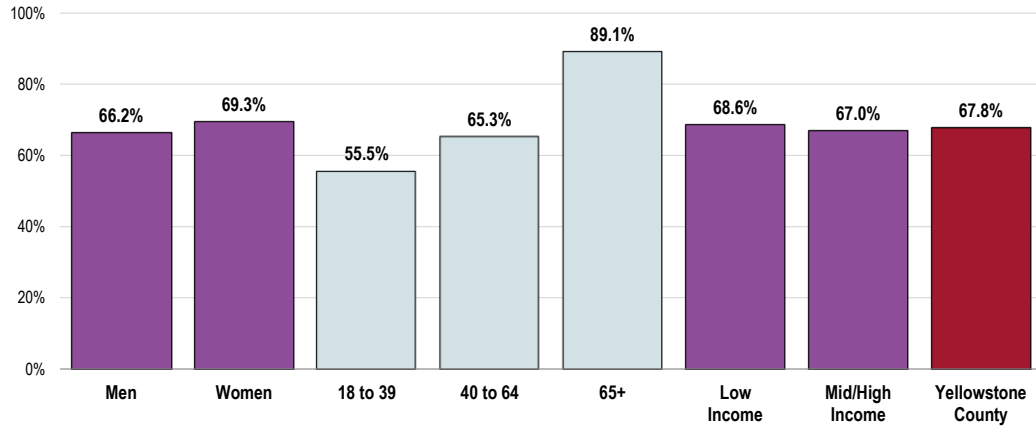
## Have Visited a Physician for a Checkup in the Past Year



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 18]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- Adults under age 65 are less likely to have received routine care in the past year (note the positive association with age).

### Have Visited a Physician for a Checkup in the Past Year (Yellowstone County, 2017)



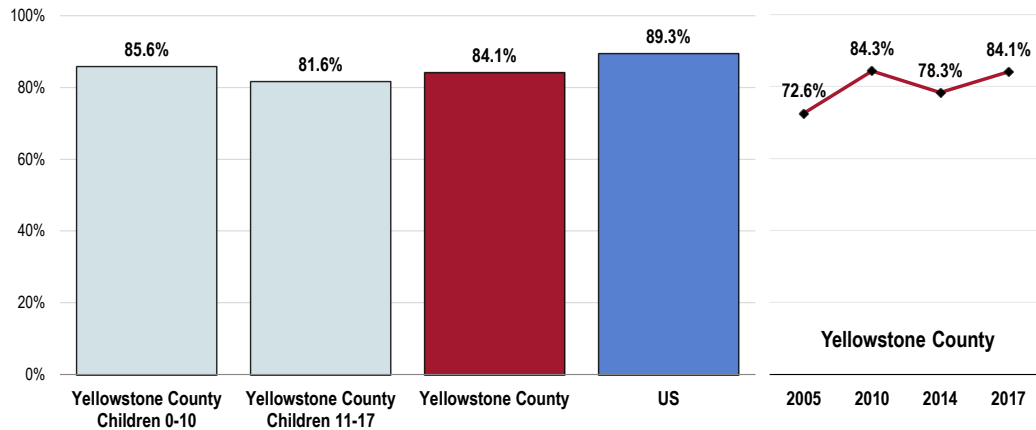
Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 18]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

### Children

Among surveyed parents, **84.1%** report that their child has had a routine checkup in the past year.

- Statistically similar to national findings.
- TREND: Overall, the prevalence of routine checkups for children in Yellowstone County has statistically increased since 2005.
- Note that routine checkups are not statistically different by child's age.

### Child Has Visited a Physician for a Routine Checkup in the Past Year (Among Parent Respondents on Behalf of Children Age 0-17)



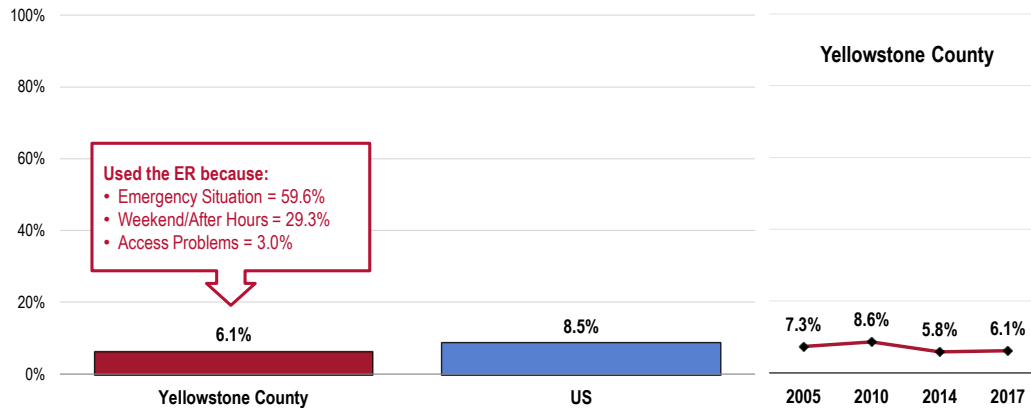
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 138]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents with children 0 to 17 in the household.

## Emergency Room Utilization

A total of 6.1% of Yellowstone County adults have gone to a hospital emergency room more than once in the past year about their own health.

- Comparable to national findings.
- TREND: Statistically unchanged over time.

### Have Used a Hospital Emergency Room More Than Once in the Past Year

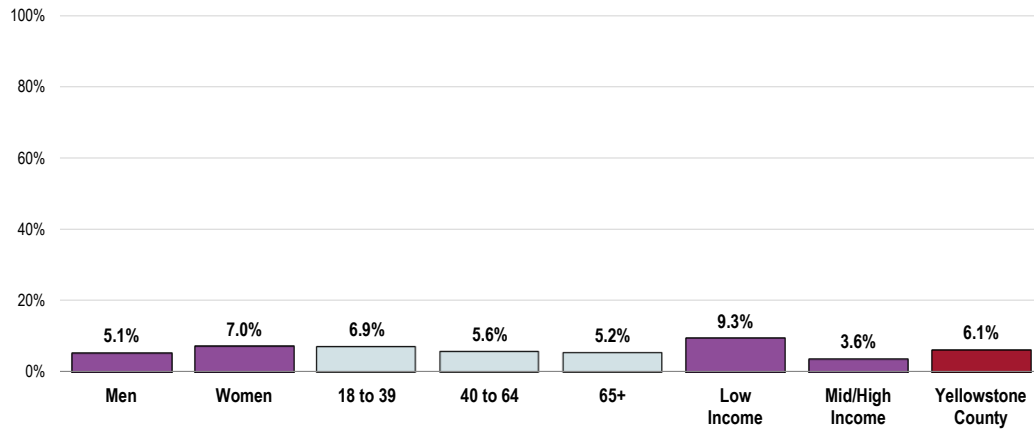


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 22-23]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

Of those using a hospital ER, 59.6% say this was due to an **emergency or life-threatening situation**, while 29.3% indicated that the visit was during **after-hours or on the weekend**. A total of 3.0% cited **difficulties accessing primary care** for various reasons.

- Differences in ER usage among the following population segments are not statistically significant.

### Have Used a Hospital Emergency Room More Than Once in the Past Year (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 22]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Advance Directives

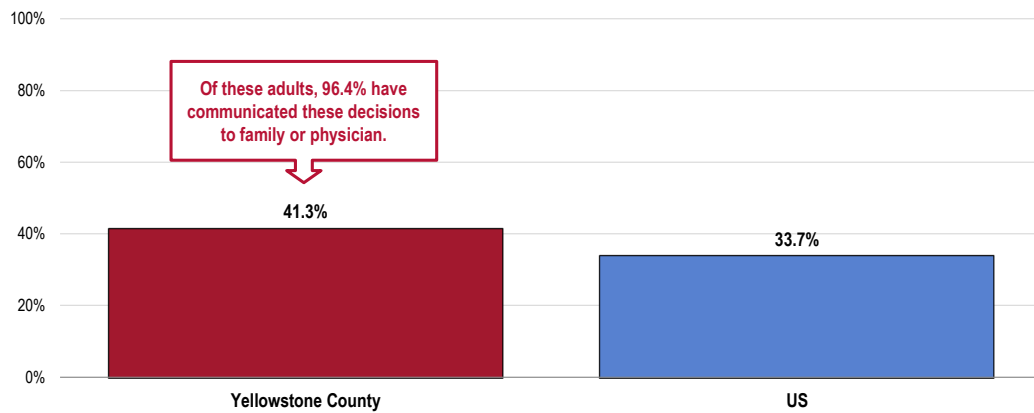
**A total of 41.3% of Yellowstone County adults have completed Advance Directive documents.**

An Advance Directive document is a set of directions given about the medical health-care a person wants if he/she ever loses the ability to make those decisions. Formal Advance Directives include Living Wills and Healthcare Powers of Attorney.

- The prevalence is higher than the US figure.
- Of those local adults who have completed Advance Directive documents, 96.4% have communicated these decisions to family and/or a physician.

An Advance Directive document is a set of directions given about the medical health-care a person wants if he/she ever loses the ability to make those decisions. Formal Advance Directives include Living Wills and Healthcare Powers of Attorney.

### Have Completed Advance Directive Documents

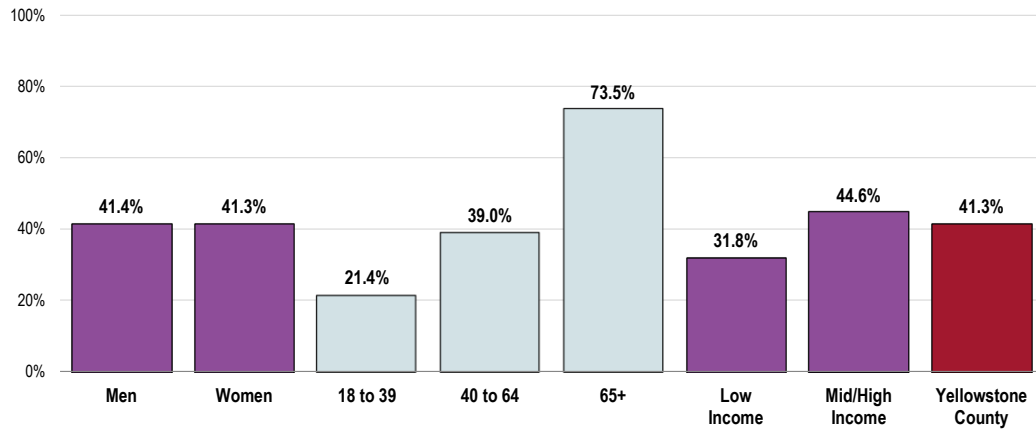


- Sources:
- 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 85-86]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
- Notes:
- Asked of all respondents.
  - An Advance Directive is a set of directions given about the medical healthcare a person wants if he/she ever loses the ability to make those decisions. Formal Advance Directives include Living Wills and Health Care Powers of Attorney.

These survey respondents are less likely to have filled out Advance Directive documents:

- Young adults (note the positive association with age).
- Individuals living at the lower-income level.

### Have Completed Advance Directive Documents (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 85]

Notes: • Asked of all respondents.

• An Advance Directive is a set of directions given about the medical healthcare a person wants if he/she ever loses the ability to make those decisions. Formal Advance Directives include Living Wills and Health Care Powers of Attorney.

• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.



## Oral Health

### About Oral Health

Oral health is essential to overall health. Good oral health improves a person's ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions. However, oral diseases, from cavities to oral cancer, cause pain and disability for many Americans. Good self-care, such as brushing with fluoride toothpaste, daily flossing, and professional treatment, is key to good oral health. Health behaviors that can lead to poor oral health include: **tobacco use**; **excessive alcohol use**; and **poor dietary choices**.

The significant improvement in the oral health of Americans over the past 50 years is a public health success story. Most of the gains are a result of 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. However, some Americans do not have access to preventive programs. People who have the least access to preventive services and dental treatment have greater rates of oral diseases. A person's ability to access oral healthcare is associated with factors such as education level, income, race, and ethnicity.

Barriers that can limit a person's use of preventive interventions and treatments include: limited access to and availability of dental services; lack of awareness of the need for care; cost; and fear of dental procedures.

There are also social determinants that affect oral health. In general, people with lower levels of education and income, and people from specific racial/ethnic groups, have higher rates of disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral health.

Potential strategies to address these issues include:

- Implementing and evaluating activities that have an impact on health behavior.
- Promoting interventions to reduce tooth decay, such as dental sealants and fluoride use.
- Evaluating and improving methods of monitoring oral diseases and conditions.
- Increasing the capacity of State dental health programs to provide preventive oral health services.
- Increasing the number of community health centers with an oral health component.

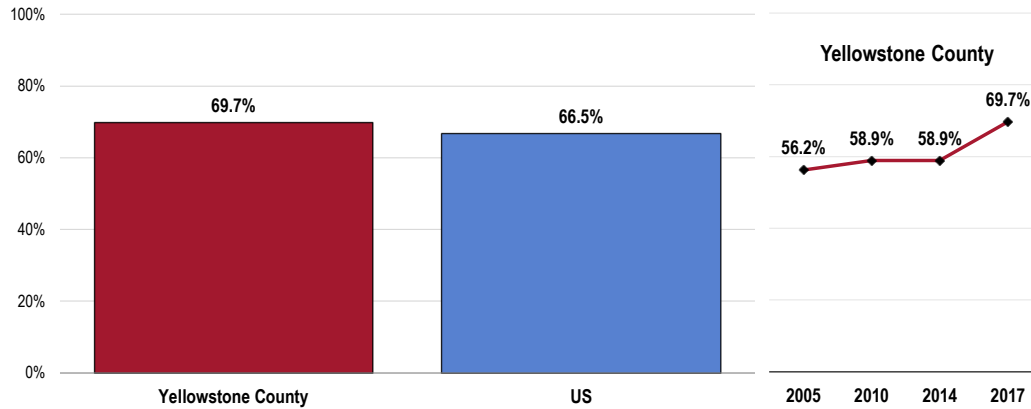
- Healthy People 2020 ([www.healthypeople.gov](http://www.healthypeople.gov))

### Dental Insurance

**Approximately 7 in 10 Yellowstone County adults (69.7%) have dental insurance that covers all or part of their dental care costs.**

- Statistically similar to the national finding.
- TREND: Dental Insurance coverage increased significantly over the past two years.

### Have Insurance Coverage That Pays All or Part of Dental Care Costs

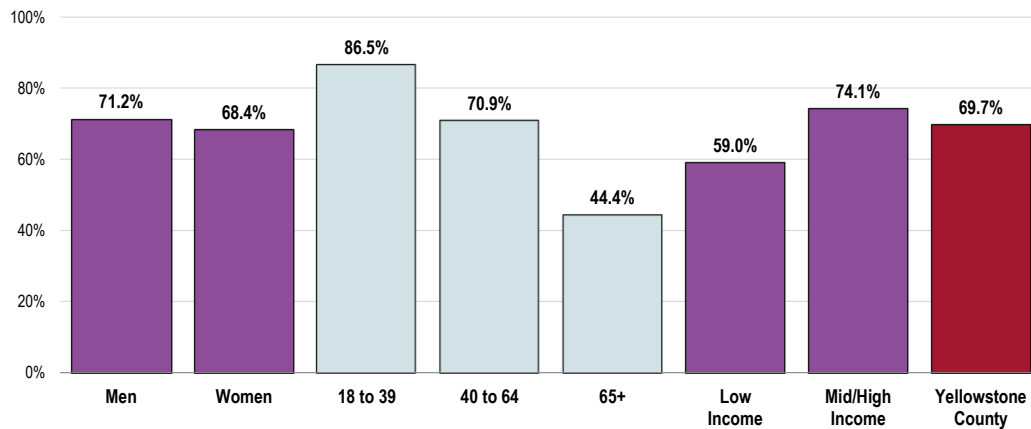


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 21]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

These adults are less likely to be covered by dental insurance:

- Older adults (note the negative association with age).
- Those with low incomes.

### Have Insurance Coverage That Pays All or Part of Dental Care Costs (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 21]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Dental Care

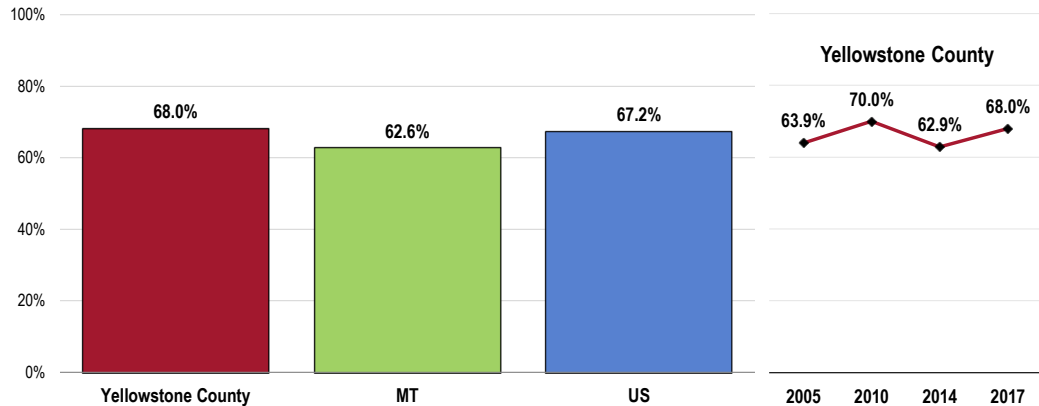
### Adults

A total of 68.0% of Yellowstone County adults have visited a dentist or dental clinic (for any reason) in the past year.

- More favorable than statewide findings.
- Similar to national findings.
- Satisfies the Healthy People 2020 target (49% or higher).
- TREND: Despite a significant drop from 2010 to 2014, current dental care is statistically similar to the prevalence found in all previous surveys.

### Have Visited a Dentist or Dental Clinic Within the Past Year

Healthy People 2020 Target = 49.0% or Higher



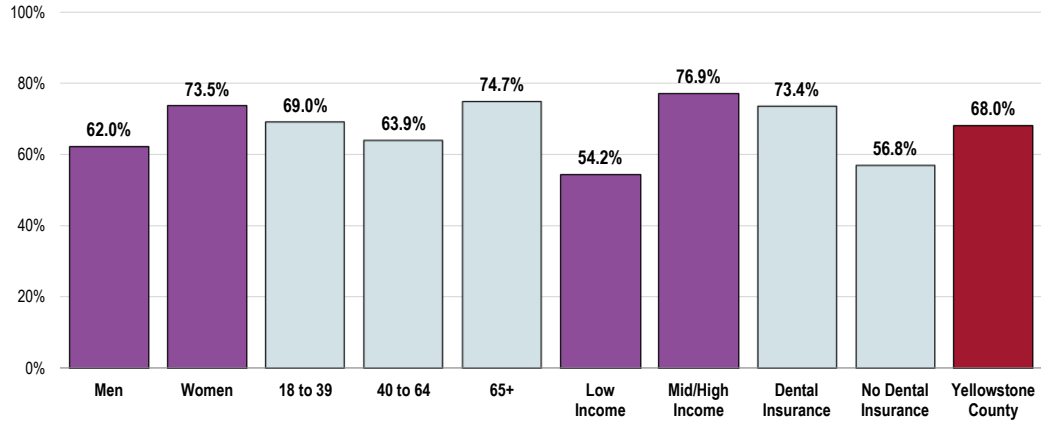
- Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 20]
  - 2015 PRC National Health Survey, Professional Research Consultants, Inc.
  - US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective OH-7]
  - Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2014 Montana data.
- Notes:
- Asked of all respondents.

Note the following:

- Women and seniors (65+) are more likely than their demographic counterparts to report recent dental care.
- Persons living in the higher-income category report much higher utilization of oral health services.
- As might be expected, persons with dental insurance also report much higher utilization of oral health services than those without dental coverage.

## Have Visited a Dentist or Dental Clinic Within the Past Year (Yellowstone County, 2017)

Healthy People 2020 Target = 49.0% or Higher



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 20]  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective OH-7]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

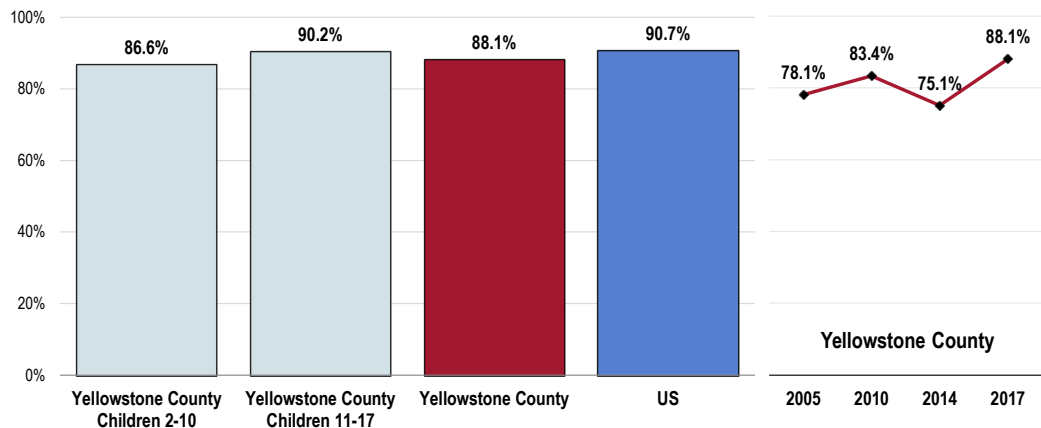
### Children

A total of 88.1% of parents report that their child (age 2 to 17) has been to a dentist or dental clinic within the past year.

- Similar to national findings.
- Satisfies the Healthy People 2020 target (49% or higher).
- TREND: Marks a statistically significant increase in children's dental care since 2005.
- Regular dental care is statistically similar among child's age groups.

## Child Has Visited a Dentist or Dental Clinic Within the Past Year (Among Parent Respondents on Behalf of Children Age 2-17)

Healthy People 2020 Target = 49.0% or Higher



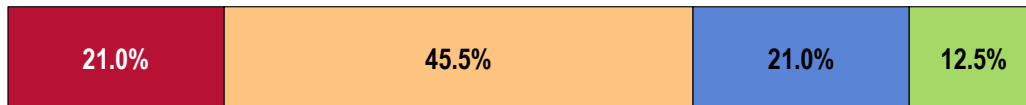
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 141]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective OH-7]  
 Notes: • Asked of all respondents with children age 2 through 17.

## Key Informant Input: Oral Health

Key informants taking part in an online survey most often characterized *Oral Health* as a “moderate problem” in the community.

### Perceptions of Oral Health as a Problem in the Community (Key Informants, 2017)

■ Major Problem ■ Moderate Problem ■ Minor Problem ■ No Problem At All



Sources: • PRC Online Key Informant Survey, Professional Research Consultants, Inc.  
Notes: • Asked of all respondents.

### Top Concerns

Among those rating this issue as a “major problem,” reasons related to the following:

#### *Affordable Care/Services*

*The cost and lack of insurance is a big factor for those in need. Also consider that for many Medicaid patients, there are a limited number of dentists who will see them. - Community Leader*

*Low income people in the community often have a barrier in accessing oral health. Many oral health providers do not accept Medicare/Medicaid, due to low reimbursement rates, which limits the number of patients that they can see. - Public Health Representative*

*Dental care is expensive. Unless you have Medicaid, many people pay out-of-pocket for dental care. I do know that RiverStone Health is a good resource, but many people are unaware of that resource. Dental wellness is a window into our overall health. - Community Leader*

*Access to dental care for low income children has improved considerably in recent years. More dentists are willing to accept Medicaid patients. There also has been some effort on the part of dentists to work with families to educate them on the importance of early dental care. Dental care for low income adults is not as readily available. RiverStone Health has an excellent program, but it cannot meet the need for services to adults with severe dental problems. Once a year SMILE events are not enough. - Government Representative*

*There is a dental clinic at the Community Health Center, but the overall access for low income individuals is problematic for these conditions. - Healthcare Provider*

*Observe mouth decay senior citizens, as well as low income adults and children. Dental care is expensive, and dental insurance provides little relief. - Community Leader*

*Low-income people lack access to dental care. - Public Health Representative*

*Montana's poor do not have access to oral/dental healthcare. Even if they are eligible for Medicaid, most will still not be able to access dental care due to the fact many/most providers do not accept Medicaid due to the low reimbursement rates. Hearing testimony on this issue from providers who have tried to reimburse on Medicaid for dental/oral services, we have learned their profit margins are too narrow to operate a business solely on Medicaid; and when an audit of their billing occurs, it can cause a net loss, due to the amount of staffing hours paid to attend to the auditing process. I have also learned that the process of audit is not based on reports or suspicion of misuse or fraud and that it is random in application. This has also proven to be a deterrent for providers to reimburse for care on Medicaid. - Government Representative*

*Oral health/dental care is very high for all races in Yellowstone County for those that cannot afford it. - Healthcare Provider*

*Lack of access to services/knowledge of free/low-cost options. - Community Leader*

Many of those with lower incomes cannot afford dental health care. - Community Leader  
 Many families I work with have adults who struggle with poor oral health. - Community Leader  
 Lack of easily accessible dental care for people without resources. High cost of care. - Public Health Representative  
 Cost prohibitive. - Community Leader  
 Cost. - Public Health Representative

### **Medicare/Medicaid**

Many dentists do not accept Medicaid. People don't understand the link between oral health and physical health. - Public Health Representative  
 Lack of Providers that accept Medicaid. - Community Leader  
 Many dentists do not take Medicare patients. Or if they do, they only take a certain percentage each month. - Educator  
 It is difficult to find providers who accept Medicaid insurance. - Community Leader  
 I see a huge need for more dental care providers that are willing to take Medicaid patients. - Educator  
 Some providers do not accept Medicaid. - Healthcare Provider

### **Oral Hygiene**

I have had quite a few clients with bad teeth (and not just in a cosmetic way), including pain, trouble eating and serious dental needs that are not being met. This poses a serious barrier, especially when it comes to getting a job. Although employers are not supposed to discriminate someone based on their appearance, I would imagine it affects their odds of being hired if their teeth are unhealthy and unattractive. - Community Leader  
 Teeth to me is the window to a person's health. Encouraging and having accessible dental care is essential for a healthy community. - Government Representative  
 Everyone has teeth, and most don't take care of them. - Healthcare Provider

### **Insurance Issues**

Most insurance plans do not cover dental care adequately. Not enough emphasis on preventative services. - Public Health Representative  
 Not enough dental insurance for the children. This leads to oral health problems at a young age and puts adult teeth at risk as children grow up. - Educator

### **Access to Care/Services**

Access to care and poor preventative hygiene, complicated by poverty. Poor diets and in some cases drug use. - Healthcare Provider  
 Access because of the shortage of dental professionals and the payment systems. - Educator

### **Health Education**

Lack of education and funds to gain proper oral health care. - Community Leader  
 Students and staff are unaware of resources available to them at a reasonable cost or no cost. - Educator

## Vision Care

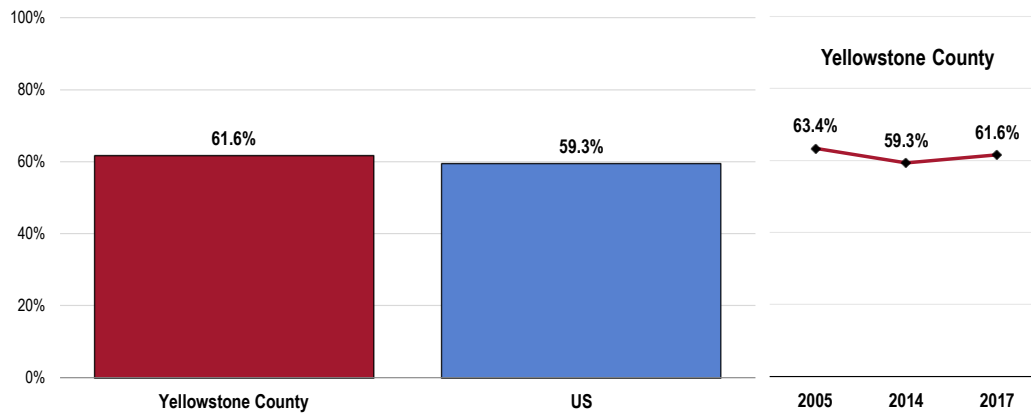
A total of 61.6% of Yellowstone County residents had an eye exam in the past two years during which their pupils were dilated.

RELATED ISSUE:

See also [Vision & Hearing in the Death, Disease & Chronic Conditions](#) section of this report.

- Comparable to national findings.
- TREND: Statistically unchanged since 2005.

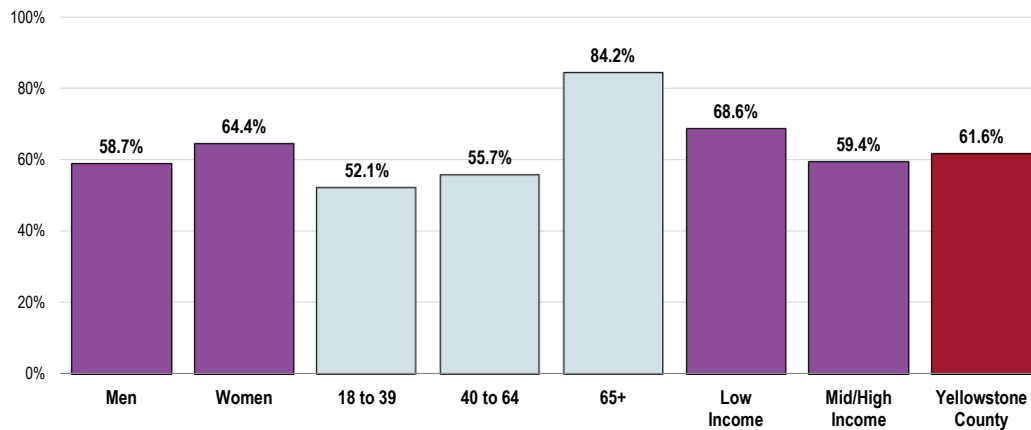
### Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 19]  
 • 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

- Recent vision care in Yellowstone County is more often reported among the senior (65+) population.

### Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 19]  
 Notes: • Asked of all respondents.  
 • Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

# Local Resources



**Professional Research Consultants, Inc.**

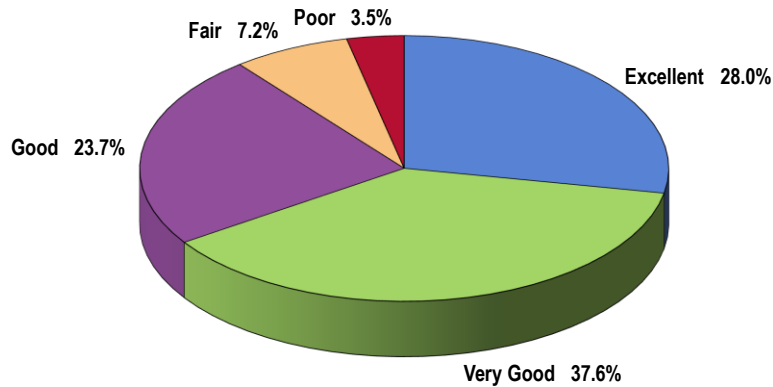


## Perceptions of Local Healthcare Services

Nearly two-thirds of Yellowstone County adults (65.6%) rate the overall healthcare services available in their community as “excellent” or “very good.”

- Another 23.7% gave “good” ratings.

**Rating of Overall Healthcare Services Available in the Community**  
(Yellowstone County, 2017)

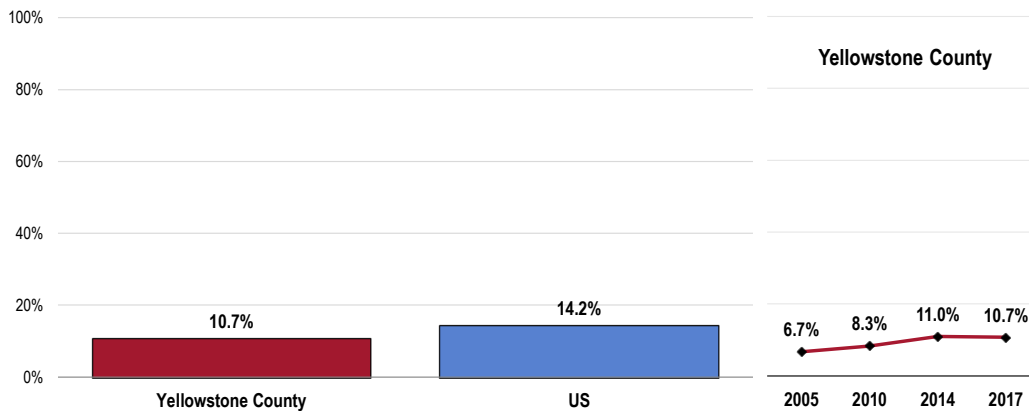


Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]  
Notes: • Asked of all respondents.

However, 10.7% of residents characterize local healthcare services as “fair” or “poor.”

- Statistically similar to that reported nationally.
- TREND: Ratings have become significantly worse since 2005.

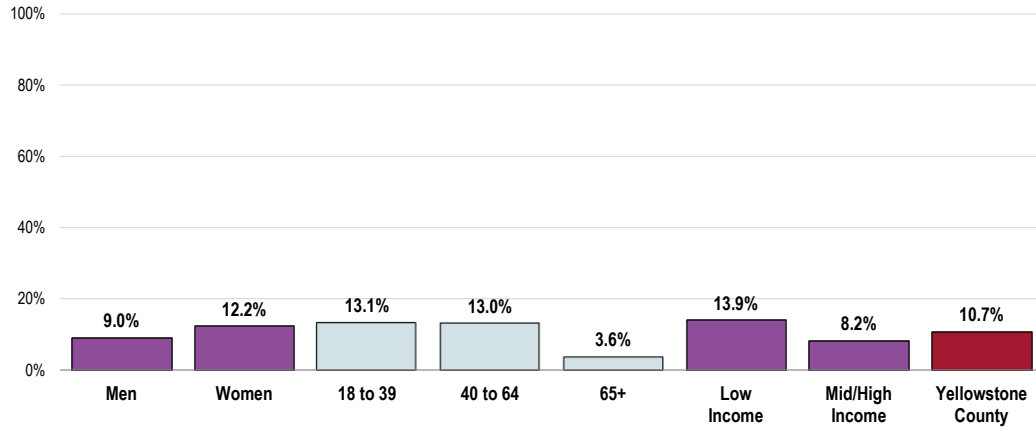
### Perceive Local Healthcare Services as “Fair/Poor”



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 6]  
• 2015 PRC National Health Survey, Professional Research Consultants, Inc.  
Notes: • Asked of all respondents.

- Residents under the age of 65 are more critical of local healthcare services.

### Perceive Local Healthcare Services as “Fair/Poor” (Yellowstone County, 2017)



Sources: • 2017 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]

Notes: • Asked of all respondents.

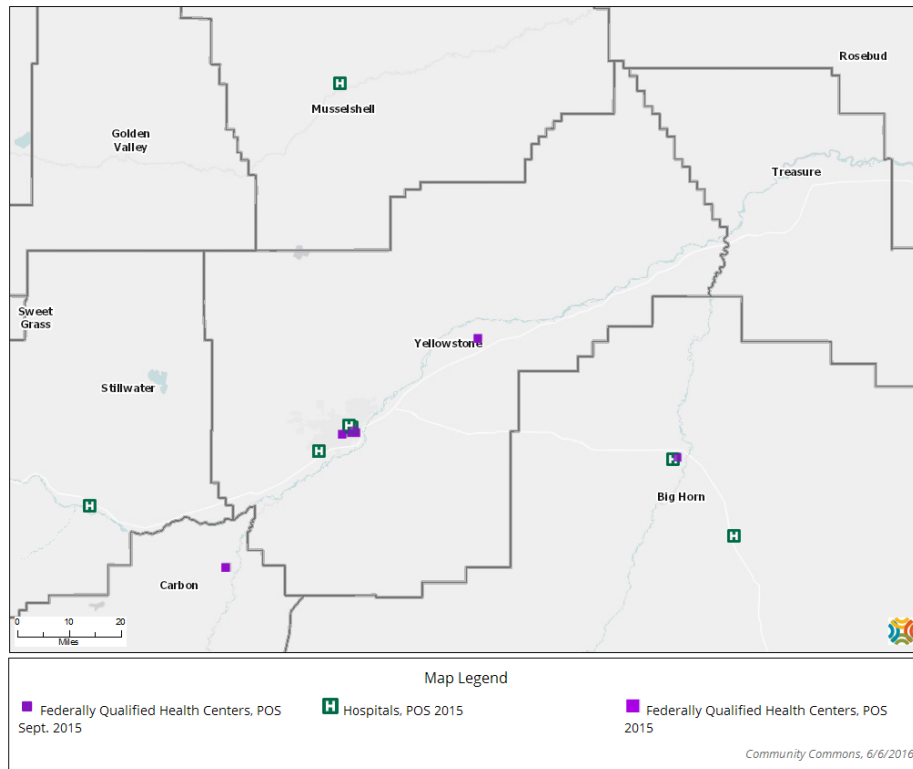
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

## Healthcare Resources & Facilities

### Hospitals & Federally Qualified Health Centers (FQHCs)

The following map details the hospitals and Federally Qualified Health Centers (FQHCs) within Yellowstone County as of September 2015.

Hospitals and Federally Qualified Health Centers, POS Sept. 2015



## Resources Available to Address the Significant Health Needs

The following list contains resources that may support responses to significant health needs identified in the Community Health Needs Assessment (CHNA). The list includes citizen associations, local institutions, individuals, non-profit organizations, government sectors, businesses and industries available in Yellowstone County. This list is not exhaustive, rather outlines those resources identified during the Community Health Needs Assessment (CHNA) process and additional research of resources that can be accessed by residents of Yellowstone County. This list does not represent or demonstrate support for or endorsement of any particular community resource.

For further information on specific programs or projects related to the listings below, or to seek additional support, please use our community resource directory, [Montana211.org](http://Montana211.org).

\* *Healthy by Design Affiliate*

### Access to Healthcare Services Resources

*Adult & Community Education Center - Lincoln Center*  
*Adult Resource Alliance\**  
*Advance Employment Services*  
*Al Bedoo Shriners*  
*Ask-a-Nurse*  
*Best Beginnings Council – United Way of Yellowstone County\**  
*Big Brothers Big Sisters of Yellowstone County\**  
*Big Sky Economic Development Authority\**  
*Billings Area Indian Health Service*  
*Billings Clinic\**  
*Billings Community Center*  
*Billings Housing Authority*  
*COR Enterprises*  
*Disabled American Veterans*  
*Dress for Success*  
*Family Assistance Centers - National Guard Bureau*  
*Family Promise of Yellowstone Valley\**  
*Family Services, Inc.*  
*Habitat for Humanity\**  
*Head Start, Inc.*  
*Independence Hall - Volunteers of America*  
*Indian Health Board - Billings*  
*Living Independently for Today and Tomorrow (LIFTT)\**  
*MET Transit\**

*Montana Legal Service Association*  
*Montana Migrant Council, Inc.\**  
*Montana Rescue Mission*  
*Montana Veterans Affairs*  
*Office of Public Assistance*  
*Planned Parenthood of Montana*  
*RiverStone Health\**  
*Rocky Mountain College\**  
*Rocky Mountain Health Network*  
*Rocky Mountain Tribal Leaders Council\**  
*Rural Employment Opportunity, Inc.*  
*Saint Vincent DePaul Society*  
*Salvation Army*  
*St. Vincent Healthcare\**  
*United Way of Yellowstone County\**

### Cancer

*American Cancer Society Eastern Field Office*  
*Billings Family YMCA\**  
*Cancer Center - Billings Clinic\**  
*Frontier Cancer Center - St. Vincent Healthcare\**  
*People Everywhere are Kind and Sharing (P.E.A.K.S)*  
*Rocky Mountain Tribal Leaders Council\**

### Dementias, Including Alzheimer's Disease

*Adult Resource Alliance\**  
*Alzheimer's Association - Montana Chapter*  
*Big Sky Senior Services, Inc.*

*Billings Community Center*

### **Diabetes**

*American Diabetes Association*

*Billings Clinic\**

*Billings Family YMCA\**

*RiverStone Health\**

*St. Vincent Healthcare\**

### **Heart Disease & Stroke**

*American Heart Association*

*American Stroke Association*

*Heart Care Services*

*Mended Hearts*

### **Infant Health**

*Al Bedoo Shriners*

*Best Beginnings Council – United Way of Yellowstone County\**

*Billings Clinic\**

*Early Childhood Intervention*

*Family Support Network\**

*Family Tree Center\**

*Head Start, Inc.*

*Human Resource Development Council (HRDC)\**

*La Leche League*

*La Vie Pregnancy Clinic*

*March of Dimes*

*Maternal Child Health, Family Health Services - RiverStone Health\**

*Planned Parenthood of Montana*

*Ronald McDonald Care Mobile*

*St. Vincent Healthcare\**

*Support and Techniques for Empowering People, Inc. (STEP, Inc.)*

*The Center for Children and Families\**

*Women, Infants and Children (WIC) – RiverStone Health\**

*Young Families Early Head Start*

### **Injury & Violence**

*Adult Protective Services - Montana Department of Public Health & Human Services*

*Adult Resource Alliance\**

*Alpha House - Alternatives, Inc.*

*Angela's Piazza\**

*Big Sky Senior Services, Inc.*

*Billings Area Family Violence Task Force*

*Billings Area Re-Entry Task Force*

*Billings City Attorney*

*Blind & Low Vision Services*

*Child Protective Services - Montana Department of Public Health & Human Services*

*Community Crisis Center\**

*Court Appointed Special Advocates of Yellowstone County (CASA)*

*Family Support Network\**

*Family Tree Center\**

*Montana Center on Disabilities (Montana State University, Billings)*

*Montana Rescue Mission*

*Passages - Alternatives, Inc.*

*Tumbleweed Runaway Program*

*Vet Center*

*Veteran Upward Bound*

*Yellowstone Youth Crisis Network*

*Youth Court Services - 13th Judicial District*

*YWCA USA, Inc. Gateway House\**

### **Mental Health**

*Adult Protective Services - Montana Department of Public Health & Human Services*

*Angela's Piazza\**

*Behavioral Health - Indian Health Service*

*Behavioral Health Clinic - Billings Clinic\**

*Big Brothers Big Sisters of Yellowstone County\**

*Billings Mental Health Clinic - Walla Walla University\**

*Billings Public Schools*

*Child Protective Services - Montana Department of Public Health & Human Services*

*Children's Mental Health Bureau - Montana Department of Public Health & Human Services*

*Compassionate Friends*

*Community Crisis Center\**

*Court Appointed Special Advocates of Yellowstone County (CASA)*

*Disabled American Veterans (DAV)*

*Family Promise of Yellowstone Valley\**

*Family Support Network\**

*Family Tree Center*

*Friendship House*

*Human Resource Development Council (HRDC), District 7\**

*Job Connection*

*Living Independently for Today and Tomorrow (LIFTT)\**

*Mental Health Center\**  
*Montana Migrant Council, Inc.\**  
*National Alliance on Mental Illness - Billings*  
*Parents, Let's Unite for Kids (PLUK)*  
*Passages - Alternatives, Inc.*  
*Rimrock Foundation*  
*RiverStone Health\**  
*Rocky Mountain Tribal Leaders Council\**  
*Support and Techniques for Empowering People (STEP)*  
*Ted Lechner Youth Services Center*  
*The Center for Children and Families\**  
*The HUB - Mental Health Center*  
*Tumbleweed Runaway Program*  
*Vet Center*  
*Veterans Affairs Community Based Outpatient Clinic*  
*Vocational Rehabilitation - Montana Department of Public Health & Human Services*  
*Yellowstone Boys and Girls Ranch\**  
*Yellowstone Valley Suicide Prevention Coalition Members*  
*Yellowstone Youth Crisis Network*  
*Youth Dynamics, Inc.*

### **Nutrition, Physical Activity & Weight**

*BackPack Meals and Teen Pantry Program\**  
*Better Billings Foundation\**  
*Big Brothers Big Sisters Yellowstone County\**  
*Big Sky State Games\**  
*Billings Action for Healthy Kids Members\**  
*Billings Family YMCA\**  
*Billings Food Bank*  
*Billings Parks, Recreation & Public Lands Department\**  
*Billings Public Schools School Health Advisory Council (SHAC)*  
*Billings TrailNet\**  
*Boys & Girls Club*  
*Chamber Trails Committee\**  
*CTA Architects Engineers\**  
*Downtown Billings Association\**  
*Expanded Food and Nutrition Education Program (EFNEP), Yellowstone County*  
*Family Service, Inc.*  
*First Interstate Bank Foundation*  
*Head Start, Inc.*  
*Human Resource Development Council (HRDC), District 7\**  
*iChange Billings\**

*Living Independently for Today & Tomorrow (LIFTT)\**  
*MET Transit\**  
*Montana Department of Transportation\**  
*Montana State University Extension, Yellowstone County\**  
*Northern Plains Resource Council\**  
*Nutrition for the Future, Inc.\**  
*Peace Lutheran*  
*Q360 Health\**  
*RiverStone Health\**  
*Rocky Mountain Tribal Leaders Council\**  
*Sysco*  
*Yellowstone City-County Planning and Community Services Department\**  
*Yellowstone County Public Works\**

### **Potentially Disabling Conditions**

*Adult Resource Alliance\**  
*Arthritis Foundation - Montana Branch of the Rocky Mountain Chapter*  
*Big Sky Senior Services, Inc.*  
*Billings Family YMCA\**  
*Blind and Low Vision Services*  
*Living Independently for Today & Tomorrow (LIFTT)\**  
*Montana State University Extension*

### **Respiratory Diseases**

*American Lung Association of the Northern Rockies*  
*Billings Clinic\**  
*RiverStone Health\**  
*St. Vincent Healthcare\**

### **Substance Use**

*Alcoholics Anonymous (AA, Alateen)*  
*Alpha House - Alternatives, Inc.*  
*Community Crisis Center\**  
*Community Innovations Coalition Members*  
*Downtown Business Association\**  
*Drug Enforcement Agency Diversion Control*  
*Journey Recovery Program*  
*Narcotics Anonymous*  
*Indian Health Board of Billings, Inc.*  
*Passages - Alternatives, Inc.*  
*Rimrock Foundation*  
*Rocky Mountain Tribal Leaders Council\**  
*The Center for Children and Families\**

**Tobacco Use Prevention**

*American Lung Association of the Northern Rockies*  
*Billings Clinic\**  
*Billings Public Schools*  
*Montana Tobacco Quit Line*  
*RiverStone Health\**  
*St. Vincent Healthcare\**

**Individual Government Resources**

*City Councils & Mayors*  
*Yellowstone County Commissioners*  
*Yellowstone County Representatives, District 39 through District 56 – Montana Legislature*  
*Yellowstone County Senators, District 20 through District 28 – Montana Legislature*

# Appendices



## Appendix I: IRS Form 990, Schedule H Compliance

For non-profit hospitals, a Community Health Needs Assessment (CHNA) also serves to satisfy certain requirements of tax reporting, pursuant to provisions of the Patient Protection & Affordable Care Act of 2010. To understand which elements of this report relate to those requested as part of hospitals' reporting on IRS Form 990 Schedule H, the following table cross-references related sections.

| IRS Form 990, Schedule H (2015)   | See Report Page      |
|---|----------------------|
| <b>Part V Section B Line 3a</b><br><i>A definition of the community served by the hospital facility</i>   | 9                    |
| <b>Part V Section B Line 3b</b><br><i>Demographics of the community</i>   | 46                   |
| <b>Part V Section B Line 3c</b><br><i>Existing health care facilities and resources within the community that are available to respond to the health needs of the community</i> | 268                  |
| <b>Part V Section B Line 3d</b><br><i>How data was obtained</i>   | 8                    |
| <b>Part V Section B Line 3e</b><br><i>The significant health needs of the community</i>   | 18                   |
| <b>Part V Section B Line 3f</b><br><i>Primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups</i>               | Addressed Throughout |
| <b>Part V Section B Line 3g</b><br><i>The process for identifying and prioritizing community health needs and services to meet the community health needs</i>                   | 21                   |
| <b>Part V Section B Line 3h</b><br><i>The process for consulting with persons representing the community's interests</i>  | 11                   |
| <b>Part V Section B Line 3i</b><br><i>Information gaps that limit the hospital facility's ability to assess the community's health needs</i>                                    | 16                   |

## Appendix II: Public Health Accreditation

The Community Health Needs Assessment addresses the Public Health accreditation domains listed below. By its nature, the CHNA is a cooperative venture sponsored by The Alliance. It examines Yellowstone County and puts the county data into perspective with state and national data and benchmarks (Youth Behavioral Risk Survey, Healthy People 2020, etc.). Through this instrument and the associated community conversations, The Alliance identifies barriers to healthcare and learns what the community thinks are service gaps and assets. Ultimately, community health improvement plans and institutional strategic plans result from the CHNA and the community response to it.

### Adherence to Public Health Accreditation Standards

- ✓ Domain 1.1.2 L Complete a Tribal/local community health assessment
- ✓ Domain 1.2.2 L Participate in or conduct a Tribal/local partnership for the development of a comprehensive community health assessment of the population served by the health department
- ✓ Domain 5.2.1 L Conduct a process to develop community health improvement
- ✓ Domain 7.1.1 A Convene and/or participate in a collaborative process to assess the availability of health care services
- ✓ Domain 7.1.2 A Identify populations who experience barriers to health care services
- ✓ Domain 7.1.3 A Identify gaps in access to health care services

## Appendix III: Data Resources for Yellowstone County

- Title:** **Best Beginnings Neighborhood Needs Assessment**  
**Publisher:** United Way of Yellowstone County, Silvana Hackett  
**Data Included:** *Neighborhood-level secondary data*  
<https://www.unitedwayyellowstone.org/community-data>
- Title:** **National Citizen Survey: Billings, MT Community Livability Report - Final 2016**  
**Publisher:** National Research Center  
**Data Included:** *Opinion survey regarding the quality of life in Billings, MT*  
<http://ci.billings.mt.us/DocumentCenter/View/33426>
- Data Included:** *Supplemental Online Survey Results*  
<http://ci.billings.mt.us/DocumentCenter/View/33430>
- Title:** **State of the Workforce Report**  
**Publisher:** Big Sky Economic Development, BillingsWorks Workforce Council  
**Data Included:** *Local workforce data and direct employer input*  
<http://www.billingsworks.org/billingsworks-workforce-council/resources/>
- Title:** **Spring 2016 Economic Pulse**  
**Publisher:** Big Sky Economic Development, BillingsWorks Workforce Council  
**Data Included:** *Secondary economic indicators to show economic trends in Billings, MT*  
<http://www.bigskyeconomicdevelopment.org/wp-content/uploads/Economic-Pulse-Spring-2016.pdf>
- Title:** **2014 Citizen Survey Report**  
**Publisher:** Billings Parks and Recreation  
**Data Included:** *Community survey regarding the outdoor recreation needs of Billings, MT*  
<http://www.billingsparks.org/community-needs-assessment-results/>
- Title:** **2017 Complete Streets Progress Report**  
**Publisher:** Yellowstone City-County Planning and Community Services  
**Data Included:** *Primary and Secondary data regarding multi-modal transportation trends*  
<http://www.ci.billings.mt.us/documentcenter/>
- Title:** **2016 Community Transportation Safety Plan**  
**Publisher:** Yellowstone City-County Planning and Community Services  
**Data Included:** *Crash data and public opinion surveys analyzed to determine automobile - related injury statistics*  
<http://mt-billings3.civicplus.com/DocumentCenter/View/33404>
- Title:** **500 Cities: Local data for better health**  
**Publisher:** The Robert Wood Johnson Foundation and Centers for Disease Control & Prevention Foundation  
**Data Included:** *City- and tract-level secondary data*  
<https://www.cdc.gov/500cities/>

**Title:** 2016 Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire

*Publisher:* Montana Department of Public Health & Human Services

*Data Included:* Primary source for state-based information on health risk behaviors

<https://dphhs.mt.gov/Portals/85/publichealth/documents/BRFSS/Questionnaires/MTBRFSSQuestionnaire2016.pdf>

**Title:** County Health Rankings: Yellowstone County, MT

*Publisher:* The Robert Wood Johnson Foundation

*Data Included:* Health rankings compiled using county-level measures from a variety of national and state data sources

<http://www.countyhealthrankings.org/app/montana/2016/rankings/yellowstone/county/outcomes/overall/snapshot>

## Appendix IV: Yellowstone County Community Health Improvement Plan Progress to Date

### 2014-17 Workgroup Update

#### CHIP Goal: Improve Access to Health Services

##### *Workgroup Structure Updates*



#### **Access to Health Services Workgroup**

With its first meeting held in October 2014, this workgroup has found its most success from in shared communication and a couple “off shoot” conversations and projects as you will see reflected in the overview and workplan. We are convening this workgroup on a quarterly basis and continue to focus on our outlined strategies. We continue to seek engagement from healthcare providers beyond the three Healthy By Design sponsoring entities (Billings Clinic, RiverStone Health and St. Vincent Healthcare). Billings Area Indian Health Services, Rocky Mountain Tribal Leaders Council and the Veteran’s Administration have been invited. We are also interfacing with the Montana Family Medicine Residency through informal case studies offered at each meeting as well as trainings to the residents on the entire needs assessment and improvement plan process.

The *Super Utilizer Advisory Group* continues to guide the work of the grants supporting the examination and understanding of “super utilizers” or complex patients frequenting our emergency rooms and our hospitals. Work to develop a community pilot is being coordinated through a contracted project manager. This work continues to keep its pulse on the Health Information Exchange pilot underway with the Alliance (Billings Clinic, RiverStone Health and St. Vincent Healthcare), Verinovum, and Blue Cross Blue Shield.

Another sub-set of this workgroup is the *Medication Assistance Program task group*. With a charge of streamlining and offering consistent effective practices for medication assistance across the community, this team has met on an as-needed basis and includes the Alliance’s three pharmacy directors in addition to others as needed.

#### **Care Transitions Coalition**

This coalition is sponsored by Mountain Pacific Quality Health, a quality improvement organization focused on decreasing the cost of local Medicare patients by addressing care transitions and re-admissions of its population. This coalition is currently serving as the “boots on the ground” or “frontline” voice for a larger community conversation about how to appropriately manage complex patients who may be frequenting our hospitals and emergency departments. The chairs of this coalition are serving as representatives involved in the Super Utilizer Advisory Group to help keep the work of Healthy By Design strongly connected to the Care Transitions Coalition. Healthy By Design staff are also attending the coalition meetings.

**Interface with community and other priority areas**

In recognition of other work underway, we recognize the strong connection to our Mental Health and Substance Abuse priority as we pursue work with those complex patients in our community and look at and support resources such as Montana211. Related to both priorities, we continue to seek alignment with the Community Innovations Project efforts focused on downtown; particularly related to our “super utilizer” population as well as recent statewide and local dialogue regarding housing, including a Healthy By Design convened housing and healthcare conversation.

| Priority: Access                     |  | Goal: Improve Access to Health Services   |
|--------------------------------------|--|---|
| Workgroup                            | Core Activity Summary  | Access Objectives and Strategies  |
| <b>Access to Health Services</b>     | <p>On-going quarterly meetings are occurring including patient case study presentations from Montana Family Medicine Residents.</p> <p>Data and impacts of insurance open enrollment and Medicaid Expansion are being tracked, with promotion and education happening at each Alliance partner institution.</p> <p>Key conversations focusing on housing and healthcare have begun statewide and facilitated locally by Healthy By Design. An outcropping is there revitalization of the local Continuum of Care committee.</p>                  | <p><u>Objectives</u></p> <ul style="list-style-type: none"> <li>• <b>By 2017, the proportion of adults in Yellowstone County who have a specific source of ongoing care will increase from 81.7% to 85%.</b> (HP AHS-5) (4.03% change); Question: Is there a particular place that you usually go if you are sick or need advice about your health? If Yes, what kind of place is it: A Hospital-Based Clinic, A Clinic That is NOT Part of a Hospital, An Urgent Care/Walk-In Clinic, A Doctor's Office, A Hospital Emergency Room, Military or Other VA Healthcare, or Some Other Place. For the next assessment, we will be redefining "on-going care".</li> <li>• <b>By 2017, the proportion of adults in Yellowstone County who have visited a dentist or dental clinic in the past year will increase from 62.9% to 69%</b> (HP AHS 6.3) (9.69% change; addressing key area of concern)</li> <li>• <b>By 2017, the proportion of adults in Yellowstone County who are without health insurance will decrease from 16.7% to 15%</b> (HP AHS 1.1; 10.18% change; addressing key area of concern)</li> <li>• <b>By 2017, decrease proportion of adults in Yellowstone County who have used the ED more than once in past year from 5.8% to 5.2%.</b> (10.34% change; CHNA 2014: 5.8%, 7.8% among low income households; 8.6% in CHNA '10)</li> </ul> <p><u>Each of the following strategies support the objectives listed above:</u></p> <ul style="list-style-type: none"> <li>• Address patient management and implementation of the Patient Centered Medical Home model by identifying high risk unassigned patients and developing a management strategy in order to increase appropriate access, produce positive health outcomes, and reduce costs</li> <li>• Advocate for Medicaid expansion and access to healthcare and dental service programs that assist those with financial need (e.g. Medicaid, Healthy Montana Kids, Medication Assistance Program, Community Health Access Partnership) through the development and advocacy of an Alliance legislative agenda</li> <li>• Promote health insurance acquisition via the Health Insurance Marketplace or other avenues at each Alliance institution and develop a collaborative strategy to educate residents of Yellowstone County about what health insurance means and how to use it effectively. (continuum of "covered to care")</li> <li>• Promote the Montana Family Medicine Residency, Internal Medicine Residency, Dental Residency, and Pharmacy Residency programs and consider the development of other residencies that may offer pathways to appropriate workforce development.</li> <li>• Explore avenues of asset mapping along the continuum of care that provides residents of Yellowstone County access to resources and services.</li> </ul> |
| <b>Super Utilizer Advisory Group</b> | <p>The advisory group, led by a contracted project manager, continues to formulate a community model to address "super utilizers" (complex patients) with initial drivers for patient characteristics and data focused on the deliverables of the Special Innovations Project, being led by Mountain Pacific Quality Health. Pilot team is being hired.</p> <p>Opportunities for partnership and interface with Community Innovations and the Care Transitions Coalition continue to unfold.</p> <p>Updates given at each workgroup meeting.</p> |   |
| <b>MAP Task Group</b>                | <p>The three entities are working with both the care managers and at the pharmacy window to help with patients who cannot afford the medication or are pre-identified as unable to afford the medication. Increased on ongoing communication between pharmacist is occurring.</p> <p>Updates given at each workgroup meeting.</p>  |   |

| Community Health Improvement Plan |  |  |       |       |       |              |
|-----------------------------------|--|--|-------|-------|-------|--------------|
|                                   | Goal:<br>Improve Access to Health Services   | Question   | Data  |       |       | Goal 2017    |
|                                   |  |  | 2005  | 2010  | 2014  |              |
| Access to Health Services         | Objectives:  |  |       |       |       |              |
|                                   | By 2017, the proportion of adults in Yellowstone County who have a specific source of ongoing care will increase from 81.7% to 85%                   | [Adults 18+] Specific source of ongoing care   | 84.0% | 82.0% | 81.7% | 85%<br>81.3% |
|                                   | By 2017, the proportion of adults in Yellowstone County who have visited a dentist or dental clinic in the past year will increase from 62.9% to 69% | About how long has it been since you last visited a dentist or a dental clinic for any reason?   | 63.9% | 70.0% | 62.9% | 69%<br>68%   |
|                                   | By 2017, the proportion of adults in Yellowstone County who are without health insurance will decrease from 16.7% to 15%                             | [Adults 18-64] Insured Status  | 13.1% | 18.6% | 16.7% | 15%<br>7.4%  |
|                                   | By 2017, decrease proportion of adults in Yellowstone County who have used the ED more than once in past year from 5.8% to 5.2%                      | In the past 12 months, how many times have you gone to a hospital emergency room about your own health? This includes ER visits that resulted in a hospital admission. | 7.3%  | 8.6%  | 5.8%  | 5.2%<br>6.1% |



## CHIP Goal: Improve Healthy Weight Status

### *Workgroup Structure Updates*

#### **Healthy PLACEs (Built Environment and Health Equity)**

In December 2015, the co-leads of the Built Environment and Health Equity workgroups determined to merge into one workgroup, ultimately renamed the Healthy PLACEs (*Promoting Livability, Access, and Collaboration for Equity*) workgroup based on alignment of goals, activities, and objectives. Many will recognize the Healthy Places name, which was the original moniker of the Healthy By Design coalition. The first portion of 2016 has been dedicated to thoughtful collaboration of existing initiatives and introduction of meaningful joint efforts, such as active transportation at the Gardeners' Market. Respective workgroup work plans have not yet been merged for the purposes of this progress report.

#### **Ready Community Workgroup**

Recognizing a unique opportunity to collaborate on the issue of hunger in our community, the Healthy By Design Coalition has co-initiated a more formal partnership with the Best Beginnings Council of the United Way of Yellowstone County to co-convene the Ready Community workgroup. This workgroup is focused on decreasing the number of Yellowstone county children who arrive at school hungry as well as increasing access to healthy, nutritious food among low income Yellowstone County families. A work plan for this newly established workgroup has been newly included in this CHIP progress report under the Healthy Weight priority.

#### **Wellness**

The Wellness workgroup remains unchanged and will continue to focus on worksite wellness and event recognition.

#### **Other Healthy Weight Initiatives**

Members of the Healthy Weight workgroups continue to collaborate with other community partners and organizations in Yellowstone County, some of which is not captured within a specific workgroup. One such project is the Healthy Kids, Healthy Families initiative, funded by a grant from Blue Cross Blue Shield of Montana and co-coordinated by Healthy By Design and Big Sky State Games. This project aims to promote lifestyle-based wellness, with an emphasis on physical activity and nutrition, among middle school and high school age students in Yellowstone County through the development of a School Wellness Champion model.

| Healthy Weight    |   | Goal: Improve Healthy Weight Status  |
|-------------------|---|--|
| Workgroup         | Core Activities   | Healthy Weight Objectives (HWO) and Strategies   |
| Built Environment | <p><b>Complete Streets:</b> Support implementation of the city's 2011 Complete Streets policy through the 2016 Benchmark Report update and development of tools</p> <p><b>Complete (Walkable) Neighborhoods:</b> Investigate walkability and connectivity of Billings-area neighborhoods to promote physical activity and access to resources</p>   | <p><b>HWO 1: Increase percentage of people that have received advice about weight by a doctor, nurse, or other health professional</b> (<i>Note – this work was previously undertaken by the Healthy Weight workgroup, which is no longer active</i>)</p> <ul style="list-style-type: none"> <li>• Increase number of primary care patients who have had their Body Mass Index (BMI) calculated</li> <li>• Increase number of patients having healthy weight plan with BMI outside of healthy range</li> </ul> <p><b>HWO 2: Decrease percentage of people with no leisure-time physical activity in past month</b></p> <ul style="list-style-type: none"> <li>• Increase the number of workplaces adopting Healthy By Design physical activity guidelines (<b>Health Equity, Wellness</b>)</li> <li>• Increase the proportion of commuters who use active transportation (i.e. walk, bicycle and public transit) to travel to work (<b>Built Environment, Health Equity, Wellness</b>)</li> <li>• Increase awareness of gender-based physical activity disparities (<b>Health Equity</b>)</li> <li>• Support Yellowstone County area school-based efforts to increase students' physical activity (<b>Built Environment, Health Equity</b>)</li> </ul> <p><b>HWO 3: Increase number of people that eat 5 or more servings of fruit and vegetables per day</b></p> <ul style="list-style-type: none"> <li>• Increase the number of workplaces adopting Healthy By Design nutrition guidelines (<b>Health Equity, Wellness</b>)</li> <li>• Increase the number of community events applying for and achieving Healthy By Design recognition (<b>Wellness</b>)</li> <li>• Advocate for access to healthy foods for low-income individuals and families (i.e. WIC, SNAP, food pantries, etc.) (<b>Built Environment, Health Equity, Ready Community</b>)</li> <li>• Support Yellowstone County area school-based efforts to increase students' daily consumption of fruits and vegetables (<b>Built Environment, Health Equity, Ready Community</b>)</li> </ul> <p><b>Overarching strategies:</b></p> <ul style="list-style-type: none"> <li>• Promote the use of the 5-2-1-0 awareness campaign (<b>Health Equity, Wellness</b>)</li> <li>• Support the valuation of the built environment as it relates to health and safety (<b>Built Environment</b>)</li> </ul> |
| Health Equity     | <p><b>Gardeners' Market:</b> Facilitation of weekly Gardeners' Market at South Park from June through October</p> <p><b>Active Living Every Day class series/Office of Women's Health Project:</b> Promote physical activity, with a focus on gender-based physical activity opportunities, through a 10-12 week class series</p>   |  |
| Wellness          | <p><b>Worksite Wellness Demonstration Project:</b> Partner with small area business to pilot a series of worksite wellness practices, rooted in policy, systems, and environmental interventions to create a culture of wellness</p> <p><b>Recognition (Event):</b> Encourage local event organizers to promote events that meet Healthy By Design criteria, further exploration into recognition of food vendors, businesses, etc.</p> <p><b>Online Resource Development:</b> Development and/or tailoring of wellness tools for community use</p> |  |
| Ready Community*  | Anticipated efforts will focus on increased access to food for low income residents including an examination of food distribution resources and sites.  |  |

| Community Health Improvement Plan |   |   |           |           |       |               |
|-----------------------------------|---|---|-----------|-----------|-------|---------------|
|                                   | Goal:<br>Improve Healthy Weight Status  | Question  | Data      |           |       | Goal 2017     |
|                                   |   |   | 2005      | 2010      | 2014  |               |
| Healthy Weight                    | Objectives:   |   |           |           |       |               |
|                                   | By 2017, the proportion of adults in Yellowstone County who have a healthy weight (normal BMI range: 18.5-24.9) will increase from 31.9% to 35%               | Weight Status (height and weight)   | 35.8%     | 25.4%     | 31.9% | 35%<br>32.1%  |
|                                   | By 2017, the proportion of adults in Yellowstone County reporting no leisure-time physical activity in the past month will decrease from 23.7% to 21.25%      | During the past month, other than your regular job, did you participate in any physical activities or exercises, such as running, calisthenics, golf, gardening, or walking for exercise? | 26.3%     | 22.4%     | 23.7% | 21.25%<br>18% |
|                                   | By 2017, the proportion of adults in Yellowstone County who eat 5 or more servings of fruit and vegetables per day will increase from 40% to 44%              | 5 or more servings of Fruits/Vegetables per day   | 34.9%     | 40.6%     | 40.1% | 44%<br>30.8%  |
|                                   | By 2017, the proportion of Children in Yellowstone County who are physically active for one or more hours per day (ages 2-17) will increase from 42.8% to 47% | During the past 7 days, on how many days was this child physically active for a total of at least 60 minutes per day?   | Not asked | Not asked | 42.8% | 47%<br>70.8%  |

## **CHIP Goal: Improve Mental Health and Reduce Substance Abuse**

### *Workgroup Structure Updates*

#### **Mental Health Workgroup**

2015 was a tremendous building year for the newly co-convened work group. We saw great interest and attendance from community organizations, but recognized opportunity to engage members more strategically around products and outputs. In October 2015 work began on restructuring the workgroup to better serve both Best Beginnings and Healthy By Design objectives. With decisions to create a leaner workgroup, 2016 has been more productive and task oriented towards specific products.

#### **DE-STRESS Grant Project**

The DE-STRESS project continues to provide direction and funding for our work towards improved mental health in our community. Many project objectives are moving forward with additional partners, new trainings for specific populations, and assessment tools for organizations. Sub-award partners brought on to go through trauma-informed care training include: Rimrock, YWCA, Rocky Mountain Tribal Leaders Council, Angela's Piazza, Big Brothers Big Sisters of Yellowstone County, CASA of Yellowstone County, District 7 HRDC, Family Promise of Yellowstone Valley, Family Support Network, Family Tree Center, and Yellowstone Boys & Girls Ranch.

A few highlights include a new Montana211 website housing a variety of current resources, the established Mental Health Clinic at Walla Walla University – Billings and trauma-informed workforce development for students from attending local universities.

#### **Mindfulness Task Group**

As part of the DE-STRESS grant, this task group was developed and recognized in 2015. They continue to provide leadership and direction for offering mindfulness classes and training trainers for the program. In addition to a 6-week class on mindfulness, they have begun to test 1-day intensive trainings as well.

#### **Suicide Prevention Coalition of Yellowstone Valley**

While not an "official" Healthy By Design workgroup, the coalition continues to align their work with the CHIP. Providing suicide prevention training and educational opportunities remains the focus of the coalition.

#### **Community Advocates for Student Mental Health**

A new group formed spring of 2016 that is made up of various partners who are engaging school district leaders to better assist teachers, parents and students. The purpose of this group is to strategically coordinate trainings, resources and other school-based opportunities to increase student wellbeing.

**RiverStone Health – Montana Tobacco Use Prevention Program (MTUPP)**

While the majority of work in the report focuses on mental health, we have included the MTUPP program at RiverStone Health to capture their efforts to reduce tobacco use, a specific objective of the CHIP.

| <b>Mental Health and Substance Abuse</b>                                  |   |   |
|---|---|---|
| <b>Goal: Improve Mental Health and Reduce Substance Abuse</b>             |   |   |
| <b>Workgroup</b>  | <b>Core Activities</b>  | <b>Strategies by Mental Health and Substance Abuse Objective</b>  |
| <b>Mental Health Advisory Workgroup (MHWG)*</b>                           | <p><b>Advisory for DE-STRESS Grant:</b> Support the DE-STRESS grant by providing guidance to grant products and activities.</p> <p><b>Community Collaboration:</b> Monthly meetings to identify common areas of community impact and including opportunities for networking, coordinating efforts and partnering.</p>   | <p><b>Objective #1: Increase the proportion of adults in Yellowstone County who report their mental health as being good, very good, or excellent in the past 30 days</b></p> <ul style="list-style-type: none"> <li>Identify, support, convene, and/or engage in community – collaborative work focused on the area of mental health in order to address commination and treatment gaps (MHWG) (MTG)</li> <li>Increase access to behavioral health specialist in primary care settings. (DE-STRESS)</li> <li>Increase capacity for trauma-informed care education, promotion, collaboration and implementation. (MHWG) (MTG) (SPCYV) (DE-STRESS)</li> </ul> <p><b>Objective #2: Decrease the reported suicide rate in Yellowstone County</b></p> <ul style="list-style-type: none"> <li>Support Suicide prevention by increasing the number of people in the community who have received suicide prevention training. (SPCYV) (CASMH)</li> </ul> <p><b>Objective #3. Reduce the proportion of adults in Yellowstone County who report smoking cigarettes.</b></p> <ul style="list-style-type: none"> <li>Promote and encourage policy opportunities related to smoke free/tobacco free facilities, campuses, worksites, or public spaces. (MTUPP)</li> </ul> <p><b>Overarching strategies:</b></p> <ul style="list-style-type: none"> <li>Explore avenues of asset mapping to provide residents of Yellowstone County access to resources and services</li> <li>Support advocacy efforts to reduce gaps in prevention, as well as support treatment for co-occurring disorders and treatment of family units.</li> </ul> |
| <b>Suicide Prevention Coalition of Yellowstone Valley (SPCYV)</b>         | <p><b>Conference for Suicide Prevention:</b> Annual event raising awareness and teaching skills to prevent suicide to a variety of professionals and general community members.</p> <p><b>Gatekeeper Suicide Prevention Training:</b> Coordinated training provided to community groups to help suicide prevention. Trainings include: QPR, safeTALK, ASSIST and Talk Saves Lives.</p>  |   |
| <b>Mindfulness Task Group (MTG)</b>                                       | <p><b>Mindfulness Classes:</b> Provide a mindfulness program for stress reduction. 6-week classes offered to health care providers.</p> <p><b>Training of trainers:</b> Train the trainer program to bring on new mindfulness trainers.</p>   |   |
| <b>DE-STRESS Grant Partners (DE-STRESS)</b>                               | <p><b>Training and Organizational Assessment:</b> Trauma-informed care training for local organizations aimed to spread awareness and build skills for individual and organizational response.</p> <p><b>Mental Health Directory:</b> Up-to-date electronic database for mental health resources.</p> <p><b>Mental Health Clinic:</b> South-side student led mental health clinic serving low-income individuals and families.</p> <p><b>Student Supervision:</b> Walla Walla MSW and MSUB LCPC students receiving clinical supervision and workforce development opportunities</p> |   |
| <b>Community Advocates for Student Mental Health (CASMH)</b>              | <p><b>Training for Teachers:</b> Coordinated mental health support for teachers. Strategically providing teachers resources, training and strategies for helping students in the areas of trauma and suicide prevention and crisis intervention.</p>  |   |
| <b>RiverStone Health - Montana Tobacco Use Prevention Program (MTUPP)</b> | <p><b>Tobacco Free Policy Promotion:</b> Advocate for tobacco free policies and places.</p> <p><b>Tobacco Prevention Education:</b> Tobacco prevention education in the schools</p>   |   |

\* Co-convened by Healthy By Design and the Best Beginnings Council of the United Way of Yellowstone County

### Community Health Improvement Plan

|  | Goal:<br>Improve Mental Health and Reduce Substance Abuse  | Question   | Data             |                  |                  | Goal 2017                            |
|--|--|--|------------------|------------------|------------------|--------------------------------------|
|  |  |  | 2005             | 2010             | 2014             |                                      |
| Mental Health & Mental Disorders and Substance Abuse | Objectives:  |  |                  |                  |                  |                                      |
|  | By 2017, the proportion of adults in Yellowstone County who report their mental health as being good, very good, or excellent in the past 30 days will increase from 89.4% to 94%  | Now thinking about your MENTAL health, which includes stress, depression and problems with emotions, would you say that, in general, your mental health is:  | 93.1%            | 89.9%            | 89.4%            | 94%<br>86.6%                         |
|  | By 2017, the reported suicide rate in Yellowstone County will be reduced from 17.3 deaths per 100,000 to 16.3 per 100,000 population   | Data extracted from CDC WONDER online query system   | 14.3 per 100,000 | 16.6 per 100,000 | 17.3 per 100,000 | 16.3 per 100,000<br>22.8 per 100,000 |
|  | By 2017, reduce the proportion of adults in Yellowstone County who report drinking chronically from 7.1% to 6.4%   | Chronic Drinker (60 or more drinks in the past month) *BRFSS/PRC calculation changed. Now “ <b>heavy drinking</b> ” 60+ drinks/mo.-men; 30+ drinks/mo.-women; for comparison, calculated for 2014:rate was 10.8%   | 3.2%             | 3.2%             | 7.1%             | 6.4%<br>11.1%*                       |
|  | By 2017, pursue at least one policy focused opportunity related to chronic pain and opioid abuse that will positively impact the residents of Yellowstone County   | <p><i>Comments: The 2013 legislature passed an interim study bill on prescription drug abuse. The Children, Families, Health and Human Services Interim Committee studies the issue June 2013 – Sept. 2014 and forwarded three bills for consideration to the 2015 legislature:</i></p> <p><i>SB 9 – Allow sharing of certain health care information with law enforcement (did not pass)</i></p> <p><i>SB 8 – Allow electronic prescribing of controlled substances prescriptions (passed)</i></p> <p><i>SB 7 – Revise and extend the prescription drug registry fee (passed)</i></p> <p><i>The 2017 legislature will consider a bill to revise sunset dates related to funding of prescription drug registry. Additionally, they will also consider authorizing DPHHS spending authority for a cooperative agreement from the Centers for Disease Control and Prevention focused on coordinating efforts in Montana to address the problem of prescription drug overdose and heroin. The idea is to come up with a state plan.</i></p> |                  |                  |                  |                                      |
|  | By 2017, reduce the proportion of adults in Yellowstone County who report smoking cigarettes from 11.7% to 10.5%   | Smoking Status   | 18.3%            | 13.8%            | 11.7%            | 10.5%<br>19.6%                       |
|  | By 2017, pursue at least one policy focused opportunity related to smoke free/tobacco free facilities, campuses, worksites, or public spaces (e.g. parks, housing) that will positively impact the residents of Yellowstone County | <p><i>Comments: there is continued advocacy for tobacco-free parks; Partnership-building continues as well as awareness of position. Advocacy has occurred through their strategic planning key informant interviewing conducted by the local parks and recreation department in addition to public comment and survey opportunities.</i></p>  |                  |                  |                  |                                      |