Anaconda-Deer Lodge County Community Health Assessment

2018

Contents

INTRODUCTION 1
METHODOLOGY 1
LIMITATIONS 2
BACKGROUND 3
ENVIRONMENTAL HEALTH 4
SUPERFUND 5
COMMUNITY HEALTH SURVEY 12
DEMOGRAPHICS 14
HOUSING AND DISABILITY STATUS 15
SUBSTANCE USE 16
MENTAL HEALTH AND TRAUMA 17
MENTAL HEALTH NEEDS ASSESSMENT 18
CHRONIC DISEASE 19
COMMUNICABLE DISEASE 22
MATERNAL AND CHILD HEALTH 23
INJURY 24
DISPARITIES IN ACCESS 25
OVERALL HEALTH STATUS 26
SUMMARY 28

Public Health
Prevent. Promote. Protect.

INTRODUCTION

The Anaconda-Deer Lodge 2018 Community Health Assessment is a systematic review of the current health status in Anaconda-Deer Lodge County, highlighting key public health challenges and community concerns. This assessment provides a measurable description of the health-related challenges and issues Anaconda-Deer Lodge community members face, and identifies priority health issues for the Anaconda-Deer Lodge Public Health Department and other partners working to promote health.

Data for this assessment was provided by the Anaconda-Deer Lodge County Public Health Department, the Community Hospital of Anaconda (CHA), the Public Health and Safety Division of the Montana Department of Public Health and Human Services (DPHHS), and other publically available secondary sources, listed below. Additional data was collected by Megan Rediske, RN regarding the Mental Health Needs Assessment. Superfund, and Listening Session data was provided by the Agency for Toxic Substances Disease Registry (ATSDR), Environmental Protection Agency, A-DLC Superfund Department, Water & Environmental Technologies, and Arrowhead Foundation. This assessment was compiled by Katie Loveland of Loveland Consulting LLC, Courtney Geary, and Amy Wilkins, University of Montana graduate student interns.

METHODOLOGY

PRIMARY DATA SOURCES

In 2013 and 2016, the Community Hospital of Anaconda conducted a community health survey. Surveys were mailed to residents in the hospital's service area in zip codes with the greatest number of outpatient and inpatient admissions. Recipients were randomly selected from a list of 800 residents. In 2013, a total of 222 residents completed the survey; 156 surveys were completed in 2016. The returned surveys are skewed toward the Anaconda population which is reasonable given that this is where most of the services are located. Two 2016 respondents chose not to answer this question.

		2013		2016	
Location	Zip code	Count	Percent	Count	Percent
Anaconda	59711	220	99%	91	58%
Butte	59701	Not asked- 2013		30	19%
Philipsburg	59858	Not asked- 2013		20	13%
Deer Lodge	59722	2	0.90%	15	10%
Warm Springs	59756	Not asked- 2013		0	0%
TOTAL		222	100%	156	100%

SECONDARY DATA SOURCES

An addition to the Community Hospital Survey, the following secondary data sources were utilized in this assessment.

- American Community Survey (ACS) – 5 year estimates, 2010-2015, a survey conducted by the US Census every year. Data are concatenated to create five year estimates. https://factfinder.census.gov
- Anaconda-Deer Lodge County Government data as cited in the Anaconda Leater, Kathie MIller, Editor
- Youth Risk Behavior Surveys (YRBS), Anaconda High School and Fred Moodry Middle, 2017 and Montana and US estimates. YRBS is an annual survey given to students at participating high schools and middle schools. The survey is conducted by the Centers for Disease Control and Prevention (CDC) and the Office of Public Instruction (OPI)
- Behavioral Risk Factor Surveillance Survey (BRFSS), 2016. CDC survey conducted annually in partnership with DPHHS. https://www.cdc.gov/brfss/index.html
- County Health Rankings, 2016 a project of the Robert Wood Johnson Foundation. http://www.countyhealthrankings.org
- Montana Hospital Discharge Data System, DPHHS, 2015- Statewide hospital discharge data submitted to the Montana Hospital Association and analyzed by DPHHS.
- Montana Communicable Disease Bureau, DPHHS, 2014-2016- Reportable disease data collected and analyzed by DPHHS
- Montana WIC Program from the DPHHS Women, Infants and Children Nutrition Supplement Program
- Montana Office of Vital Statistics, Birth and Death Certificate Data, 2014-2016
- Montana Population Projections, 2016-Previously recorded and estimated projections recorded and analyzed by Montana Department of Commerce.

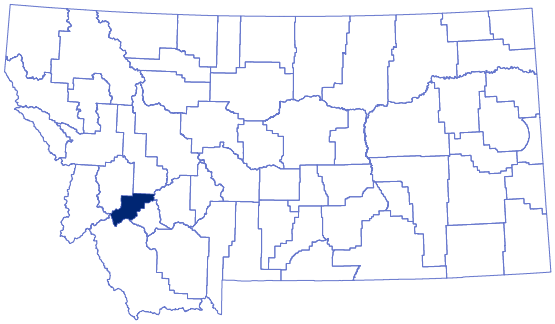
LIMITATIONS

Due to large geographical size and low population density, obtaining recent and reliable data in a county the size of Anaconda-Deer Lodge is a challenge. Some estimates included in this report have large confidence intervals and should be tracked over time to monitor trends. Accurate estimates of some population level health issues such as adult chronic disease prevalence are not always available for the county due to the small population size.

The Centers for Disease Control and Prevention (CDC) provides national estimates for high school YRBS data but not middle school data within the United States.

BACKGROUND

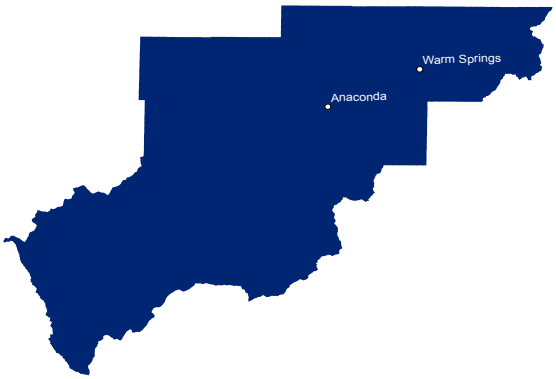
Anaconda-Deer Lodge County is a rural county located in the Southwestern Montana with a total population of 9,211 and a population density of 12 people per square mile. The county is 741 square miles and nestled at the foot of the Anaconda Range. The largest community within the county is the city of Anaconda. The county also contains Warm Springs, which is home to the Montana State Hospital, and Opportunity, a small town just east of Anaconda. Anaconda is located 24 miles from Butte, 106 miles from Missoula, and 108 miles from Bozeman. The median age in Anaconda is 46.8, almost 10 years older than the median age for all of Montana.



Historically, Anaconda was a smelting community, supporting a booming copper-smelting business which started in the late 1800s, processing copper from the Butte mines. In 1980, the smelter site was closed, and today the primary industries in Anaconda-Deer Lodge County are healthcare and public administration. There is an abundance of recreational activities in the area including hunting, fishing, golfing, skiing, and hiking.

Anaconda-Deer Lodge County operates a consolidated city-county charter government with the City of Anaconda. Anaconda-Deer Lodge County has five elected county commissioners. The board of health consists of 7 members, which oversee public health services within the community.

Katherine Basirico, BS, MPH, the Director of the Anaconda-Deer Lodge Public Health Department, and her staff provide a variety of health and wellness services in Deer Lodge County. Services include immunizations, family planning, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Breastfeeding Peer Counseling, the Montana Tobacco Use Prevention Program, Communicable Disease Investigation, Chronic Disease Prevention, Suicide Prevention, First Aid, CPR, AED Classes, Car Seat Inspection and Installation, Blood Lead Screenings, and a variety of home visiting programs including Parents as Teachers, and Asthma Home Visiting.



For more information on this community health assessment, contact Katherine Basirico at 406-563-7863 or kbasirico@adlc.us.

ENVIRONMENTAL HEALTH

HISTORY

From 1882-1981, the Anaconda Companty smelter processed ore in the Anaconda Deer Lodge area, depositing slag and other waste material in and around Anaconda. Aerial arsenic and lead contaminants from the smelter caused widespread surface soil contamination.

In 1983, the US Environmental Protection Agency placed the 300 square mile area around the Anaconda Company Smelter site on the National Priorities List and a variety of remedial activities were conducted in the ensuing decades. Remediation activities of residential properties, with priority given to residences with young children, are ongoing to this day. Health education targeting blood lead reduction is also ongoing in Anaconda Deer Lodge.

CURRENT DATA ON LEAD AND ARSENIC LEVELS

2013 BIOMONITORING STUDY FOR BLOOD LEAD AND URINE ARSENIC

A blood lead and urine arsenic biomonitoring study was conducted at the Anaconda Company Smelter site in 2013. The study included 106 Anaconda area resident volunteers including 18 children aged 6 and under. The geometric mean blood lead level of all study participants was 0.8 micrograms per deciliter. None of the children who participated in the study had blood lead levels above the Centers for Disease Control and Prevention's reference level of 5 micrograms per deciliter.

In terms of arsenic, the geometric mean total and speciated urine arsenic level for all participants was below the study reference level of 30 micrograms per liter. For adults, the mean total was 13.3 micrograms per liter and for children the mean total was even lower at 10.3 micrograms per liter. However, one child and two adults in the study did have urine arsenic levels above 30 micrograms per liter. However subsquent retesting of those participants found urine arsenic levels below 30 ug/L.

2012 MEDICAID BLOOD LEAD STUDY

In 2012, the Montana Department of Public Health and Human Services published an 11 county blood lead level study of Medicaid enrolled children. A total of 572 Anaconda Deer Lodge area children were included in the study. Two children (0.35% of the sample in the county) had blood lead levels above the CDC reference level of 5 micrograms per deciliter (compared to 3% of all Montana children in the study). 81% of the Anaconda Deer Lodge samples were below the detection limit of 1 micrograms per deciliter, higher than the rate of 75% in the other 11 counties. The results of these studies are encouraging, indicating that exposure to lead and arsenic levels in the area are not elevated relative to all of Montana. Ongoing remediation and health education efforts should continue to reduce the risk of environmental health concerns in Anaconda Deer Lodge.

SUPERFUND

BACKGROUND

The Anaconda Smelter Superfund site is located in the Deer Lodge Valley in Southwestern Montana, in and around the city of Anaconda. Nearly 100 years of milling and smelting resulted in contamination of soils, surface water, and ground water over a large area, primarily through airborne emissions and disposal from smelting operations. The primary contaminants are arsenic, cadmium, copper, lead, and zinc. Ore processing and smelting operations began at the Anaconda Smelter on Smelter Hill. This Superfund Site covers over 300 square miles of land. It includes the towns of Anaconda and Opportunity.

In 1977 Atlantic Richfield purchased AMC (Anaconda Mining Company) and assumed its liabilities. The Site was added to Environmental Protection Agency (EPA's) National Priorities list in 1983.

In 1992, Anaconda-Deer Lodge County (A-DLC) adopted a Development Permit System Interim Institutional Controls Plan which addresses property development within A-DLC while limiting additional Superfund liability. These controls minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. They ensure remedial structures are replaced and maintained post development and contamination is disposed of properly.

In 1996, EPA issued the Community Soils Operable Unit (CSOU) Record of Decision (ROD). The ROD provided for the removal and backfill of residential soils exceeding an arsenic concentration of 250 parts per million (ppm) and treating or covering commercial soils that exceeded 500 ppm of arsenic. As part of the remedy, The Community Protective Measures Program was created for additional institutional controls. The CPMP program works through public inquires and community outreach.

From 2002-2010, 1740 properties were sampled, and 350 yards were cleaned up. An additional 39 acres of commercial properties were also cleaned up. Contaminated soil/waste were removed, excavations were backfilled with clean soil and were either revegetated (sod for lawns and native grasses for vacant lots) or paved/graveled, (depending on existing land use).

Data collected in 2007 and 2008 identified health and safety risks with regard to lead concentrations that were not previously addressed during the arsenic soil remediation. In 2013, the original ROD for CSOU was amended to include the removal of soils exceeding lead concentrations of 400 ppm for residential soils and remediation of attic dust when an exposure pathway was present.

SUPERFUND

CURRENT WORK PLAN

In November 2015, the CSOU work plan was approved and included the resampling of residential soils for lead, as well as arsenic at lower depths than those established in the 1996 ROD. Samples from previously tested properties were reassessed and those that showed lead concentrations of 400 ppm or greater were identified as priority yards. Approximately 1,130 priority yards were identified and to date, 500 of these yards have been resampled. During the 2017 construction season, Atlantic Richfield Company cleaned up over 467 of the residential yards that were sampled in 2016. About 40 yards in Opportunity have been cleaned up based on the result of sampling. Yards sampled in 2017 that require remediation will be cleaned up during the 2018 construction season. All remaining priority yards will be sampled in 2018 with remediation occurring in 2019. Following the conclusion of all remedial action addressing the 1,130 priority yards, Atlantic Richfield Company will test residential yards within the Superfund Planning Area by request of the property owner.

Under the new work plan, remediation includes removing contaminated soil; replacing it with clean soil; and installing an appropriate cap (i.e. sod/seeding, pavement, gravel, etc.).

Institutional Controls to Protect Cleanup

In addition to the cleanup activities, individuals who desire to conduct an activity that requires excavation of soils, renovate their houses or wish to have a garden need to contact the Superfund Program. Our program helps residents make sure that activities are done in a manner that does not cause recontamination to their property or house. The Community Protective Measures Program provides raised garden boxes and soil; HEPA vacuums; renovation starter kits and home inspections. Please call 406-563-7476 or superfund@adlc.us.

SUPERFUND

COUNTY PARKS TESTING AND CLEANUP

Anaconda Deer Lodge County Chief Executive Officer Bill Everett ordered Benny Goodman Park "to be sampled in anticipation of replacing the park's sprinkling system this summer. After high levels of lead and arsenic were found at the park, he ordered other public recreation areas to be sampled. The younger children's play area near the east side of Benny Goodman Park was fenced off to remove and replace the sand" to remediate the playground areas immediately.

"The county drilled 55 holes and sampled each at intervals of zero to two inches, two to six inches, six to 12 inches and 12 to 18 inches." Of the 55 holes drilled, 51 were found to have lead and arsenic above action levels of 400 parts per million and 250 ppm, respectively.

"The highest levels of arsenic came back in the sandbox with arsenic levels at 724 ppm at zero to two inches, 640 ppm at two to six inches, 1,285 ppm at six to 12 inches and 343 ppm at 12 to 18 inches.

That same hole showed lead levels of 817 ppm at zero to two inches, 813 at two to six inches, 447 at six to 12 inches and 134 at 12 to 18 inches."

"Arco refuted the county's results to the Environmental Protection Agency. ARCO conducted their own sampling using their protocol for [residential] yards and came back with the same results." A report of the results, an access agreement and a plan to remediate the area (about 8500 cubic yards of dirt removal down to 12 inches with replacement of clean dirt and new sod being laid) was sent to CEO Bill Everett. The remediation of Benny Goodman Park has finished, as of this publication.

Anaconda Leader articles, May, June and September, 2017

Anaconda Leader, Kathie Miller, Editor

SUPERFUND

Summary of Environmental Protection Agency's District 10 School Sampling- 2018 | Arrowhead Foundation, August 2018

Overall

In spring 2018, EPA sampled all Anaconda schools for arsenic and lead in interior dust. Approximately 262 samples were collected and analyzed.
Results were compared to residential screening numbers, which is a more conservative method and assumes that children are exposed for 24 hours a day seven days a week. This would result in much higher numbers.
Even using the conservative screening levels, no exceedances of lead or arsenic were found in areas that children access. Some exceedances of lead were found in inaccessible areas that are not maintained. This lead is generally not believed to be smelter related.

Accessible Areas

72 floor samples were collected and analyzed. EPA concentrated on classrooms and hallways. There were no exceedances in these samples. This shows that areas where children spend the most time and have the greatest potential of exposure do not pose a risk and do not appear to contain smelter-related material.

EPA also placed and sampled entryway mats at all the schools. Again, there were no exceedances. This shows that smelter-related material is not being tracked into school interiors. Results show that the maintenance staff are doing a great job and are largely responsible for the low levels of dust in the child-accessible areas of active schools.

Inaccessible Areas

EPA also sampled areas that were inaccessible to students. These areas have the highest likelihood of having historic smelter-related dust deposits. They include pipe runs, ceiling tiles, and boiler rooms. The areas are cleaned infrequently (if ever) and had high amounts of dust during sampling.

Some exceedances for lead were identified. However, the vast majority of locations that had elevated lead had no elevated arsenic. Smelter-related wastes would have both elements present in elevated concentrations. The elevated lead is believed to be from the past use of lead-based paint. This is not unusual given the age of the schools and the historic use of lead-based paint in school interiors. Similar results and exceedances of lead would be expected in schools of the same age in non-smelter towns across the country.

What's Next?

EPA recommends that best management practices be used by maintenance staff when accessing or working in areas that have large amounts of dust and have been relatively undisturbed for long periods of time. These practices include removing dust by wiping or vacuuming and ensuring that it is not tracked into accessible areas.

SUPERFUND

Multi Agency Listening Session of 5/10/18 and Public Meeting July 11, 2018

On May 10, 2018, the Agency for Toxic Substances and Disease Registry (ATSDR), Montana Department of Health and Human Services, and ADLC Public Health Department held a listening session from 1:30 to 7:30pm at the Metcalf Senior Center.

ATSDR's objectives for the listening session were to:
1) Identify precisely health concerns voiced by the community,
2) Offer expertise from a variety of disciplines to assist community in formulating questions in a vocabulary consistent with public health practice.

The expertise deployed:

- ATSDR Toxicologists (2)
- Environmental Engineering
- ATSDR MD and Medical Epidemiologist
- Health Education and Community Engagement
- Local Public Health Agency
- State Epidemiologist and Toxicologist
- NIOSH Industrial Hygienist for Occupational Exposure
- Federally funded state program in addiction

Community Concerns Expressed

Participation: About 70
Key Community Health Concerns

- Arsenic contamination affects community health.
    - Pathways of continued exposure to arsenic:
        - Dust from slag piles (air Quality Concern)
        - Attic Dust migration into home
        - Incidental ingestion of soil
        - Gardening: consumption of produce; in local game
        - In water (municipal water line and private wells)
- Increased Cancer Rates
- Increase neurodegenerative diseases such as MS

Overall health of community is poor – difficulty interpreting all information provided through EPA and ARCO in terms of health effects.

About 54 people provided detailed accounts of health concerns associated with site contamination.

SUPERFUND

Summary of Community Concerns and Responses from the Community Listening Sessions

On July 11, 2018 ATSDR and other agencies held a public meeting to inform the community of the results of the May 10th ***Listening Session: What We Heard. A Path Forward.***

Community Concern
Exposures to arsenic and lead at levels that cause adverse health effects.

Response
- ATSDR will conduct an Exposure Investigation (EI) for all interested Anaconda residents and workers.
- Exposure investigations involve the collection and analysis of biological (when appropriate) or environmental samples to determine whether people have been exposed to hazardous substances at levels that may be harmful to health.

.

Community Concern
Dust from slag pile creates unhealthy levels of air contamination during events and during remediation

Response | Potential Action
- We have followed up with EPA, who recognizes the concern. They have expressed a willingness to conduct additional air monitoring to better assess off site migration from uncovered slag piles. If requested by ADLC, ATSDR and Montana DPHHS can consider providing an evaluation of the data collected.

Community Concern
Attic Dust clean ups will devalue homes. Electrical systems require upgrading prior to clean up.

Response
- Attic dust is a potential source of exposure to heavy metals associated with the smelter. ATSDR and Montana DPHHS will follow up with ADLC when Consent Decree negotiations reach completion to determine how we can assist the community in reducing exposures from attic dust

Community Concern
Increased cancer in community.

Response
- State Epidemiologist, Laura Williamson MPH, presented the most current data available at the State.

SUPERFUND

Community Concern
Increased levels neuro-degenerative diseases compared to other communities.

Response
- ATSDR is aware that community members believe that certain neurodegenerative illnesses such as MS and ALS may be more common among people living in Anaconda. There is no known cause of MS.
- Current scientific information indicates that there may be a combination of genetic and unknown environmental factors (possibly linked to exposure to Epstein – Barr virus or other viruses) and possibly linked to decreased exposure to sun (low vitamin D hypothesis).
- We encourage people to participate in the ALS registry. https://www.cdc.gov/als/Default.html

.

Community Concern
Municipal water quality adversely effected (at the tap) by slag used to backfill trenches that hold drinking water lines.

Response
- ATSDR has raised the concern to the ADLC Public Works and Planning Department. We are partnering with EPA and ADLC to determine if there has been previous work on this concern through other authorities.

Community Concern
Overall health of the community is poor

Response
- Montana DPHHS has funded a public health needs assessment at the county level (the last one was in 2013) to evaluate issues such as access to mental health care, addiction, and aging expressed in the community meeting.
- ADLC Health Department and DPHHS are ensuring that the concerns expressed during our May 10 Community Meeting are addressed by the needs assessment.

Community Concern
Uptake of arsenic through gardening and consumption of local game presents a health risk.

Response | Potential Action
- Health education in partnership with MSU Agricultural Extension and EPA.
- At the request of the community, the EPA is conducting sampling in Anaconda this summer to evaluate metals uptake in home-grown produce.
- Those interested in having their fruits and vegetables sampled, at no cost, can contact EPA's contactor CDM Smith, by August 15, 2018 – call Nancy Podololinsky at (406) 441-1471 or podolinsky@CDMsmith.com.

SUPERFUND

Community Concern

Confusion about where contamination is located. Unable to interpret letters explaining residential soil contamination.

Response

- Coordinate with Water & Environmental Technologies (WET) locally to ensure Geospatial analysis in format easily understood by the public.
- Make ATSDR geospatial resources available to ADLC.
- ATSDR and DPHHS will evaluate current health education and outreach. EPA and MDEQ (Montana Department of Environmental Quality) are available to help better understand the letters outlining residential soils.
- ATSDR contact – David Dorian, Regional Representative, ATSDR (303) 312-7011 ddorian@cdc.gov

ADLC Health Department Questionnaire: For those not at the 5/10/18 session.

54 people completed the questionnaire.
Concerns expressed were grouped in 6 broad categories:

- Autoimmune diseases: ALS, MS cancer – is there a connection with exposure?
- Mental Health / learning difficulties: suicide rate is two times greater than the national rate; Individual Education Plans (IEP) for children, behavioral issues.
- Pets / Livestock: exposure and health impacts – itchy skin, fur loss, tumors, death
- Sample results / remediation: soil, water, dust results. Remediation -Process – attic dust – wiring; soil and water – how is health protected during process? Next Steps?
- Broader concerns: childhood play in “pots”, slag, etc. Dust blowing from slag pile.
- Notifying residents: who is responsible to notify renters, home owners, citizens about potential hazards in the home / property or recreational areas?

COMMUNITY HEALTH SURVEY

The Community Hospital of Anaconda conducted a community health survey via mail in 2013 and 2016, with recipients randomly selected from a list of 800 residents in key zipcodes served by the hospital. A total of 222 residents completed the survey in 2013 along with 156 in 2016. A summary of the results of the two community surveys are below.

Table 1. Impression of community general health	2013	2016
Very healthy	0%	3%
Healthy	16%	21%
Somewhat healthy	57%	60%
Unhealthy	25%	16%
Very unhealthy	2%	0%

Only 3% of respondents in 2016 reported that their community is generally "Very Healthy". A majority of respondents rate their community as "somewhat healthy".

The biggest health concern identified in the county in both 2013 and 2016 was alcohol abuse/substance abuse at 66% and 70% respectively. Cancer and overweight/obesity have diminished while suicide and mental health issues have grown in prominence as key community health concerns identified by respondents.

Table 2. Community Health Concerns	2013	2016
Alcohol abuse/substance abuse	66%	70%
Cancer	48%	34%
Overweight/Obesity	39%	29%
Suicide	13%	22%
Mental health issues	9%	22%
Tobacco use	16%	17%
Diabetes	13%	16%
Heart disease	24%	15%

Table 3. Components of a Healthy Community	2013	2016
Access to healthcare and other services	64%	65%
Good jobs and a healthy economy	52%	56%
Healthy behaviors and lifestyles	31%	34%
Strong family life	25%	27%
Religious or spiritual values	13%	18%
Good schools	14%	18%

Anaconda-Deer Lodge County residents most often identify "Access to healthcare and other services" as a key component of a healthy community. Good jobs, a healthy economy, healthy behaviors and lifestyles and strong family life were also considered important by Anaconda-Deer Lodge County residents.

Respondents report fairly high levels of physical activity. Three out of four report participating in physical activity either daily or 2-4 times per week.

Table 4. Physical Activity Over the Past Month	2013	2016
Daily	32%	35%
2-4 times per week	36%	41%
3-5 times per month	15%	13%
1-2 times per month	9%	3%
No physical activity	8%	7%

COMMUNITY HEALTH SURVEY

Table 5. Prevalence of Depression	2016
Yes*	23%
No	72%
N/A	4%

*yes indicates respondent felt depressed on most days for least three consecutive months sometime in past three years

In 2016, almost a quarter of the survey respondents reported feeling symptoms of depression within the last three years. This question was not asked in 2013.

About one in three respondents reported receiving hospital care in the last three years.

Table 6. Hospital Care Received in Past Three Years	2013	2016
Yes*	75%	69%
No	25%	31%

About one third of Anaconda-Deer Lodge County residents rate their knowledge of health services at the Anaconda Community hospital as fair or poor; one in five report having excellent knowledge of the hospital's health services.

Table 7. Knowledge of Health Services available at Anaconda Community Hospital	2013	2016
Excellent	16%	20%
Good	51%	47%
Fair	28%	27%
Poor	5%	6%

Table 8. Medical Insurance	2013	2016
Employer sponsored	26%	32%
Medicare	30%	23%
Medicare plus supplement	3%	16%
Private insurance/private plan	13%	7%
VA/Military	6%	5%
Health Insurance Marketplace	-	5%
Medicaid	4%	2%
None/Pay out of pocket	0%	2%
Other	18%	8%

More than half of the survey respondents report having employer sponsored medical insurance or Medicare.

> "I have seen some wonderful changes to Anaconda – our health care is great. We have an outstanding hospital with great caregivers. We have come a long way. I want to continue to see the trails continue to grow in our community and more of a healthy atmosphere. We need to help our kids so drinking is not the only thing for them to do." - Community Member Key Informant Interview

DEMOGRAPHICS

Table 9. Demographics	Anaconda Deerlodge	Montana
Population	9,211	1,006,370
Median Age	46.8	38.8
Under 5	3.8%	6.3%
Under 18	16.8%	22.6%
65 and Older	20.1%	14.8%
Male	53.7%	50.2%
Female	46.3%	49.8%
White	93.3%	89.4%
American Indian	1.5%	6.3%

Less than 1% of Montana's population lives in Anaconda-Deer Lodge County. The median age of residents of Anaconda-Deer Lodge County is eight years older than all Montanans. One in five Anaconda-Deer Lodge County residents is 65 years of age or older, while almost one in six is 18 years of age or younger. A majority of the country residents are White (See Table 9).

Table 10. Education, income, and employment	Anaconda Deerlodge	Montana
Bachelor's degree or higher	17%	29%
3 and 4 year olds enrolled in preschool	75%	41%
15 to 17 year olds enrolled in schools	92%	96%
Median household income	$39,399	$46,766
Households with no workers in past year	39%	15%
Percent in poverty (all people)	17%	15%
Poverty (under 18)	27%	20%
Households receiving SNAP	12%	11%
Households with children under 18 receiving SNAP	19%	52%

Residents of Anaconda-Deer Lodge County are more likely to live in poverty than all Montanans, with the median household income in the county below $40,000 per year. Most youth with higher educational degrees leave town for jobs in their area of study Households in Anaconda-Deer Lodge County are more than twice as likely as households in Montana as a whole to have no workers in the past year. A smaller percentage of households with children under 18 utilize the Supplemental Nutrition Assistance Program (SNAP) in Anaconda Deer Lodge compared to all of Montana. (See Table 10).

ANACONDA-DEER LODGE COUNTY RESIDENTS HAVE LOWER LEVELS OF EDUCATIONAL ACHIEVEMENT AND HOUSEHOLD INCOME COMPARED TO ALL MONTANANS

Source: American Community Survey-5 year estimates, 2015

HOUSING AND DISABILITY

Table 11. Housing and Transportation	Anaconda Deerlodge	Montana
Owner occupied housing	71%	68%
Renter occupied housing	29%	32%
Vacant housing	25%	16%
Housing built in year 2000 or later	6%	17%
No vehicle available	9%	5%
Housing lacks complete plumbing facilities	2%	1%
No telephone service	5%	3%

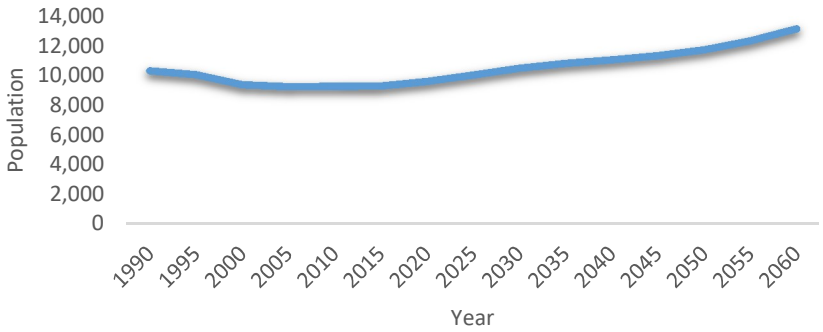
Almost three out of four residents of Anaconda-Deer Lodge County live in owner occupied housing. Only 6% of the housing within the county was built in the year 2000 or later, lower than the Montana rate of 17%. Nearly one in 10 households in Anaconda-Deer Lodge County has no vehicle available (See Table 11).

Table 12. Disability	Anaconda Deerlodge	Montana
Disability status	22%	13%
Disability aged 5-17	13%	5%
Disability 65 and over	41%	36%

Disability is also a concern within the county, with more than one in five residents reporting a current disability, 9% higher than the rate in Montana. Elevated rates of disability are evident in childhood, with county residents aged 5-17 reporting more than double the rate of disability seen in all Montana children. (See Table 12).

MORE THAN 9 IN 10 HOMES IN ANACONDA-DEER LODGE COUNTY WERE BUILT BEFORE THE YEAR 2000

POPULATION CHANGE AND FORECAST FOR ANACONDA-DEER LODGE COUNTY, 1990-2060



The population of Anaconda-Deer Lodge County declined from 1990 until around 2010. From then it has slowly increased and is expected to continue to a population of over 13,000 by 2060.

Source: American Community Survey-5 year estimates, 2015, Montana Department of Commerce, 2013

SUBSTANCE ABUSE

YOUTH

Table 13. Alcohol Use Among Youth	Anaconda Deerlodge HS	Montana HS	US HS	Anaconda Deerlodge MS	Montana MS
Lifetime alcohol use	65%	70%	63%	39%	40%
Current alcohol use	39%	34%	33%	15%	13%
Binge drinking in the last month	31%	21%	18%	15%	7%

Anaconda-Deer Lodge County youth are less likely to have ever used alcohol than their Montana peers, but are more likely to report current alcohol use and binge drinking within the last month (See Table 13). Rates of illicit drug use in Anaconda-Deer Lodge County, Montana and the US are similar (See Table 14). More than one third of all high school students report lifetime marijuana use and one in ten report misuse of prescription drugs.

Table 14. Illicit Drug Use Among Youth	Anaconda Deerlodge HS	Montana HS	US HS	Anaconda Deerlodge MS	Montana MS
Lifetime marijuana use	40%	38%	39%	16%	13%
Lifetime cocaine use	5%	5%	5%	1%	1%
Lifetime inhalant use	8%	8%	7%	7%	7%
Lifetime heroin use	4%	2%	2%	1%	1%
Lifetime methamphetamine use	4%	3%	3%	1%	1%
Lifetime ecstasy use	5%	6%	5%	1%	1%
Lifetime misuse of prescription drugs	11%	16%	17%	9%	6%

ADULTS

Anaconda-Deer Lodge County adults are more likely to report excessive drinking than adults in Montana and the US. Nearly half of all traffic fatalities in the county are attributable to alcohol (See Table 15). The rate of opioids prescribed in Anaconda-Deer Lodge is elevated relative to Montana and the US. There is almost one opioid prescription for every person in the county (See Table 16).

Table 15. Alcohol Use Among Adults	Anaconda Deerlodge	Montana	US
Excessive drinking	19%	21%	15%
Alcohol impaired driving deaths	44%	47%	31%

Table 16. Opioid Use	Anaconda Deerlodge	Montana	US
Prescribing Rates	96	69.8	66.5

*Per 100 persons

HS stands for High School. MS stands for Middle School (7th and 8th grades)
Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015
CDC Prescribing Map, 2016

MENTAL HEALTH & TRAUMA

YOUTH

Table 17. Mental Health and Trauma among Youth	Anaconda Deerlodge HS	Montana HS	US HS	Anaconda Deerlodge MS	Montana MS
Symptoms of depression in the last year	32%	29%	30%	31%	26%
Suicide attempts in the last year	12%	9%	9%	21%	15%
Carried a weapon in the past 30 days	9%	26%	16%	7%	4%
In a physical fight in the past year	25%	22%	23%	36%	32%
Physically forced to have sexual intercourse	13%	9%	7%	10%	6%
Experienced dating violence	8%	8%	10%	1%	2%
Experienced sexual dating violence	8%	10%	11%	8%	4%
Bullied on school property in the last year	31%	25%	20%	52%	35%
Electronically bullied in the last year	24%	19%	16%	34%	21%

Depression and suicidal ideation are a concern among high school and middle students in the county. One third of all Anaconda high school and middle school students report symptoms of depression within the last year. One in five middle school students and one in nine high school students also reports attempting suicide in the last year.

Elevated rates of sexual assaults and bullying may contribute to mental health concerns among youth. Both Anaconda high school and middle school students were more likely to report sexual assault and bullying than their peers in Montana and the US.

ADULTS

Table 18. Mental Health among Adults	Anaconda Deerlodge	Montana	US
Poor mental health days in the last month	3.6	3.4	3.4
Ratio of population to mental health providers	250:1	399:1	529:1

Adults report an average of 3.6 poor mental health days within the last month in Anaconda-Deer Lodge County. There is one mental health provider for every 260 residents of the county, a ratio that is better than Montana and the US as a whole.

ONE IN TWO ANACONDA-DEER LODGE MIDDLE SCHOOL STUDENTS REPORT BEING BULLIED

Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015

MENTAL HEALTH NEEDS ASSESSMENT

The Anaconda-Deer Lodge County Public Health Department in collaboration with Healthy Montana Families and Megan Rediske, MSN, RN conducted a survey of mental health needs and services in Anaconda-Deer Lodge County (ADLC) in July 2018. The deadline for participation was 8/3/18, and the survey is now closed.

The survey was based off the 2015 Madison County Mental Health Needs Assessment which was developed by Boise State. The goal was to gather resident's input and impressions on the current state of mental health services and needs in the community. The focus of the questions was local perceptions of a mental health services.

The survey was made available online and in paper format. Drop boxes were made present in key locations in town (ADLC Public Health, Anaconda Housing Authority, Metcalf Center, Community Youth Center, etc.) and in person meetings were held at the Metcalf Senior Center, Anaconda Community Market, etc.

Residents 18 years and older were asked to participate. They had the right to answer only the questions they wished to answer and were assured that only the research team would have access to the responses. Data trends would be made available to the public.

At this time, the full Community Mental Health Needs Assessment results are still being analyzed but some key trends appeared to be present. A complete report will be released after September 2018.

A total of 208 residents responded to the survey. Initial results with regard to comments surrounding individual's perceptions of the county's greatest mental health concerns:

- One strong theme is lack of both general and specific services: Forty-one comments on question four were coded with the topic of "People are in need of services, but there is nowhere for them to go." Other specific comments surrounding lack of services include five comments for "Lack of coordinated services/case management," ten comments for "Lack of providers/prescribing services," and three comments for "Lack of transportation services."
- Impacts to the community not only included those previously mentioned but also "Increased crime/violence/safety concerns," "suicide concerns," "Substance abuse concerns" as well as a "negative economic impact to the community" paired with "increase in 'visibility.'"

The report with the final results of this mental health needs assessment will provide the community with concrete data with which to advocate for better services, give voice to resident's concerns and facilitate grant applications.

CHRONIC DISEASE

YOUTH

Table 19. Tobacco Use among Youth	Anaconda Deerlodge HS	MT HS	US HS	Anaconda Deerlodge MS	MT MS
Current cigarette use	18%	13%	11%	7%	5%
Current chewing tobacco use	17%	12%	7%	5%	4%
Lifetime e-cigarette use	60%	51%	45%	36%	19%
Current e-cigarette use	39%	30%	24%	14%	9%

Both high school and middle school students in Anaconda-Deer Lodge are more likely to currently smoke cigarettes and use chewing tobacco than their peers. 60% of high school students have used e-cigarettes, while 39% report current e-cigarette use (See Table 19). Almost one in five adults in the county currently use cigarettes. (See Table 20).

ADULTS

Table 20. Tobacco Use among Adults	Anaconda Deerlodge	MT	US
Current cigarette use	18%	19%	15%

FORTY PERCENT OF HIGH SCHOOL STUDENTS IN ANACONDA-DEER LODGE COUNTY HAVE USED CIGARETTES IN THE LAST MONTH.

Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015

CHRONIC DISEASE

Table 21. Nutrition and Physical Activity Among Youth	Anaconda Deerlodge HS	MT HS	US HS	Anaconda Deerlodge MS	MT MS
Self described overweight	32%	30%	32%	31%	26%
Did not eat fruit in the past 7 days	18%	5%	5%	8%	9%
Drank pop every day in last 7 days	24%	19%	20%	19%	26%
Were not physically active one day in the last week	18%	11%	14%	6%	7%

Table 22. Nutrition and Physical Activity Among Adults	Anaconda Deerlodge	MT	US
Obese	26%	25%	27%
Access to exercise opportunities	68%	67%	N/A
Physical inactivity	23%	21%	23%

One out of every three high school and middle school students in the county describes themselves as overweight. Almost one in five high school students report not eating fruit in the past seven days and not being physically active even one day in the last week, rates that are elevated relative to Montana and the US (See Table 21). One in four adults in the county is obese and a similar percentage are physically inactive. (See Table 22). 46% of high school students and 41% of middle school students report spending three or more hours each day on the computer or playing video games, rates that are elevated relative to their Montana and US peers (See Table 23).

ONE IN THREE ANACONDA-DEER LODGE COUNTY HIGH SCHOOL AND MIDDLE SCHOOL STUDENTS DESCRIBE THEMSELVES AS OVERWEIGHT.

Table 23. Screen Time Among Youth	Anaconda Deerlodge HS	Montana HS	US HS	Anaconda Deerlodge MS	MT MS
Watched TV three or more hours per day	27%	22%	25%	16%	19%
3 or more hours of video games or computer time per day	46%	34%	42%	41%	36%

Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015

CHRONIC DISEASE

Table 24. Chronic Disease Prevalence	Anaconda Deerlodge HS	MT HS	US HS	Anaconda Deerlodge MS	Montana MS
Asthma (youth)	23%	22%	23%	27%	17%

Nearly a quarter of Anaconda-Deer Lodge youth reported having asthma (See Table 24). Rates of asthma among middle school students in our county are elevated relative to all of Montana.

The inpatient hospital admissions in Anaconda-Deer Lodge County for asthma are four times higher than those for Montana overall (205.8 per 100,000 versus 47.7 per 100,000). The county also has higher COPD admissions and diabetes admissions compared to Montana. However, the county's admissions for cardiovascular disease are lower than those in all of Montana (See Table 25). Anaconda-Deer Lodge County has higher emergency room admissions for asthma, COPD, cardiovascular disease, and diabetes compared to all of Montana (See Table 26). These elevated rates of hospital admissions may be attributable, in part, to Anaconda-Deer Lodge County's aging population, historical smelting presence with pollution, inactivity, reduced nutrition, and a large population of U.S. Veterans who smoked. Cancer incidence rates for Anaconda-Deer Lodge County are similar to those in Montana as a whole.

Table 25. Chronic Disease Inpatient Hospital Admissions*	Anaconda Deerlodge	MT
Asthma	205.8	47.7
COPD	1266.8	716.8
Cardiovascular disease	139.7	746.7
Diabetes (types 1 and 2)	1,085	822.5

*Rate per 100,000 Anaconda-Deer Lodge 2011-2013

Table 26. Chronic Disease Emergency Room Admissions*	Anaconda Deerlodge	MT
Asthma	400.6	260.0
COPD	2557.5	804.9
Cardiovascular disease	905.7	372.7
Diabetes (types 1 and 2)	1939.4	1235.6

*Rate per 100,000 Anaconda-Deer Lodge 2011-2013

Table 27. Cancer Incidence*	Anaconda Deerlodge	MT
Overall	432.5	439.8
Breast (female)	117.5	115.7

*Rate per 100,000 Anaconda-Deer Lodge 2011-2013

Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015, Behavioral Risk Factor Surveillance Survey (BRFSS), 2014, Montana's Indicator-based Information System (MT-IBIS), 2012-14

COMMUNICABLE DISEASE

YOUTH

Table 28. Sexual risk behaviors among youth	Anaconda Deerlodge HS	MT HS	US HS	Anaconda Deerlodge MS	MT MS
Ever had sexual intercourse	55%	44%	41%	25%	12%
Currently sexually active-last three months	38%	32%	30%	8%	5%
Did not use a condom at last intercourse (among currently sexually active HS students)	22%	41%	43%	10%	54%

Youth in Anaconda-Deer Lodge County are more likely than those in all of Montana to report sexual activity. Over half of Anaconda high school students and one quarter of middle school students report having had sexual intercourse. Sexually active youth in Anaconda-Deer Lodge County are more likely to report condom use than their Montana peers.

ADULTS

Table 29. Communicable disease case rates*	Anaconda Deerlodge	MT
Chlamydia	407	366.2
Hepatitis C	100.48	123.0
Pertussis	42.9	44.6
Campylobactereioisis	7.18	22.2

*Rate per 100,000, DPHHS 2014

Communicable disease rates in Anaconda-Deer Lodge County are similar to those in Montana as a whole, except for campylobacteriosis rates which were lower than those in Montana in 2014.

YOUTH IN ANACONDA DEER LODGE ARE MORE LIKELY TO BE SEXUALLY ACTIVE THAN YOUTH IN MONTANA AND THE UNITED STATES AS A WHOLE

Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015
Montana Communicable Disease Bureau, DPHHS, 2014

MATERNAL AND CHILD HEALTH

Table 30. Birth Rates*	Anaconda Deerlodge	MT
Number of births (2015)	85	12,578
Birth rate overall	9.3	12.2

*Rate per 1000 population, 2015

Fewer than 100 births occur in Anaconda-Deer Lodge County annually, or about 0.7% of Montana's total births (See Table 30). Babies in Anaconda-Deer Lodge County are slightly less likely to be breastfed at discharge from the hospital than babies born elsewhere in the state. (See Table 31).

Table 31. Maternal and Child Nutrition	Anaconda Deerlodge	MT
Children aged 2-5 years on WIC who are overweight or obese	19%	28%
Breastfeeding at discharge from hospital	84%	89%

Table 32. Maternal Child Health Indicators*	Anaconda Deerlodge	MT
Women entering prenatal care after first trimester	25%	27%
Women whose Kotelchuck Index is >= 80%	72%	75%
Mother's education less than high school graduate	10%	12%
Any insurance	-	92%
Receiving WIC	56%	35%

*Birth certificate data 2011-2013
- Data suppressed due to small sample size

One in four women in Anaconda-Deer Lodge County report entering prenatal care after the first trimester. One in ten new mothers have not graduated from high school. Over half the mothers in Anaconda-Deer Lodge County receive WIC, compared to 35% in all of Montana.

ONE IN FOUR MOTHERS IN OUR COUNTY DO NOT RECEIVE PRENATAL CARE DURING THEIR FIRST TRIMESTER OF PREGNANCY

Source: Montana Vital Statistics and Montana WIC Program, DPHHS, Birth Certificate Data, 2011-2013, Montana's Indicator-based Information System (MT-IBIS), 2015, CDC Vital Statistics Online Database, 2016

INJURY

Table 33. Driving risk behaviors among youth	Anaconda Deerlodge HS	MT HS	US HS	Anaconda Deerlodge MS	MT MS
Never or rarely wears a seat belt when driving in a car driven by someone else	17%	10%	6%	10%	6%
In a vehicle driven by someone who had been drinking alcohol in last month	26%	23%	20%	-	-
Text or email while driving in last month	45%	55%	42%	-	-

-No reported data

Risky driving behaviors that can lead to injuries are a concern among youth in our county. 17% of Anaconda-Deer Lodge high school students report never or rarely wearing a seat belt when in a car driven by someone else, compared to all of Montana youth at 10% and the US at 6%. More than one in four high school students reports being in a vehicle driven by someone who has been drinking alcohol within the last month. Nearly half of high school students report texting or emailing while driving.

Table 34. Emergency room visits for injury*	Anaconda Deerlodge	Montana
ER visits for all unintentional injury	6834.6	5901.8
ER visits for falls	2722.7	2020.0
ER visits for motor vehicle injuries	590.5	520.0
ER visits for Intentional self harm	223.9	104.5
ER visits for Traumatic Brain Injury	774.3	649.9

*Rates per 100,000, 2014

Anaconda-Deer Lodge County residents are twice as likely to visit the emergency room for intention self-harm, compared to all of Montana. Our county also has elevated rates of emergency room visits for unintentional injury, falls, and traumatic brain injury.

Source: Youth Risk Behavior Survey (YRBS), 2015-2017, County Health Rankings, 2015

DISPARITIES IN ACCESS

Table 35. Dental care	Anaconda Deerlodge MS	Anaconda Deerlodge HS	Anaconda Deerlodge	MT	US
Did not see a dentist during the past year (youth)	34%	26%	-	25%	26%
Population to dentist ratio	-	-	1310:1	1480:1	1583:1

-No reported data

One in three middle school students and one in four high school students in our county have not seen a dentist during the past year. This is despite the fact that the population to dentist ratio is more favorable in our county compared to Montana and the US (See Table 35). The population to primary care provider ratio is also much lower in the Anaconda-Deer Lodge County than in Montana and the US (See Table 36). Thus access to care in Anaconda-Deer Lodge County is an area of strength.

Table 36. Access to Primary Care	Anaconda Deerlodge	MT	US
Population to primary care provider ratio	920:1	1310:1	1342:1

ACCESS TO CARE IN ANACONDA-DEER LODGE COUNTY IS AN AREA OF STRENGTH

Source: County Health Rankings, 2015, Youth Risk Behavior Survey (YRBS), 2017

OVERALL HEALTH STATUS

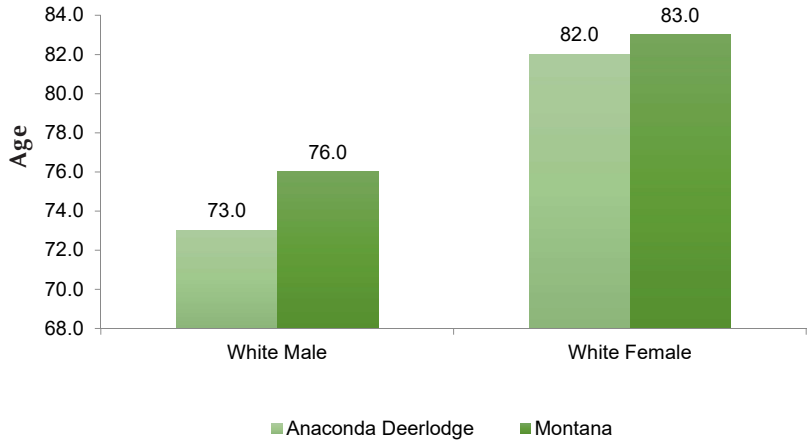
Table 37. Overall health status	Anaconda Deerlodge	MT	US
Self rated fair or poor health (adults)	14%	14%	16%
Poor physical health days per month (adults)	4.0	3.9	3.7
Years of Potential Life Lost rate*	7,200	7,307	6,622

* Age-adjusted years of potential life lost before aged 75 per 100,000 population

One in seven county residents reports that their health is fair or poor and adults experience, on average, four poor physical health days each month (See Table 37). The median age of death for white males in Anaconda-Deer Lodge County is 73, while white females have a median age of 82, both of which are only slightly lower than Montana's overall median age of death for white males and females. (See Table 38).

Table 38. Median age of death	Anaconda Deerlodge	MT
White males	73.0	76.0
White females	82.0	83.0

MEDIAN AGE OF DEATH, MONTANA AND ANACONDA-DEER LODGE, 2017



RESIDENTS OF ANACONDA-DEER LODGE HAVE A SLIGHTLY LOWER MEDIAN AGE OF DEATH THAN OTHER MONTANANS

Source: State Vital Statistics Database, County Health Rankings, 2015
Office of Epidemiology and Scientific Support, MT DPHHS, 2017

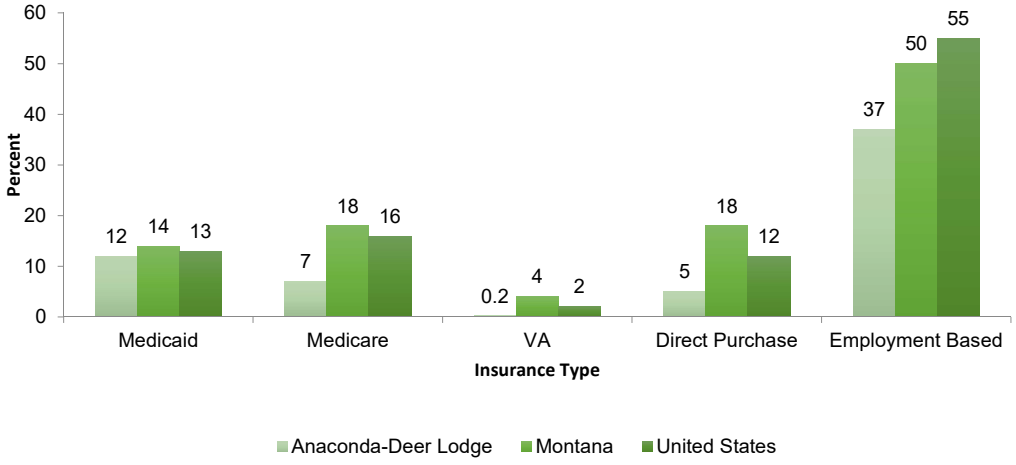
OVERALL HEALTH STATUS

Table 39. Leading Causes of Death*	Anaconda Deerlodge	MT
Neoplasm, malignant	191.0	152.9
Circulatory, Heart Disease	190.7	151.6
Injury, Unintentional injuries	65.4	53.5
Respiratory, chronic lower respiratory diseases	49.5	50.2
Injury, intentional self-harm	43.5	24.1
Circulatory, cerebrovascular diseases	28.3	34.5
Diabetes mellitus	28.3	21.3
Overall	909.0	743.5

*Age adjusted death rate per 100,000, 2012-2016

The leading causes of death in Anaconda-Deer Lodge County are cancer and heart disease. Death rates due to these diseases are slightly elevated in the county compared to all of Montana. Death rates due to injury, particularly intentional self harm, are also elevated in our county relative to all of Montana.

INSURANCE TYPE, ANACONDA-DEER LODGE, MONTANA AND THE US



Employment based insurance is the most common type of insurance in Anaconda-Deer Lodge County and in all of Montana. However, only 37% of county residents have employment based insurance, compared to 50% of all Montanans. Medicaid is the second most used type of insurance. About 17% of county residents under age 65 are uninsured.

Source: Office of Epidemiology and Scientific Support, MT DPHHS, 2012-2016
American Community Survey, Five Year Estimates, 2010-2015

SUMMARY

This community health assessment identified a number of key health concerns in Anaconda-Deer Lodge County. Alcohol and substance abuse were identified by community stakeholders as the number one health concern and the population level data in this report underscore concerns in both youth and adults related to substance use. Anaconda-Deer Lodge high school students report higher rates of current binge drinking compared to their Montana and US peers, and one in five adults in the county drink exessively. The prescribing rate for opioids in Anaconda-Deer Lodge is alarming, at 96 per 100 persons compared to 69.8 and 66.5 in Montana and the US respectively.

Mental health is another area of health concern that has been identified by community stakeholders. Almost one in three high school and middle school students in Anaconda-Deer Lodge County report symptoms of depression and residents of the county are almost twice as likely to be admitted to the emergency room or die from intentional self harm compared to all Montanans.

Chronic disease is also a concern in the county, with rates of inpatient hospital admissions, emergency room admissions and deaths due to chronic disease elevated in the county compared to Montana overall.

Despite these challenges, much can be done to promote health in Anaconda-Deer Lodge County. With strong partnerships between community partners utilizing evidence based practices, we believe that we can ensure better health outcomes for all residents of our community.

ACKNOWLEDGEMENTS

This report was prepared by Courtney Geary, MPH as part of her practicum project for the University of Montana Master in Public Health program in partnership with Katie Loveland MPH, MSW of Loveland Consulting LLC. If you have questions about the data contained in this report contact Katie Loveland at lovelandk@gmail.com.

LOVELAND
CONSULTING