

# COMMUNITY HEALTH ASSESSMENT



**Public Health**  
Prevent. Promote. Protect.  
**Panhandle Health District**

2018

Panhandle Health District  
Healthy People in Healthy Communities

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# Community Health Assessment

## PANHANDLE HEALTH DISTRICT HEALTHY PEOPLE IN HEALTHY COMMUNITIES

### DESCRIPTION OF PANHANDLE HEALTH DISTRICT

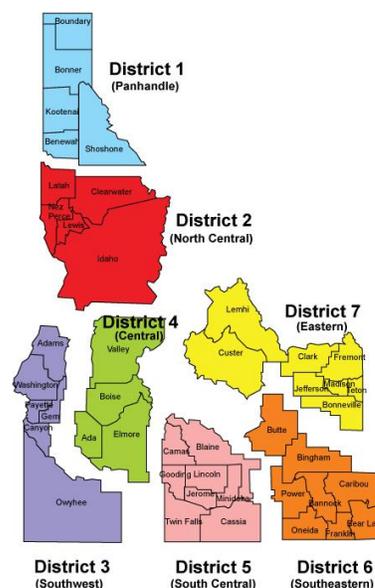
Panhandle Health District provides over 40 different public health programs to families, individuals and organizations in northern Idaho. From food and drinking water safety to health education and disease control, public health services are critical to ensure our community is a safe and healthy place to live, work and play.

The PHD team is made up of nurses, nutritionists, environmental health specialists, health educators and many other dedicated professionals with a common goal to deliver vital public health services.

Panhandle Health District is one of seven health districts in the state of Idaho. In 1970, the Idaho Legislature recognized the value a formal public health structure would provide Idaho residents. That year, the Legislature created the health districts to ensure that all Idahoans have access to local public health services ([See Idaho Code, Title 39, Chapter 4](#)). Panhandle Health District is locally controlled and governed. County commissioners from Boundary, Bonner, Kootenai, Benewah and Shoshone counties appoint a Board of Health that governs the Health District's policies based on the community's unique needs.

Panhandle Health District supports its programs with funding from the state, counties it serves, fees, grants and contracts with federal and state agencies.

Panhandle Health District is home to two tribes, the Kootenai Tribe and the Coeur d'Alene Tribe. The majority of our counties are considered frontier or rural and one midsize county.



## Executive Summary

### PANHANDLE HEALTH DISTRICT COMMUNITY HEALTH ASSESSMENT (CHA) PROCESS

Panhandle Health District plays an important role in the health of the community in North Idaho and is committed to ensuring healthy people in healthy communities. Therefore, a Community Health Assessment is conducted in northern Idaho every five years to evaluate the health status of the community and to help identify priority areas.

### COMMUNITY HEALTH IMPROVEMENT PROCESS

Panhandle Health District utilized the Mobilizing for Action through Planning and Partnerships (MAPP) model for conducting the Community Health Assessment. MAPP is a community-wide strategic process for improving public health created by the National Association of County & City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC). Following the 6 phases of the MAPP process, Panhandle Health District engaged stakeholders and community members in each of the five counties through the complete process of the Community Health Assessment. The core of the MAPP process is in the four assessments.

- **Community Themes and Strengths Assessment (CTSA)** Provides a deeper understanding of issues important to community residents.
- **Community Health Status Assessment (CHSA)** Analyzes secondary health data to identify trends and provide a snapshot of health.
- **Forces of Change Assessment (FCA)** Identifies trends, factors and events that influence health, quality of life and the local public health system.
- **Local Public Health System Assessment (LPHS)** Identifies strengths and weaknesses of the local public health system.

These four assessments were conducted concurrently to identify common themes and opportunities for improvement within our health system. The findings from the CHA inform community decision making, prioritize health problems, and help development and implementation of a Community Health Improvement Plan (CHIP). The CHIP is an action-oriented plan that outlines priorities set forth by stakeholders and community partners.

## VISION

**North Idaho is a community with access to quality health care, education, and opportunities that empower its citizens to live healthy lifestyles.**



Over 60 community partners and stakeholders from every county in northern Idaho were asked, “What are important characteristics of a healthy community?” To reach the maximum amount of people, and to get a collective vision, some people were asked through a quick survey, others spent over an hour brainstorming and categorizing themes of what makes a healthy community. The word cloud above is a collection of key words that were drawn out. The larger the word, the more times the word was used.

**Acknowledgements**

A project such as this could not have been completed without the support and leadership from many organizations across northern Idaho. A sincere thank you to all who participated on the stakeholders committee and county level subcommittees.

**Support for this project was provided by:**

The Northwest Hospital Alliance

Regional Behavioral Health Board

University of Idaho

**COMMUNITY HEALTH ASSESSMENT PARTNERS**

<p style="text-align: center;"><b><u>Boundary</u></b></p> <p>Boundary Community Hospital          City of Bonners Ferry          Kaniksu Health Services          City of Moyie Springs          Kootenai Tribe          Bonners Ferry School District</p>	<p style="text-align: center;"><b><u>Bonner</u></b></p> <p>Bonner General Health          City of Sandpoint          Family Health Center          Bonner County Emergency Management          Sandpoint School District          Sandpoint Area Seniors          Schweitzer          Kaniksu Health Services          Super One Foods          Sandpoint Community Resource Center          Underground Kindness          North Idaho College Nursing</p>
<p style="text-align: center;"><b><u>Kootenai</u></b></p> <p>Kootenai Health          Heritage Health          City of Coeur d’Alene          School District 271          Vision 2030          Kootenai Emergency Management          BikeCDA          Kootenai Fire and Rescue          Area Agency on Aging          Pediatric Dentist – Dr. Ukich          Kootenai Residency Clinic          Head Start</p>	<p style="text-align: center;"><b><u>Benewah</u></b></p> <p>Marimn Health          Benewah Community Hospital          The Coeur d’Alene Tribe</p>

<u>Shoshone</u>	<u>North Idaho</u>
Heritage Health City of Kellogg Shoshone Medical Center Wallace Chambers Shoshone Emergency Medical Services Environmental Protection Agency Department of Environmental Quality Shoshone Crisis Center Canvas Church	Idaho Department of Health and Welfare United Way Mountain States Head Start Early Head Start North Idaho Pride Alliance Child Care Resource Center University of Idaho University of Idaho Extension Office Regional Behavioral Health Board

A special thanks to organizations and people who were interviewed for the Forces of Change assessment:

- Mayor of Boundary County
- Boundary County Area on Aging
- Boundary County Family Coalition member
- Bonner County Commissioner
- Mayor of Sandpoint
- Bonner County Coalition for Health
- Shoshone Medical Center
- Panhandle Health District
- Silver Valley Chamber of Commerce
- Benewah Medical Center
- St. Maries Gazette
- Mayor of Coeur d'Alene
- Kootenai Behavioral Health

**Panhandle Health District's Core Team**

- Tina Ghirarduzzi- CHA/CHIP Lead Coordinator
- Nick Swope- Program Manager
- Amy Hirtle- Quality Improvement Specialist
- Jeff Lee- Epidemiologist

**University of Idaho**

Associate Professor, Department of Statistical Science, University of Idaho: Michelle Weist, Ph.D

## LETTER FROM THE DIRECTOR

Welcome to Northern Idaho's Community Health Assessment! Panhandle Health District is committed to working collaboratively with our community partners to identify local public health issues and address them with policies and partnerships to increase the quality of life in our communities. Using the Mobilizing for Action through Planning and Partnerships (MAPP) model, we identified and prioritized public health issues in Idaho's 5 northern counties. Panhandle Health District's Community Health Assessment (CHA) provides information about public health issues as well as resources in the communities we serve. These health issues can be impacted by public health and community partners.

Together with our partners and using data gathered in our extensive CHA process we identified 3 key health priorities that we collectively feel we can impact as we go forward in identifying and putting in place strategies to affect each issue:

1. Access to Care
2. Mental Health/Suicide
3. Substance Abuse

The health priorities and supporting information contained in our CHA will provide the framework and guidance needed for the next steps needed to develop a community health improvement plan (CHIP) and associated strategies with measurable outcomes connected with each of our health priorities. We look forward to the work with our community and State partners as we move forward in making our communities a healthy place to live work and play.

Please look through the following pages, they will provide information on the strengths and opportunities for the health of each of our 5 northern counties. This document is a summary of work that began more than one year ago to gather data and consult in groups and one on one with residents and community leaders to learn more about the health of our communities. This process included meetings, surveys, an examination of existing health data, and consultations with health professionals within our communities. Thank you for your interest in the Health of North Idaho!



Lora Whalen, Director

## KEY FINDINGS

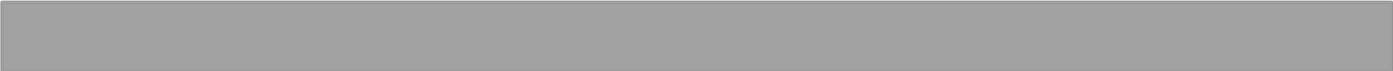
This document provides a broad variety of information regarding the health and well-being of the 5 northern counties of Idaho, however, as the process continued there were key issues that stood out and led us to our selection methodology. The core team at Panhandle Health District reviewed the results of the four assessments and used the following criteria to develop a list of the top 13 health priorities.

- **Seriousness:** How many people are affected by this?
- **Trends:** Is the issue getting better or worse?
- **Equity:** Are some groups more impacted?
- **Interventions:** Is there a proven strategy?
- **Values:** Does the community care about it?
- **Resources:** Is there a network to build on?
- **Other:** Is the issue a social determinant of health? Root cause?

The community partners and stakeholders were convened and provided the background and results of the assessment. Community partners were asked to vote on the top health priorities using the criteria. There were two rounds scoring the health priorities. After the first round, scores were calculated, and the top 6 health priorities were discussed. After discussing each of the top 6 health priorities, the group re-voted. The scores in the table reflect the score after each round.

Core Teams List	First Round of Voting	Final Round
<ul style="list-style-type: none"> <li>• Mental health/suicide</li> <li>• Obesity</li> <li>• Housing</li> <li>• Cancer</li> <li>• Food security</li> <li>• Diabetes</li> <li>• Tobacco</li> <li>• Employment inequity</li> <li>• Substance abuse</li> <li>• Access to care</li> <li>• Sexually transmitted disease</li> <li>• Heart disease</li> <li>• Resources for aging population</li> </ul>	<ul style="list-style-type: none"> <li>• Mental Health/Suicide (75)</li> <li>• Access to care (48)</li> <li>• Substance abuse (42)</li> <li>• Housing (25)</li> <li>• Obesity (22)</li> <li>• Heart Disease (22)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Access to care (82)</b></li> <li>• <b>Mental Health/Suicide (81)</b></li> <li>• <b>Substance abuse (46)</b></li> <li>• Housing (38)</li> <li>• Obesity (23)</li> <li>• Heart Disease (17)</li> </ul>

\*Each community partner was given 4 stickers that were assigned a score of 1 to 4. 1 was least important and 4 was high priority.



## Top Priorities

1. Access to care
  2. Mental Health/Suicide Prevention
  3. Substance Abuse (including opioid) Prevention
- 

## COMMUNITY THEMES & STRENGTHS ASSESSMENT

The Community Themes and Strengths Assessment is aimed at identifying what is important to our community, how the quality of life is perceived, and assessing assets and barriers to a healthy lifestyle. Panhandle Health District developed a survey based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as, various other public health surveys, customized questions addressing gaps, and partnering organizations’ request for information from the community. The survey was reviewed and approved by community partners before going live with the community. The aim of the survey was to provide a deeper understanding of what issues residents feel are important; how quality of life is perceived; and what assets we have in our community, so we can build on them.

Using the US Census Bureau data (2016), the proportion of the population greater than 18 years of age was calculated for each county and the district. The initial sample size was calculated for a 95% confidence interval with an alpha of .05 and a standard deviation of .5 (based on z-Score).

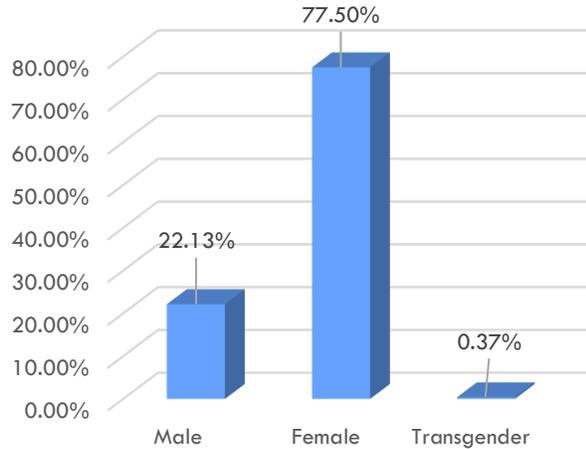
County	Pop 2016*	N ≥ 18 y	% of District	2.5% margin of error
Benewah	9092	6937	4	61
Bonner	42536	33306	19	292
Boundary	11681	8691	5	76
Kootenai	154311	116196	66	1021
Shoshone	12452	9862	6	87
Total	230072	142020	100	1537

The final survey was distributed through community partners’ list serves, advertisements through Facebook and Twitter, and through intercept surveys conducted at county fairs, malls, Panhandle Health District offices and community centers throughout northern Idaho. For full survey questions see Appendix B.

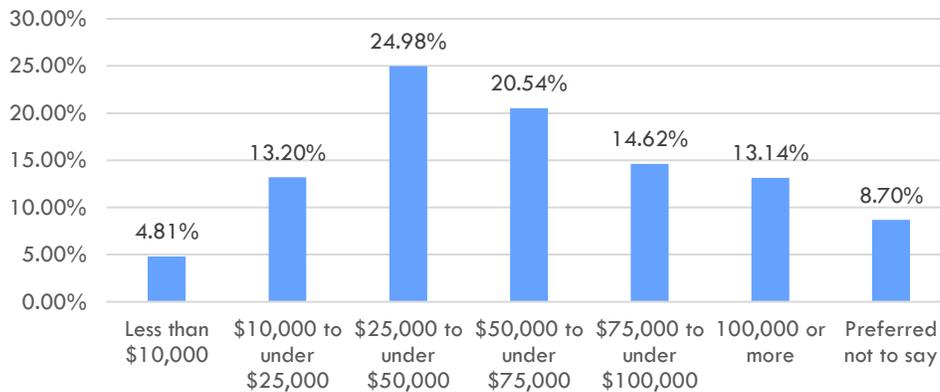
## BACKGROUND & DEMOGRAPHICS

A total of 1640 surveys were completed. Some limitations to the survey's applicability to the general population is that the respondents were disproportionately female, which means males are underrepresented in this survey. Additionally, many of the respondent's educational levels were higher than what is represented in the secondary data; 57.21% of respondents had an associate degree or higher.

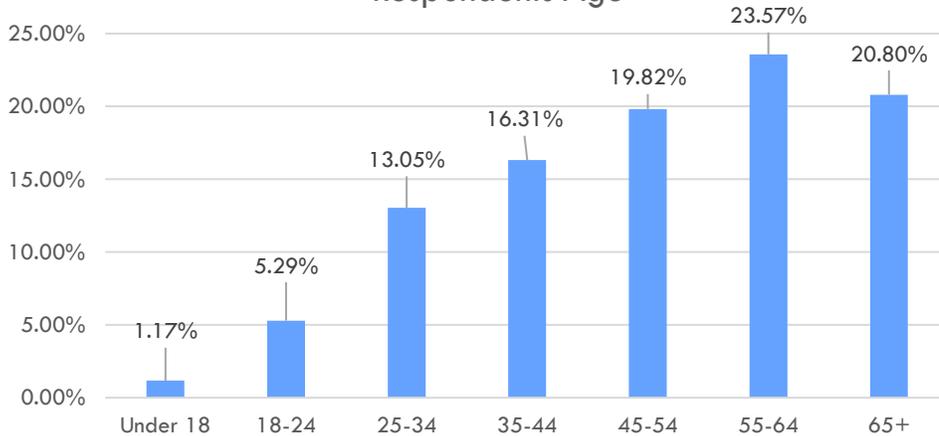
### Respondents Gender



### Respondents Household Income



### Respondents Age



## TOP CHALLENGES

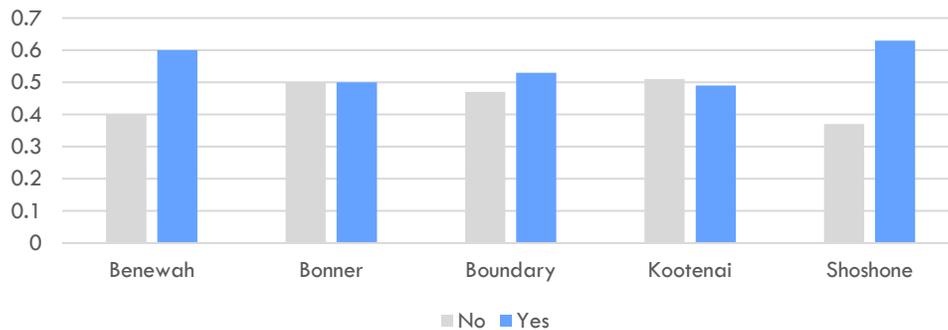
Participants were asked to provide their opinion on the top health problems impacting their community; health behaviors impacting their community; and the top health challenges they personally faced.

Top 3 Health Problems	Top 3 Health Behaviors	Top 3 Health Challenges
<ul style="list-style-type: none"> <li>• Drug abuse</li> <li>• Mental health</li> <li>• Obesity</li> </ul>	<ul style="list-style-type: none"> <li>• Drug Abuse</li> <li>• Alcohol abuse</li> <li>• Eating unhealthily</li> </ul>	<ul style="list-style-type: none"> <li>• Joint or back pain</li> <li>• Overweight/obese</li> <li>• High cost of health care</li> </ul>

## COMMUNITY HEALTH PROBLEMS

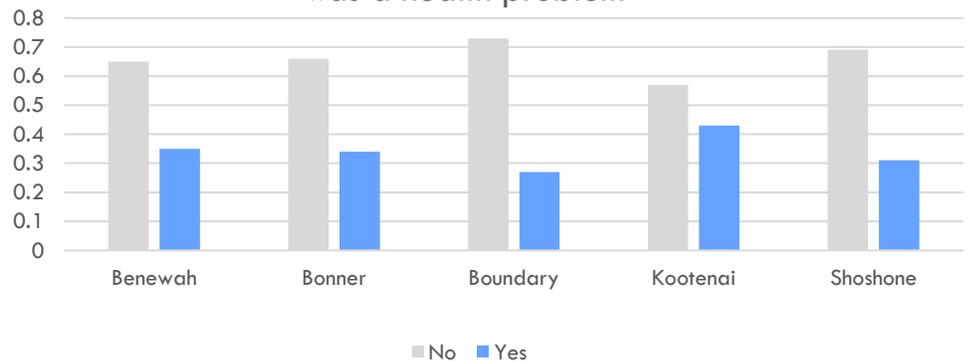
Proportion of the responses that said that drug abuse is a significant health problem.

Proportion of respondents who felt drug abuse was a health problem

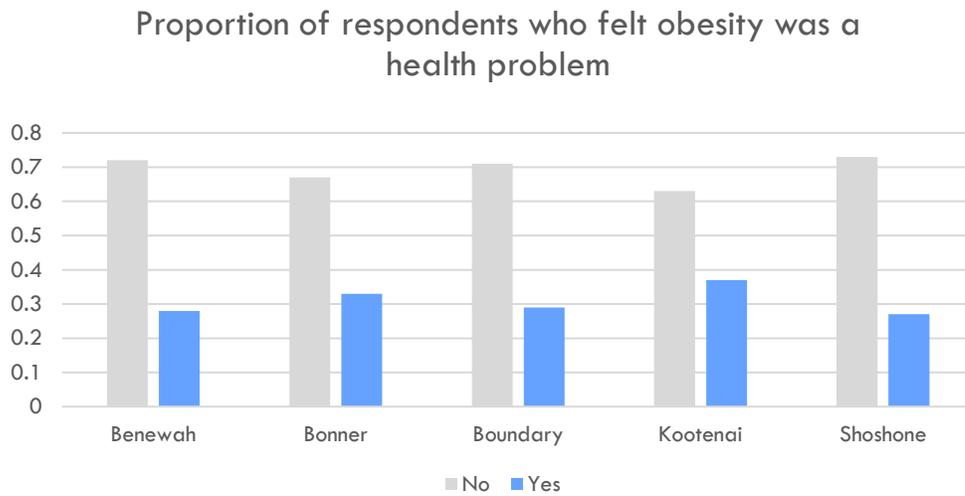


Proportion of the responses that said that mental health was a significant health problem.

Proportion of respondents who felt mental health was a health problem

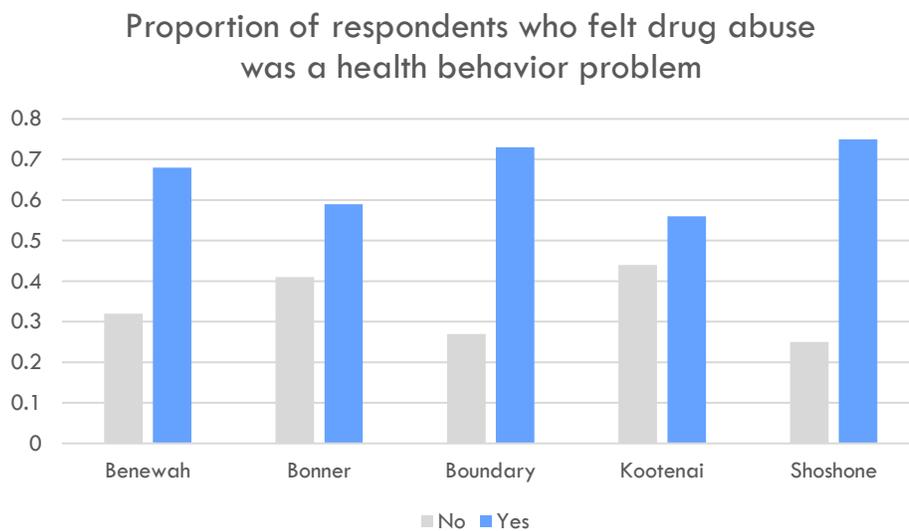


Proportion of the responses that felt that obesity is a significant health problem.

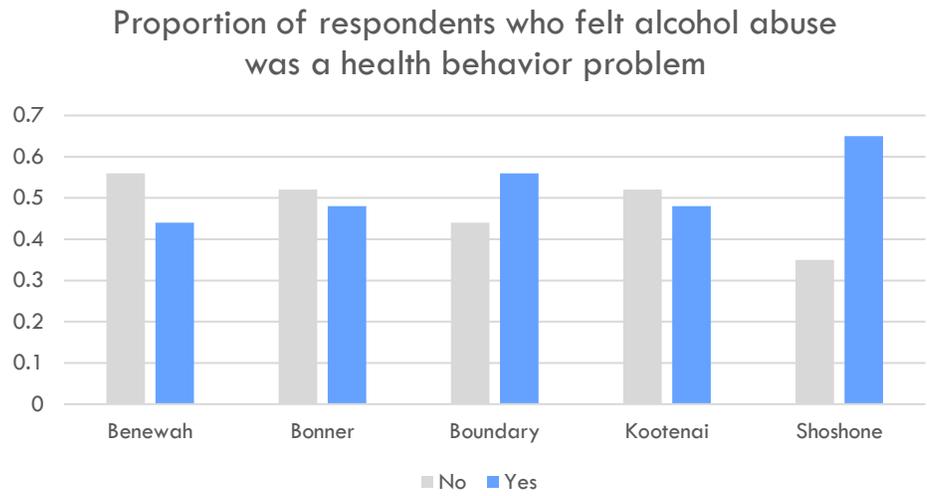


## COMMUNITY HEALTH BEHAVIOR

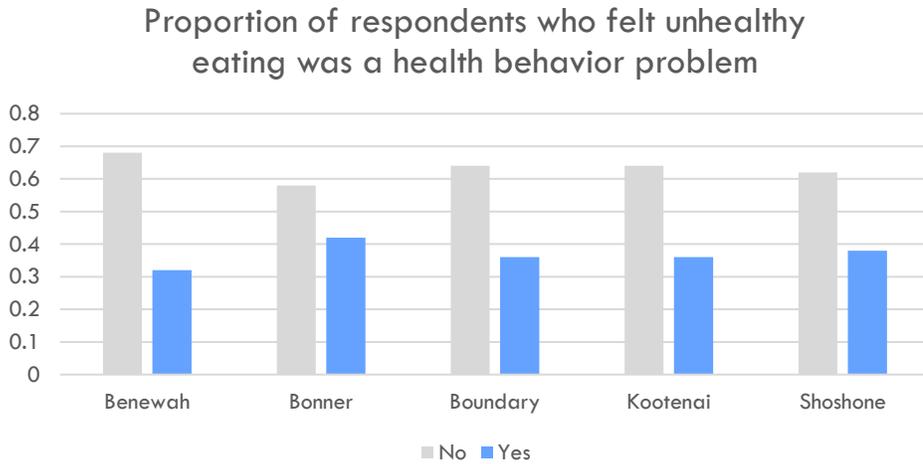
Proportion of the responses that felt that drug abuse is a significant health behavior.



Proportion of the responses that felt that alcohol abuse is a significant health behavior.

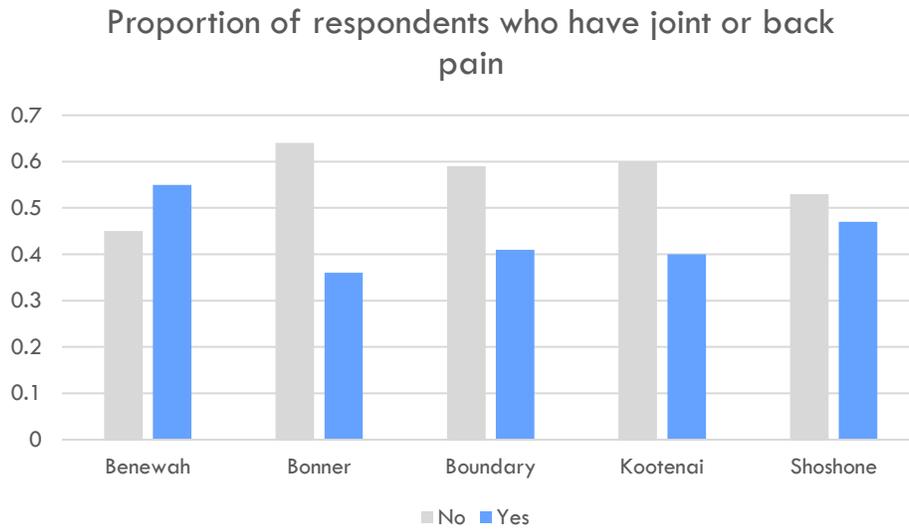


Proportion of the responses that felt that unhealthy eating was a significant health behavior.

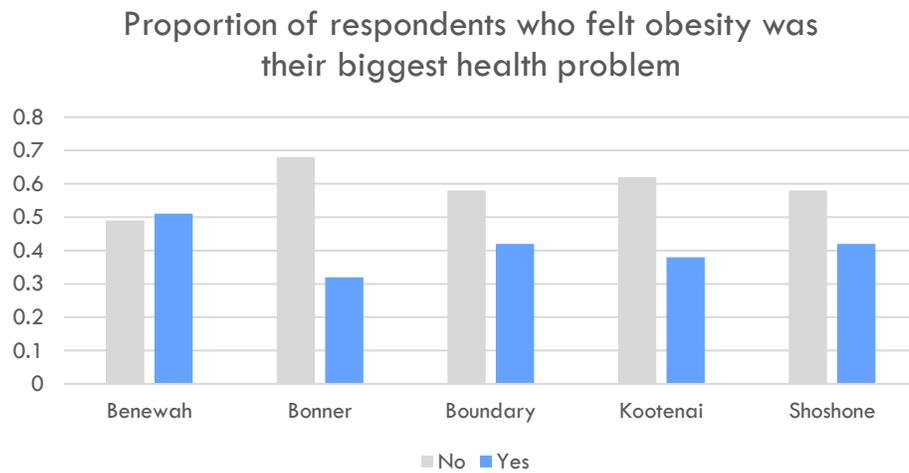


## TOP PERSONAL HEALTH CHALLENGES

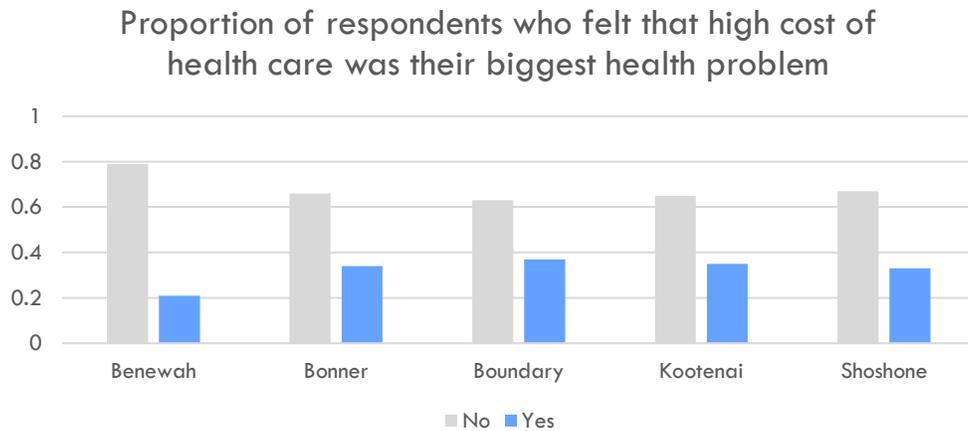
Proportion of the responses that reported back or joint pain as a health challenge. Income did not impact respondents' answers; however, as the respondents' age increased, so did the proportion of people who responded yes to it being a significant health challenge.



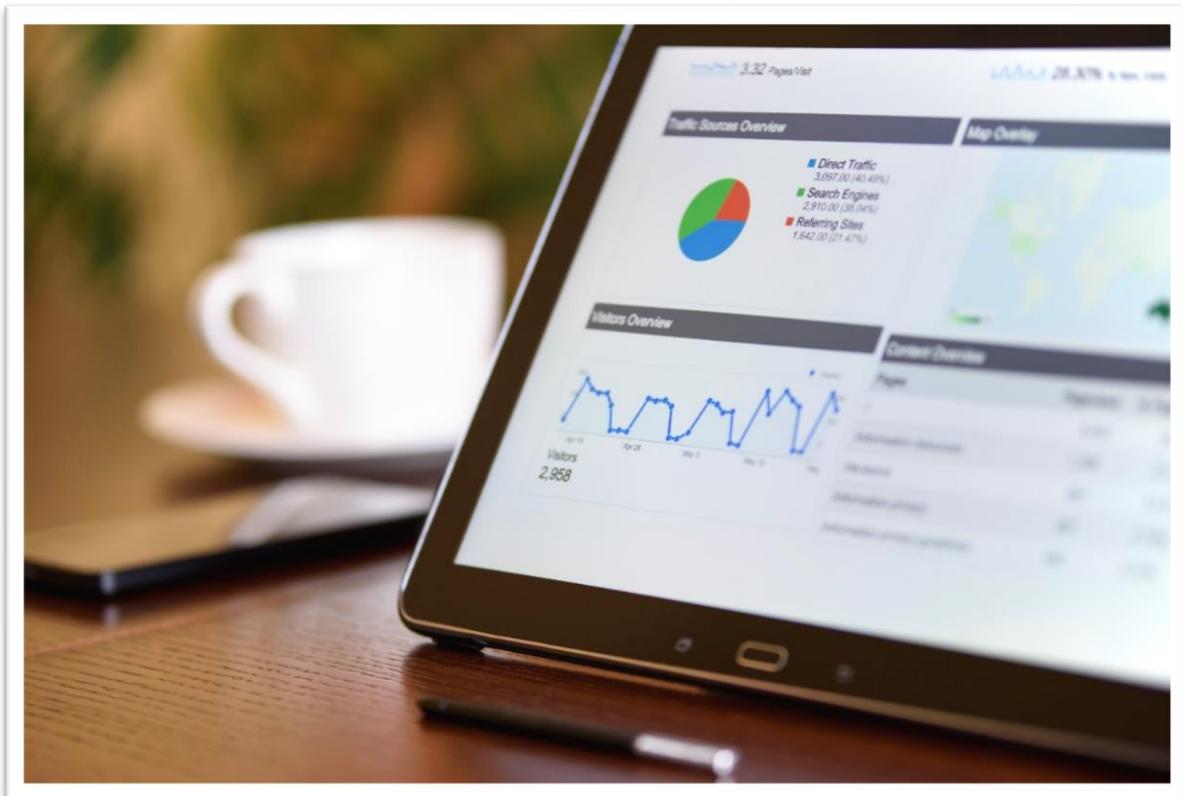
Proportion of the responses that reported being overweight or obese as a top health challenge. The largest proportion of respondents who said being overweight or obese was their biggest health problem were in the \$25-50,000 income bracket.



Proportion of the responses that reported high cost of health care as a top health challenge.



Respondents between \$10,000-\$25,000, and those who preferred not to provide income, had the greatest proportion of people reporting high cost of health care as their top challenge.





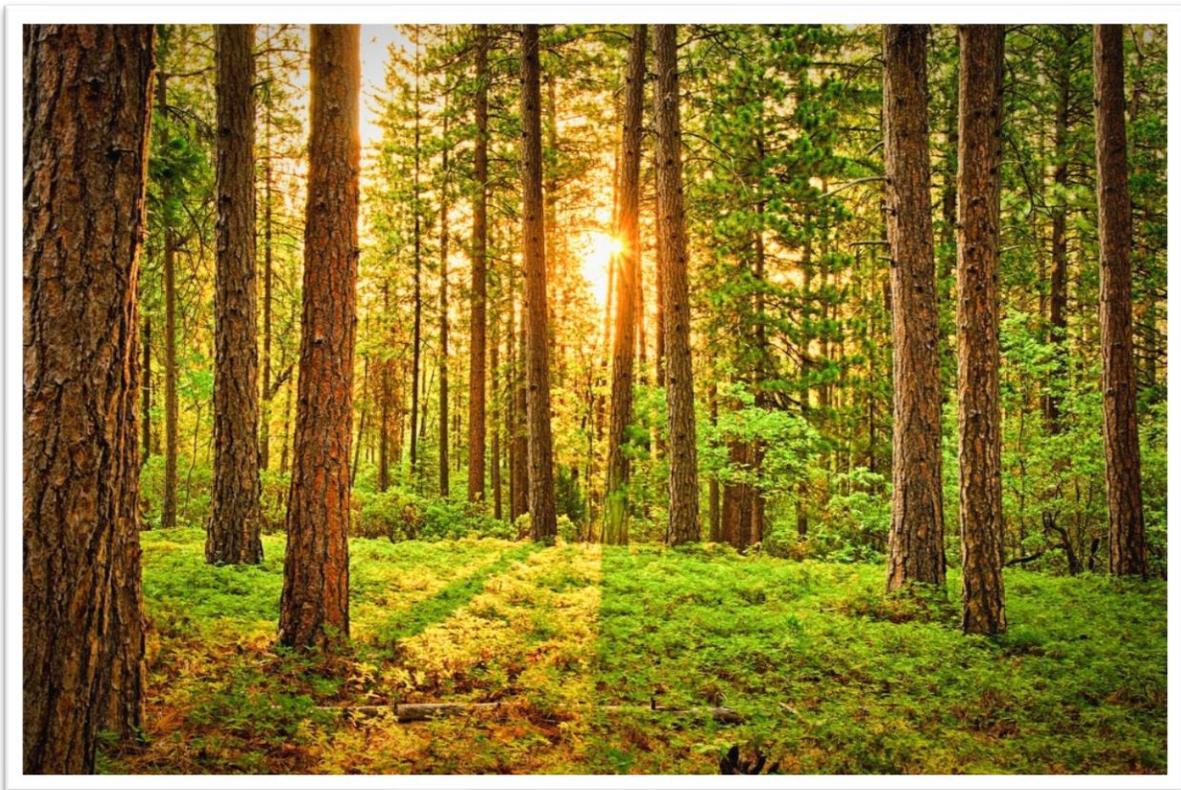
## Community Health Assessment

Participants were asked how many days during the past 30 days was your mental health not good (1594 responses) and subsequently asked if they received any counseling or treatment for mental health concerns (1622 responses).

A cross tabulation was done to reflect how many people answered yes to at least one mental health day and yes to receiving mental health care. Those who did not answer both questions were excluded from the table.

### Sought Care for Mental Health

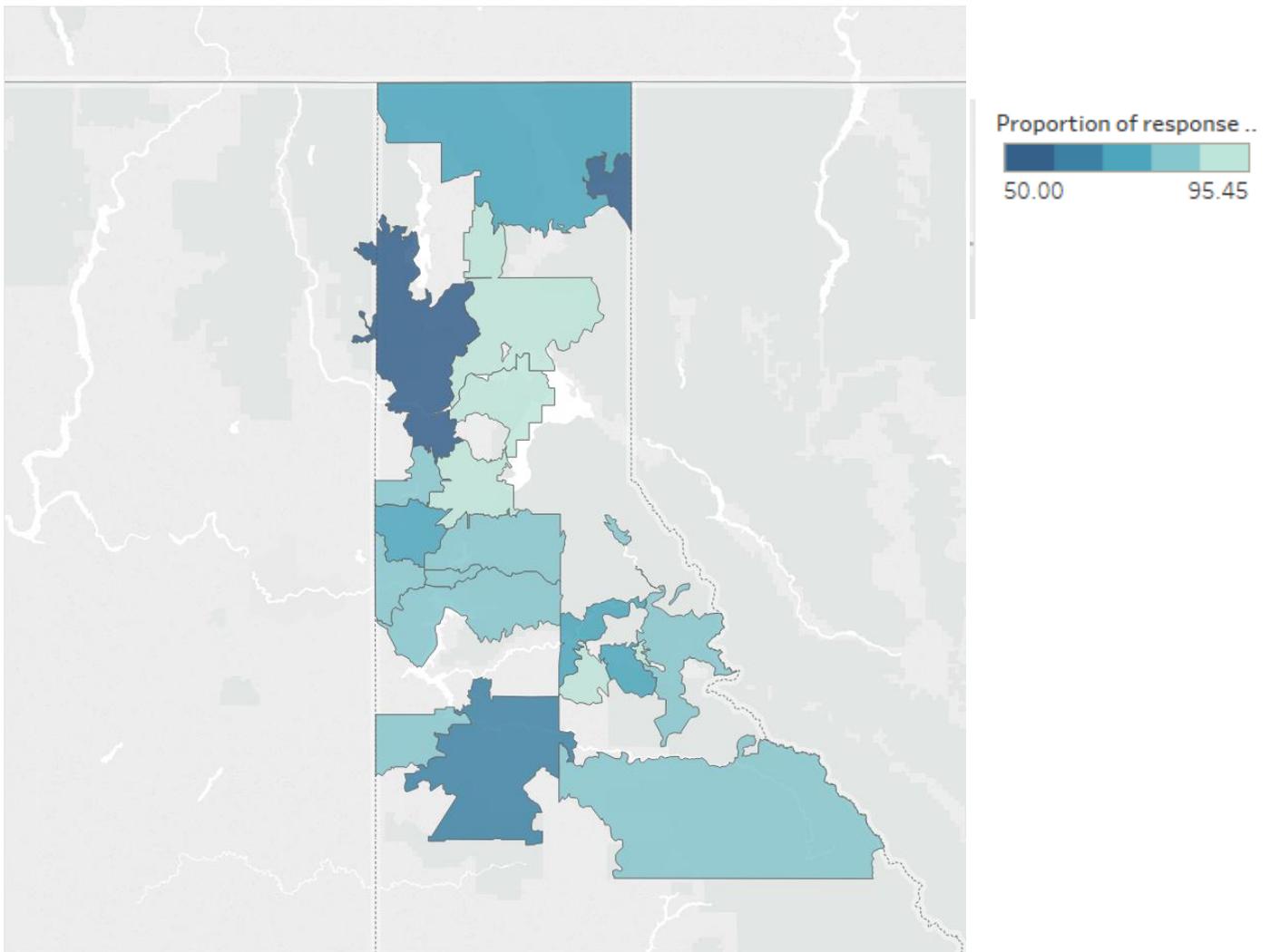
		NA	Don't know/not sure	No- did not seek care	Yes- did seek care	Total
Mental Health days	No mental health days	3	0	624	29	656
	Yes, had at least one mental health day	13	7	<b>636</b>	<b>195</b>	851
	<b>Total</b>	16	7	1260	224	<b>1507</b>



435 respondents said they needed mental health treatment or counseling but had not received it. These participants were asked what barriers prevented them from receiving mental health treatment and counseling. The table above shows the proportion of people who experienced those barriers.

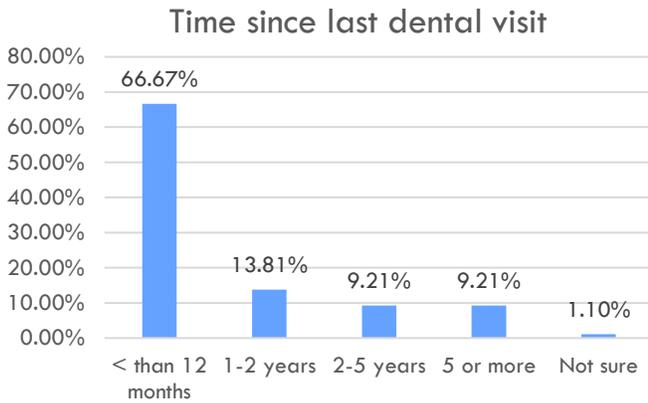
Participants were asked to rate their health from very good to poor. The table below displays the proportion of respondents who stated their health was excellent, very good and good. Zip codes that did not have more than ten responses were not included in the map due to insufficient data to accurately represent the population. The lighter the color, the greater proportion of people who responded having positive health. Zip Codes 83856 and 83845 having the lowest proportion of respondent who reported having positive health. This could be associated with the fact that Zip codes 83856 and 83845 also reported higher proportion of people who were uninsured. However, both zip codes have assets such as access to hospitals and federally qualified health care clinics.

Proportion of responses that reported positive health



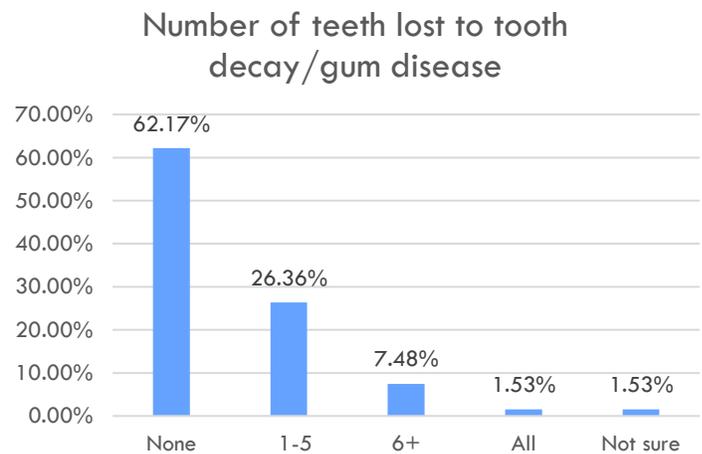
## DENTAL

Dental health plays a critical role in overall health and can lead to serious health effects if dental issues are left untreated.



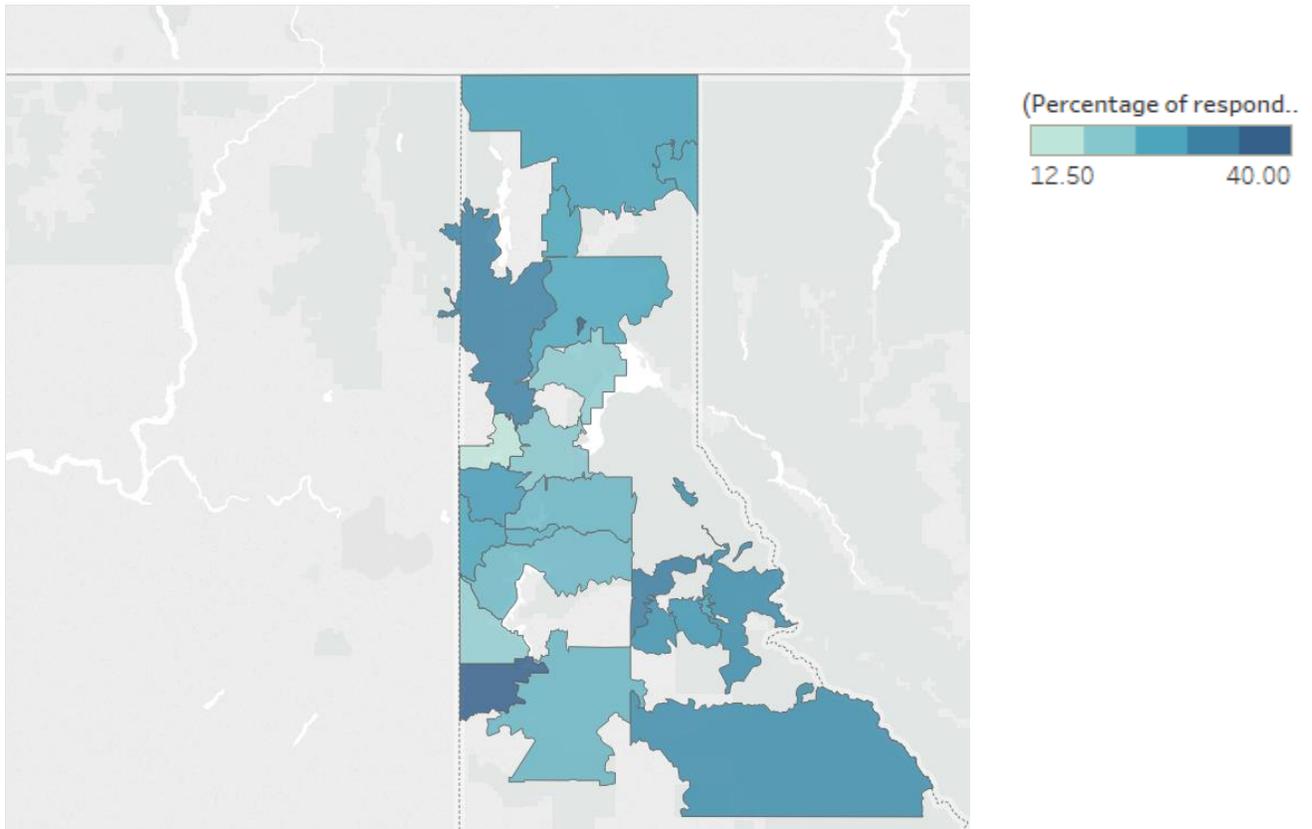
Of the individuals who responded to the survey, 66.1% people had been to a dentist in the last 12 months, 13.82% had been to the dentist within 1-2 years, and 19.47% had not seen their dentist in over 2 years. The largest proportion of people who had not seen a dentist in more than 2 years were people in households who made less than \$25,000.

The proportion of people who had lost at least one tooth to decay/gum disease increased with the age of the participants. 62.21% of people responded saying they have not lost any teeth due to tooth decay. However, 36.29% said they have lost at least one tooth due to tooth decay.



The table below displays the proportion of people who responded having lost at least one tooth due to tooth decay. Zip codes that did not have more than ten responses were not included in the map due to insufficient data to accurately represent the population. The darker the color, the greater proportion of respondents who have lost more than one tooth due to tooth decay.

Proportion of respondents who have lost at least one tooth due to tooth decay



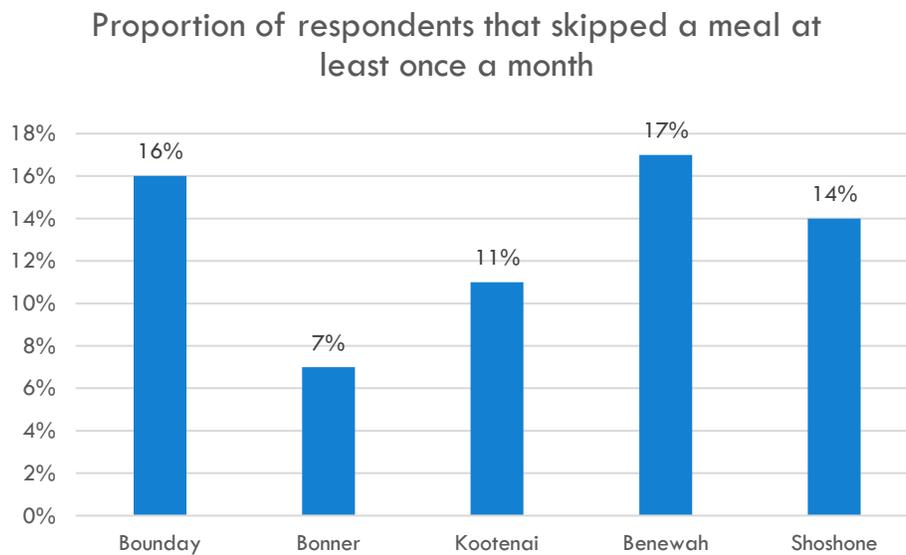
Zip codes 83851 and 83852 were shown to have two highest percentage of respondents who have lost more than one tooth at 40%. 83869 had the fewest proportion of respondents who have lost teeth at 12.5%. Both Zip codes are fortunate to have assets like federally qualified health care clinics. In 83851 is in Benewah county and they have the Marimn Health which offers dental services at a sliding fee scale. 83852 is in Ponderay, which has Kankisu Health services who also offers dental services at a sliding fee.

## FOOD SECURITY

The survey asked, “During the past 12 months, how often did you have to cut meal sizes or skip meals due to insufficient money for food?” This question is adopted from the Economic Research Service United States Department of Agriculture. If the response to this question was that an individual or family needed to cut food size, this could indicate a midrange food insecurity. According to the United States Department of Agriculture, this is defined as the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in a socially acceptable way.

- The largest proportion of people did not need to cut meal size due to inability to afford food at 77.74%.
- 20.17% of the respondents had to cut meals at least once a year and 2.08% responded saying other.
- Other included responses like “every day,” “multiple times per week,” to “a few times in my life.”

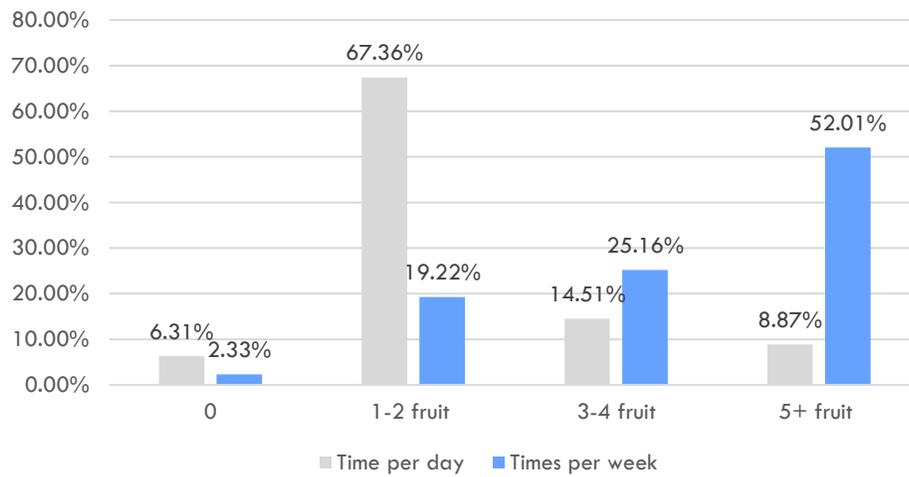
The table below shows by county the proportion of respondents that said they needed to cut a meal at least once a year, and the proportion who needed to cut a meal at least once a month due to cost.



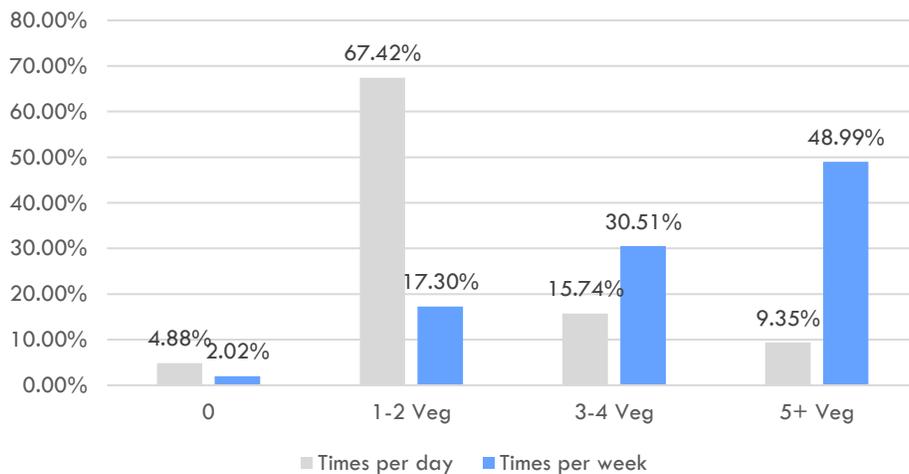
## FRUIT & VEGETABLE CONSUMPTION

It is recommended that people eat 5 servings of fruits and veggies a day. Eating fruits and vegetables contributes important under-consumed nutrients to the diet, reduces the risk of many chronic diseases, and may help individuals achieve and maintain a healthy weight when consumed instead of higher calorie foods. The Idaho BRFSS states that in Idaho 39.4% of Idahoans consumed less than one fruit per day and that 18.6% of Idahoan consumed less vegetables less than one time per day (Statistics, 2015). Nationally 39.7% of people consumed less than one fruit a day and 22.1% of people consumed vegetables less than one a day. The survey revealed that 67% of respondent eat at least one fruit and one vegetable a day. (Statistics, 2015).

Fruit consumption in the last 30 days



Green vegetables in the last 30 days

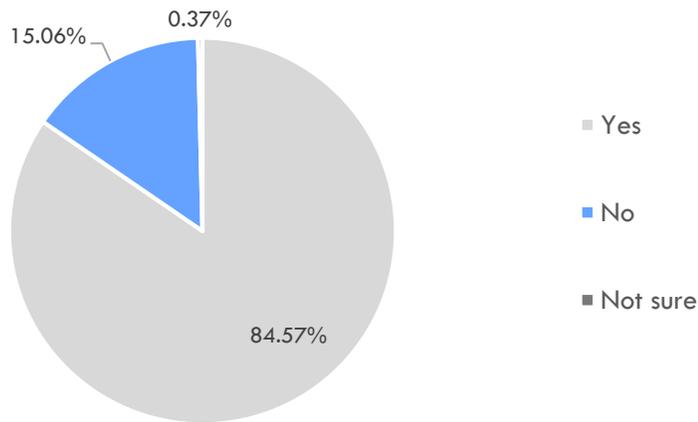




## EXERCISE

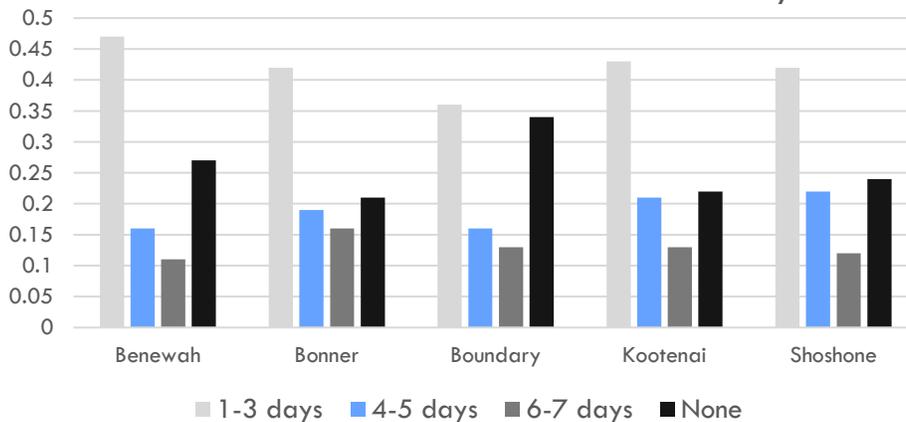
Exercise plays an important part in maintaining health. It helps individuals maintain a healthy weight, reduce cardiovascular disease, type 2 diabetes, and lower the risk of some cancers (CDC, Centers for Disease Control, 2018). The survey asked, “During the past 30 days, have you participated in any physical activities or exercise such as running, biking, calisthenics and walking for exercise?” According to the Idaho BRFSS, only 21.2% of Idahoan participated in physical activity, and according to our survey 84.75% of people surveyed participated in some physical activity.

Participated in exercise in the last 30 days



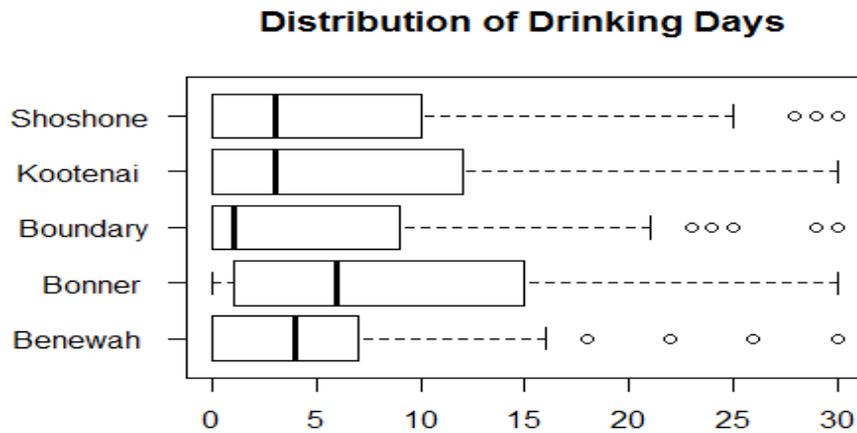
The CDC recommends adults do at least 150 minutes of exercise a week or 75 minutes of vigorous-intensity exercise (CDC, Cancer Prevention and Control, 2016). Participants were asked in the past seven days, how many days did you exercise for at least 30 minutes.

Exercised for 30 minutes in the last seven days



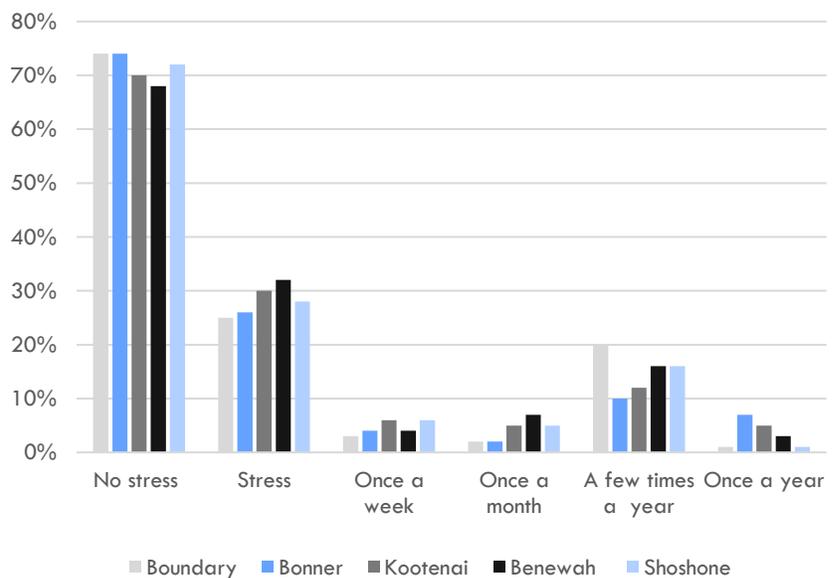
## SUBSTANCE USE

Excessive drinking can be a risk factor for several health outcomes. The survey asked, “During the past 30 days, how many days did you have at least one alcoholic beverage such as beer, wine, a malt beverage or liquor?” The average number of days in North Idaho, according to the survey, was 7. The chart below provides the mean for every county, as well as, range. Minimum days was zero and maximum was thirty.



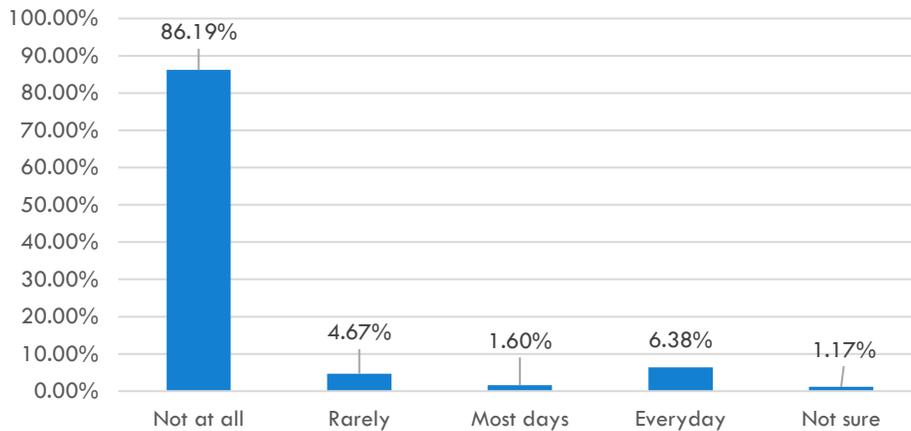
We asked participants, “In the past 12 months, how often did alcohol use, by you or another member of your household, cause stress, conflict or anxiety for you?” The chart to the right provides a snapshot by county on the level of stress alcohol plays in the respondent’s life, as well as, the frequency.

By County responses to stress or anxiety from alcohol



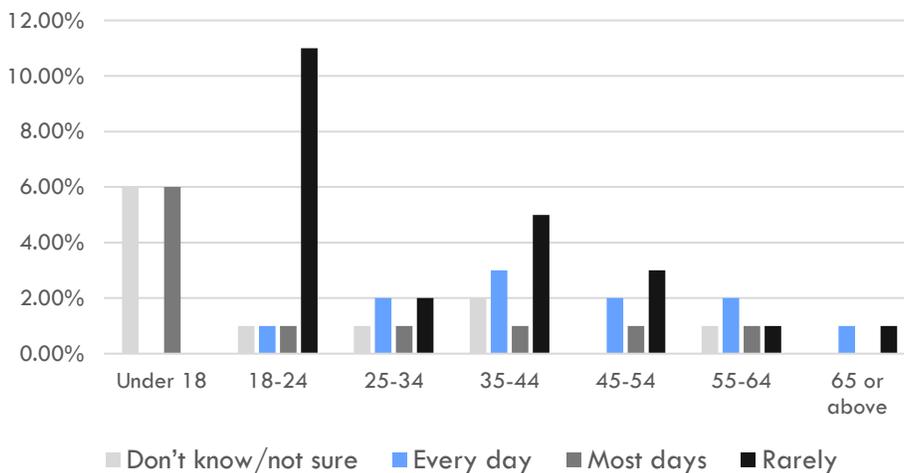
Tobacco use is an important health behavior, leads to lung, throat and bronchial cancer, as well as, other poor health outcomes over a lifetime. The question from the survey provides a snapshot of tobacco use and does not ask about past tobacco use. The survey found a higher level of people who smoke in North Idaho than the Idaho BRFSS, which reported 14% of the population for Panhandle Health District (Institute U. o., County Health Rankings, 2017)

Percentage of respondent frequency to use tobacco products



Vaping is an emerging trend for tobacco products, however 93.8% of people who responded to the survey said that they do not use any e-cigarettes or other vaping products. The chart below provides a breakdown, by age, of those who responded to some use of e-cigarettes.

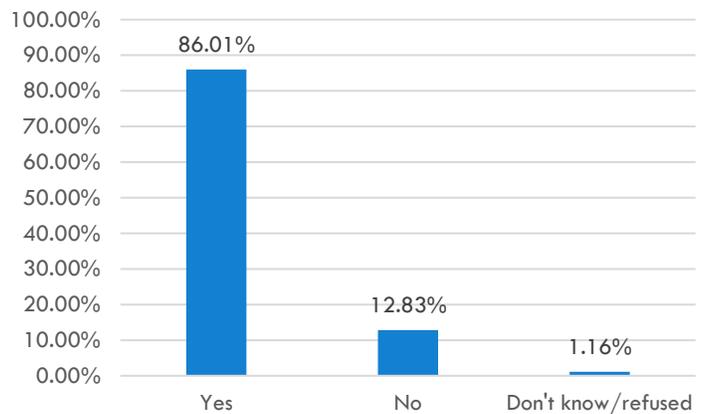
Percentage of respondents who reported vaping



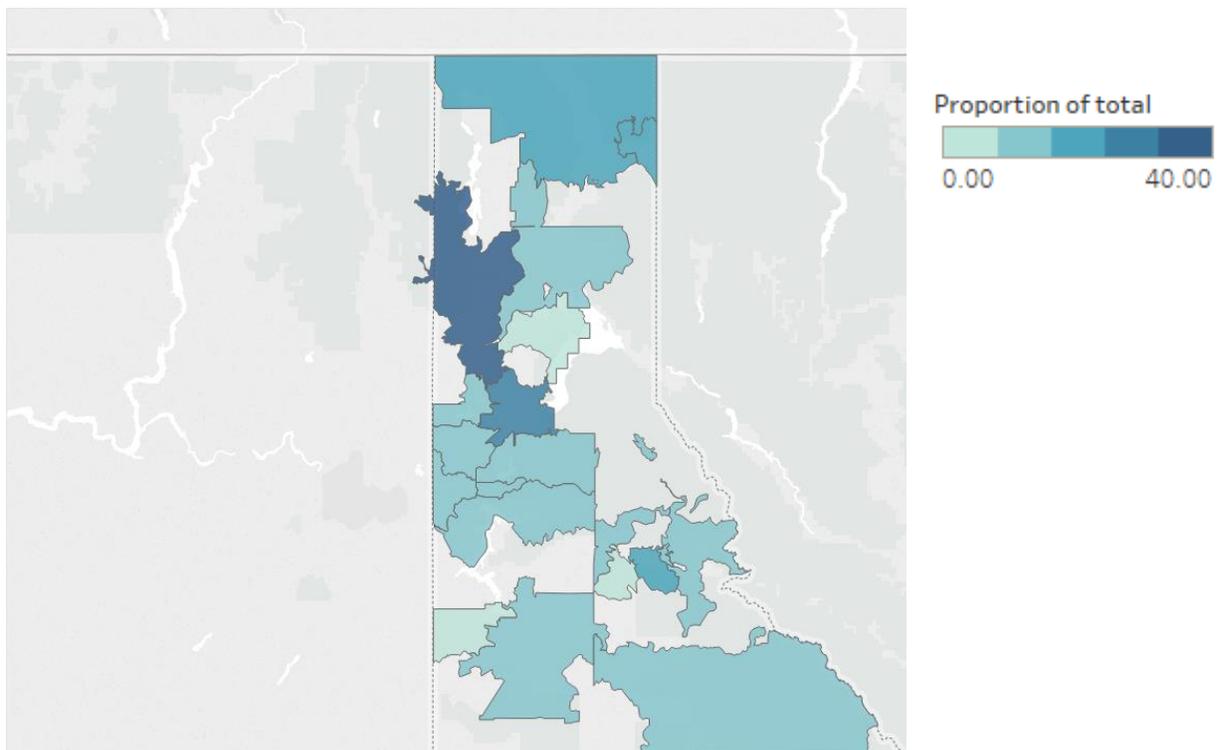
## ACCESS TO CARE

The lack of health insurance can create significant barriers to accessing mental, physical and dental health care. Of the people surveyed, 86% of the respondents had health insurance, 12.83% did not, and .98% were not sure of their insurance status. According to the 2015 Idaho BRFSS 11.4% of Panhandle Health District is uninsured and 14.1% of people in Idaho do not have health insurance (Statistics, 2015). The map below displays insurance the proportion of respondents who did not have insurance, by zip code. Zip codes that did not have more than ten responses were not included in the map due to insufficient data to accurately represent the population. The darker the color the greater proportion of respondents that did not have health insurance. The map below displays the proportion of respondents who did not have insurance, by zip code. Zip codes that did not have more than ten responses were not included in the map due to insufficient data to accurately represent the population. The darker the color the greater proportion of respondents that did not have health insurance.

Proportion of Respondents that are Insured



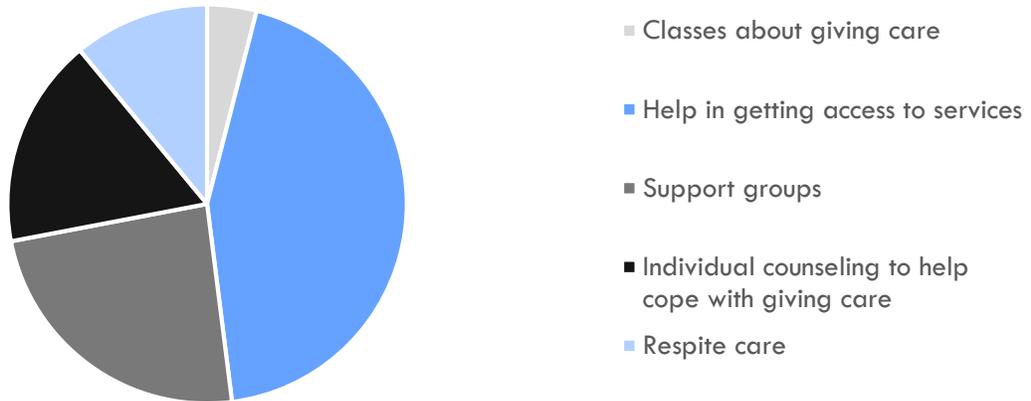
Proportion of respondents who did not have health insurance



Zip Code 83856 had the greatest proportion of respondents who did not have health insurance at 40% followed by 83801 at 24%.

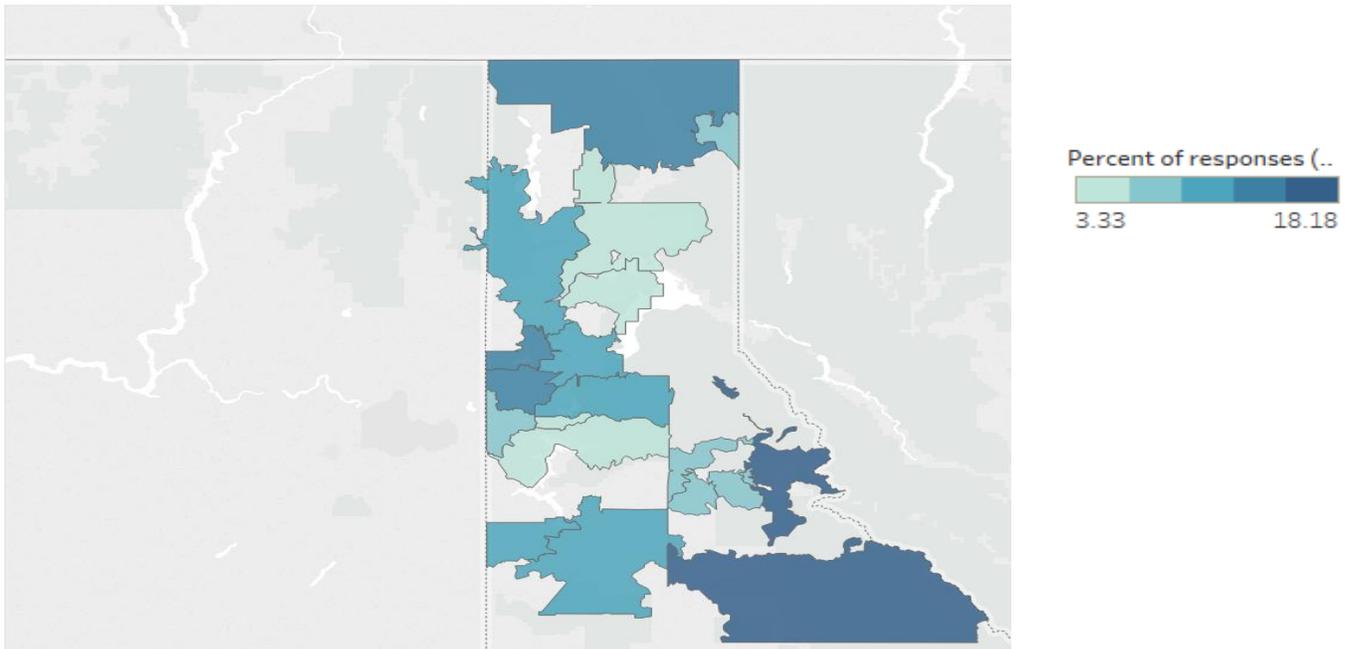
The survey asked, “Of the following services, which one do you most need, that you are not currently getting?” 82.74% of respondents said they did not need any of the following services. The table below, shows the proportion of services needed by those who said they needed support services.

Proportion of respondents that needed support services



Of those who responded saying they needed help getting access to support services, we broke it down by zip code. Only those zip codes that had greater than 10 respondents were included on the map. The darker the color the greater proportion of respondents said they needed help getting access to resources.

Proportion of responses that needed help getting access to services



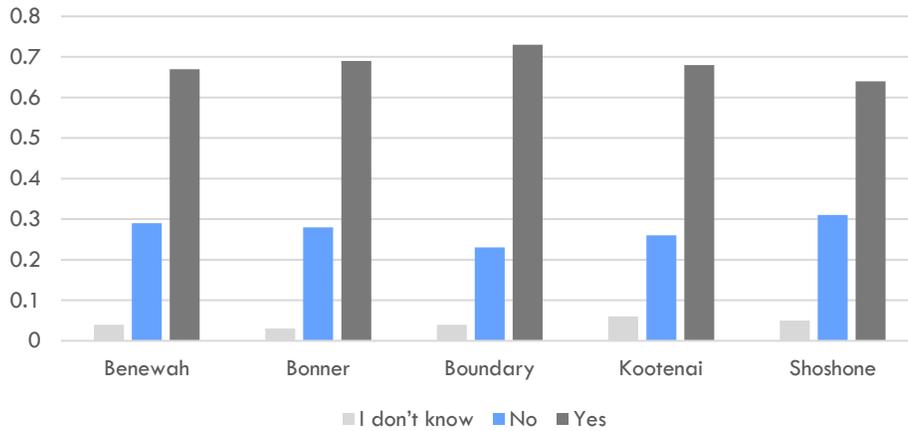
## Community Health Assessment

Zip code 83873 had the greatest proportion of people who said they needed help accessing services. 83873 is in Shoshone county, where almost 87% of its land is forest land and less than one percent is “urban or developed” (Shoshone, 2018). There are several large employers in Shoshone, which could help to disseminate information and could be utilized as an asset in that community to improve knowledge of resources.

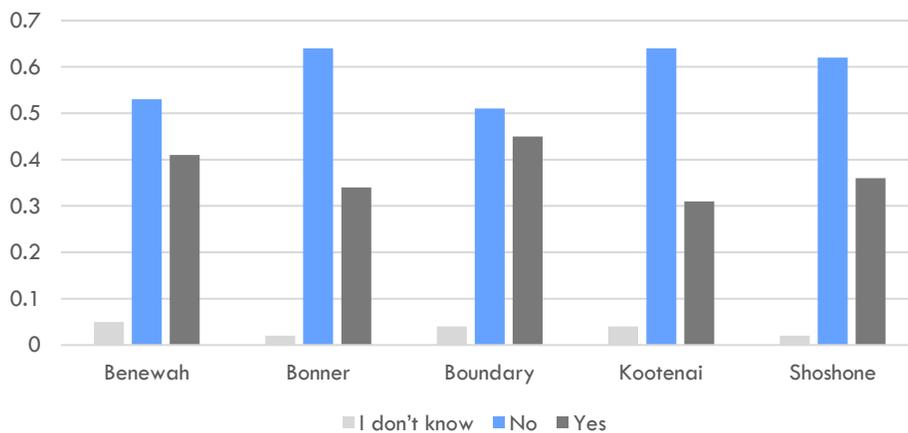
### PREPAREDNESS

Preparedness is an essential part of the health of the community. In case of a natural disaster the CDC recommends each family has a family emergency plan in place and has at least a three-day supply of food and water.

Proportion of respondents that have a 3 day supply of food and water



Proportion of respondents who have a family emergency or disaster plan



# COMMUNITY HEALTH STATUS

## INTRODUCTION

The Community Health Status Assessment is one of four assessments in the MAPP process. This assessment answers the questions of “How healthy are our residents?” “What does the health status of our community look like?” “What are the contributing factors impacting the health of the community?” and “How does our community compare with both state and national standards?”

## METHODOLOGY

A review of recommendations for areas of population health improvement (Centers for Disease Control and Prevention, 2013, pp 3-7) was conducted and a preliminary list of categories of interest developed. This list was further discussed by the Community Health Assessment Core Team and it was decided to include only those categories that were identified as recommended by at least 50% of guidance documents considered in the meta-assessment.

The categories selected included: socioeconomic, demographic, physical environment, health behaviors, clinical care, and health outcomes. Two or more subcategories were included in each of the main categories:

An online search for community health-related databases was conducted and includes:



## Community Health Assessment

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- US Census Bureau <https://www.census.gov/quickfacts/fact/table/s>
- Idaho Department of Commerce <http://commerce.idaho.gov/site-selection/demographics-and-business-information/>
- County Health Rankings
- Kids Count <http://datacenter.kidscount.org/>
- Community Commons <https://assessment.communitycommons.org/CHNA/>
- Idaho State Police Analysis Center <https://isp.idaho.gov/pgr/inc/documents/>
- Idaho Food Bank
- Idaho State Board of Education
- Head Start Report
- Centers for Disease Control and Prevention (CDC) <https://www.cdc.gov/>
- Washington Post <http://www.washingtonpost.com/wp-srv/special/national>

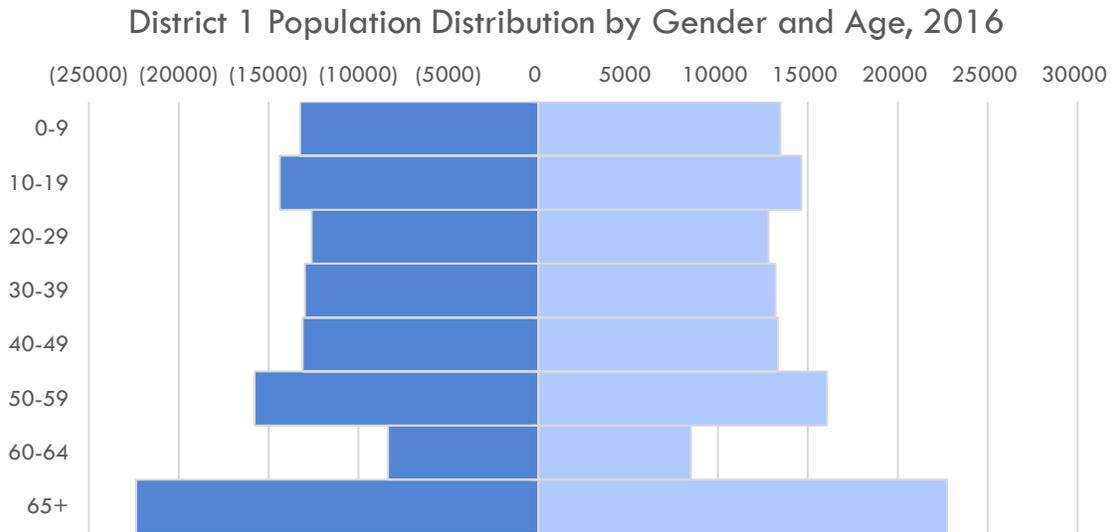
Data points were evaluated for relevance and the most current datasets available. It should be noted that some demographic datasets can change over time as they are estimates based on decennial census information. A complete list of datasets and sources is listed at the end of this report.

Data was arrayed in an Excel™ spreadsheet and analyzed by internal spreadsheet tools as well as an ad hoc statistical program developed in R. Data was compared county over county and at the district level with references to Idaho statewide data and US data for each area. Only areas that demonstrated significant differences between counties, or between counties and Idaho or the US were further analyzed. This data and the results of the analyses are meant to provide a baseline for the current Community Health Assessment.

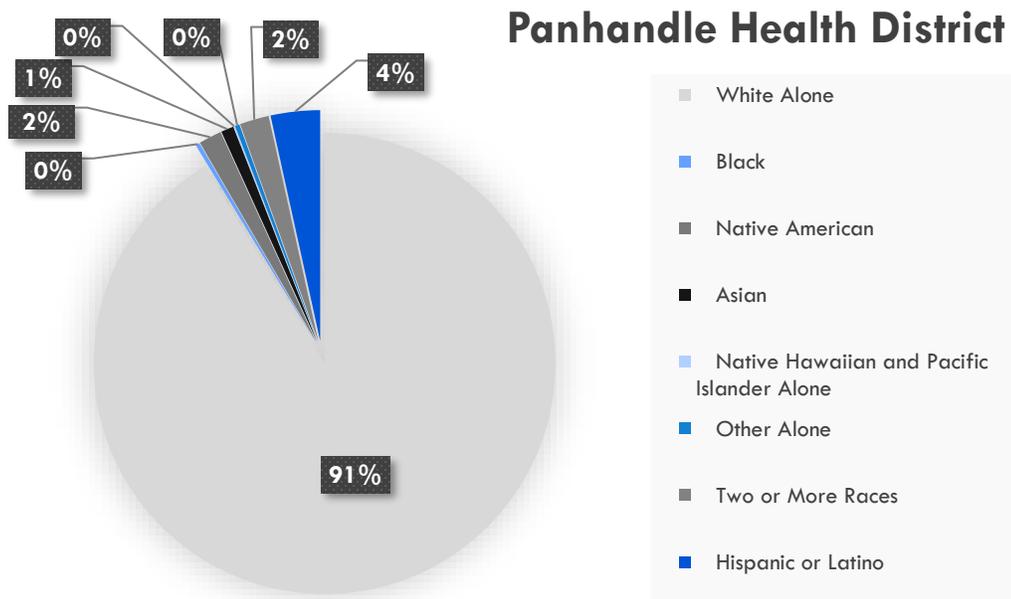
## DESCRIPTION OF PANHANDLE HEALTH DISTRICT HEALTH STATUS

### POPULATION

Panhandle Health District’s population estimate for 2017 is 227,560 (Commerce, 2017). From 2012-2016 there has been a 4.67% change in population size for north Idaho. Below is a breakdown of age and gender distribution for the five northern counties. The dark blue is number of males and the light blue represents females.

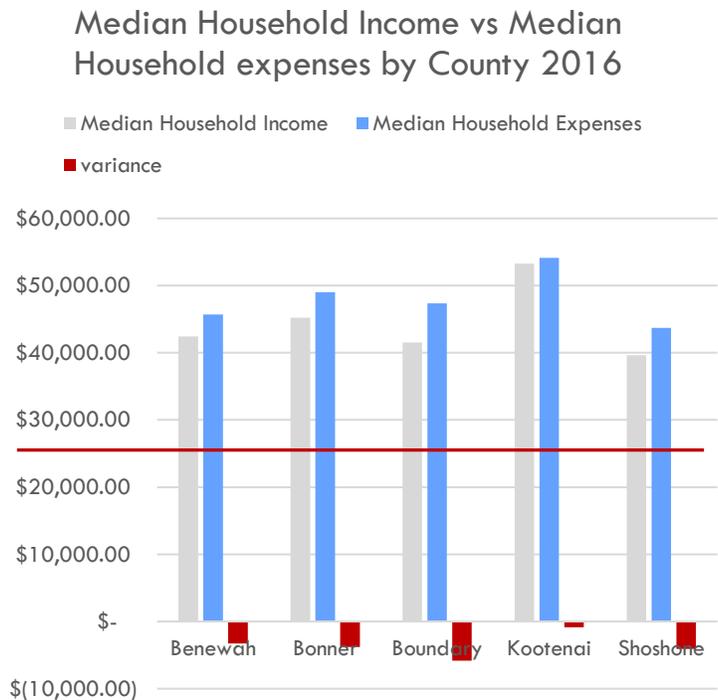


**Race and ethnicity:** Panhandle Health District is not racially diverse. Only 9% of the community is anything other than Caucasian (Commerce, 2017). However, Panhandle Health District is home to two Native American Tribes. The Coeur d’Alene tribe is in Kootenai County and Benewah County and the Kootenai tribe is in Boundary County.

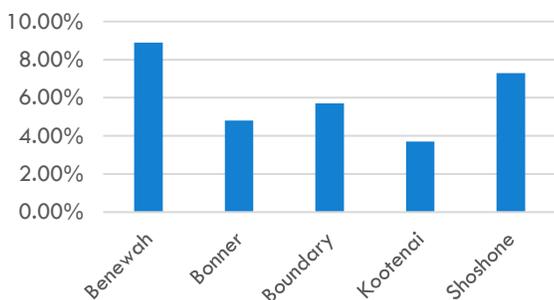


SOCIOECONOMIC

Social and economic factors can lead to excessive stress, difficulty accessing healthcare, and poor health outcomes. Panhandle Health District examined education levels, employment, income, community safety, and family and social support. Using the 2016 Idaho Commerce data, the median household income in District 1 is \$44,427 (Commerce, 2017). Idaho’s median income is \$49,174. The chart to the right displays by county, the median household income versus the median household expense. Every county in northern Idaho has higher expenses than income. Expenses in this chart include shelter, transportation, food, health care, and utilities. The red indicates the national poverty level.



### Unemployment Rate by County 2016

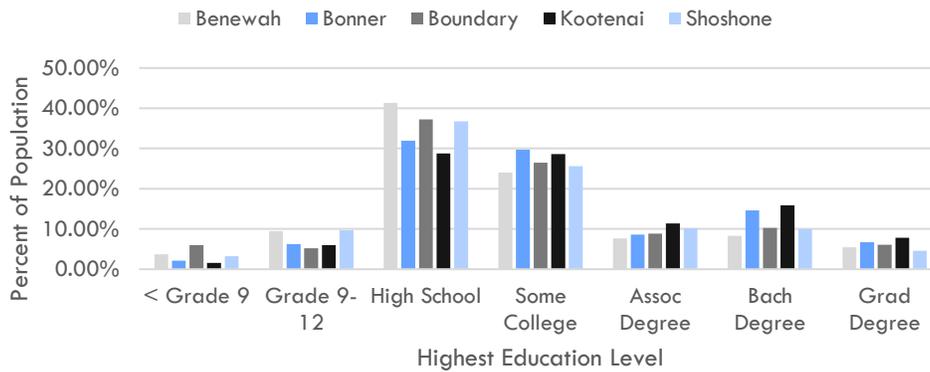


According to the Idaho Department of Labor, unemployment in Idaho is stable at 2.6%. The average unemployment rate for Panhandle Health district is 6.08%. The county with the highest unemployment rate in northern Idaho is Benewah County at 8.9%. Kootenai County has the lowest unemployment rate at 3.7%. (Commerce, 2017)

**EDUCATION**

Educational attainment is a predictor of health outcomes and life span. Below is the highest level of education achieved by county in Panhandle Health District (Commerce, 2017). In all five counties, the greatest percentage of the population’s educational attainment level is high school, followed by some college.

Highest Education Level Achieved by County 2016

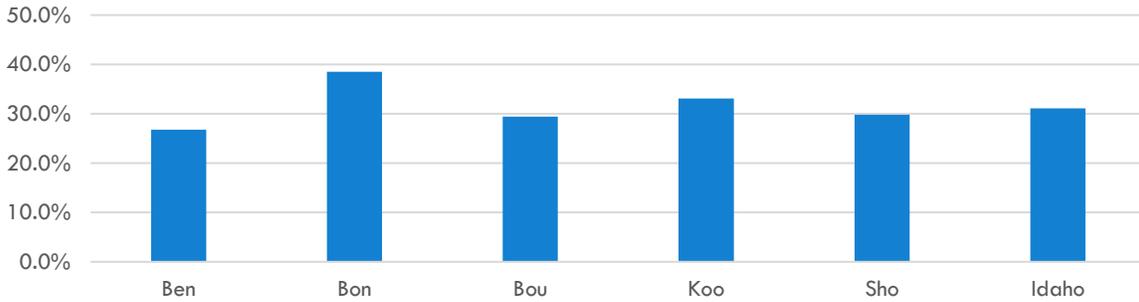


**PHYSICAL ENVIRONMENT**

To examine physical environment; built environment like housing, schools, and food security was explored; as well as, environmental quality in air and land.

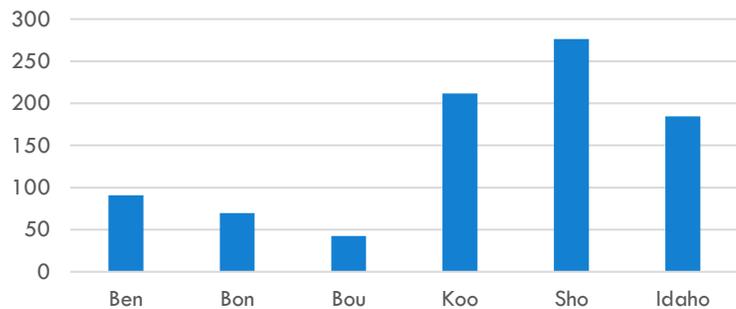
Data pulled from American Community Survey, conducted by the US Census Bureau, showed Bonner County has the highest percentage of homes (39%) with one or more substandard conditions while Benewah County has the lowest percentage (27%).

Occupied housing units with  $\geq 1$  substandard conditions, percent, 2011-2015

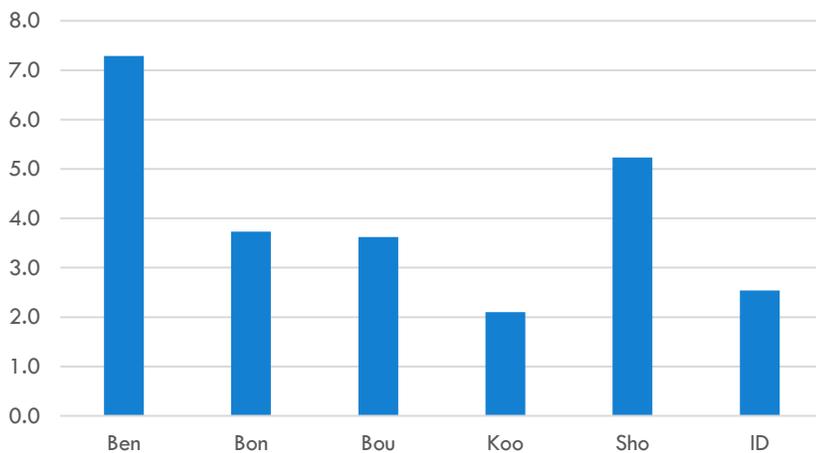


Housing and Urban Development (HUD) is a federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Boundary County has the lowest rate for North Idaho (42.5) compared to Shoshone County (276.2) which has a higher rate of HUD housing even compared to the State (1184.6)

HUD-Assisted housing units rate, per 10,000 housing units, 2016



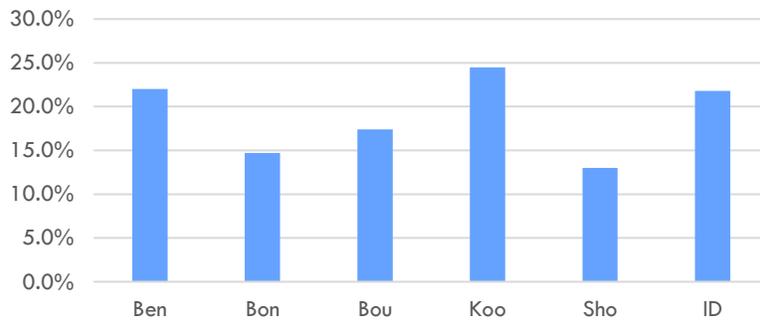
Schools per 1000 students 2017



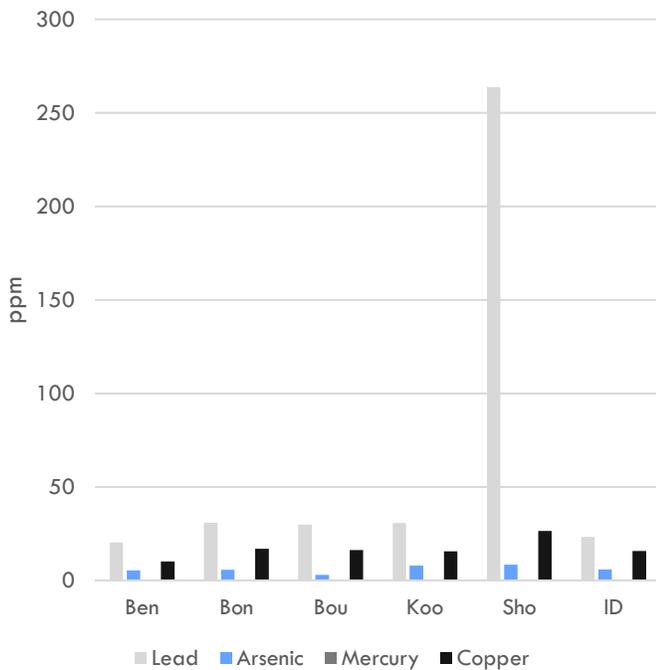
Benewah County has the highest rate of schools per 1,000 students (7.3) followed by Shoshone County (5.2) (School, 2017). This may be related to the shrinking populations in both counties. Kootenai County has the lowest rate of schools per 1,000 students (2.1), which may indicate a strain of the growing population.

According to the US Department of Agriculture’s Economic Research services, Kootenai County has the highest low-income population with low food access (24.96%) followed by Benewah County (22.03%). Shoshone County has the lowest percentage of the population (13.02%).

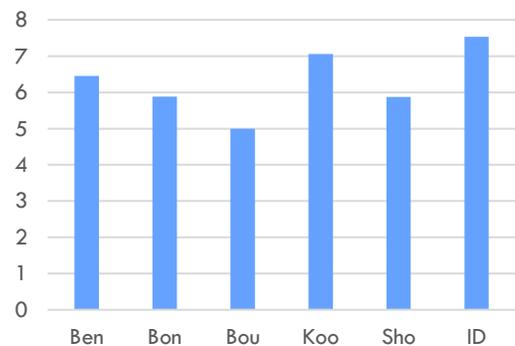
Low income population with low food access, percent, 2015



Heavy Metal in Soil and Stream Sediment in ppm, 2015



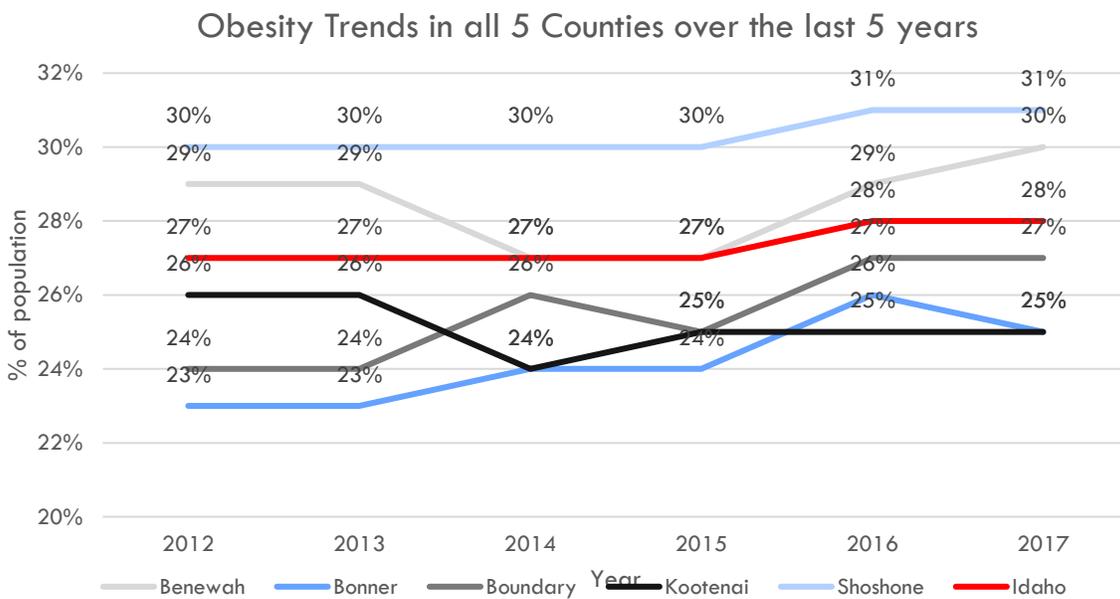
Air Quality in particulate parts per million (ppm), 2012



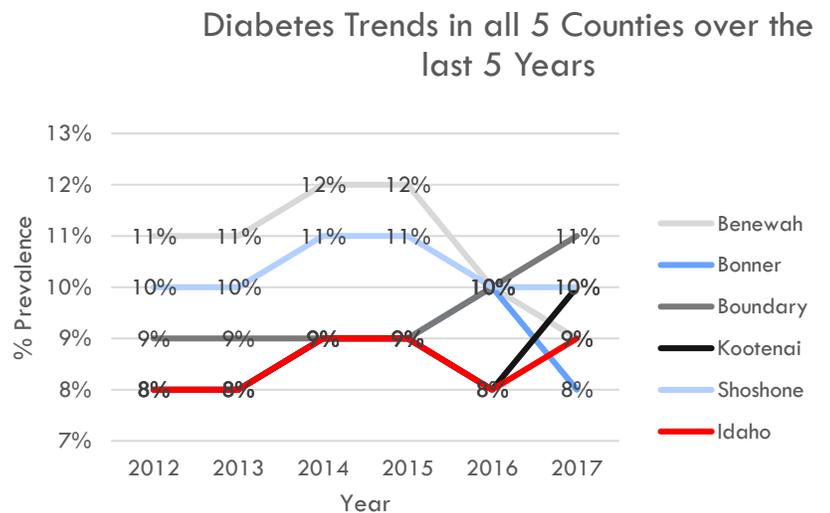
Finally, unique to north Idaho, two counties are impacted by the Bunker Hill Superfund site. For more information on the Superfund site, please see Physical Environment in Kootenai County and Shoshone County sections.

HEALTH OUTCOMES

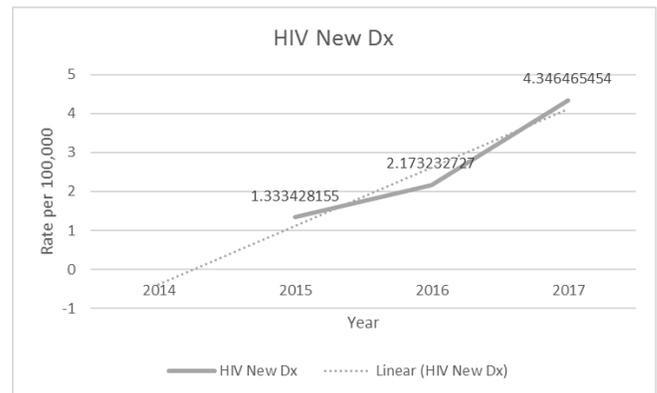
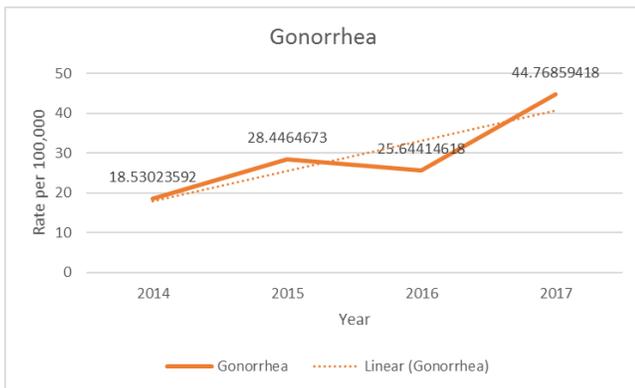
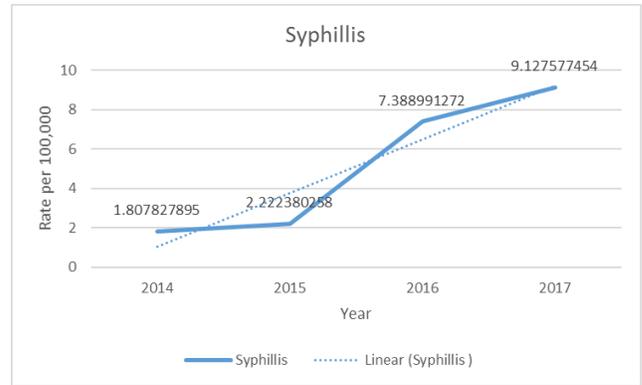
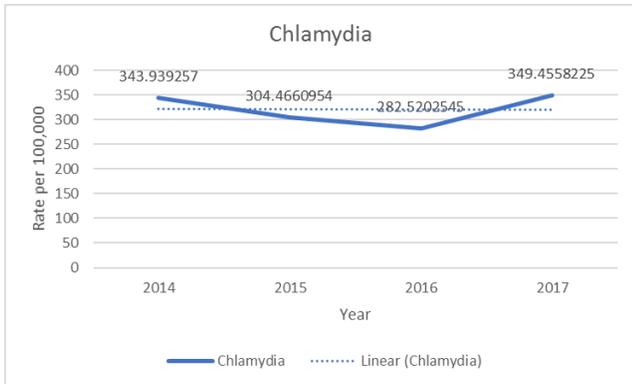
According to County Health Rankings data, 28.2% of Panhandle Health District residents are considered obese. Shoshone County has the highest obesity rate, but their rate has remained stable at 31% for the last two years. Benewah County has the second highest obesity rate at 30%, and over the last three years has seen an increase of one to two percent each year. The other three counties are just below the state average of 28% with Boundary at 27%, Bonner at 25%, and Kootenai at 25% (Institute U. o., 2017).



Diabetes in northern Idaho has seen a mixed trend over the last 5 years. Counties such as Benewah and Shoshone have seen a downward trend, whereas counties such as Boundary and Kootenai have seen an upward trend.



Sexually transmitted diseases and infections have been on the rise over the last three years, according to the data collected at Panhandle health District, through the reportable disease report database.



## ACCESS TO CARE

With increased health care costs, Idaho Medicaid gap, and the rural and frontier nature of North Idaho, access to care can be limited and constraining for many. In a primary care needs assessment, conducted by the Idaho Department of Health and Welfare, it found that much of Idaho is a primary care, dental and mental health care shortage area. This plays a role in directing state and federal resources, as well as being an indicator of poor health outcomes (Care, 2016). According to this report, Benewah and Shoshone exhibited the worst health status among the 44 other counties in the state.

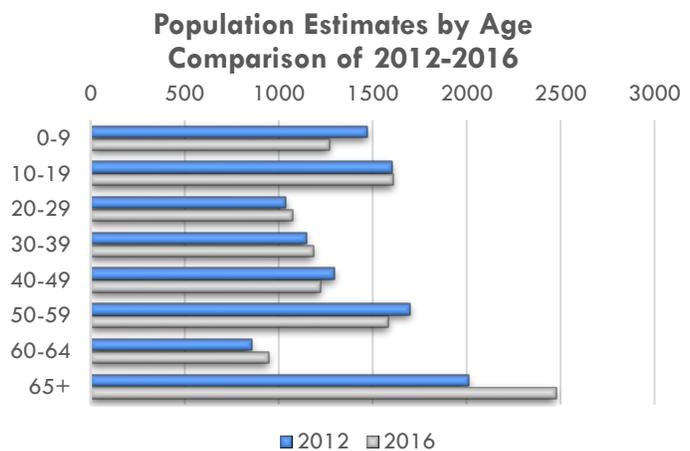
## DESCRIPTION OF BOUNDARY

### GEOGRAPHY

Boundary County is located at the northern most part of Idaho. It borders Canada, Washington, and Montana. According to US census data from 2010, Boundary County has a total area of 1,278 square miles, of which 1269 square miles is land, and 9.3 square miles is water (Bureau U. C., 2010) Boundary County is rich in natural resources. While the Cabinet, Selkirk, and Purcell Mountain Ranges come together at McArthur Lake, the Selkirk Range runs west of Bonners Ferry to Canada, and the Cabinets are prominent along the skyline to the east. Boundary County is unique in that 90 percent of it is forested. There are several nationally protected areas: Pacific Northwest National Scenic Trail, Kaniksu National Forest, Kootenai National Forest, Kootenai National Wildlife Refuge.

### DEMOGRAPHICS

Based on population estimates from 2016 Idaho Commerce data, there are 11,376 people in Boundary County. From 2012 to 2016 there was a 2.27% change in population (Commerce, 2017). The graph to the right provides an overview of the change and distribution of age in Boundary County.



Source: Commerce (2017)

### HEALTH OUTCOMES

Mortality and morbidity measures are used to describe health outcomes. Mortality measures the number of deaths and the length of life, whereas, morbidity measures the quality of life such as, injury and illness. Boundary County’s infant mortality rate (infant deaths per 1,000 births) is significantly lower than both Panhandle Health District’s and Idaho’s rates. The county also reports an extremely low percent of low birth weight babies. 11% of adults living in Boundary County have been diagnosed with diabetes compared to 7.7% of Panhandle Health District and 9.0% of Idaho adults.

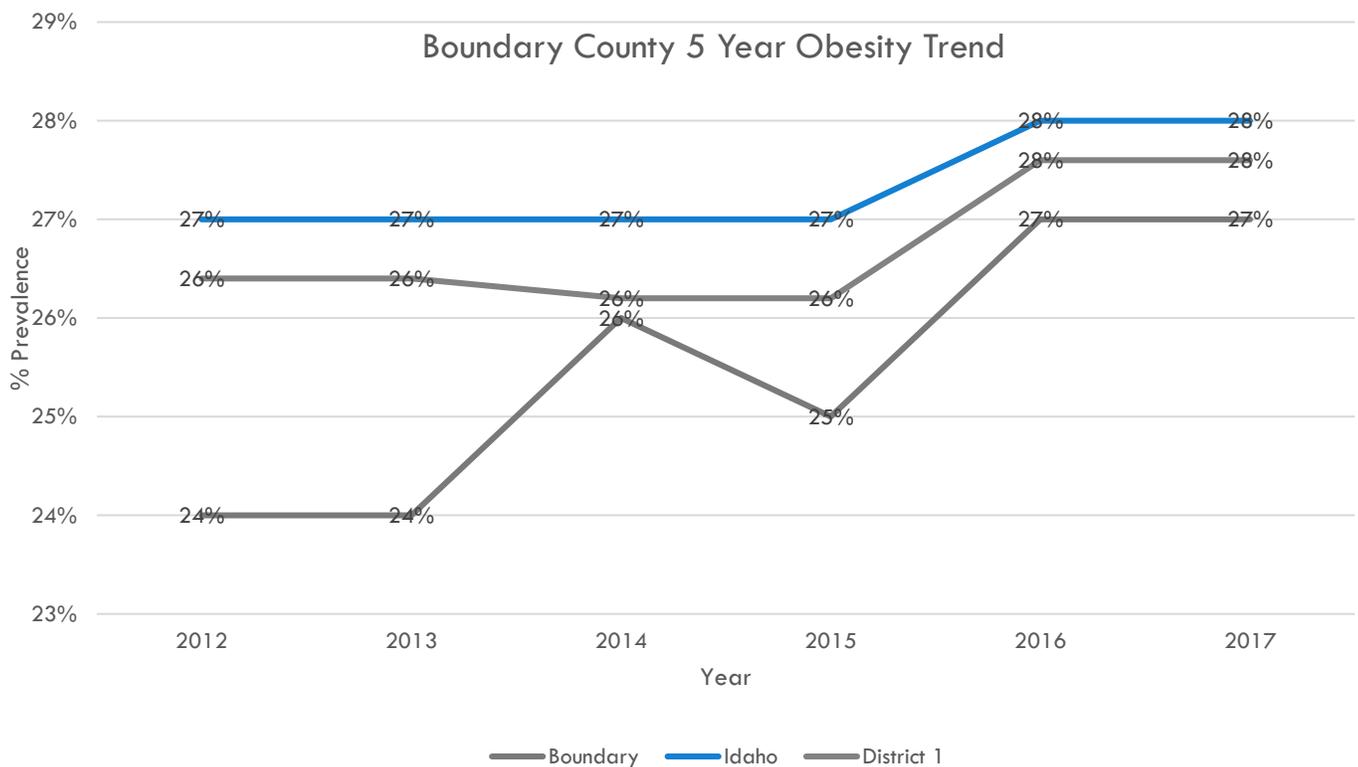
	Boundary County	Idaho
<b>Mortality</b>		
Total deaths, 2016 <sup>i</sup>	113	13,370
Premature deaths, < 75 years of age, annual average, Boundary <sup>ii</sup>	145	5,154
Infant mortality rate, < 1 year of age, per 1,000 live births, 2014 <sup>iii</sup>	1.5	5.5
Leading cause of death, 2015 <sup>i</sup>	Heart disease	Heart disease
Cancer mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	209.5	164.8
Heart disease mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	231.5	158.9
Stroke mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	53.3	38.9
Suicide mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	27.6	18.7
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	64.3	45.1
Motor vehicle crash mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	22.1	12.8
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	20.2	12.1
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	N/A	13
<b>Morbidity</b>		
Adults with poor or fair health, percent, 2017 <sup>ii</sup>	15.0%	14.0%
Poor physical health days per month, average, 2017 <sup>ii</sup>	3.9	3.5
Poor mental health days per month, average, 2017 <sup>ii</sup>	3.7	3.5
Obese adults, BMI > 30.0, percent, 2017 <sup>ii</sup>	27.0%	28.0%
Physically inactive adults, percent, 2017 <sup>ii</sup>	25.0%	20.0%
Adults with diabetes, percent, 2013 <sup>ii</sup>	11.0%	9.0%
Adults with high blood pressure, percent, 2006-2012 <sup>iii</sup>	27.3%	26.3%
Low weight births, percent, 2017 <sup>ii</sup>	3.0%	7.0%
Breast cancer incidence rate, per 100,000 population, 2010-2014 <sup>i</sup>	84.0	119.4
Colon and rectum cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	27.5	37.1

## Community Health Assessment

Lung cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	47.1	51.1
Prostate cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	151.8	131.8
Chlamydia infection rate, per 100,000 population, 2016 <sup>xi</sup>	94.2	351.5
Gonorrhea infection rate, per 100,000 population, 2016 <sup>xi</sup>	0.0	27.5
HIV/AIDS prevalence rate, age 13+, per 100,000 population, 2013 <sup>ii</sup>	N/A	65.7
Tuberculosis cases reported, 2017 <sup>xi</sup>	0.0	11.0

## HEALTH OUTCOME TRENDS

Obesity was identified as a concern to the public in the 2013 Community Health Assessment. In Boundary County, as well as, in District 1, obesity was still trending up until 2016 when it has leveled off at 27% for the county. The chart below uses County Health Rankings data and data projections.



## HEALTH BEHAVIORS

Health behaviors, such as diet and exercise, alcohol and tobacco use, and immunizations and screenings, directly impact the community's health outcomes. Of Idaho's five northern counties, Boundary County reports the lowest rates of adults drinking excessively and smoking tobacco. Only 11.9% of adults in Boundary County drink excessively compared to 18.6% of adults in Panhandle Health District, and 14.7% of Idaho adults (Institute U. o., County Health Rankings and Road Maps, 2017 ). 15.2% of the Boundary County's adult residents smoke tobacco some days or every day while 21% of Panhandle Health District and 16.6% of Idahoan adults are smoking tobacco (Institute U. o., County Health Rankings, 2017).

	Boundary County	Idaho
<b><i>Diet and Exercise</i></b>		
Physically inactive adults, percent, 2017 <sup>ii</sup>	25.0%	20.0%
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	75.0%	75.0%
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	1	152
Population walking or biking to work, percent, 2011-2015 <sup>iii</sup>	3.6%	4.0%
Population with low food access, percent, 2015 <sup>iii</sup>	14.6%	26.3%
Population with limited access to healthy foods, percent, 2017 <sup>iii</sup>	9.0%	7.0%
Adults with inadequate fruit/vegetable consumption, percent, 2009 <sup>iii</sup>	73.3%	76.6%
<b><i>Alcohol and Tobacco Use</i></b>		
Estimated adults drinking excessively, percent, 2017 <sup>ii</sup>	14.0%	15.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	2	93
Alcohol impaired driving deaths, percent of total driving deaths, 2017 <sup>ii</sup>	67.0%	32.0%
Adults smoking cigarettes, percent, 2017 <sup>ii</sup>	15.0%	14.0%
Smokers with quit attempt in past 12 months, percent, 2011-2012 <sup>iii</sup>	N/A	55.4%
<b><i>Immunizations and Screenings</i></b>		

## Community Health Assessment

School immunization exemption rates, percent, 2014-2015 <sup>v</sup>	9.5%	6.4%
Adults ever receiving pneumonia vaccination, age 65+, percent, 2006-2012 <sup>iii</sup>	57.9%	65.8%
Female Medicare enrollees, age 67-69, 2014 <sup>ii</sup>	134	31,836
Female Medicare enrollees with mammogram in past 2 years, percent, 2014 <sup>iii</sup>	43.3%	68.5%
Adult females with Pap test in past 3 years, percent, 2006-2012 <sup>iii</sup>	76.5%	67.6%
Population ever screened for colon cancer, age 50+, percent, 2006-2012 <sup>iii</sup>	49.5%	59.6%
Adults never screened for HIV/AIDS, percent, 2011-2012 <sup>iii</sup>	N/A	71.2%
Adults without recent dental exam, percent, 2006-2010 <sup>iii</sup>	N/A	31.4%

## PHYSICAL ENVIRONMENT

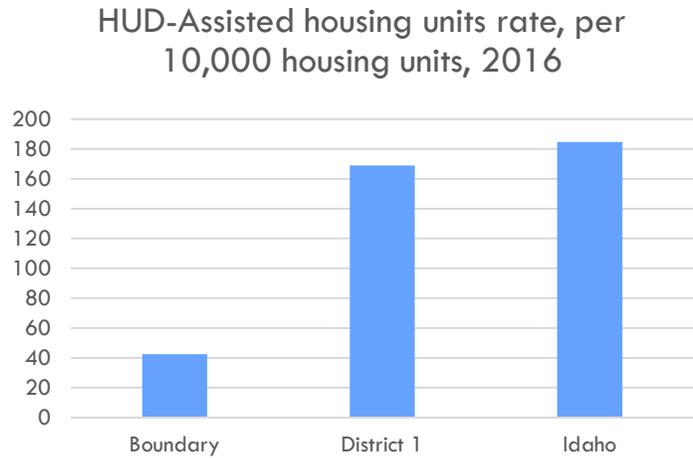
To measure physical environment's impact on health, Panhandle Health District examined data on housing, school access, food access, air quality, water quality and food safety. According to the U.S. Department of Agriculture, only 14.6% of Boundary County residents experience low food access compared to 24.8% of District 1 and 26.3% of Idaho (Agriculture, 2015).

	Boundary County	Idaho
<b>Housing</b>		
Housing units, 2016 <sup>vi</sup>	5,317	700,825
Owner Occupied housing units, 2016 <sup>iii</sup>	71.00%	68.90%
Vacant housing units, percent, 2011-2015 <sup>iii</sup>	18.5%	13.4%
Persons per household, 2011-2015 <sup>iii</sup>	2.55	2.69
Overcrowded housing units, percent, 2011-2015 <sup>iii</sup>	2.6%	3.1%
Occupied housing units with ≥ 1 substandard conditions, percent, 2011-2015 <sup>iii</sup>	29.4%	31.1%
Housing unit age, median year structures built, 2011-2015 <sup>iii</sup>	1985	1984
HUD-Assisted housing units rate, per 10,000 housing units, 2016 <sup>iii</sup>	42.5	184.6

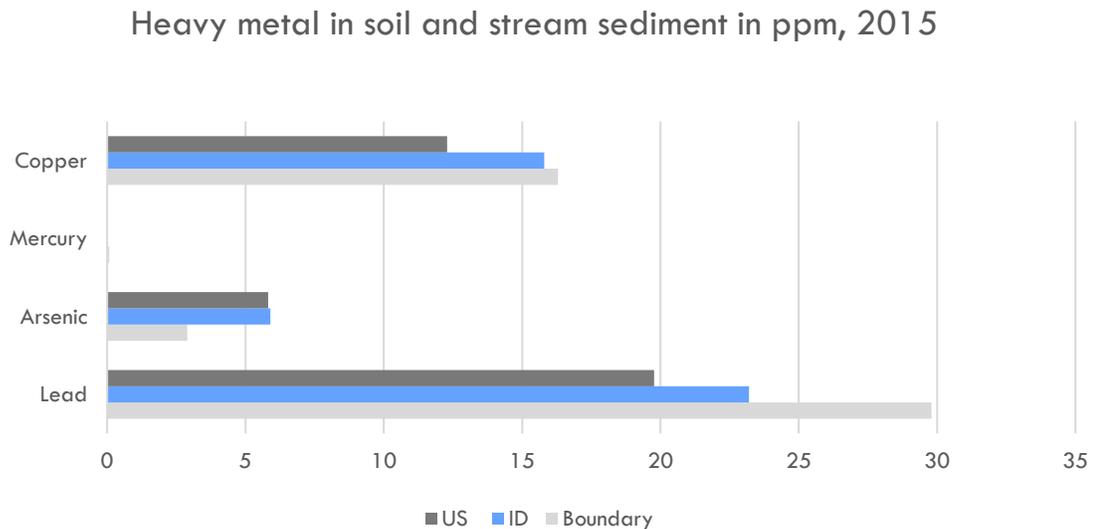
LIHTC housing units, 2014 <sup>iii</sup>	32	10,515
<b>School</b>		
Public schools, 2017 <sup>ii</sup>	5	736
Public school students, 2017 <sup>xii</sup>	1,380	289,884
High schools, 2017 <sup>xii</sup>	1	180
Middle schools, 2017 <sup>xii</sup>	1	111
Elementary schools, 2017 <sup>xii</sup>	3	347
Private schools, 2017 <sup>xii</sup>	4	113
<b>Food Access</b>		
Food insecurity rate, percent, 2017 <sup>iii</sup>	16.2%	14.7%
Food insecurity rate for children, percent, 2017 <sup>vii</sup>	18.7%	17.6%
Population with low food access, percent, 2015 <sup>iii</sup>	14.6%	26.3%
Low income population with low food access, percent, 2015 <sup>iii</sup>	17.4%	21.8%
Population with limited access to healthy foods, percent, 2017 <sup>ii</sup>	9.0%	7.0%
Food desert population, 2015 <sup>iii</sup>	5,647	664,731
<b>Community Environment</b>		
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	1	152
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	75.0%	75.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	2	93
Population using public transit for commute to work, percent, 2011-2015 <sup>iii</sup>	0.1%	0.8%
Air Quality (2012) <sup>viii</sup>	5	7.53

## Community Health Assessment

Housing and Urban Development (HUD) is a federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Boundary County has the lowest HUD-assisted housing rate in North Idaho.



Heavy metals are naturally occurring elements with a specific gravity of 5.0 or greater. At times metals are released in the environment due to mining, smelting, manufacturing, and vehicle emissions. Heavy metals can be toxic to humans depending on amount, exposure, and the individual. Boundary County has higher lead ppm than the state. However, it is still below the EPA hazard limit of 400ppm.

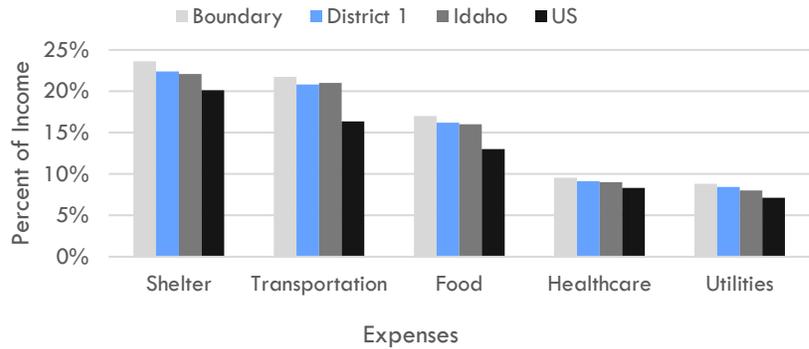


Source: (Graphiq, 2017)

**SOCIAL & ECONOMIC FACTORS**

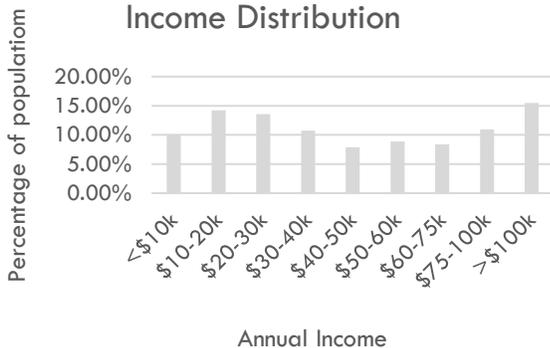
Social and economic factors can lead to excessive stress, difficulty accessing healthcare, and poor health outcomes. Panhandle Health District examined education levels, employment, income, community safety and family and social support. Using the 2016 Idaho Commerce data, the median household income in Boundary County is \$41,547 (Commerce, 2017). The graph above shows the percentage of income spent on shelter, transportation, food, health care and utilities. Boundary County has a higher cost of living in all categories than District 1, Idaho, and the United States.

Boundary Household Expenses as a Portion of Household Income  
2016



Source: (Commerce, 2017)

Boundary County  
Income Distribution



Source: (Commerce, 2017)

In addition to having a high cost of living in Boundary County, there is an unequal distribution of income. A normal distribution of income would be a bell curve, with a majority of the population in the middle range.

	Boundary County	Idaho
<b>Education</b>		
Cohort On- time high school graduation rate, 2014-2015 <sup>iii</sup>	86.9%	82.6%

## Community Health Assessment

No high school diploma, percent, persons age 25+, 2011-2015 <sup>iii</sup>	11.5%	10.5%
Associate degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	24.5%	35.1%
Bachelor's degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	10.3%	25.9%
<b>Employment</b>		
Total employment, percent change, 2014-2015 <sup>ix</sup>	2.0%	3.0%
Unemployment rate, percent, April 2017 <sup>ix</sup>	5.7%	3.4%
Total employer establishments, 2015 <sup>ix</sup>	368	44,757
<b>Income</b>		
Median household income, 2016 <sup>ix</sup>	\$41,547	\$47,583
Per capita income in past 12 months, 2011-2015 <sup>ix</sup>	\$20,795	\$23,399
Persons below poverty level, percent, 2011-2015 <sup>iii</sup>	15.8%	15.1%
Income inequality, Gini index value, 2011-2015 <sup>iii</sup>	0.45	0.44
Households with public assistance income, percent, 2011-2015 <sup>iii</sup>	3.1%	3.2%
<b>Community Safety</b>		
Premature deaths, average, 2011-2013 <sup>ii</sup>	50	5,154
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	64.32	45.1
Violent crime rate, per 100,000 population, 2010-2012 <sup>iii</sup>	100.2	210.3
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	N/A	13
Motor vehicle mortality rate, per 100,000 population, 2017 <sup>iii</sup>	22.1	13
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	20.2	12.1
<b>Family and Social Support</b>		
Population receiving SNAP benefits, percent, 2014 <sup>iii</sup>	10.2%	12.5%
SNAP-authorized food stores, 2016 <sup>iii</sup>	8	1,101
WIC-authorized food stores, 2011 <sup>iii</sup>	2	237
Children eligible for free/reduced price lunch, percent, 2014-2015 <sup>iii</sup>	52.8%	48.6%
Total head start programs, 2014 <sup>iii</sup>	1	79
Population receiving Medicaid, percent, 2011-2015 <sup>iii</sup>	22.0%	18.4%

## DESCRIPTION OF BONNER

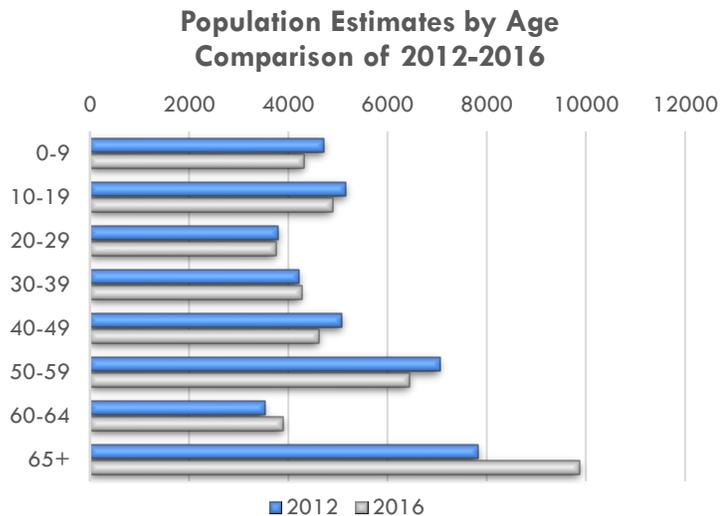
### GEOGRAPHY

Bonner County is located just south of Boundary County and borders Montana and Washington. According to U.S. Census data from 2010, Bonner County has 1,919 square miles. 1,735 is land and 185 square miles is water (Bureau U. C., 2010). The landscape of Bonner County is a combination of towering mountains that range up to 7,000 feet above sea level and lush river valleys. Bonner County is home to several national protected areas: Pacific Northwest National Scenic Trail, Coeur d'Alene National Forest, Kaniksu National Forest, and Kootenai National Forest.

Another prominent feature of Bonner County is water. The largest and deepest lake in Idaho, Lake Pend Oreille, lies in the center of the county. In addition to being home to the largest lake, Bonner County is home to many other water sources like: Kelso Lake, Clark Fork River, Cocolalla Lake, Pack River, Pend Oreille River, and Priest Lake.

### DEMOGRAPHICS

According to 2016 Idaho Commerce data, Bonner County population estimates at 42,034 people. From 2012 to 2016 there was a 4.1% increase in population. The graph to the right provides an overview of the population change by age in Bonner County.



Source: Commerce (2017)

### HEALTH OUTCOMES

Mortality and morbidity measures are used to describe health outcomes. Mortality measures the number of deaths and the length of life, whereas, morbidity measures the quality of life such as, injury and illness.

Community Health Assessment

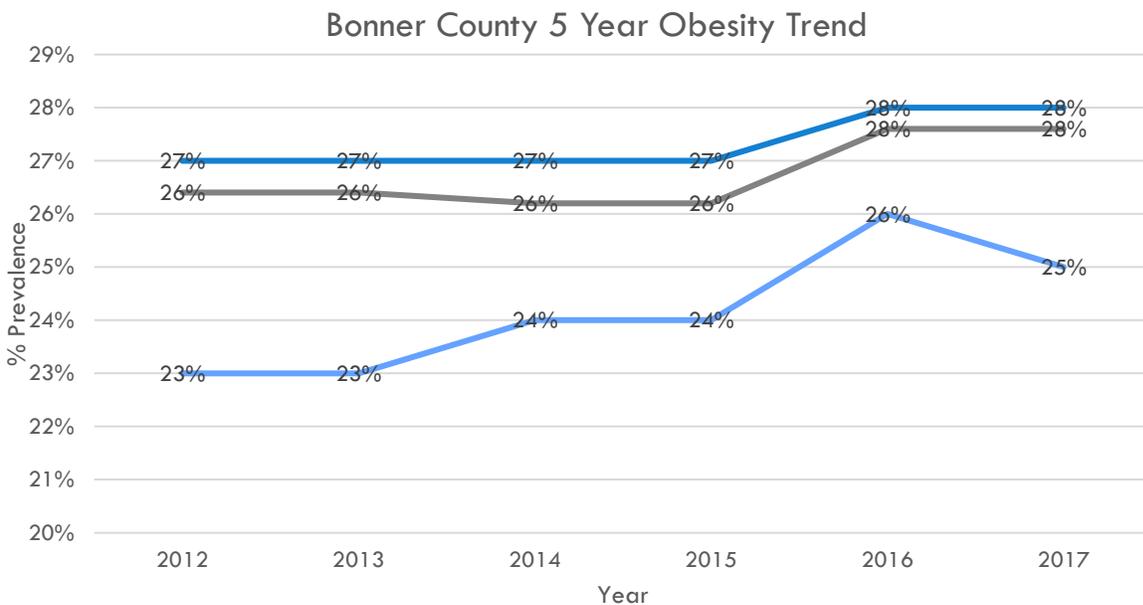
	Bonner County	Idaho
<b>Mortality</b>		
Total deaths, 2016 <sup>i</sup>	445	13,370
Premature deaths, < 75 years of age, annual average, 2017 <sup>ii</sup>	757	5,154
Infant mortality rate, < 1 year of age, per 1,000 live births, 2014 <sup>iii</sup>	6.2	5.5
Leading cause of death, 2015 <sup>i</sup>	Heart disease	Heart disease
Cancer mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	254.8	164.8
Heart disease mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	191.3	158.9
Stroke mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	80.2	38.9
Suicide mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	21.0	18.7
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	45	45.1
Motor vehicle crash mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	13.7	12.8
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	7.8	12.1
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	16	13
<b>Morbidity</b>		
Adults with poor or fair health, percent, 2006-2012 <sup>ii</sup>	16.0%	14.9%
Poor physical health days per month, average, 2017 <sup>ii</sup>	3.8	3.5
Poor mental health days per month, average, 2017 <sup>ii</sup>	3.2	3.5
Obese adults, BMI > 30.0, percent, 2013 <sup>ii</sup>	24.0%	27.8%
Physically inactive adults, percent, 2017 <sup>ii</sup>	22.0%	20.0%
Adults with diabetes, percent, 2013 <sup>ii</sup>	7.6%	8.7%
Adults with high blood pressure, percent, 2006-2012 <sup>iii</sup>	29.8%	26.3%
Low weight births, percent, 2006-2012 <sup>ii</sup>	6.0%	7.0%
Breast cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	119.1	119.4
Colon and rectum cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	41.7	37.1

Lung cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	54.7	51.1
Prostate cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	109.5	131.8
Chlamydia infection rate, per 100,000 population, 2016 <sup>xi</sup>	233.4	337.6
Gonorrhea infection rate, per 100,000 population, 2016 <sup>xi</sup>	4.7	37.7
HIV/AIDS prevalence rate, age 13+, per 100,000 population, 2013 <sup>ii</sup>	54.3	65.7
Tuberculosis cases reported, 2017 <sup>xi</sup>	0.0	11.0

## HEALTH OUTCOME TRENDS

Obesity was identified as a concern to the public in the 2013 Community Health Assessment. According to data collected from the County Health Rankings, Bonner County has seen a slight increase over the last five years but from 2016-2017 has seen a decrease of 1%.

## HEALTH BEHAVIORS



(Institute U. o., County Health Rankings, 2017)

Health behaviors such as diet and exercise, alcohol and tobacco use, and immunizations and screenings, directly impact the community’s health outcomes. Bonner County’s school immunization exemption rate (20.6%) is significantly higher than the state of Idaho’s rate of 6.4%.

	Bonner County	Idaho
<b><i>Diet and Exercise</i></b>		
Physically inactive adults, percent, 2017 <sup>ii</sup>	22.0%	20.0%
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	73.0%	75.0%
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	5	152
Population walking or biking to work, percent, 2011-2015 <sup>iii</sup>	3.8%	4.0%
Population with low food access, percent, 2015 <sup>iii</sup>	16.7%	26.3%
Population with limited access to healthy foods, percent, 2017 <sup>iii</sup>	6.0%	7.0%
Adults with inadequate fruit/vegetable consumption, percent, 2009 <sup>iii</sup>	74.7%	76.6%
<b><i>Alcohol and Tobacco Use</i></b>		
Estimated adults drinking excessively, percent, 2015 <sup>ii</sup>	16.0%	15.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	4	93
Alcohol impaired driving deaths, percent of total driving deaths, 2017 <sup>ii</sup>	33.0%	32.0%
Adults smoking cigarettes, percent, 2017 <sup>ii</sup>	15.0%	14.0%
Smokers with quit attempt in past 12 months, percent, 2011-2012 <sup>iii</sup>	58.1%	55.4%
<b><i>Immunizations and Screenings</i></b>		
School immunization exemption rates, percent, 2014-2015 <sup>v</sup>	20.6%	6.4%
Adults ever receiving pneumonia vaccination, age 65+, percent, 2006-2012 <sup>iii</sup>	58.7%	65.8%
Female Medicare enrollees, age 67-69, 2014 <sup>ii</sup>	504	31,836
Female Medicare enrollees with mammogram in past 2 years, percent, 2014 <sup>iii</sup>	55.8%	68.5%
Adult females with Pap test in past 3 years, percent, 2006-2012 <sup>iii</sup>	68.8%	67.6%
Population ever screened for colon cancer, age 50+, percent, 2006-2012 <sup>iii</sup>	47.3%	59.6%
Adults never screened for HIV/AIDS, percent, 2011-2012 <sup>iii</sup>	69.6%	71.2%
Adults without recent dental exam, percent, 2006-2010 <sup>iii</sup>	34.3%	31.4%

## PHYSICAL ENVIRONMENT

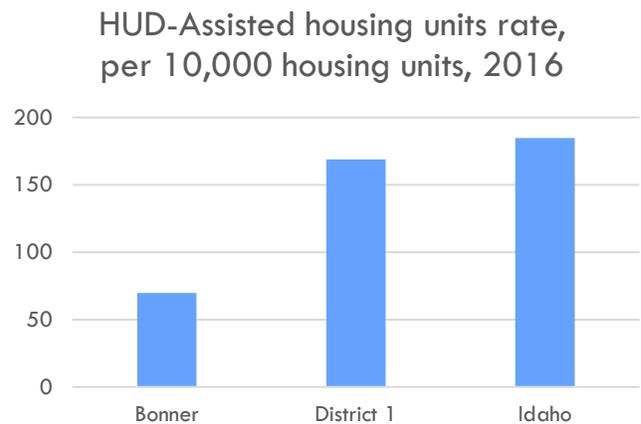
To measure physical environment's impact on health, Panhandle Health District examined data on housing, school access, food access, air quality, water quality, and food safety. Boundary County has the highest percentage of housing units that are vacant (30.1%), compared to District 1 (18.23%). This is higher than Idaho's vacancy rate of (13.4%). Vacancy of housing units is defined as, units occupied at the time of interview entirely by persons who are staying two months or less, and who have a more permanent residence elsewhere (Bureau U. C., American Community Survey 2011-2015, n.d.).

	Bonner County	Idaho
<b>Housing</b>		
Housing units, 2011-2015 <sup>vi</sup>	24,570	700,825
Occupied housing units, 2011-2015 <sup>iii</sup>	73.00%	68.90%
Vacant housing units, percent, 2011-2015 <sup>iii</sup>	30.1%	13.4%
Persons per household, 2011-2015 <sup>iii</sup>	2.36	2.69
Overcrowded housing units, percent, 2011-2015 <sup>iii</sup>	2.2%	3.1%
Occupied housing units with $\geq 1$ substandard conditions, percent, 2011-2015 <sup>iii</sup>	38.5%	31.1%
Housing unit age, median year structures built, 2011-2015 <sup>iii</sup>	1986	1984
HUD-Assisted housing units rate, per 10,000 housing units, 2016 <sup>iii</sup>	69.7	184.6
LIHTC housing units, 2014 <sup>iii</sup>	382	10,515
<b>School</b>		
Public schools, 2017 <sup>xii</sup>	19	736
Public school students, 2017 <sup>xii</sup>	5,089	289,884
High schools, 2017 <sup>xii</sup>	7	180
Middle schools, 2017 <sup>xii</sup>	4	111
Elementary schools, 2017 <sup>xii</sup>	12	347
Private schools, 2017 <sup>xii</sup>	10	113
<b>Food Access</b>		

**Community Health Assessment**

vacant housing units, percent, 2011-2015 <sup>iii</sup>	16.9%	14.7%
Food insecurity rate for children, percent, 2017 <sup>vii</sup>	19.9%	17.6%
Population with low food access, percent, 2015 <sup>iii</sup>	16.7%	26.3%
Low income population with low food access, percent, 2015 <sup>iii</sup>	14.7%	21.8%
Population with limited access to healthy foods, percent, 2017 <sup>ii</sup>	6.0%	7.0%
Food desert population, 2015 <sup>iii</sup>	18,578	664,731
<b>Community Environment</b>		
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	5	152
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	73.0%	75.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	4	93
Population using public transit for commute to work, percent, 2011-2015 <sup>iii</sup>	0.4%	0.8%
Air Quality <sup>viii</sup>	5.88	7.53

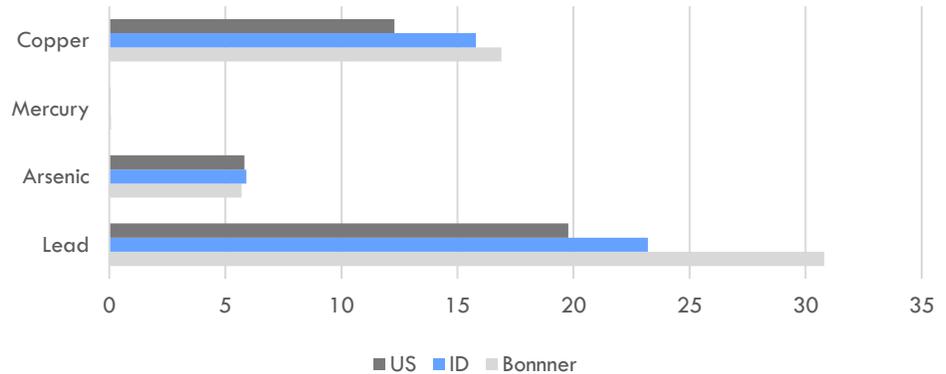
Housing and Urban Development (HUD) is a Federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Bonner County (69.7) has a lower rate of assisted housing than the District (168.85) and the State (184.6) (Commons, 2017).



Source: (Commons, 2017)

Heavy metals are naturally occurring elements with a specific gravity of 5.0 or greater. At times metals are released in the environment due to mining, smelting, manufacturing, and vehicle emissions. Heavy metals can be toxic to humans depending on amount, exposure and the individual. Bonner County is higher than the state of Idaho with copper (16.9) and lead (30.8) levels. However, Bonner County is still well below the EPA's hazard limit of 400ppm (Graphiq, 2017).

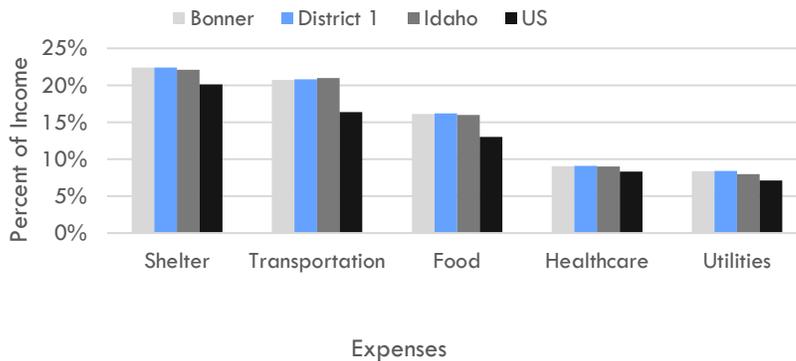
Heavy metal in soil and stream sediment in ppm, 2015



Source: (Graphiq, 2017)

**SOCIAL & ECONOMIC FACTORS**

Bonner Household Expenses as a Portion of Household Income 2016

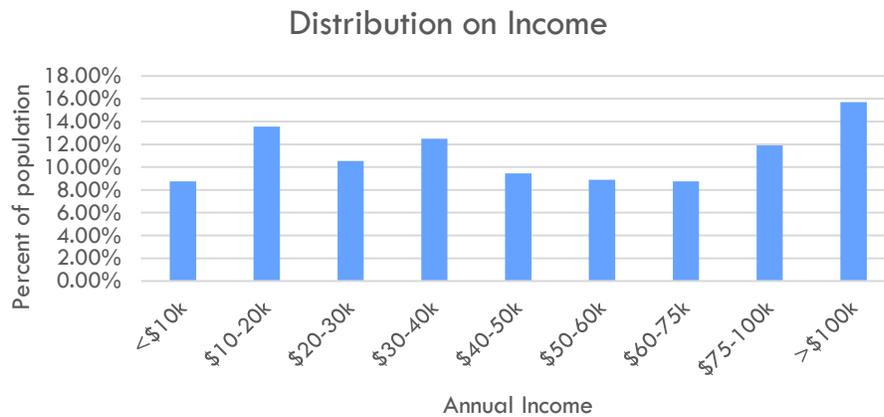


Source: (Commerce, 2017)

Social and economic factors can lead to excessive stress, difficulty accessing healthcare, and poor health outcomes. Panhandle Health District examined education levels, employment, income, community safety, and family and social support. Using the 2016 Idaho Commerce data, Bonner County's median household income

is \$45,213. Below is a breakdown of the percent of income Bonner County residents are spending on shelter, transportation, food, healthcare, and utilities. Bonner County is slightly above the national average spending on shelter at 22% of their gross income. Whereas, the United States median income is \$55,322, and 20% of their gross income is spent on shelter.

Bonner County distribution of income is below.



Source: (Commerce, 2017)

	Bonner County	Idaho
<b>Education</b>		
Cohort high school graduation rate, 2014-2015 <sup>iii</sup>	87.2%	82.6%
Estimated number of diplomas issued, 2014-2015 <sup>iii</sup>	326	16,232
No high school diploma, percent, persons age 25+, 2011-2015 <sup>iii</sup>	8.8%	10.5%
Associate degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	29.2%	35.1%
Bachelor's degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	20.9%	25.9%
<b>Employment</b>		
Total employment, percent change, 2014-2015 <sup>ix</sup>	0.9%	3.0%
Unemployment rate, percent, April 2017 <sup>ix</sup>	4.8%	3.4%
Total employer establishments, 2015 <sup>ix</sup>	1,446	44,757
<b>Income</b>		
Median household income, 2011-2015 <sup>ix</sup>	\$42,171	\$47,583
Per capita income in past 12 months, 2011-2015 <sup>ix</sup>	\$23,981	\$23,399

Persons below poverty level, percent, 2011-2015 <sup>iii</sup>	15.8%	15.1%
Income inequality, Gini index value, 2011-2015 <sup>iii</sup>	0.46	0.44
Households with public assistance income, percent, 2011-2015 <sup>iii</sup>	2.0%	3.2%
<b>Community Safety</b>		
Premature deaths, average, 2011-2013 <sup>ii</sup>	178	5,154
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	45	45.1
Violent crime rate, per 100,000 population, 2010-2012 <sup>ii</sup>	113.6	210.3
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	16	13
Motor vehicle mortality rate, per 100,000 population, 2017 <sup>iii</sup>	13.7	13
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	7.83	12.1
<b>Family and Social Support</b>		
Population receiving SNAP benefits, percent, 2014 <sup>iii</sup>	11.7%	12.5%
SNAP-authorized food stores, 2016 <sup>iii</sup>	26	1,101
WIC-authorized food stores, 2011 <sup>iii</sup>	7	237
Children eligible for free/reduced price lunch, percent, 2014-2015 <sup>iii</sup>	51.8%	48.6%
Total head start programs, 2014 <sup>iii</sup>	2	79
Population receiving Medicaid, percent, 2011-2015 <sup>iii</sup>	19.0%	18.4%

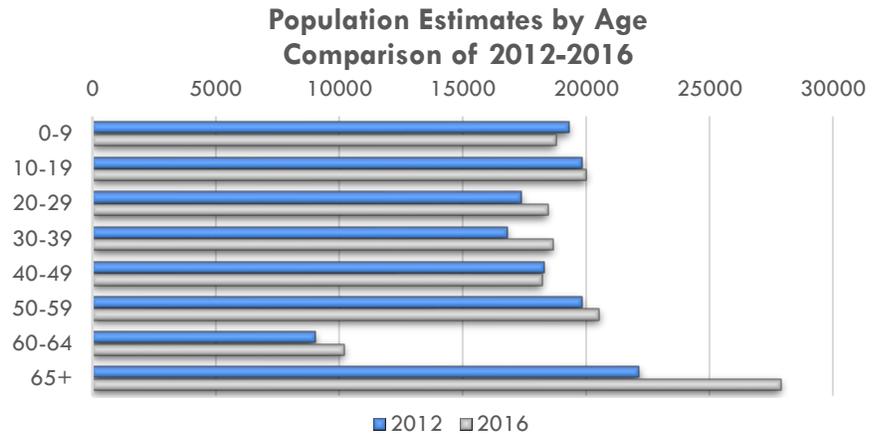
## DESCRIPTION OF KOOTENAI

### GEOGRAPHY

Kootenai County is located just south of Bonner County and borders Washington State. According to U.S. Census data from 2010, Kootenai County has 1,316 square miles. 1,244 is land and 71 square miles is water (Bureau U. C., 2010). Kootenai County is surrounded by scenic mountains and over 20 lakes. 245,000 acres national protected forest including, Coeur d'Alene National Forest, Kaniksu National Forest, and 33,000 acres of state timberland.

### DEMOGRAPHICS

According to 2016 Idaho Commerce data, Kootenai County's population estimate 152,759 (Commerce, 2017). From 2012 to 2016 there has been a 7.01% change in population. The graph to the right provides an overview of the population change by age in Kootenai County.



Source: Commerce (2017)

### HEALTH OUTCOMES

Mortality and morbidity measures are used to describe health outcomes. Mortality measures describe the number of deaths and length of life, whereas, morbidity measures the quality of life such as, injury and illness. Kootenai County has one of the lowest premature death rates for District 1. 24% of adults have high blood pressure in Kootenai County compared to 26.0% in District 1, and 26.3% in Idaho. Kootenai County's adult obesity rate (25.0%) is significantly lower than District 1's (27.6%) and Idaho's (28.0%).

	Kootenai County	Idaho
<b>Mortality</b>		
Total deaths, 2016 <sup>i</sup>	1,387	13,370
Premature deaths, < 75 years of age, annual average, 2011-2013 <sup>ii</sup>	300	5,154
Infant mortality rate, < 1 year of age, per 1,000 live births, 2014 <sup>ii</sup>	4.2	5.5
Leading cause of death, 2015 <sup>i</sup>	Heart disease	Heart disease
Cancer mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	211.9	164.8
Heart disease mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	170.6	158.9
Stroke mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	49.1	38.9
Suicide mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	20.2	18.7
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	43.3	45.1
Motor vehicle crash mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	10.8	12.8
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	8.3	12.1
Firearm fatalities rate, per 100,000 population, 2017 <sup>iii</sup>	15	13
<b>Morbidity</b>		
Adults with poor or fair health, percent, 2017 <sup>ii</sup>	13.0%	14.0%
Poor physical health days per month, average, 2017 <sup>ii</sup>	3.9	3.5
Poor mental health days per month, average, 2017 <sup>ii</sup>	3.6	3.5
Obese adults, BMI > 30.0, percent, 2013 <sup>ii</sup>	25.0%	28.0%
Physically inactive adults, percent, 2017 <sup>ii</sup>	20.0%	20.0%
Adults with diabetes, percent, 2013 <sup>ii</sup>	10.0%	9.0%
Adults with high blood pressure, percent, 2017 <sup>ii</sup>	24.0%	26.3%
Low weight births, percent, 2017 <sup>ii</sup>	6.0%	7.0%
Breast cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	135.0	119.4

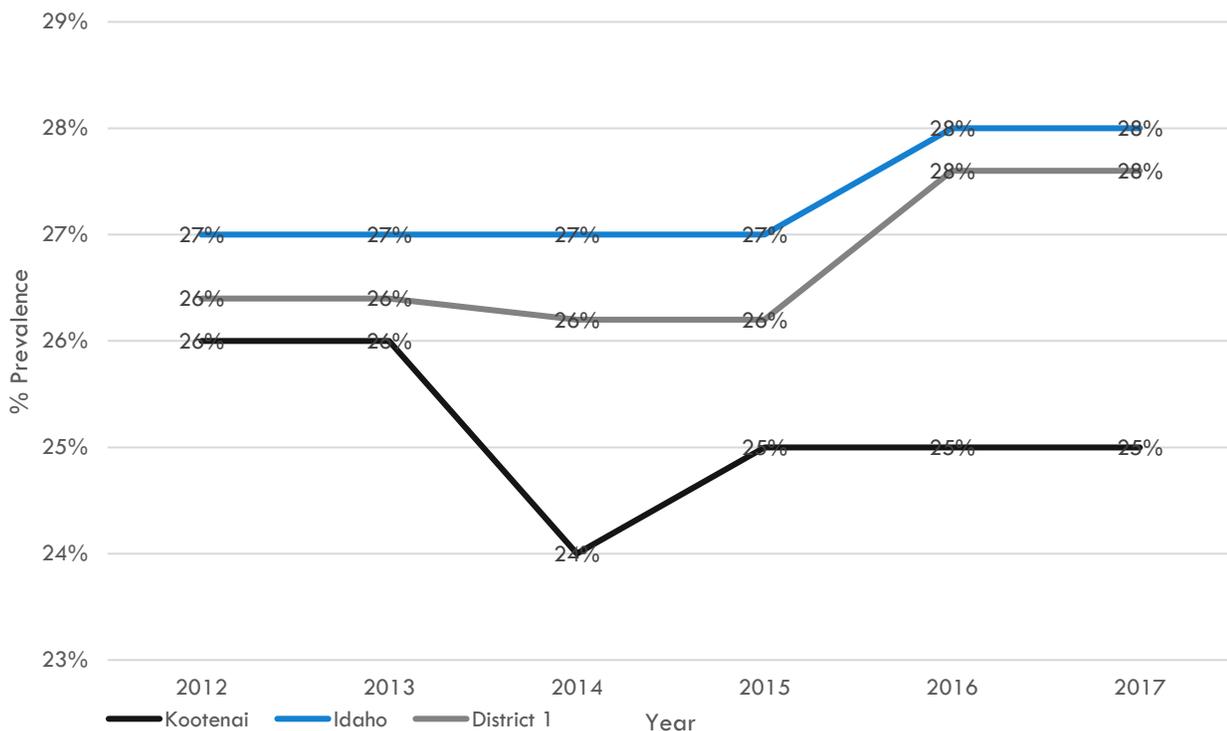
## Community Health Assessment

Colon and rectum cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	38.0	37.1
Lung cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	59.3	51.1
Prostate cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	120.9	131.8
Chlamydia infection rate, per 100,000 population, 2016 <sup>xi</sup>	321.4	351.5
Gonorrhea infection rate, per 100,000 population, 2016 <sup>xi</sup>	28.5	37.7
HIV/AIDS prevalence rate, age 13+, per 100,000 population, 2013 <sup>iii</sup>	38.4	65.7
Tuberculosis cases reported, 2017 <sup>x</sup>	0.0	11.0

## HEALTH OUTCOME TRENDS

In the 2013 Community Health Assessment, obesity was identified as a concern to the public. According to data collected through the County Health Rankings, Kootenai County had the same percentage of the population which was identified as obese, and over the last five years has seen a decrease in obesity. The chart below uses the County Health Rankings Obesity estimates for 2017.

Kootenai County 5 year Obesity Trend



**HEALTH BEHAVIORS**

Health behaviors such as diet and exercise, alcohol and tobacco use, and immunizations and screenings directly impact the community’s health outcomes.

	Kootenai County	Idaho
<b><i>Diet and Exercise</i></b>		
Physically inactive adults, percent, 2017 <sup>ii</sup>	20.0%	20.0%
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	76.0%	75.0%
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	20	152
Population walking or biking to work, percent, 2011-2015 <sup>iii</sup>	2.7%	4.0%
Population with low food access, percent, 2015 <sup>iii</sup>	29.2%	26.3%
Population with limited access to healthy foods, percent, 2017 <sup>iii</sup>	8.0%	7.0%
Adults with inadequate fruit/vegetable consumption, percent, 2009 <sup>iii</sup>	74.9%	76.6%
<b><i>Alcohol and Tobacco Use</i></b>		
Estimated adults drinking excessively, percent, 2015 <sup>ii</sup>	18.0%	15.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	15	93
Alcohol impaired driving deaths, percent of total driving deaths, 2017 <sup>ii</sup>	38.0%	32.0%
Adults smoking cigarettes, percent, 2006-2012 <sup>ii</sup>	15.0%	14.0%
Smokers with quit attempt in past 12 months, percent, 2011-2012 <sup>iii</sup>	66.1%	55.4%
<b><i>Immunizations and Screenings</i></b>		
School immunization exemption rates, percent, 2014-2015 <sup>v</sup>	11.6%	6.4%
Adults ever receiving pneumonia vaccination, age 65+, percent, 2006-2012 <sup>iii</sup>	64.5%	65.8%
Female Medicare enrollees, age 67-69, 2014 <sup>ii</sup>	1,425	31,836
Female Medicare enrollees with mammogram in past 2 years, percent, 2014 <sup>iii</sup>	63.3%	68.5%
Adult females with Pap test in past 3 years, percent, 2006-2012 <sup>iii</sup>	70.8%	67.6%
Population ever screened for colon cancer, age 50+, percent, 2006-2012 <sup>iii</sup>	65.6%	59.6%

## Community Health Assessment

Adults never screened for HIV/AIDS, percent, 2011-2012 <sup>iii</sup>	70.0%	71.2%
Adults without recent dental exam, percent, 2006-2010 <sup>iii</sup>	32.1%	31.4%

## PHYSICAL ENVIRONMENT

Panhandle Health District examined data on housing, school access, food access, air quality, water quality, and food safety to measure the physical environment's impact on health. Kootenai County has a great percentage of the population with low food access at 29.2% compared to District 1 at 24.88%, and Idaho at 26.31% (Agriculture, 2015). Low food access data is defined as low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store (Agriculture, 2015).

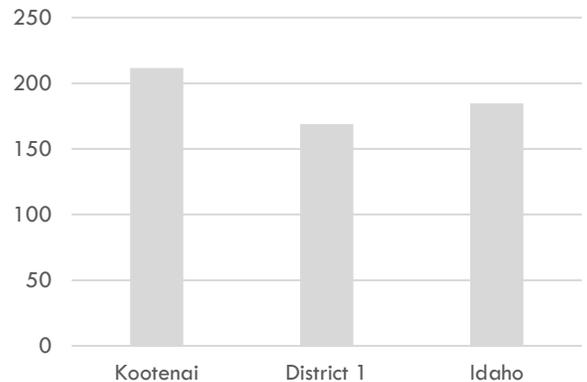
	Kootenai County	Idaho
<b>Housing</b>		
Housing units, 2016 <sup>vi</sup>	68,281	700,825
Owner Occupied housing units, 2016 <sup>iii</sup>	69.80%	68.90%
Vacant housing units, percent, 2011-2015 <sup>iii</sup>	13.6%	13.4%
Persons per household, 2011-2015 <sup>iii</sup>	2.54	2.69
Overcrowded housing units, percent, 2011-2015 <sup>iii</sup>	2.5%	3.1%
Occupied housing units with $\geq 1$ substandard conditions, percent, 2011-2015 <sup>iii</sup>	33.1%	31.1%
Housing unit age, median year structures built, 2011-2015 <sup>iii</sup>	1991	1984
HUD-Assisted housing units rate, per 10,000 housing units, 2016 <sup>iii</sup>	211.6	184.6
LIHTC housing units, 2014 <sup>iii</sup>	1,616	10,515
<b>School</b>		
Public schools, 2017 <sup>xi</sup>	45	736
Public school students, 2017 <sup>xi</sup>	21,430	289,884
High schools, 2017 <sup>xi</sup>	13	180
Middle schools, 2017 <sup>xi</sup>	10	111
Elementary schools, 2017 <sup>xi</sup>	28	347
Private schools, 2017 <sup>xi</sup>	16	113
<b>Food Access</b>		
Food insecurity rate, percent, 2017 <sup>ii</sup>	15.4%	14.7%
Food insecurity rate for children, percent, 2017 <sup>vii</sup>	18.1%	17.6%
Population with low food access, percent, 2015 <sup>iii</sup>	29.2%	26.3%

**Community Health Assessment**

Low income population with low food access, percent, 2015 <sup>iii</sup>	24.5%	21.8%
Population with limited access to healthy foods, percent, 2017 <sup>ii</sup>	8.0%	7.0%
Food desert population, 2015 <sup>iii</sup>	81,309	664,731
<b>Community Environment</b>		
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	20	152
Population with access to exercise opportunities, percent, 2014 <sup>iii</sup>	76.0%	75.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	15	93
Population using public transit for commute to work, percent, 2011-2015 <sup>iii</sup>	0.4%	0.8%
Air Quality <sup>viii</sup>	7.06	7.53

Housing and Urban Development (HUD) is a federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Kootenai County (211.6) has a greater number of HUD-assisted housing units than the District (168.85) and state (184.6) (Commons, 2017). Housing and Urban Development (HUD) is a federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Kootenai County (211.6) has a greater

HUD-Assisted housing units rate, per 10,000 housing units, 2016

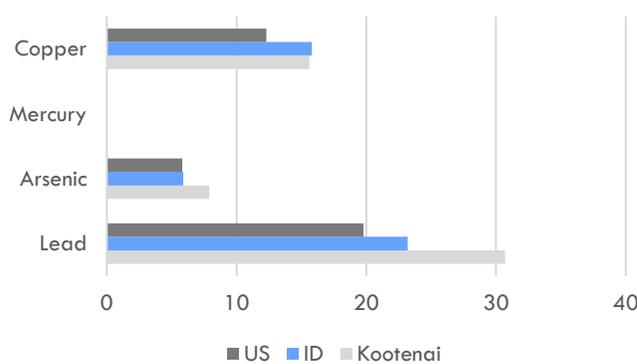


Source: (Commons, 2017)

number of HUD-assisted housing units than the District (168.85) and state (184.6) (Commons, 2017).

Heavy metals are naturally occurring elements with a specific gravity of 5.0 or greater. At times metals are released in the environment due to mining, smelting, manufacturing, and vehicle emissions. Heavy metals can be toxic to humans depending on amount, exposure, and the individual.

Heavy metal in soil and stream sediment in ppm, 2015



Source: (Graphiq, 2017)

Kootenai County has higher lead and arsenic ppm than the state. However, lead ppm is still below the EPA Hazard limit of 400ppm.

Sections of the Coeur d' Alene Lake and the Coeur d'Alene River Basin are part of the Bunker Hill Super Fund site. The site is located in Idaho's Panhandle; with the Idaho-Montana state line being the eastern border and extending westward into the state of Washington. It's the second largest Superfund site in the United States, with the highest residential population of any Superfund site. It covers over 1,500 square miles, making it one of the most complex sites in the US. The EPA listed the site on the national priorities list in 1983 due to high levels of metals in the environment and elevated blood lead levels seen in local children.

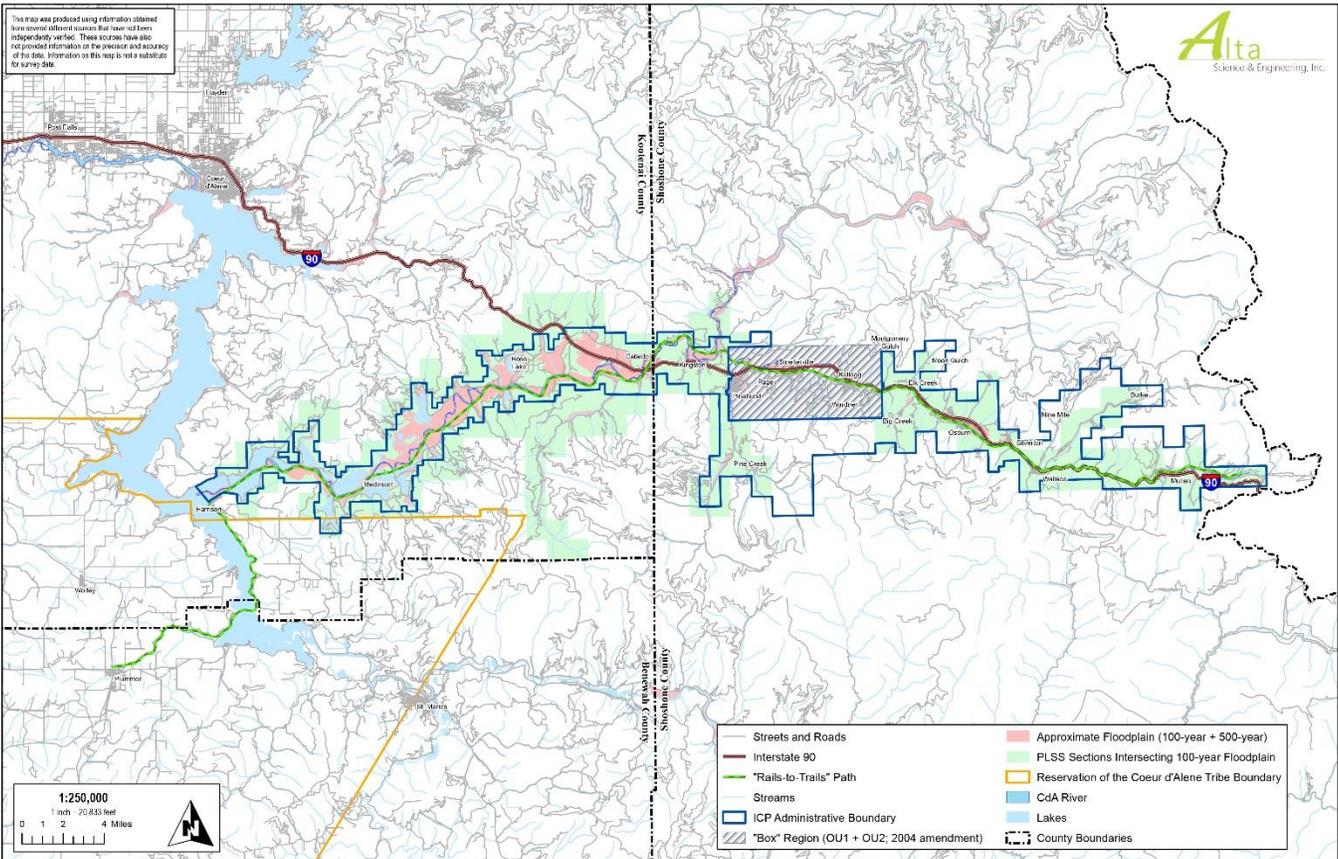
Due to the extensive contamination throughout the Site, EPA's cleanup remedy cannot remove all of the contamination in the area. Some contamination will remain within the Site and be managed into perpetuity. Complete removal is technically unachievable partly due to the fact that communities and related infrastructure developed on top of mining related waste deposited throughout the Coeur d'Alene River Basin. In order to address the risks to human health, contamination has been partially removed, or covered by protective barriers. Since the Site was listed on the National Priorities List in 1983, EPA and IDEQ have installed protective barriers on over 7,000 residential and commercial properties in the Silver Valley, provided \$54 Million in funding for local jurisdictions to repair or replace roads which serve as barriers to contamination, and completed actions that protect barriers from flooding. These actions prevent exposure to underlying contamination and provide a safe and clean environment in community areas. Long term assurance for protection of these remedies is provided by an Institutional Control Program that is considered a model for other large Superfund Sites.

Contaminated soils can still be encountered throughout the CDA basin outside of the residential communities. Heavy metals can be encountered at historic mine sites, across the floodplain and along the banks of the Coeur d'Alene River and its tributaries. Many of these areas are very popular with recreationalists. Contaminated material tracked home from un-remediated areas can lead to elevated levels in house dust and create an additional exposure source.

For health and safety tips to protect one's self from exposure visit <http://deq.idaho.gov/PlayClean>.

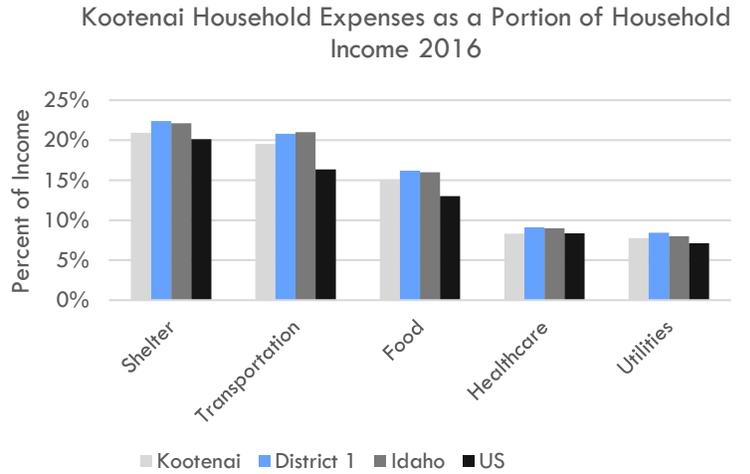
To learn more about environmental cleanup activities visit <http://www.basincommission.com/>

Below is a map of the Institutional Controls Program's administrative area.



SOCIAL & ECONOMIC FACTORS

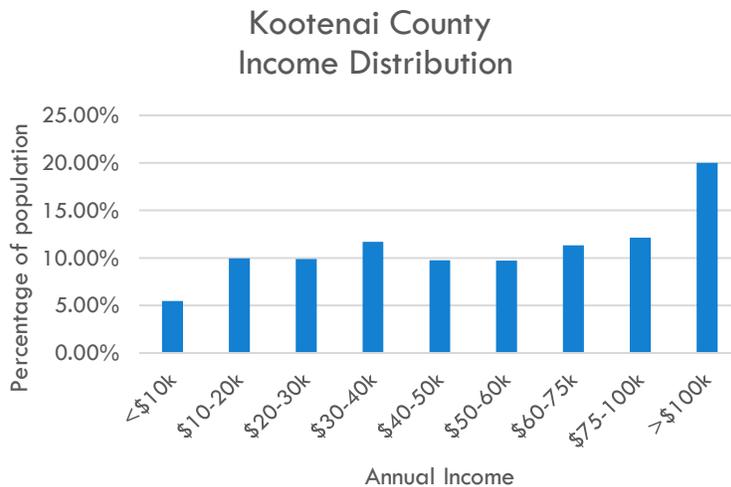
Social and economic factors can lead to excessive stress, difficulty accessing healthcare, and poor health outcomes. Panhandle Health District examined education levels, employment, income, community safety, and family and social support. Using the 2016 Idaho Commerce data, Kootenai County’s median household income was \$53,151 (Commerce, 2017) (Bureau U. C., Data file from Geography Division based on the TIGER/Geographic Identification Code Scheme, n.d.).



Source: (Commerce, 2017)

Above is a breakdown of the percent of income Kootenai County residents spend on shelter, transportation, food, healthcare, and utilities. Kootenai County has lower household expenses in all categories of spending when compared to District 1, but still spends a higher percentage of their income than the United States.

In Kootenai County 20% of household incomes are above \$100,000 dollars.



Source: (Commerce, 2017)

**Community Health Assessment**

	Kootenai County	Idaho
<b>Education</b>		
Cohort high school graduation rate, 2014-2015 <sup>iii</sup>	83.7%	82.6%
No high school diploma, percent, persons age 25+, 2011-2015 <sup>iii</sup>	7.9%	10.5%
Associate degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	34.2%	35.1%
Bachelor's degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	23.3%	25.9%
<b>Employment</b>		
Total employment, percent change, 2014-2015 <sup>ix</sup>	1.2%	3.0%
Unemployment rate, percent, April 2017 <sup>ix</sup>	3.7%	3.4%
Total employer establishments, 2015 <sup>ix</sup>	4,513	44,757
<b>Income</b>		
Median household income, 2011-2015 <sup>ix</sup>	\$49,403	\$47,583
Per capita income in past 12 months, 2011-2015 <sup>ix</sup>	\$25,744	\$23,399
Persons below poverty level, percent, 2011-2015 <sup>iii</sup>	14.7%	15.1%
Income inequality, Gini index value, 2011-2015 <sup>iii</sup>	0.44	0.44
Households with public assistance income, percent, 2011-2015 <sup>iii</sup>	3.3%	3.2%
<b>Community Safety</b>		
Premature deaths, average, 2011-2013 <sup>ii</sup>	512	5,154
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	43.3	45.1
Violent crime rate, per 100,000 population, 2010-2012 <sup>iii</sup>	298.9	210.3
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	15	13
Motor vehicle mortality rate, per 100,000 population, 2017 <sup>iii</sup>	10	13
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	8.3	12.1
<b>Family and Social Support</b>		
Population receiving SNAP benefits, percent, 2014 <sup>iii</sup>	12.2%	12.5%
SNAP-authorized food stores, 2016 <sup>iii</sup>	103	1,101

WIC-authorized food stores, 2011 <sup>iii</sup>	17	237
Children eligible for free/reduced price lunch, percent, 2014-2015 <sup>iii</sup>	43.3%	48.6%
Total head start programs, 2014 <sup>iii</sup>	6	79
Population receiving Medicaid, percent, 2011-2015 <sup>iii</sup>	17.4%	18.4%



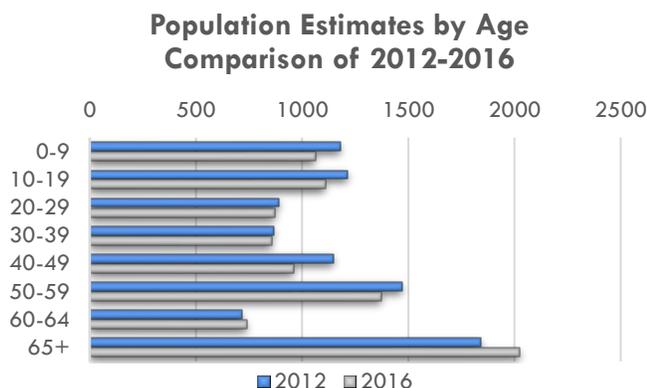
## DESCRIPTION OF BENEWAH

### GEOGRAPHY

Benewah County is located just south of Kootenai County and borders Washington State. According to U.S. Census data from 2010, Benewah County has 784 square miles, of which, 777 is land and 7.3 square miles is water (Bureau U. C., 2010). Benewah County is not short of outdoor recreation, and is home to the St. Joe National Forest, as well as, Heyburn State Park, and McCroskey State Park.

### DEMOGRAPHICS

According to 2016 Idaho Commerce data, Benewah County’s population estimate is 8,997 (Commerce, 2017). From 2012 to 2016 there has been a -3.52% change in population. The graph to the right provides an overview of the population change, by age, in Benewah County.



Source: Commerce (2017)

### HEALTH OUTCOMES

Mortality and morbidity measures are used to describe health outcomes. Mortality measures the number of deaths and the length of life, whereas, morbidity measures the quality of life such as, injury and illness.

Benewah county reports the highest teen birth rate of the five northern counties in Idaho with 52.3 births per 1,000 women 15-19 years old. As of 2017, the state of Idaho’s teen birth rate is 30.5. 8.3% of babies born in Benewah County are considered low weight (under 2500g) while only 6.5% of babies born in Idaho are below the 2500g threshold.

	Benewah County	Idaho
<b>Mortality</b>		
Total deaths, 2016 <sup>i</sup>	132	13,370
Premature deaths, < 75 years of age, annual average, 2011-2013 <sup>ii</sup>	53	5,154

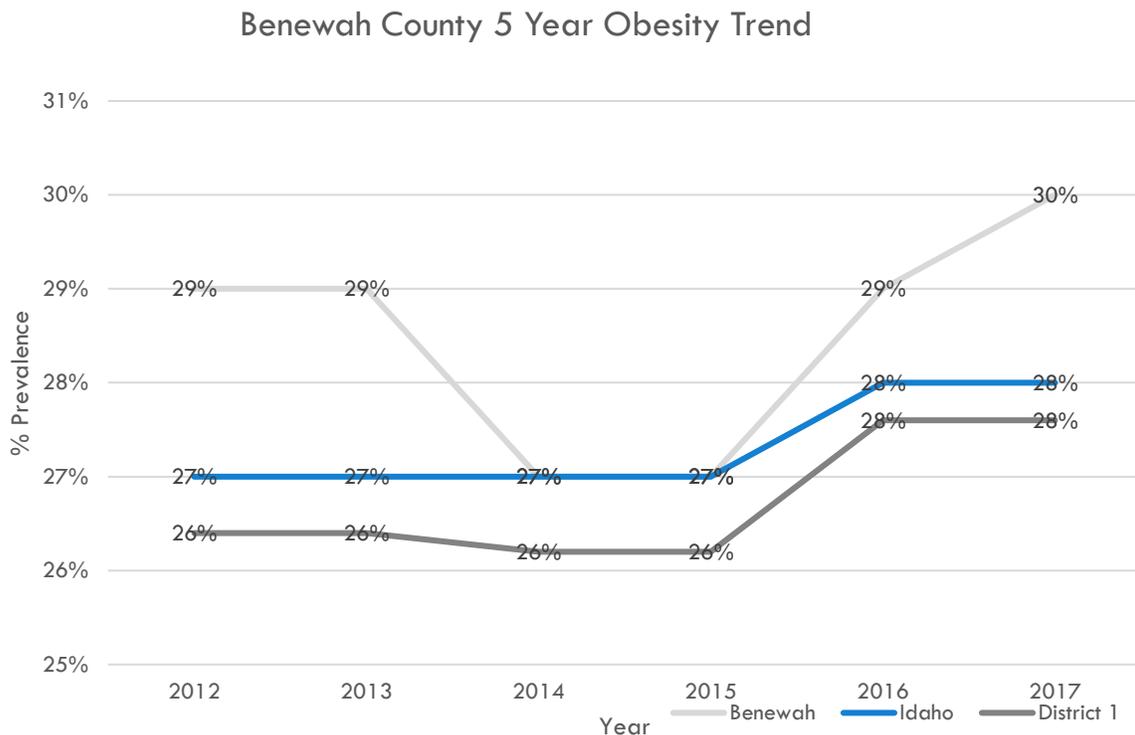
Infant mortality rate, < 1 year of age, per 1,000 live births, 2014 <sup>iii</sup>	18.7	5.5
Leading cause of death, 2015 <sup>i</sup>	Heart disease	Heart disease
Cancer mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	327.7	164.8
Heart disease mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	198.8	158.9
Stroke mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	80.8	38.9
Suicide mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	32.8	18.7
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	78.7	45.1
Motor vehicle crash mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	26.2	12.8
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	10.0	12.1
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	33	13
<b>Morbidity</b>		
Adults with poor or fair health, percent, 2017 <sup>ii</sup>	16.0%	14.0%
Poor physical health days per month, average, 2017 <sup>ii</sup>	4.4	3.5
Poor mental health days per month, average, 2017 <sup>ii</sup>	3.8	3.5
Obese adults, BMI > 30.0, percent, 2017 <sup>ii</sup>	30.0%	28.0%
Physically inactive adults, percent, 2017 <sup>ii</sup>	25.0%	20.0%
Adults with diabetes, percent, 2017 <sup>ii</sup>	9.0%	9.0%
Adults with high blood pressure, percent, 2006-2012 <sup>ii</sup>	30.5%	26.3%
Low weight births, percent, 2017 <sup>ii</sup>	8.0%	7.0%
Breast cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	112.1	119.4
Colon and rectum cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	42.8	37.1
Lung cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	78.6	51.1
Prostate cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	69.3	131.8
Chlamydia infection rate, per 100,000 population, 2016 <sup>xi</sup>	253.0	351.5
Gonorrhea infection rate, per 100,000 population, 2016 <sup>xi</sup>	22	37.7
HIV/AIDS prevalence rate, age 13+, per 100,000 population, 2013 <sup>iii</sup>	N/A	65.7

## Community Health Assessment

Tuberculosis cases reported, 2017 <sup>xi</sup>	0.0	11.0
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## HEALTH OUTCOME TRENDS

Obesity was identified as a concern to the public in the 2013 Community Health Assessment. According to data collected by the County Health Rankings, Benewah County has had a consistently higher percentage of the population who are obese. According to the County Health Ranking projections in 2017, 30% of the population was obese.



## HEALTH BEHAVIORS

Health behaviors such as diet and exercise, alcohol and tobacco use, and immunization and screenings, directly impact the community's health outcomes. Benewah County has a high rate of physically inactive adults (24.5%) while only 19.5% of Idaho's adult residents are physically inactive.

	Benewah County	Idaho
<b><i>Diet and Exercise</i></b>		
Physically inactive adults, percent, 2017 <sup>ii</sup>	25.0%	20.0%
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	63.0%	75.0%
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	0	152
Population walking or biking to work, percent, 2011-2015 <sup>iii</sup>	6.6%	4.0%
Population with low food access, percent, 2015 <sup>iii</sup>	22.4%	26.3%
Population with limited access to healthy foods, percent, 2017 <sup>iii</sup>	15.0%	7.0%
Adults with inadequate fruit/vegetable consumption, percent, 2009 <sup>iii</sup>	84.1%	76.6%
<b><i>Alcohol and Tobacco Use</i></b>		
Estimated adults drinking excessively, percent 2015 <sup>ii</sup>	14.0%	15.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	2	93
Alcohol impaired driving deaths, percent of total driving deaths, 2017 <sup>ii</sup>	17.0%	32.0%
Adults smoking cigarettes, percent, 2017 <sup>ii</sup>	17.0%	14.0%
Smokers with quit attempt in past 12 months, percent, 2011-2012	N/A	55.4%
<b><i>Immunizations and Screenings</i></b>		
School immunization exemption rates, percent, 2014-2015 <sup>v</sup>	6.4%	6.4%
Adults ever receiving pneumonia vaccination, age 65+, percent, 2006-2012 <sup>iii</sup>	66.2%	65.8%
Female Medicare enrollees, age 67-69, 2014 <sup>ii</sup>	130	31,836
Female Medicare enrollees with mammogram in past 2 years, percent, 2014 <sup>iii</sup>	46.2%	68.5%
Adult females with Pap test in past 3 years, percent, 2006-2012 <sup>iii</sup>	55.4%	67.6%
Population ever screened for colon cancer, age 50+, percent, 2006-2012 <sup>iii</sup>	64.3%	59.6%
Adults never screened for HIV/AIDS, percent, 2011-2012 <sup>iii</sup>	N/A	71.2%
Adults without recent dental exam, percent, 2006-2010 <sup>iii</sup>	N/A	31.4%

**PHYSICAL ENVIRONMENT**

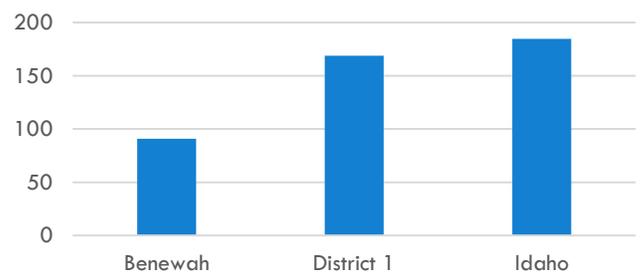
Panhandle Health District examined data on housing, school access, food access, air quality, water quality, and food safety to measure the physical environment’s impact on health. Benewah County has the second highest number of vacant housing units in District 1 at 20.8% with the rest of the District around 18.2%. 15% of Benewah County’s population is low income and does not live close to a grocery store. This is much higher than Idaho’s average of 7%. (Institute U. o.,(Institute U. o., County Health Rankings and Road Maps, 2017 ).

	Benewah County	Idaho
<b>Housing</b>		
Housing units, 2016 <sup>vi</sup>	4,609	700,825
Owner Occupied housing units, 2016 <sup>iii</sup>	73.70%	68.90%
Vacant housing units, percent, 2011-2015 <sup>iii</sup>	20.8%	13.4%
Persons per household, 2011-2015 <sup>iii</sup>	2.45	2.69
Overcrowded housing units, percent, 2011-2015 <sup>iii</sup>	4.5%	3.1%
Occupied housing units with ≥ 1 substandard conditions, percent, 2011-2015 <sup>iii</sup>	26.8%	31.1%
Housing unit age, median year structures built, 2011-2015 <sup>iii</sup>	1977	1984
HUD-Assisted housing units rate, per 10,000 housing units, 2016 <sup>iii</sup>	90.7	184.6
LIHTC housing units, 2014 <sup>iii</sup>	34	10,515
<b>School</b>		
Public schools, 2017 <sup>xi</sup>	8	736
Public school students, 2017 <sup>xi</sup>	1,098	289,884
High schools, 2017 <sup>xi</sup>	3	180
Middle schools, 2017 <sup>xi</sup>	2	111

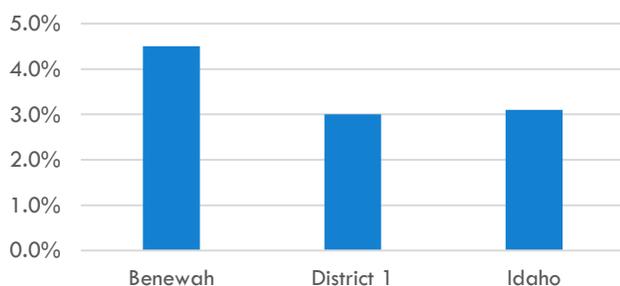
Elementary schools, 2017 <sup>xi</sup>	3	347
Private schools, 2017 <sup>xi</sup>	1	113
<b>Food Access</b>		
Food insecurity rate, percent, 2017 <sup>ii</sup>	17.5%	14.7%
Food insecurity rate for children, percent, 2017 <sup>vii</sup>	21.2%	17.6%
Population with low food access, percent, 2015 <sup>iii</sup>	22.4%	26.3%
Low income population with low food access, percent, 2015 <sup>iii</sup>	22.0%	21.8%
Population with limited access to healthy foods, percent, 2017 <sup>ii</sup>	15.0%	7.0%
Food desert population, 2015 <sup>iii</sup>	9,285	664,731
<b>Community Environment</b>		
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	0	152
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	63%	75%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	2	93
Population using public transit for commute to work, percent, 2011-2015 <sup>iii</sup>	0.9%	0.8%
Air Quality <sup>viii</sup>	6.45	7.53

Housing and Urban Development (HUD) is a federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Benewah County (90.7) has a lower rate of HUD-assisted housing units than the District (168.85) and state (184.6) (Commons, 2017).

HUD-Assisted housing units rate, per 10,000 housing units, 2016

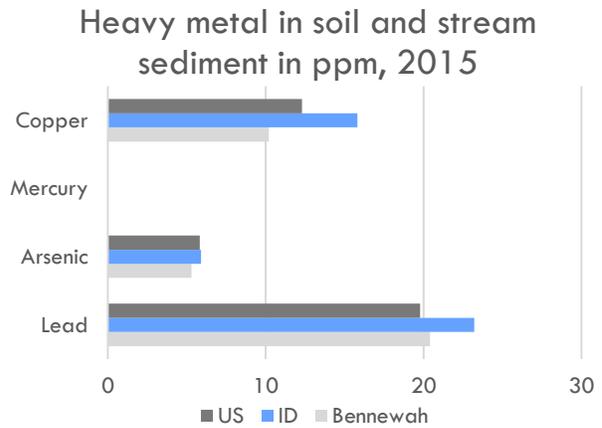


Overcrowded housing units, percent, 2011-2015



**Community Health Assessment**

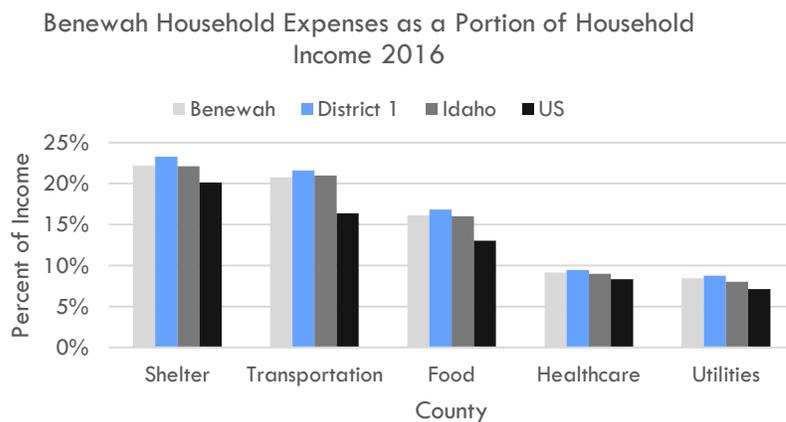
Heavy metals are naturally occurring elements with a specific gravity of 5.0 or greater. At times metals are released in the environment due to mining, smelting, manufacturing, and vehicle emissions. Heavy metals can be toxic to humans depending on amount, exposure, and the individual. Benewah County has lower lead, arsenic, and copper levels than the state.



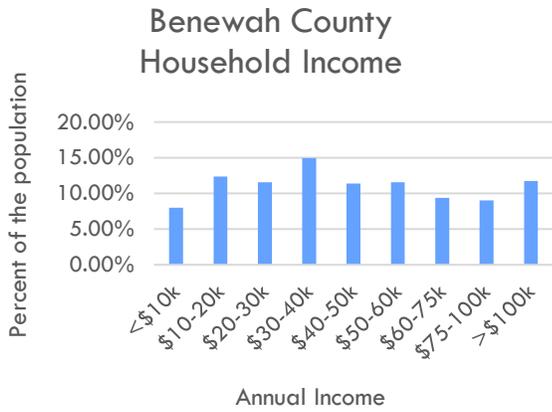
Source: Graphic (2017)

**SOCIAL & ECONOMIC FACTORS**

Social and economic factors can lead to excessive stress, difficulty accessing healthcare, and poor health outcomes. Panhandle Health District examined education levels, employment, income, community safety, and family and social support. Using the 2016 Idaho Commerce data, Benewah County median household income is \$42,447. Below is a breakdown of the percent of Benewah County residents spend on shelter, transportation, food, healthcare, and utilities Benewah County is aligned with District 1 on the percentage of income spent on shelter, transportation, food, health care and utilities.



Source: (Commerce, 2017)



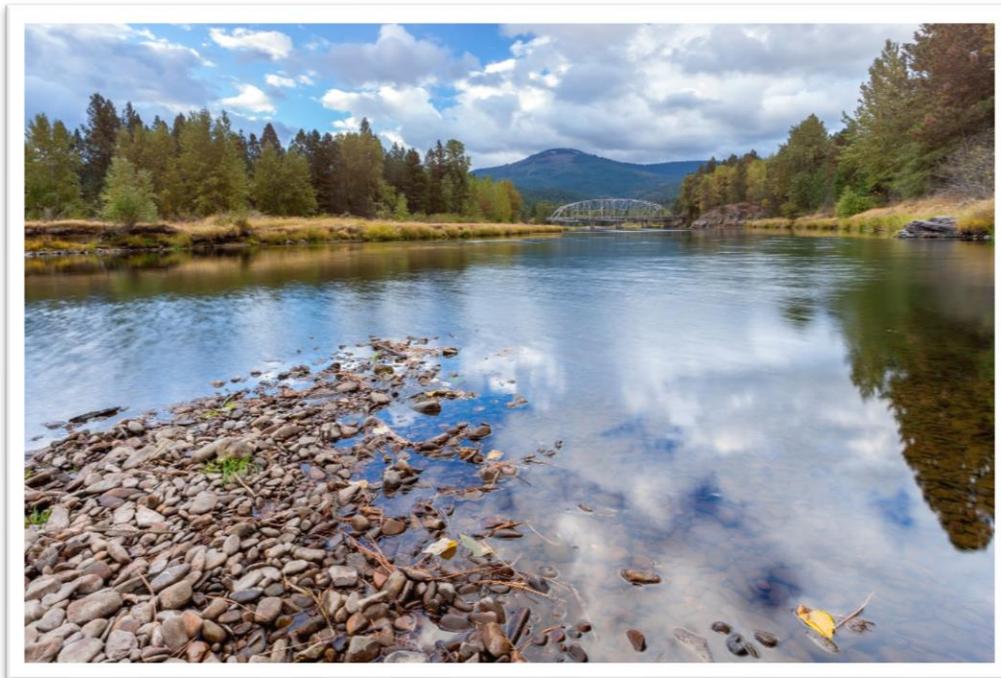
Benewah County has a normal income distribution. With a majority of the population falling in the middle at \$30,000-\$40,000.

Source: (Commerce, 2017)

	Benewah County	Idaho
<b>Education</b>		
Cohort high school graduation rate, 2014-2015 <sup>iii</sup>	87.1%	82.6%
No high school diploma, percent, persons age 25+, 2011-2015 <sup>iii</sup>	14.0%	10.5%
Associate degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	20.5%	35.1%
Bachelor's degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	13.3%	25.9%
<b>Employment</b>		
Total employment, percent change, 2014-2015 <sup>ix</sup>	-0.4%	3.0%
Unemployment rate, percent, April 2017 <sup>ix</sup>	8.9%	3.4%
Total employer establishments, 2015 <sup>ix</sup>	226	44,757
<b>Income</b>		
Median household income, 2011-2015 <sup>ix</sup>	\$39,863	\$47,583
Per capita income in past 12 months, 2011-2015 <sup>ix</sup>	\$20,937	\$23,399
Persons below poverty level, percent, 2011-2015 <sup>iii</sup>	18.0%	15.1%
Income inequality, Gini index value, 2011-2015 <sup>iii</sup>	0.41	0.44
Households with public assistance income, percent, 2011-2015 <sup>iii</sup>	2.8%	3.2%

**Community Health Assessment**

<b>Community Safety</b>		
Premature deaths, average, 2011-2013 <sup>ii</sup>	53	5,154
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	78.7	45.1
Violent crime rate, per 100,000 population, 2010-2012 <sup>iii</sup>	200.4	210.3
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	33	13
Motor vehicle mortality rate, per 100,000 population, 2017 <sup>iii</sup>	25	13
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	10	12.1
<b>Family and Social Support</b>		
Population receiving SNAP benefits, percent, 2014 <sup>iii</sup>	12.2%	12.5%
SNAP-authorized food stores, 2016 <sup>iii</sup>	7	1,101
WIC-authorized food stores, 2011 <sup>iii</sup>	3	237
Children eligible for free/reduced price lunch, percent, 2014-2015 <sup>iii</sup>	63.6%	48.6%
Total head start programs, 2014 <sup>iii</sup>	2	79
Population receiving Medicaid, percent, 2011-2015 <sup>iii</sup>	22.0%	18.4%



## DESCRIPTION OF SHOSHONE

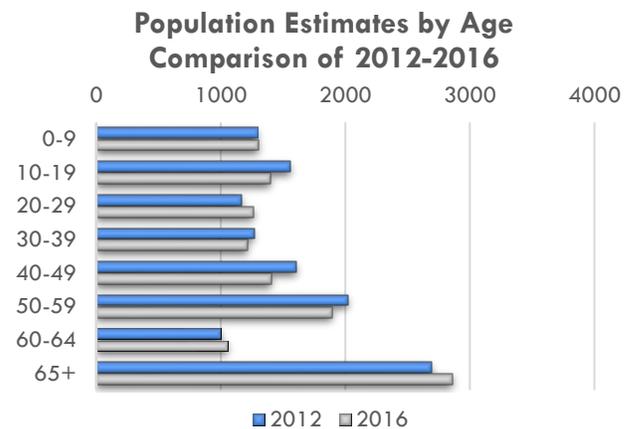
### GEOGRAPHY

Shoshone County is located just south of Bonner County, east of Kootenai and Benewah Counties, and borders Montana. According to U.S. Census data from 2010, Shoshone County has 2,635 square miles, of which, 2,634 square miles is land and 5.5 square miles is water. Shoshone County is commonly referred to as the Silver Valley due to its century-old mining history. The Silver Valley is famous nationwide for the vast amounts of silver, lead, and zinc mined from it.

Shoshone County is between the Coeur d'Alene Mountains and the Bitterroot Range. The Silver Valley region is over 80% forest-owned land managed by state and federal entities. The nationally protected areas of Shoshone County include: Clearwater National Forest, Coeur d'Alene National Forest, St. Joe National Forest.

### DEMOGRAPHICS

According to the 2016 Idaho Commerce data, Shoshone County's population estimate is 12,394. From 2012 to 2016 there has been a -1.67% change in population. The graph to the right provides an overview of the population change by age in Shoshone County.



Source: Commerce (2017)

### HEALTH OUTCOMES

Mortality and morbidity measures are used to describe the health outcomes. Mortality measures the number of deaths and the length of life, whereas, morbidity measures the quality of life such as, injury and illness. Shoshone has one of the highest percentages of obese adults at 31.3% compared to District 1 at 25.3%, and Idaho at 27.8%. Additionally, they also see a high percentage of adults with high blood pressure. 30.4% of the resident of Shoshone have high blood pressure compared to District 1 (26.0%) and Idaho (26.3%).

Community Health Assessment

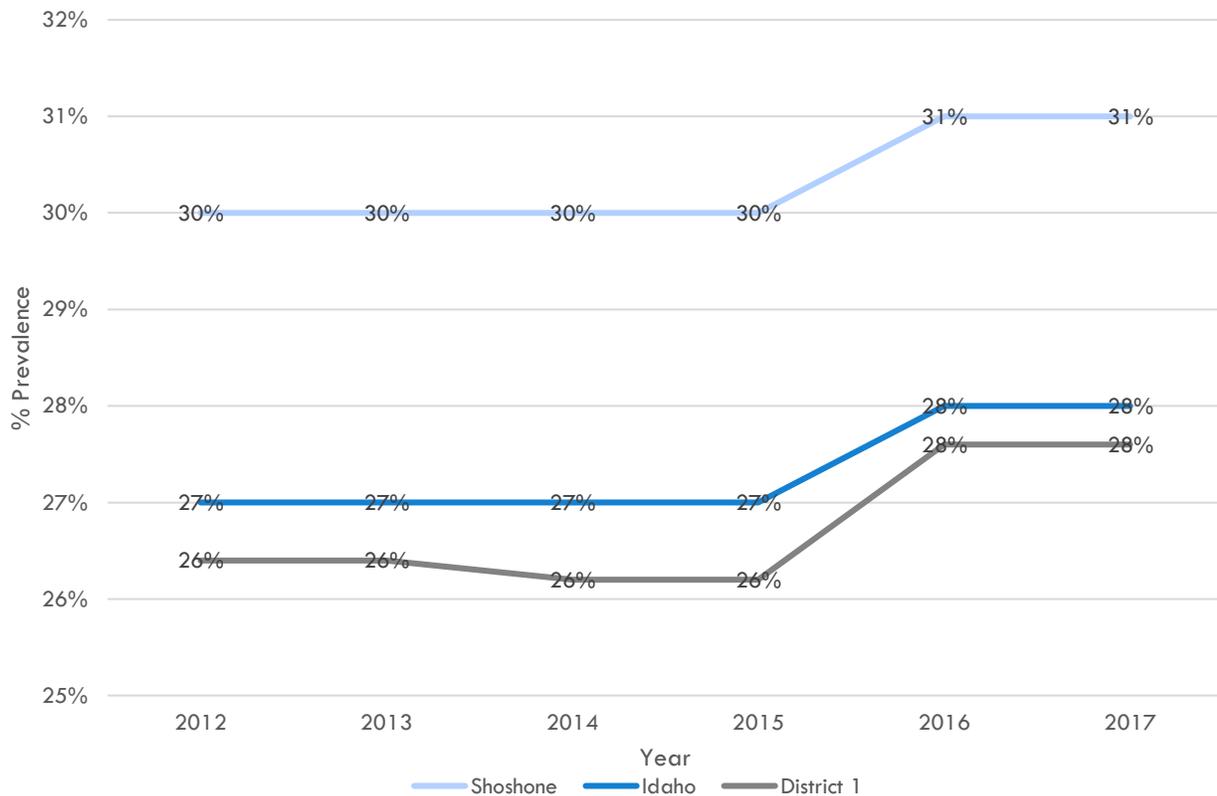
	Shoshone County	Idaho
<b>Mortality</b>		
Total deaths, 2016 <sup>i</sup>	191	13,370
Premature deaths, < 75 years of age, annual average, 2017 <sup>ii</sup>	520	5,154
Infant mortality rate, < 1 year of age, per 1,000 live births, 2014 <sup>iii</sup>	9.3	5.5
Leading cause of death, 2015 <sup>i</sup>	Cancer	Cancer
Cancer mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	346.4	164.8
Heart disease mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	319.5	158.9
Stroke mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	80.7	38.9
Suicide mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	39.5	18.7
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	102.8	45.1
Motor vehicle crash mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	25.3	12.8
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	20.6	12.1
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	32	13
<b>Morbidity</b>		
Adults with poor or fair health, percent, 2017 <sup>ii</sup>	16.0%	14.9%
Poor physical health days per month, average, 2017 <sup>ii</sup>	4.0	3.5
Poor mental health days per month, average, 2017 <sup>ii</sup>	3.6	3.5
Obese adults, BMI > 30.0, percent, 2017 <sup>ii</sup>	31.0%	28.0%
Physically inactive adults, percent, 2017 <sup>ii</sup>	28.0%	20.0%
Adults with diabetes, percent, 2013 <sup>ii</sup>	8.0%	8.7%
Adults with high blood pressure, percent, 2006-2012 <sup>ii</sup>	30.4%	26.3%
Low weight births, percent, 2017 <sup>ii</sup>	7.0%	7.0%
Breast cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	122.8	119.4
Colon and rectum cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	53.2	37.1
Lung cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	97.3	51.1

Prostate cancer incidence rate, per 100,000 population, 2010-2014 <sup>x</sup>	113.3	131.8
Chlamydia infection rate, per 100,000 population, 2017 <sup>xi</sup>	369.4	351.5
Gonorrhea infection rate, per 100,000 population, 2017 <sup>xi</sup>	16.1	31.7
HIV/AIDS prevalence rate, age 13+, per 100,000 population, 2013 <sup>ii</sup>	NA	65.7
Tuberculosis cases reported, 2015 <sup>ii</sup>	0.0	11.0

## HEALTH OUTCOME TRENDS

Obesity was identified as a concern to the public in the 2013 Community Health Assessment. According to the data collected from the County Health Rankings, Shoshone County has been higher than the state and District 1 average for number of obese adults. Over the last 5 years Shoshones numbers have remained relatively stable with only a 1% increase in 2016.

Shoshone County Obesity Trends



HEALTH BEHAVIORS

Health Behaviors such as diet and exercise, alcohol and tobacco use, and immunization and screenings directly impact the community’s health outcomes. Shoshone County’s suicide rate is double the state average and significantly higher than any other county in District 1. According to the 2016 Idaho Vital Statistics the suicide rate per 100,000 population- Shoshone County: 39.5, District 1: 16.1, Idaho: 20.9 (Statistics-Mortality, 2016).

	Shoshone County	Idaho
<b><i>Diet and Exercise</i></b>		
Physically inactive adults, percent, 2017 <sup>ii</sup>	25.9%	19.1%
Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	92.0%	75.0%
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	1	152
Population walking or biking to work, percent, 2011-2015 <sup>iii</sup>	6.1%	4.0%
Population with low food access, percent, 2015 <sup>iii</sup>	14.6%	26.3%
Population with limited access to healthy foods, percent, 2017 <sup>iii</sup>	2.0%	7.0%
Adults with inadequate fruit/vegetable consumption, percent, 2009 <sup>iii</sup>	78.0%	76.6%
<b><i>Alcohol and Tobacco Use</i></b>		
Estimated adults drinking excessively, percent, 2015 <sup>ii</sup>	14.0%	15.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	2	93
Alcohol impaired driving deaths, percent of total driving deaths, 2017 <sup>ii</sup>	56.0%	32.0%
Adults smoking cigarettes, percent, 2006-2012 <sup>ii</sup>	16.0%	14.0%
Smokers with quit attempt in past 12 months, percent, 2011-2012 <sup>ii</sup>	34.5%	55.4%
<b><i>Immunizations and Screenings</i></b>		
School immunization exemption rates, percent, 2014-2015 <sup>v</sup>	6.4%	6.4%
Adults ever receiving pneumonia vaccination, age 65+, percent, 2006-2012 <sup>iii</sup>	64.1%	65.8%
Female Medicare enrollees, age 67-69, 2014 <sup>ii</sup>	172	31,836
Female Medicare enrollees with mammogram in past 2 years, percent, 2014 <sup>iii</sup>	44.2%	68.5%

Adult females with Pap test in past 3 years, percent, 2006-2012 <sup>iii</sup>	72.1%	67.6%
Population ever screened for colon cancer, age 50+, percent, 2006-2012 <sup>iii</sup>	49.9%	59.6%
Adults never screened for HIV/AIDS, percent, 2011-2012 <sup>iii</sup>	68.1%	71.2%
Adults without recent dental exam, percent, 2006-2010 <sup>iii</sup>	37.4%	31.4%

## PHYSICAL ENVIRONMENT

Panhandle Health District examined data on housing, school access, food access, air quality, water quality, and food safety to measure the physical environment’s impact on health Shoshone County has exceptional food security. Only 14.6% of the county reports low food access, while 24.9% of District 1, and 26.3% of Idaho, have low food access. Additionally, a lower percentage of the of population has limited access to healthy foods at 2%, District 1 at 8%, and Idaho at 7%.

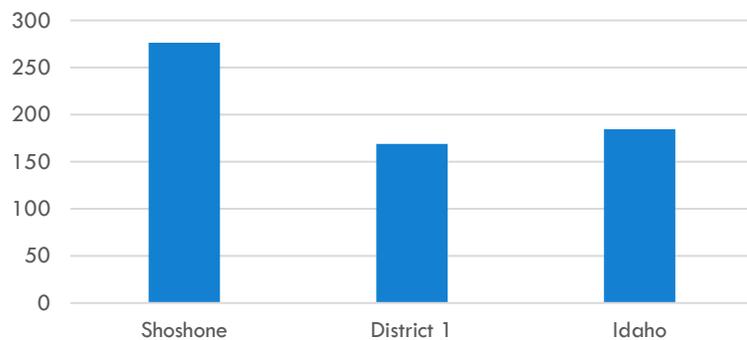


	Shoshone County	Idaho
<b>Housing</b>		
Housing units, 2011-2015 <sup>vi</sup>	6,971	700,825
Owner Occupied housing units, 2011-2015 <sup>iii</sup>	68.70%	69.80%
Vacant housing units, percent, 2011-2015 <sup>iii</sup>	18.3%	13.4%
Persons per household, 2011-2015 <sup>iii</sup>	2.16	2.69
Overcrowded housing units, percent, 2011-2015 <sup>iii</sup>	3.0%	3.1%
Occupied housing units with ≥ 1 substandard conditions, percent, 2011-2015 <sup>iii</sup>	29.8%	31.1%
Housing unit age, median year structures built, 2011-2015 <sup>iii</sup>	1957	1984
HUD-Assisted housing units rate, per 10,000 housing units, 2016 <sup>iii</sup>	276.2	184.6
LIHTC housing units, 2014 <sup>iii</sup>	88	10,515
<b>School</b>		
Public schools, 2017 <sup>xii</sup>	9	736
Public school students, 2017 <sup>xii</sup>	1,721	289,884
High schools, 2017 <sup>xii</sup>	3	180
Middle schools, 2017 <sup>xii</sup>	1	111
Elementary schools, 2017 <sup>xii</sup>	5	347
Private schools, 2017 <sup>xii</sup>	1	113
<b>Food Access</b>		
Food insecurity rate, percent, 2017 <sup>iii</sup>	19.2%	14.7%
Food insecurity rate for children, percent, 2017 <sup>vii</sup>	22.0%	17.6%
Population with low food access, percent, 2015 <sup>iii</sup>	14.6%	26.3%
Low income population with low food access, percent, 2015 <sup>iii</sup>	13.0%	21.8%
Population with limited access to healthy foods, percent, 2017 <sup>ii</sup>	2.0%	7.0%
Food desert population, 2015 <sup>iii</sup>	3,699	664,731
<b>Community Environment</b>		
Recreation and fitness facilities, number of establishments, 2015 <sup>iii</sup>	1	152

Population with access to exercise opportunities, percent, 2017 <sup>iii</sup>	92.0%	75.0%
Liquor, beer, and wine stores, number of establishments, 2015 <sup>iii</sup>	2	93
Population using public transit for commute to work, percent, 2011-2015 <sup>iii</sup>	0.7%	0.8%
Air Quality <sup>viii</sup>	5.87	7.53

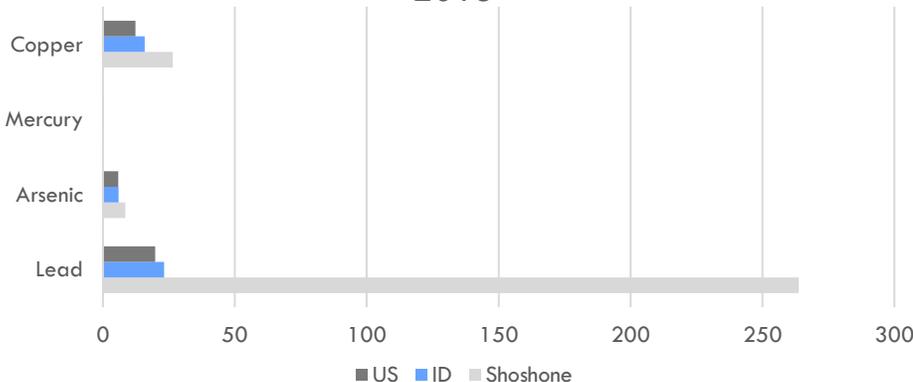
Housing and Urban Development (HUD) is a Federal program developed to secure affordable housing for all Americans. HUD offers help to apartment owners by offering reduced rent to low-income tenants, elderly, and persons with disabilities. Shoshone County (276.2) has a greater number of HUD-assisted housing units than the other counties in the the District, as well as the district average (168.85) and state (184.6) (Commons, 2017).

HUD-Assisted housing units rate, per 10,000 housing units, 2016



Heavy metals are naturally occurring elements with a specific gravity of 5.0 or greater. At times metals are released in the environment due to mining, smelting, manufacturing, and vehicle emissions. Heavy metals can be toxic to humans depending on amount, exposure, and the individual.

Heavy metal in soil and stream sediment in ppm, 2015



Source: Graphiq (2017)

Shoshone County is home to the Bunker Hill Superfund site. The Bunker Hill Superfund site is contaminated with heavy metals as result of a century of mining and milling operations.

The site is located in Idaho’s Panhandle; with the Idaho-Montana state line being the eastern border and extending westward into the state of Washington. It’s the second largest Superfund site in the

United States, with the highest residential population of any Superfund site. It covers over 1,500 square miles, making it one of the most complex sites in the US. The EPA listed the site on the national priorities list in 1983 due to high levels of metals in the environment and elevated blood lead levels seen in local children.

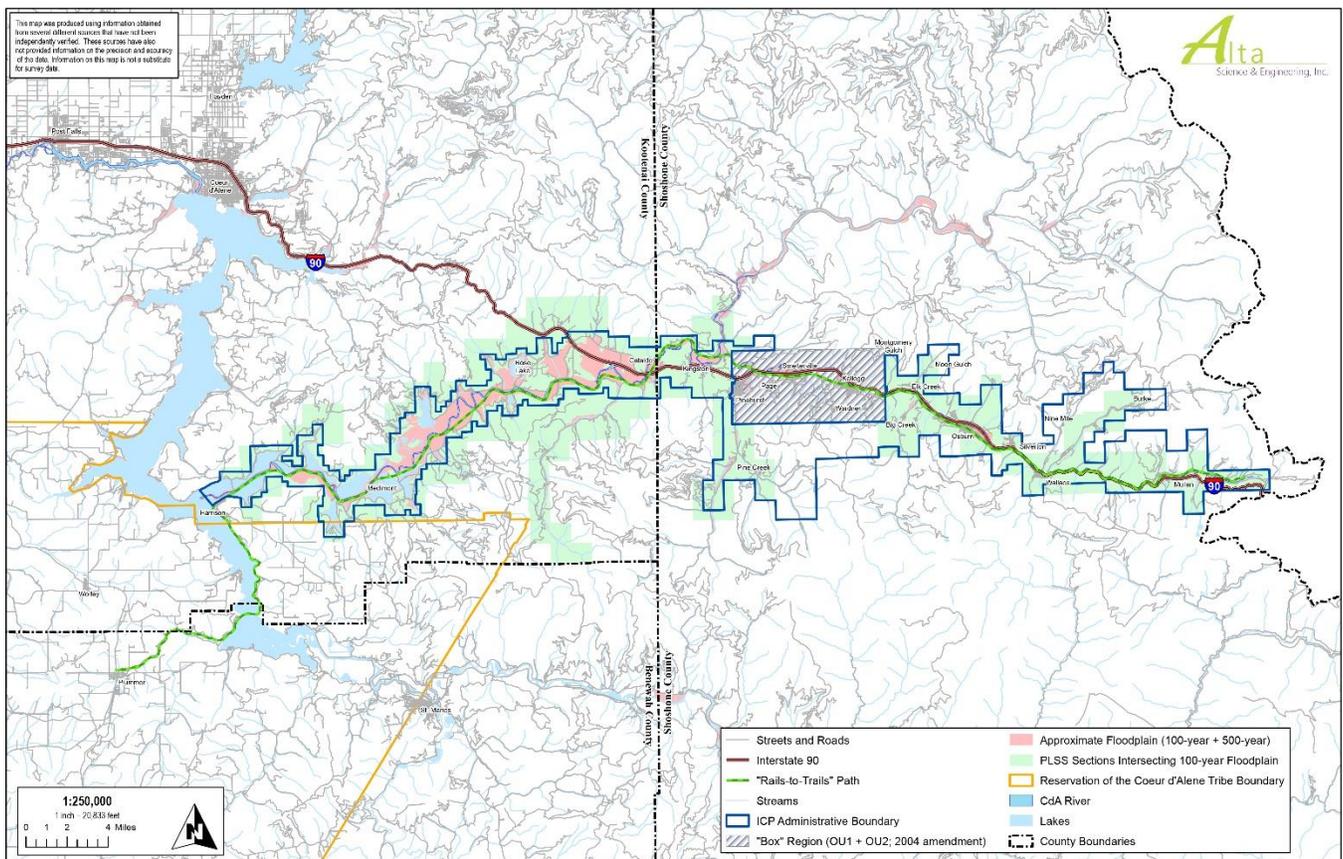
## Community Health Assessment

Due to the extensive contamination throughout the Site, EPA's cleanup remedy cannot remove all of the contamination in the area. Some contamination will remain within the Site and be managed into perpetuity. Complete removal is technically unachievable partly due to the fact that communities and related infrastructure developed on top of mining related waste deposited throughout the Coeur d'Alene River Basin. In order to address the risks to human health, contamination has been partially removed, or covered by protective barriers. Since the Site was listed on the National Priorities List in 1983, EPA and IDEQ have installed protective barriers on over 7,000 residential and commercial properties in the Silver Valley, provided \$54 Million in funding for local jurisdictions to repair or replace roads which serve as barriers to contamination, and completed actions that protect barriers from flooding. These actions prevent exposure to underlying contamination and provide a safe and clean environment in community areas. Long term assurance for protection of these remedies is provided by an Institutional Control Program that is considered a model for other large Superfund Sites.

Contaminated soils can still be encountered throughout the CDA basin outside of the residential communities. Heavy metals can be encountered at historic mine sites, across the floodplain and along the banks of the Coeur d'Alene River and its tributaries. Many of these areas are very popular with recreationalists. Contaminated material tracked home from un-remediated areas can lead to elevated levels in house dust and create an additional exposure source.

For health and safety tips to protect one's self from exposure visit <http://deq.idaho.gov/PlayClean>. To learn more about environmental cleanup activities visit <http://www.basincommission.com/>.

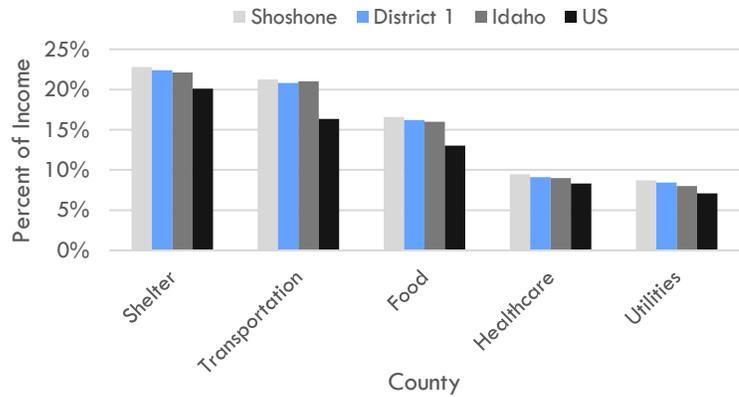
Below is a map of the Institutional Controls Program's administrative area.



**SOCIAL & ECONOMIC FACTORS**

Social and economic factors can lead to excessive stress, difficulty accessing healthcare and poor health outcomes. Panhandle Health District examined education levels, employment, income, community safety, and family and social support. Shoshone County uses a slightly higher percent of their income on shelter, transportation, food, healthcare, and utilities than the District 1, Idaho and the United States.

Shoshone Household Expenses as a Portion of Household Income 2016



Source: (Commerce, 2017)

Shoshone County Income Distribution



Source: (Commerce, 2017)

According to the Idaho Commerce data, Shoshone County's largest percentage of household income falls in the \$10,000-\$20,000 range with 15.97% of the population.

	Shoshone County	Idaho
<b>Education</b>		
Cohort high school graduation rate, 2014-2015 <sup>iii</sup>	88.2%	82.6%
No high school diploma, percent, persons age 25+, 2011-2015 <sup>iii</sup>	13.8%	10.5%
Associate degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	23.8%	35.1%
Bachelor's degree or higher, percent, persons age 25+, 2011-2015 <sup>iii</sup>	14.1%	25.9%

## Community Health Assessment

<b>Employment</b>		
Total employment, percent change, 2014-2015 <sup>ix</sup>	4.2%	3.0%
Unemployment rate, percent, April 2017 <sup>ix</sup>	7.3%	3.4%
Total employer establishments, 2015 <sup>ix</sup>	351	44,757
<b>Income</b>		
Median household income, 2011-2015 <sup>ix</sup>	\$37,665	\$47,583
Per capita income in past 12 months, 2011-2015 <sup>ix</sup>	\$21,254	\$23,399
Persons below poverty level, percent, 2011-2015 <sup>iii</sup>	21.1%	15.1%
Income inequality, Gini index value, 2011-2015 <sup>iii</sup>	0.42	0.44
Households with public assistance income, percent, 2011-2015 <sup>iii</sup>	3.6%	3.2%
<b>Community Safety</b>		
Premature deaths, average, 2011-2013 <sup>iii</sup>	88	5,154
Unintentional injury mortality rate, per 100,000 population, 2010-2014 <sup>iii</sup>	102.82	45.1
Violent crime rate, per 100,000 population, 2010-2012 <sup>iii</sup>	288.8	210.3
Firearm fatalities rate, per 100,000 population, 2017 <sup>ii</sup>	32	13
Motor vehicle mortality rate, per 100,000 population, 2017 <sup>iii</sup>	25.3	13
Drug overdose mortality rate, per 100,000 population, 2017 <sup>iii</sup>	20.6	12.1
<b>Family and Social Support</b>		
Population receiving SNAP benefits, percent, 2014 <sup>iii</sup>	16.9%	12.5%
SNAP-authorized food stores, 2016 <sup>iii</sup>	14	1,101
WIC-authorized food stores, 2011 <sup>iii</sup>	5	237
Children eligible for free/reduced price lunch, percent, 2014-2015 <sup>iii</sup>	52.6%	48.6%
Total head start programs, 2014 <sup>iii</sup>	2	79
Population receiving Medicaid, percent, 2011-2015 <sup>iii</sup>	21.8%	18.4%

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## FORCES OF CHANGE

### OVERVIEW

The Forces of Change assessment is one of four assessments conducted as part of the Mobilizing for Action through Planning and Partnership (MAPP) process. This assessment focuses on identifying the trends, factors, and events that are likely to impact health and quality of life in northern Idaho's counties.

The Forces of Change assessment included one-on-one interviews with identified key community members and stakeholders. During the interviews, each person was asked, "What is occurring or might occur that affects the health of our community or the health system?" and "What specific threats or opportunities are generated by these occurrences?"

Forces of Change may be described as broad, all-encompassing categories that include:

- **Trends:** Patterns over time, such as migration in and out of a community or a growing disillusionment with government.
- **Factors:** Discrete elements, such as a community's large ethnic population, an urban setting, or jurisdictional proximity to a major waterway.
- **Events:** One-time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation.

Categories or forces that were considered were: social, economic, political/legal, environmental, and technological.

A total of three key leaders from each county were selected for interviews. Information collected from interviewees is collated by the county they represent.

Interviews conducted in Boundary County focused on identifying the trends, factors, and events that are likely to impact health and quality of life throughout the community. Participants were encouraged to think about “What is occurring or might occur that affects the health of our community or the health system?” and “What specific threats or opportunities are generated by these occurrences?” To help facilitate the interview, forces were broken down into categories of technical, medical, political, environmental, social, and economic. Most forces impact various categories. Each identified force of change is color coded by category to show the complexity of the force.

**Participating Key Leaders: Mayor of Bonners Ferry, Boundary County Area on Aging, Boundary County Family Coalition**



Technological



Medical



Political



Environmental



Social



Economic

**POPULATION**

In Boundary County there is a steady increase in population that poses several threats, as well as opportunities, across multiple forces of



change including social, economic, political, and medical. Boundary County is seeing an increase in the elderly population. This increase is not only from long-time community members aging, but also retirees from other states moving into the county. In addition to an increase in the elderly population, they are seeing overall population growth and increased enrollment in the school systems. Due to the rural location of Boundary County, a real-estate company promotes Boundary County to survivalists and people from around the country who are a part of the “Redoubt movement.” This increase in “Redoubt movement” participants is shifting the political representatives in Boundary County. Finally, a unique force in Boundary County is the significant traditional Mennonite community. This community is noteworthy for the fact that many do not vote or continue with education beyond 8<sup>th</sup> grade.

**Threats**

- Aging population
- Increased burden on the health care system and the Medicare system
- Change in work force and need to replace retiring employees
- Access issues
- Social isolation for elderly
- Political tension
- Redoubt movement could lead to lack of community
- Increase in drug use, opioid crisis

**Opportunities/Assets**

- Increasing medical services to meet the demand of the aging population
- School system population increase will help build the future Boundary County community
- Growing population can help strengthen the economy
- Kootenai Tribe and reservation
- Increased law enforcement presence

**EMPLOYMENT**

Boundary County's two major industries are timber and agriculture. The economic well-being of these industries is influenced by macro forces such as fluctuating commodity prices, and limits on the number of



timber that can be cut on federal land. Additionally, Boundary County borders Canada, and many small shops and businesses are impacted when the Canadian dollar decreases. 20-50% of sales in Boundary County come from Canada.

**Threats**

- Wages are lower than surrounding counties, making it difficult to find skilled workers
- Spouses of wage earners have a difficult time finding employment
- Underemployment
- Timber industry withdrawn
- Forest fires
- Commodity prices

**Opportunities/Assets**

- Highspeed internet access is anticipated in the future
- High-speed internet will allow spouses to work from home

- Internet shopping, small business closing due to loss of business

## HOUSING

Boundary County's population is increasing. This is leading to an increased demand for affordable and high-quality housing. Many people are building their own homes to meet their need.



### Threats

- Lack of affordable housing
- Limited low-income apartments
- Lack of housing for people with behavioral health needs
- Lack of public shelters

### Opportunities/Assets

- Partnerships with housing organizations

## NATURE

Boundary County is rich in natural resources, which poses both threats and opportunities from multiple forces of change. A large percentage of land is used for farming and producing hops, wheat, etc. There are many absentee land owners in Boundary County who lease the land to farmers. Unique to Boundary County is a large amount of federal forest land that is home to several endangered species, which limits land use.



### Threats

- Forest fires
- Drought
- Kootenai River Dam damaged river flow
- Sturgeon fish have stop reproducing

### Opportunities/Assets

- Increase timber harvest
- Kootenai Tribe has a fish hatchery and restoration project; they are working to rebuild natural pools for sturgeon to spawn
- Jobs

**BONNER COUNTY**

Interviews conducted in Bonner County focused on identifying trends, factors, and events that are likely to impact health and quality of life in the community. Participants were encouraged to think about “What is occurring or might occur that affects the health of our community or the health system?” and “What are specific threats or opportunities are generated by these occurrences?” To help facilitate the interview, forces were broken down into categories of technical, medical, political, environmental, social, and economic. Most forces impact various categories. Each force is color coded by category to show the complexity and impacts of the force.

**Participating Key Leaders: Mayor of Sandpoint, Bonner County Commissioner, Bonner County Coalition for Health**



**Technological**



**Medical**



**Political**



**Environmental**



**Social**



**Economic**

**POPULATION**

In Bonner County, communities are experiencing a steady increase in population that poses several threats,



as well as opportunities, across multiple forces of change; including social, economic, political and medical. There are concerns developing around the decreasing youth population in the county. Several community leaders and members mentioned that younger residents often move away from Bonner County to find higher paying jobs. This has led to many companies in Bonner County having a difficult time filling job opening. Bonner County is unique in the fact that most of the county identifies as Republican, except for the largest city of Sandpoint. This occasionally creates a polarizing political environment at the county level.

**Threats**

**Opportunities/Assets**

- Examine zoning and collaborate with county to improve cost of housing

- Affordable housing; home prices continue to rise, and people are being forced out of their homes due to costs
  - Many retirees are moving in and buying “recreational” homes
  - Reduction of work force due to age distribution
  - Transportation issues
  - Many people commute to Bonner County for work
  - Lack of emergency shelters for women and children
- Comprehensive planning both south and north of the Long Bridge
  - Rising home prices increase the tax base for city improvements
  - Selkirk Pend Oreille Transit (SPOT) bus-expanding services, rebranding, and starting van pools for commuters who live in Kootenai County
  - SPOT serves Bonner and Boundary Counties; elderly can request rides to doctor’s appointments etc.

## HEALTH CARE

Bonner County is served by Bonner General Hospital; a Federally Qualified Health Center, Kaniksu Health Services; and a free health care clinic for the uninsured, Bonner Partners in Care. Bonner General recently expanded and has new facilities and increased services. Sandpoint was recently awarded a High Five Grant which they are using to assess the health of the community and examine the feasibility of a YMCA in the community.



### Threats

- High uninsured and underinsured population; many cannot afford care even on a sliding fee
- High suicide rates
- Medicaid not expanding; high proportion of Bonner County falls in the Medicaid coverage gap leaving many without health insurance
- Lack of diabetes prevention classes and tobacco cessation classes

### Opportunities/Assets

- Bonner Partners in Care
- Kaniksu Health Services clinics
- Interventions at high schools
- Life Flight
- High Five Grant can make infrastructural changes to the community

## NATURE

Bonner County is rich in water resources and is home to lake Pend Oreille, Priest Lake, and many rivers that run through the county. In addition to the water resources,



there is a robust timber industry. This proves to be challenging with the current political climate and energetic environmental activist groups in Sandpoint. The wealth of natural resources creates several challenges and opportunities environmentally, politically, technologically and economically. People from all over the world come to visit and start new companies in Bonner County to enjoy the outdoors.

### Threats

- Law suits against the timber industry; loss of high paying jobs
- Water contamination; oil and coal travel by railroad through the county and threaten the water system
- Increased smoke from forest fires and decreased air quality
- Milfoil in the lake effects swimming and boating and impacts the economy
- Winter storms
- Climate change; Bonner County depends on the ski mountain, Schweitzer, to drive income into the economy
- Aging waste water facility

### Opportunities/Assets

- Lake Pend Oreille Waterkeeper, an independent water quality organization
- Sandpoint has a high park per capita and is named a walking city
- Community support around a new or upgraded water plant

## EMPLOYMENT

Bonner County is home to several large corporations and organizations, such as Tamarack Aerospace Group, Encoder, Kochava and Quest Aircraft, which provide Bonner County residents with some high paying jobs.



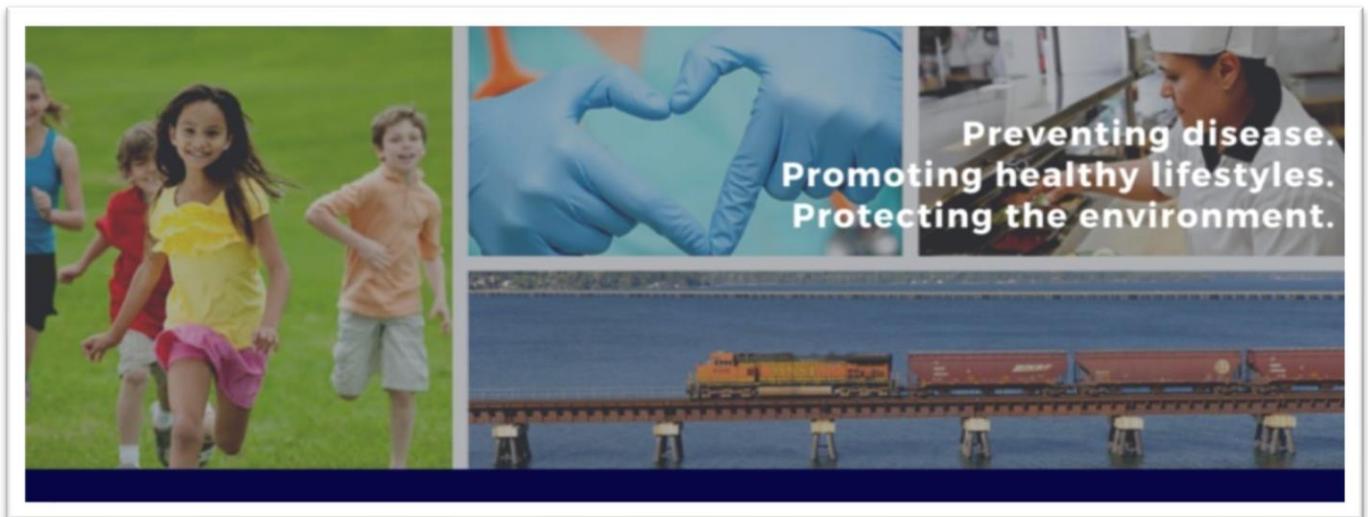
They have recently lost Cold Water Creek and Thorne. Bonner County sees a significant amount of seasonal work with the summer lake and winter ski resort attractions.

**Threats**

- Climate change; seasonal workers could be impacted
- Decrease in tourism
- Lack of qualified job applicants
- Increasing retiree population

**Opportunities/Assets**

- Highway 95 improvement
- Tamarack Aerospace Group, Encoder, Kochava, Quest Aircraft
- Timber industry
- New fiber optics in Bonner County should increase high tech businesses moving in and decrease costs
- Increase in tech jobs; library has a “Fab lab” and is encouraging technological skills



## KOOTENAI

Interviews conducted in Kootenai County focused on identifying the trends, factors, and events that are likely to impact health and quality of life throughout the community. Participants were encouraged to think about “What is occurring or might occur that affects the health of our community or the health system?” and “What specific threats or opportunities are generated by these occurrences?” To help facilitate the interview, forces were broken down into categories of technical, medical, political, environmental, social, and economic. Most forces impact various categories. Each force is color coded by category to show the complexity of the force.

**Participating Key Leaders: Mayor, Kootenai Behavioral Health, Panhandle Health District**



**Technological**



**Medical**



**Political**



**Environmental**



**Social**



**Economic**

## AGING POPULATION

In Kootenai County the aging population poses several threats, as well as opportunities, across multiple forces of change, including social, economic, political and medical. The growing elderly population is not only from long-time community members aging, but also from retirees from other states moving into the county.



**Threats**

**Opportunities/Assets**

- Increased burden on the health care system and the Medicare system
- Change in workforce, and need to replace retiring employees
- Access issues
- Social isolation for elderly

- Increasing medical services to meet the demand of the aging population
- Increase affordable housing for elderly
- Increase in small businesses and entertainment that cater to the elderly
- Develop safety nets for the elderly

## EMPLOYMENT

Kootenai County has recently experienced small business growth. This has bolstered

overall economic growth within Kootenai County. Recently there has been an emphasis on technology jobs and companies with both Jobs Plus, and the new Innovative Collective building established in Coeur d’Alene. Furthermore, there is anticipated growth in the local medical industry with the expansion of Kootenai Health and their Medical Residency program.



### Threats

- Small businesses can’t afford benefits or insurance
- Technology replacing people in the workforce
- Underemployment; people need several jobs to support themselves or family

### Opportunities/ Assets

- Jobs Plus is working to bring in higher paying jobs
- Training for technology jobs
- Innovative Collective could bring in more businesses
- More medical professionals in the area
- Kootenai Health expansion could keep more health care local

## MENTAL HEALTH

All Kootenai County interviewees discussed mental health from various forces that could be, and are, impacting our community.

Issues arise from stigma around mental health that leads to people not seeking treatment and high



suicide rates. In addition to stigma, there is a lack of mental health providers and hospital beds available for those suffering from mental illness.

**Threats**

- People not seeking treatment
- High suicide rates
- Increase in suicidal ideation since 2010
- Politics; Crisis Center being an entitlement program
- Lack of housing
- Homelessness
- Lack of beds at the state mental health hospital
- Idaho is the least funded state for mental health

**Opportunities/ Assets**

- Incorporating PHQ2 or PHQ9 (depression screenings) into primary care office visits
- Patient-Centered Medical Homes
- Advocating for zoning changes to allow for low income housing
- Incorporating mental health education into the Medical Residency program
- Provider education on mental health
- Legislation to increase pay for nursing staff at the state mental health hospital to better serve people and increase the number of beds available
- Idaho State Hospital Association is working to change CPT codes to allow for E.R. reimbursement and adapt the current model
- Kootenai Behavioral Health Initiative group is creating a collective voice for mental health

**HOUSING**

Kootenai County has recorded significant growth in overall population over the last 10 years. This has put a strain on the affordable housing market in Kootenai County. Kootenai County has also seen a significant increase in housing and shelter costs in the last 4 years.



**Threats**

- Rising real estate costs
- Rising cost of rent

**Opportunities/Assets**

- Advocate for additional housing

## Community Health Assessment

- Lack of affordable housing
  - 10-year wait for permanent transitional housing with St. Vincent De Paul
  - Lack of housing for mentally ill
  - Increase in housing could put a strain on the aquifer
- Advocate for zoning changes to allow for more transitional housing

## POPULATION

Kootenai County has seen a steady increase of people moving into the area from out of state interviewees



mentioned a positive trend in residents who are more environmentally friendly, and willing to serve and give to the community. With the increase in population, a negative impact on the community has been the outgrowing of current infrastructures.

### Threats

- Keeping up with the growth infrastructurally
- Keeping up with medical services needed
- Increase in drug use; opioid crisis
- Increase in crime
- Current political instability; elections

### Opportunities/ Assets

- Trend of people becoming more physically active and getting outside
- Increase biking and trail opportunities in the county to support the more active community
- Expanding health care services and primary care
- The Kootenai Environmental Alliance, county, and city partnerships
- Continue to provide education on the importance of keeping the aquifer clean

## HEALTH CARE

Kootenai County is continuing to develop assets within the medical and health care field.



Kootenai Health has lead the effort to increase high quality health care services, bring in new doctors through their residency program, and expand their building. Additionally, there is a growing effort to qualify doctors' offices as patient-centered medical homes that allow people to be active participants in their health care.

**Threats**

- Uncertainty of the Affordable Care Act
- Idaho Medicaid Gap
- Reimbursement issues with Medicaid
- 30% of medical care goes to Spokane
- Cost of electronic medical records system for Kootenai Health
- High immunization exemption
- Increasing sexually transmitted diseases (STDs)

**Opportunities/ Assets**

- Statewide Healthcare Innovation Plan
- Heritage Health a Federally Qualified Health Center (FQHC)
- Kootenai Residency program
- Patient-centered medical homes lead to improved health outcomes
- Improved medical technology and the partnership with the Mayo Clinic
- Kootenai Health changing electronic medical record system for all offices, increasing communication and streamlining care

**NATURE**

Kootenai County is rich in it natural resources. It provides residents with an abundance of outdoor and recreational opportunities. Kootenai County's natural resources help drive the economy with tourism, logging, and others. However, weather, fires, and population increase poses several threats.



**Threats**

- Forest fires which threaten homes
- Poor air quality caused by forest fires

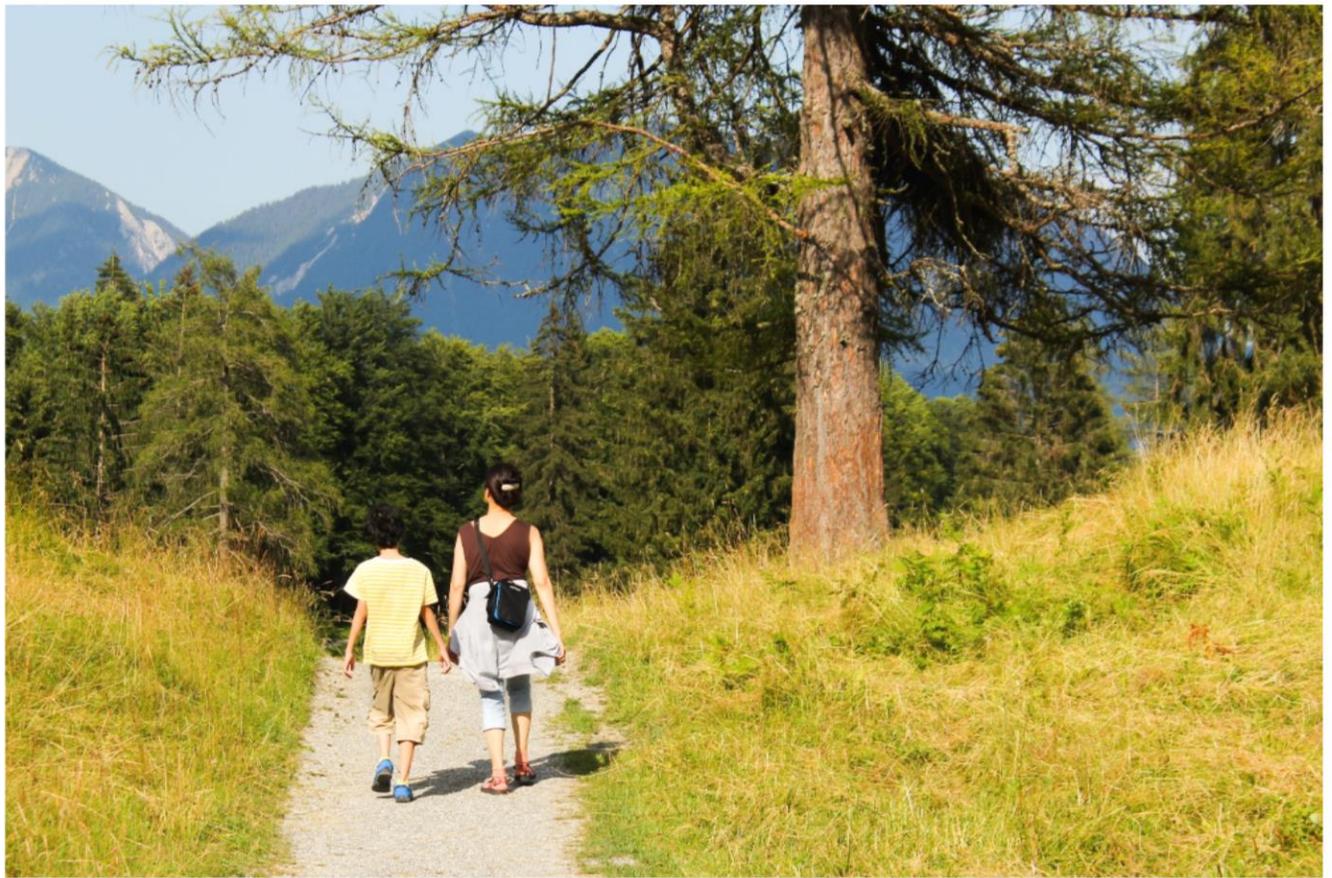
**Opportunities/ Assets**

- Cross-state collaboration for developing fire mitigation plans

## Community Health Assessment

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- Small businesses impacted by poor air quality
  - Winter weather increases social isolation
  - Aquifer is the water resource for North Idaho; risk of contamination
- Continue to protect and provide education on aquifer protection



**BENEWAH**

Interviews conducted in Benewah County focused on identifying the trends, factors, and events that are likely to impact health and quality of life throughout the community. Participants were encouraged to think about “What is occurring or might occur that affects the health of our community or the health system?” and “What specific threats or opportunities are generated by these occurrences?” To help facilitate the interview, forces were broken down into categories of technical, medical, political, environmental, social and economic. Most forces impact various categories. Each force is color coded by category to show the complexity of the force.

**Participating Key Leaders:** Benewah Medical Center, St. Maries Gazette, Panhandle Health District



**Technological**



**Medical**



**Political**



**Environmental**



**Social**



**Economic**

**POPULATION**

Benewah County is divided between the two main cities, St. Maries and Plummer, which have two different populations and cultures. St. Maries is experiencing stagnant growth in the community. Many residents have lived and worked in St. Maries for most of their life and are nearing retirement. However, due to limited housing, the population is not increasing, and there are not enough new residents to replace retirees. Conversely, Plummer is one of the few places in the county experiencing growth in their younger population. Plummer and the surrounding area is home to the Coeur d’Alene Tribe and Reservation. Across Benewah County there are many people who want to live “off the grid”.



### Threats

- Increasing aging population in St. Maries area; unable to fill jobs of those who are retiring; school system is shrinking
- Plummer’s younger population; lack of institutional knowledge about tribal culture
- Resistance to change within the community

### Opportunities/ Assets

- Recruit new residents to St. Maries
- Create more housing opportunities to bring people into the county

## MEDICAL

Benewah County has two major assets in medical care. They have Marimn Health and Wellness Center that is a Federally Qualified Health Center (FQHC) and Benewah Community Hospital. Marimn Health and Wellness Center is a patient-centered medical home dedicated to a strong continuum of care. With many strengths in medical care, there is a lack of an OB-GYN providers in Benewah County. Many women travel to Kootenai County to receive prenatal care.



### Threats

- Lack of OB-GYN in the county could lead to poor health outcomes for babies; women not receiving prenatal care; pregnant women absent from work to travel to medical appointments, etc.
- New CEO at Benewah Community Hospital could lead to staff turnover and uncertainty of changes and finance

### Opportunities/ Assets

- Marimn Health is an FQHC
- Marimn Health is a patient-centered medical home
- Marimn Health treats both tribal and non-tribal members
- Marimn Health is a tribal medical center which opens the community to many grant opportunities
- Benewah Community hospital will be getting a new electronic medical records system

- Increase in the opioid epidemic; seeing a trend of babies born addicted to drugs
- Increase in teens using tobacco products
- Due to proximity to Washington, there is an increase in marijuana use
- The new superintendent is enforcing vaccine policies in St. Maries School District

## HOUSING

In Benewah County, both in St. Maries, Plummer, and surrounding areas, there is a lack of quality, affordable housing. The lack of



housing in St. Maries is driving up the cost of homes and making it difficult for young families to move into the area. In Plummer there is a moratorium on new buildings. In both cities you see many employees living outside the county and commuting to work. Finally, the reservation is a checkerboard reservation, which means there are a mix of tribal and non-tribal members living on the reservation.

### Threats

- Lack of quality homes
- Lack of quality affordable homes; cost of homes is higher than income
- Moratorium on new buildings
- People not motivated to move into the county
- Checker board reservation; discordance with some state and tribal laws
- Lack of enforcement of septic system permits when building

### Opportunities/ Assets

- Checker board reservation

## NATURE & PHYSICAL SURROUNDING

Benewah County is well known for its rural setting. Much of the land in Benewah County is privately owned which allows for one of its major industries, logging. The rural setting poses many opportunities, as well as threats. People in Benewah County enjoy nature and the peacefulness of the county and many choose to live “off the grid”.



### Threats

- Overlogging of resources
- Mismanaged lands could increase wild fires
- Adjudication of water rights
- People being “off the grid” feeling safe to use drugs

### Opportunities/ Assets

- Provide a livelihood for many people who live in Benewah
- Increased access to the lake for the tribe could help improve wellness and get back to cultural wellness

## SHOSHONE

Interviews conducted in Shoshone County focused on identifying trends, factors, and events that are likely to impact health and quality of life in throughout the community. Participants were encouraged to think about “What is occurring or might occur that affects the health of our community or the health system?” and “What specific threats or opportunities that are generated by these occurrences?” To help facilitate the interview, forces were broken down into categories of technical, medical, political, environmental, social and economic. Most forces impact various categories. Each force is color coded by category to show the complexity of the force.

**Participating Key Leaders:** Silver Valley Chamber of Commerce, Shoshone Medical Center, Panhandle Health District Environmental



**Technological**



**Medical**



**Political**



**Environmental**



**Social**



**Economic**

## POPULATION

Shoshone County has seen a decrease in population over the last few years, posing several threats and opportunities socially, economically, and technologically. Shoshone has historically been a mining community with a “work hard, play hard” mentality. However, due to the cyclical work of mining, during times when the mine shuts down or people are on strike, there is some fluidity to the community. When miners are out of work, there is a decrease in people recreating and spending money, which leads to a lower overall socioeconomic status.



### Threats

- Lack of resources for mental health
- High suicide rates
- Aging population; increasing medical costs and fixed incomes
- Volunteer shortage
- Poor health outcomes for community members
- Influx of people buying homes pushes locals out

### Opportunities/ Assets

- People moving into Shoshone bring in new perspectives
- Farm to Table movement and a new farmers' market that takes EBT cards
- Influx of people buying homes in the Silver Valley which increase the tax base

## EMPLOYMENT

Mining has been the primary industry for several decades in Shoshone County. The cyclical nature of mining



employment creates economic surges and depressions within the Silver Valley. During times when the mine shuts down, or employees are on strike, there is a significant decrease in people recreating and spending money which leads to a lower socioeconomic status overall. However, there has been an increase in eco-tourism in the Silver Valley, which is breathing new life back into the community.

### Threats

- Mines shutting down or workers going on strike; puts 260 people out of work
- Weak economy; decrease in tourism
- Gas prices increasing
- Workforce development issues; finding qualified workforce

### Opportunities/ Assets

- Sale of Silver Mountain; expanding services and tourism to the area
- Increase in eco-tourism
- Wallace festivals
- Rails to Trails
- Provide classes for people applying for jobs; resume development; etc.

- Growth potential drawing in new businesses
- Increase in construction jobs due to new homes being built

## NATURE & PHYSICAL SURROUNDING

Shoshone County is home to the largest Superfund site in the United States, which brings many challenges and opportunities for improvement. The remediation that has happened in the Silver Valley has been used as a model around the world, but the environmental impact presents several threats. Elevated lead levels still pose a threat to the community. Education related to lead exposure and prevention is important to maintain a healthy community.



### Threats

- Superfund site; perceived high blood lead levels
- 100-year flood breakpoint through Kellogg; barriers which protect Superfund site would be compromised
- End of yard remediation program in two years; loss of jobs
- Closing of the road paving project; loss of jobs; will have to rely on tax payer dollars to upgrade and fix roads

### Opportunities/ Assets

- Recovery of the flora and fauna
- Flood management group
- Brush cleanup and fire reduction
- Lots of outdoor recreation activities; hunting, hiking, mountain biking, etc.
- Trail of the Coeur d' Alene
- With the ending of the yard remediation, they will be moving to the Coeur d'Alene Basin clean up
- Upgrade central water treatment plant; see a reduction in heavy metals in the south fork by 40%

## LOCAL PUBLIC HEALTH ASSESSMENT

### BACKGROUND

The Local Public Health Assessment uses a survey tool from the National Public Health Performance Standards (NPHPS) program. The NPHPS helps the local public health system answer the questions:

- What are the activities, competencies, and capacities of the local public health system?
- How are the 10 essential Public Health Services being provided to the community?

The LPHS Assessment was completed by community leaders and partnering organizations in all five counties in Northern Idaho. This is a perception-based tool for leaders and community partners to evaluate the strengths, weaknesses and opportunities in their county. Each of the 10 Essential Services have 2 to 5 model standards which were scored based on the consensus to the group.

#### 10 Essential Public Health Services

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and actions to identify and solve health problems
5. Develop policies and plans that support individual and community efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and ensure the provision of health care when otherwise unavailable
8. Assure competent public and personal healthcare workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovate solutions to health problems

## SCORING

<b>Optimal Activity (76-100%)</b>	<b>Greater than 75% of the activity described within the question is met.</b>
<b>Significant Activity (51-75%)</b>	<b>Greater than 50% but not more than 75% of the activity described within the question is met.</b>
<b>Moderate Activity (26-50%)</b>	<b>Greater than 25% but not more than 50% of the activity described within the question is met.</b>
<b>Minimal Activity (1-25%)</b>	<b>Greater than zero but no more than 25% of the activity described within the question is met.</b>
<b>No Activity (0%)</b>	<b>Zero or absolutely no activity.</b>

This document provides a summary and an average score for the 10 Essential Services. For a complete breakdown of model standard scores please see ( Appendix C).

## THEMES & KEY FINDINGS

Each county had diverse representation during the Local Public Health System Assessment. The scores are based on the perceptions of those organizations and people who participated in the half-day assessment. Although each county has unique strengths and challenges, themes emerged in all counties. One of the most common statements reiterated in each county is there is a lot offered in each essential service, but there is lack of knowledge on who is doing it, how to access it, and coordination of efforts to accomplish the goal.

### Strengths

- Utilizing coalitions, partnerships, and directories to educate the public on health topics
- Strong efforts to reduce childhood obesity by seeking additional grants and addressing barriers
- Multitude of health fairs and health education opportunities
- Community collaboration meetings
- Syndromic surveillance at hospitals

### Weaknesses

- Lack of transportation for patients to health care appointments
- Siloed efforts in making an impact on health
- Communication challenges
- Funding
- EMR systems not being utilized to their full capacities and not communicating effectively
- Lack of funding and support for additional training and professional development
- Communication between organizations is limited and often delayed

**BOUNDARY**

Boundary County's optimal performance was perceived within several areas of the essential service of diagnose and investigate health problems and health hazards. This service includes surveillance, emergency response, and laboratories. Additionally, Boundary County scored well in emergency planning, enforcement of laws, policy development, and health education and promotion. The biggest area of opportunity identified was community profile, current technology, and community health improvement/strategic planning.

**Participants included:** Mayor of Bonners Ferry, Boundary County Emergency Manager/Boundary County Information Officer, University of Idaho Extension office/Coalition of Families, Boundary County Ambulance, and Panhandle Health District.

Essential Public Health Service	Score
1. Monitor health status to identify community health problems	40.3%
2. Diagnose and investigate health problem and health hazards in the community	83.2%
3. Inform, educate, and empower people about health issues	74.7%
4. Mobilize community partnerships to identify and solve health problems	87.5%
5. Develop policies and plans that support individual and community health efforts	69.0%
6. Enforce laws and regulations that protect health and ensure safety	70%
7. Link people to needed personal health services and assure the provisions of health care when otherwise unavailable	46.8%
8. Assure a competent public health and personal health care workforce	59.4%
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services	59.8%
10. Research for new insights and innovative solutions to health problems.	40.4%

## BONNER

Bonner County had several areas where participants felt their local public health system was operating and collaborating at optimal levels. Bonner County felt that their emergency response, laboratory capabilities, policy development, and emergency planning were running at optimal levels. There were several areas that had minimal activity including current technology and community health improvement/strategic planning.

**Participants include:** Panhandle Health District (clinical, Epi, WIC, Environmental), representatives from the Bonner County Coalition for Health, Sandpoint Community Resource Center, and Bonner General Hospital.

Essential Public Health Service	Score
1. Monitor health status to identify community health problems	40.3%
2. Diagnose and investigate health problem and health hazards in the community	82.6%
3. Inform, educate, and empower people about health issues	43.5%
4. Mobilize community partnerships to identify and solve health problems	56.2%
5. Develop policies and plans that support individual and community health efforts	70.8%
6. Enforce laws and regulations that protect health and ensure safety	68.4%
7. Link people to needed personal health services and assure the provisions of health care when otherwise unavailable	46.9%
8. Assure a competent public health and personal health care workforce	48.6%
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services	60.6%
10. Research for new insights and innovative solutions to health problems	34.9%

KOOTENAI

Although Kootenai County did not have an overall score of optimal for any one essential service, they did score themselves as optimal in policy development, emergency planning, and enforcement of laws. There were several areas that had minimal activity including community profile, current technology, and community health and improvement plan/strategic planning.

**Participants included:** Heritage Health, Kootenai Health, Northwest Hospital Alliance, United Way, Panhandle Health District, Department of Health and Welfare, Region 1 Behavioral Health Board, and North Idaho Pride Alliance.

Essential Public Health Service	Score
1. Monitor health status to identify community health problems	40.3%
2. Diagnose and investigate health problem and health hazards in the community	68.5%
3. Inform, educate, and empower people about health issues	55.5%
4. Mobilize community partnerships to identify and solve health problems	55.2%
5. Develop policies and plans that support individual and community health efforts	70.8%
6. Enforce laws and regulations that protect health and ensure safety	68.6%
7. Link people to needed personal health services and assure the provisions of health care when otherwise unavailable	50%
8. Assure a competent public health and personal health care workforce	55.7%
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services	43.3%
10. Research for new insights and innovative solutions to health problems.	40.6%

## SHOSHONE

Although Shoshone did not receive optimal for any total score for essential services, they did score themselves as optimal for laboratories and law enforcement. There were several areas with minimal activity such as community profile, current technology, policy development, and community health improvement plan/strategic planning.

**Participants include:** Department of Environmental Quality, Environmental Protection Agency, Panhandle Health District (epidemiology, environmental, health promotion) Heritage Health (Behavioral Health), and Shoshone Medical Center.

Essential Public Health Service	Score
1. Monitor health status to identify community health problems	40.3%
2. Diagnose and investigate health problem and health hazards in the community	75.1%
3. Inform, educate, and empower people about health issues	49.9%
4. Mobilize community partnerships to identify and solve health problems	50%
5. Develop policies and plans that support individual and community health efforts	49.9%
6. Enforce laws and regulations that protect health and ensure safety	67.9%
7. Link people to needed personal health services and assure the provisions of health care when otherwise unavailable	59.4%
8. Assure a competent public health and personal health care workforce	59.8%
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services	51.5%
10. Research for new insights and innovative solutions to health problems	61.3%

**BENEWAH**

Although Benewah did not receive optimal for any total score for essential services, they did score themselves as optimal in laboratories, policy development, emergency planning, reviewing laws, and law enforcement. There were a couple areas with minimal activity such as community profile and current technology.

**Participants include:** Panhandle Health District (Epidemiologist, Public Health Preparedness, Health Promotion), Benewah Medical Center, Coeur d’Alene Tribe, Benewah Community Hospital Board Member, St Maries Volunteer Community Clinic.

Essential Public Health Service	Score
1. Monitor health status to identify community health problems	40.3%
2. Diagnose and investigate health problem and health hazards in the community	71.2%
3. Inform, educate, and empower people about health issues	52.6%
4. Mobilize community partnerships to identify and solve health problems	53.1%
5. Develop policies and plans that support individual and community health efforts	74.9%
6. Enforce laws and regulations that protect health and ensure safety	74.3%
7. Link people to needed personal health services and assure the provisions of health care when otherwise unavailable	46.9%
8. Assure a competent public health and personal health care workforce	61.3%
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services	57.8%
10. Research for new insights and innovative solutions to health problems	50.1%

## SUMMARY

Panhandle Health District is full of many assets; from the people, the nature and the drive of community partners to work together to address health issues like they have with this Community Health Assessment. The results of this report and key findings, will be used to develop a Community Health Improvement Plan, which will identify clear strategies on how and who can affect the health issues we have now identified. A group of stakeholders and community members will develop and drive a strategic plan to improve health in North Idaho.



APPENDIX A

RAW SECONDARY DATA:

[HTTP://PANHANDLEHEALTHDISTRICT.ORG/COMMUNITY-HEALTH/COMMUNITY-HEALTH-ASSESSMENT-AND-PLAN#CHA](http://panhandlehealthdistrict.org/community-health/community-health-assessment-and-plan#cha)

APPENDIX B

COMMUNITY HEALTH NEEDS ASSESSMENT SURVEY QUESTIONS

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Healthy Communities:

1. How would you rate your county as a “Healthy community”?

Very Unhealthy                       Healthy  
 Unhealthy                               Very Healthy  
 Somewhat Healthy

2. In your opinion, what do you think are the **THREE** most important health problems in your county? (Those problems which have the greatest impact on overall community health.)

<input type="checkbox"/> Aging population	<input type="checkbox"/> Infectious disease (i.e. hepatitis, TB)
<input type="checkbox"/> Alcohol abuse	<input type="checkbox"/> Mental health problems
<input type="checkbox"/> Cancer	<input type="checkbox"/> Motor vehicle crash injuries
<input type="checkbox"/> Child abuse/neglect	<input type="checkbox"/> Rape/sexual assault
<input type="checkbox"/> Dental problems	<input type="checkbox"/> Respiratory/lung disease
<input type="checkbox"/> Diabetes	<input type="checkbox"/> Sexually transmitted disease
<input type="checkbox"/> Domestic violence	<input type="checkbox"/> Suicide
<input type="checkbox"/> Fire-arm related injuries	<input type="checkbox"/> Teenage pregnancy
<input type="checkbox"/> Heart disease and stroke	<input type="checkbox"/> Infant death
<input type="checkbox"/> High blood pressure	
<input type="checkbox"/> HIV/AIDS	
<input type="checkbox"/> Homicide	<input type="checkbox"/> Other: _____

3. From the list below, what do you think are the **THREE** behaviors that have the greatest impact on overall health of people in your county?

- |   |  |
|---|--|
| <input type="checkbox"/> Alcohol abuse  | <input type="checkbox"/> Racism                                  |
| <input type="checkbox"/> Overeating   | <input type="checkbox"/> Tobacco use                             |
| <input type="checkbox"/> Dropping out of school                                       | <input type="checkbox"/> Not using birth control                 |
| <input type="checkbox"/> Drug abuse   | <input type="checkbox"/> Not using seat belts/child safety seats |
| <input type="checkbox"/> Not exercising   | <input type="checkbox"/> Unsafe sex                              |
| <input type="checkbox"/> Eating unhealthy foods                                       | <input type="checkbox"/> Other: _____                            |
| <input type="checkbox"/> Not getting “immunizations”<br>or “shots” to prevent disease |  |

4. How satisfied are you with the neighborhood or community where you live?

- |   |  |
|---|--|
| <input type="checkbox"/> Very satisfied     | <input type="checkbox"/> Somewhat dissatisfied |
| <input type="checkbox"/> Somewhat satisfied | <input type="checkbox"/> Very dissatisfied     |

**Health Status (personal health):**

1. Would you say that your general health is...

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Fair                |
| <input type="checkbox"/> Very Good | <input type="checkbox"/> Poor                |
| <input type="checkbox"/> Good      | <input type="checkbox"/> Don't know/not sure |

2. Please select the top three health challenges you face.

- |   |  |
|---|--|
| <input type="checkbox"/> Cancer             | <input type="checkbox"/> High blood pressure     |
| <input type="checkbox"/> Diabetes           | <input type="checkbox"/> Stroke                  |
| <input type="checkbox"/> Overweight/obesity | <input type="checkbox"/> Heart disease           |
| <input type="checkbox"/> Lung disease       | <input type="checkbox"/> Joint pain or back pain |

- Mental health issues
- I do not have any challenges
- Alcohol abuse
- Other: \_\_\_\_\_
- Drug Addiction

3. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

- Number of days (1-30)
- None
- Don't know/not sure

4. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

- Number of days (1-30)
- None
- Don't know/not sure

5. In the past 12 months, what has been the biggest source of stress in your life?

6. How often in the past 12 months did you have to cut meal size or skipped meals because there wasn't enough money for food?

- Once a week
- Once a year
- Once a month
- Never
- A few times a year
- Other: \_\_\_\_\_

7. How many of your permanent teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics.

None  All  
 1-5  Don't know/not sure  
 6 or more

8. How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontists.

Less than 12 months  5 or more years  
 1-2 years  Don't know/not sure  
 2-5 years

**Access to Care:**

1. Do you have any kind of healthcare coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?

Yes  
 No  
 Don't know/not sure  
 Refused

2. In the last 12 months, did you receive counseling or treatment for mental health concerns?

Yes  
 No  
 Don't know/not sure

3. If you felt you needed treatment or counseling but did not receive any, why not?

I could not afford the cost  
 I was concerned that getting mental health treatment or counseling might cause my neighbors, or community to have a negative opinion of me  
 I was concerned that getting mental health treatment or counseling might have a negative effect on my job  
 My health insurance does not cover any mental health treatment or counseling

- My health insurance does not pay enough for mental health treatment or counseling
- I did not know where to go to get services
- I was concerned that the information I gave my counselor might not be kept confidential
- I was concerned that I might be admitted to a psychiatric hospital or might have to take medicine
- Some other reason or reasons: \_\_\_\_\_
- I did not need treatment

4. If there was a time in the past 12 months when you needed to see a doctor but could not, why not? (mark all that apply)

- Did not need to see the doctor
- I could not afford the cost
- Lack of time
- No doc appts available
- Lack of transportation
- Did not know where to seek care
- Lack of employer flexibility
- Don't know/not sure

5. Of the following support services, which one do YOU most need, that you are not currently getting?

- Classes about giving care, such as giving medications
- Help in getting access to services
- Support groups
- Individual counseling to help cope with giving care
- Respite care
- You don't need any of these support service

**Diet & Exercise:**

1. During the past month, have you participated in any physical activities or exercise such as running, biking, calisthenics, gardening, or walking for exercise?

- Yes
- No
- Don't know/not sure

2. In the past seven days, how many days did you exercise for at least 30 minutes or more?

- 6-7 days
- 4-5 days
- 1-3 days
- None

3. Do you currently use tobacco products, such as chewing tobacco, cigarettes, snuff, or snus, every day, some days, or not at all?

- Every day
- Some days
- Not at all
- Don't know/not sure

4. Do you currently use e-cigarettes or other electronic "vaping" products...

- Every day
- Some days
- Not at all
- Don't know/not sure

5. During the past 30 days, how many days did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor?

- Number of days (1-30)
- None
- Don't know/not sure

6. In the past 12 months, how often did alcohol use, by you or another member of your household, cause stress, conflict, or anxiety for you?

- Once a week
- Once a month
- A few times a year
- Once a year
- Never

7. During the past month, not counting juice, how many times per day, week, or month did you eat fruit? Count fresh, frozen or canned fruit

\_\_\_\_ Times per day

\_\_\_\_ Times per week

\_\_\_\_ Time Per month

\_\_\_\_ I don't know

\_\_\_\_ I don't eat fruit

8. If you do not eat fruit, please explain why.

9. During the past month, how many times per day, week, or month did you eat dark green vegetables for example broccoli or dark leafy greens including romaine, chard, collard greens or spinach?

\_\_\_\_ Times per day

\_\_\_\_ Times per week

\_\_\_\_ Times per month

\_\_\_\_ I don't know

\_\_\_\_ I don't eat vegetables

10. If you do not eat dark greens, please explain why.

11. During the past month, how many times per day, week, or month did you eat orange colored vegetables such as sweet potatoes, pumpkin, winter squash, or carrots?

\_\_\_\_ Times per day

\_\_\_\_ Times per week

\_\_\_\_ Time Per month

\_\_\_\_ I don't know

\_\_\_\_ I don't eat fruit

12. If you do not eat orange colored vegetable, please explain why.

**Preparedness:**

1. Do you have enough non-perishable food, water, medical supplies and other supplies (e.g., flashlights, radio, batteries, etc...) at your home to stay in place during an emergency or disaster for up to 3 days?

\_\_\_ Yes

\_\_\_ No

\_\_\_ I don't know

2. Do you have an emergency or disaster plan\* for you and your family? *\*(What actions you would take including how you would communicate with family or friends during an emergency, such as a fire or weather event, e.g., snow storm, tornado or flooding.)*

\_\_\_ Yes

\_\_\_ No

\_\_\_ I don't know

**Demographics:**

1. What is your home zip code? \_\_\_\_\_

2. Indicate your gender.

\_\_ Male

\_\_ Female

3. Select the category that includes your age.

\_\_ Under 18

\_\_ 45-54

\_\_ 18-24

\_\_ 55-64

\_\_ 25-34

\_\_ 65 or above

\_\_ 35-44

4. Indicate your race/ethnicity.

\_\_ Asian or Pacific Islander

\_\_ Black/African American

\_\_ Hispanic/Latino

\_\_ American Indian/Native American

\_\_ White/Caucasian

\_\_ Other: \_\_\_\_\_

5. What is your highest level of education?

\_\_ K-8<sup>th</sup> grade

\_\_ Associate's degree

\_\_ Some high school

\_\_ Bachelor's degree

\_\_ Technical school

\_\_ Graduate school

\_\_ Some college

\_\_ Other: \_\_\_\_\_

6. In 2016, what was your annual household income from all sources?

\_\_ Less than \$10,000

\_\_ \$75,000 to under \$100,000

\_\_ \$10,000 to under \$25,000

\_\_ \$100,000 or more

\_\_ \$25,000 to under \$50,000

\_\_ Prefer not to say

\_\_ \$50,000 to under \$75,00

7. What is your marital status?

\_\_ Married

\_\_ Separated

\_\_ Living together, unmarried

\_\_ Widowed

\_\_ Divorced

\_\_ Never been married

8. How many children live in your household? If none, write 0.

\_\_ Children

APPENDIX C

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

[HTTP://PANHANDLEHEALTHDISTRICT.ORG/COMMUNITY-HEALTH/COMMUNITY-HEALTH-ASSESSMENT-AND-PLAN#CHA](http://panhandlehealthdistrict.org/community-health/community-health-assessment-and-plan#cha)

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