

Lincoln County

Community Health Assessment



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Acknowledgements

The Lincoln County Health Department thanks the following community organizations that contributed to the development of this document.

Cabinet Peaks Medical Center
Eureka Health
Families in Partnership, Inc.
Flathead Valley Chemical Dependency Clinic
Libby Public Schools
Lincoln County Sheriff's Office

Lincoln County Unite for Youth
North Country Medical Center
Northwest Community Health Center
Mountain View Manor
Youth Dynamics

Introduction

Dear Lincoln County Community and Stakeholders,

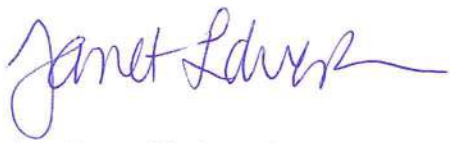
The Community Health Assessment (CHA) is a crucial part of the strategic plan to improve community health while working with other community organizations and health care providers. It is the responsibility of the City-County Board of Health for to ensure that the policies identifying the health needs are based on the most recent information. The CHA will be the foundation to develop a Community Health Improvement Plan for Lincoln County, which will focus on selected health issues, and to outline a direction for the community to start working towards improving those indicators.

As part of our commitment to improving the health of our community and with collaboration from our partners, we plan to release a new assessment regularly to serve as a resource and point of connection for community members and organizations who are working to improve the health of residents in Lincoln County.

The City-County Board of Health for Lincoln County is engaged in a comprehensive collaborative effort to identify the highest priority health needs of our community in order to make our public health system better equipped to make educated choices and set priorities.

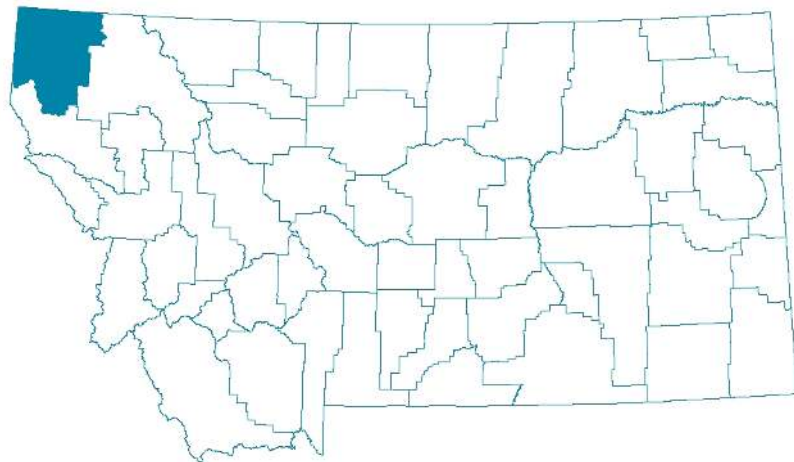
As we move forward with the next steps, I want to thank all those involved for their thoughtful and meaningful work. It will make a difference.

Sincerely,



Janet Ivers
Chair, City-County Board of Health for Lincoln County

Introduction



Lincoln County is a rural county in the far Northwestern corner of Montana amidst the beauty of the Kootenai National Forest and Cabinet Mountain Wilderness. In the 2010 census, Lincoln County had a population of 19,687. The county encompasses a total of 3,675 square miles and is classified as frontier with a population density of only 5.4 persons per square mile. The county seat of Lincoln County is Libby (population 2,628). The small towns of Eureka and Troy comprise the other two primary population centers in the county.

Lincoln County is governed by a panel of three county commissioners who are elected to 6 year terms. The Lincoln County Government operates a wide variety of county public programs, including the Lincoln County Health Department. The Lincoln County Health Department is governed by a 7 member Board of Health.

In 2015, the Lincoln County Health Department applied for and received funding from the Montana Public Health and Safety Division and the Montana Healthcare Foundation to develop a comprehensive health assessment of Lincoln County. Jennifer McCully, the manager of the Public Health program, convened a group of community stakeholders to guide the health assessment process. The stakeholder group met quarterly in 2016 to guide the process. The following document contains an analysis of the most up-to-date population-level data for Lincoln County, compiled by a third party consultant. For question regarding the information contained in this report, contact Jennifer McCully at 406-283-2465 or jmccully@libby.org.



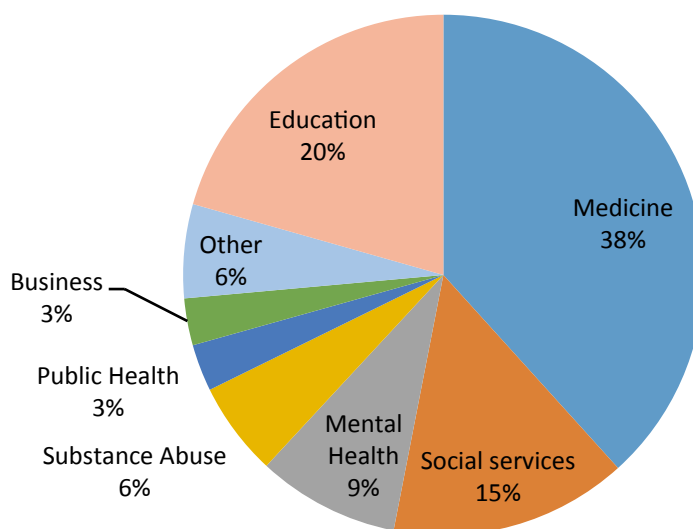
Key Informant Survey

Demographics

In October 2016 the Lincoln County Health Department conducted a survey of key health stakeholders in the county to assess what they perceive as the greatest health concerns in our community. The 7 question electronic survey was emailed to 87 stakeholders by a third party consultant, and after the two week response window, 34 stakeholders completed the survey for a response rate of 39%. Below are the results of the survey.

Area of expertise among respondents to the Lincoln County Key Informant Health Survey

The majority of respondents to the key informant survey work in medicine or education, followed by social services and mental health. Respondents represented 26 different community organizations across our community.



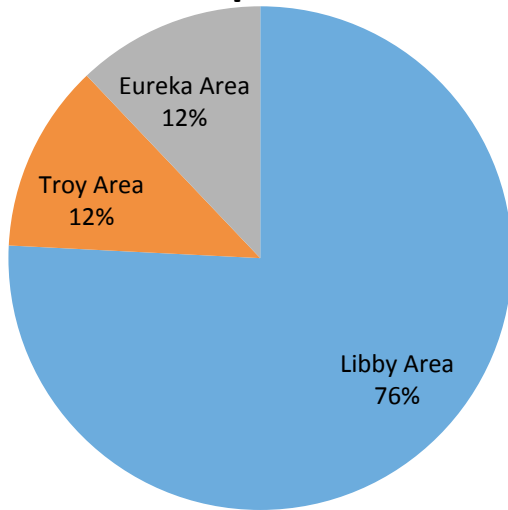
Respondent Organization, Lincoln County Key Health Informant Survey

Cabinet Peaks Family Practice	Libby Clinic
Cabinet Peaks Medical Center	Libby Public Preschool
Cabinet Peaks Medical Center ER	Libby Public Schools
Eureka Health Prompt Care	Libby Volunteer Ambulance Service, Inc
Eureka Middle School	Lincoln County Emergency Management Agency
Families in Partnership, Inc.	Lincoln County Unite for Youth Coalition
Flathead Valley Chemical Dependency Clinic	North Valley Hospital
Kootenai Cross Country Ski Club	Northwest Community Health Center
Kootenai Valley Christian School	Troy Public Schools
Kootenai Valley Head Start, Inc.	Public Schools
Libby Public School District	Western Montana Mental Health Center
Libby Care Center	Youth Dynamics

Key Informant Survey

Demographics

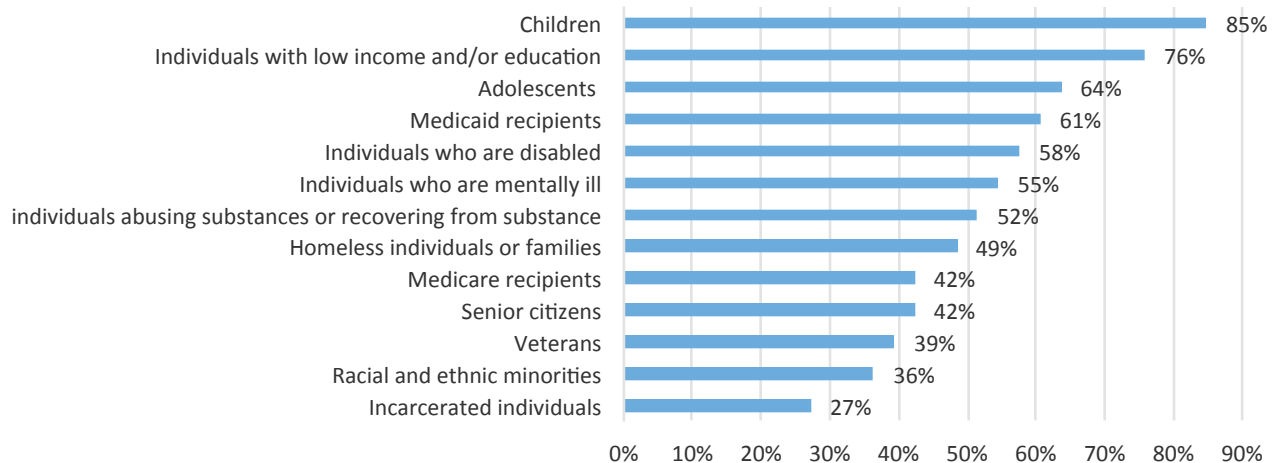
Area of Lincoln County where the Key Informant Respondent Works



The key health informant survey included respondents who serve in all areas of Lincoln County and who regularly work with clients from a range of backgrounds. Three out of four respondents to the key informant survey work in the Libby Area, with the other 24% evenly split between Eureka and Troy.

Respondents were most likely to report working with children, followed by low SES individuals, adolescents and Medicaid recipients. More than 50% of respondents work regularly with clients with mental illness. Respondents were least likely to report working with incarcerated individuals and racial and ethnic minorities.

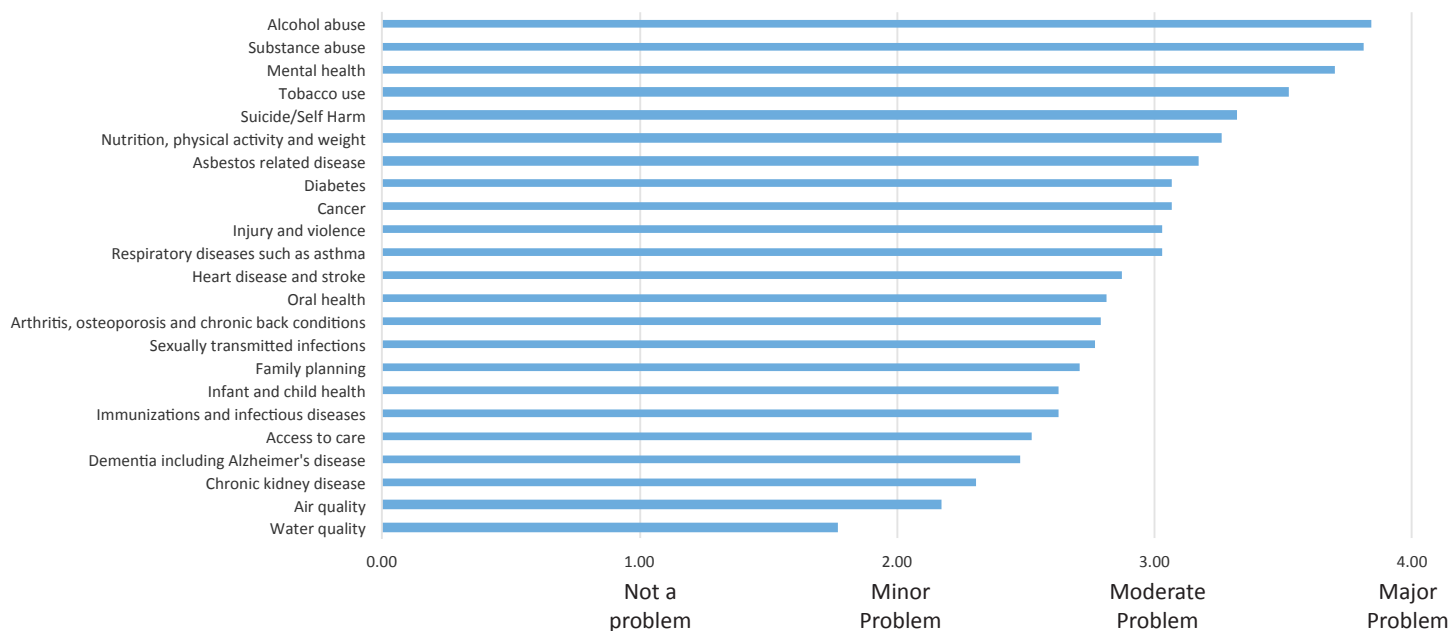
Clients populations served by Key Informant Survey Respondent



Key Informant Survey

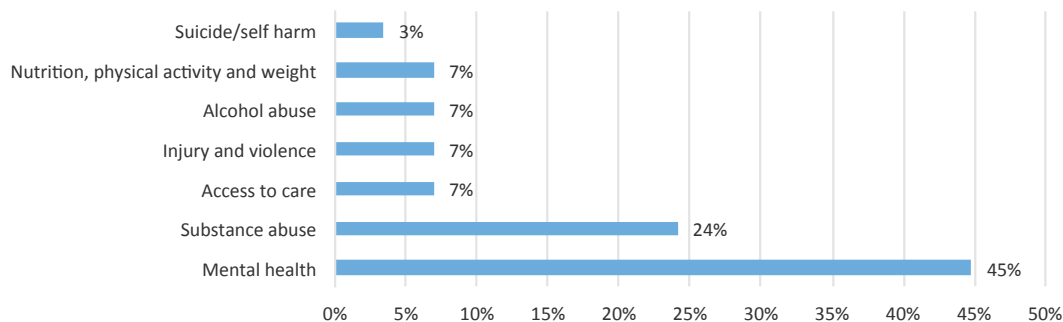
Major Health Issues in Lincoln County

Average Rating for Severity of Health Problems in Lincoln County by Key Informant Survey Respondents



When asked the rate the severity of a variety of health issues in Lincoln County, Alcohol Abuse, Substance Abuse and Mental Health ranked as the most severe, with environmental health issues ranked as least severe.

Most pressing health concern in Lincoln County identified by Key Health Informant Survey Respondents



When key informants were asked to name the most pressing health concern in Lincoln County, Mental Health and Substance Abuse ranked highest, with 68% of respondents identifying one or the other of these issues as the most pressing in Lincoln County.

Community Health Data

in Lincoln County

The following report contains population level public health data for Lincoln County from a wide variety of sources. Data on the health of our community are presented in the following areas:

Substance Abuse

Mental Health and Trauma

Chronic Disease

Communicable Disease

Maternal and Child Health

Injury

Access to Care

Demographic data outlining factors that contribute to the health of our population such as poverty, educational attainment and insurance status are also included.

The major sources of data included in this report are:

- Behavioral Risk Factor Surveillance System (BRFSS, 2014)
- Youth Risk Behavior Survey (YRBS, 2015)
- Birth and death records from the Montana Office of Vital Statistics
- American Community Survey (ACS), 5 year estimates (2011-2014)
- Robert Wood Johnson Foundation County Health Rankings and Roadmaps, 2016

Special thanks to the epidemiologists in the Public Health and Safety Division's Office of Epidemiology and Scientific Support for their technical assistance with this report.

Demographics

Table 1. Demographics	Lincoln County	Montana
Population	19,455	1,006,370
Median Age	50.4	38.8
Under 5	5%	6%
Under 18	20%	23%
65 and Older	23%	15%
Male	51%	50%
Female	49%	50%
White	96%	89%
American Indian	2%	6%

Only 2% of Montana's population lives in Lincoln County. Residents of our county are substantially older than residents of Montana as a whole, with almost a quarter of our population aged 65 or over. The vast majority of county residents are white.

In terms of socioeconomic status, residents of Lincoln County face many challenges. The median household income in our county is almost \$10,000 less than that in Montana. One in five families with children under 18 live in poverty. Seven out of ten families with children in Lincoln County participate in the Supplemental Nutrition Assistance Program

(also known as food stamps or SNAP).

In terms of education, less than 20% of Lincoln County residents have a bachelors degree compared to almost 30% statewide. Educational disparities are evident early on in our population, as fewer 3 and 4 year olds are enrolled in preschool compared to 3 and 4 year olds statewide. (See Table 2).

Table 2. Education, income, and SNAP Participation	Lincoln County	Montana
Bachelor's degree or higher	19%	29%
3 and 4 year olds enrolled in preschool	37%	41%
15 to 17 year olds enrolled in schools	99%	96%
Median household income	\$35,603	\$46,766
Percent in poverty (all people)	17%	20%
Poverty (under 18)	20%	20%
Households on the Supplemental Nutrition Assistance Program (SNAP)	15%	11%
Households with children under 18 receiving SNAP	72%	52%

The median annual household income in Lincoln County is \$10K less than MT as a whole

Demographics

Table 3. Housing	Lincoln County	Montana
Owner occupied housing	78%	68%
Renter occupied housing	22%	32%
Vacant housing	23%	16%
Housing built in year 2000 or later	15%	17%
No vehicle available	4%	5%
Housing lacks complete plumbing facilities	2%	1%
No telephone service	3%	3%

Housing conditions affect health in Lincoln County. County residents are more likely than residents elsewhere in Montana to own their own homes. However, almost a quarter of the housing stock in Lincoln County is vacant. A small but high-risk portion of the county's population (5%

or less) has no vehicle available and no telephone service.

Table 4. Employment	Lincoln County	Montana
Unemployment rate (age 16+)	13.2%	6.8%
Unemployment rate for individuals living in poverty	40.5%	21.4%
Unemployment rate for individuals with a disability	25.7%	12.8%

The unemployment rate in Lincoln County is twice that of Montana as a whole. Individuals living in poverty and those with disabilities experience higher rates of unemployment in our county.

Disabilities are also a concern in our community. Almost one in four Lincoln County residents has a current disability. Later in life, more than 4 out of every 10 of the seniors are disabled. Both of these percentages are higher than the state as a whole. (See Table 4).

Table 5. Disability	Lincoln County	Montana
Disability status	22%	13%
Disability aged 5-17	5%	5%
Disability 65 and over	41%	36%

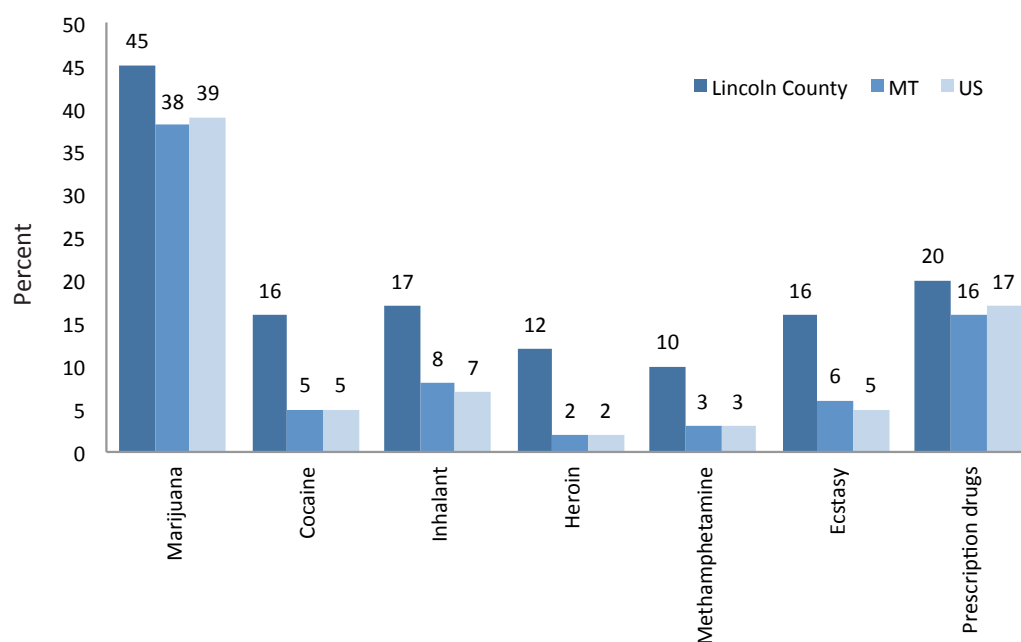
Substance Abuse

YOUTH

Table 6. Alcohol Use Among Youth	Lincoln County	Montana	US
Lifetime alcohol use	71%	70%	63%
Current alcohol use	38%	34%	33%
Binge drinking in the last month	29%	21%	18%

Almost one in three high school students in Lincoln County reports binge drinking in the last month, higher than the rates in Montana and the US as a whole. Youth in Lincoln County are also more likely to report lifetime use of illicit drugs including marijuana, cocaine, heroin, methamphetamine and ecstasy.

Lifetime drug use among youth, 2015



ADULTS

Table 7. Alcohol Use Among Adults	Lincoln County	Montana	US
Excessive Drinking (binge or heavy drinking in the last month)	16%	21%	15%
Percent of Driving Deaths that are Alcohol Impaired	38%	47%	31%

Adults in Lincoln County report slightly lower rates of excessive drinking than Montana as a whole, though our rates are comparable to the US as a whole. Drinking and driving is also a concern, with 4 out of every 10 driv-

Table 8. Prescription Drug Misuse	Northwest Montana	Montana
Used pain medication not prescribed by a doctor	5.5%	3.3%

ing deaths in Lincoln County are attributable to alcohol impairment. In Northwest Montana, 5% of adults report using a pain medication that was not prescribed by a doctor in the last year.

Mental Health and Trauma

YOUTH

Table 9. Mental Health and Trauma among Youth	Lincoln County	MT	US
Symptoms of depression in the last year	42%	29%	30%
Suicide attempts in the last year	15%	9%	9%
Carried a weapon in the past 30 days	15%	26%	16%
In a physical fight in the past year	32%	22%	23%
Physically forced to have sexual intercourse	18%	9%	7%
Experienced dating violence	16%	8%	10%
Experienced sexual dating violence	9%	10%	11%
Bullied on school property in the last year	40%	25%	20%
Electronically bullied in the last year	30%	19%	16%

Youth in Lincoln County are more likely than those in Montana or the US to report symptoms of depression and suicide attempts in the last year. They are also more than twice as likely to report sexual and dating violence than their peers in the state as a whole. Rates of at-school and electronic bullying are also elevated in our county youth population.

Reported rates of dating violence, forced sexual intercourse and electronic bullying are nearly twice as high in Lincoln County than in Montana and the US.

ADULTS

Table 10. Mental Health among Adults	Lincoln County	Montana	US
Poor mental health in the last month	3.5	3.4	3.4
Ratio of population to mental health providers	563:1	399:1	529:1

Lincoln County adults report an average of 3.5 poor mental health days in the last month. **Adults in Lincoln County seeking access to mental health services may struggle to access them, as our county's ratio of population to mental health providers is higher than both Montana and the US.**

Chronic Disease

TOBACCO USE

One in 4 high school students reports currently smoke cigarettes and one in five reports using chewing tobacco. **46% of all high schoolers in our community have tried electronic cigarettes.**

Youth Tobacco Use, 2015

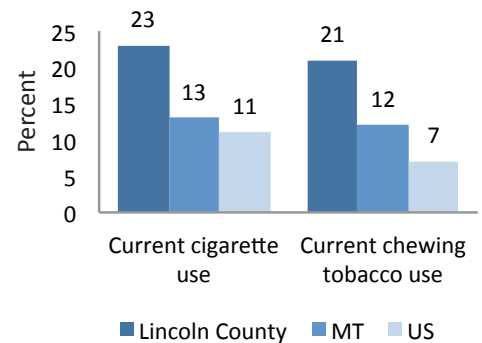


Table 11. Tobacco Use among Adults	Lincoln County	MT	US
Current cigarette use	17%	20%	20%
Current chewing tobacco use	6% (NW Region)	8%	4%

NUTRITION AND PHYSICAL ACTIVITY

Table 12. Nutrition and Physical Activity Among Youth	Lincoln County	MT	US
Self described overweight	34%	30%	32%
Did not eat fruit in the past 7 days	17%	5%	5%
Drank pop every day in last 7 days	23%	19%	20%
Were not physically active one day in the last week	21%	11%	14%

Youth in our community are more likely to not report eating fruit in the last week and are almost twice as likely as all

Table 13. Nutrition and Physical Activity Among Adults	Lincoln County	MT	US
Obese	27%	25%	27%
Physical Inactivity	24%	22%	23%

Montana youth to report physical inactivity in the last week. More than one third of our teens report three or more hours

Table 14. Screen Time Among Youth	Lincoln County	MT	US
Watched TV three or more hours per day	29%	22%	25%
3 or more hours of video games or computer time per day	37%	34%	42%

of video or computer games per day. More than one quarter of adults in Lincoln County are obese and 24% are physically inactive.

CHRONIC DISEASE PREVALENCE AND ER AND INPATIENT ADMISSIONS

Table 15. Chronic Disease Prevalence	Northwest MT	MT	US
Asthma (youth-Lincoln County)	26%	22%	22%
Asthma (adults)	10%	9%	9%
Diabetes (adults)	9%	9%	10%
Arthritis (adults)	26%	27%	26%

One in four youth in Lincoln County currently has asthma along with 10% of adults in the Northwest portion of our state. 1 in 10 adults in Northwest Montana have been diagnosed with diabetes and 1 in 4 with arthritis.

Cancer incidence rates for lung and bronchus cancer are elevated in our county compared to Montana as a whole.

Table 16. Cancer Incidence*	Lincoln County	MT
Overall	477.9	439.8
Lung and bronchus	70.7	56.4
Colon and rectum	23.6	36.9

*Rate per 100,000, Lincoln County 2011-2013

Table 17. Chronic Disease Inpatient Hospital Admissions*	Lincoln County	MT
Asthma	59.7	47.7
COPD	777.6	716.8
Cardiovascular disease	697.2	746.7
Diabetes (types 1 and 2)	850.8	822.5

* Rate per 100,000 Lincoln County 2011-2013

Table 18. Chronic Disease Emergency Room Admissions*	Lincoln County	MT
Asthma	176.1	260.0
COPD	1234.0	804.9
Cardiovascular disease	643.4	372.7
Diabetes (types 1 and 2)	1453.7	1235.6

* Rate per 100,000 Lincoln County 2011-2013

Hospital admissions for asthma and emergency room admission rates for COPD and Cardiovascular Disease are elevated in Lincoln County compared to Montana.

Communicable Disease

SEXUAL RISK BEHAVIORS

Table 19. Sexual risk behaviors among youth	Lincoln County	MT	US
Ever had sexual intercourse	55%	44%	41%
Currently sexually active-last three months	40%	32%	30%
Did not use a condom at last intercourse (among currently sexually active HS students)	56%	41%	43%

Over half of all Lincoln County high school students report ever having sex and more than half of sexually active teens did not use a condom at last intercourse.

Youth in Lincoln County report higher rates of sexual risk behaviors than youth in MT or the US

COMMUNICABLE DISEASE INCIDENCE

Table 20. Communicable disease case rates*	Lincoln County	MT
Chlamydia	172.5	366.2
Hepatitis C	203.9	123.0
Gonorrhea	15.7	13.8
Pertussis	17.7	44.6
Campylobacteriosis	58.1	22.2

*Rates per 100,000, DPHHS 2011-2013

Hepatitis C and Campylobacteriosis rates are elevated in Lincoln County relative to Montana as a whole.

Table 21. Adult Vaccination	Northwest MT	MT	US
Flu shot in past year (ages 18-64)	30%	32%	38%
Flu shot in past year (ages 65+)	61%	58%	67%
Pneumonia vaccination ever (ages 65+)	70%	68%	70%

Compared to the US, adults in Montana and the Northwest portion of our state are less likely to report receiving a flu shot in the past year.

Maternal & Child Health

BIRTH RATES

Table 22. Birth Data, 2013-2015	Lincoln County	MT
Number of births	521	37,353
Birth rate per 1000 population	9.5	12.2
Teen birth rate, per 1000 adolescent females aged 15-19	30.6	26.4
Preterm birth (born less than 37 weeks)	6%	9%
Low birth weight (less than 2500 grams)	6%	7%

The birth rate in Lincoln County is slightly lower than that in Montana as a whole, though the teen birth rates in Lincoln County and Montana are similar.

Almost one in four children aged 2-5 in the Women Infant and Children's Program are overweight or

Table 23. Maternal and Child Nutrition*	Lincoln County	MT
Children aged 2-5 years on WIC who are overweight or obese	23%	28%
Women in the WIC program who initiate breastfeeding	90%	85%

obese. Breastfeeding rates in the WIC program and at discharge from the hospital at birth are high in our county.

*2011-2013

Table 24. Maternal Child Health Indicators*	Lincoln County	MT
Women entering prenatal care after first trimester	27%	27%
Women whose Kotelchuck Index is \geq 80%	76%	75%
Smoking during pregnancy	23%	16%
Mother's education less than high school graduate	14%	12%
Any insurance	83%	92%
Receiving WIC	44%	35%
Breastfeeding at discharge	89%	89%

However, more than one in four women in our county do not enter prenatal care until after the first trimester and smoking rates during pregnancy are elevated in Lincoln County.

*Birth certificate data 2011-2013

The rate of insurance among pregnant women in Lincoln County is lower than that in Montana as a whole.

Almost a quarter of all pregnant women in Lincoln County smoke during pregnancy.

Injury

DRIVING RISK BEHAVIORS

Table 25. Driving risk behaviors among youth	Lincoln County	MT	US
Never or rarely wears a seat belt when driving in a car driven by someone else	25%	10%	6%
In a vehicle driven by someone who had been drinking alcohol in last month	34%	23%	20%
Text or email while driving in last month	36%	55%	42%

High school student in Lincoln County are more than twice as likely as student in Montana and the US to report never or rarely wearing a seat belt. More than one third of high school students report being driven by someone who was drinking alcohol in the last month.

One quarter of high school students rarely or never wear a seat belt, 4 times higher than the US rate.

1 in 3 high school students report being in a vehicle with someone who had been drinking in the last 30 days

ER VISITS FOR INJURY

Table 26. Emergency room visits for injury*	Lincoln County	MT
ER visits for all unintentional injury	4786.2	5901.8
ER visits for falls	1593.8	2020.0
ER visits for motor vehicle injuries	452.2	520.0
ER visits for Intentional self harm	59.7	104.5
ER visits for Traumatic Brain Injury	457.7	649.9

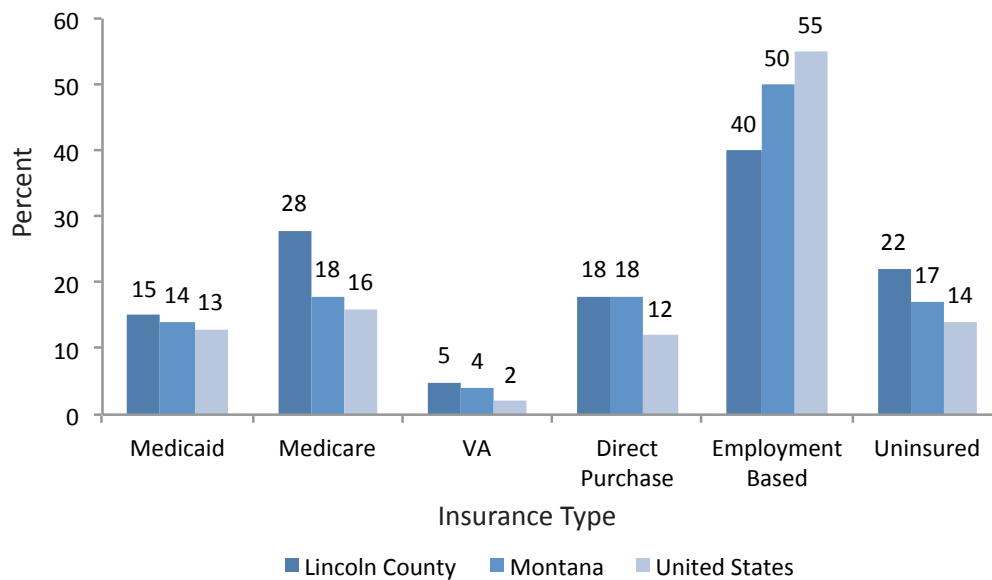
*Rates per 100,000, 2011-2013

Emergency room visit rates for injury are lower in Lincoln County than in Montana as a whole.

Access to Care

INSURANCE TYPE

Insurance Type, ACS 5 Year Estimates, 2014



Less than half of all Lincoln County residents have employment based health insurance and one in five Lincoln County residents are uninsured.

A number of populations in Lincoln County experience disparities in access to insurance:

- 43% of 19 to 25 year olds in our county are uninsured
- **57% of unemployed individuals are uninsured**

ACCESS TO DENTAL CARE

Table 27. Dental care	Lincoln County	MT	US
Did not see a dentist during the past year (youth)	31%	25%	26%
Did not see dentist in the past year (adult)	39% (NW MT)	37%	20%
Population to dentist ratio	2125:1	1477:1	1583:1

Almost one in three high school students reports not seeing a dentist in the last year, along with 39% of adults in Northwest Montana. Access to dental care is a challenge in our county as the population to dentist ratio is larger than Montana and the US as a whole.

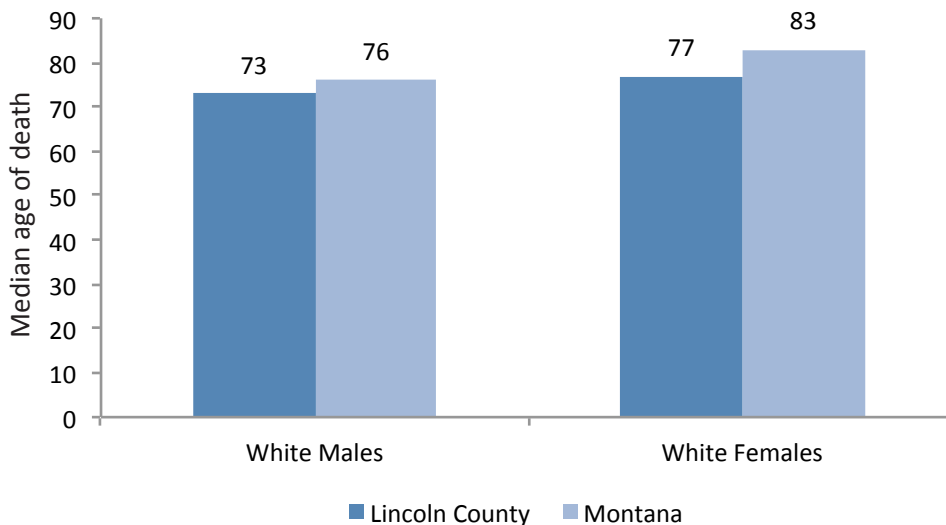
Overall Health Status

Table 28. Leading Causes of Death*	Lincoln County	MT
Circulatory, Heart Disease	194.8	151.6
Neoplasm, malignant	188.3	155.2
Injury, Unintentional injuries	64.3	54.2
Circulatory, cerebrovascular diseases	51.6	35.9
Respiratory, chronic lower respiratory diseases	42.3	50.2
Alzheimer's disease	28.9	20.1
Overall	846.2	749.7

The age adjusted death rate is higher in Lincoln County than in Montana as a whole. Heart disease, cancer and unintentional injuries are the leading causes of death in our county.

*Age adjusted death rate per 100,000, 2013-2015

Median Age of Death by Gender, 2011-2013



The median age of death in Lincoln County compared to Montana is three years less for white males and six years less for white females. And our age adjusted years of potential life lost rate is elevated relative to Montana and the US as a whole.

15% of Lincoln County adults rate their health as fair.

Table 29. Overall health status	Lincoln	MT	US
Self rated fair or poor health (adults)	15%	14%	16%
Poor physical health days per month (adults)	3.8	3.9	3.7
Years of Potential Life Lost Rate*	8452	7307	6622

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

Conclusion

This report is the result of a collaborative effort by stakeholders in Lincoln County to compile all of the relevant public health data in our community and paint a picture of it's overall health. Stakeholders surveyed as a part of this project identified the following areas as the key topics of concern among the populations they serve in Lincoln County:

- Substance Abuse
- Mental Health and
- Access to Care

These identified areas of concern and others were highlighted in the population level data analyzed for this report. Key areas of concern highlighted in the data sources analyzed for this report as elevated in Lincoln County relative to Montana and the US include:

Youth

- Illegal drug and tobacco use
- Sexual risk behaviors
- Dating and sexual violence
- Bullying on school property and electronically
- No seat belt use
- Exposure to drinking and driving

Adults

- Emergency department admissions for COPD and cardiovascular disease
- Communicable diseases rates for Hepatitis C and Campylobacteriosis
- Maternal child health-smoking during pregnancy
- Access to mental health providers

Clearly there is much work that can be done to improve the health of the residents of Lincoln County. And with the strong partnerships and many organizations working together to improve our community's health, we are confident that we can reduce risk factors and increase the quality of life for all Lincoln County residents.