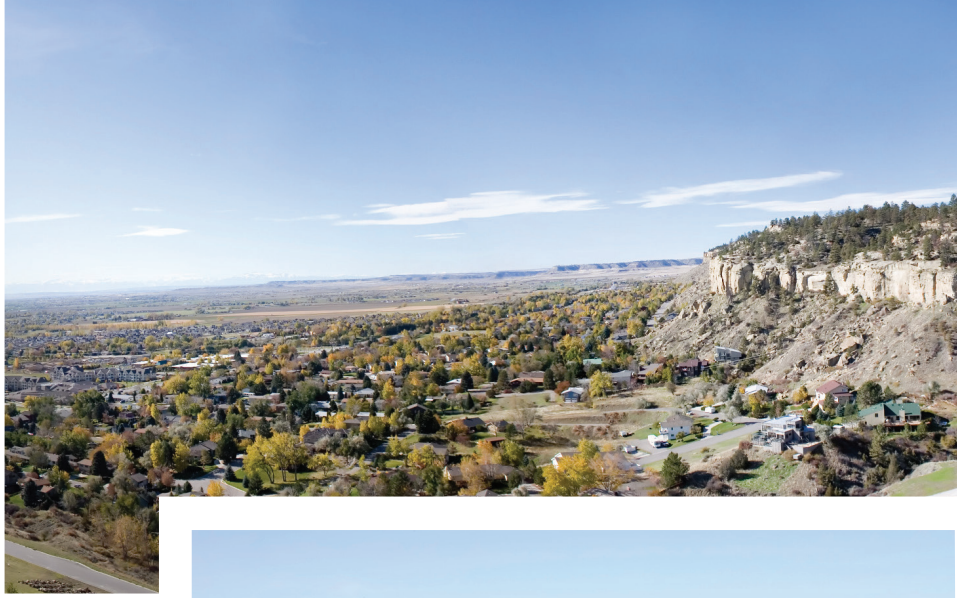
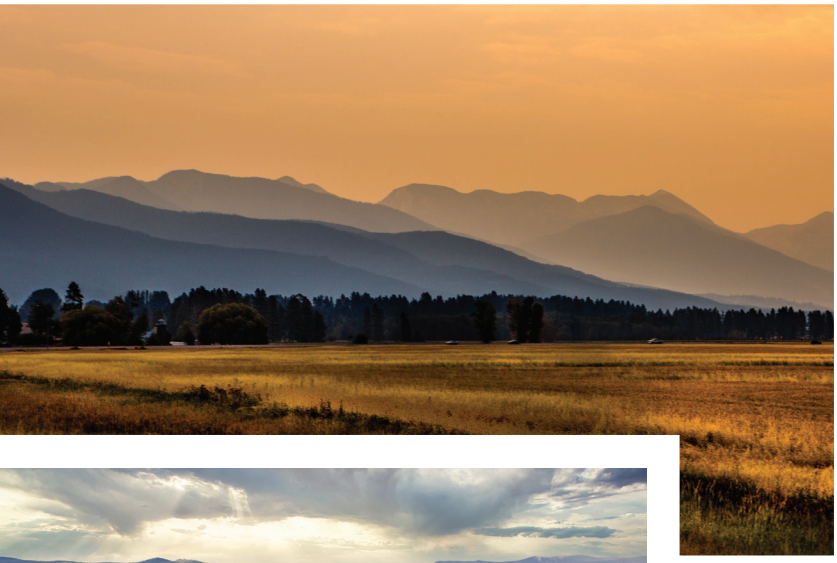




2023 Montana State Health Assessment

DEPARTMENT OF
PUBLIC HEALTH &
HUMAN SERVICES

Published 2025

The 2023 State Health Assessment provides a broad overview of the current health of Montanans.

2023 STATE HEALTH ASSESSMENT

Introduction

PURPOSE OF THE STATE HEALTH ASSESSMENT (SHA)

The 2023 SHA provides a broad overview of the current health of Montanans. This assessment presents data from a variety of sources and covers health issues spanning all aspects of a person's life: from birth to death, physical health to mental health, and communicable disease to chronic conditions. This report also describes a few of the many factors that influence Montanans' health, called "foundations of health." Specifically, the 2023 SHA focuses on four foundations of health that were identified to be of most importance to Montanans during the community engagement portion of development: adverse childhood experiences (ACEs) and resiliency, substance use, availability and affordability of care, and basic needs.

The SHA also identifies existing and emerging health issues, including issues disproportionately affecting specific populations. The findings from the 2023 SHA will be used to identify priority areas to improve health, including population-level strategies and measurable outcomes included in the 2024 State Health Improvement Plan (SHIP).

STATEWIDE AND NATIONAL HEALTH IMPROVEMENT PLANNING

The Public Health Accreditation Board (PHAB), a voluntary accreditation process undertaken by the Public Health and Safety Division (PHSD), establishes the criteria for assessing and improving population health. This process includes the development of the State Health Assessment (SHA) and corresponding State Health Improvement Plan (SHIP) every five years (PHAB, 2022). Ideally, public health partners throughout Montana will align their internal strategic plans with the SHIP.

State Health Assessment: Identify Concerns ▶ **State Health Improvement Plan:** Prioritize from among the concerns ▶ **Strategic Plans:** Organizations devote resources to accomplish

The five-year health assessment and improvement planning cycle is intended to mirror the ten-year health improvement cycle undertaken by the U.S. Department of Health and Human Services (US DHHS) and the Office of Disease Prevention and Health Promotion (ODPHP) (2020a) through their Healthy People program. Healthy People is a nationwide initiative that sets a comprehensive framework and objectives for improving the health and well-being of the population over the course of the next decade. The latest framework addresses goals for 2030. It provides a roadmap for addressing health disparities, promoting health equity, and setting evidence-based goals and objectives across a range of health topics. The PHSD has been awarded status as a Healthy People 2030 Champion.

The first iteration of the 5-year SHA and SHIP cycle occurred in 2013 and was repeated in 2019. The 2023 SHA reflects the third round of a continuous quality improvement process to provide a useful tool for public health agencies and partners statewide. This process promotes equal opportunity for all Montanans to make choices that lead to good health for them and their families.

The five-year health improvement planning cycle relies heavily on community-level health assessments and improvement plans developed by local and Tribal health departments and non-profit hospitals. These plans have been assessed to identify the top shared priorities from communities across the state and are included within this report.

PROCESS

The process to develop the 2023 SHA started in January 2022 when a team of eight PHSD staff developed the community engagement period goals and timeline for the SHA. View the SHA Companion Report: Engagement Period Summary online at the **A Healthier Montana** website for more details about this planning period.

After the community engagement period ended, the SHA Design Team, a group of approximately 60 members, met through January 2023 to provide guidance on the structure of the SHA. Community engagement and feedback opportunities, as well as communication with Tribal Nations, continued throughout the entire drafting and publication process of the SHA and will continue throughout the upcoming five-year planning cycle. You can find a one-page summary of how public engagement shaped this State Health Assessment in **Appendix A.**

Evaluation Questions

The SHA is designed to answer four evaluation questions:

1. To what extent has the health of Montanans changed since the last State Health Assessment?
2. What are the factors influencing health according to Montanans?
3. To what extent do the data support continued focus on the 2019 SHIP priorities?
4. What additional health concerns have emerged since the 2019 SHIP was developed that should be considered for prioritization in the next SHIP?

SOME WORDS USED TO DESCRIBE DATA ARE:

Primary Data
Data collected by you

Secondary Data
Data collected by someone else

Qualitative Data
Words, like from focus groups and interviews

Quantitative Data
Numbers, like from surveys with multiple choice questions

Learn more about population health data sources with the **Public Health Data Resource Guide**

Data Analysis

The State Health Assessment relies heavily on secondary quantitative data from the Behavioral Risk Factor Surveillance System (BRFSS), Montana Vital Statistics Database, and the Montana Emergency Department and Hospital Discharge Database. Additional data sources are cited throughout and available for review in the references section.

Primary quantitative data collection has also occurred in many of the sources cited in the SHA, including recent topic-specific needs assessments and surveys of specific populations. Primary qualitative data were used in the design of the SHA and collected during the community engagement period.

LIMITATIONS

The SHA is a summary report of data and statistics reflecting the entire population of Montana; it categorizes populations and community groups in relationship to data analysis. As a result, it cannot display all meaningful indicators of health and well-being or describe specific populations in entirety. A report summarizing the health of the state is not capable of describing or fully capturing individual experiences; rather, the intention is to investigate the system. This report is a snapshot in time from when it was written in 2023 and has been designed to highlight, not duplicate, existing reports and data sources on a variety of topics.

Population data for counties and regions are available in the Community Health Insights in the 406 dashboard. The **Community Health Data Resource Guide** is an excellent source of more information about Montana counties and reservations, as are the community-level assessments and plans from health departments and non-profit hospitals via the **Local Health Planning Dashboard**. More information is also available in topical reports at **dphhs.mt.gov** and partner websites.

Throughout the 2023 SHA, the only population groups directly compared are by sex (male and female) and county of residence. Other population groups are compared with Montana overall.

However, due to the disparity of age at death between white Montanans and American Indian or Alaska Native (AI/AN)Montanans, statistics about mortality rates are provided that directly compare white and AI/AN Montanans in order to better understand the contributor(s) to the disparity.

Additional considerations include, but are not limited to:

- The SHA relies heavily on survey data, such as the BRFSS, which is an annual telephone survey that collects self-reported data on health from the respondents. Self-reported data are subject to response bias, in which participant responses may not be truthful or reflect their lived experience.
- Most data collected by the government, including public health data, take a long time to be collected, cleaned, and made ready for analysis. While some data points in the SHA are from 2023, many are from 2022 or earlier and may not be reflective of the most current trends in the state.
- Public health data may not reflect all population groups equally. For example, people who are experiencing homelessness may not have their health status reflected in datasets such as the BRFSS, which requires a phone for responding.

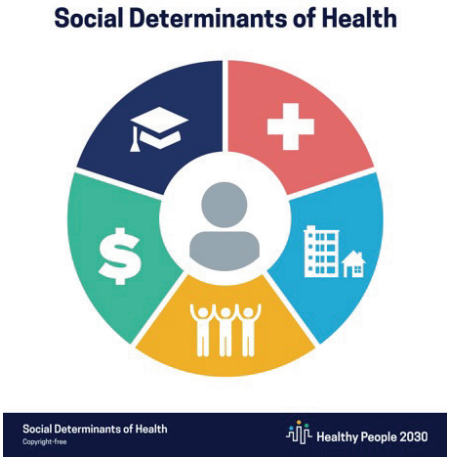
Data do not tell the entire story of a population or community and our interpretation of data is influenced by personal values, beliefs, and assumptions we develop over our lifespan. Consider the following questions from the **Montana Community Health Data Resource Guide** as you read the SHA:

1. Do the data reflect what I see in my community?
2. Do the data reflect all the populations in my community?
3. Who needs to be at the table to discuss what these data points mean for our community?
4. What other data do I need to collect to have a better picture of health in my community?
5. How do these data contribute to differences in health status for groups in my community that are unfair and can be changed?
6. What year(s) do these data reflect? What has happened since they were published and how could those events have influenced a difference between the reported data and our current lived experience?

Demographics

Foundations of health are the pillars of communities that support our way of life. To have a solid foundation of health, different pillars of a community must reinforce each other. These foundations encompass a wide range of social, economic, and environmental factors that influence people's health experiences and outcomes. The following section describes three foundations of health: social and community context, economic stability, and health care access and quality. However, none of the foundations of health exist in isolation from the others. Much of the data included in one of the sections, such as social and community context, could fall under or be influenced by at least one, if not all, of the other foundations of health.

Understanding and addressing the foundations of health are essential for creating lasting health improvement in Montana. Demographic and socioeconomic factors such as age, sex, income, education, access to nutritious food, safe housing, social support networks, and nonexclusive opportunities to participate in healthy choices for people and their families create differences in health between groups that are unfair, identifiable through quantitative data analysis, and can be changed.



Key Social Factors Influencing Native American Health in Indian Country (2022) presents a similar framework to Healthy People 2030 but specifically for American Indian health.

As Healthy People 2030 Champions, the PHSD utilizes the **Healthy People 2030 Social Determinants of Health framework** in much of its work. This framework includes five domains that are defined as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks" (US DHHS & ODPHP, 2020a).

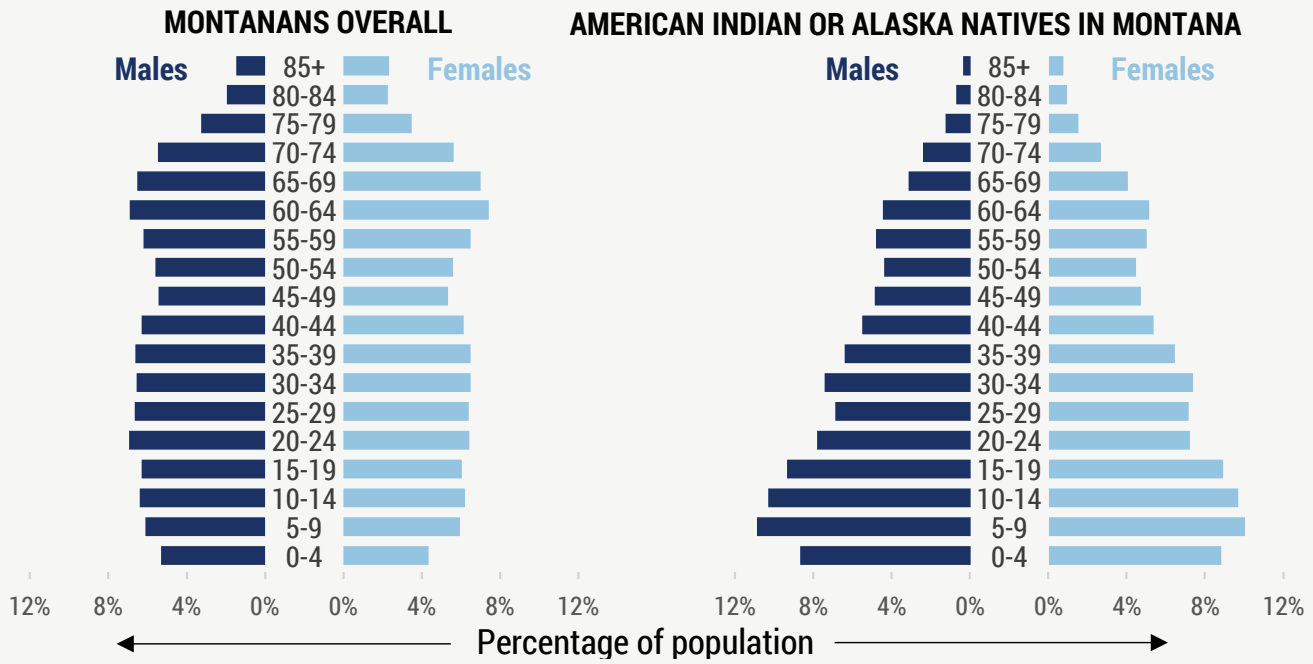
SOCIAL AND COMMUNITY CONTEXT

In 2022, there were an estimated 1,122,867 people living in Montana and almost 9 in 10 Montanans identified as White (87%). Montana's population increased 6.5% from 2017 to 2022. This is a greater population growth than the overall US population, which increased 2.5% during the same period. (Montana Census and Economic Information Center [MT CEIC], 2022)

About 96% of Montanans identified as a single race, including about 6% who identify as American Indian and Alaska Native. A smaller percentage reporting a single race identified as Asian (0.8%), Black (0.6%), and Pacific Islander and Native Hawaiian (0.1%). However, almost 5% of Montanans identified as more than one race, predominantly American Indian and Alaska Native and White (1.8%), followed by Asian and White (0.5%) and Black and White (0.4%). About 4% identified as being of Hispanic or Latino ethnicity. (MT CEICa, 2021)

Find the most recent statewide and community-specific demographic changes in the Montana Department of Commerce Community Profiles for demographic, economic, and social characteristics.

The median age of Montanans overall was 40 years, while the median age of American Indian or Alaska Native Montanans was 28.2 years.



Most Montanans aged 5 years and older only spoke English at home (96%). The remaining 4% are described below. (MT CEICa, 2021)

Languages other than English spoken at home among Montanans aged five years and older.

LANGUAGE	COUNT	PERCENT
Spanish	14,545	1.4%
Other Indo-European languages	12,239	1.2%
Asian and Pacific Islander languages	5,620	0.6%
Other languages	8,259	0.8%

Languages spoken by refugees, humanitarian parolees, asylees, and other newcomers to the United States that have resettled in Montana, including (in alphabetical order): Arabic, Dari, Farsi, French Haitian Creole, Pashto, Russian, Spanish, Swahili, Tigrinya, Turkish, and Ukrainian. (MT Resettlement Program, 2023)

Native languages preserved and spoken by indigenous peoples in Montana include: Assiniboine, Blackfeet, Cheyenne, Cree, Crow, Gros Ventre, Montana Salish, and Salish. (Montana Budget and Policy Center [MBPC], 2019)

About 1 in 3 (31%) adult Montanans had children living at home with them (MT BRFSS, 2021). Of the more than 15,000 grandparents who lived in the same home as their grandchildren under 18 years of age, half (49.7%) were responsible for caring for those grandchildren (MT CEICa, 2021). Families with children who are too young to be enrolled in public school rely on limited childcare options in Montana. Licensed childcare capacity met only 43% of estimated demand in the state and 59% of counties were identified as childcare deserts; there was one childcare slot for every four infants and toddlers in Montana (Kids Count Montana, 2022). There were six counties without any licensed childcare providers (MT DLI, 2023a).

Community Assessment Survey for Older Adults, 2022, MT DPHHS

Child Care Capacity and Subsidy Authorizations Dashboard, MT DPHHS

Childcare Supply and Demand in Montana, 2023, MT DLI

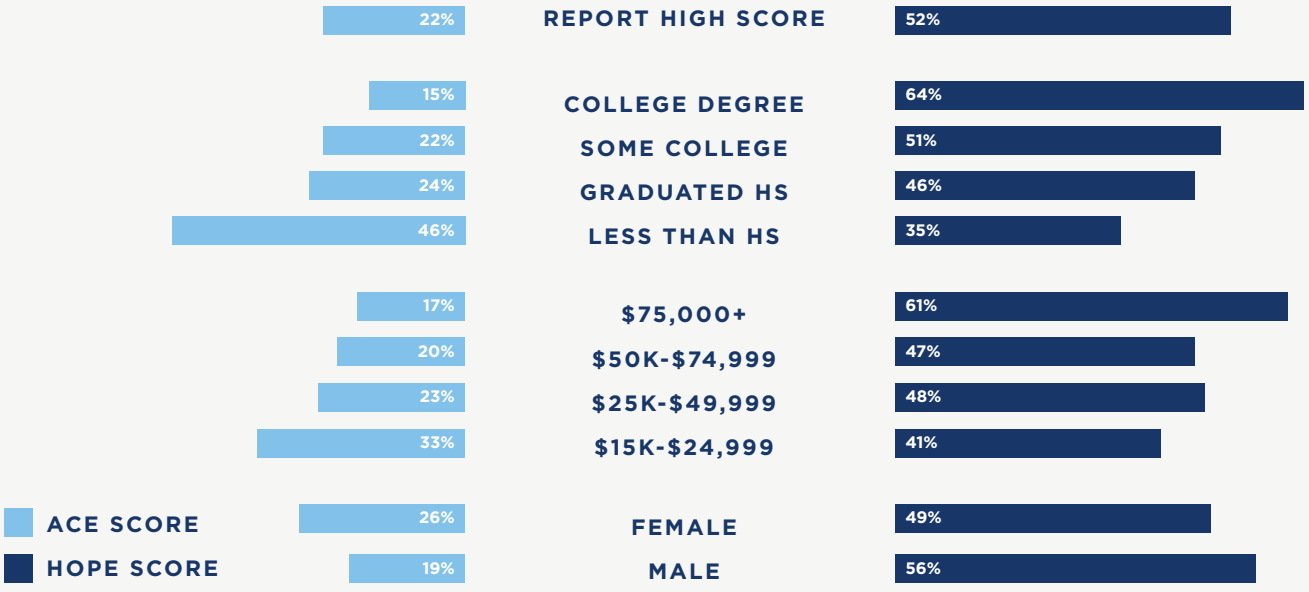
Montana ACEs and Resiliency Resource website, 2019 SHIP ACEs Working Group.

2022 HOPE Report: Positive Childhood Experiences and Adult Substance Use, the Montana Institute & University of Washington

Support for young families and children is a strong upstream prevention activity for public health as early childhood experiences, both positive and negative, are associated with mental and physical health throughout the lifespan (Centers for Disease Control and Prevention [CDC], 2021). Adverse Childhood Experiences (ACEs) are potentially traumatic experiences that occur in childhood from age 0 to 17 years (CDC, 2021). Health Outcomes from Positive Experiences (HOPE) are the opposite: positive experiences that can ease toxic stress and promote resiliency in adulthood (Tufts, 2023).

ACEs are highly correlated with foundations of health for Montana adults. Having a high ACE score was more common among adults with less education and adults with lower household income than among adults with more education and higher household income. ACEs were also more common among women in Montana than among men (BRFSS, 2019). Similarly, a high HOPE score was correlated with other foundations of health, including having a college degree and making more than $75,000 a year. Men in Montana were significantly more likely to have a high HOPE score compared with women (BRFSS, 2020).

About 1 in 5 Montana adults reported a high **ACE** score (4-8) in 2019 and about half reported a high **HOPE** score (6-7) in 2020.



SOCIAL VULNERABILITY INDEX (SVI)

The Social Vulnerability Index (SVI), developed by the CDC and the Agency for Toxic Substances and Disease Registry (ATSDR), is a tool used to describe the relative social vulnerability of every census tract in the U.S. The SVI ranks census tracts based on 16 social factors that contribute to a community's susceptibility and resilience to hazards. Higher SVI scores indicate higher vulnerability to an emergency. Communities are then placed into four groups or quartiles with each quartile representing a different level of social vulnerability. The first quartile includes the communities with the lowest level of social vulnerability, meaning they are better equipped to handle emergencies or disasters. These communities have more resources, such as higher income levels, better access to healthcare, and stronger infrastructure. On the other hand, the fourth quartile includes the communities with the highest level of social vulnerability. These communities have fewer resources and are more likely to face challenges during emergencies. (CDC & ATSDR, 2023)

The SVI rankings for Montana's counties reflects **disadvantage in the state's counties;** rural counties have a median SVI score of **24.5** while urban counties have a median score of **10.9.**

Explore the Social Vulnerability Index Interactive Map.

Montana has 11 counties ranked in the top quartile nationwide for the SVI themes of socioeconomic status and household characteristics. However, when comparing Montana counties to other Montana counties, instead of counties nationwide, they fall into the quartiles as shown below.

Montana counties by SVI quartile, grouped in alphabetical order.

LOW VULNERABILITY	LOW-MED VULNERABILITY	MED-HIGH VULNERABILITY	MED-HIGH VULNERABILITY
Broadwater	Dawson	Beaverhead	Big Horn
Carbon	Fallon	Carter	Blaine
Daniels	Fergus	Chouteau	Cascade
Gallatin	Flathead	Custer	Deer Lodge
Garfield	Golden Valley	Lewis and Clark	Glacier
Jefferson	Granite	Liberty	Hill
Judith Basin	Park	Mineral	Lake
Madison	Pondera	Missoula	Lincoln
McCone	Prairie	Phillips	Musselshell
Meagher	Sheridan	Ravalli	Pondera
Petroleum	Teton	Richland	Roosevelt
Powder River	Treasure	Silver Bow	Rosebud
Stillwater	Wheatland	Valley	Sanders
Sweet Grass	Wibaux	Yellowstone	Toole

RURALITY

There are many ways to define a rural or frontier community depending on which state or federal program is involved (Rural Health Information Hub [RHIHub], 2022). PHSD uses the National Center for Health Statistics (NCHS) urban-rural scheme, which groups counties into six levels of urbanicity (2017). Only three levels apply to Montana communities:

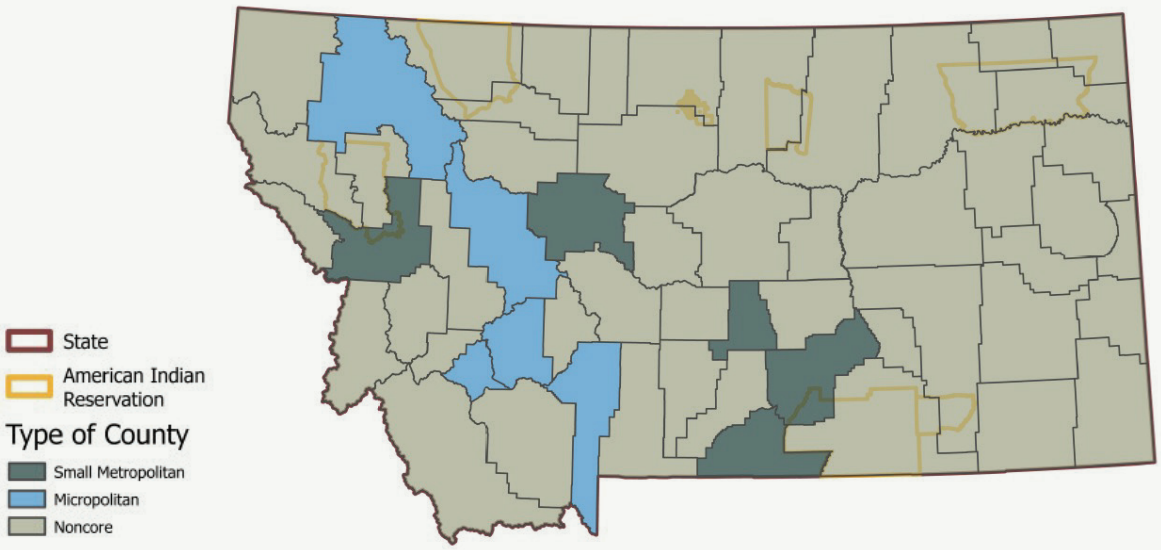
- Small metropolitan,
- Micropolitan, and
- Non-core or rural.

Montana has five small metropolitan counties (Missoula, Cascade, Golden Valley, Yellowstone, and Carbon), five micropolitan counties (Flathead, Lewis and Clark, Jefferson, Silver Bow, and Gallatin), and the remaining 46 counties are classified as non-core or rural.

Identify whether your community is defined as urban, frontier, or somewhere in between using the Rural Health Information Hub "Am I Rural?" tool.

Given that 46 of 56 counties are classified as non-core or rural, a recurring question among public health partners is: Are some rural counties more rural than others? If so, is the degree of rurality associated with health of the county's residents? Answering this question is beyond the scope of the 2023 SHA. See Appendix B for a list of priority future analyses.

Map of Montana counties according to NCHS designations.



Rural areas face unique challenges in accessing and affording resources such as healthcare and healthy food (CDC, 2023). According to U.S. Census Bureau data (2020), about 33% (376,000) of people living in MT lived in rural areas. About 1 in 4 (23%) rural adults in MT were age 65 or older, and 21% had an annual household income of less than $25,000.

INDEX OF DEEP DISADVANTAGE

The Index of Deep Disadvantage (IDD) uses a composite measure of poverty, life expectancy, rate of low birthweight, and social mobility to rank all U.S. counties and the 500 most populated cities against each other on the same scale and describe the influence the foundations of health have on health status. (University of Michigan & Princeton University, 2021)

The six disadvantaged and most disadvantaged counties include (in alphabetical order):

- **Big Horn,**
- **Blaine,**
- **Deer Lodge,**
- **Glacier,**
- **Roosevelt, and**
- **Rosebud.**

Index of Deep Disadvantage categories applied to the NCHS urban-rural classification.

	NCHS URBAN-RURAL CLASSIFICATION			
IDD Classification	**Small Metro**	**Micropolitan**	**Non-core/rural**	**Total**
Most advantaged	1	1	19	21
Advantaged	4	3	15	22
Neutral	0	1	6	7
Disadvantaged & most disadvantaged	0	0	6	6
Total	**5**	**5**	**46**	**56**

COMMUNITY HEALTH CONCERNS AND PRIORITIES

Various state agencies and statewide organizations have grouped Montana counties into different types of regions for planning purposes. You can explore regions used for planning and providing services in Montana by accessing the Regions Report in the **Local Plans Dashboard**. While Montana DPHHS often uses five **Health Planning Regions**, the Area Health Education Center (AHEC) through Montana State University uses a different five regions.

The community health concerns and priorities below are presented using the AHEC regions. Community Health Assessments, Community Health Improvement Plans, Community Health Needs Assessments, and Implementation Plans (CHAs, CHIPs, CHNAs, and IPs)
Local and Tribal Health Departments and non-profit hospitals in Montana completed 47 CHAs and CHNAs and 47 CHIPs and IPs from 2020-2022 (MT DPHHS PHSD & ORH, 2023). When organized by Healthy People 2030 topics and subtopics, the primary concerns and priorities from communities can be summarized as the following three main considerations.

1. **Montana's health care and public health systems,**
2. **Community connections and relationships that support health and well-being, and**
3. **Mental health and mental disorders.**

The MSU Extension 2022 Statewide Needs Assessment had 2,421 respondents who identified the following top 5 issues as "extremely important" or "very important:"

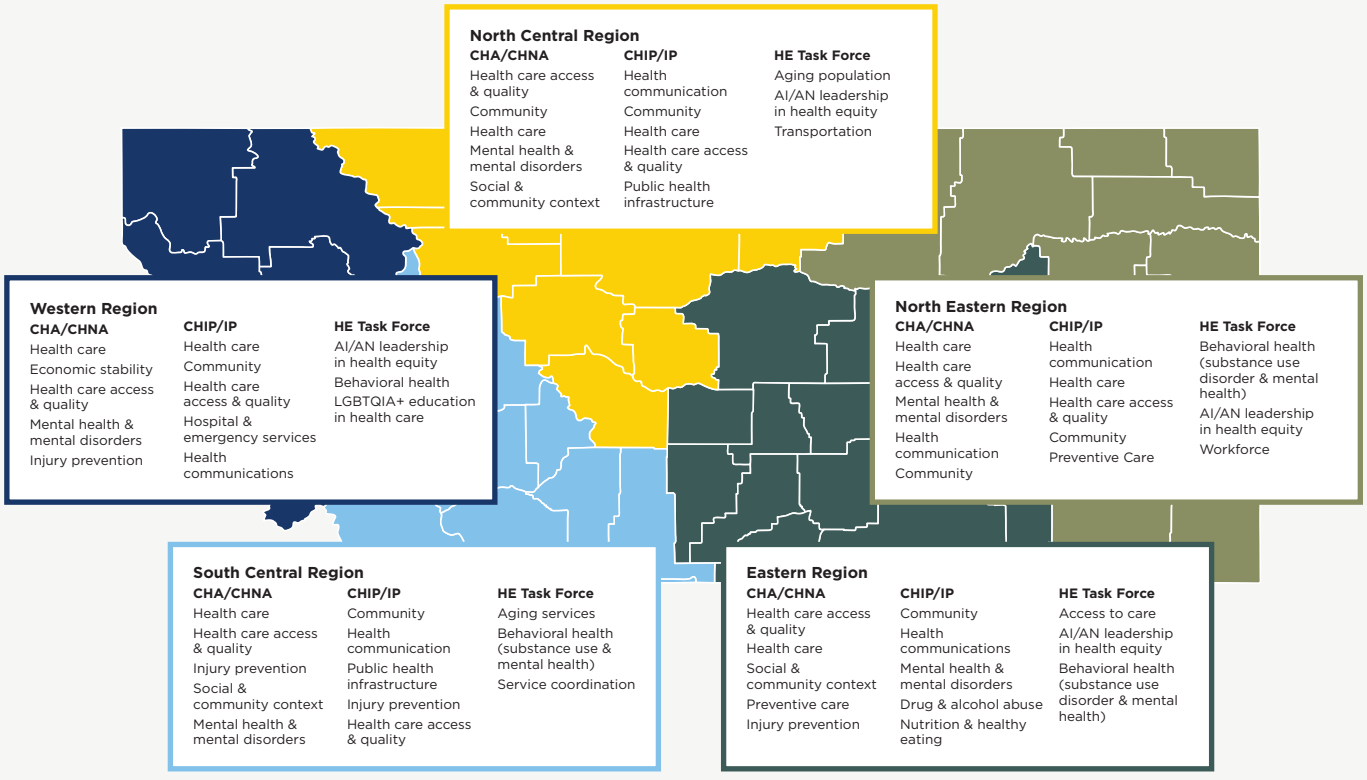
- **Water quality**
- **Healthcare services**
- **Safe and accessible community infrastructure**
- **Successful local businesses**
- **Affordable food options**

Health concerns and priorities according to community-level assessments and plans.

HEALTH CONCERNS	HEALTH PRIORITIES
Settings and Systems: Health care (n=134 instances)	Settings and Systems: Community (n=131 instances)
SDoH: Health care access and quality (125)	Health Behaviors: Health communication (115)
SDoH: Social and community context (92)	Settings and Systems: Health care (95)
Health Behaviors: Injury prevention (91)	SDoH: Health care access and quality (84)
Health Conditions: Mental health and mental disorders (91)	Health Conditions: Mental health and mental disorders (64)

See Appendix C for more information about the definitions for Healthy People 2030 topics and subtopics used to analyze the community-level assessments and plans.

Regional health concerns, priorities, and Health Equity Task Force goals



ECONOMIC STABILITY

Poverty is an appropriate proxy for whether an individual or family has their basic needs met. The American Academy of Family Physicians (2021) defines poverty as "when an individual or family lacks the resources to provide life necessities, such as food, clean water, shelter, and clothing. It also includes a lack of access to such resources as health care, education, and transportation." The percentage of individuals living in poverty in Montana was 12.6% from 2017-2021, which was comparable to the national percentage (MT CEIC, 2021a).

Montana Public Assistance Dashboard, MT DPHHS

Montana Income and Poverty Dashboard, MT CEIC

Minimum Wage Dashboard, MT DLI

Montana Wages Dashboard, MT DLI

Local Area Economic Profiles Dashboard, MT DLI

In 2021, **21.5%** of all Montanans were living at or below 138% of the federal poverty level and **43.5%** of Montana K-12 public school students were eligible to receive free or reduced-price lunch in the 2022-2023 school year.

BRFSS, 2021; Kids Count, 2023

Montanans overall had a lower unemployment rate than the national average (2.7% vs 3.8%) but had a median household income that was about 10% less than the national average ($63,357 vs $69,717) (MT DLI, 2023b; MT CEIC, 2021b). While Montana was ranked fourth out of the 50 states for wage growth from 2021 to 2022, the state had above average employment in many industries with low average wages, including retail, accommodations, and food service, and below average employment in many high-wage industries, such as finance and insurance, management of companies and enterprises, and professional and technical services

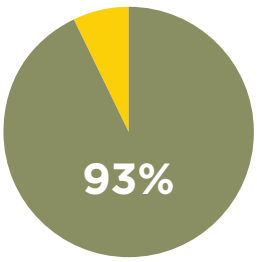
Number of minimum wage workers: **24,000**

Living wage for 1 adult with no children: **$15.72 an hour**

Minimum wage requirement: **$9.95 an hour**

Source: MT DLI, 2023c and MIT, 2023

The graduation rate for high school students in Montana overall has remained steady since the 2016-2017 school year, with an 86.1% graduation rate in 2021 compared with 85.9%. Similarly, the graduation rate for American Indian or Alaska Native students has remained steady; it was 67.5% in 2017 and was 69.2% in 2021 (Office of Public Instruction [OPI], 2022). Graduating from high school has been shown to have a strong correlation with good health outcomes and increased economic stability across the lifespan. For example, a landmark study in 2011 identified that 245,000 deaths in the United States could be attributed to low education, defined as not graduating high school (Galea et al., 2011).



9 in 10 of Montana adults completed high school and went on to complete some or all of a trade school or college degree.

Enrollment in quality nursery and preschool programs, such as Head Start, has been shown to influence high school graduation rates (National Bureau of Economic Research [NBER], 2021). However, economic stability of the family unit may impact what type of care is open to a family. Working parents are also impacted by access to childcare. According to the Department of Labor and Industry, in 2022 an average 22,800 Montana parents per month were unable to participate in the labor force due to family responsibilities and lack of childcare. 45,000 more Montana parents were underemployed or working reduced hours in 2022, or 8% of the state's labor force. (MT DLI, 2023a)

> Montana parents pay an average of **$9,518** per year on infant care and **$8,365** per year on care for a 4-year-old child.
>
> **MT DLI, 2023A**

The ratio of median home values to median household income was higher in Montana than the U.S. average, which suggests Montana is less affordable than most states for purchasing a home. Housing affordability was a larger issue in western Montana than in other parts of the state. (MT DLI, 2022a)

Average home value
2016: $199,700
2021: $263,700

% of homes in the $300k-$499k range
2016: 16.5%
2021: 26.4%

Ratio of median home $ to median household $
United States: 3.55
Top 4 MT counties: 5.6-5.7

Source: MT DLI, 2022a

In 2020, the total number of housing units documented by U.S. Census was 514,803, which reflected a 6.6% increase since 2010. This is similar to the national trend of 6.7% increase in overall housing units from 2010. However, several communities in Montana had an increase in housing units that is above the national average, as shown in Table 5. (MT CEIC, 2021c)

Montana counties with a higher percent change in housing units since 2010 than the national average.

COUNTY	% CHANGE IN HOUSING UNITS SINCE 2010
Gallatin	24.9%
Richland	22.3%
Broadwater	17.7%
Yellowstone	12.3%
Lewis and Clark	11.3%
Missoula	8.9%
Fort Belknap	8.1%
Ravalli	7.6%
Deer Lodge	7.2%

Montana Movers Study, MT State University

Montana Newcomer Research, MT State University

Population Migration Dashboard, MT DLI

Housing Affordability Dashboard, MT DLI

Housing Situation Report, MT CEIC

Housing Trend Dashboard, MT CEIC

A Homeless Management Information System, or HMIS, is a local information technology system used to collect client-level data and data on the provision of housing and services to individuals experiencing homelessness and families and persons at risk of homelessness. In 2022, a total of 8,430 individuals experiencing homelessness/ housing insecurity in Montana received assistance from HMIS-participating providers. (Pathways Community Network Institute [Pathways] & Municipal Information Systems, Inc. [MISI], 2023)

2021
8,096 service recipients

2022
8,430 service recipients

4.1%
increase in 1 year

Source: Pathways & MISI, 2023

Out of these 8,430 individuals, almost half (48.9%) were located either in Billings or Missoula. Hamilton (0.07%) and Lewiston (0.12%) had the lowest reported proportions of homeless or unsheltered populations. A similar trend was observed in 2021, where Missoula and Billings reported the highest proportion of individuals or families experiencing homelessness. Most of these individuals identified as either white (64.2%), American Indian or Alaska Native (14.3%), or belonging to multiple races (7.1%). Approximately 7.8 % of individuals experiencing homelessness reported having a Hispanic or Latino ethnicity. (Pathways MISI, 2023)

In 2021, about **52.7%** of individuals experiencing homelessness in Montana self-reported having a disability. In 2022, the estimate was **60.1%.**

PATHWAYS & MISI, 2023

Nutrition insecurity and food deserts in Montana are another indicator of economic stability since “a vital relationship exists between nutritional status, human capital, and economic standing” (Siddiqui, et al., 2020). According to the U.S. Bureau of Labor Statistics (BLS), in 2022 Montana had a total of 247 supermarkets and other grocery retailers (excluding convenience stores). Counties that had 4 or fewer supermarkets are shown below. This number only includes establishments who paid unemployment insurance for their employees, so a locally owned store without formal employees would not be reflected. Supermarkets are defined as establishments “primarily engaged in retailing a general line of food, such as canned and frozen foods, fresh fruits and vegetables, and fresh and prepared meats, fish, and poultry.” (U.S. Census North American Industry Classification System, 2022)

Counties with less than five supermarkets or grocery retailers in 2022.

0 SUPERMARKETS	1 SUPERMARKETS	2 SUPERMARKETS	3 SUPERMARKETS	4 SUPERMARKETS
Golden Valley	Broadwater	Custer	Big Horn	Beaverhead
Petroleum	Carter	Dawson	Blaine	Chouteau
Treasure	Daniels	Deer Lodge	Carbon	Glacier
	Fallon	Granite	Judith Basin	Madison
	Garfield	Hill	Valley	Park
	Liberty	Jefferson		Richland
	Powder River	McCone		
	Prairie	Meagher		
	Sweet Grass	Mineral		
	Wheatland	Musselshell		
	Wibaux	Phillips		
		Pondera		
		Powell		
		Rosebud		
		Sheridan		
		Stillwater		
		Teton		
		Toole		

2023 Montana Hunger Report,
MT Food Bank Network

2020 Montana Food Distribution Study,
MT Cooperative Development Center

Joy in Healthy Living StoryMap,
Public Health and Safety Division, 2023

HEALTH CARE ACCESS AND QUALITY

Lack of or inadequate health insurance coverage, limited availability of health care resources, and inconvenient or unreliable transportation to health care services are all well-documented barriers to timely and quality health care that result in poor health outcomes (US HHS & ODPHP, 2020b and US HHS & ODPHP, 2020c). The 2021 Montana Rural Health Plan describes challenges faced when seeking health care services, stating "long distances, isolated and small populations, and difficulty in recruiting medical professionals make it difficult to sustain health care services" (MT DPHHS Office of Inspector General [OIG], 2021.

AVAILABILITY OF HEALTH CARE

The Montana Primary Care Office monitors three types of federally designated health provider shortage area (HPSA) designations: primary care, dental health, and mental health (MT DPHHS ECSFD, 2023).

Dental HPSAs have been designated for most Montana counties, excluding:

- Broadwater
- Carbon
- Carter
- Custer
- Daniels
- Flathead
- Gallatin
- Garfield
- Jefferson
- Lewis and Clark
- McCone
- Park
- Petroleum
- Powder Reiver
- Prairie
- Richland
- Sweet Grass
- Wibaux

Each of Montana's 56 counties, except the ones below, are both **primary care** and **mental health professional shortage areas:**

- Gallatin
- Golden Valley
- Judith Basin
- Petroleum
- Wheatland

MT DPHHS ECFSD, 2023

In 2022, the Center for Health Workforce Studies (CHWS) at University of Washington (UW) noted that, compared with urban areas, most rural areas of Montana had fewer physicians per 100,000 population and many rural counties had high percentages of physicians aged 55 years and older. However, from 2016 to 2021, the estimated number of physicians providing care increased from 205 per 100,000 people to 238 per 100,000 people (UW CHWS, 2022).

COUNTIES WITH NO PRACTICING PHYSICIANS

Carter
Chouteau
Daniels
Garfield
Judith Basin
McCone
Petroleum
Powder River
Prairie
Teton
Treasure
Wheatland
Wibaux

COUNTIES WITH MORE PHYSICIANS OVERALL PER 100,000 PEOPLE THAN THE US AVERAGE (248 PER 100,000)

Cascade
Deer Lodge
Flathead
Gallatin
Missoula
Yellowstone

COUNTIES WITH MORE PRIMARY CARE PHYSICIANS PER 100,000 THAN THE US AVERAGE (94 PER 100,000)

Beaverhead
Deer Lodge
Fallon
Golden Valley
Meagher
Missoula
Park
Yellowstone

Data source: Montana Department of Labor and Industry, 2022.

It is noteworthy that this analysis using 2021 data was published in 2022 and may not reflect the state of health care provider availability by the end of the COVID-19 public health emergency. Additionally, even though 13 counties in 2021 had no practicing physician, those counties did have other types of health care providers, such as registered nurses, physician assistants, and paramedics. While only eight counties had no physicians licensed by the Montana Board of Medical Examiners in 2022, any health care provider may be licensed but not practicing; these data also do not reflect health care providers who travel to rural areas periodically to provide care. (MT DLI, 2022b)

AFFORDABILITY OF HEALTH CARE

According to the 2021 BRFSS, almost 8% of adult Montanans experienced a time in the past 12 months when they needed to see a doctor but could not because of cost. This is a decrease from 2017, when almost 12% of Montanans could not afford the cost of seeing a doctor. Additionally, in 2017, about 90% of Montanans had health care coverage and that percentage rose to 93% in 2021.

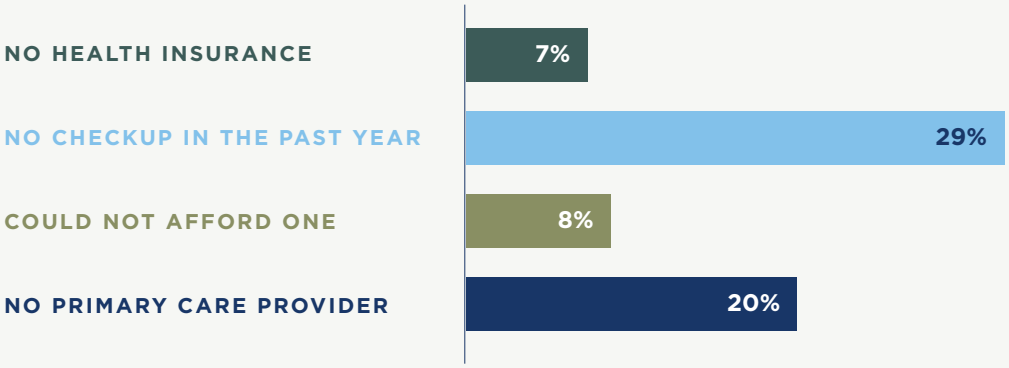
Montana Occupational Licensing Dashboard, MT DLI

Montana Medicaid Enrollment Dashboard, MT DPHHS

2023 Medicaid Montana report, Montana Healthcare Foundation

Montana Broadband Availability, ConnectMT Broadband Program

Almost one third of Montana adults (29%) did not receive a medical checkup in the past year.



Per capita spending on healthcare in Montana has historically been higher than the national average. In 2017, per capita health care expenditures in Montana were $7,220 compared to the national average of $6,851, meaning Montanans were spending on average $369 more per year than Americans overall. By 2021, Montanan's average healthcare expenses were $8,289, compared to $7,784 nationally, with the average Montanan now spending $505 more per year on healthcare than their national counterpart. Additionally, the 15% rate of growth in per capita healthcare expenses was well above Montana's 5.4% per capita personal income growth, indicating that in 2021 healthcare expense inflation was outpacing wage growth for Montanans. (U.S. Bureau of Economic Analysis)



Populations in Focus

Health status can differ among people by demographic or social characteristics. Describing the health status of different groups of people may identify individual- or population-level interventions that could improve the health status.

This chapter presents a snapshot of the health status of select groups of Montanans, including American Indian or Alaska Native (AI/AN) Montanans, veterans, people living at or below 138% of the Federal Poverty Level (FPL), late adolescent Montanans (people aged 18 to 24 years), Montanans living with disability, older Montanans (people aged 55 years and older), and Montana adults who identify as lesbian, gay, bisexual, transgender, queer, or questioning (LGBTQ+).

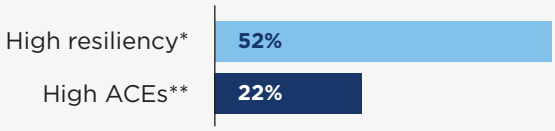
Limitations to the data presented include, but are not limited to:

- Population groups have been compared with Montanans overall, not other population groups or against their direct counterparts. For example, Montanans aged 55 years and older are compared against the total Montana population, not compared to Montanans aged 54 years and younger. In other words, the sub-group is compared to a larger group that includes themselves. This approach likely underestimates the disparities.
- Montanans are not members of a single population group; they may identify with one, all, or none of the populations of focus. For example, a person might be a veteran, a person living with one or more functional or access disabilities, and a person who is 55 years of age or older. Since addressing the health concerns of one population of focus will impact the health of Montanans overall, the presentation of health profiles for a single population of focus is an oversimplification of health status.
- Most of the data presented come from the Behavioral Risk Factor Surveillance Survey (BRFSS) and respondents to this survey are civilians who are 18 years or older who are non-institutionalized. Therefore, people who are incarcerated, in the military overseas, or do not have a home phone or cell phone are not included.

POPULATIONS IN FOCUS: MONTANANS OVERALL

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).



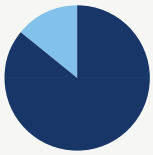
*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

22% reported living below 138% of the Federal Poverty Level.

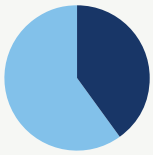
30% reported living with disability.

22% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.



86% reported that they did not currently smoke cigarettes.



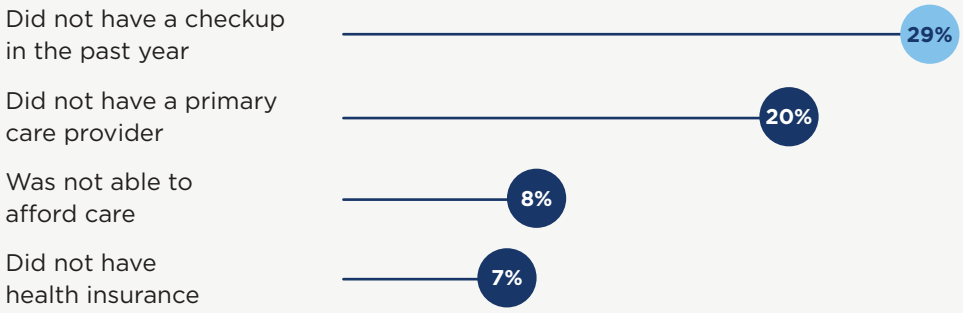
40% reported that they did not drink alcohol in the past 30 days.

14% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.

*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

Almost 1 in 3 Montanans reported not having a checkup in the past year. Primary care visits are where the majority of preventative care, such as disease screening and early chronic disease intervention, can be delivered.

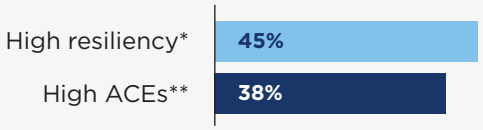


The two leading causes of death in Montana are chronic conditions that can be prevented and improved through regular primary care availability and affordability, including heart disease and cancer. Heart disease and cancer are also the two leading causes of premature death in Montana, or deaths occurring before the age of 75.

POPULATIONS IN FOCUS: AMERICAN INDIAN OR ALASKA NATIVE MONTANANS

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).



*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

56% reported living below 138% of the Federal Poverty Level.

37% reported living with disability.

18% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.

68% reported that they did not currently smoke cigarettes.

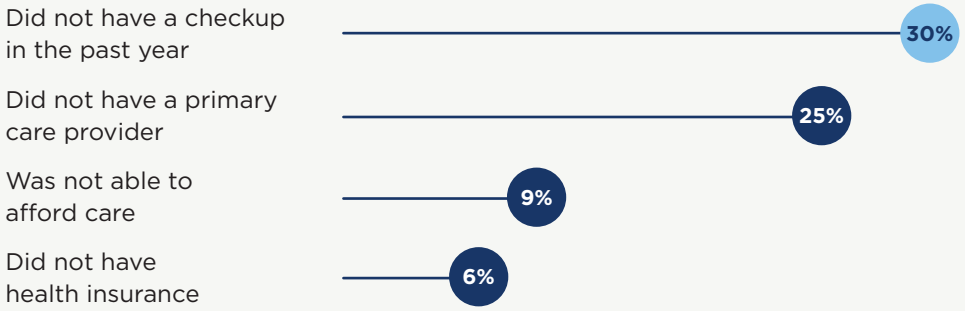
58% reported that they did not drink alcohol in the past 30 days.

22% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.

*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

In general, healthcare utilization data do not offer a complete picture of Indian Health Service (IHS) utilization no health care provider availability on/off American Indian Reservations. However, the data presented below about health care affordability and availability of care among adult American Indian or Alaska Native Montanans are self-reported in response to the population-based BRFSS survey. IHS coverage is not health insurance, which should be considered when interpreting the data.



Notable disparities were seen in 2021 among AI/AN Montanans compared to the Montana population overall in many foundations of health. These disparities represent a public health concern because they contribute to earlier deaths. AI/AN Montanans have a median age at death that is 15-17 years younger than white Montanans (MT Vital Statistics, 2017-2021).

Median age of death, white males: **75 years**

Median age of death, white females: **81 years**

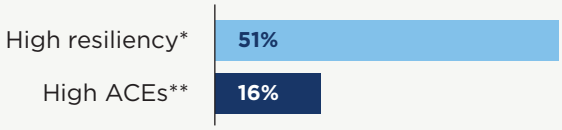
Median age of death, AI/AN males: **60 years**

Median age of death, AI/AN females: **64 years**

POPULATIONS IN FOCUS: VETERANS

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).



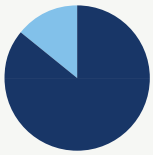
*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

18% reported living below 138% of the Federal Poverty Level.

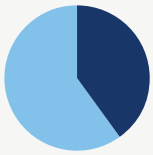
43% reported living with disability.

4% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.



86% reported that they did not currently smoke cigarettes.



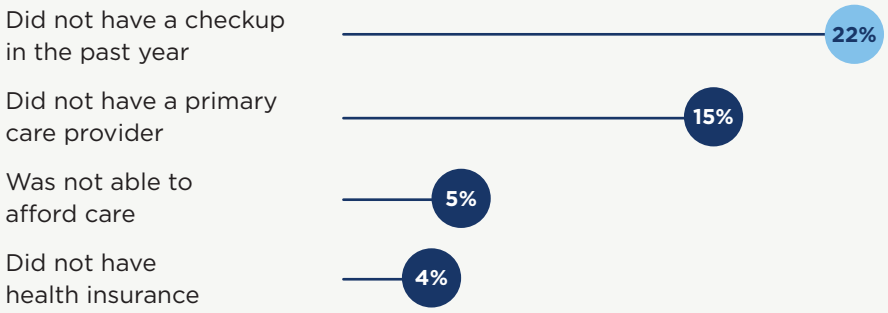
38% reported that they did not drink alcohol in the past 30 days.

18% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.

*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

Few veterans in Montana reported being unable to afford health care or did not have health insurance. However, about 4 in 20 did not have a checkup in the past year and 3 in 20 did not have a primary care provider.



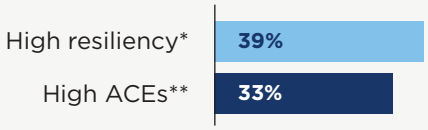
The US Census reports 9% of Montana residents are veterans. While several indicators of health among veterans were either comparable to or better than Montanans overall, the proportion of veterans that self reported one or more disability was significantly higher than among Montanans overall (43% vs. 30%), particularly in hearing and mobility limitations.

Additionally, the number of deaths due to suicide among veterans remain high. According to the Department of Veterans affairs, the suicide rate among veterans in Montana in 2020 was significantly higher than the national veteran suicide rate and significantly higher than the national general population rate. Of the 288 deaths due to suicide in Montana in 2020, 53 were veterans, or about 30%.

POPULATIONS IN FOCUS: MONTANANS LIVING WITH DISABILITY

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).

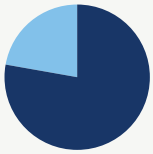


*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

36% reported living below 138% of the Federal Poverty Level.

12% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.



78% reported that they did not currently smoke cigarettes.

50% reported that they did not drink alcohol in the past 30 days.

33% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.

*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

Among people living with a disability in Montana, almost twice as many reported not being able to afford health care in the past year than Montanans overall (7%).

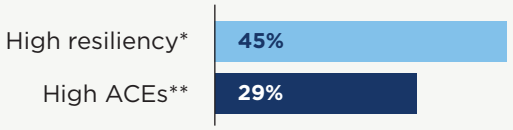
Improving foundations of health among people with disabilities would improve the health of Montanans overall. About 1 in 3 Montana adults self-identify as having a disability (30%). Hearing (10%), cognitive (12%), and mobility (12%) limitations were the most reported functional limitations.

There was a high degree of overlap between people living with a disability and both veterans and people living in poverty. 43% of veterans in Montana live with disability, as do 47% of people living at or below 138% of the federal poverty level; more people living with disability reported being unable to work (15%) than Montanans overall (5%).

POPULATIONS IN FOCUS: LATE ADOLESCENTS, AGED 18-24 YEARS

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).



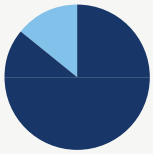
*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

40% reported living below 138% of the Federal Poverty Level.

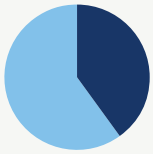
27% reported living with disability.

15% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.



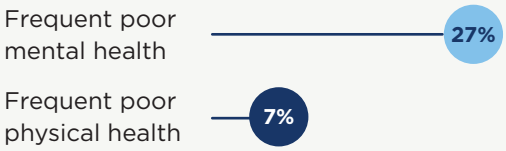
89% reported that they did not currently smoke cigarettes.



41% reported that they did not drink alcohol in the past 30 days.

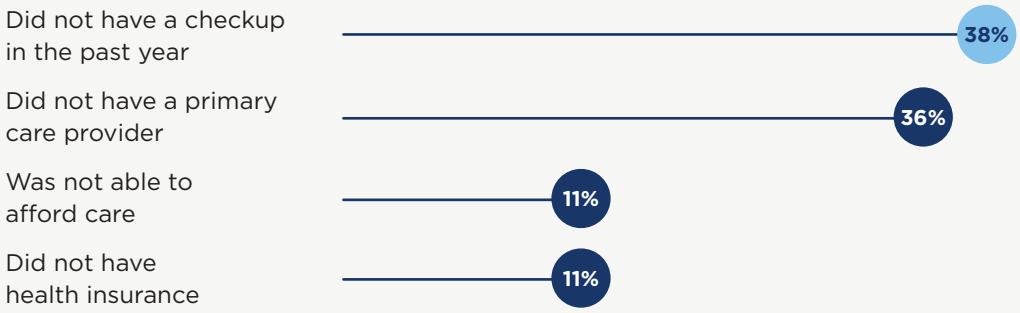
9% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.



*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

In 2021, about 4 in 10 Montanans aged 18-24 years reported they did not have a check up in the past year and did not have a primary care provider.



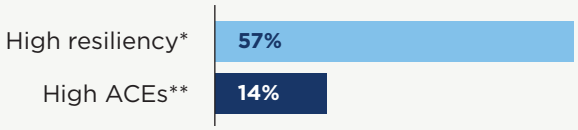
Significantly more late adolescents reported a high ACE score than Montanans overall in 2019 (29% vs 22%) and significantly fewer late adolescents reported a high HOPE score in 2020 (45% vs 52%). Almost a third reported living with a disability, particularly cognitive limitations (20%). This means they responded that yes, they had serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition.

In 2021, current e-cigarette use among this age group was greater than Montanans overall (21% vs 6%) and as well as binge drinking or heavy drinking (41% vs 29%). These health behaviors are of public health concern because substance use is a major risk factor for the leading causes of death among all Montanans aged 1 to 24 years: unintentional injuries (specifically, motor vehicle crashes) and suicide.

POPULATIONS IN FOCUS: OLDER ADULTS, AGED 55 YEARS AND OLDER

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).



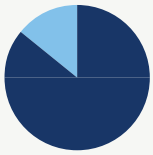
*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

17% reported living below 138% of the Federal Poverty Level.

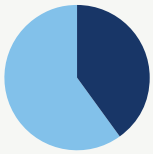
37% reported living with disability.

6% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.



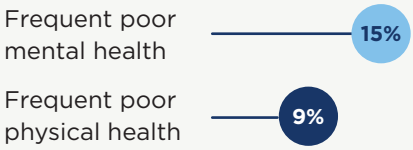
89% reported that they did not currently smoke cigarettes.



45% reported that they did not drink alcohol in the past 30 days.

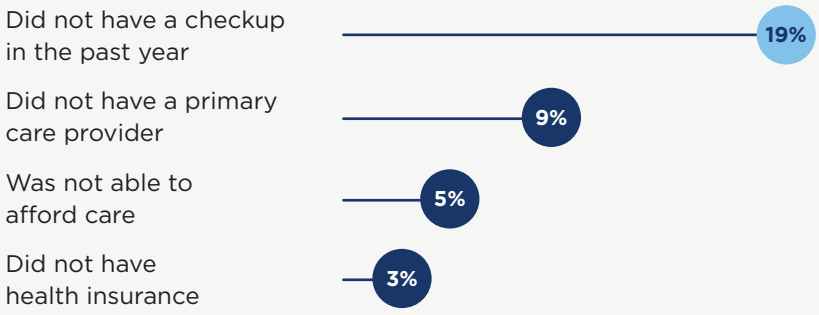
18% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.



*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

Few Montanas aged 55 or older were unable to afford health care or access to health insurance, but 1 in 5 did not have a checkup in the past year.

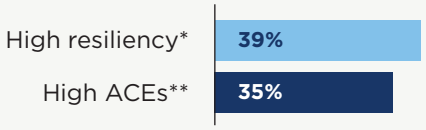


In 14 Montana counties, 50% or more of the residents were aged 50 years or older. According to the Montana State Plan on Aging (2023), the population aged 65 and older is the fastest growing age demographic and has increased to 47% from 2010 to 2021, when almost 20% of the population was aged 65 or older.

POPULATIONS IN FOCUS: PEOPLE LIVING AT OR BELOW 138% OF THE FEDERAL POVERTY LEVEL (FPL)

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were more common than high Adverse Childhood Experiences (ACEs).



*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

47% reported living with disability.

15% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.

70% reported that they did not currently smoke cigarettes.

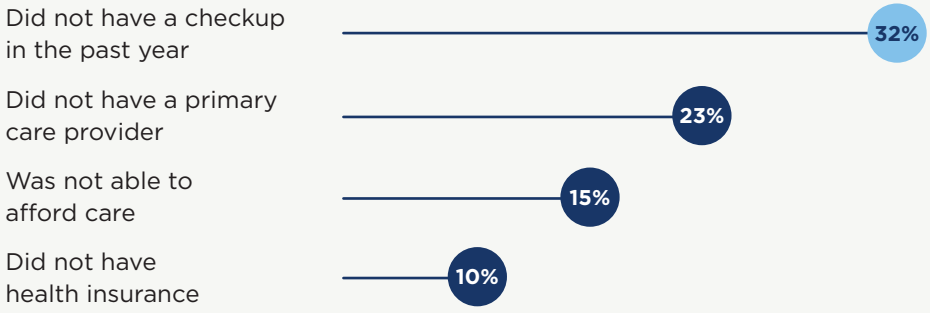
50% reported that they did not drink alcohol in the past 30 days.

25% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.

*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

People living at or below 138% of the FPL should qualify for Medicaid coverage, but 1 in 10 reported not having health insurance coverage.

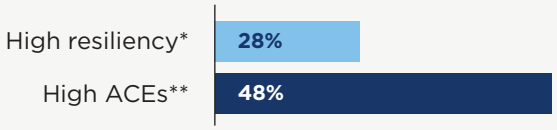


According to US Census date (2017-2021), 11 Montana counties have between 12% and 27% of families living in poverty; the highest of these are Roosevelt County (27%), Big Horn County (22%), and Blaine County (21%). Because lower-income Americans experience higher rates of disease, including mental illness, and are more likely to face barriers in accessing health care, high rates of poverty in Montana represent a public health concern (US DHHS & ODPHP, 2021).

POPULATIONS IN FOCUS: LGBTQ+ ADULTS

All data are from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) unless otherwise noted.

High levels of resiliency were less common than high Adverse Childhood Experiences (ACEs).



*High resiliency defined as a HOPE score of 6-7. Source: BRFSS, 2020.
**High ACEs defined as an ACE score of 4-8. Source: BRFSS, 2019.

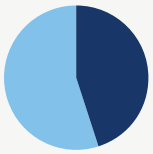
37% reported living below 138% of the Federal Poverty Level.

47% reported living with disability.

10% reported not completing high school or GED.

Most people reported not drinking alcohol or smoking tobacco.

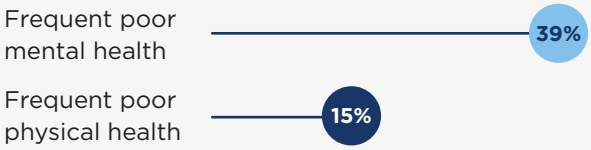
77% reported that they did not currently smoke cigarettes.



45% reported that they did not drink alcohol in the past 30 days.

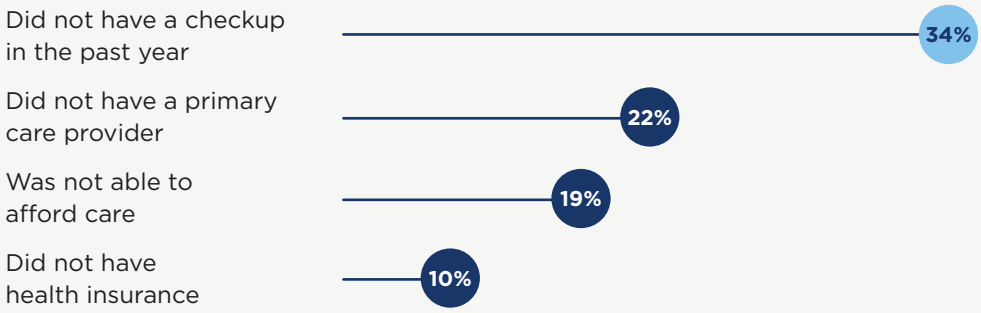
22% reported fair or poor health status.

Experiencing frequent* poor mental health was reported more than frequent poor physical health.



*Frequent is defined as 14 or more days of poor mental or physical health in the past month.

LGBTQ+ adults in Montana were twice as likely as Montanans overall to report being unable to afford health care in the past year.



Fundamental Health Statistics

GENERAL HEALTH STATUS

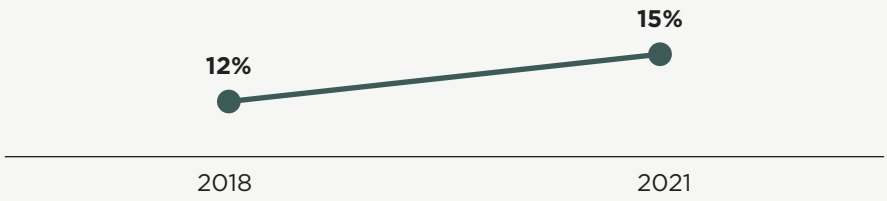
In 2021, almost nine in ten Montana adults (86%) rated their overall health as good or excellent, had 13 or fewer days of poor physical health in a month (88%), and had 13 or fewer days of poor mental health in the past month (85%).

See the "Populations in Focus" section for more information on general health status in Montana.

In 2021, 15% of Montana adult experienced 14 or more poor mental health days in a month.

Source: MT Behavioral Risk Factor Surveillance System (BRFSS), 2021.

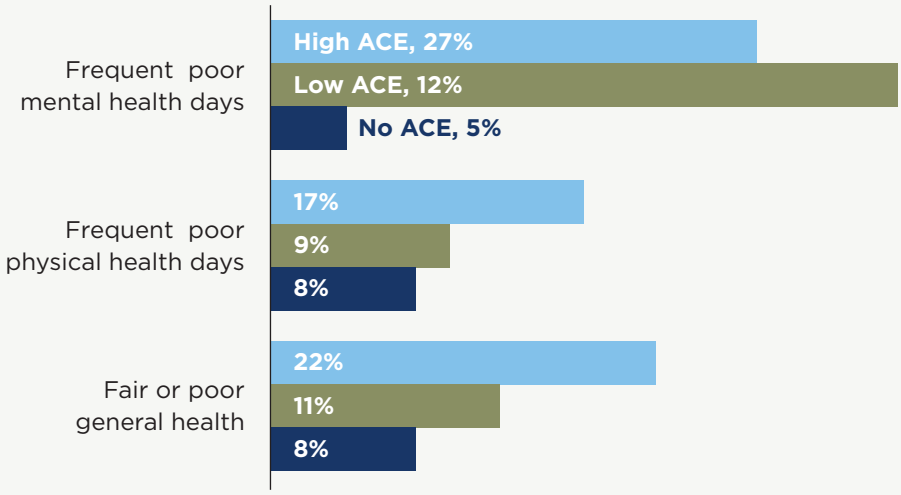
Significantly more Montana adults reported experiencing 14 or more poor mental health days per month in 2021 than in 2018.



Source: MT BRFSS, 2018 and 2021.

The prevalence of fair or poor general health and frequent poor physical and mental health days among Montana adults increased with increasing Adverse Childhood Experience (ACE) score in 2019. The opposite was seen with Health Outcomes from Positive Experience (HOPE) scores in 2020, with higher scores associated with fewer fair or poor health days.

More than one in four Montana adults with a high ACE score reported poor mental health on 14 or more of the past 30 days in 2019.



Source: MT BRFSS, 2019.

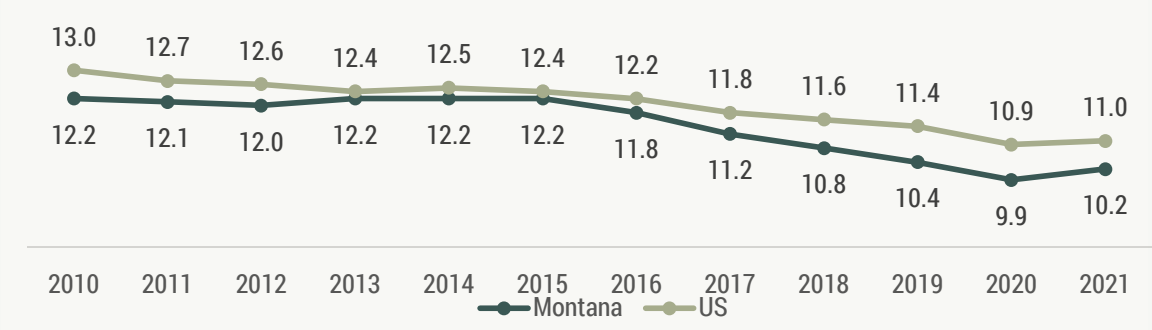
Montana adults with a high HOPE score in 2020 reported less frequent poor mental (6%), physical (9%), and general (10%) health days compared with Montana adults with high ACE scores in 2019 (27%, 17%, and 22%, respectively).

SOURCE: MT BRFSS, 2019; MT BRFSS, 2020

BIRTH DATA

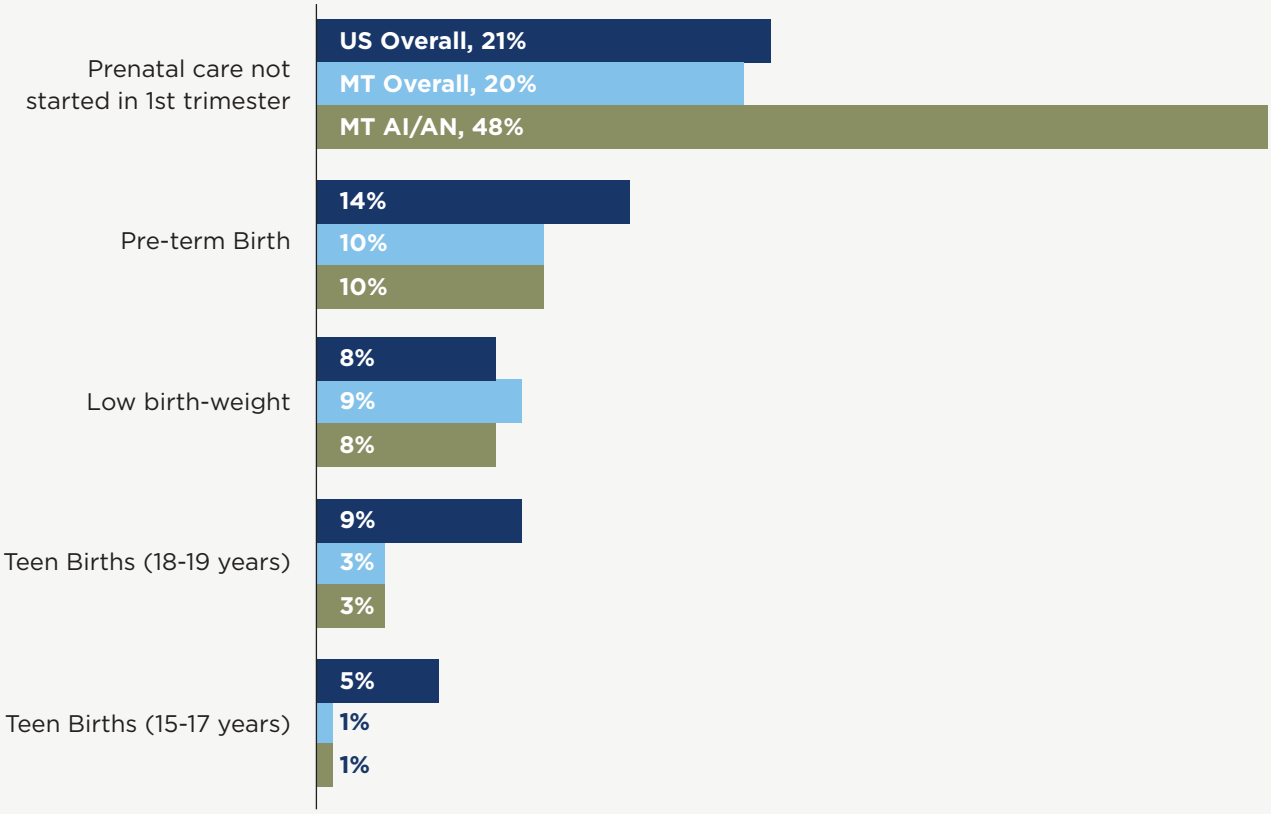
In 2021, the rate of live births in Montana overall was 10.2 births per 1,000 population. Among American Indian or Alaska Native (AI/AN) Montanans,* it was 14.0 per 1,000 population and among white Montanans* it was 9.8 per 1,000 population (MT Vital Statistics, 2021). While the Montana birth rate exceeded the US rate from the 1970's to the mid-1980s, it has been declining since that time and has remained below the US rate.

Birth rate per 1,000 population in Montana and the United States, 2010-2021.



Source: MT Vital Statistics 2021 Annual Report, page 11, & NCHS, 2023.
*AI/AN or white race alone, as documented by maternal race on the birth certificate.

Two in ten pregnant women in Montana overall did not start prenatal care in the first trimester in 2021. Among AI/AN Montanans, close to five in ten did not start prenatal care in 2021 during the first trimester.

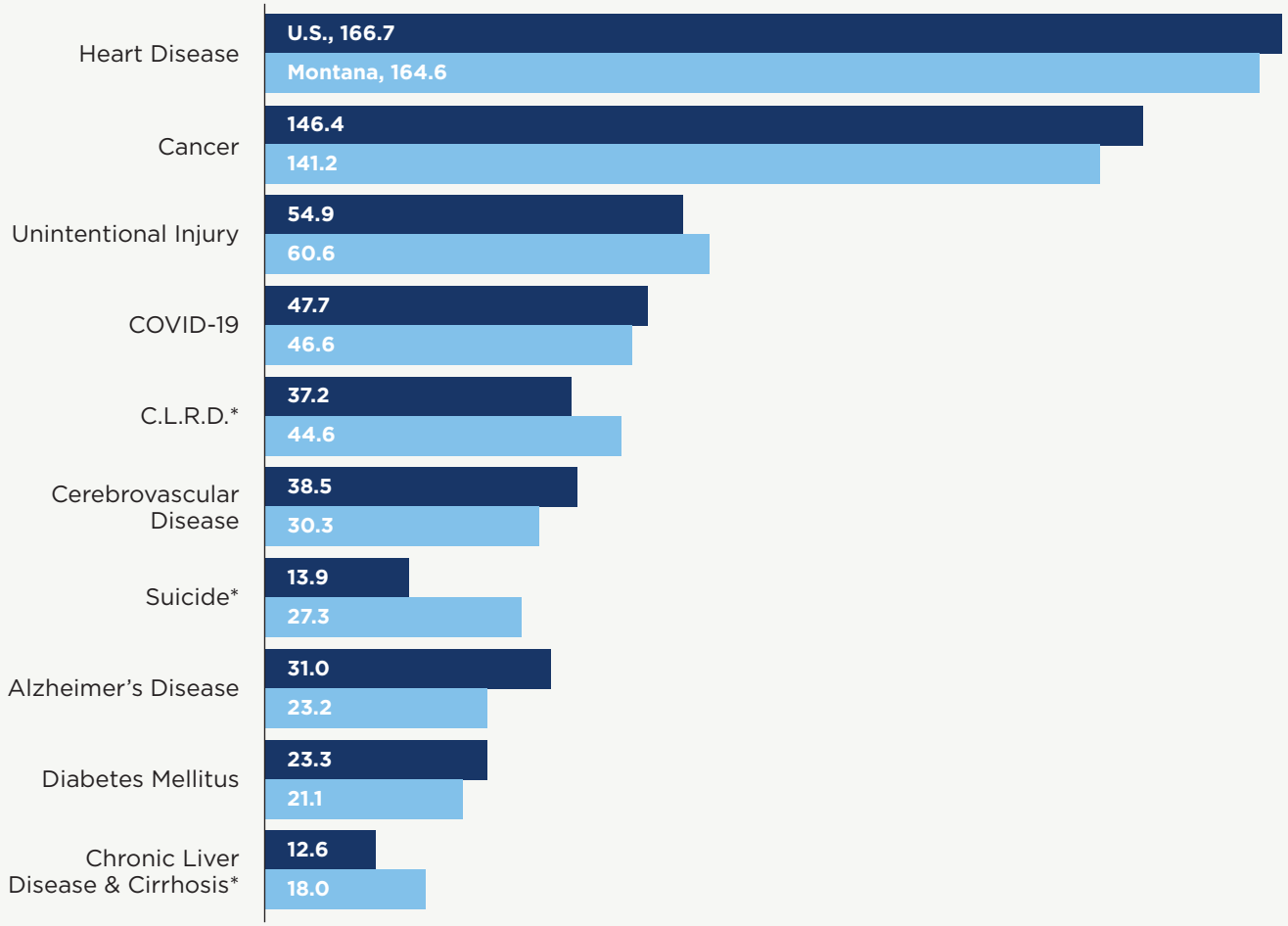


Source: MT Vital Statistics, 2021.
Note: Additional data on access to prenatal care are provided in the Healthy Families chapter.

DEATH DATA

Overall leading causes of death
The leading causes of death in Montana overall from 2017 to 2021 included heart disease, cancer, unintentional injury (e.g., falls, motor vehicle crashes, drug poisonings, etc.), COVID-19, and Chronic Lower Respiratory Disease (CLRD).

Montanans had significantly higher rates of death (age-adjusted per 100,000 population) from unintentional injuries, Chronic Lower Respiratory Disease (CLRD), suicide, and chronic liver disease in from 2017-2021 than the U.S. overall.



Source: MT Vital Statistics, 2017-2021; U.S., CDC WONDER, 2018-2021. *Indicates statistical significance from US overall.

Age at death

The median age at death among both AI/AN Montanans and white Montanans was calculated three ways: by including all causes of death, all causes except COVID-19 and lastly only COVID-19. From 2017-2021, the median age at death due to all causes among AI/AN Montanans was 15 to 17 years younger than white Montanans.

Median age at death due to all causes, all causes except COVID-19, and COVID-19 only among Montanans.

MEDIAN AGE AT DEATH, AMERICAN INDIAN OR ALASKA NATIVE MONTANANS

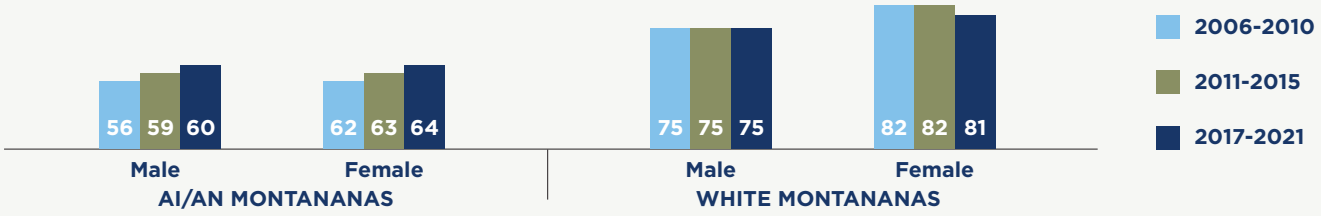
	All causes of death	Deaths from all causes except COVID-19	Deaths due to COVID-19
Male	60 years	59 years	67 years
Female	64 years	63 years	68 years

MEDIAN AGE AT DEATH, WHITE MONTANANS

	All causes of death	Deaths from all causes except COVID-19	Deaths due to COVID-19
Male	75 years	75 years	77 years
Female	81 years	81 years	79 years

Source: MT Vital Statistics, 2017-2021.

The median age at death increased by 4 years among AI/AN men and by 2 years among AI/AN women from 2006-2010 to 2017-2021.

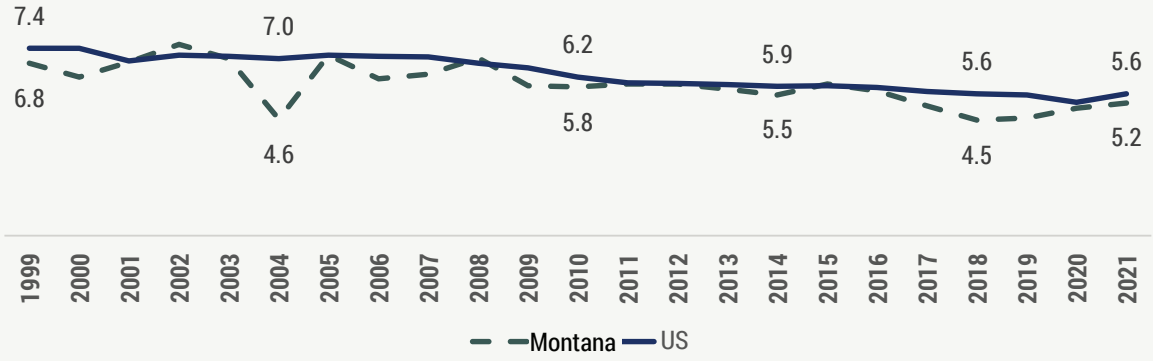


Source: MT Vital Statistics, 2006-2010, 2011-2015, and 2017-2021.

Deaths among infants

Infant mortality includes deaths which occurred within a year of a live birth. From 2018 to 2021, the rate of infant mortality in Montana (4.8 infant deaths per 1,000 live births) was not statistically different than the rate in the U.S. overall (5.5 per 1,000 live births). The leading four causes of infant mortality in Montana were similar for AI/AN Montanans and white Montanans from 2017 to 2021.

The rate* of infant death has been steadily declining in both the US and Montana. The rate of infant deaths in Montana is less than the national average.



MT Vital Statistics, 1999-2021. *Rate of infant mortality per 1,000 live births.

Leading causes of death for both American Indian or Alaska Native infants and white infants in Montana.

AMERICAN INDIAN OR ALASKA NATIVE MONTANANS (N=65)	WHITE MONTANANS (N=207)
• Birth defects and genetic abnormalities (15%)	• Birth defects and genetic abnormalities (23%)
• Disorders related to pre-term birth and low birth weight (9%)	• Effects of maternal factors and complications of pregnancy, labor, and delivery (12%)
• Respiratory conditions originating in the perinatal period (9%)	• Disorders related to pre-term birth and low birth weight (7%)
• External causes: accidents and assault (9%)	• External causes: accidents and assault (7%)

Source: MT Vital Statistics, 2017-2021.

Deaths among children and adolescents

The mortality rates among Montanans aged five- to 14- and 15- to 24-years were significantly higher in Montana than in the US; additionally, the mortality rate among AI/AN Montanans aged 15 to 24 was significantly higher than among white Montanans in this age group (85.9 per 100,000 population and 309.1 per 100,000 population). (MT Vital Statistics, 2017-2021)

The rate of death among 15- to 24-year-old AI/AN adolescents in Montana was **2.5 times higher** than among white adolescents.

SOURCE: MT VITAL STATISTICS, 2017-2021.

Rates of death per 100,000 population among adolescents (aged 1 to 24 years) in Montana.

	AI/AN Montanans, rate per 100,000 population	White Montanans, rate per 100,000 population	Montana overall, rate per 100,000 population	US overall, rate per 100,000 population
Ages 1 to 4	Not available	25.8	29.1	23.7
Ages 5 to 15	39.9*	17.0	20.2**	13.7
Ages 15-24	309.1*	85.9*	104.4**	78.3

Source: MT Vital Statistics, 2017-2021.
*Indicates statistical significance from Montana overall. **Indicates statistical significance from US overall.

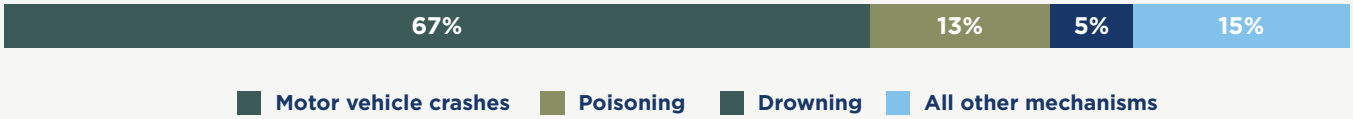
While the rate of death for people aged one to 24 years was much higher among AI/AN Montanans, the top two causes of death among both AI/AN adolescents and white adolescents were the same: unintentional injuries and suicide accounted for 70% of deaths in both groups. Motor vehicle crashes accounted for 67% of deaths due to unintentional injury among adolescents in Montana. (MT Vital Statistics, 2017-2021)

Leading causes of death among American Indian or Alaska Native adolescents and white adolescents (aged 1 to 24 years) in Montana.

AMERICAN INDIAN OR ALASKA NATIVE MONTANANS (N=219)	WHITE MONTANANS (N=627)
• Unintentional injuries (39%)	• Unintentional injuries (41%)
• Suicide (31%)	• Suicide (29%)
• Homicide (5%)	• Cancer (6%)

Source: MT Vital Statistics, 2017-2021.

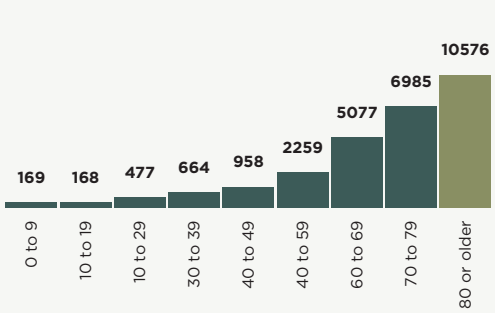
Percentage of types of injuries among unintentional injury deaths among adolescents aged 15 to 24 years in Montana, 2017-2021.

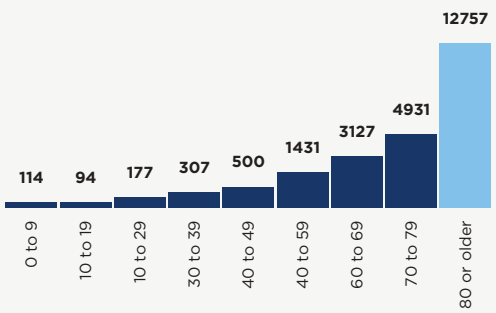


Source: MT Vital Statistics, 2017-2021.

Deaths among adults

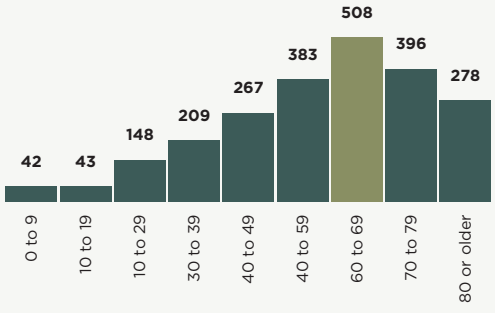
Among white Montanans, the number of deaths increased with increasing age, as shown in the figure below.

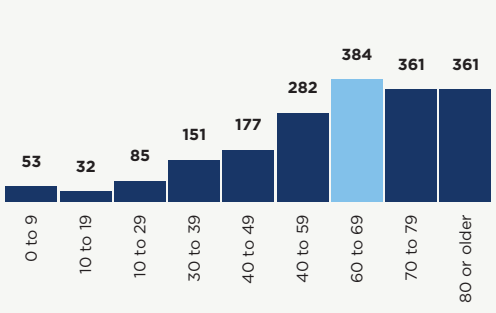




Source: MT Vital Statistics, 2017-2021.

However, among American Indian or Alaska Native Montanans, the number of deaths did not increase with increasing age. The greatest number of deaths among AI/AN Montanans were among those aged 60 to 69 years, as shown in figure below.





Source: MT Vital Statistics, 2017-2021.

Rates of death due to cancer, diseases of the heart, and chronic lower respiratory disease were one and a half to two times higher among AI/AN Montanans than white Montanans in the population aged 55 to 74 years; the rate of death due to COVID-19 was more than four times higher. The fifth leading cause of death among AI/AN Montanans aged 55 to 74 years was diabetes mellitus, which was three times higher than the fifth leading cause of death among white Montanans (unintentional injuries).

Leading causes of death among American Indian or Alaska Native adults and white adults in Montana, by age group.

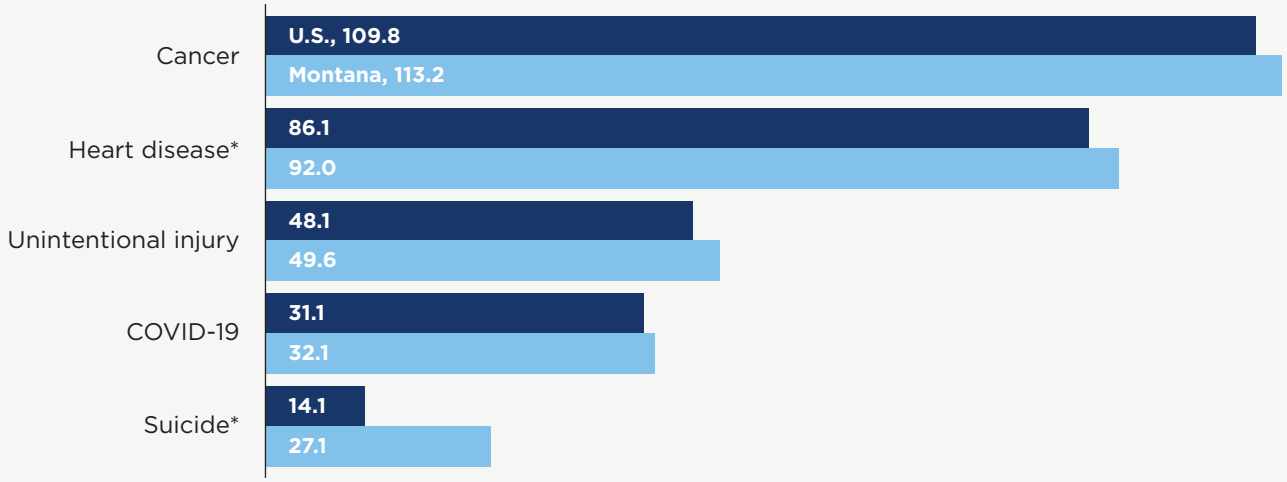
AI/AN MONTANANS, RATE PER 100,000 POPULATION		WHITE MONTANANS, RATE PER 100,000 POPULATION	
Aged 25 to 54 years			
Unintentional injuries	204.3	Unintentional injuries	52.2
Chronic liver disease and cirrhosis	179.6	Suicide	34.5
Diseases of the heart	95.7	Cancer	32.2
COVID-19	63.2	Diseases of the heart	29.5
Diabetes mellitus	53.3	Chronic liver disease and cirrhosis	12.8
Aged 55 to 74 years			
Cancer	588.6	Cancer	351.7
Diseases of the heart	566.2	Diseases of the heart	271.7
COVID-19	476.7	Chronic lower respiratory disease	89.8
Chronic lower respiratory disease	183.5	COVID-19	77.2
Diabetes mellitus	176.8	Unintentional injuries	59.6
Aged 75 years or older			
Diseases of the heart	2,215.5	Diseases of the heart	1,825.3
Cancer	1,639.8	Cancer	1,201.7
COVID-19	1,214.2	Chronic lower respiratory disease	503.8
Chronic lower respiratory disease	588.3	COVID-19	415.7
Cerebrovascular diseases	525.7	Cerebrovascular diseases	385.0

Source: MT Vital Statistics, 2017-2021.

Premature death

Deaths prior to the age of 75 years are counted as premature. The overall premature death rate in Montana was significantly higher (506.1 deaths before age 75 years per 100,000 population) than in the US overall (474.2 per 100,000 population) from 2018 to 2021. The premature death rates due to heart disease and suicide were higher in Montana than in the US overall from 2018 to 2021.

Premature death rate per 100,000 population by cause of death in Montana, 2017-2021.



Source: MT Vital Statistics, 2017-2021. *Indicates statistical significance from US overall.

Years of Potential Life Lost (YPLL) is another measure of premature mortality and can measure how severely a health condition impacts a population. It measures the number of years lost when a person dies before age 75. In Montana, the drivers of premature death among AI/AN and white populations were caused by different health conditions, as shown in the table below.

Leading causes of Years of Potential Life Lost (YPLL) among American Indian or Alaska Native Montanans and white Montanans, 2017-2021.

AMERICAN INDIAN OR ALASKA NATIVE MONTANANS		WHITE MONTANANS	
Cause of death	**Percent of total YPLL**	**Cause of death**	**Percent of total YPLL**
Chronic liver disease and cirrhosis	11%	Cancer	18%
Motor vehicle crashes	10%	Heart Disease	14%
Non-motor vehicle-related injuries	10%	Suicide	11%

Source: MT Vital Statistics, 2021.

Behavioral Health

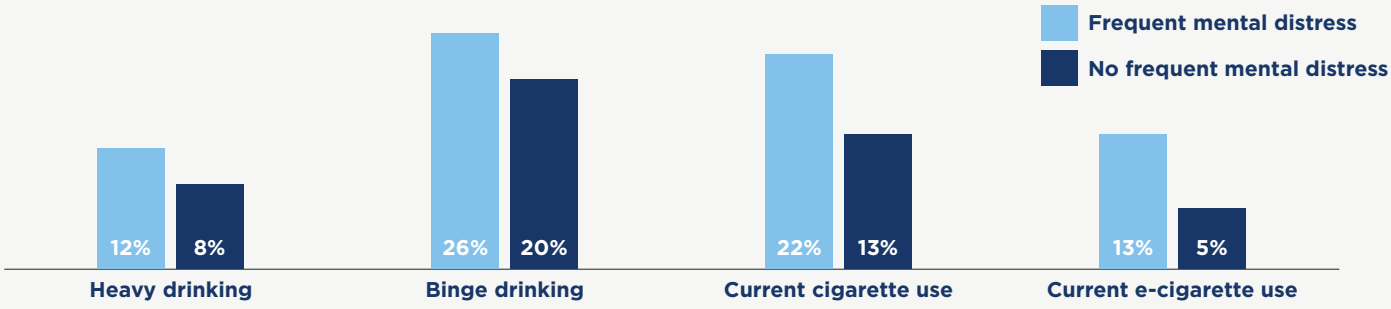
Behavioral health refers to the field of health care that focuses on the connections between an individual's behaviors, thoughts, and emotions, and their overall well-being. It encompasses the study, prevention, and treatment of various mental health conditions and substance use disorders, recognizing the intricate interplay between psychological, biological, and social factors. This chapter focuses on two key areas that contribute substantially to behavioral health: substance use and mental health.

MENTAL HEALTH AND MENTAL DISORDERS

Mental health is defined by the World Health Organization as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community" (2022). See the "Fundamental Health Statistics" chapter for more information on general health status, including mental health status, for Montana adults overall.

Poor mental health can be an important risk factor for substance use. In Montana, tobacco use and heavy alcohol use was more common among adults who reported frequent mental distress compared with adults who did not report frequent mental distress.

The percentage of adults who reported heavy drinking, binge drinking, or current cigarette or e-cigarette use by frequent mental distress* status.



Source: MT BRFSS, 2021.
*frequent mental distress is experiencing 14 or more mental health days in the last month.

Among high school students in Montana, the percent who report feeling sad or hopeless every day for two or more weeks in a row, so much so that they stopped doing some usual activities during the past year, has steadily increased since 2017. In 2021, about four in ten Montana high school students (41%) reported feeling sad or hopeless for more than two weeks in a row, which was an increase from three in ten (31%) in 2017 and is comparable to the US.

The percentage of Montana high school students who reported feeling sad or hopeless by gender, race, and disability status.

Over half (53%) of female students in 2021 reported feeling sad or hopeless for more than two weeks in a row, which was an increase from four in ten in 2017 (40%).

One third (30%) of male students in 2021 reported feeling sad or hopeless for more than two weeks in a row, versus two in ten (23%) in 2017.

Almost half (49%) of American Indian or Alaska Native (AI/AN) students in 2021 reported feeling sad or hopeless for more than two weeks in a row, versus four in ten in 2017 (43%).

Over half (54%) of students living with disability in 2021 reported feeling sad or hopeless for more than two weeks in a row, versus four in ten in 2017 (42%).

Source: YRBS 2017 and 2021.

While mental health primarily describes mental well-being, mental disorders are "characterized by a clinically significant disturbance in an individual's cognition, emotional regulation, or behavior. It is usually associated with distress or impairment in important areas of functioning" (WHO, 2022). Mental disorders are also sometimes referred to as mental illness or mental health conditions. Some of the most common forms of mental disorders include anxiety, depression, schizophrenia, and trauma- or stressor-related disorders, among others. The amount of impairment or disability resulting from these diagnoses is wide ranging and a result of many factors, including adverse circumstances such as poverty and violence, as well as individual factors like emotional skills and genetics (WHO, 2022 and Paradies et al., 2015).

Inpatient hospitalization rate for select mental health conditions in Montana, 2018-2022

All mental disorders was 577.0 per 100,000 population.

Mood and depressive disorders only was 277.0 per 100,000 population.

Schizophrenic disorders only was 70.0 per 100,000 population.

Source: Montana Hospital Discharge Data [MHDD], 2018-2022.
Note: Inpatient hospitalization data are not reported to MHDD from IHS, Veterans Affairs, and Montana State Hospital, so these data are under representative of mental disorder hospitalizations in Montana.

Analysis: All mental disorders, ICD-10-CM F01-F99; mood and depressive disorders, ICD-10-CM F30-F39; schizophrenic disorders, ICD-10-CM F20-F29; mental disorders except drug- and alcohol-induced mental disorders, ICD-10-CM F01-F09 and F20-F99.

In 2021, about one in ten Montanans (12%) reported having a physical, mental, or emotional condition that caused serious difficulty concentrating, remembering, or making decisions, which was comparable to the US overall. This was significantly higher among late adolescents (aged 18-24 years, 20%) and people living at or below 138% of the Federal Poverty Level (FPL) (23%). (MT BRFSS)

See the "Populations in Focus" section for more information on mental health and substance use in Montana.

SUICIDE

From 2017-2021, an average of 302 Montanans died by suicide each year. In 2021, suicide in Montana was the...

7th leading cause of death.

5th leading cause of premature death.

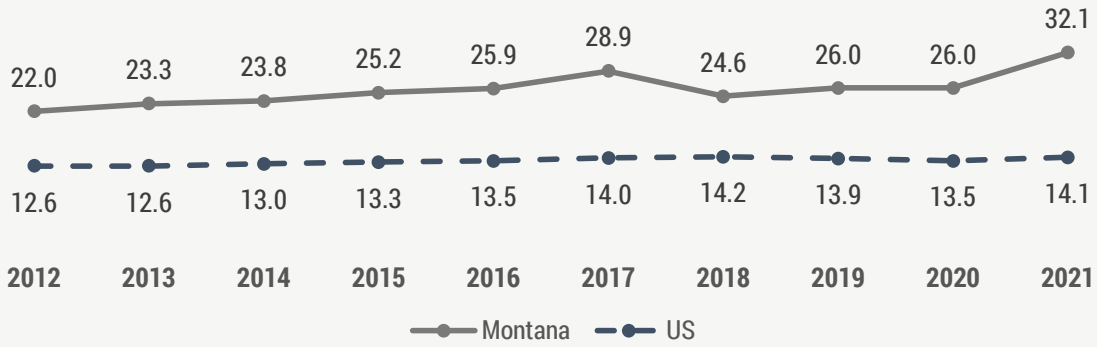
2nd leading cause of death among ages 1 to 24 years.

From 2018-2022, there were 1,429 average annual emergency department visits in Montana for intentional self-harm.

Source: MHDDS.
Analysis, injury: ICD-10-CM S00-S99, T07-T34, T36-T50, T51-T65, T66-T76, T79, O9A.2-O9A.5, T84.04, M97.
Analysis, self-harm: ICD-10-CM X71-X83, T36-T50, T51-T65, T71, T14.9. (CSTE, 2019)

Source: MT Vital Statistics, 2017-2021.

The death rate* due to suicide in Montana has consistently been significantly higher than the US.



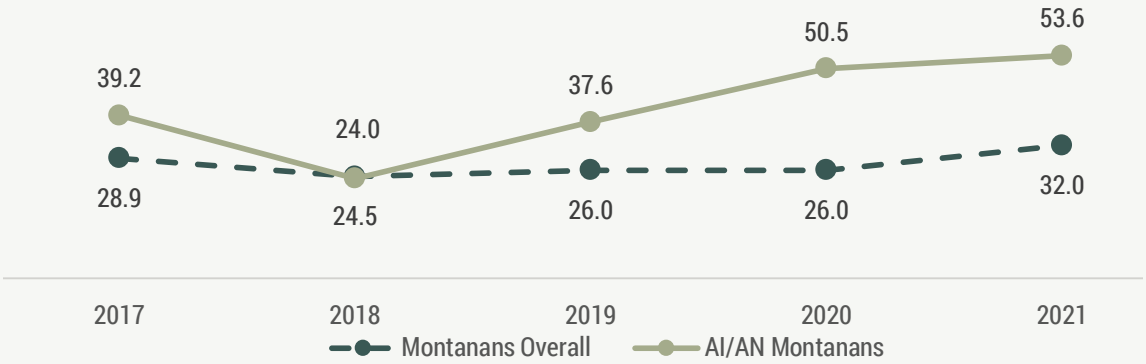
Source: MT Vital Statistics, 2012-2021. *Age-adjusted death rate per 100,000 population.

While there were no significant differences between counties with different population sizes, as classified by the National Center for Health Statistics (NCHS), or by level of disadvantage, as classified by the Index of Deep Disadvantage (IDD), there were other disparities in suicide rates in Montana. See pages 11-12 for more information.

There were other disparities in suicide rates in Montana, including by race, age, and sex.

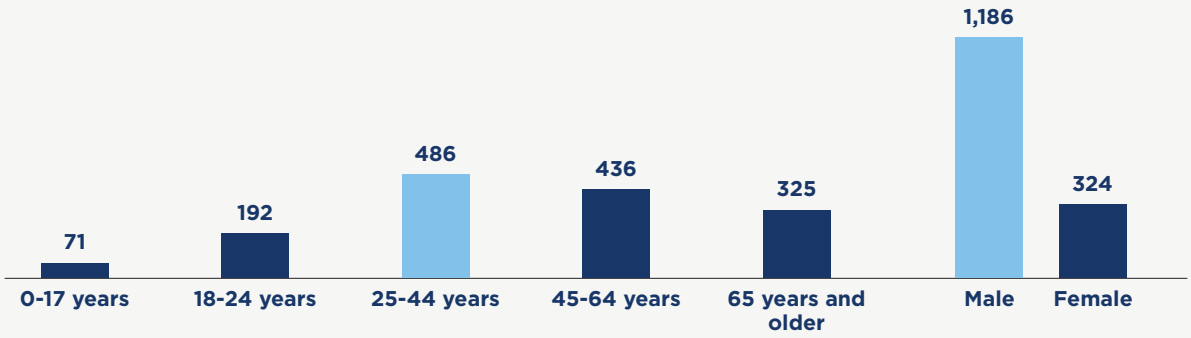
The **Fatal Injury and Overdose Indicators dashboard** from the Montana Injury Prevention Program includes information by county for deaths due to suicide, homicide, firearms, drug overdoses, and more.

The death rate* due to suicide in Montana among American Indian or Alaska Native Montanans has been higher than the death rate among Montanans overall, with the exception of 2018.



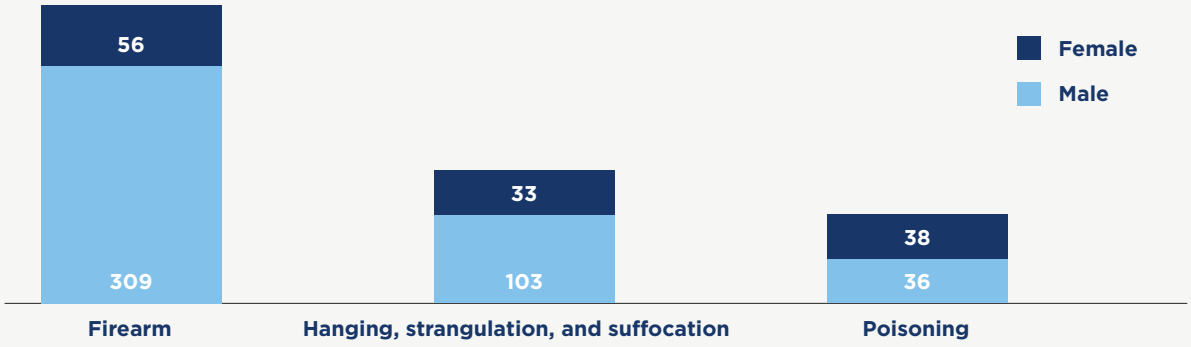
Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population.

The total number of suicides among Montanans by age group and by sex, 2017-2021.



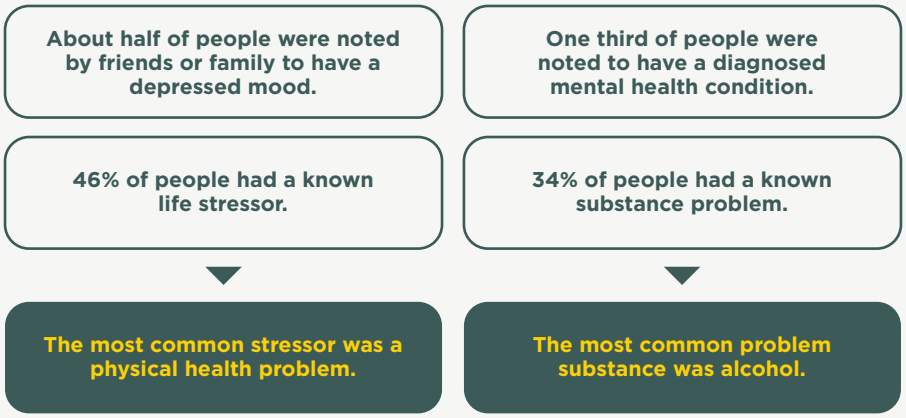
Source: MT Vital Statistics, 2017-2021.

Number of suicides by method by sex among Montana residents, 2019 and 2020.



Source: Montana Violent Death Reporting System (MTVDRS), 2019-2020.
Note: Firearms were also the most common method used in suicides nationally, used in over half (55%) of deaths. Suffocation methods and poisonings are also the second and third leading causes nationally. (American Foundation for Suicide Prevention [AFSP], 2023).

Prior to their suicides:



Source: MTVDRS, 2019-2020.

Suicide rates among teens and late adolescents (aged 10-24 years) across the nation have increased in recent years; from 2007-2018, the national average suicide rate among this age group increased 57% (Curtin, 2020). From 2017 to 2021, 71 deaths due to suicide occurred among Montanans aged 0 to 17 years. About two in ten deaths (23%) were among AI/AN youth and six in ten (62%) were among males. (MT Vital Statistics)

In 2021, about one in five (22%) of Montana high school students reported seriously considering attempting suicide in the past year and 18% reported they had planned how they would attempt it; about one in ten reported attempting suicide in the past year (10%). These data are comparable to the US. (MT YRBS, 2021)

In 2021, almost **one in five AI/AN high school students in Montana** (18%) and almost **one in four students living with disability** (24%) reported attempting suicide in the past year.

Source: MT YRBS.

See the "Populations in Focus" section for information on suicide among veterans in Montana.

SUBSTANCE USE

Alcohol

Excessive alcohol consumption is dangerous and can lead to severe consequences. In 2021, 675 Montanans lost their lives to alcohol-related disease or poisoning (this includes, but is not limited to, alcoholic psychosis, degeneration of nervous system due to alcohol, alcoholic myopathy, alcoholic cardiomyopathy, alcoholic liver disease, and alcohol poisoning). (MT Vital Statistics)

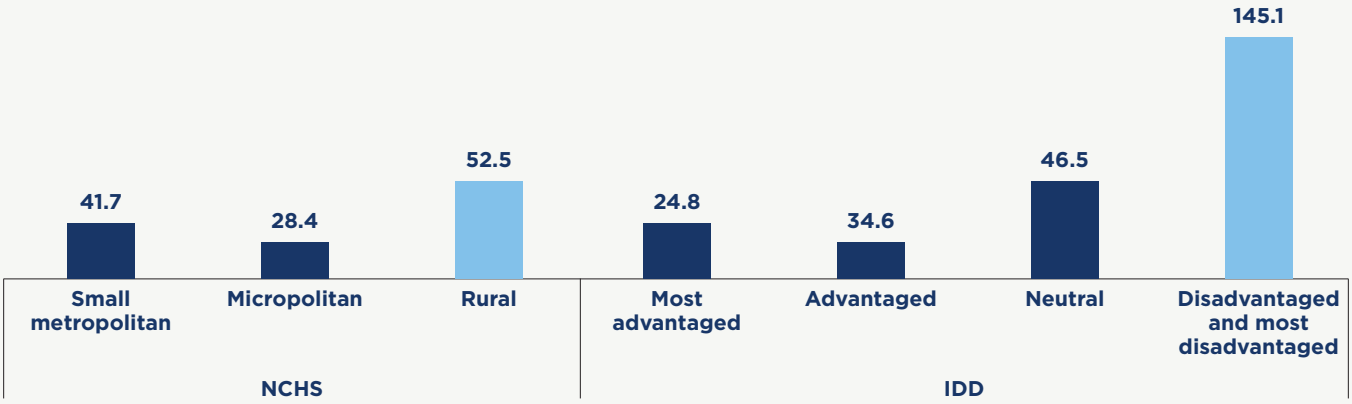
From 2018-2022, there were **11,991 emergency department visits** annually on average in Montana associated with alcohol consumption.

Source: MHDDS.
Analysis: ICD-10-CM F10, G621, G312, G721, I426, K292, K70, K852, K860, Q860, P043, O354, O9931, T510.

Significantly more Montana adults reported being current drinkers than U.S. adults (63% vs. 55%), defined as at least one drink in the past 30 days. More Montana adults reported a recent binge drinking event than US adults (32% vs. 25%), defined as 5 or more drinks during a single occasion for men and 4 or more for women (National Survey on Drug Use and Health [NSDUH], 2019-2020).

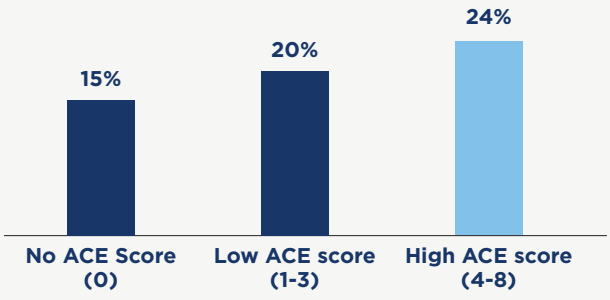
Summary of Alcohol Use in Montana, 2023, MT DPHHS

The rate* of alcohol-related deaths was highest in rural counties and counties classified as disadvantaged and most disadvantaged from 2017 to 2021.

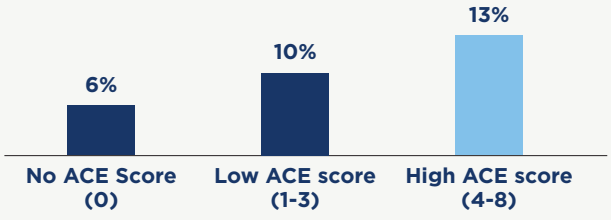


Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population.
Note: The differences between the three county population groups (small metropolitan, micropolitan, and rural) were all statistically significant. The differences between all four IDD groups (most advantaged, advantaged, neutral, and disadvantaged/most disadvantaged) were also all statistically significant.

Adult Montanans in 2019 reported *binge drinking* behavior less often if they also reported zero adverse childhood experiences than if they had either a low or high ACE score.

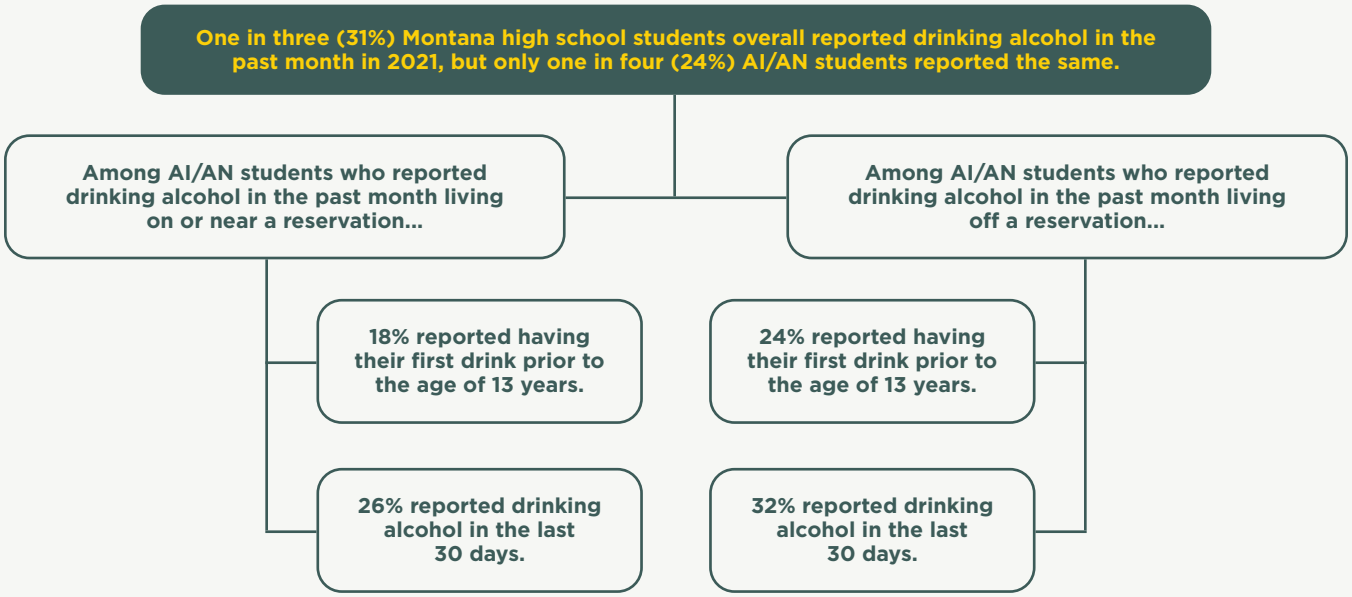


Adult Montanans in 2019 reported *heavy drinking* behavior less often if they also reported zero adverse childhood experiences than if they had either a low or high ACE score.



Source: MT BRFSS, 2019.
Note: Significant differences between adult Montanans with different HOPE scores were not observed in binge and heavy drinking behavior in 2020. See page 9 for more information about Adverse Childhood Experiences (ACEs) and Health Outcomes from Positive Experiences (HOPE).

Self-reported alcohol consumption among high school students in Montana has decreased in the past decade, from almost four in ten (39%) of high school students reporting drinking alcohol in the past 30 days in 2011 to three in 10 (31%) in 2021; only two in ten (23%) high school students in the US overall reported the same in 2021 (YRBS, 2011-2021). In 2020, only three in ten (33%) students in Montana perceived binge drinking as risky behavior (Prevention Needs Assessment [PNA], 2020).



Source: MT YRBS, 2021.

Source: Montana PNA, 2020.

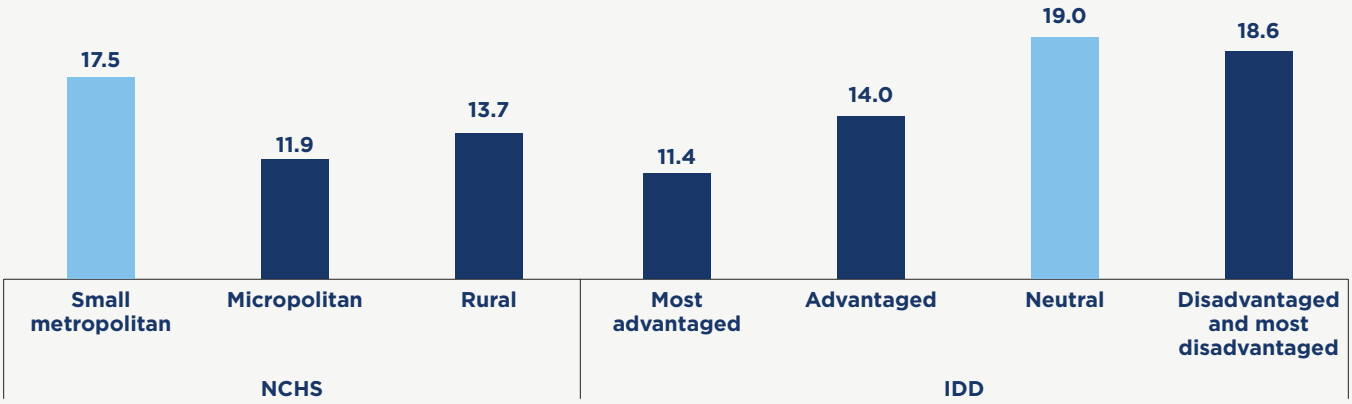
Drugs and opioids

Drug poisonings were the fourth-leading cause of injury deaths in Montana, accounting for 1,484 deaths between 2009-2020. While drug poisoning rates for 2019-2020 were lower in Montana than in the US, drug poisoning deaths increased from 11.0 deaths per 100,000 population in 2017-2018 to 14.0 in 2019-2020 after nearly a decade of decline. (MT Vital Statistics, 2009-2020)

Summary of Methamphetamine Use in Montana, 2023, MT DPHHS
Summary of Marijuana Use in Montana, 2023, MT DPHHS
Opioid Use in Montana, 2022, MT DPHHS
Fentanyl Factsheet, 2022, MT DPHHS

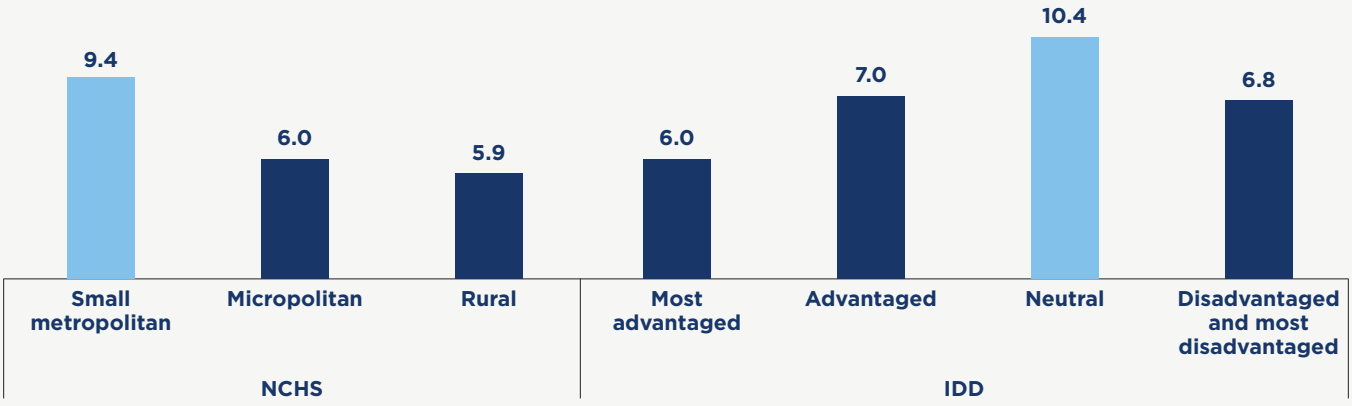
Opioid deaths have been the major driver of increased drug overdose nationally as well as in Montana. Montana's opioid overdose death rate almost tripled from 2.7 deaths per 100,000 population in 2017-2018 to 7.3 in 2019-2020. This was a statistically significant increase and brings the death rate in 2019-2020 back up to the former 'peak' seen in 2009-2010. (MT Vital Statistics, 2009-2020)

From 2017-2021, Montanans living in small metropolitan counties, as classified by NCHS, or counties classified as neutral by the IDD, had the highest death rates* due to drug poisoning.



Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population.
Note: Differences are only statistically significant between: 1) small metropolitan and micropolitan counties and 2) most advantaged and neutral counties.

From 2017-2021, Montanans living in small metropolitan counties, as classified by NCHS, or counties classified as neutral by the IDD, had the highest death rates* due to opioids.



Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population.
Note: Small metropolitan counties had significantly higher rates than micropolitan and rural counties, but the difference between micropolitan and rural counties did not reach statistical significance. None of the differences between counties as grouped by the IDD were statistically significant.

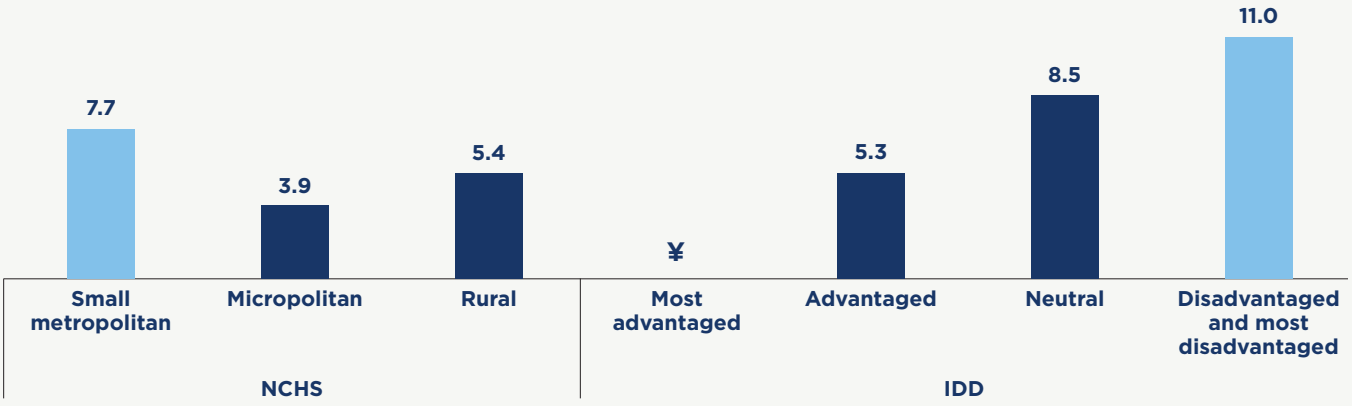
Methamphetamine
Methamphetamine is a powerful and addictive stimulant that affects the central nervous system. In 2020, methamphetamine was found in 48% of all drug overdose deaths in Montana and 23% of all overdoses in the state were due to methamphetamine alone (CDC State Unintentional Drug Overdose Reporting System [SUDORS], 2022). From 2017 to 2021, 49 Montanans died annually (on average) from a methamphetamine overdose.*

People who died from methamphetamine-related deaths in Montana between 2017 and 2021 were predominantly male (65%) (MT Vital Statistics).

From 2018-2022, there were **2,994 emergency department visits** annually on average in Montana due to stimulant overdose or complications of stimulant use.

Source: MHDDS.
Analysis: ICD-10-CM F14, F15.

From 2017 to 2021, Montanans living in small metropolitan counties, as classified by NCHS, or counties classified as disadvantaged and most disadvantaged by the IDD, had the highest death rates* due to stimulants.



Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population. ¥: Rate suppressed (count<20).
Note: Differences are only statistically significant between: 1) small metropolitan and micropolitan counties and 2) disadvantaged/most disadvantaged and advantaged counties. Stimulant deaths include deaths due to methamphetamine and other stimulants, such as cocaine and caffeine.

*ICD-10 codes X40-X44 as underlying cause and T43.6 as a contributing cause.

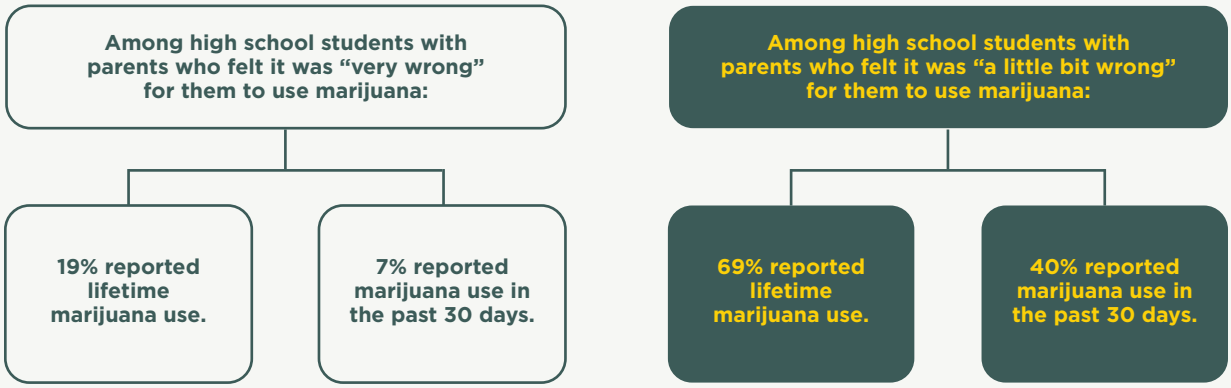
Marijuana

In 2019-2020, 24% of Montanans aged 18 years and older reported using marijuana in the past year and 18% used marijuana in the past month, compared to the United States prevalence of 18% and 12%, respectively (NSDUH).

Marijuana use has remained relatively stable among high school students in Montana across the past ten years and is comparable to national trends (MT YRBS, 2011-2021). Four in ten (37%) reported ever using marijuana and two in ten (20%) reported currently using marijuana. A significantly greater proportion of AI/AN students in Montana reported current and lifetime use of marijuana (55%) than Montana students overall. Among AI/AN students, those living on or near a reservation had a higher prevalence of marijuana use and use before the age 13 compared to youth not living near a reservation (MT YRBS, 2021).

From 2018-2022, there were **2,547 emergency department visits** annually on average in Montana due to adverse effects of marijuana.

Source: MHDDS.
Analysis: ICD-10-CM F12, T407, P0481.



Source: Montana PNA, 2020.

Chronic Disease Prevention and Self-Management

Chronic disease prevention and self-management encompass a proactive approach to maintaining overall health and well-being while effectively managing long-term health conditions. They involve a series of strategies aimed at preventing the onset of chronic diseases, such as heart disease, diabetes, and hypertension, through lifestyle modifications, risk factor reduction, and health promotion activities.

Chronic Disease Prevention and Health Promotion in Montana: Data and Statistics, MT DPHHS

Disability and Health: American Indian Adults in Montana, 2022, MT DPHHS

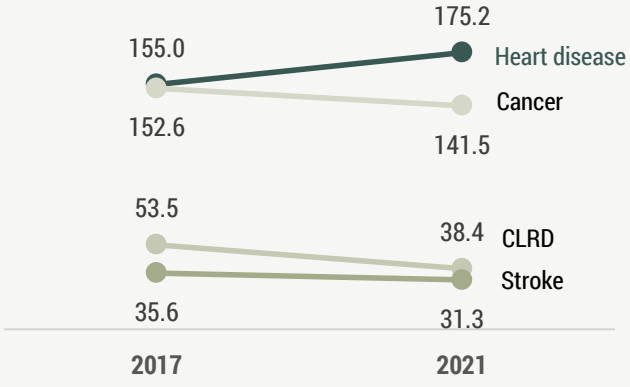
Mapping Chronic Disease Data, MT DPHHS

Additionally, self-management empowers individuals living with chronic conditions to actively participate in their own care by equipping them with the knowledge, skills, and resources necessary to make informed decisions, engage in healthy behaviors, and effectively manage their symptoms.

DEATHS DUE TO CHRONIC DISEASE

Chronic conditions account for seven of the ten leading causes of death in Montana, including the top two: heart disease and cancer. Those two conditions, along with chronic lower respiratory disease (CLRD) and stroke, were the leading causes of chronic condition-related mortality in Montana from 2017 to 2021.

Death rates* in Montana due to cancer, CLRD, and stroke have decreased since 2017, while heart disease has increased.



Source: MT Vital Statistics, 2017 and 2021.
*Age-adjusted rate of death per 100,000 population.

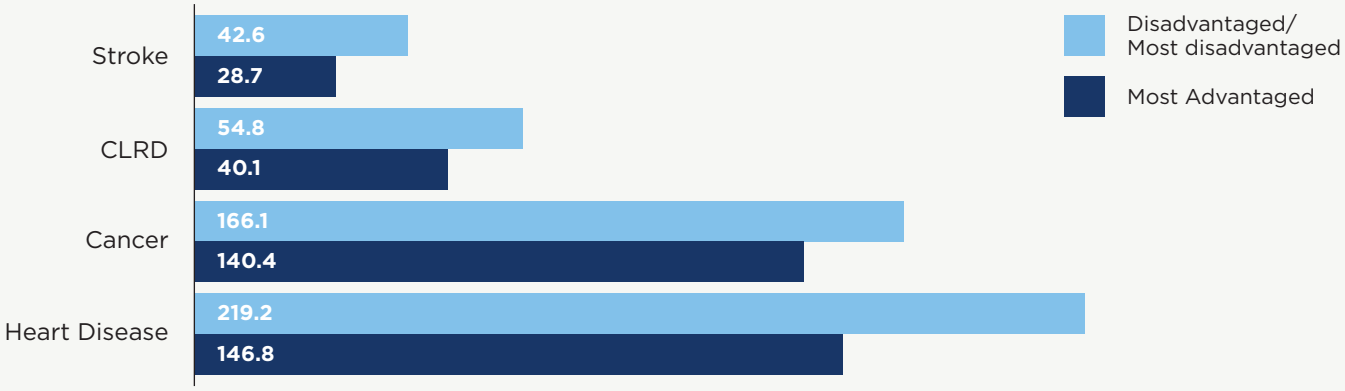
Average number of deaths per year in Montana due to leading chronic diseases.

Chronic disease	Average deaths per year
Stroke	442
CLRD	687
Cancer	2,115
Heart disease	2,350

Source: MT Vital Statistics, 2017-2021.

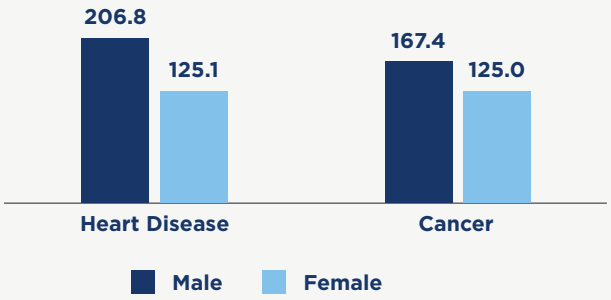
The rate of death due to chronic disease in Montana varies by geography (as classified by the National Center for Health Statistics [NCHS] and Index of Deep Disadvantage [IDD], sex, and race. See page 11-12 for more information about NCHS and IDD designations for counties.

Death rates* for the leading four chronic diseases were significantly greater among residents of disadvantaged and most disadvantaged counties than most advantaged from 2017 to 2021.



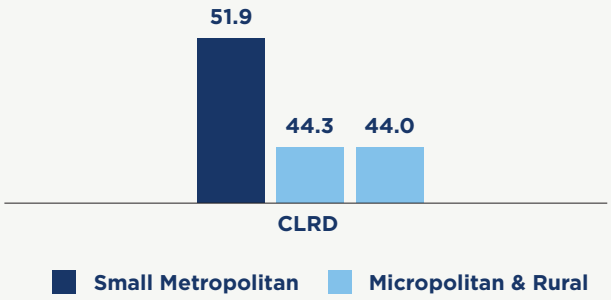
Source: MT Vital Statistics, 2017-2021.
*Age-adjusted death rate per 100,000 population.

Death rates* were significantly different between men and women for both heart disease and cancer from 2017-2021.



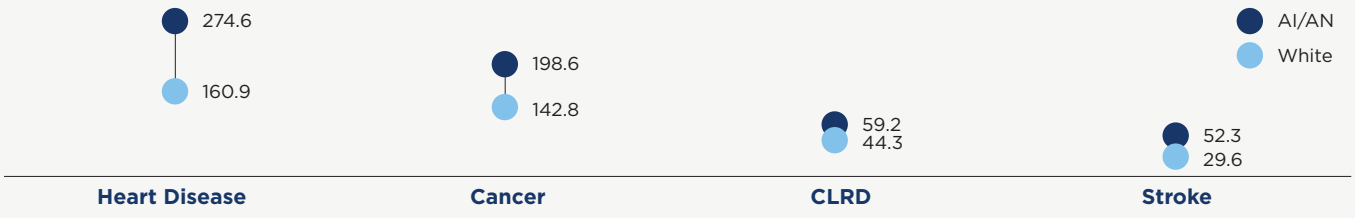
Source: MT Vital Statistics, 2017-2021.
*Age-adjusted death rate per 100,000 population.

Death rates* due to CLRD were significantly higher in small metropolitan counties than in both micropolitan & rural counties from 2017-2021.



Source: MT Vital Statistics, 2017-2021.
*Age-adjusted death rate per 100,000 population.

Death rates* due to heart disease were 1.7 times higher among American Indian or Alaska Native (AI/AN) Montanans than white Montanans, 1.4 times higher for cancer, 1.3 times higher for CLRD, and 1.8 times higher for stroke.

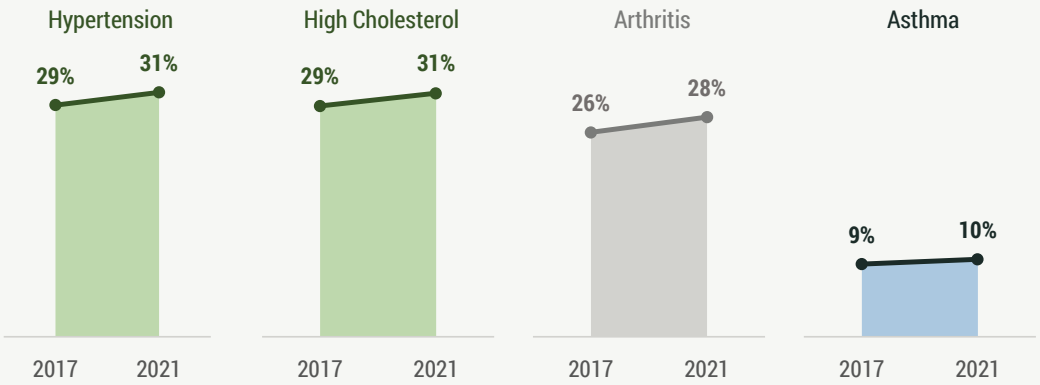


*Age-adjusted death rate per 100,000 population.
Source: MT Vital Statistics, 2017-2021.

ILLNESS DUE TO CHRONIC DISEASES

The four most common chronic diseases in Montana were hypertension, high cholesterol, arthritis, and asthma in 2021. These conditions have the biggest impact on quality of life and are upstream factors for the conditions that cause the most death.

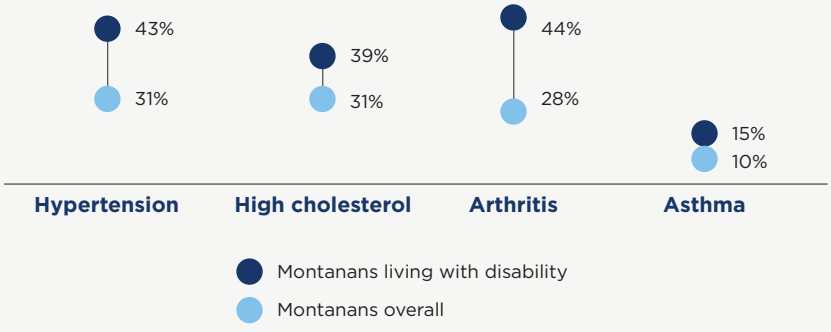
The prevalence of hypertension, high cholesterol, arthritis, and asthma has risen among Montana adults since 2017.



Source: MT Behavioral Risk Factor Surveillance System (BRFSS), 2017 and 2021.
Note: According to the BRFSS, prevalence of these four chronic diseases in US adults in 2021 were: hypertension, 32%; high cholesterol, 36%; arthritis, 26%; and asthma, 10%.

While there were no statistically significant disparities between AI/AN Montanans and Montanans overall for hypertension, high cholesterol, arthritis, and asthma, there were disparities between other population groups.

Prevalence for all four chronic conditions was higher among Montanans living with disability than Montanans overall in 2021.

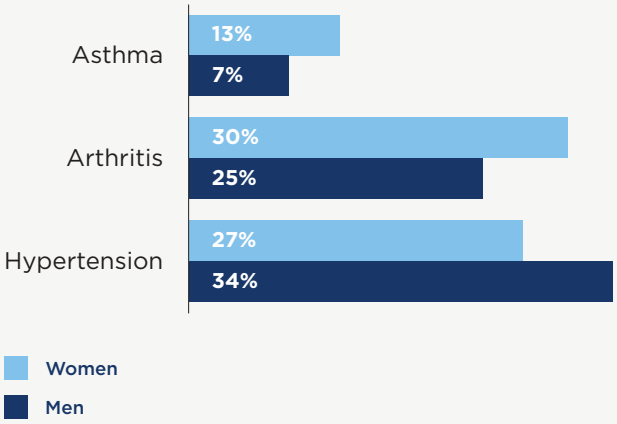


Source: MT BRFSS, 2021.

The prevalence of MT adults with hypertension in 2021 was significantly **higher among disadvantaged and most disadvantaged counties (39%)** than **advantaged counties (29%),** as defined by the IDD.

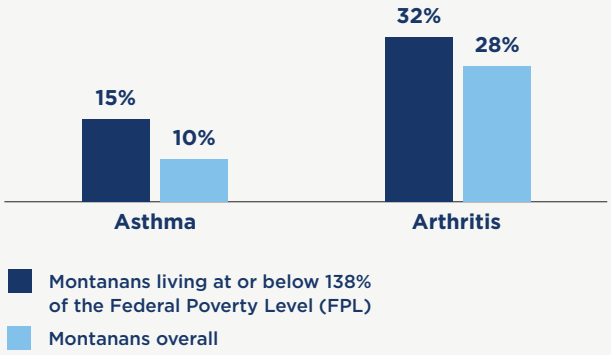
Source: MT BRFSS, 2021.

The prevalence of hypertension was significantly higher among men than women, but significantly more women had arthritis and asthma than men in 2021.



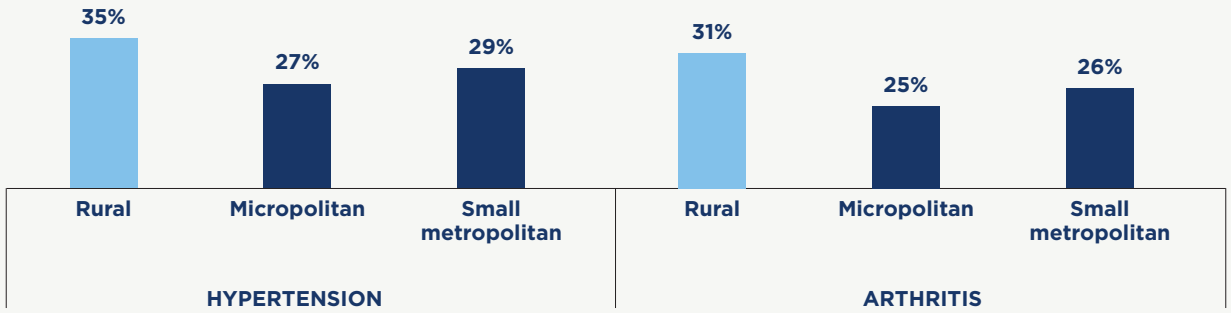
Source: MT BRFSS, 2021.

Significantly more Montanans living at or below 138% of the Federal Poverty Level (FPL) had arthritis and asthma than Montanans overall in 2021.



Source: MT BRFSS, 2021.

Prevalence of hypertension and arthritis were significantly higher in rural counties than in both micropolitan and small metropolitan counties in 2021.



Source: MT BRFSS, 2021.

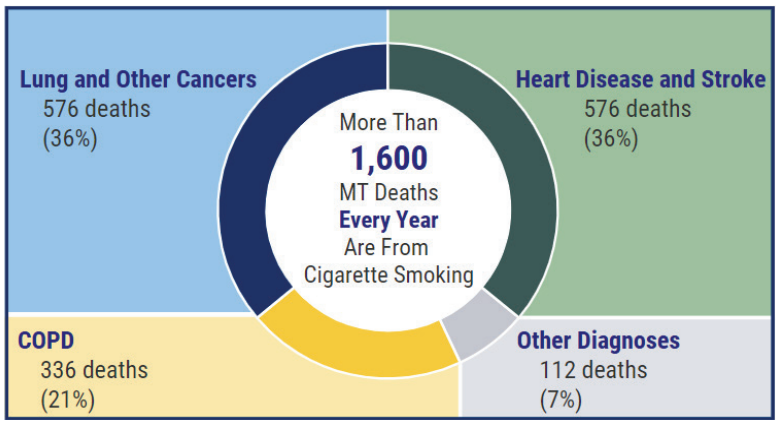
LEADING RISK FACTORS FOR CHRONIC DISEASE

Risk factors for developing chronic diseases can occur across the lifespan and can be related to a variety of factors, including adverse circumstances (for example, housing or nutrition insecurity and systemic racism), foundations of health (like built environment), and individual factors (such as health behaviors or genetics) (WHO, 2023a and Paradies et al., 2015). Tobacco use[1] and obesity are two leading risk factors for developing chronic conditions in Montana.

Patient Social Needs Screening and Referral Practices in Montana Healthcare Systems, 2022, MT DPHHS

[1] Tobacco use data for adults in Montana includes cigarettes, e-cigarettes, and smokeless tobacco; tobacco use data for youth includes cigarettes, e-cigarettes, cigars, and smokeless tobacco.

Cigarette smoking remains the leading preventable cause of illness and death in the United States. About 1,600 Montanans die each year from tobacco-related disease, and almost one in four (23.9%) of Montana adults currently use tobacco (CDC, 2023b and BRFSS, 2021).



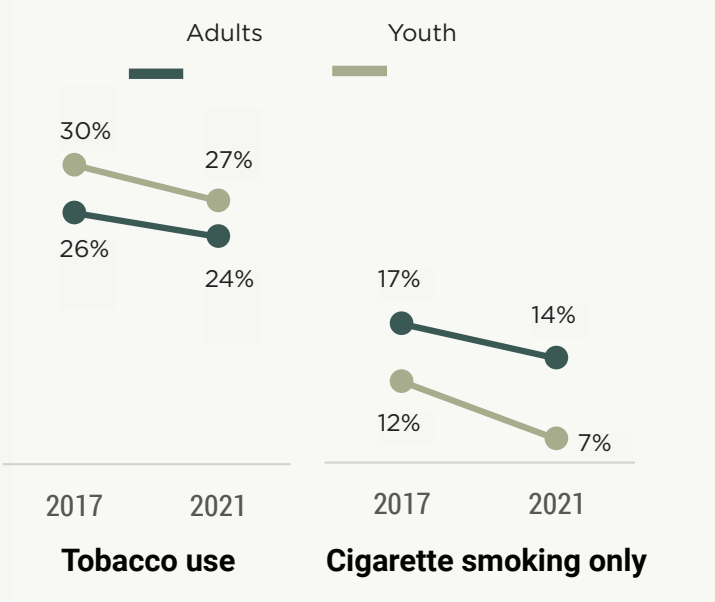
Note: The data in the graphic above were calculated based on the methodology used in the 2014 Surgeon General's Report: "The Health Consequences of Smoking—50 Years of Progress" and Montana data reporting total number of deaths from tobacco-related disease (1,600) in Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC). (Warren et al. 2014 & CDC, 2023b).

Tobacco Use Increases Risk of Cancer, 2020, MT DPHHS

Alcohol Use Increases Risk of Cancer, 2022, MT DPHHS

In 2021, tobacco use prevalence was significantly higher in adult males than females (29% vs 19%), largely due to the use of smokeless tobacco (14% for men and 2% for women); there was no significant difference in cigarette or e-cigarette use between men and women.

Tobacco use and cigarette smoking in Montana has decreased from 2017 to 2021, among both adults and youth.



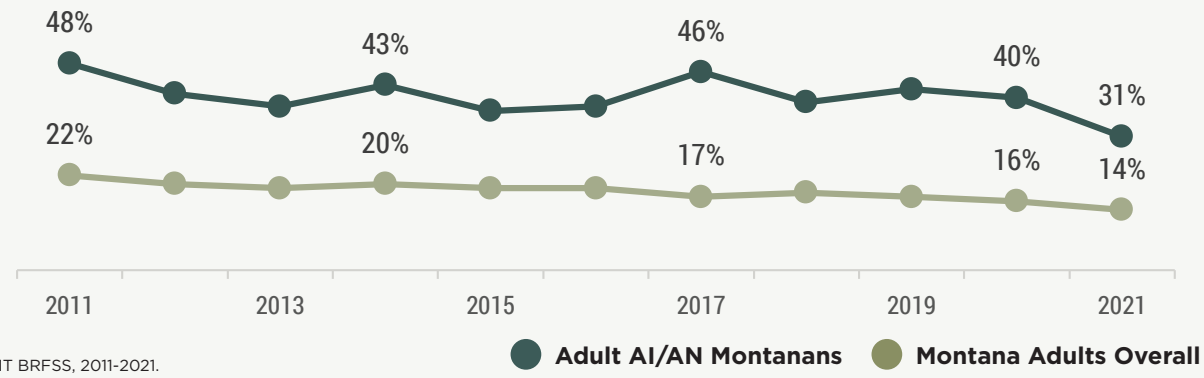
Source: MT BRFSS, 2017 and 2021.

Adult tobacco use prevalence was significantly higher among adults living...

- **In counties designated as rural by NCHS (27%) than micropolitan (21%).**
- **In counties classified as disadvantaged and most disadvantaged by the IDD (32%) than advantaged (22%).**
- **At or below 138% of the FPL (39%) than Montanans overall (24%).**
- **With disability (32%) than Montanans overall (24%).**

Source: MT BRFSS, 2021

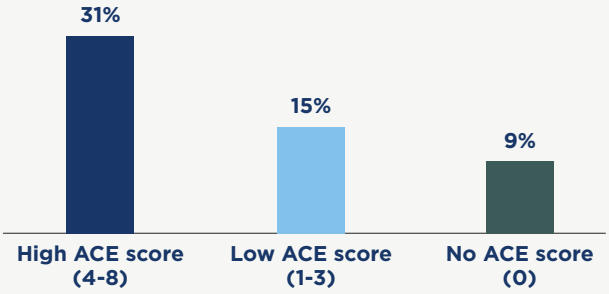
The percent of adult AI/AN Montanans smoking cigarettes has significantly decreased since 2011, however it continues to be two to three times higher than Montana adults overall.



Source: MT BRFSS, 2011-2021.

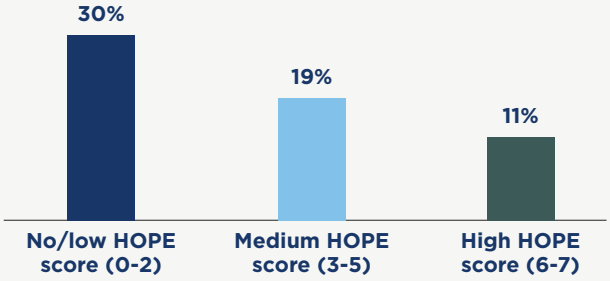
Positive and adverse childhood experiences appear to have a relationship with tobacco use behaviors among Montana adults, as measured by the Adverse Childhood Experiences (ACEs) module administered through the MT BRFSS in 2019 and the Health Outcomes from Positive Experiences (HOPE) module in 2020. For more information on the ACE and HOPE modules, see page 9.

More adult Montanans with higher ACE scores in 2019 reported current smoking; the differences between each score (high, low, and zero) were all statistically significant.



Source: MT BRFSS, 2019.

More adult Montanans with lower HOPE scores in 2020 reported current smoking; the differences between each score (no or low, medium, and high) were all statistically significant.

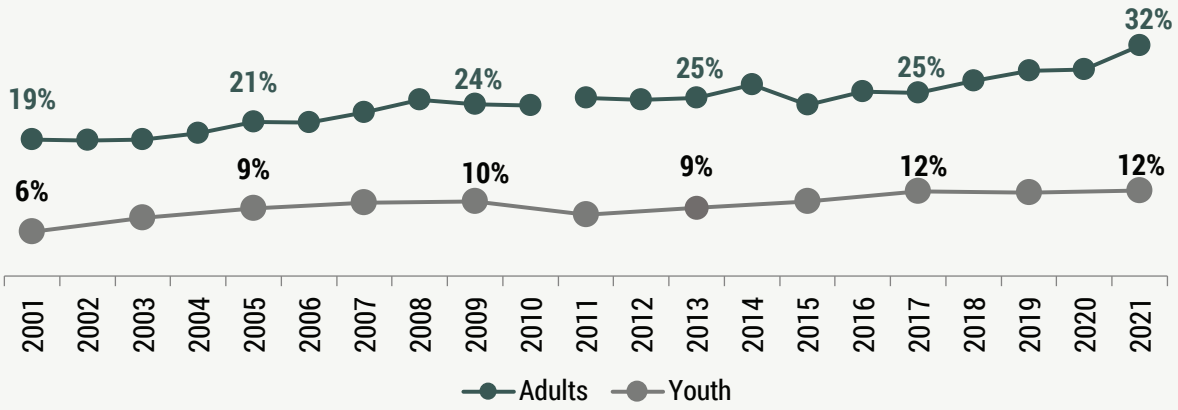


Source: MT BRFSS, 2020.

There was no statistical significance between ACE scores and e-cigarette use among adult Montanans in 2019. However, in 2020, significantly fewer adult Montanans who reported **six to seven positive childhood experiences** also reported current e-cigarette use than Montanans with **a HOPE score of zero to two (17% vs 30%**, respectively).

Source: MT BRFSS, 2019 and 2020.

Obesity is a common, serious, and costly condition that continues to increase in Montana among both adults and youth.

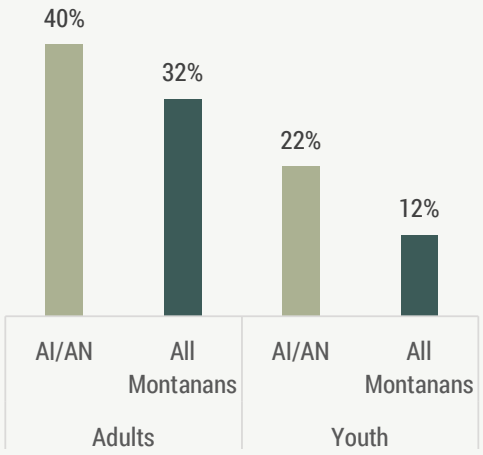


Source: Montana BRFSS, 2001-2021; Montana YRBS, 2001-2021.
Note: Due to changes in methodology, BRFSS estimates from 2010 and prior cannot be directly compared to estimates from 2011 and later.

There were no significant differences in obesity prevalence between men and women in Montana, but there were disparities between other population groups.

Risk Factors for Type 2 Diabetes are High Among Montana's Children, 2023, MT DPHHS

Obesity was significantly higher among AI/AN adults and youth in Montana than among Montanans overall in 2021.



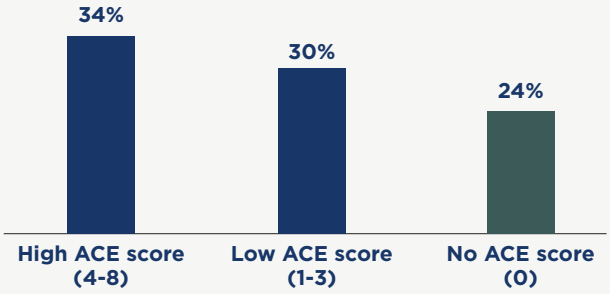
Source: MT BRFSS, 2021; MT YRBS, 2021.

Obesity prevalence was significantly higher among adults living...

- In counties designated as rural by NCHS (34%) than micropolitan (28%).
- In counties designated as disadvantaged and most disadvantaged by the IDD (39%) than advantaged (31%).
- With disability (41%) than Montanans overall (32%).

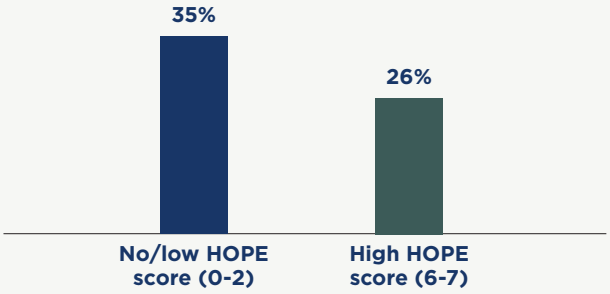
Source: MT BRFSS, 2021.

More adult Montanans in 2019 with either a high or a low ACE score reported living with obesity than adults with an ACE score of zero.



Source: MT BRFSS, 2019.

More adult Montanans in 2020 with no or a low number of positive experiences as children reported living with obesity than adults with many positive childhood experiences.



Source: MT BRFSS, 2020.

Significantly more Montana adults reported participating in physical activity in the past month in 2021 (79%) than in 2017 (75%).

One in ten (11%) Montana high school students reported not being physically active for at least 60 minutes on at least one of the last seven days in both 2017 and 2021.

Significantly more Montana high school students reported spending three or more hours per day on screen time in 2021 (72%) than in 2017 (53%).

Source: MT BRFSS, 2017 and 2021 & MT YRBS, 2017 and 2021.

Montana high school students who spent three or more hours on screen time per day...

- **Reported being physically active for at least 60 minutes per day on all of the past seven days *less often* than students who spent less than three hours on screen time per day (23% vs 34%, respectively),**
- **Reported trying to lose weight *more often* (44% vs 36%),**
- **Reported drinking a can, bottle, or glass of soda or pop daily during the past seven days *more often* (13% vs 10%),**
- **Reported feeling so sad or hopeless almost every day for two or more weeks in a row that they stopped doing usual activities in the last year *more often* (45% vs 33%),**
- **Reported making a plan about how they would attempt suicide during the past 12 months *more often* (20% vs 14%), and**
- **Reported using the internet or apps on their cell phone while driving during the past 30 days *more often* (53% vs 46%)**

Source: MT YRBS, 2021
Montana Youth Risk Behavior Survey: 2021 Screen Time Report

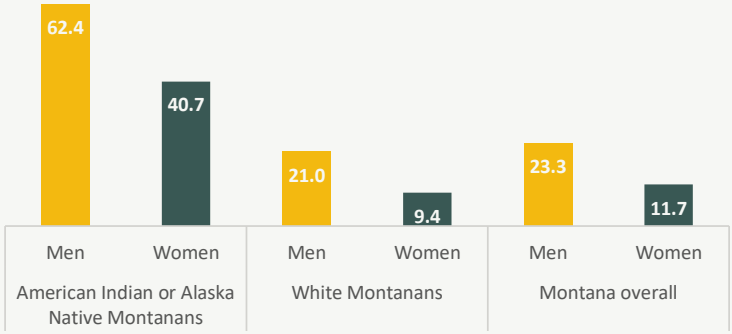
Motor Vehicle Crashes

Motor Vehicle Crashes (MVCs) have a significant impact on public health, representing a major cause of injury and mortality worldwide. MVCs not only result in immediate injuries and fatalities but also have long-lasting physical, emotional, and economic consequences for individuals, families, and communities.

MORTALITY DUE TO MOTOR VEHICLE CRASHES

There was an overall decrease in the MVC age-adjusted mortality rate in Montana from 2012-2016 (18.7 deaths per 100,000 population) to 2018-2022 (17.9 deaths per 100,000 population) (MT Vital Statistics). While deaths due to motor vehicle crashes have been declining in recent years, there are still striking disparities between population groups.

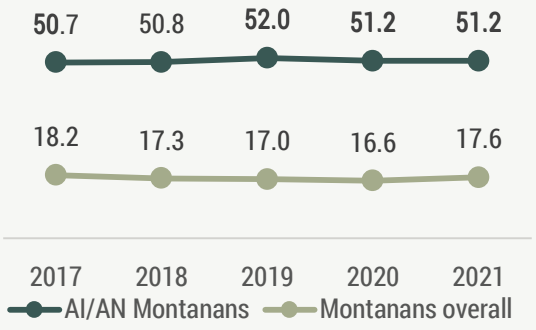
The death rate* due to motor vehicle crashes is two times higher among men than women statewide.



Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population.

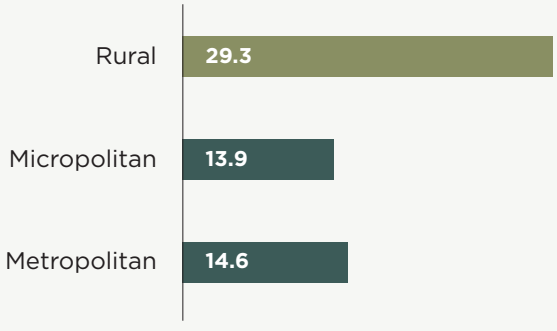
- Unintentional MVT Injuries SER 2016-2020, MT DPHHS
- Seatbelt Fact Sheet, 2023, MT DPHHS
- MVC Montana Stats 2021, MT DPHHS
- Montana Dept of Transportation (MDT): Crash data
- Montana Comprehensive Highway Safety Plan, MDT
- Traffic Safety Annual Report 2022, MDT

The death rate* due to motor vehicle crashes is three times higher among American Indian or Alaska Native Montanans than among Montanans overall.



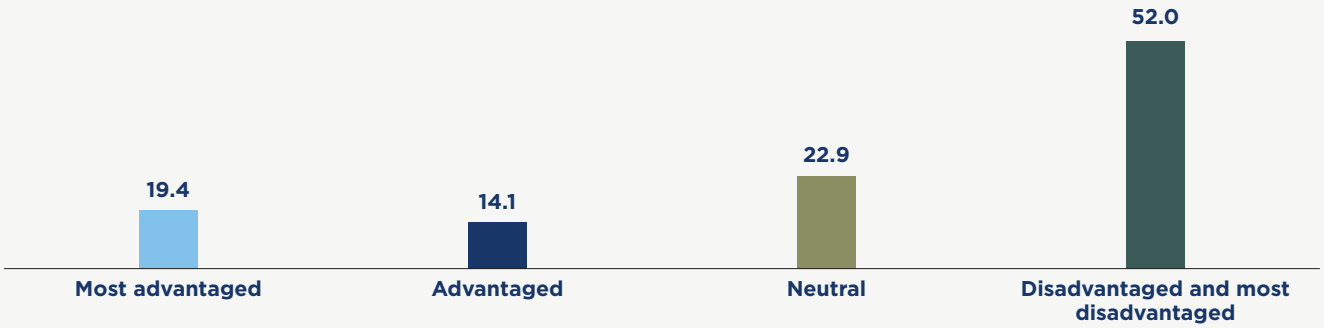
Source: MT Vital Statistics, 2017-2021.
*Age-adjusted death rate per 100,000 population.

Motor vehicle crash death rates* in Montana were significantly higher in rural counties compared to more populated counties.



Source: MT Vital Statistics, 2017-2021.
*Age-adjusted death rate per 100,000 population.
Note: See page 11 for more information on National Center for Health Statistics (NCHS) designations.

The death rate* due to motor vehicle crashes was significantly higher in disadvantaged and most disadvantaged counties, as classified by the IDD, than in all other counties. However, counties classified both as neutral and most advantaged were both significantly higher than counties classified as advantaged.



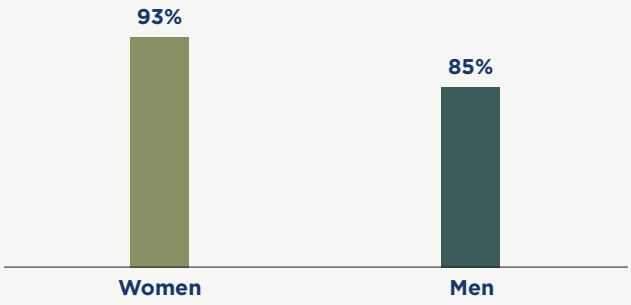
Source: MT Vital Statistics, 2017-2021. *Age-adjusted death rate per 100,000 population.
Note: See page 12 for more information on Index of Deep Disadvantage (IDD) designations.

RISK FACTORS FOR MOTOR VEHICLE CRASHES

Seatbelt usage

Seatbelt use is one of the most impactful health behaviors for reducing severe injuries and deaths due to motor vehicle crashes. About 75% of Montana adults and 54% of high school students self-reported always wearing their seatbelt (MT BRFSS, 2021 & MT YRBS, 2021).

Women reported always wearing their seatbelt significantly more often than men in Montana.



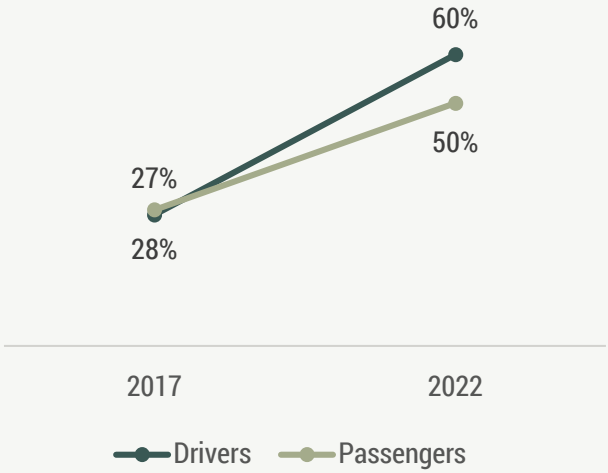
Source: MT BRFSS, 2021.

Always wearing a seatbelt was reported significantly less often among Montana adults...

- **Aged 18 to 24 years (69%) than among Montana adults overall (75%).**
- **Living at or below 138% of the Federal Poverty Level (FPL) (68%) than Montana adults overall (75%).**

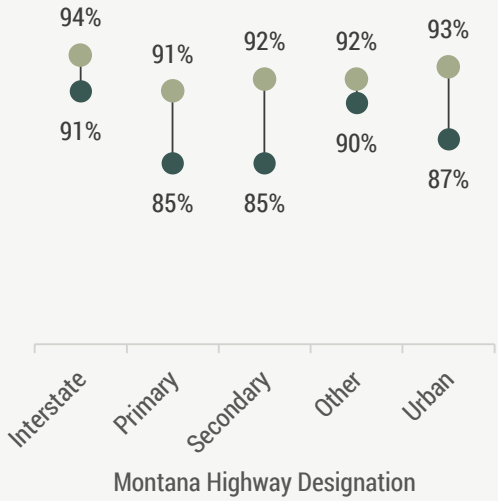
Source: MT BRFSS, 2021.

The percentage of both drivers and passengers on American Indian reservations observed wearing their seatbelts increased significantly from 2017 to 2022.



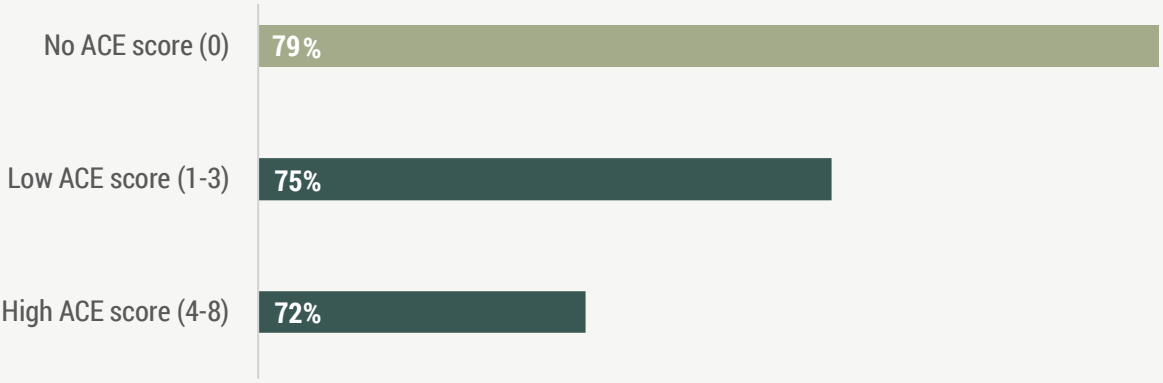
Source: Billings Area IHS Montana Service Units, 2017 and 2022.

The percentage of drivers on all road types in Montana observed wearing their seatbelts has increased overall from 87% in 2018 to 92% in 2021.



Source: MDT, 2018 and 2021.

Adult Montanans who reported not having any adverse childhood experiences (ACEs) in 2019 also reported always wearing their seatbelt significantly more often than adult Montanans who had either low or high ACE scores.



Source: MT BRFSS, 2019.
Note: The question about seatbelt usage is only included on the MT BRFSS every odd year. The resiliency-focused Health Outcomes from Positive Experience (HOPE) module was asked in 2020, so cannot be analyzed by seatbelt use. See page 9 for more information on ACEs and HOPE.

Alcohol and drug impairment

According to the Montana Department of Transportation, Montana has one of the highest fatality rates in the nation for deaths caused by impaired drivers; in 2020, about 66% of motor vehicle crash fatalities involved impaired driving (2023a). The proportion of fatalities that involve alcohol-impaired drivers has remained approximately the same over the past decade (FARS, 2012-2021).

According to the 2020 BRFSS, 4% of Montana adults reported having driven after drinking too much, compared with 2% of adults in the US. In 2021, significantly more high school students in Montana reported riding in a car or vehicle one or more times in the past month with a driver who had been drinking alcohol than high school students in the U.S. (MT YRBS, 2021). Significantly more high school students in Montana also reported driving when they had been drinking alcohol themselves one or more times in the past 30 days than high school students in the U.S. (8% vs 5%, respectively) (MT YRBS, 2021).

From 2017-2021, **40%** of traffic fatalities in Montana involved an alcohol-impaired driver.

Source: FARS, 2017-2021

2022 Montana Impaired Driving Assessment and **State Response**

Montana DUI Task Forces

While the public is largely aware of the dangers of drunk driving, there is less awareness surrounding driving under the influence of drugs, including after marijuana use. In 2021, about two in ten (22%) of Montana college students reported driving after consuming alcohol and four in ten (41%) reported driving within six hours of using marijuana in the last month (American College Health Association).

Distracted driving

Distracted driving is defined as "any non-driving activity a person engages in that has the potential to distract them from the primary task of driving." Distractions that have been listed on Montana crash reports include, but are not limited to, eating, smoking, adjusting controls and music within the vehicle, looking at maps, and cell phone use. (MDT, 2023b)

The proportion of high school students who report texting or emailing while driving has increased in recent years, from 54% in 2017 to 57% in 2021, and was significantly higher than high school students in the US (36%) (MT YRBS). As of 2023, there were 15 Montana cities, counties, and reservations with bans on the use of handheld cell phones while driving, listed below. The combined population covered by local ordinances banning handheld cell phone use while driving is about four in ten Montanans.

Montana cities, counties, or reservations covered by local ordinances banning handheld cell phone use while driving.

MONTANA CITY, COUNTY, OR RESERVATION	POPULATION AS OF 2021 US CENSUS ESTIMATE
Anaconda/Deer Lodge	9,491
Baker	1,807
Billings	117,445
Bozeman	54,539
Butte/Silver Bow	34,768
Columbia Falls	5,545
Cut Bank	3,046
Fort Peck Reservation	9,988
Great Falls	60,403
Hamilton	4,905
Havre	9,314
Helena	33,120
Missoula	74,822
Shelby	3,153
Whitefish	8,492
Total population covered by a ban on handheld cell phone use while driving	**430,838**

Source: MDT, 2022.

Healthy Families

Healthy families are fundamental building blocks of public health. Public health efforts focus on improving maternal mental and physical health, ensuring safe pregnancies and optimal childbirth outcomes, and promoting infrastructure, like quality early childhood education, to foster a nurturing environment that enables infants and young children to thrive. This focus on healthy families establishes a solid foundation for healthier communities and future generations, contributing to the overall wellbeing of populations.

See the Fundamental Health Statistics chapter for data on birth rates, preterm birth, low birth weight, teen pregnancy rates, and infant mortality.

2020 Healthy Montana Families Needs Assessment dashboard, MT DPHHS

Healthy Montana Families Performance Measures (2018-2021) dashboard, MT DPHHS

Montana Children's Health Data Dashboard, Montana Kids Count

PREGNANCY INTENTION

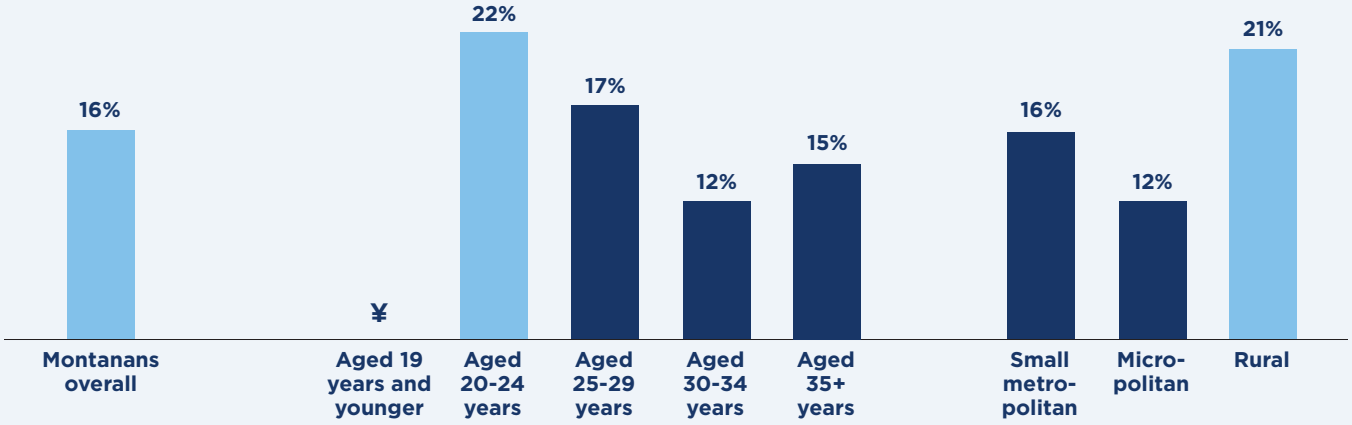
Unintended pregnancy is defined as a pregnancy that is mistimed, unplanned, or unwanted at the time of conception. Unintended pregnancy can result in adverse maternal and child health outcomes, such as delayed and inadequate prenatal care, lower likelihood of using folic acid during pregnancy, premature birth, low birthweight, lower likelihood of breastfeeding, and increased pre- and post-partum depression.

In 2021, less than one in ten Montanans (6%) who gave birth reported they had not wanted to be pregnant then or in the future; there were no significant differences between or within groups by age, race, or county population size and Montana overall. Almost two in ten (16%) were not sure if they had wanted to be pregnant or not. (MT PRAMS)

Almost **four in ten** American Indian or Alaska Native (AI/AN) Montanans who gave birth **were not sure if they wanted to be pregnant or not (36%),** which was about two times higher than Montanans overall (16%).

Source: MT PRAMS, 2021.

More Montanans aged 20 to 24 years and Montanans who lived in rural counties, as defined by the NCHS, reported being unsure if they had wanted to be pregnant or not. These two groups were not significantly different from Montana overall, but the differences were significant from Montanans aged 30-34 years and Montanans who lived in micropolitan counties, respectively.



Source: MT PRAMS, 2021.
Note: Data do not include pregnancies that resulted in miscarriage or abortion. ¥: Insufficient data. See page 11 for more information on National Center for Health Statistics (NCHS) classifications for counties based on population size.

Contraceptive use

About two in ten Montanans who were not trying to get pregnant at the time of conception and gave birth in 2021 did not use contraception (21%). There are no significant differences in contraception use by county population size. (MT PRAMS)

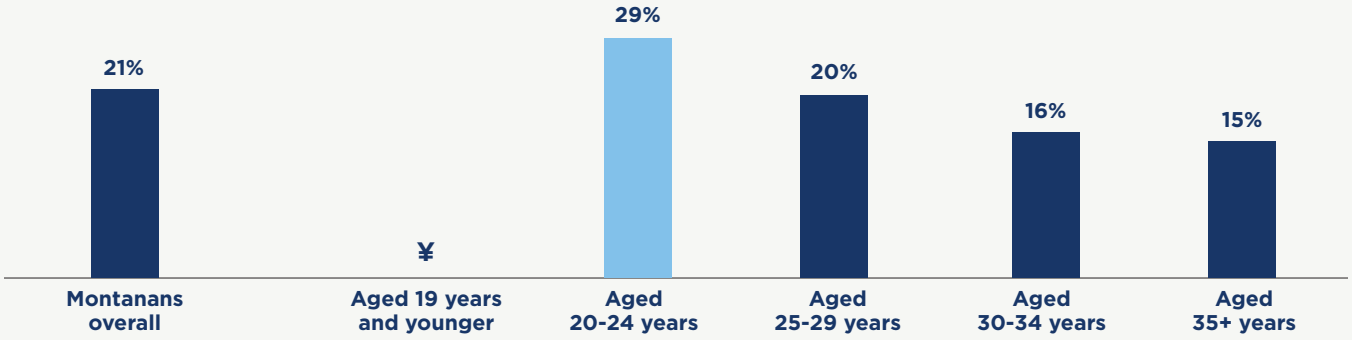
Reasons for not using contraception among women who wished to delay or limit childbearing include, but are not limited to, health concerns, fear of side effects, and underestimation of risk of conception, accessibility to contraceptives, cost of services, and opposition due to religious beliefs (WHO, 2019). Additionally, women who have experienced intimate partner violence are more likely to need to negotiate, hide, or forego contraception altogether, or may have their contraception efforts sabotaged (Zheng et al., 2022).

Almost half of AI/AN Montanans who gave birth after an unintended pregnancy **reported not using contraception (47%),** which is over two times higher than Montanans overall (21%).

Source: MT PRAMS, 2021.

The 2017 SHA reported contraceptive use based on the 2015 Mothers and Babies survey, a one-time survey conducted prior to implementing the population-based PRAMS survey in Montana. As such, the data are not replicable; the data provided in the 2023 SHA cannot be compared to the prior SHA publication.

Age group influenced contraception use among Montanans who gave birth after an unintended pregnancy in 2021: significantly more Montanans aged 20 to 24 years reported not using contraception than Montanans aged 30 to 34 years and older than 35 years. However, the difference was not significant from Montanans overall or Montanans aged 25 to 29 years.



Source: MT PRAMS, 2021.
Note: Data do not include pregnancies that resulted in miscarriage or abortion. ¥: Insufficient data. See page 11 for more information on National Center for Health Statistics (NCHS) classifications for counties based on population size.

Substance use during pregnancy

Women with unintended pregnancy report participating in unsafe health behaviors during pregnancy, such as tobacco and alcohol use, more often than women with planned pregnancy.

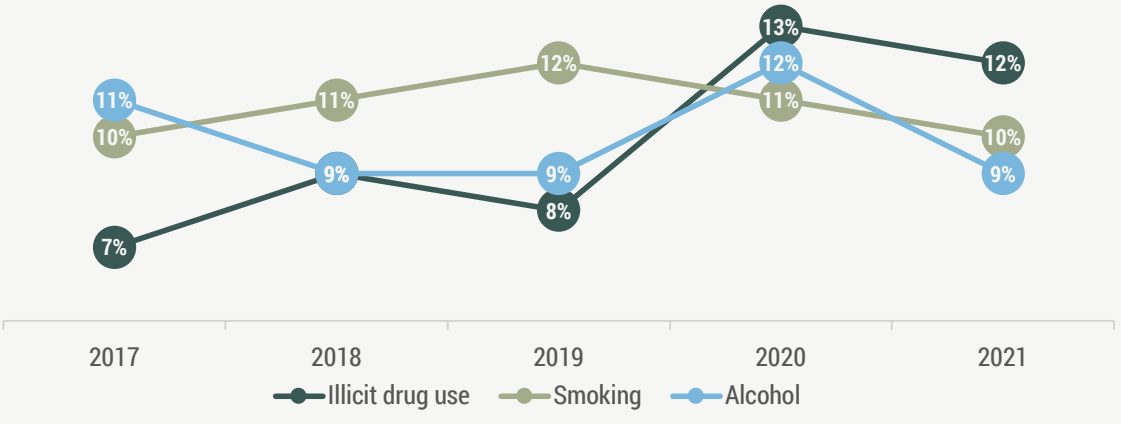
In 2021, **American Indian** or **Alaska Native Montanans** reported lower alcohol use during pregnancy than **Montana overall** (**5%** vs **9%**), but higher illicit drug use (20% vs 12%) and cigarette use (**22%** vs **10%**) during pregnancy.

Source: MT PRAMS, 2021.

In 2021, **Montanans** reported using tobacco during pregnancy significantly more often than the **U.S.** (**11%** vs **5%**).

Source: MT Vital Statistics, 2021.

Illicit drug use during pregnancy significantly increased from 2019 to 2020 and remained high in 2021. Alcohol use during pregnancy appears to have risen from 2019 to 2020, but did not reach statistical significance and returned to previous levels in 2021. Cigarette smoking during pregnancy has remained steady, with no significant differences between years.



Source: MT PRAMS, 2017-2021.

MATERNAL MORBIDITY

Health status before, during, and after pregnancy can have significant impact on infant health and wellbeing. In Montana, pregnancy-induced hypertension and gestational diabetes have both been rising steadily over the past five years.

In 2021, almost one in ten Montanans who gave birth were diagnosed with gestational diabetes. Significantly more AI/AN Montanans who gave birth were diagnosed than Montanans overall. Significantly more Montanans aged 35 years and older were diagnosed than other age groups, as were Montanans living in rural counties, as defined by the NCHS, compared with other counties.

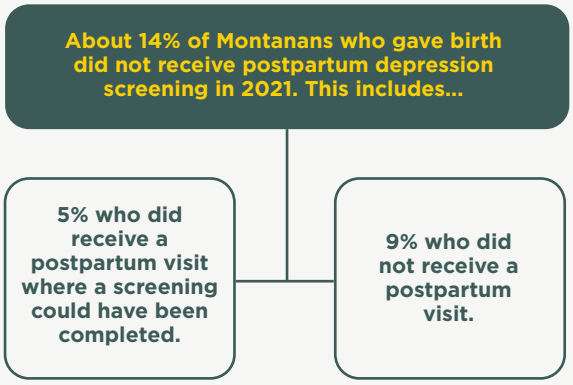
Source: MT PRAMS, 2021.

In 2021, about one in ten Montanans who gave birth were diagnosed with pregnancy-induced hypertension. The only significant difference between population groups can be observed among Montanans who have gave birth aged 35 years and older, who were diagnosed nearly twice as often as the other age groups and Montanans overall.

Source: MT PRAMS, 2021.

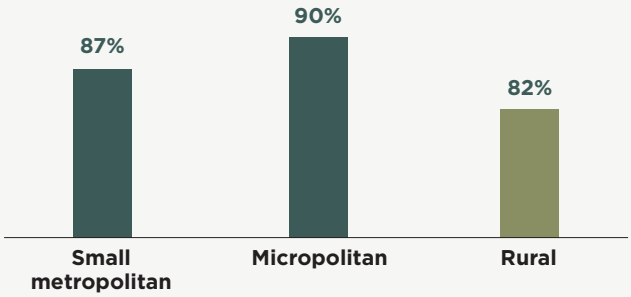
Postpartum depression

In 2021, 86% of Montanans who gave birth reported being screened for postpartum depression, although the percent of people who received screening was significantly lower among AI/AN Montanans (74%).



Source: MT PRAMS, 2021.

Significantly fewer Montanans who gave birth received postpartum depression screening in rural counties than in micropolitan counties, as defined by the NCHS.



Source: MT PRAMS, 2021.
Note: The difference between rural and small metropolitan was not statistically significant.

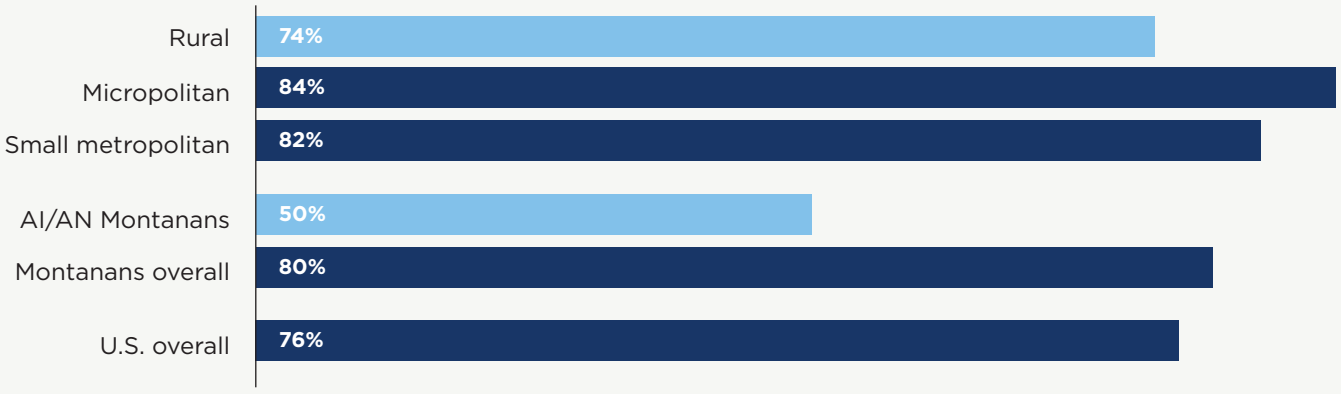
PRENATAL CARE

Early and adequate prenatal care is important to ensure mother and infant are healthy through pregnancy and birth. Healthy People 2030 uses the Adequacy of Prenatal Care Utilization (APNCU) Index, which combines the month in which pregnancy prenatal care began with the number of prenatal visits received. Rates can be classified as "intensive use," "adequate," "intermediate," or "less than adequate." For this measure, adequate prenatal care is defined as a score of either "adequate" or "intensive use" in the APNCU Index. The percent of births that received adequate prenatal care in Montana has remained, overall, steady at about 78% from 2017 to 2020, with a slight increase to 80% in 2021, which is higher than the national average.

In 2021, **American Indian or Alaska Native Montanans who gave birth** received inadequate prenatal care during pregnancy significantly more often than in **Montana overall** (**31%** vs **13%**).

MT PRAMS, 2021

In 2021, significantly fewer Montanans who gave birth in rural counties, as designated by the NCHS, and American Indian or Alaska Native Montanans received adequate prenatal care compared to Montanans overall.



Source: MT PRAMS, 2021.
Note: The APNCU Index only applies to low-risk pregnancies and may not measure sufficient care for a high-risk pregnancy.

Receiving prenatal care in the first trimester of pregnancy increased from 73% in 2017 to 76% in 2021 (MT PRAMS, 2017-2021). However, in 2021, only about half of AI/AN Montanans who gave birth received prenatal care in the first trimester (49%). Additionally, about three in ten residents of rural counties who gave birth, as designated by the NCHS, received prenatal care starting in the first trimester (69%), as compared with about four in ten residents of micropolitan and small metropolitan counties who gave birth (79% and 81%, respectively). (MT PRAMS)

INFANT CARE

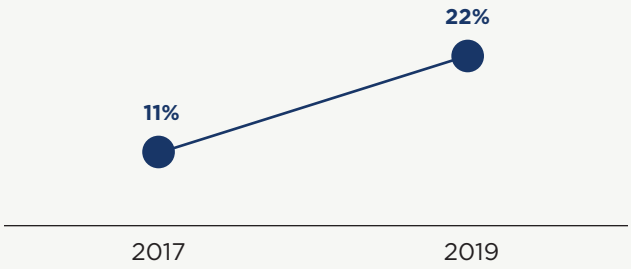
In Montana, a safe sleep environment for a baby is defined as the infant is 1) most often laid down to sleep on their back, 2) always or often placed on a separate surface, 3) the sleep surface is approved, and 4) without soft objects or loose bedding.

Montanans aged 30 to 34 years who gave birth reported safe sleep environments for their babies born in 2021 more than twice as often as Montanans aged 20 to 24 years (28% and 14%, respectively). Additionally, the reported proportion of babies who reside in rural counties to be in a safe sleep environment (16%) was less than babies in small metropolitan counties (29%). (MT PRAMS, 2021)

In 2021, significantly fewer **American Indian or Alaska Native** babies were reported to be in a safe sleep environment (9%) than Montana babies overall (22%), according to MT PRAMS. Tribal nations in Montana, including the Crow, Blackfeet, Ojibwe/Chippewa, and Kootenai, have a cultural history of using cradleboards for infant sleep, which is not included in the definition established by the PRAMS survey.

MT PRAMS, 2021; Jones, 2017; Montana History Portal, 2024.

The percent of Montana babies in safe sleep environments doubled from 2017 to 2021.



Source: MT PRAMS, 2017-2021.

In 2021, the percentage of AI/AN babies in Montana reported to always be placed in their car seat was lower than Montana babies overall.

Source: MT PRAMS, 2021.
Note: Non-parent drivers may be less likely to use car seats than parent drivers in AI/AN communities. Informal caregiving for family support is reported at high levels among AI/AN communities. (Lapidus et al, 2005 & Strachan et al. 2022)

Almost 100% of PRAMS respondents reported having access to car seats from 2017 to 2021. However, respondents reporting that they always use their car seat has slightly declined in recent years, from 98% in 2017 to 96% in 2021. This decline was not statistically significant. This trend was also observed among AI/AN babies and babies living in counties of all population sizes, as defined by the NCHS, in Montana.

84% of Montanans who gave birth in 2021 reported their infants received their 3-month well-baby vaccinations, which did not include vaccinations administered in the hospital. A significant difference exists between rural counties and small metropolitan counties, as defined by the NCHS (78% and 84%, respectively). (MT PRAMS, 2021)

The goal of developmental screenings is to identify children with autism spectrum disorder and other developmental delays early in life. National guidelines recommend developmental screenings at ages 9-, 18-, and 24-30- months (American Academy of Pediatrics, 2022). According to the National Survey of Children's Health (NSCH), 46% of Montana parents completed a standardized development screening tool for their children between the ages of 9- and 35-months in 2021, which was higher than the national average (35%). The Healthy People 2030 target for developmental screenings is 35.8%, meaning Montana parents overall have surpassed the target.

Breastfeeding plays key roles in infant and maternal health. Many system, policy, and environmental barriers prevent parents from meeting breastfeeding recommendations for their infants, as well as individual factors, such as age; younger mothers (24 years of age and younger) in Montana breastfed their infants upon discharge less often compared with their older counterparts from 2017-2021 (MT Vital Statistics). The Special Supplemental Nutrition Program for Women, Infants, and Children in Montana (Montana WIC) supports participants primarily through accessing health screening, nutrition and breastfeeding counseling, immunization screening and referral, and substance use referrals. In Montana, 21% of infants enrolled in the program were fully breastfed compared to 12% for the nation (US Department of Agriculture, 2021).

Most Montanans who gave birth in 2021 reported breastfeeding their babies (93%).

93% ever breastfed, among all babies.

78% breastfed at 8 weeks, among all babies.

84% ever breastfed, among AI/AN babies.

2021 Montana WIC Needs Assessment, MT DPHHS

The State of Breastfeeding in Montana StoryMap, MT DPHHS

Source: MT PRAMS, 2021.
Note: Breastfeeding subject matter experts note the disparity in breastfeeding between AI/AN mothers and the overall population as a function of historical and systemic influences, including a disruption of cultural practices (Advisory Committee on Infant and Maternal Mortality to the U.S. DHHS, 2022).

The Maternity Practice in Infant Nutrition and Care (mPINC) survey assesses support systems in place at hospitals and birthing facilities; Montana's most recent score was 86 out of a possible 100, which was higher than the national score (2022). This score is an average across six categories of supports that hospitals and birth centers can provide for breastfeeding. Montana's scores in comparison with the nation are provided below.

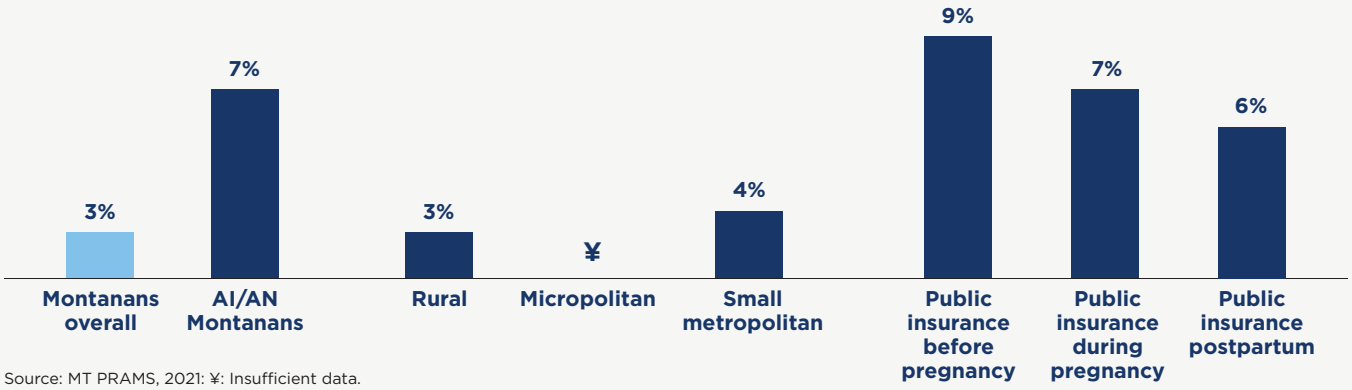
CATEGORY OF SUPPORT	MONTANA SUBSCORE	NATIONAL SUBSCORE
Immediate postpartum care	89	84
Rooming-in	78	76
Feeding practices	95	81
Feeding education and support	97	94
Discharge support	82	78
Institutional management	75	76
Average overall score	**86**	**81**

Source: mPINC, 2022.

INTIMATE PARTNER VIOLENCE

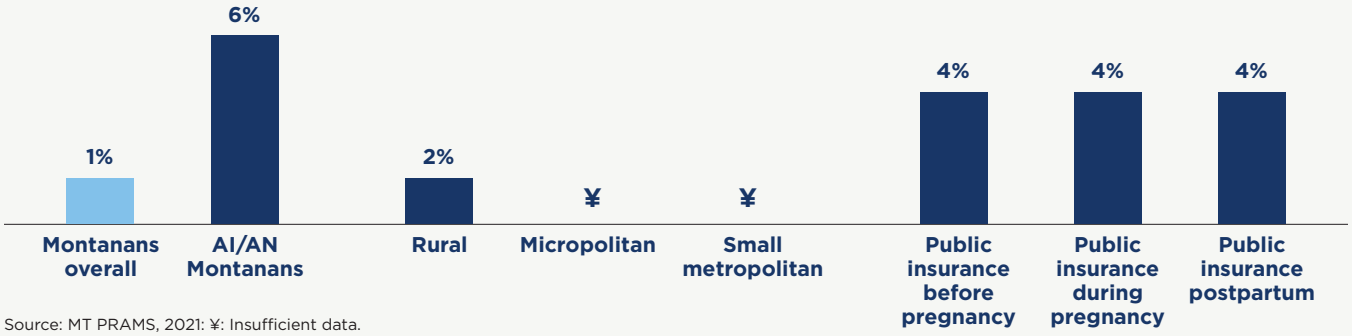
The prevalence of PRAMS respondents reporting intimate partner violence (IPV) during pregnancy has remained steady over the last five years.

In 2021, AI/AN Montanans and Montanans enrolled in Medicaid or Healthy Montana Kids before, during, or after pregnancy reported experiencing IPV between two and three times more often before pregnancy than Montanans overall.



Source: MT PRAMS, 2021: ¥: Insufficient data.

4% of Montanans enrolled in Medicaid or Healthy Montana Kids and 6% of AI/AN Montanans reported IPV during pregnancy, which was higher than Montanans overall.



Source: MT PRAMS, 2021: ¥: Insufficient data.

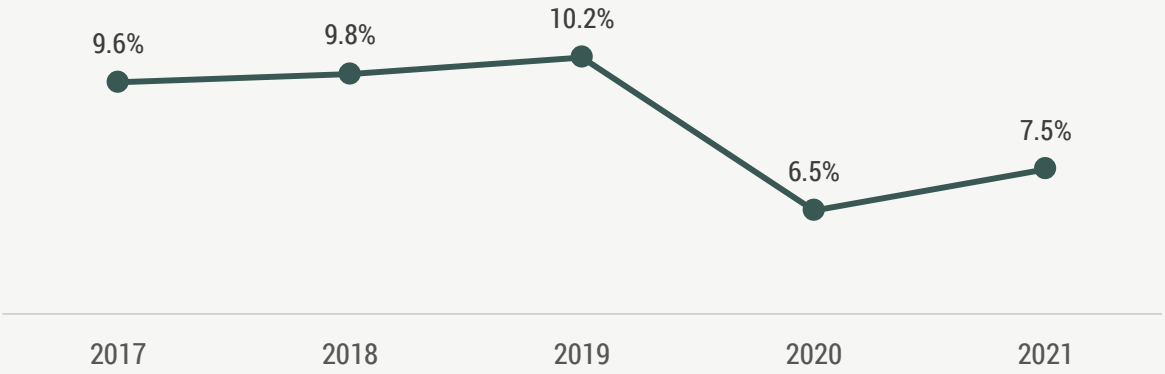
FAMILY HEALTH

Healthy Montana Families (HMF) provides voluntary, evidence-based home visiting programs for pregnant women and families with children through kindergarten entry living in communities at risk for poor maternal and child health outcomes.

Healthy Montana Families Service Utilization (2012-2022) Dashboard, MT DPHHS

2021 Montana Parent Survey Results, Parenting Montana

The proportion of Montana mothers who reported having at least one postpartum home visit postpartum peaked in 2019 at 10.2%. There was a significant decline in home visits in 2020 and 2021, likely associated with the COVID-19 pandemic.



Source: MT PRAMS, 2017-2021.

According to the National Survey of Children's Health (NSCH), significantly more Montana parents reported that they had someone they could turn to for day-to-day emotional support with parenting or raising children in 2020 and 2021 than parents in the US overall (86% vs 76%, respectively). Significantly fewer Montana parents felt they were handling the day-to-day demands of raising children very well compared to their national counterparts (52% vs 59%), but significantly more felt they were handling those demands somewhat well (47% vs 39%).

The NCHS also measures child flourishing. There were no significant differences between children and adolescents in Montana and the US for child flourishing.

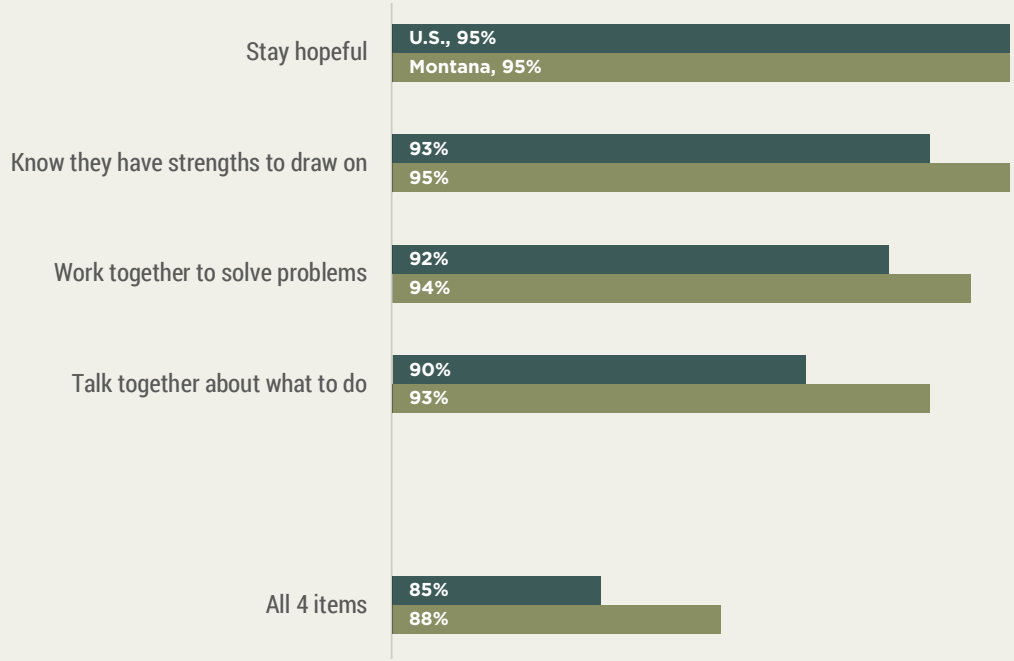
Prevalence of child flourishing, defined as always or usually meeting the criterion.

Aged 6 months to 5 years: Almost nine in ten Montana children meet all four criteria (86%).	**Aged 6 to 17 years: six in ten Montana children or adolescents meet all three criteria (61%).**
Child is affectionate and tender with their parent* (97%)	Child shows interest and curiosity in learning new things (85%)
Child bounces back quickly after difficulty (90%)	Child stays calm and in control when faced with a challenge* (71%)
Child shows interest and curiosity in learning new things (96%)	Child finishes the tasks they start* (80%)
Child smiles and laughs (100%)	

*Significantly more US children were described by their parent as "always" meeting this criterion than Montana children.

Source: NSCH, 2020-2021.

More Montana families compared to U.S. families reported that their family displayed all four qualities of family resiliency, identified below, all or most of the time during times of difficulty.



Source: NSCH, 2020-2021.

Communicable Disease and Immunization

There have been several notable infectious and non-infectious disease events since 2017, the largest of which was the COVID-19 pandemic.

Combined 2020-2021 Montana Annual Communicable Disease Summary Report

2023

The federal COVID-19 public health emergency ended on May 11, 2023:

- During the three years of the COVID-19 pandemic the state of Montana reported nearly 334,000 cases of COVID-19. These infections resulted in more than 14,000 hospitalizations and the death of over 3,700 Montanans.

Outbreak related to consumption of undercooked morel mushrooms:

- A total of 51 cases, three hospitalizations, and two deaths were associated with a foodborne outbreak at a sushi restaurant.

2022

Multi-drug resistant tuberculosis (TB):

- Six cases of TB were reported, one of which was a multi-drug resistant strain of TB.

Syphilis on the rise:

- Syphilis reached 56.9 cases/100,000 population, which was the highest syphilis incidence in Montana since 1959. Fifteen congenital syphilis cases were reported, including three stillbirths.

Outbreaks of mpox emerged across the US:

- Seven cases of mpox were identified in Montana residents.

2021

Wound botulism:

- One case of wound botulism was identified in Montana, related to injecting black tar heroin.

2020

Emergence of the COVID-19 pandemic:

- By the end of the year, over 85,000 cases of COVID-19 were reported in Montana and almost 1,500 people died.

Salmonella Newport Outbreak:

- A multi-state outbreak linked to contaminated red onions resulted in 72 cases of outbreak-related salmonellosis in Montana residents.

Colorado Tick Fever:

- A rise in Colorado Tick Fever cases, becoming the most commonly reported tickborne disease in Montana.

2019

Hepatitis A:

- Seventeen cases reported in 2019, largely due to an increase in cases in the injection drug-using community and among people who inject drugs, who were incarcerated or who were experiencing homelessness.
- No cases of Hepatitis A were reported in Montana the year prior, 2018.

E-cigarette, or Vaping Product, Use Associated Lung Injury (EVALI) outbreak:

- Nine confirmed or probable cases in Montana.

Syphilis:

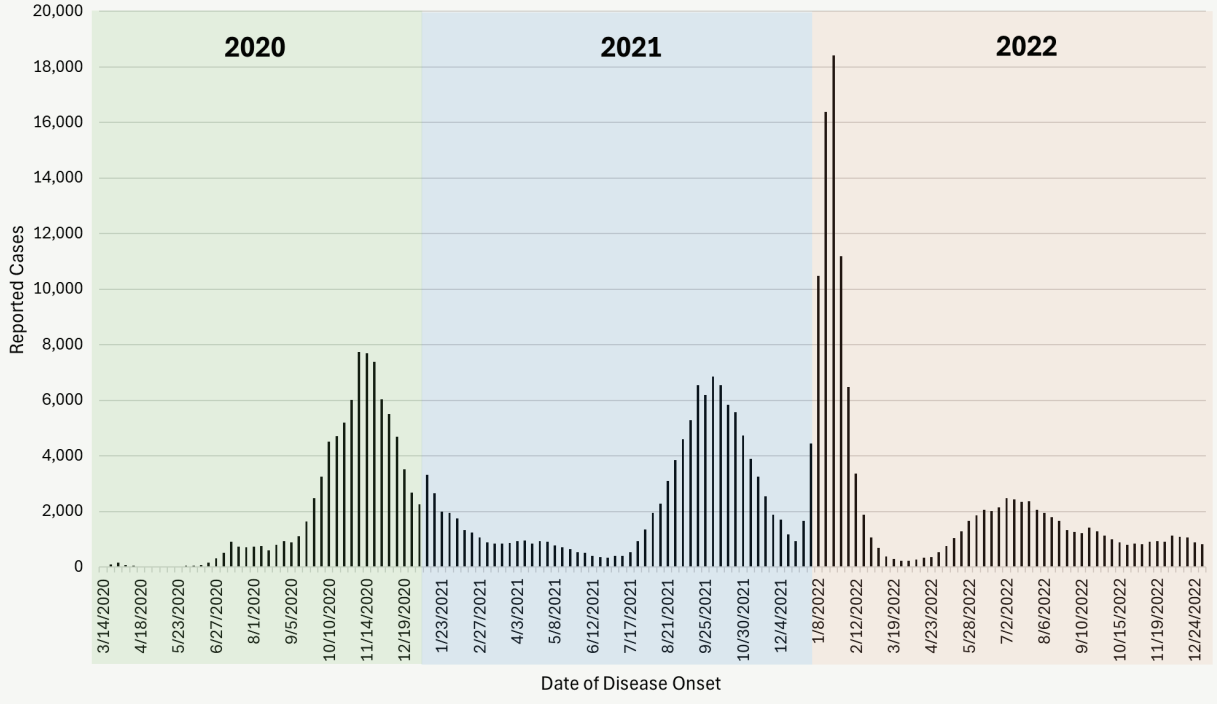
- Fifty-nine cases of syphilis cases (primary and secondary) were reported in 2019, which was the most cases of syphilis reported in Montana in a decade.

Source: Annual Montana Communicable Disease Epidemiology (MT CDEpi) Summary Reports, 2019-2022.

COVID-19

COVID-19 is a contagious respiratory illness caused by the SARS-CoV-2 virus, first identified in 2019. This newly identified coronavirus resulted in a global pandemic. The first case of COVID-19 was identified in Montana on March 13, 2020. From 2020 to 2022, there were 327,148 COVID-19 cases, 14,023 hospitalizations, and 3,682 deaths reported in the state (MT CDEpi Annual Report, 2021-2022).

COVID-19 cases among Montana residents reported to DPHHS



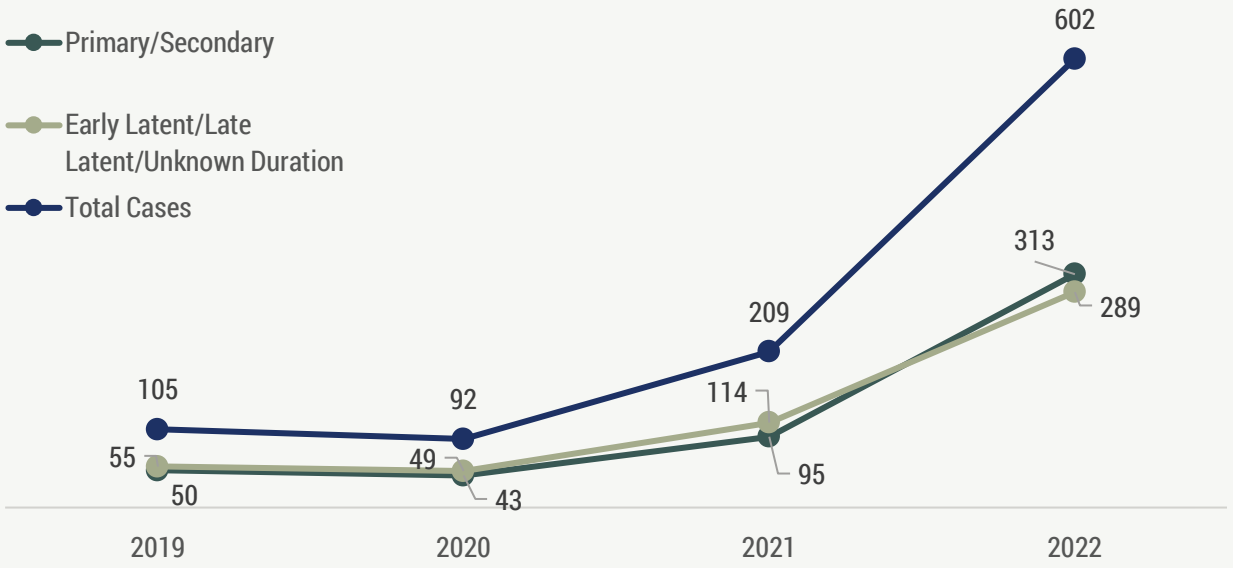
Source: Montana Infectious Disease Information System, 2020–2022.

SYPHILIS

Syphilis is a sexually transmitted infection caused by the bacterium *Treponema pallidum* that can cause serious health effects if not adequately treated. In recent years Montana has seen a dramatic rise in syphilis. While syphilis in Montana was historically most prevalent in men, women of reproductive age now constitute nearly 50% of annual case counts, which tracks directly with a concerning increase in congenital syphilis cases. Women at risk for syphilis in pregnancy include those with multiple sexual partners, sex in conjunction with drug use or transactional sex, late entry to prenatal care, no prenatal care, methamphetamine or heroin use, incarceration of the woman or her partner, and unstable housing or homelessness. Among pregnant women with untreated syphilis, 67% will have an adverse outcome of pregnancy, including 26% who will have fetal loss or a stillbirth. (WHO, 2023b)

Between 2019 and 2022, Montana syphilis case counts (all stages) have risen from 105 cases in 2019 to 602 cases in 2022, constituting a 473% increase (Montana Infectious Disease Information System, 2023).

Number of syphilis cases in Montana, 2019-2022



Source: Montana Infectious Disease Information System, 2020–2023.

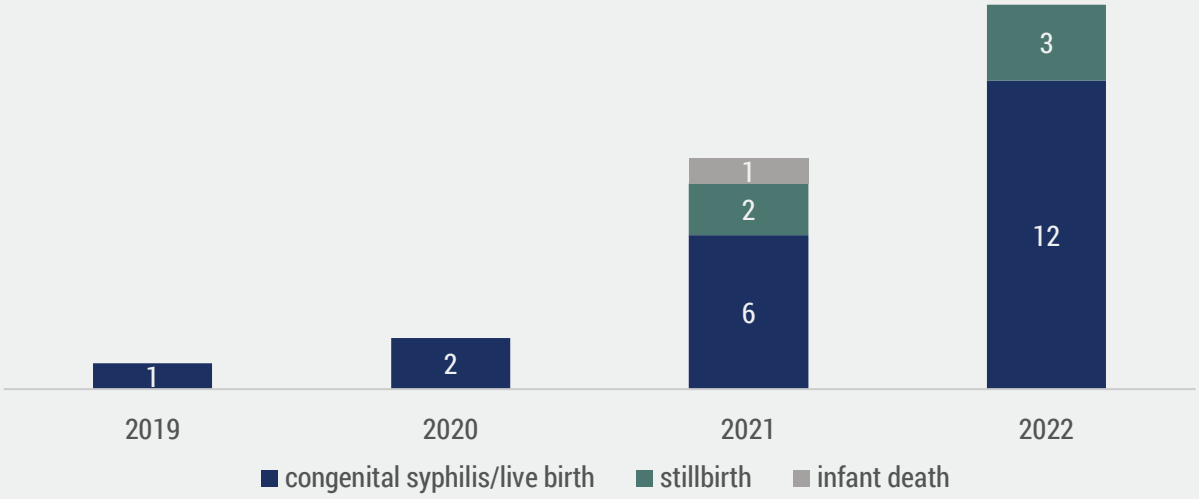
Congenital syphilis is considered a sentinel public health event; just one case demonstrates a breakdown in the maternal and public health systems because syphilis can be treated easily with early and adequate prenatal care (Bowen et al., 2015).

A DPHHS descriptive analysis of case investigations from 2019 through October 19, 2022, examined the circumstances of nineteen pregnant women in Montana who delivered babies with congenital syphilis or had syphilitic stillbirth. Among this sample, 47% did not receive prenatal care and among those who did receive care, 70% entered care in the second trimester or beyond. Cited barriers to receiving appropriate treatment included lack of transportation to access care, lack of a reliable communication method (e.g., cell phone), concurrent intravenous drug use, and administration of the incorrect treatment. (MT STD and HIV Prevention Program, 2023).

Of congenital syphilis cases reported from 2019 to 2022:

- **89%** of mothers were American Indian
- **73%** of mothers had unknown duration or latent syphilis
- **47%** did not receive prenatal care
- Average age of the mother was **29 years old**

There has been a growing number of congenital syphilis cases, resulting in stillbirths and infant deaths.

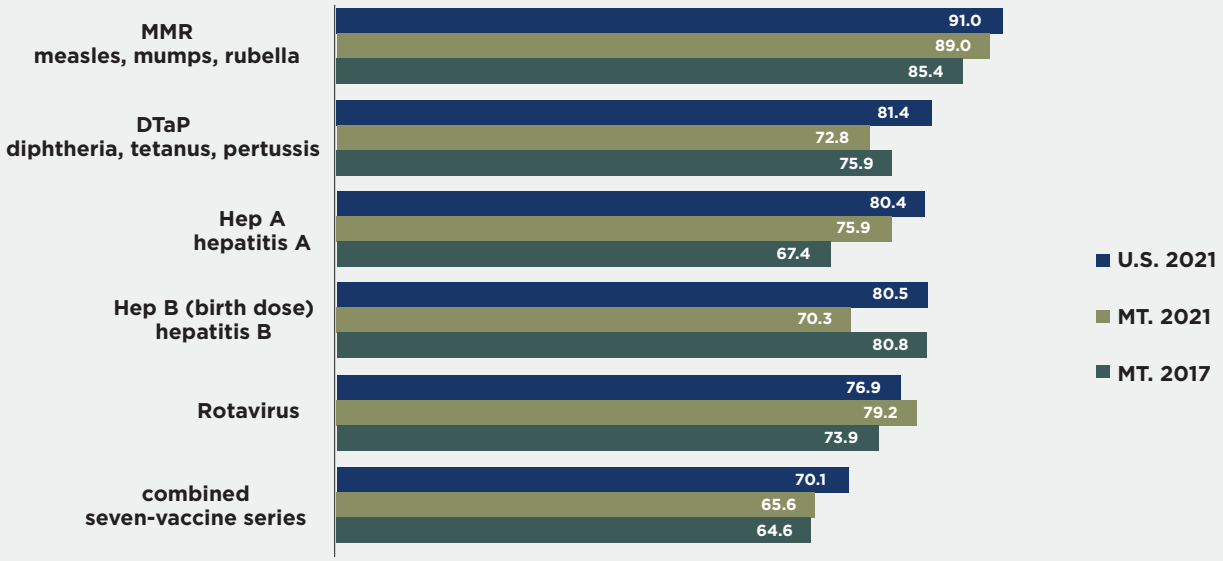


Source: MT STD and HIV Prevention Program, 2023

IMMUNIZATIONS

The percent of Montana children aged 24 to 35 months receiving the recommended dosage varies by vaccine and is comparable to the US. Overall, 65.6% of Montana children received the recommended combined seven-vaccine series by 24-months in 2021. This percentage has not changed significantly since 2017. (National Immunization Survey [NIS], 2017 and 2021)

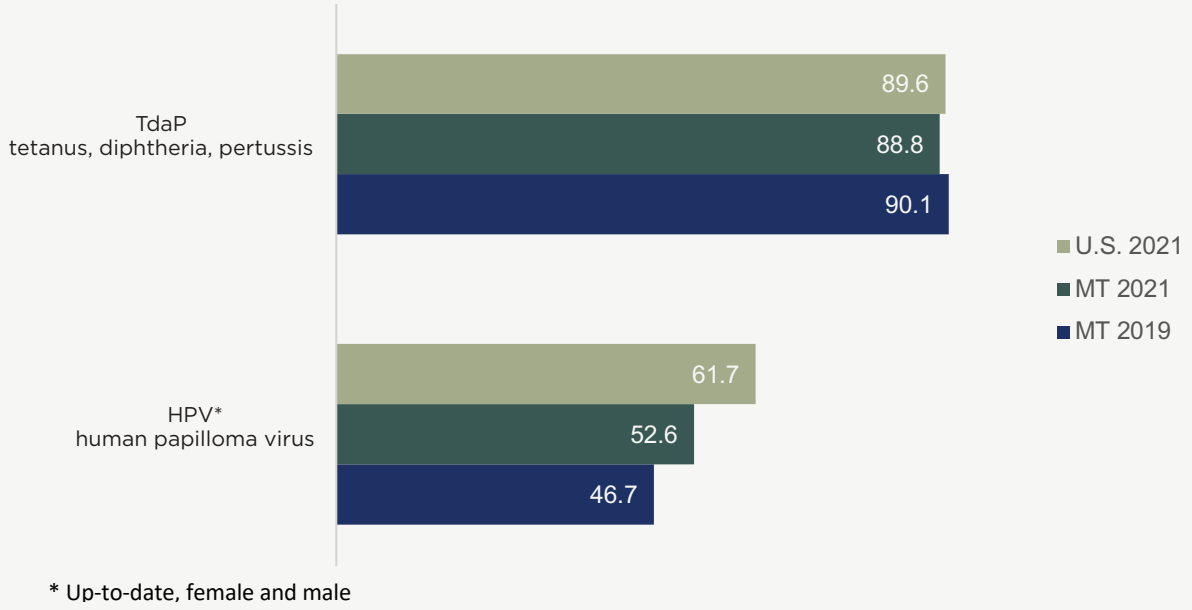
Estimated percent of children aged 24-35 months who receive the recommended doses by 24 months, Montana and United States, 2017 and 2021



Source: National Immunization Survey (NIS), 2017 and 2021.

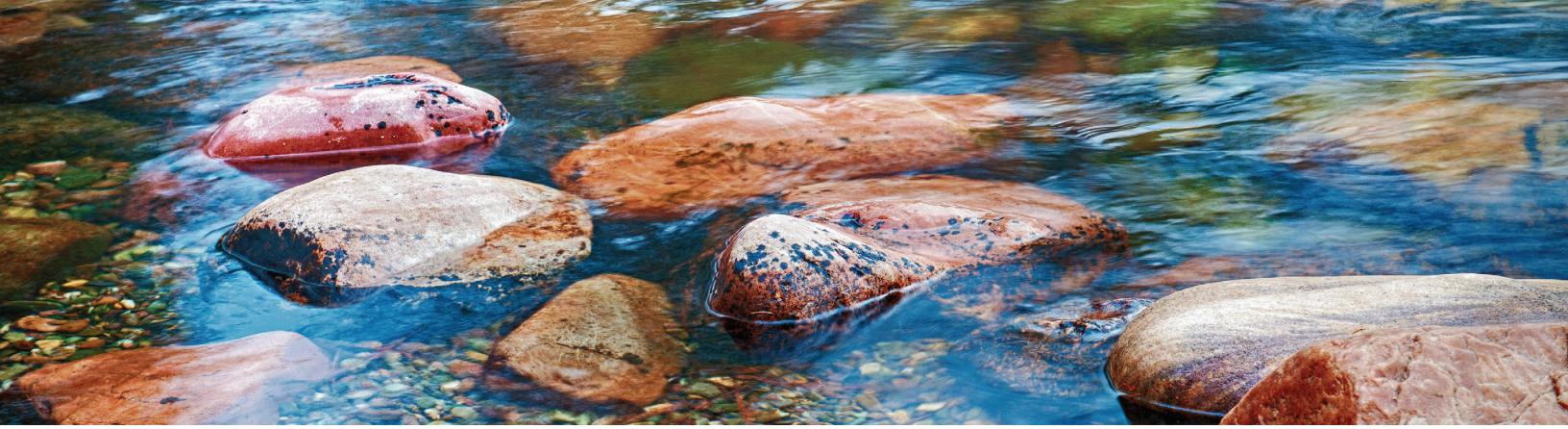
The Healthy People 2030 goal for human papillomavirus (HPV) vaccination among adolescents aged 13 to 15 years old is 80%. In 2021, 52.6% of Montana adolescents aged 13 to 15 years old were up to date with their HPV vaccination which was significantly lower than the U.S. (61.7%). (NIS, 2021)

Estimated percent vaccine coverage for select vaccines among adolescents aged 13-17 years, Montana and United States, 2019 and 2021



* Up-to-date, female and male

Source: NIS-Teen, 2019 and 2021.



Environmental Health

Environmental health works to ensure environments for people to live, work, and play are safe and healthy. Chemical pollutants found in air, water, soil, and food can cause a myriad of health problems, including cancer.

HAZARDOUS WASTE CONTAMINATION

Montana has a rich history of natural resource and energy development, which began in the 1860s during the western gold rush and continues through present day. This history has left a legacy of contamination in many communities throughout the state where cleanup of hazardous substances is needed.

Discover DEQ Data Portal, MT DEQ

In Montana, there are...

- **Over 600 brownfields sites.***
- **Over 900 leaking underground petroleum storage tanks.**
- **175 state Superfund** sites.**
- **19 federal Superfund sites.*****

Sources: Environmental Protection Agency (EPA), 2024b; MT Department of Environmental Quality (DEQ), 2024; MT DEQ, 2023; & CDC National Environmental Public Health Tracking Network.
*Brownfields sites are areas where "expansion, redevelopment, or reuse may be complicated by the presence of a hazardous substance, pollutant, or contaminant" (EPA, 2024).
**Also known as Comprehensive Environmental Cleanup and Responsibility Act (CECRA) sites; focus is to investigate and cleanup hazardous substances at sites not addressed by federal Superfund (MT DEQ 2024a).
*** Nearly 25% of the population live near Superfund sites in the communities of Anaconda, Basin, Billings, Black Eagle, Butte, Columbia Falls, Columbus, East Helena, Libby, Milltown, Missoula, Monarch, Niehart, and Superior (roughly 269,674 people), as calculated using US Census data (2020)

WATER QUALITY

The majority of Montanans are served by public water systems. These systems are routinely monitored for contamination from harmful bacteria, chemicals, and radionuclides. Most are in compliance with EPA requirements for many pollutants. However, EPA recently promulgated new drinking water standards for a group of chemicals known as per- and polyfluoroalkyl substances (PFAS) which are present in the waters of Montana. Public water systems will be required to ensure their community drinking water is below EPA's new standards within three years (EPA 2024 and MT DEQ 2024b). Sampling of surface water and public water supplies in and near urbanized areas in Montana have shown that PFAS are moderately prevalent in some areas (MT DEQ 2022, MT DEQ 2024b). Montana citizens are increasingly learning about PFAS and want to understand the potential health effects related to exposure to these chemicals and what they can do about it.

About 30% of the state population get their drinking water from private wells that are unregulated and may contain a variety of harmful naturally occurring (for example, arsenic, manganese, uranium), site-related, or agricultural chemicals. This population depends on being educated about contaminants that may be present in their water and how to test for them.

There are also thousands of impaired acres of lakes and reservoirs in Montana that are used for drinking water. Harmful algal blooms (HABs), caused by cyanobacteria, are becoming increasingly common and degrading Montana's surface water used for drinking water and/or recreational purposes. They can cause serious harm to people, pets, and livestock. From 2020 through 2023, 162 reports of HABs by citizens have been confirmed with testing (MT DEQ 2023a), with 2023 having the highest number of confirmed reports since DEQ started collecting data in 2017. Further, some levels of site-related chemicals found in game fish caught from popular fishing waterbodies are high enough to warrant fish consumption advisories.

Climate Change and Human Health in Montana, 2021

Heat and Health Tracker, 2024, CDC Climate and Health Program

Ground Water Information Center, 2024, Montana Bureau of Mines and Geology at Montana Technological University

Harmful Algal Bloom Observations: Map and Report Form, 2024, MT DEQ

All Montanans depend on clean and safe water for their health and wellbeing.

About seven in ten Montanans use public water systems. 95% of these systems are in compliance with EPA requirements.

About three in ten Montanans use unregulated private wells.

There are almost 300,000 impaired* acres of lakes and reservoirs, compared with about 150,000 acres of unimpaired waters.

PFAS are moderately prevalent in Montana waters in a small number of areas.

Source: Montana DEQ. 2021 & EPA, 2024c
*Reasons for impairment of lakes and reservoirs that are sources of drinking water include metals (runoff from factories, mining, urban areas, and natural processes), mercury (naturally occurring in rocks and coal), and salts (water withdrawals, road de-icing, wastewater, fertilizer applications, mining and oil or gas drilling, and repeated use of irrigated water). (EPA, 2024c)

AIR QUALITY

Air pollution in Montana is most notably caused by wildfire smoke in the summer and fall and inversions during the winter, where cold air becomes trapped on warm air in valleys that causes pollutants to rise to unhealthy levels close to the ground (EPA, 2023). Two pollutants directly monitored for their impact on people's daily activity are ground level ozone and particulate matter 2.5 microns or less in diameter ($PM_{2.5}$). According to the American Lung Association (ALA) State of the Air 2023 report, there are only seven of 56 counties with air monitoring stations that report on ozone levels and 13 that report on $PM_{2.5}$.

Air Quality Monitoring Stations, MT DEQ

Air Quality and Your Health, MT DPHHS

Smoke Forecasts, MT DEQ

Counties reporting ozone levels (Grade)	Counties reporting $PM_{2.5}$ (Grade)	
Fergus County (C)	Fergus County (F)	Powder River County (F)
Flathead County (A)	Flathead County (F)	Ravalli County (F)
Lewis and Clark County (B)	Gallatin County (F)	Richland County (C)
Phillips County (B)	Lewis and Clark County (F)	Rosebud County (F)
Powder River County (B)	Lincoln County (F)	Silver Bow County (F)
Richland County (B)	Missoula County (F)	Yellowstone County (F)
Rosebud County (A)	Phillips County (C)	

Source: ALA, 2023.

The Montana Department of Environmental Quality (MT DEQ) monitors ozone levels in Montana's designated metropolitan statistical areas: Billings, Missoula, and Great Falls. Ozone levels in these cities have been below air quality standards.

Because PM2.5 is a pollutant of significant human health concern in Montana, MT DEQ operates PM2.5 monitoring stations in several locations statewide to communicate potential PM2.5 related health impacts to the public, to demonstrate continuing air quality standard compliance, and to assist local health departments on strategies to reduce PM2.5 levels. PM2.5 monitors are located in Billings, Bozeman, Broadus, Butte, Columbia Falls, Frenchtown, Great Falls, Hamilton, Helena, Lewistown, Malta, Miles City, Missoula, Seeley Lake, Sydney, and Thompson Falls (MT DEQ 2023b).

CLIMATE AND HEALTH

Climate change is a global phenomenon and the anticipated impacts to health and well-being affect all people. In Montana, the change of most concern for human health is the increase in temperature. Montana is also vulnerable to health impacts from increased wildfire and smoke and its impact on air quality; early snow melt and intense precipitation events in the spring, resulting in flooding events; projected changes in water availability and quality due to drought and flooding; and extreme weather events (Adams et al. 2021).

Average temperatures in Montana have increased across the state by 0.42°F per decade since 1950 which is faster than the US average of 0.26°F

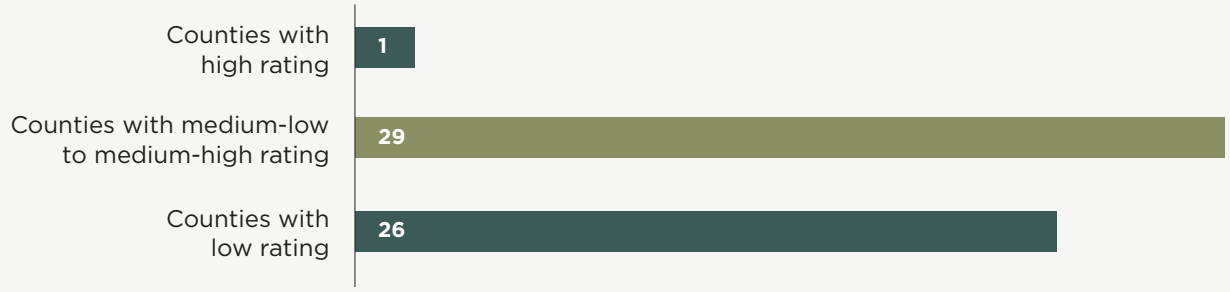
Climate projections indicate continued warming in the coming decades with temperature increases of 4.5 to 6°F by mid-century

Days above 90°F are anticipated to increase by 5 to 35 days by mid-century with greatest increases occurring in the southeastern part of the state

Source: Adams et al. 2021

Heat adversely affects Montanans in many ways. Elevated temperatures directly cause heat-related conditions ranging from muscle cramps to heat exhaustion to heat stroke. Elevated temperatures have also been associated with increases in respiratory, heart, and kidney diseases. Human health impacts related to increasing temperatures can be measured by a heat vulnerability rating, determined by a combination of historical land surface temperatures, projected heat, and socioeconomic factors.

Heat Vulnerability Ratings by County in Montana



Source: Adams et al. 2021

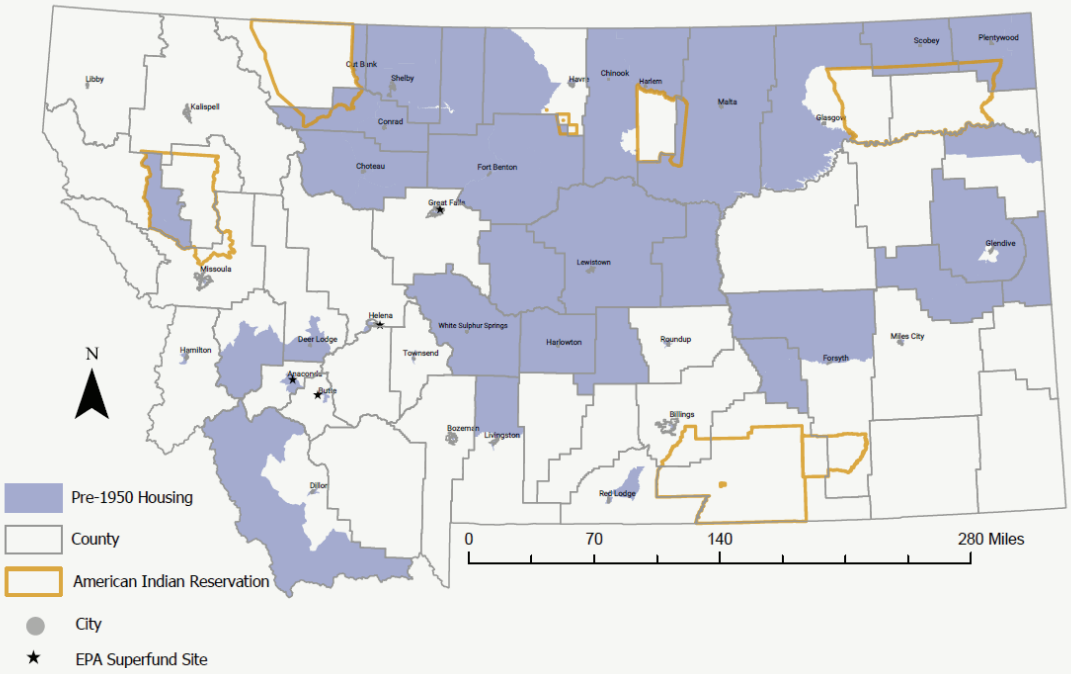
A largely overlooked impact of climate change is the increase in mental health difficulties. Farmers and ranchers in Montana are an especially vulnerable and a critical population, as they contribute to Montanan's food security and are economically impacted by drought conditions. University researchers surveyed 125 ranchers and farmers in Montana to investigate the relationship between climate change perceptions and mental well-being. Most respondents expressed moderate to high anxiety about crop losses, financial security, unpredictable weather patterns, and how to prepare for climate change and prolonged drought (Adams et al. 2021).

LEAD

No safe level of lead in blood has been identified. Lead can harm the brain and nervous system, leading to developmental and growth delays in children and developing fetuses. Lead can also lead to serious health effects in adults. Lead in blood above the CDC's blood lead reference value (BLRV) (≥3.5 µg/dL) in a capillary sample in a person less than 16 years of age and lead in blood at any level in a venous sample is a reportable condition in Montana (ARM 37.114.203).

People living near industrial sources of lead, such as mines, lead smelters, and hazardous waste sites, may be exposed to lead through lead-contaminated dust or soils. Another potential source of lead exposure can be found in and around older homes. Lead was commonly used in consumer products such as lead-based paint, leaded-gasoline, and plumbing materials. With growing concern about lead's toxicity, the use of lead in many of these products was phased out beginning in the 1970s. Children living in pre-1950 housing are at higher risk for lead poisoning because the paint may contain higher concentrations of lead. Housing age can be used to identify communities with increased risk of childhood lead exposures from lead-based paint.

Montana communities where pre-1950 housing makes up at least 27% of the total residential housing



Sources: American Community Survey (ACS) 5-yr estimates on housing units by year built 2018-2022; Montana Boundaries (DPHHS, 2023; EPA Facility Registry Service – Superfund Nation Priorities List (SEMS_NPL) (Shared Enterprise Geodata and Services (SEGS), 2021).

LEAD POISONING AMONG CHILDREN AND ADULTS

Children under six years of age experience the greatest risk for health problems from lead exposure. Even low levels of lead in the blood can cause permanent cognitive deficits and other adverse health effects. Children might be exposed to lead through lead-based paint, soil, consumer products, toys, and household members' jobs or hobbies. Montana Medicaid requires healthcare providers to test children for blood lead at least once by age 12 months and again by age 24 months.

Lead poisoning among Montana children, 2023

- **124 children under 6 years of age had reported blood lead levels above the CDC's blood lead reference value.**
- **The number of children tested for blood lead is unknown.**
- **The most common source of lead exposure among Montana children under six years of age is lead-based paint and dust and soil contaminated with lead.**

Source: Montana Infectious Disease Information System, 2023

Adults are primarily exposed to lead by working in industries that expose them to lead or from hobbies that involve lead. OSHA requires that employees exposed to high levels of lead be enrolled in a medical surveillance program.

Lead poisoning among Montana adults 16 years of age and older, 2023

- **140 adults had reported blood lead levels above the CDC's blood lead reference value.**
- **About half (48%) were exposed to lead in the workplace.**
- **The exposure source was unknown in one in five (19%) cases.**
- **The most common work-related exposure was mining.**
- **The most common non-work related exposure was shooting firearms or handling lead ammunition.**

Source: Montana Infectious Disease Information System, 2023

LEAD REDUCTION IN SCHOOLS

Corroded lead-based plumbing materials are a primary source of lead exposure. To minimize lead in school drinking water, DPHHS enacted the Lead Reduction in School Drinking Water Rule (ARM 37.111.832), which became effective January 17, 2020. As part of this rule, all schools accredited by the Montana Board of Public Education are required to sample all drinking water fountains, sinks used for food preparation, and other water fixtures that might be used for human consumption and test for lead. The Montana Department of Environmental Quality (DEQ) provides schools with technical support on sampling and remediation options and provides funding for lab analysis.

As of May 2024, 81% of schools in Montana have initially sampled their drinking water to test for lead. Among the 19,000 samples that have been collected, around 25% have been over the action level, which is lead concentration equal to or greater than 5 parts per billion. Follow-up actions for fixtures that test over the action level include fixing, replacing, or removing the fixtures from service. The lead test results from school drinking water samples are available on the **DEQ Lead in School Program website**.

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APPENDIX A: HOW COMMUNITY ENGAGEMENT SHAPED THE STATE HEALTH ASSESSMENT

See the **full summary report online at the A Healthier Montana** website.

A series of eight virtual and in-person engagement sessions occurred between May 6, 2022 and July 15, 2022. An estimated 200 people attended across the eight sessions and an additional 90 contributed to an online survey that was made available to people who wanted to attend a session but could not. The feedback from the sessions was reviewed by the SHA Design Team, which met from August 2022 to January 2023 and helped interpret the findings and provide guidance on the path forward. The manner in which these data were ultimately utilized in the design of the 2023 SHA are described below.

Three preferred foundations of health were identified from the social determinants of health framework used by Healthy People 2030: 1) social and community context, 2) health care access and quality, and 3) economic stability. These three areas were incorporated in the following ways:

- Included each topic as a section in the introductory chapter of the SHA to describe state demographics and provide context for foundations of health in Montana.
- Added people living at or below 138% of the Federal Poverty Limit as a "population in focus."

Four preferred subgroupings of data for analysis, including: 1) age, 2) geography, 3) income, and 4) race/ethnicity.

- Two populations in focus were established for age groups: Montanans aged 18 to 24 years and Montanans aged 55 years and older.
- Three types of geographic analysis are included throughout the SHA: 1) counties by population size, as defined by the National Center for Health Statistics (NCHS), 2) counties by disparity, as defined by the Index of Deep Disadvantage (IDD), and 3) counties by vulnerability, as defined by the Social Vulnerability Index (SVI).
- Whenever possible, analysis was completed for people living at or below 138% of the Federal Poverty Level (FPL) as a proxy measure for poverty.
- Descriptions about American Indian and Alaska Native health are included throughout the SHA, compared with the health status of Montanans overall.

Three design concepts to increase usefulness of the SHA as a tool for improving health: 1) a calendar of future analyses to guide regular updates to the SHA, 2) profiles for populations in focus, and 3) incorporating other recent assessments beyond the SHA to provide a broader picture of health in Montana.

Four evaluation questions to guide the analyses:

1) How has the health of Montanans changed since 2017?
2) What are the themes impacting health, according to Montanans?
3) To what extent do the data support continued focus on the 2019 SHIP priorities?
4) What additional issues emerge that should be considered in the next SHIP?

Four themes most impacting health:

1) Positive and adverse childhood experiences, represented through analysis of the adverse childhood experiences (ACEs) module included on the 2019 Behavioral Risk Factor Surveillance Survey (BRFSS) and the health outcomes from positive experiences (HOPE) module included on the 2020 BRFSS.
2) Availability and affordability of healthcare, provided for each of the Populations in Focus.
3) Basic needs, described in the demographics section in detail and included by analyzing data for people living at or below 138% of the Federal Poverty Level as a population in focus.
4) Substance use, which was included in the analysis throughout the SHA (examples include information about impaired driving, substance use during pregnancy, and the impact of substance use on chronic disease).

APPENDIX B: CALENDAR OF FUTURE ANALYSES

Several questions have arisen during the development of the State Health Assessment (SHA) that could not be fully answered by the time of publication. Not all of these questions can be answered with available data. However, all questions are presented here so researchers, epidemiologists, program evaluators, and other interested parties can consider them.

These questions include the following lists, which are not presented in order of importance nor timeline for investigation. The Public Health and Safety Division has data that can answer, partially or in full, the following questions:

- Data beyond the National Center for Health Statistics (NCHS) definitions of county population size to describe health status of Montanans more fully in rural and frontier areas, including:
  - Birth and death data across the lifespan,
  - Differences in availability and affordability of health care and the time burden of seeking care in rural and frontier areas.
- The health of American Indian or Alaska Native (AI/AN) Montanans across the lifespan, including comparing mortality rates between AI/AN Montanans and white Montanans.
- The health of Montanans of Color more broadly using BRFSS data, beyond respondents who identified as American Indian and Alaska Native only.
- Interactions between foundations of health and additional chronic conditions, such as diabetes, as well as Montanans with multiple chronic conditions.

The remaining questions could be considered by additional MT DPHHS Divisions, state agencies, and/or partners for research or evaluation:

- The relationship between poverty and health in Montana, beyond the population of people living at or below 138% of the Federal Poverty Level.
- The relationship between substance use, mental health, and physical health using recently added questions on the MT BRFSS regarding substance use.
- Screen time, social media use, and other impacts on mental health.
- Telehealth in Montana and the impact on health improvement, with information about both the strengths and weaknesses of relying on telehealth, such as broadband access, age of users, technology literacy, etc.
- Substance use from the perspective of barriers to sobriety, including the social impacts, like loss of community. Additionally, following the risk and protective factors of substance use across the lifespan.

Resources for exploring data questions:

- **Montana Community Health Data Resource Guide**
- **Montana Public Health Data Resource Guide**
- **Public Health and Safety Division Epidemiology and Scientific Support Bureau**
- **Request data on births, deaths, population health, and hospital and emergency department utilization**
- **Request data on Emergency Medical Services, Trauma Systems, and Injury Prevention**

APPENDIX C: HEALTHY PEOPLE 2030 SUMMARY FOR AHEC REGIONAL HEALTH CONCERNS AND PRIORITIES

Montana Office of Rural Health (ORH) and **Area Health Education Center (AHEC)** regions are used by Montana AHEC to accomplish their mission of enhancing access to quality health care, particularly primary and preventive care, by improving the supply and distribution of health care professionals through community and academic educational partnerships. These regions are used particularly by the Montana ORH when working with non-profit hospitals on Community Health Needs Assessments and Implementation Plans (CHNAs and IPs).

The Public Health and Safety Division staff have worked closely with Montana ORH staff to promote collaboration and coordination in assessment and planning between health departments and hospitals at the community level. In pursuit of this goal, health concerns and priorities in Montana are presented by AHEC region in the 2023 State Health Assessment. The hope is that these regions are more familiar to health care partners with limited involvement in public health to promote awareness between the two sectors and create opportunities for collaboration on population health improvement.

CONCERNS	HP 2030 GOAL AND DEFINITION
Settings and Systems: Health Care	Goal: Improve health care. "High-quality health care helps prevent diseases and improve quality of life. Healthy People 2030 focuses on improving health care quality and making sure all people get the health care services they need." This includes helping health care providers communicate more effectively and stay aware of treatment guidelines and recommended services, as well as interventions to increase access to services (like improving insurance coverage, lowering costs of care, and increasing use of telehealth).
SDoH: Health care access and quality	Goal: Increase access to comprehensive, high-quality health care services. Similar to Settings and Systems: Health Care but more comprehensive. "Healthy People 2030 focuses on improving health by helping people get timely, high-quality health care services." This includes: improving care and wait times in emergency departments, utilization of preventive care for all ages, treatment for substance use disorder, access to family planning, access to prescriptions, and use of the oral health and vision care system; engaging cross-sector organizations in care provision; health communication; health IT; sensory or communication disorder screening and intervention; and STI transmission and care.
SDoH: Social and community context	Goal: Increase social and community support. "People's relationships and interactions with family, friends, co-workers, and community members can have a major impact on their health and well-being. Healthy People 2030 focuses on helping people get the social support they need in the places where they are born, live, learn, work, play, worship, and age." This includes supporting caregivers, reducing adverse childhood events and increasing positive ones that build resiliency, health literacy, community connections, proficiency in health IT tools, reducing bullying, improving nutrition and healthy eating, and supporting people with intellectual and developmental disabilities.

Health Behaviors: Injury prevention	Goal: Prevent injuries. "Healthy People 2030 focuses on preventing intentional and unintentional injuries that cause death. Many unintentional injuries are caused by motor vehicle crashes and falls, and many intentional injuries involve gun violence and physical assaults. Interventions to prevent different types of injuries are key to keeping people safe in their homes, workplaces, and communities. Drug overdoses are now the leading cause of injury deaths in the United States, and most overdoses involve opioids. Interventions to change health care providers' prescribing behaviors, distribute naloxone…and provide medications for addiction treatment…to reduce overdose deaths involving opioids."
Health Conditions: Mental health and mental disorders	Goal: Improve mental health. "Healthy People 2030 focuses on the prevention, screening, assessment, and treatment of mental disorders and behavioral conditions…[and] also aim to improve health and quality of life for people affected by these conditions."

PRIORITIES	**HP 2030 GOAL AND DEFINITION**
Settings and Systems: Community	Goal: Promote health and safety in community settings. "A person's community can have a major impact on their health and well-being. Healthy People 2030 focuses on ways organizations, businesses, schools, and residents can help build healthier communities. Community organizations that provide preventive health care services…businesses that help keep employees safe and healthy…[and] schools and community organizations can play an important…giving children and adolescents opportunities [that can] help them get more physical activity."
Health Behaviors: Health communication	Goal: Improve health communication. "Effective health communication is critical to health and well-being…Health information and messages are often overly complex, making them hard to understand and use. Health care providers who communicate clearly and use methods like teach-back and shared decision-making can help people make informed health-related decisions…Making electronic health information easy to understand and use is also key to improving health and well-being."
Settings and Systems: Health Care	See above under "Concerns."
SDoH: Health care access and quality	See above under "Concerns."
Health Conditions: Mental health and mental disorders	See above under "Concerns."