

PLUMAS COUNTY COMMUNITY HEALTH ASSESSMENT

Results & Analysis

Last Updated: 04/15/2025

Published
October 30, 2020

Updates to Plumas County's 2020 Community Health Assessment

04/15/2025: Updated Page 8 to add in Languages Spoken, and subsequently added to the Table of Contents and Works Cited pages.

Executive Summary

The Plumas County Community Health Assessment (CHA) is the result of collaborative partnerships between the Plumas County Health Services Agency and many partnering agencies and community members. Beginning in the Fall of 2018, quantitative secondary data was collected from an array of well-established sources such as the California Department of Public Health (CDPH), Centers for Disease Control and Prevention (CDC), California Department of Finance, Office of Statewide Health Planning and Development (OSHPD), and many others. Qualitative data was also attained with specific outreach to under-represented, other hard to reach subpopulations, with focus groups conducted in the Spring, and Summer of 2019; and through key informant interviews conducted with representatives of health care and community based organizations operating in the County.

The result of these assessment methods were reviewed for their degree of commonality. Secondary health metric data was aligned with qualitative focus group and key informant interview data, such that those health factors with the greatest alignment became evident. The health priority areas most substantially affecting the communities' health that emerged through this process are:

- I. Transportation
- II. Specialty Care
- III. Resource Identification, Access, and Navigation
- IV. Activities that Promote Social Connections

The report presented here addresses the overall health assessment proceedings across a broad range of socioeconomic and health metrics. The findings presented lay the groundwork for the development of a Community Health Improvement Plan (CHIP) that will seek to identify and implement strategies and activities to improve community health across the key health priority areas identified through the CHA process.

Of note, the most significant global pandemic to occur in the modern era, COVID-19, interrupted these collaborative CHA efforts in the winter of 2019 /2020 and is ongoing; which has dramatically affected the globe, Nation, state, and Plumas County across a myriad of socioeconomic factors, health care delivery system factors, and community health determinants. The full impact of this unprecedented pandemic on the community's health will not be evident for some time, and the results of the current assessment cannot address them adequately. Plumas County Public Health Agency anticipates an addendum that may begin to address the impact of COVID-19 on the community's health will be pursued in subsequent years, before our agency conducts its next community health assessment, approximately five years from publication of the report presented here.

Table of Contents

Introduction:	1
What is the Plumas County Community Health Assessment?	1
Existing Assets & Resources	1
Methodology	4
List of Partners	4
Community Health Profile	5
Demographics	5
Population	6
Race & Ethnicity	6
Race and Ethnicity in Plumas County	7
Age	7
Sex	8
Veteran Population	8
Languages Spoken	8
Educational Attainment	9
Poverty Level	10
Unemployment Rate	12
Median Household Income	12
Disability	13
Intimate Partner Violence	14
Child Maltreatment	15
Adverse Childhood Experiences	16
Health Behaviors & Health Outcomes	18
Teen Alcohol Use	18
Teen Tobacco and Vaping Use	19
Adult Tobacco Use	23
Teen Physical Fitness	23
Teen Mental Health	24
Oral Health	26
Opioid Overdose Death Rate (age adjusted)	27
Rate of Chronic Hepatitis C Virus (HCV)	28
Cancer Rate	29
Overweight or Obese	30
Teen Birth Rate	31
Suicide Rate	32

Social Determinants of Health, Health Disparities, and Health Equity	33
Structural Racism and Health Disparities.....	34
Rural Health Disparities	35
Health Disparities in Plumas County.....	36
Social Determinants of Health and Life Expectancy in Plumas County	38
Life Expectancy per Census Tract, Plumas County.....	38
Summary of Major Findings.....	40
Areas for Improvement.....	40
Areas of Success.....	42
The Future of Community Health Assessment in Plumas County	43
Acknowledgments.....	43
Works Cited	i
Appendix I: Focus Group Summary	vi
20,000 Lives Town hall.....	vi
Chester: Adult Focus Group.....	viii
Chester: Youth Focus Group	xi
Greenville: Adult Focus Group	xiii
Portola: Adult Focus Group.....	xv
Quincy: Adult Focus Group	xvii
Quincy: Senior Focus Group.....	xx
Portola: Youth Focus Group.....	xxiii
Appendix II: Key Informant Interviews Summary	xxiv
Key Informant Interviews.....	xxiv
Access to Care	xxiv
Community Resources / Information	xxv
Transportation	xxvi
Housing / Cost of Living / Utilities.....	xxvii
Substance Use / Incarceration	xxvii
Mental Health	xxviii
Trauma Informed Care.....	xxviii
Lifestyle	xxviii
Stigma / Community Stereotypes.....	xxviii
Senior Services / Needs.....	xxviii
Disaster Relief	xxviii
Appendix III: Life Expectancy by Key Social Determinants of Health.....	xxix

Introduction:

What is the Plumas County Community Health Assessment?

This version of the Plumas County Community Health Assessment (CHA) is a report on the health and wellbeing of Plumas County residents for the period between 2016 and 2019. It is the third time local health care providers and public health professionals have collaborated to compile this type of information, first in 2012 and again in 2016. This collective approach allows for a comprehensive understanding of social, economic, and health factors across the entire County.

Understanding these factors is important for prioritizing where County partners focus their attention, and how they allocate resources to address important issues. It also tracks community characteristics and health trends through time. Documenting these trends may illustrate improved health outcomes, or conversely, indicate emerging areas of concern.

An important outcome of this work is the development of a Countywide Community Health Improvement Plan (CHIP). The forthcoming CHIP will be guided by the priority health areas identified in this CHA, and will be based on the priorities set by community members and local decision-makers in health care and community services. The CHIP will contain specific actions local organizations can take to improve health outcomes and increase community wellbeing. It will serve as a strategic, guiding document for countywide interventions.

Existing Assets & Resources

Plumas County is fortunate to have a robust network of community-based organizations and County departments that help support at-risk and vulnerable populations across the County. Hallmarks of these organizations are dedicated staff and tireless leadership, and a commitment to their Plumas County neighbors and community members. Examples include resource and wellness centers across the County that provide support to individuals seeking resources and critical services. There are two resource centers in the City of Portola (the only incorporated city in the County), one operated by Plumas Crisis Intervention and Resource Center (PCIRC) and the other by Plumas County Behavioral Health (PCBH). PCBH also operates wellness centers in the communities of Chester and Greenville. PCIRC provides services at the family resource and wellness center in Quincy, and similar to the Portola location provide access to a variety of services like CalFresh enrollment, homeless prevention and housing assistance, sexual assault and rape crisis resources, and more. Plumas Rural Services (PRS) operates the Mohawk Community Resource Center.

Other community-based organizations support community members across the County through services and trainings. PRS provides a number of programs and training opportunities, including: counseling services, domestic violence survivor support, family support, women infants and children (WIC) services, family nutrition, mindful nurturing parenting classes, and suicide intervention trainings. PRS also operates the Plumas Transit bus system. Roundhouse Council

Indian Education Center is an afterschool program for native youth as well as a resource center. Their center is located in Greenville, California, an ancestral home of the Northern Maidu.

Rethink Industries provides mental health and substance use counseling in Quincy, CA. This includes individual, children, adolescent, and family counseling services. They also offer DUI classes. Environmental Alternatives Family Services, as well as Mountain Circle Family Services, provide foster youth, transitional age youth, and family support services.

Sierra Institute for Community and Environment promotes healthy and sustainable forests and watersheds by investing in the well-being of rural communities and strengthening their participation in natural resource decision-making and programs.

Plumas Arts is a non-profit organization that cultivates communities in which arts and culture flourish. It is authorized by the Plumas County Board of Supervisors to serve as Plumas County's arts planning and programming agency for the California Arts Council's (CAC) State-Local Partnership Program (SLPP).

The West End Theatre is a traditional black box theatre that provides an intimate space for community performances, and the organization runs the Dramaworks program. Dramaworks produces community performances. It also operates the Magic Beanstalk Players for Kindergarten through 8th grade students and the SWEET program for teens.

Pachuca Productions is a Latina owned and operated microtheatre that travels through High Sierra mountain communities bringing original plays and vaudeville variety shows as well as other productions. They work to support opportunities for theater and arts for youth in Plumas County.

Service clubs active in Plumas County include Rotary International, Lions Club International, the Benevolent and Protective Order of Elks, and Soroptimist International of the Americas.

Feather River College (FRC) provides outreach programs to local schools to facilitate the transition from K-12 to higher education whether it be at FRC or beyond, as well as dual and concurrent enrollment opportunities for high school students. FRC offers associate's and bachelor's degrees, certificates, transfer programs, and life-long learning to a diverse student population by serving local, regional, national and international students through traditional face-to-face instruction as well as distance education. FRC also serves as a cultural and economic leader for the communities that lie within their District.

Veterans are supported by active American Legion and Veterans of Foreign Wars groups across the County; as well as a Veteran's Service office in Quincy. There is also a Veteran's Collaborative group that organizes an annual Veteran's Stand Down event.

There are several County Departments that provide critical services to Plumas County, and work collaboratively to improve the health and wellbeing of residents. These include the Plumas County Public Health Agency, the Department of Social Services, the Behavioral Health

Department, Environmental Health Department, the District Attorney and its Alternative Sentencing Program, Plumas County Planning Department, Plumas County Probation, Plumas County Sheriff's Office, the Plumas County Library, and the Plumas Unified School District. Collectively, these County Departments are responsible for supporting residents with the highest quality of service to increase health, wellbeing, and access to supportive services. In recent years, leadership from these Departments have intentionally worked to align services and increase efficiency across the County.

The 20,000 Lives community coalition is a countywide network of community members, community-based organizations, and government agencies that address community needs. Membership is comprised of many of the organizations listed above, and the coalition was formed with the express purpose of aligning work across the County so that people can accomplish more together. This creates collaboration, increases efficiency, and makes the best use of limited funding and other resources.

The list above is comprehensive but by no means exhaustive. There are a number of additional community organizations that support health and wellbeing in Plumas County in various ways. These organizations and groups will continue to be identified and incorporated into planning. They form the foundation for action in Plumas County, and are essential to an asset-based approach in community development.

Methodology

List of Partners

The CHA is researched and developed by a partnership between the Plumas County Public Health Agency and the three critical access hospitals in the County: Eastern Plumas Health Care; Plumas District Hospital; and Seneca Healthcare District. Leadership and staff from these organizations contributed time and effort in accessing and reviewing data. They also served as topic experts for many aspects of this assessment, and provided expertise from the medical provider perspective.

Other important contributing partners included community members that participated in focus groups, interviews, town hall forums, and surveys. County government officials, including Board of Supervisor members, also contributed information and expertise. Community based organizations also participated, including but not limited to: Plumas Crisis Intervention & Resource Center; Plumas Rural Services; and Roundhouse Council.

Methods Used

The information presented here was collected by conducting a town hall forum, focus groups, key informant interviews, and a review of health indicators from a variety of secondary data sets. The town hall forum was conducted with the 20,000 Lives community collaborative in the County seat of Quincy. Focus groups were conducted in each of the major communities across the County: Chester; Greenville; Portola; and Quincy (see Map 1). These groups included both broad focus groups of adults from different sectors of the community, as well as a focus group with local youth. There was also a focus group conducted with seniors recruited from across the County. For the recruitment of broad focus group participants, every effort was made to actively seek information from high health-risk populations, or populations disproportionately impacted by the social determinants of health (ex. unemployed, treatment or recovery for substance use).

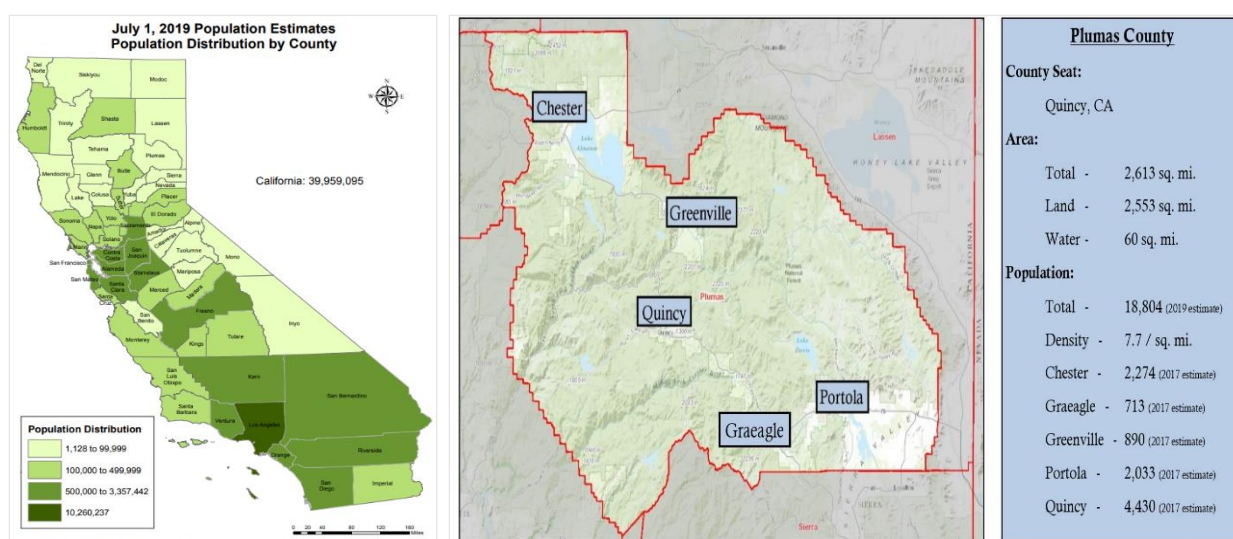
Key informant interviews were conducted with local decision makers in the health care and local government sector and with leaders from a number of different community-based organizations*. The review of health indicators was conducted based on a priority list developed by the CHA steering committee comprised of hospital CEOs and PCPHA staff. Indicators were chosen based on the relative importance of the issue and the realistic ability to take action. Data sources include: United States Census Bureau, Centers for Disease Control and Prevention (CDC), California Department of Public Health (CDPH), County Health Rankings & Roadmaps, CA Healthy Kids Survey (CHKS), CA Office of Statewide Health Planning and Development (OSHPD), Health Resources & Services Administration (HRSA), CA Department of Finance, CA Department of Education, California Tobacco Survey, California Cancer Registry, CA WIC Association, and the CA Employment Development Department.

*- **Note:** the qualitative data collected during the town hall forum, focus groups, and key informant interviews was coded and organized to identify themes. This information is included in Appendix I for focus groups and Appendix II for key informant interviews.

Community Health Profile

Demographics

Social and economic features of neighborhoods have been linked with mortality, general health status, disability, birth outcomes, chronic conditions, health behaviors and other risk factors for chronic disease; as well as with mental health, injuries, violence and other important health indicators¹. It is important to understand some basic demographic information about Plumas County to fully consider the findings presented in this Community Health Assessment. The following graphs provide data about common socioeconomic and health indicators for Plumas County residents. Data sources are hyperlinked below each graph.

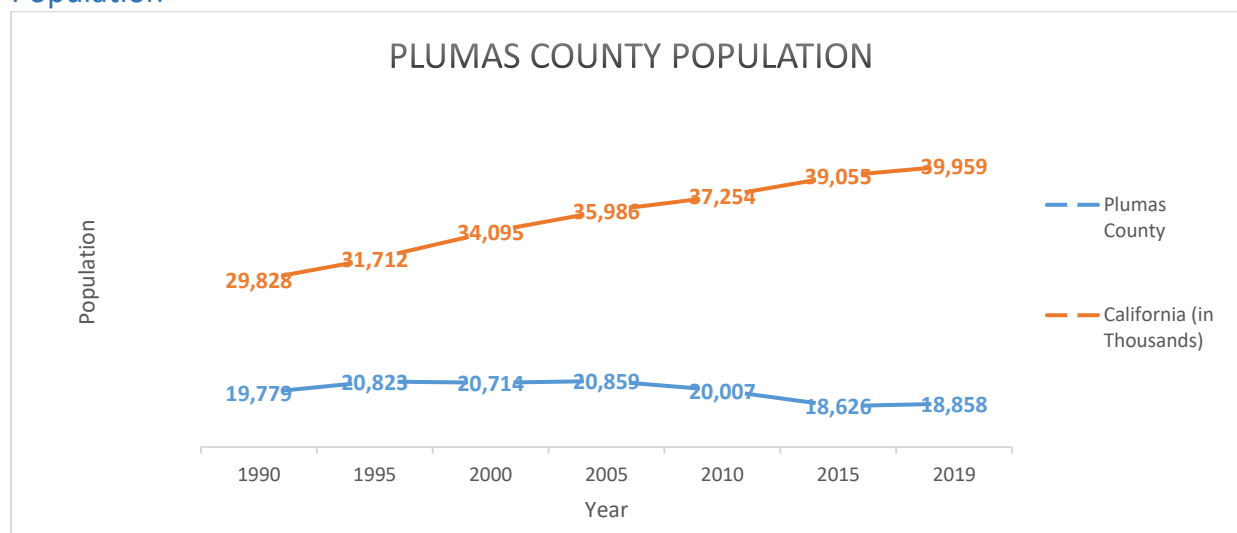


Map 1: Population of Plumas County, and Population of Cities or Townships in County

Plumas County is located in the Northern portion of the Sierra Nevada Mountain Region of California and encompasses approximately 2,613 square miles, of which 2,553 square miles are land and 60 square miles are water. The most populated township is Quincy, which is also the County Seat, followed by Chester, Portola, Greenville, and Graeagle.

¹ Robert Wood Johnson Foundation. Commission to Build a Healthier America. (2008). (Accessed 2020). Where We Live Matters for Our Health: Neighborhoods and Health. Issue Brief 3. Retrieved from <http://www.commissiononhealth.org/PDF/888f4a18-eb90-45be-a2f8-159e84a55a4c/Issue%20Brief%203%20Sept%2008%20-%20Neighborhoods%20and%20Health.pdf>

Population



[State of California, Department of Finance, E-6. Population Estimates and Components of Change by County²](#)

According to the 2019 California Department of Finance State and County Population Estimates, California's population is 39,959,095, and Plumas County is ranked the 8th least populous County in the state with a population of 18,858. Population estimates for California have increased every year since 1990. Plumas County population estimates, however, have been declining every year since they peaked between 1995 and 2005.

Race & Ethnicity

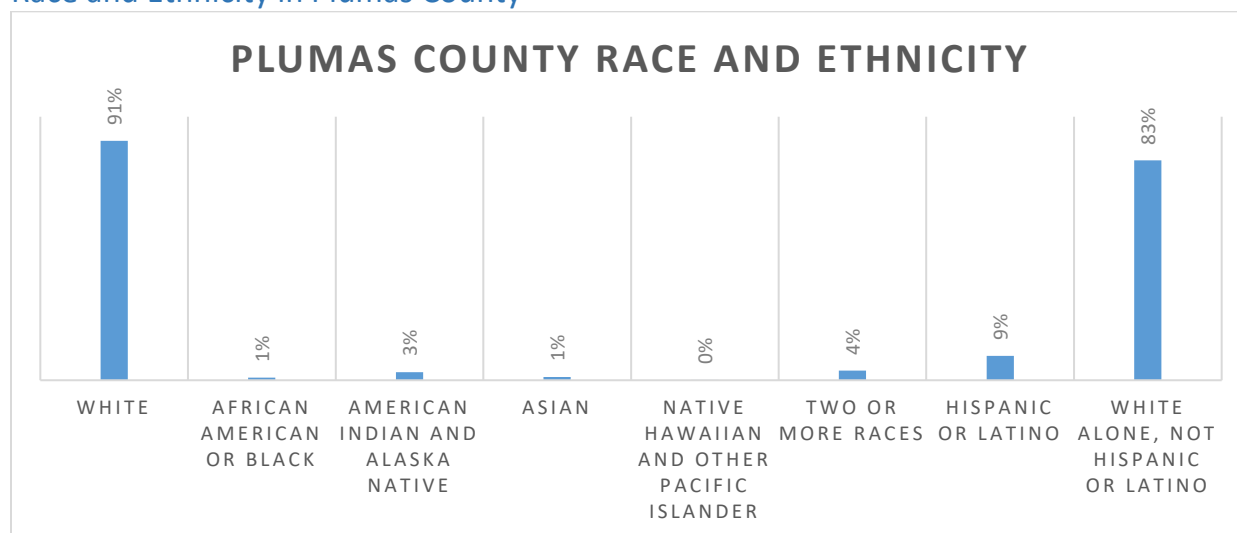
Race refers to groups of people who have differences and similarities in biological traits deemed by society to be socially significant, meaning that people treat other people differently because of them. For instance, while eye color is not socially significant, differences and similarities in skin color are.

Ethnicity refers to shared cultural practices, perspectives, and distinctions that set apart one group of people from another. That is, ethnicity is a shared cultural heritage. The most common characteristics distinguishing various ethnic groups are ancestry, a sense of history, language, religion, and forms of dress. Ethnic differences are learned, not inherited.

The U.S. Census Bureau defines seven major race and ethnicity categories: African American/Black, American Indian/Alaska Native, Asian, Hispanic/Latino, Native Hawaiian/Pacific Islander, White, and other. In addition, an individual may identify as belonging to two or more races, and an individual who identifies as being Hispanic/Latino may identify as belonging to any race. These race and ethnicity categories are self-determined, meaning that individuals identify their own race or ethnicity in the census.

² State of California, Department of Finance. (n.d). Table E-6. Population Estimates and Components of Change by County. Retrieved from <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/>

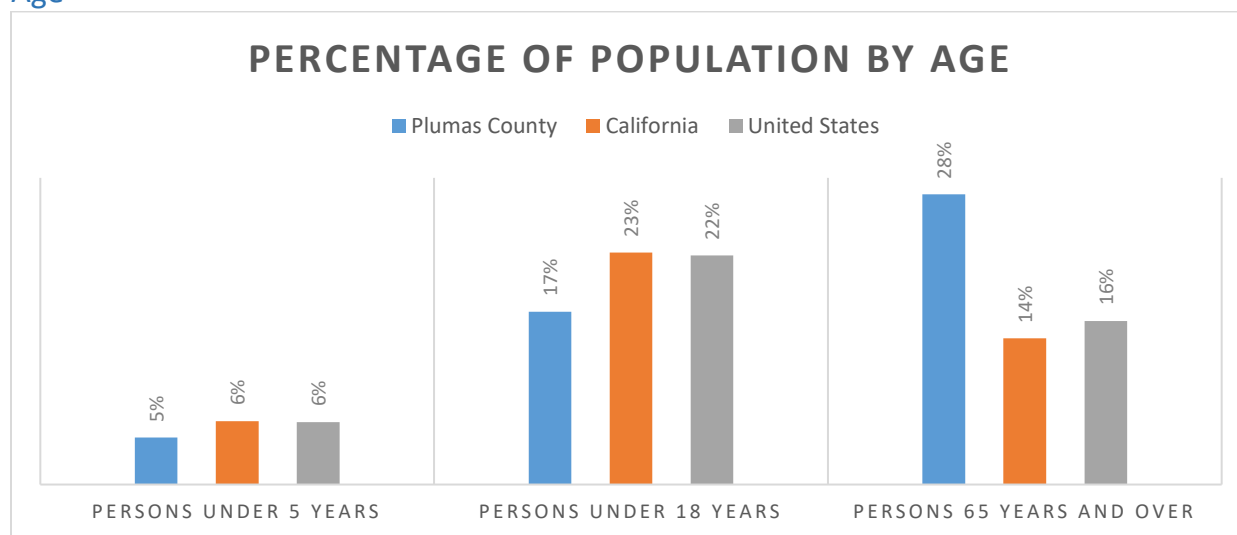
Race and Ethnicity in Plumas County



[United States Census Bureau Quickfacts](#)³

Plumas County is primarily White (Non-Hispanic/Latino), with 83% of the population falling into that demographic. The second largest racial or ethnic group are those identifying as Hispanic/Latino, composing 9% of the population. The third largest category are individuals who identify with two or more races, making up 4%, followed by American Indian / Alaska Native at 3%, and African American /Black and Asian both making up 1% of the County's population.

Age

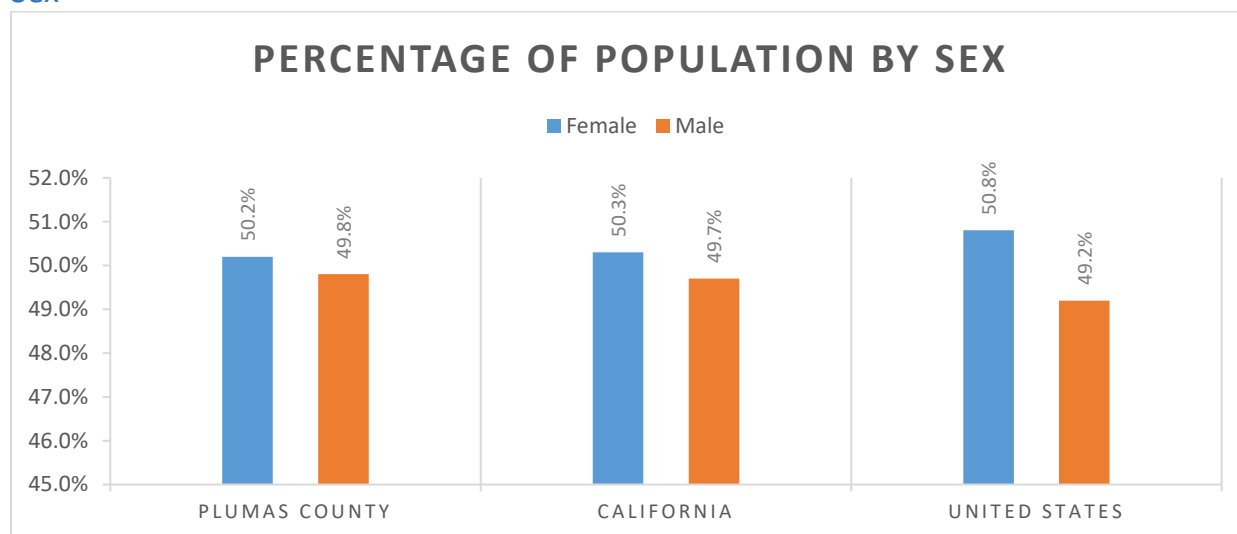


[United States Census Bureau Quickfacts](#)

³ United States Census Bureau. (n.d.). Quickfacts. Retrieved from <https://www.census.gov/programs-surveys/sis/resources/data-tools/quickfacts.html>

The population of Plumas County is notably older than that of California and the Nation. The median age in the County is 52.2 years, whereas the median age in California and in the Nation are 36.3 and 37.9 years old, respectively. Plumas County has a slightly lower percentage of individuals below 5 years of age and under 18; but a significantly higher percentage of seniors over the age of 65 old when compared to California and the Nation.

Sex



[United States Census Bureau Quickfacts](#)

The distribution of males to females in Plumas County was similar to that of California and the United States, with marginally more females than males at the County, State, and National levels.

Veteran Population

Veterans are defined as people who have served in the military (even for a short time), but are not currently serving or on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard; or who served in the U.S. Merchant Marines during World War II. Those who served in the National Guard or Reserves are classified as veterans only if they were called to active duty, not counting the 4-6 months for initial training or yearly summer camps. All other civilians are classified as nonveterans.

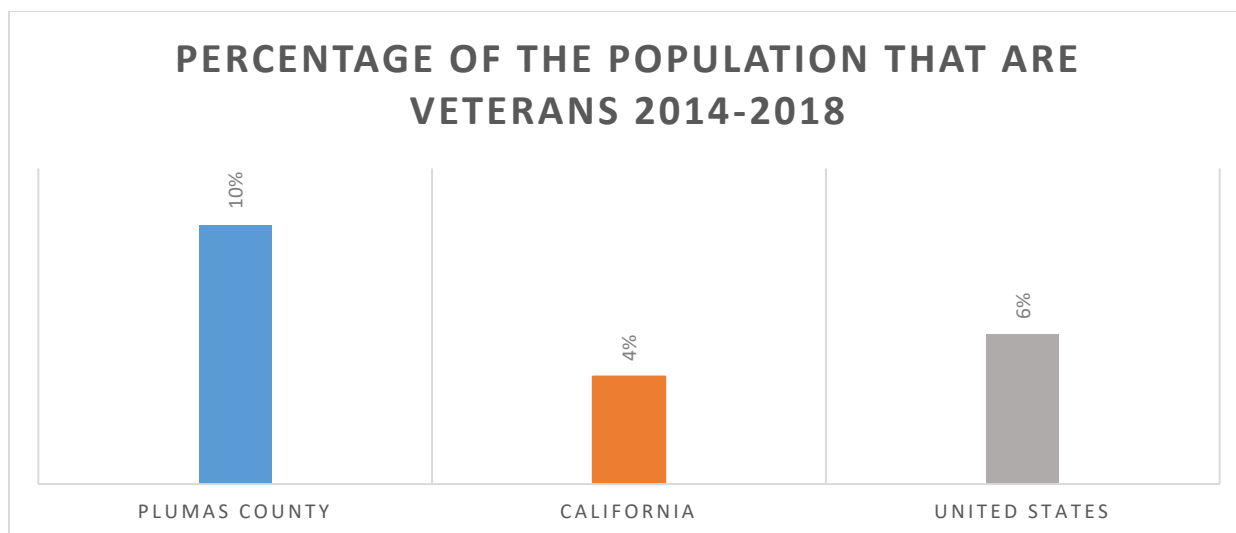
Languages Spoken

Understanding the languages spoken at home in Plumas County is important, as language barriers may prevent individuals from accessing health services. The U.S. Census Bureau defines “linguistic isolation” as a household in which all members aged 14 and older speak a non-English language and speak English less than “very well.”⁵⁵

In 2022, 7.0% of Plumas County residents spoke a language other than English at home. Of those, approximately 1.8% of the total population—or an estimated 337 individuals—spoke English less than “very well.” The majority of these individuals spoke Spanish, with about 225 Spanish-speaking residents identified as having limited English proficiency.⁵⁶

⁵⁵ Link MW, Mokdad AH, Stackhouse HF, Flowers NT. Race, ethnicity, and linguistic isolation as determinants of participation in public health surveillance surveys. *Prev Chronic Dis.* 2006;3(1). https://www.cdc.gov/pcd/issues/2006/jan/05_0055.htm#. Accessed April 15, 2025.

⁵⁶ United States Census Bureau. *data.census.gov*. Accessed April 15, 2025. <https://data.census.gov/profile?g=050XX00US06063>

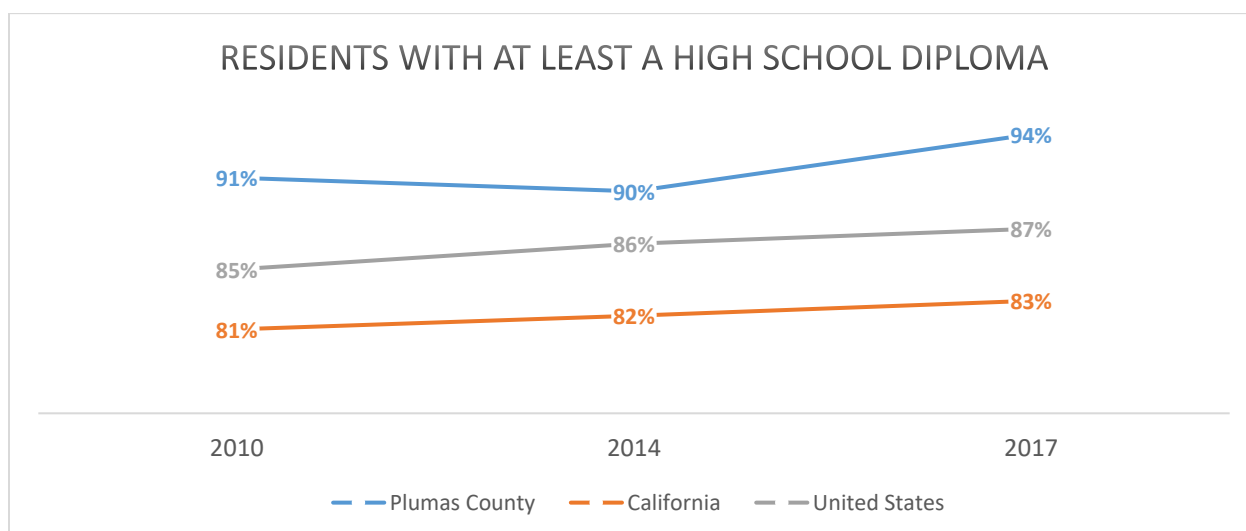


[United States Census Bureau Quickfacts](#)

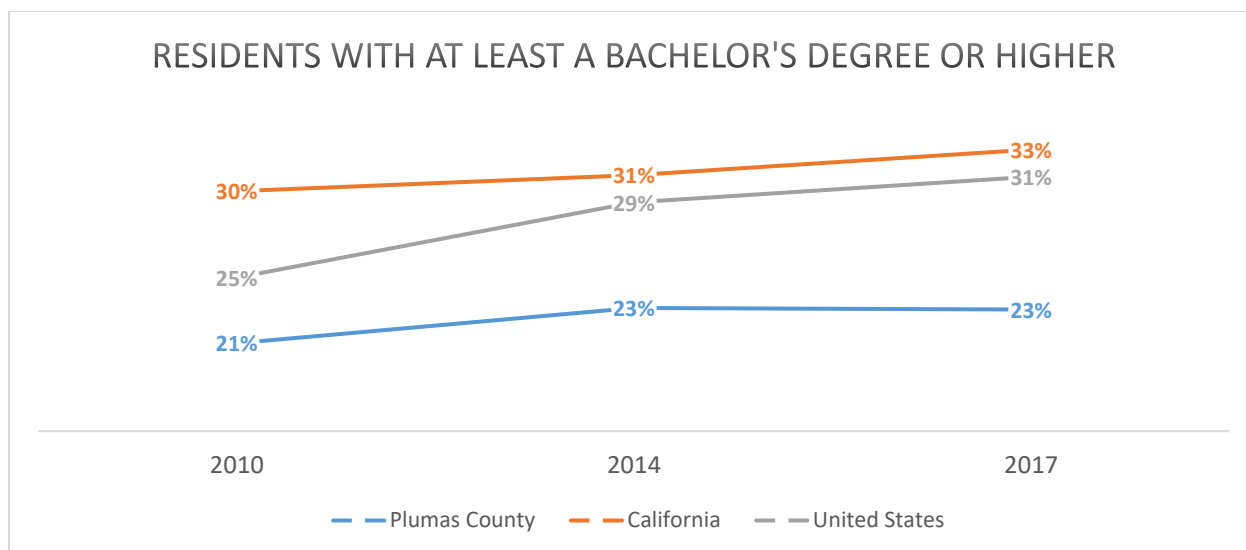
In Plumas County a notably greater percentage of the total population are Veterans than in both California and the Nation.

Educational Attainment

Educational attainment is defined as the highest level of formal education completed (e.g., high school diploma or equivalent, bachelor's degree, graduate or professional degree). An educated workforce has been linked with increased economic development. Completion of formal education is associated with higher paying jobs and access to resources that influence health such as: food, housing, transportation, health insurance, recreation, and other necessities for physical and mental well-being⁴.



⁴ O'Hare, William P., "The forgotten fifth: child poverty in rural America" (2009). The Carsey School of Public Policy at the Scholars' Repository. 76. <https://scholars.unh.edu/carsey/76>



[United States Census Bureau Quickfacts](#)

In Plumas County, 94% of adults age 25 and older have at least a high school diploma, which is higher than for both California and the Nation. However, fewer adults in the County have a Bachelor's degree or higher (23%) compared to the State (33%) and Nation (31%)

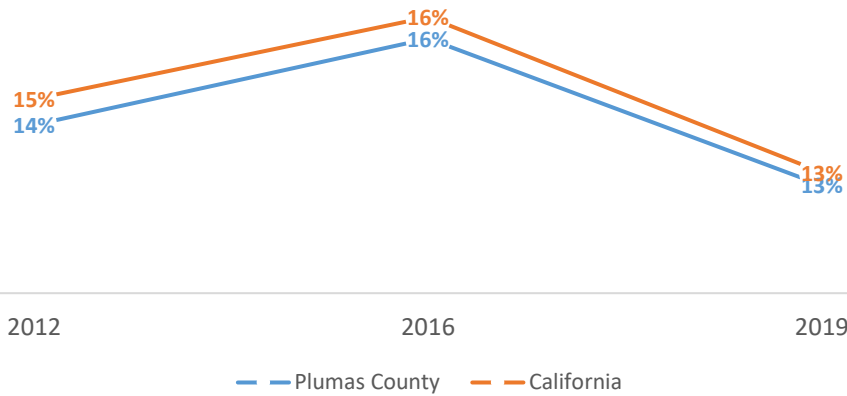
Poverty Level

Poverty lowers access to health resources including health services, healthy food, and other health necessities, and is a significant risk factor for a variety of negative health consequences⁵. In order to define household poverty status, either everyone living in a household is considered to be living in poverty, or no one in a household is living in poverty. If a household's total income is less than the poverty threshold then all of the members of the household are considered impoverished. According to the 2018 poverty guidelines, a single member household is living in poverty if they earn less than \$12,140 per year, while a household of four is living in poverty if they earn less than \$25,100⁶.

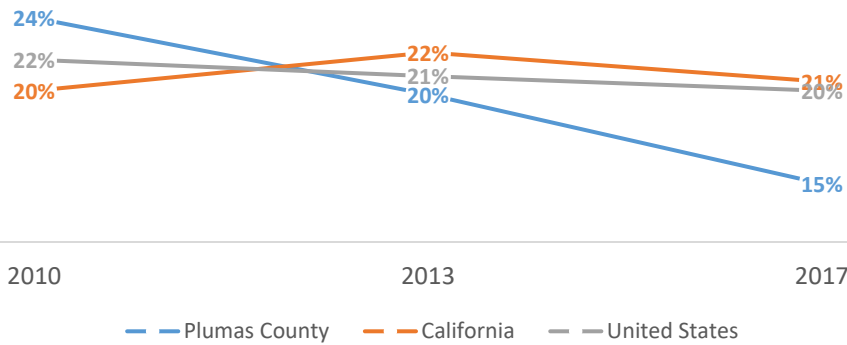
⁵ Health, Income, & Poverty: Where We Are & What Could Help. Health Affairs Health Policy Brief, October 4, 2018. DOI: 10.1377/hpb20180817.901935 available at: <https://www.healthaffairs.org/doi/10.1377/hpb20180817.901935/full/>

⁶ Office of the Assistant Secretary for Planning and Evaluation – HHS Poverty Guidelines for 2020 (Accessed 2020). Retrieved from <https://aspe.hhs.gov/poverty-guidelines>

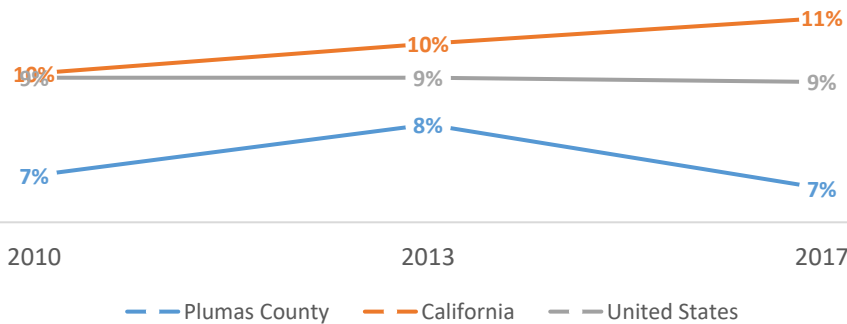
PERCENTAGE OF PERSONS BELOW POVERTY LEVEL



PERCENTAGE OF INDIVIDUALS 18 YEARS OF AGE OR YOUNGER LIVING BELOW THE FEDERAL POVERTY LEVEL



PERCENTAGE OF INDIVIDUALS OVER AGE 65 LIVING BELOW THE FEDERAL POVERTY LEVEL

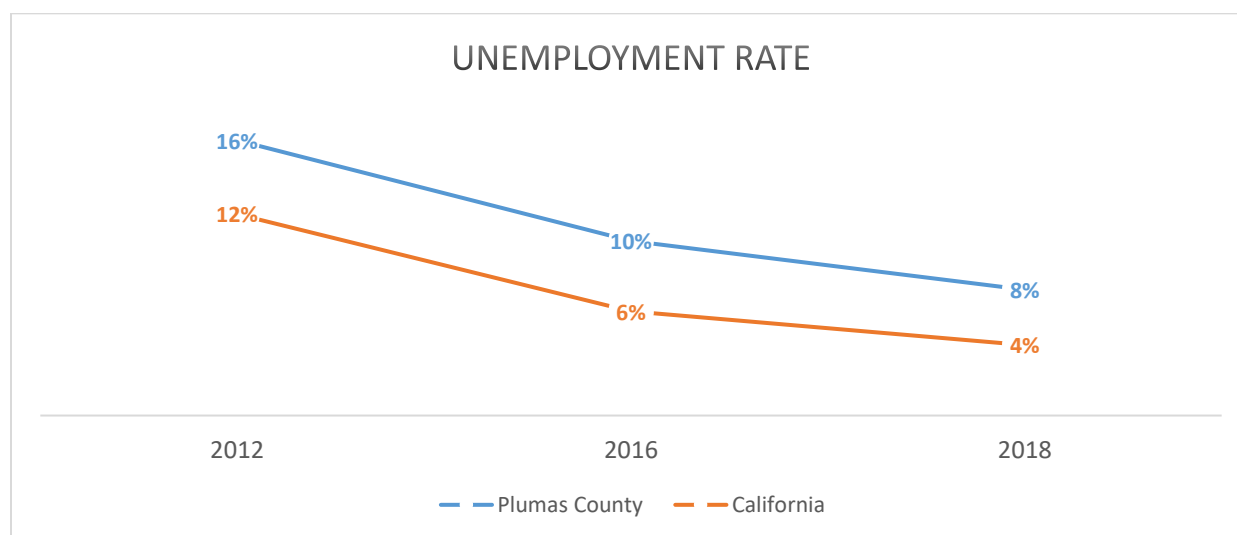


[United States Census Bureau Quickfacts](#)

In 2019, 13% of Plumas County residents were living below the federal poverty level; and in 2017 15% of individuals under 18 years of age, and 7% of individuals over age 65, were living in poverty in Plumas County. However, the poverty rate overall was lower for these age groups than statewide and nationwide rates, and the poverty rate has been decreasing for all age groups and the total population in recent years.

Unemployment Rate

A community's unemployment rate is a measure of economic health and is also associated with poorer health outcomes. Continuously high unemployment rates can indicate the presence of socioeconomic or structural issues within a community that can impact the health of its population.



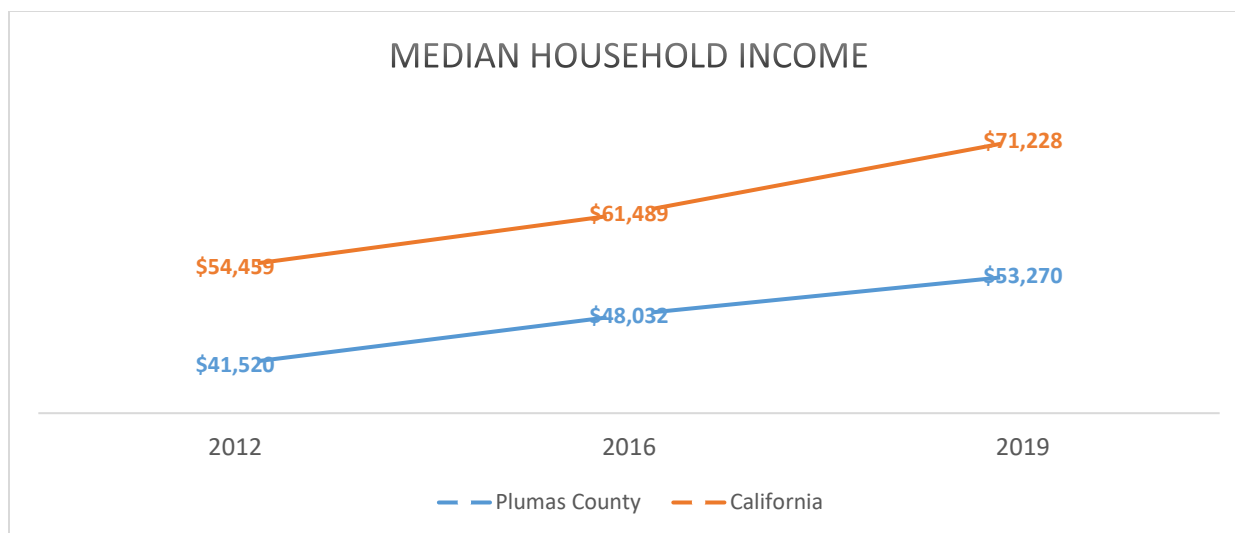
[California Employment Development Department](#)⁷

The unemployment rate in Plumas County has ranged from a peak of 16% in 2012 to a low of 8% in 2018. During this time period the unemployment rate for Plumas County was notably higher than for California overall; however, the unemployment rate for both the County and the State have been decreasing since 2012.

Median Household Income

Household income refers to the combined income of all people living in one home. Household income includes: salaries and wages, retirement income, government assistance, and capital gains from investments such as real estate or stocks and bonds.

⁷ California Employment Development Department. (n.d.). Retrieved from <https://edd.ca.gov/>



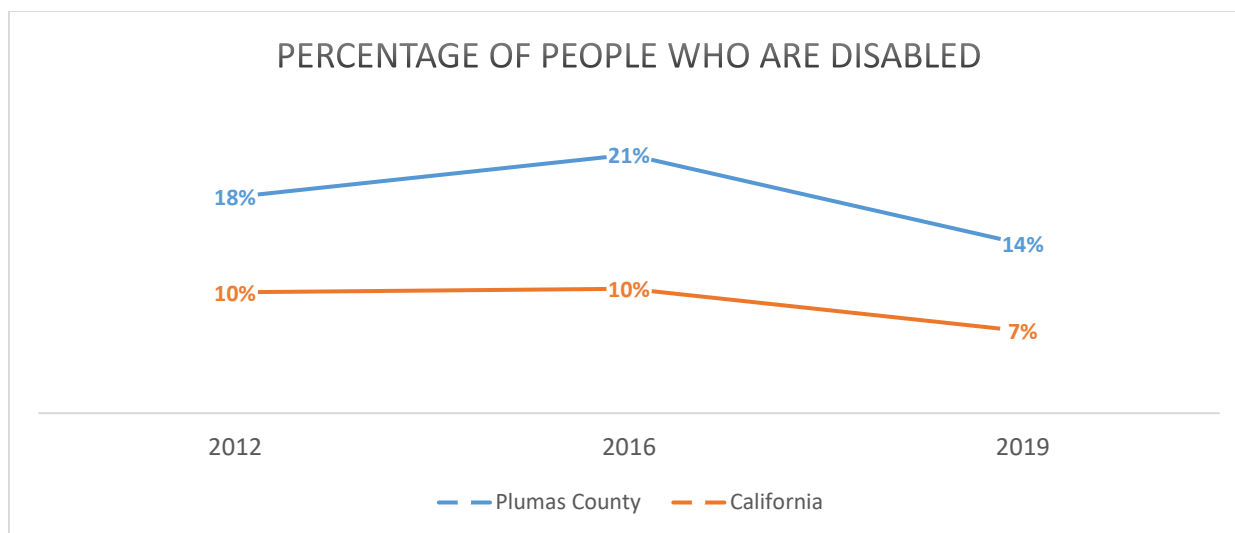
[United States Census Bureau Quickfacts](#)

The median household income for Plumas County has consistently increased year over year from 2012 through 2019. However, median income has also remained significantly lower than for California overall, and the disparity in median income between the County and the State has actually widened during this time period.

Disability

The Centers for Disease Control and Prevention (CDC) predicts the number of adults reporting a disability will increase substantially, along with the need for appropriate medical and public health services⁸. People with disabilities face many barriers to achieving optimal health. Studies have demonstrated that individuals with disabilities are more likely than people without disabilities to report having poorer overall health, poorer access to adequate health care, inadequate access to health insurance coverage that their health needs, skipping medical care because of associated costs, and engaging in risky health behaviors including smoking and physical inactivity.

⁸ Okoro, C.A., Hollis, N.D., Cyrus, A.C., Griffin-Blake, S. (2018). Prevalence of Disabilities and Health Care Access by Disability Status and Type Among Adults — United States, 2016. *Morbidity and Mortality Weekly Report (MMWR)*; 67:882–887. doi: [10.15585/mmwr.mm6732a3](https://doi.org/10.15585/mmwr.mm6732a3)



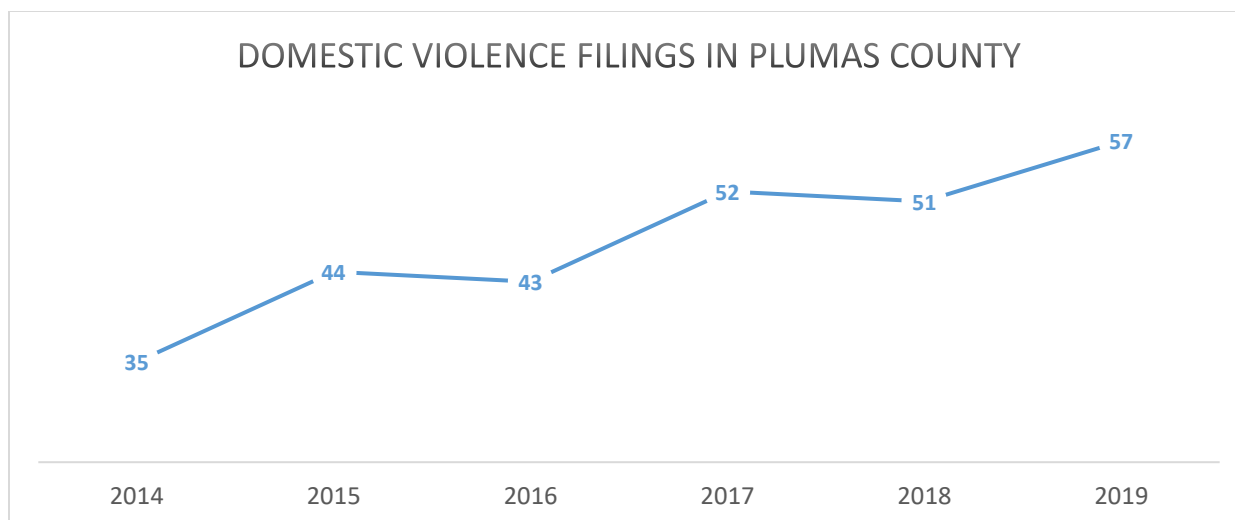
[United States Census Bureau Quickfacts](#)

In Plumas County, a significantly higher percentage residents have disabilities than residents of California overall. However, the number of people reporting a disability has declined in both the County and the State in recent years.

Intimate Partner Violence

Intimate partner violence is abuse or aggression that occurs in a close relationship, and is a public health problem that affects 1 in 4 women, and 1 in 10 men, in their lifetimes. Intimate Partner refers to both current and former spouses and dating partners. It includes physical violence, sexual violence, stalking, or psychological harm by a current or former partner or spouse. It can occur among heterosexual and same-sex intimate partners, and does not require sexual intimacy. It is sometimes used synonymously with the term *Domestic Violence*. There are many negative health outcomes associated with surviving of this type of abuse, including a range chronic health conditions affecting the heart, digestive, reproductive, and nervous systems. Survivors also frequently experience mental health conditions such as depression and posttraumatic stress disorder (PTSD), and are more likely to engage in health risk behaviors such as smoking, binge drinking, and high risk sexual practices⁹.

⁹ Centers for Disease Control and Prevention. Preventing Intimate Partner Violence. Retrieved from <https://www.cdc.gov/violenceprevention/intimatepartnerviolence/fastfact.html>



Plumas County Office of the District Attorney (on file)¹⁰

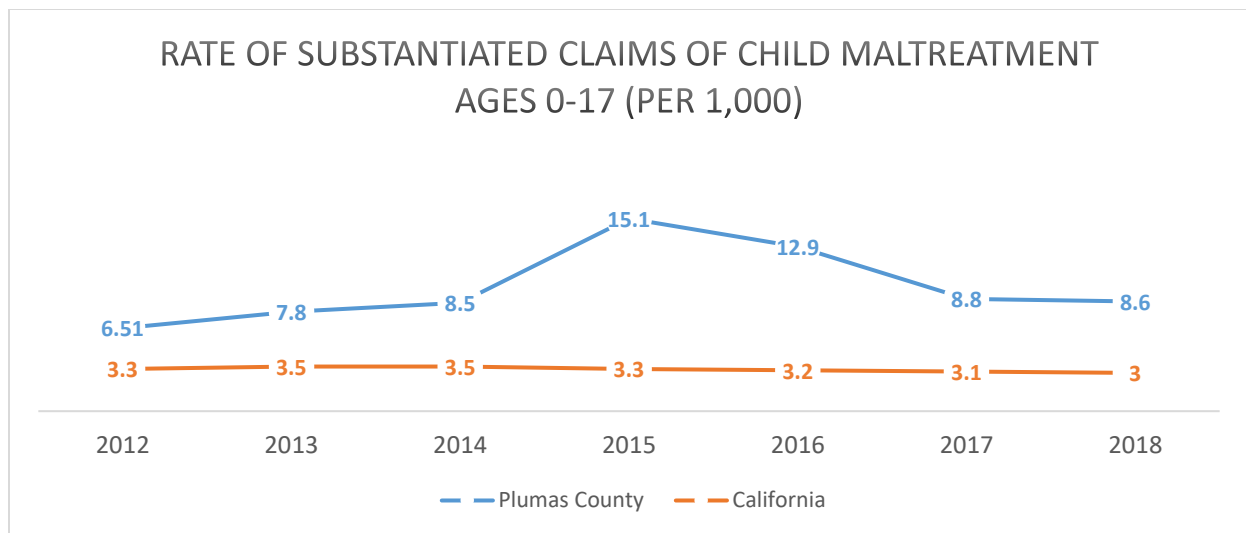
In Plumas County, the number of domestic violence filings has demonstrated a consistently increasing trend, almost doubling between 2014 and 2019. This is a concerning trend, as 1 in 6 homicide victims are killed by an intimate partner, and nearly half of female homicide victims in the United States are killed by a current or former male intimate partner.

Child Maltreatment

Children who are abused or neglected are at significantly higher risk for developing emotional, cognitive, and behavioral problems including: anxiety; depression; difficulty in school; substance misuse and dependence; early sexual activity, and suicidal behavior. Abuse and neglect can also cause severe stress that disrupts healthy neurological and physical development, with young children being especially susceptible as the brain is developing much more rapidly early in childhood. This places mistreated young children at significantly higher risk for health problems as adults. Children who are abused or neglected are more likely to repeat the cycle of violence by entering into violent relationships as teens and adults or abusing their own children. Child abuse and neglect are underreported, and occur in families of all socioeconomic levels and ethnic groups. Major risk factors for being a victim of child abuse and neglect include being younger than 4 years old, and being a child with special medical or developmental needs. Family and community risk factors include parental substance use, parental mental illness, major stress (e.g. poverty, social isolation), domestic violence, and living in neighborhoods with relatively high rates of community violence¹¹.

¹⁰ Plumas County Office of the District Attorney. (on file).

¹¹ Centers for Disease Control and Prevention. (2019). National Center for Injury Prevention and Control- Division of Violence Prevention. Child maltreatment. Consequences. Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html>



http://cssr.berkeley.edu/ucb_childwelfare/¹²

In Plumas County, the rate of substantiated childhood maltreatment filings have demonstrated an increasing trend between 2012 and 2018, and has consistently been elevated by a factor of two to five times above the rate for California overall. While these trends are of great concern, since peaking in 2015 the rate has been declining year over year through the 2018.

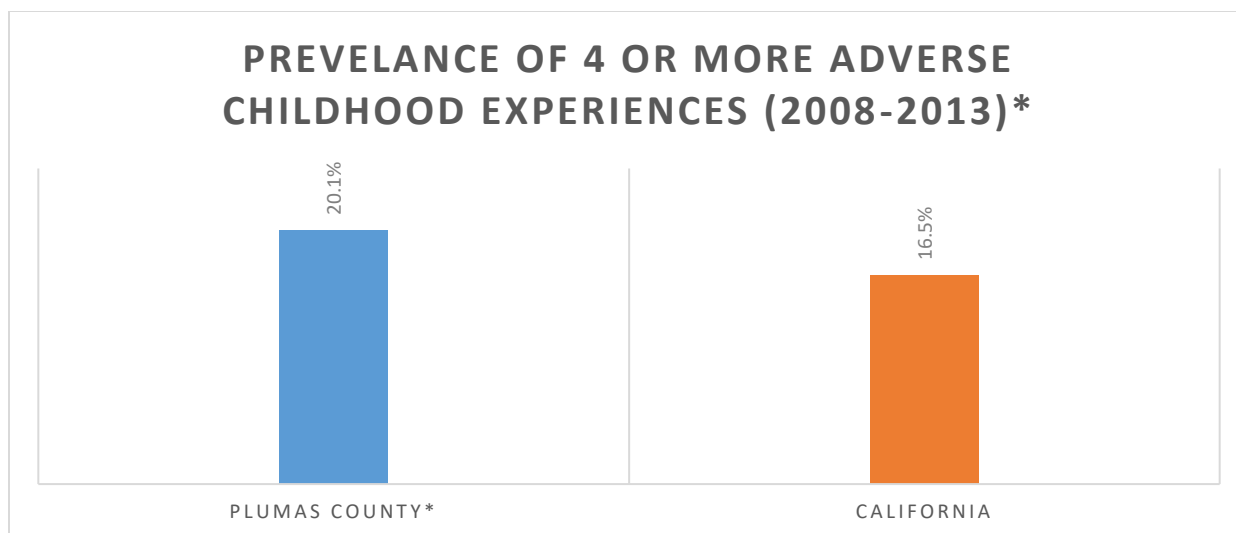
Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) describe any traumatic experiences – in the forms of neglect, abuse, or household dysfunction – that occur during childhood and can have a significant impact on an individual’s overall health and well-being throughout their life. Early childhood adversity is associated with risky health behaviors, chronic conditions, lower high school graduation rates and academic achievement, more lost time from work as adults, and early death. Childhood neglect, abuse, and household challenges are linked to the development of risk factors for disease and poor overall wellness over the course of an individual’s life. Research has shown that about two-thirds of people report having had at least one ACE, and one-fourth reported two or more ACEs. Those who report four or more ACEs are significantly more likely to engage in risky health behaviors and have a higher chance of developing chronic illnesses than those who reported no ACEs, implying that the risk for negative life outcomes increases as the number of ACEs an individual has experienced increases^{13, 14}.

¹² California Child Welfare Indicators Project. (n.d.). Retrieved from http://cssr.berkeley.edu/ucb_childwelfare/

¹³ Centers for Disease Control and Prevention. (2019). About the CDC-Kaiser ACE Study. Violence Prevention. Injury Center. CDC. Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/about.html>

¹⁴ Center for Youth Wellness. Findings on Adverse Childhood Experiences in California. Retrieved from <https://centerforyouthwellness.org/wp-content/themes/cyw/build/img/building-a-movement/hidden-crisis.pdf>



* Statistical average of Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, and Trinity Counties: [Kidsdata.org](https://kidsdata.org)¹⁵

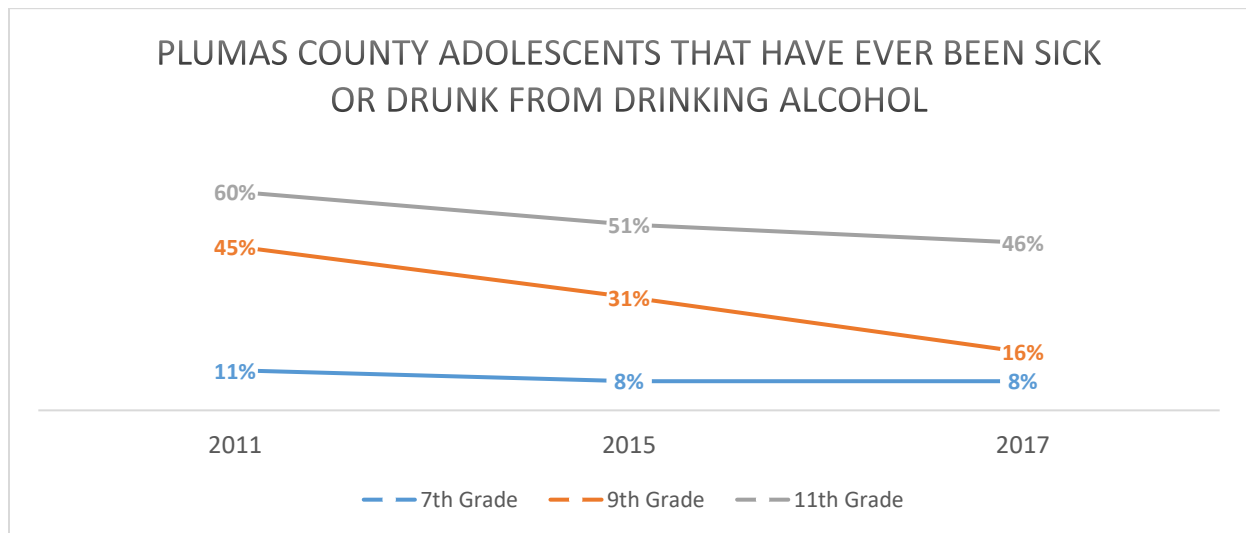
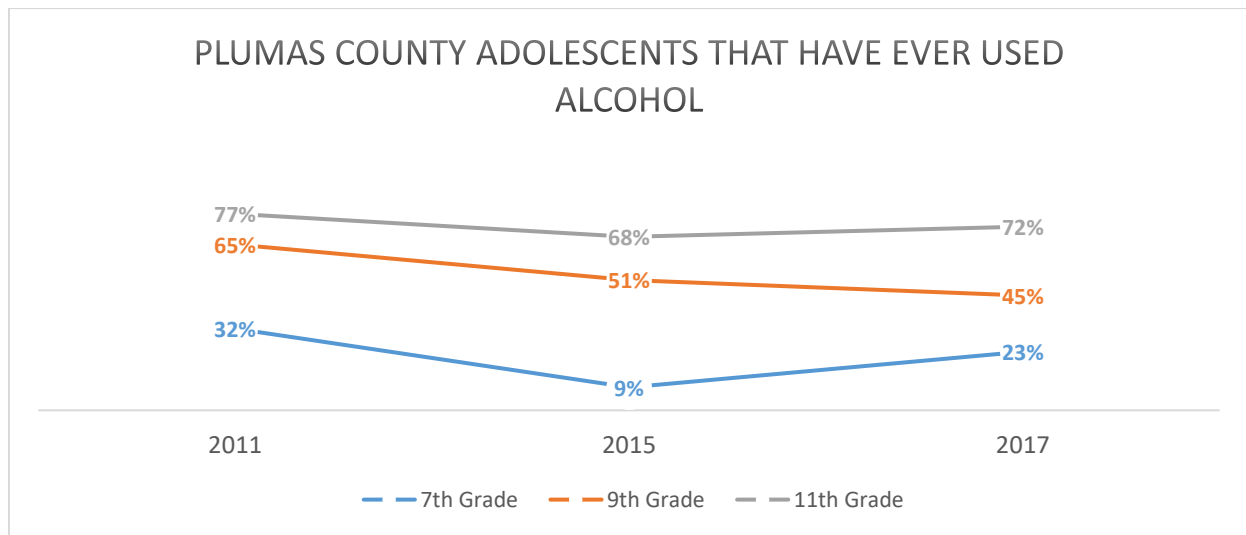
In Plumas County and the surrounding rural Northern California region, the percentage of adults over the age of 18 who report having experienced four or more ACEs during their childhood is higher than that of California overall. This raises concern for how these prior experiences may be impacting the current health and wellness of the adult population of the County.

¹⁵ Kidsdata.org - A Program of the Lucile Packard Foundation for Children's Health. (n.d.). Retrieved from www.Kidsdata.org

Health Behaviors & Health Outcomes

Teen Alcohol Use

Underage drinking is associated with a wide range of social, academic, and health challenges. Teen alcohol consumption has been linked to risky health behaviors such as unprotected sex and impaired driving, poor academic performance, physical and/or dating violence, motor vehicle accidents, crime, and suicide attempts¹⁶.



[California Healthy Kids Survey¹⁷](#)

¹⁶ Child Trends. (2018). (Accessed 2020). Binge drinking. Retrieved from <https://www.childtrends.org/indicators/binge-drinking>

¹⁷ California Healthy Kids Survey. (n.d.). Retrieved from <https://www.cde.ca.gov/ls/he/at/chks.asp>

The percentage of teens in Plumas County who reported ever trying alcohol has declined for all grade levels from 2011 through 2017. However, 7th and 11th grade level teens reporting ever trying alcohol increased from 2015 to 2017, but continued declining for 9th grade students. The percentage of teens in Plumas County who reported ever becoming intoxicated or sick from drinking alcohol has declined for all grade levels from 2011 through 2017.

Teen Tobacco and Vaping Use

Smoking and tobacco use are contributing risk factors for a number of adverse health conditions including heart disease, stroke and respiratory illnesses. Smoking and tobacco use during adolescence may lead to additional unhealthy behavior and substance use, and almost all smokers begin in adolescence¹⁸.

Electronic cigarettes (e-cigarette) and nicotine vaping devices come in many shapes and sizes used to heat a liquid, which then produces an aerosolized form of inhalable nicotine. Nicotine is a highly addictive substance that affects the brain's reward system by increasing the chemical messenger dopamine associated with pleasure and reward. Because the adolescent brain continues to develop until age 25, frequent e-cigarette or other nicotine product use during this critical timeframe can result in nicotine dependence and long-term effects on the brain's dopamine chemical messenger systems. In this way, Nicotine serves as a *gateway* drug as it primes the brain's reward system to be more susceptible to dependence on other substances such as methamphetamine or cocaine, if exposed to them later in adolescence or adulthood. Other consequences of nicotine on the developing brain include attention and cognition defects, mood disorders, and reduced impulse control¹⁹.

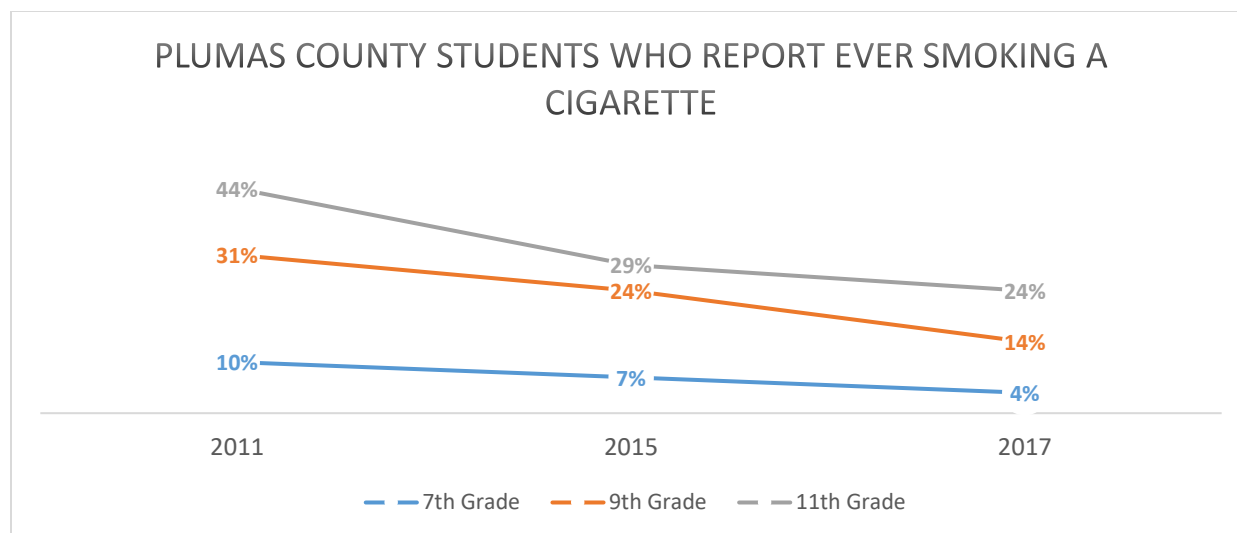
In 2016, the U.S. Surgeon General declared e-cigarette use among youth and young adults a public health concern as their use in high schools increased nine fold from 2011 to 2015²⁰. Though nicotine levels in e-cigarettes may vary depending on the brand and type, some contain much higher levels of nicotine than regular cigarettes²¹.

¹⁸ Youth and Tobacco Use. (2020). Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/

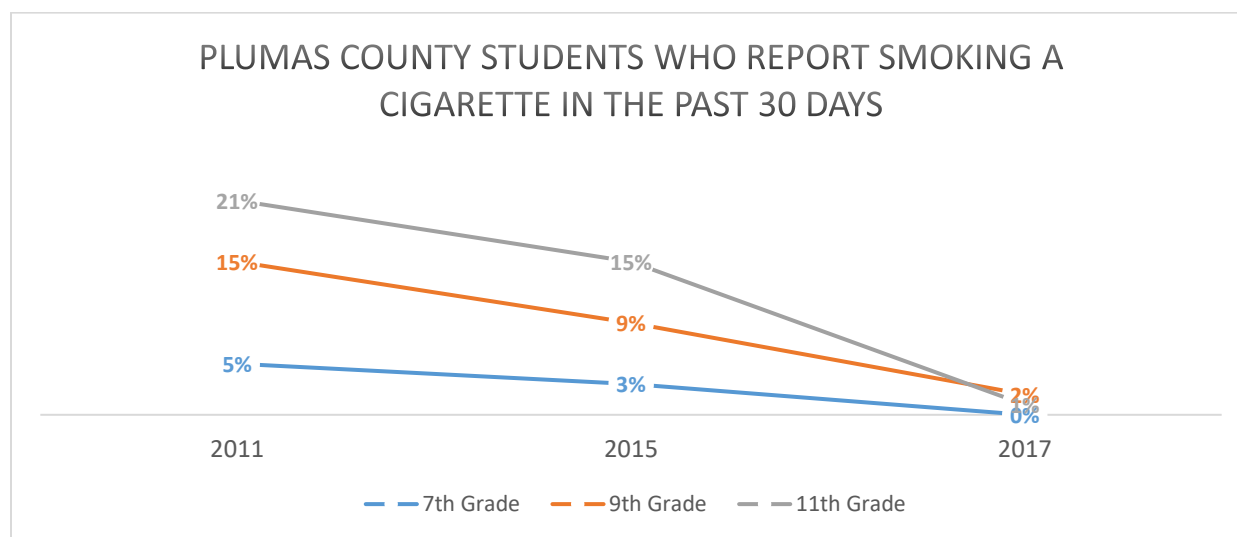
¹⁹ Levine, A., Huang, Y., Drisaldi, B., Griffin, E. A., Jr, Pollak, D. D., Xu, S., Yin, D., Schaffran, C., Kandel, D. B., & Kandel, E. R. (2011). (Accessed 2020). Molecular mechanism for a gateway drug: epigenetic changes initiated by nicotine prime gene expression by cocaine. *Science translational medicine*, 3(107), 107ra109. doi: [10.1126/scitranslmed.3003062](https://doi.org/10.1126/scitranslmed.3003062)

²⁰ US Department of Health and Human Services. (2016). (Accessed 2020). E-cigarette Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, CDC; Retrieved from https://www.cdc.gov/tobacco/data_statistics/sgr/ecigarettes/pdfs/2016_sgr_entire_report_508.pdf

²¹ Centers for Disease Control and Prevention. (2020). Smoking & Tobacco Use. Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults. Retrieved from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html

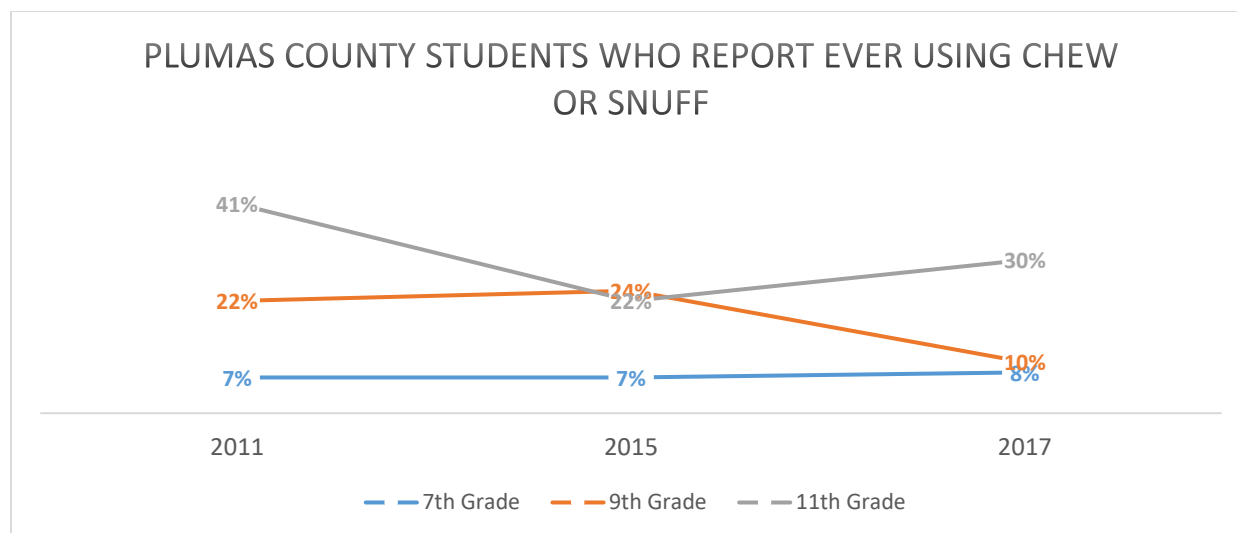


[California Healthy Kids Survey](#)



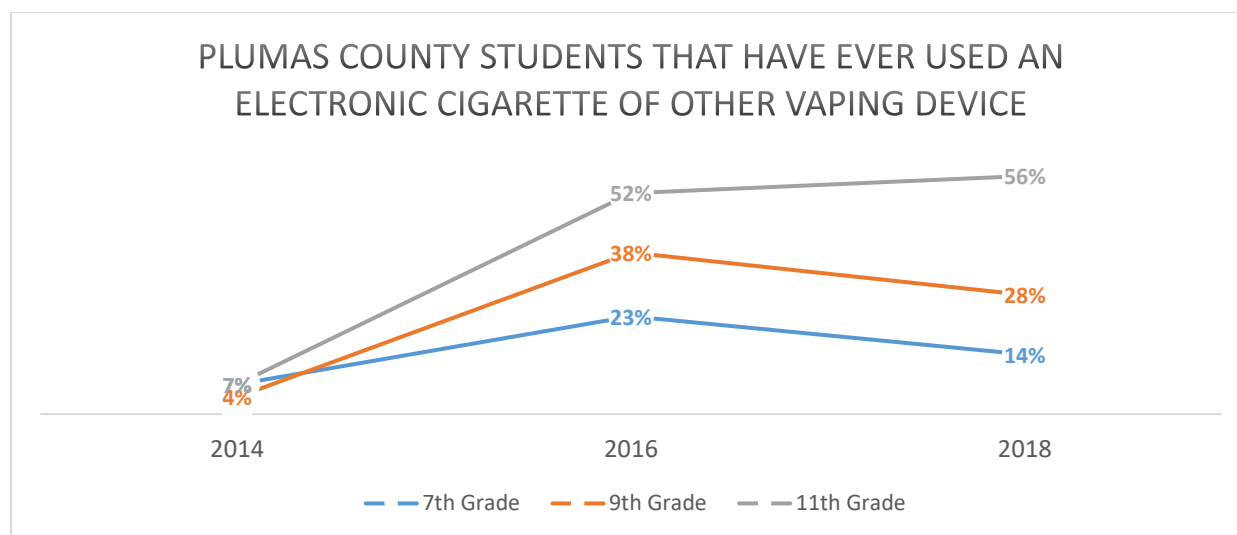
[California Healthy Kids Survey](#)

The percentage of teens in Plumas County who reported ever smoking a cigarette has declined steadily for all grade levels from 2011 through 2017. Likewise, the percentage of teens who report having smoked a cigarette in the past 30 days has declined significantly during this period, with virtually no 7th graders reporting smoking in the past 30 days.

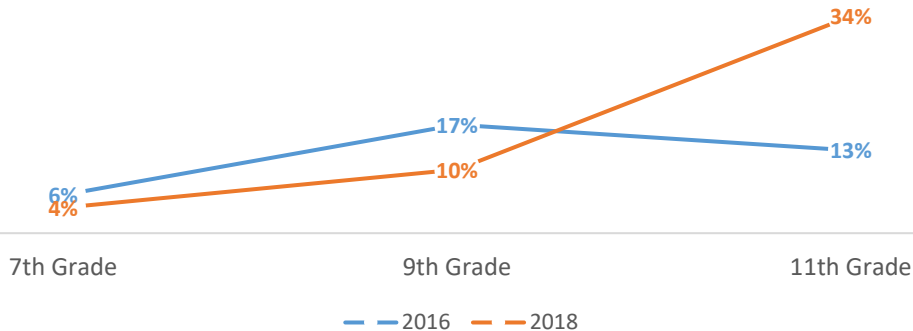


[California Healthy Kids Survey](#)

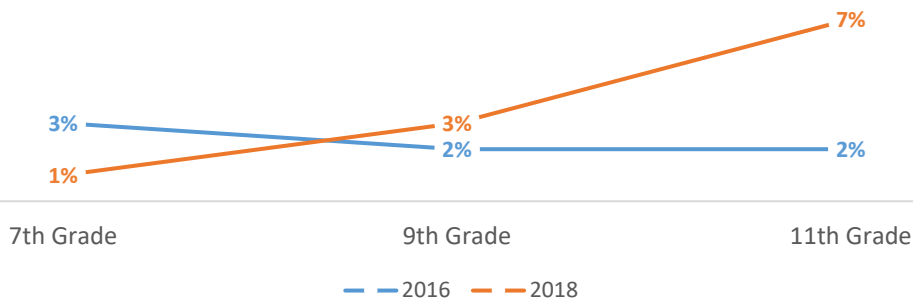
The percentage of teens in Plumas County who reported ever trying chewing tobacco products or snuff has declined for 9th and 11th grade level students from 2011 through 2017, but increased marginally for 7th grade level teens; and an increase from 2015 to 2017 occurred for both 7th and 9th grade level teens.



PLUMAS COUNTY STUDENTS THAT CURRENTLY USE ELECTRONIC CIGARETTES OR OTHER VAPING DEVICE



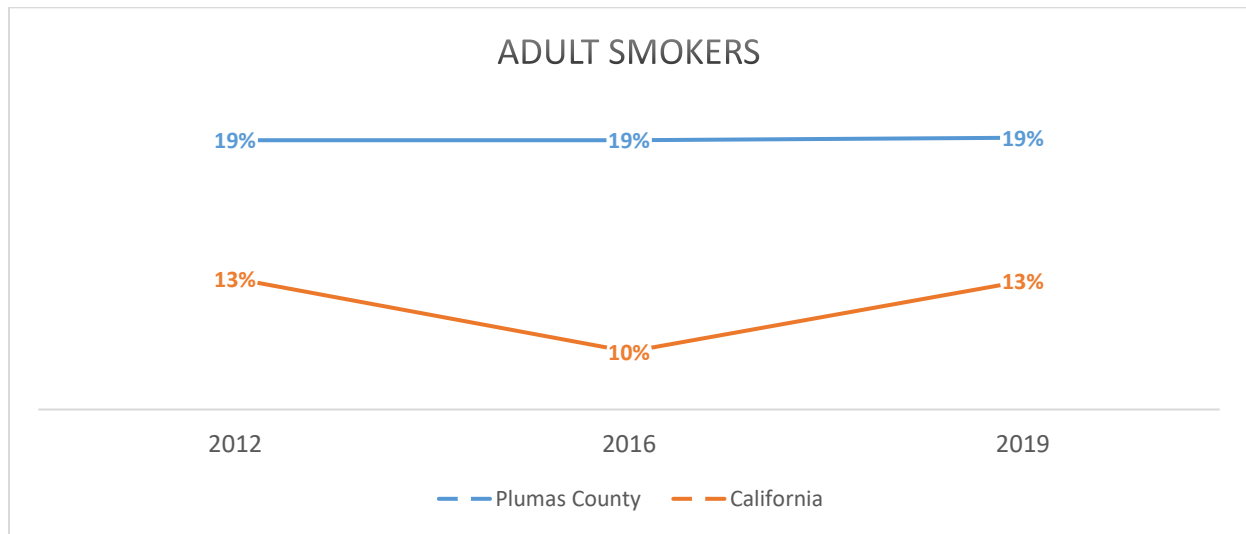
PLUMAS COUNTY STUDENTS THAT CURRENTLY USE ELECTRONIC CIGARETTES OR OTHER VAPING DEVICE AT SCHOOL



[California Healthy Kids Survey](#)

Of great concern, the percentage of teens in Plumas County who reported ever trying an electronic cigarette or vaping device increased for all grade levels between 2014 and 2018, with 7th graders and 9th graders demonstrating a declining trend between 2016 and 2018; but with 11th graders continuing to demonstrate a marginally increasing trend during this time period. Similarly concerning trends were observed for students that currently use electronic cigarettes, with 7th and 9th grade students demonstrating slight declines in current use between 2016 and 2018, but a marked increase in current use for 11th grade level students. The percentage of students reporting use of e-cigarettes or vaping devices on school campuses also demonstrated a notably increasing trend over this period, with increases seen in 9th and 11th grade level students, but a slight decline for 7th grade students.

Adult Tobacco Use



[California Department of Public Health, Tobacco Control Program²²](#)

The National Healthy People 2020 objective is a target of fewer than 12.0% of adults using tobacco products. Tobacco use among adults in the County has remained consistently above that of California overall, as well as the Healthy People 2020 objective from 2012 through 2019.

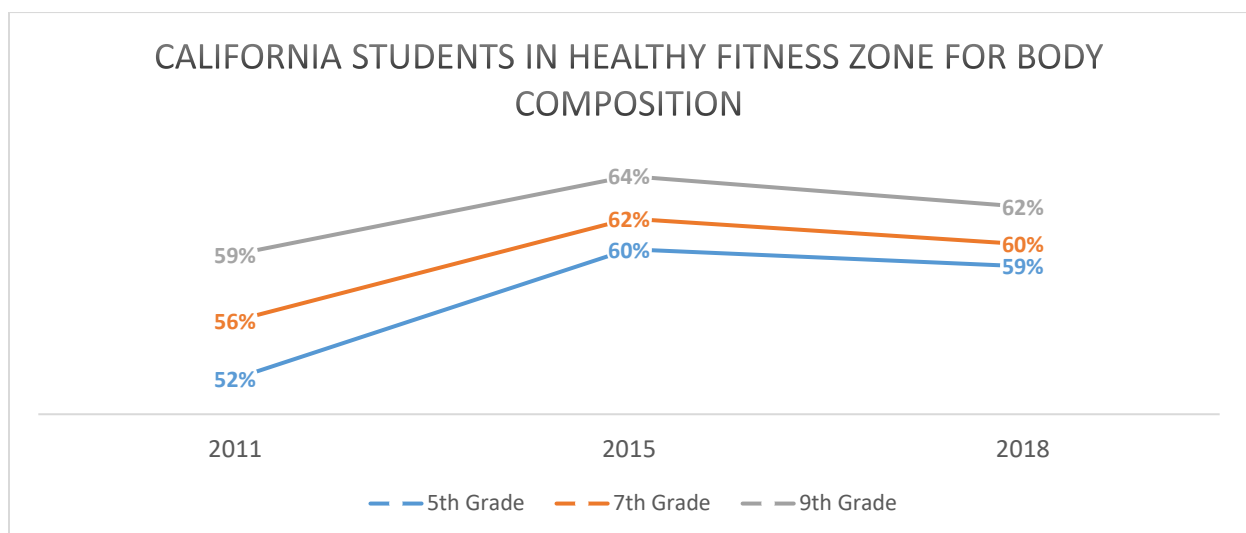
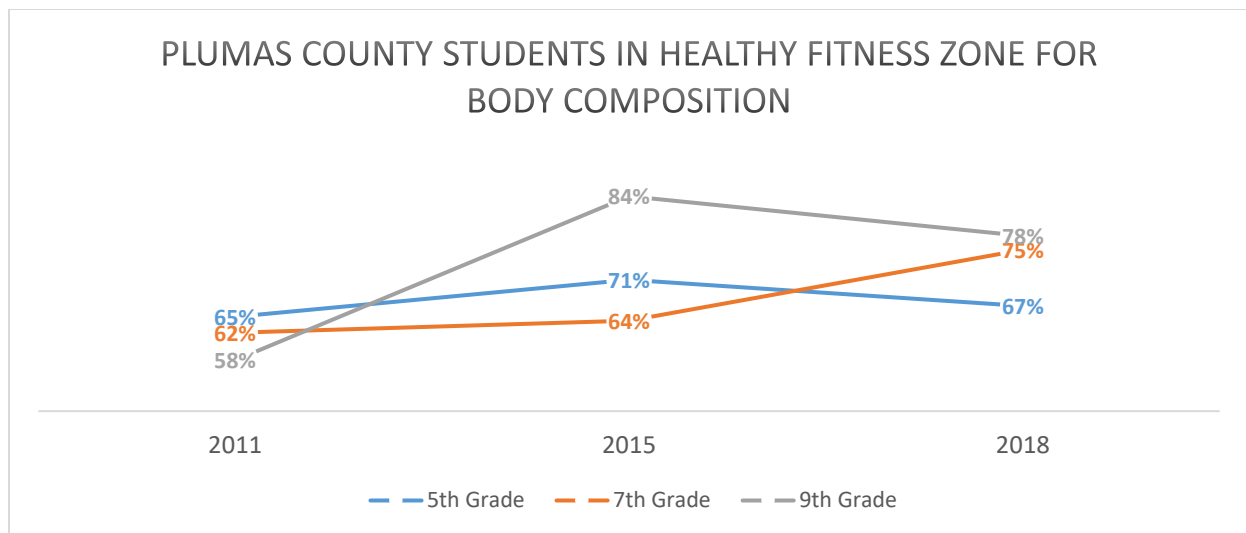
Teen Physical Fitness

Regular physical activity aids muscle development, bone health, and heart health. Children who regularly exercise tend to do better in school, have lower levels of depression and anxiety, and are more likely to become healthy adults. The CDC recommends that children and adolescents participate in one hour or more of exercise every day, which should include aerobic activity (e.g., brisk walking or running), muscle strengthening (e.g. push-ups), and bone strengthening activities (e.g. jumping rope)²³.

Since 1996, California Education Code (EC) has required that each local educational agency administer a state-designated physical fitness test (PFT) to all students in grades five, seven, and nine; with the aim of evaluating the minimum levels of fitness known to be associated with health and physical characteristics that offer protection against disease resulting from physical inactivity. Achievement of the fitness standards is based on a score falling in the Healthy Fitness Zone (HFZ) representing six fitness areas.

²² California Department of Public Health. (n.d.). Tobacco Control Program. Retrieved from <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/Pages/CaliforniaTobaccoControlBranch.aspx>

²³ Centers for Disease Control and Prevention. (2011). (Accessed 2020). Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion. How much physical activity do children need? Retrieved from <http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html>



[California Department of Education, Physical Fitness Test²⁴](#)

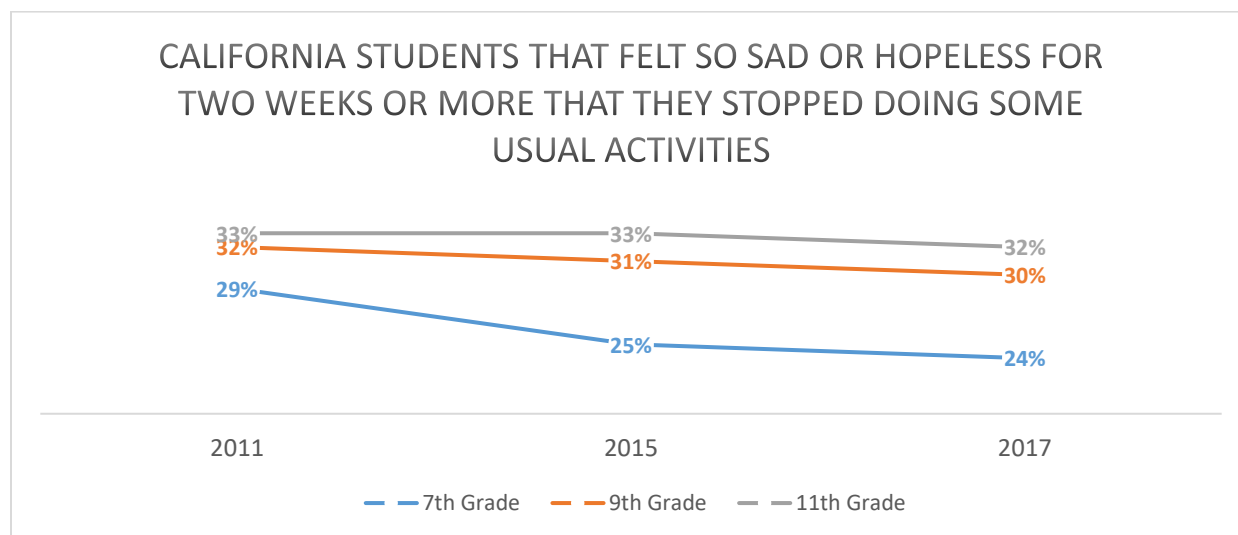
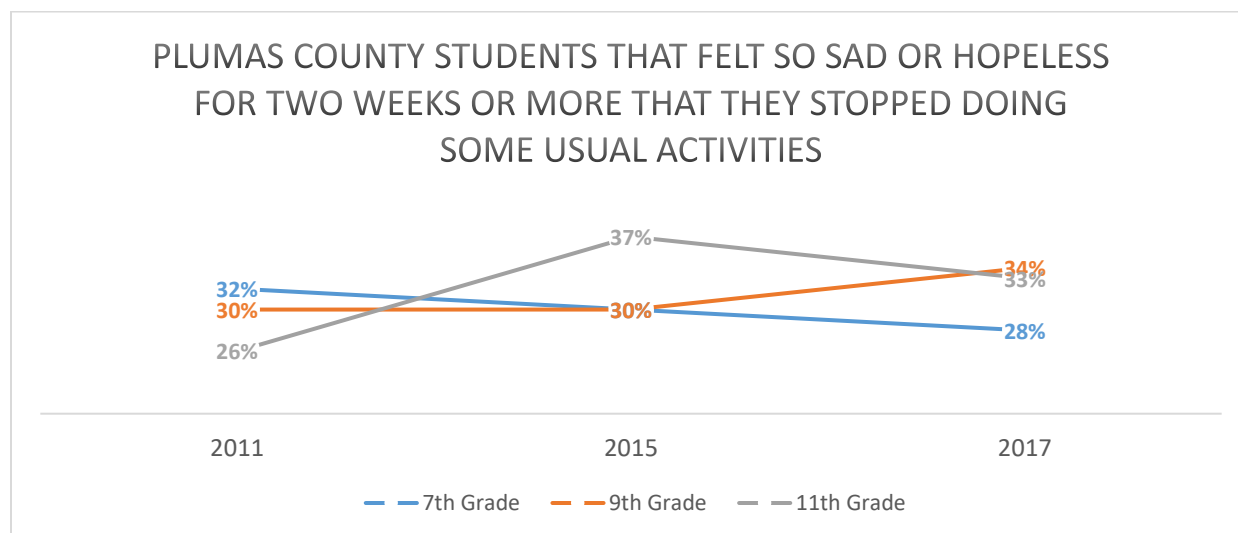
In Plumas County, students at all grade levels have consistently demonstrated equivalent or greater fitness zones than students in California from 2011 to 2018. However, from 2015 to 2018, a slight decrease in fitness was seen for 5th and 9th grade Plumas County students, while a slight increase in fitness levels was seen for 7th grade students.

Teen Mental Health

Mental Health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. Mental health disorders can influence an individual's self-esteem, interpersonal and professional relationships, and ability to function in everyday life. An individual's mental health can also influence their physical health and patterns

²⁴ California Department of Education. (n.d.). Physical Fitness Test. Retrieved from <https://www.cde.ca.gov/ta/tg/pf/>

of behavior. Challenges with mental health can start early in life. Depression is the most common mental health disorder in young people, affecting nearly one in eight adolescents and young adults each year. When left untreated, mental health disorders can lead to serious—even life-threatening—consequences. Depression is major risk factors for suicide, which is the second leading cause of death for 15- to 24-year-olds. For young people who already have mental health disorders, early intervention and treatment can help lessen the impact of these disorders over the course of their lives²⁵.



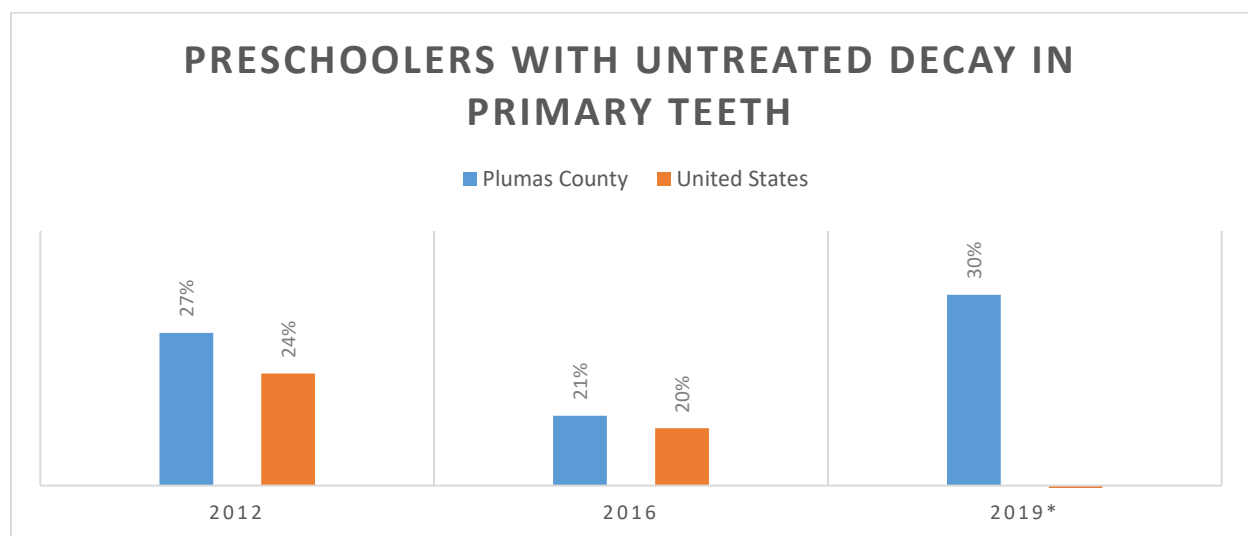
[California Healthy Kids Survey](#)

²⁵ US Department of Health and Human Services. (2020). Adolescent Development. Mental Health. Adolescent Mental Health Basics. Retrieved from <https://www.hhs.gov/ash/oah/adolescent-development/mental-health/adolescent-mental-health-basics/index.html>

In Plumas County, students at all grade levels have consistently reported equivalent or greater rates of feeling symptoms of clinical depression than in California overall from 2015 to 2017. However, in 2011, slightly fewer 9th and 11th grade students reported symptoms of depression than students' statewide, but this trend had reversed for both grade levels by 2017.

Oral Health

Cavities (also known as caries or tooth decay) are one of the most common chronic diseases of childhood in the United States. Untreated cavities can cause pain and infections that may lead to problems with eating, speaking, playing, and learning. Children who have poor oral health often miss more school and receive lower grades than children who do not. Twenty-percent of children aged 5 to 11 years have at least one untreated decayed tooth, while 13% of adolescents aged 12 to 19 years have at least one untreated decayed tooth. Children from low-income families are twice as likely to have cavities, compared with children from higher-income households²⁶.



Plumas County Public Health Officer Oral Health Screenings (on file); [National Health and Nutrition Examination Survey \(NHANES\)](#)²⁷; * National data not available after 2016

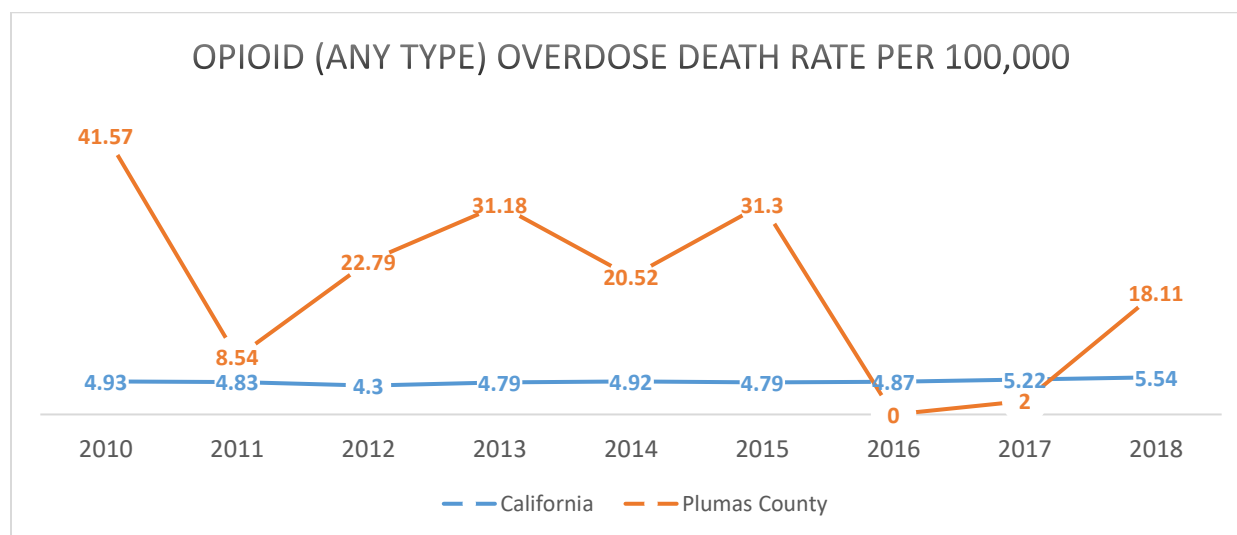
In Plumas County, preschool age children have consistently had a marginally higher rate of untreated tooth decay compared to nationwide rates. Of concern, however, is that between 2016 and 2019 a notable increase occurred for Plumas County preschool age children in the rate of untreated tooth decay.

²⁶ Centers for Disease Control and Prevention. (2019). (Accessed 2020). Oral Health Basics. Children's Oral Health. Retrieved from <https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html>

²⁷ Centers for Disease Control and Prevention. (n.d.). National Center for Health Statistics. National Health and Nutrition Examination Survey (NHANES). Retrieved from <https://www.cdc.gov/nchs/nhanes/index.htm>

Opioid Overdose Death Rate (age adjusted)

Over the past two decades, misuse of prescription opioids such as hydrocodone and oxycodone became one of the most serious nationwide substance related problems. Misuse of prescription opioids has been well documented as a pathway to use of street heroin and illicit synthetic opioids. This has led to an increase in illicit use of opioids including heroin and, in more recent years, illicitly manufactured synthetic opioids such as fentanyl. Mortality attributed to prescription opioids began to increase in the late 1990's, peaking in 2011, then plateauing and remaining relatively steady. Drug induced deaths (e.g. overdose) accounted for more unintentional deaths than motor vehicle crashes for the first time in 2012, with prescription opioids accounting for more than half of the 41,000 deaths in the U.S. attributed to a drug overdoses that year. Mortality attributed to heroin began to increase in 2010, and then a sharp increase in mortality attributed to synthetic opioids - such as fentanyl and its analogs - began in 2013; both of which have continued to rise through the present, with synthetic opioids rising more rapidly than both prescription opioids and heroin²⁸.



[California Opioid Overdose Surveillance Dashboard](https://skylab.cdph.ca.gov/ODdash/)²⁹

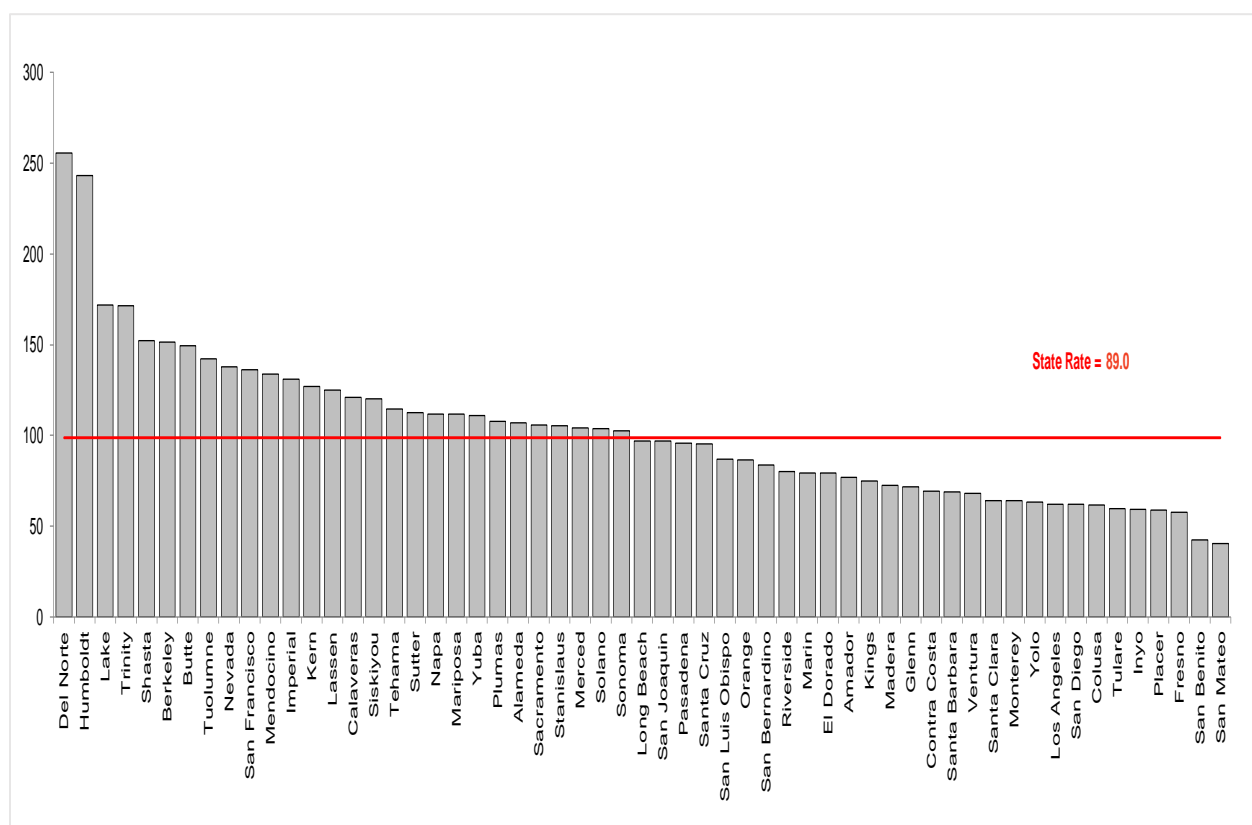
For the past decade, Plumas County has generally had an all-opioid overdose death rate greater than that of California overall, with the exceptions of 2016 and 2017. It is important to note that the rates reported here do not account for polydrug overdoses and therefore may be underreporting opioid involved overdoses; and that due to the relatively small population of Plumas County, rates here are sensitive to a small number of events and should be interpreted with caution.

²⁸ Centers for Disease Control and Prevention. (2020). Opioid Overdose. Opioid Basics. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/index.html>

²⁹ California Opioid Overdose Surveillance Dashboard. (n.d.). Retrieved from <https://skylab.cdph.ca.gov/ODdash/>

Rate of Chronic Hepatitis C Virus (HCV)

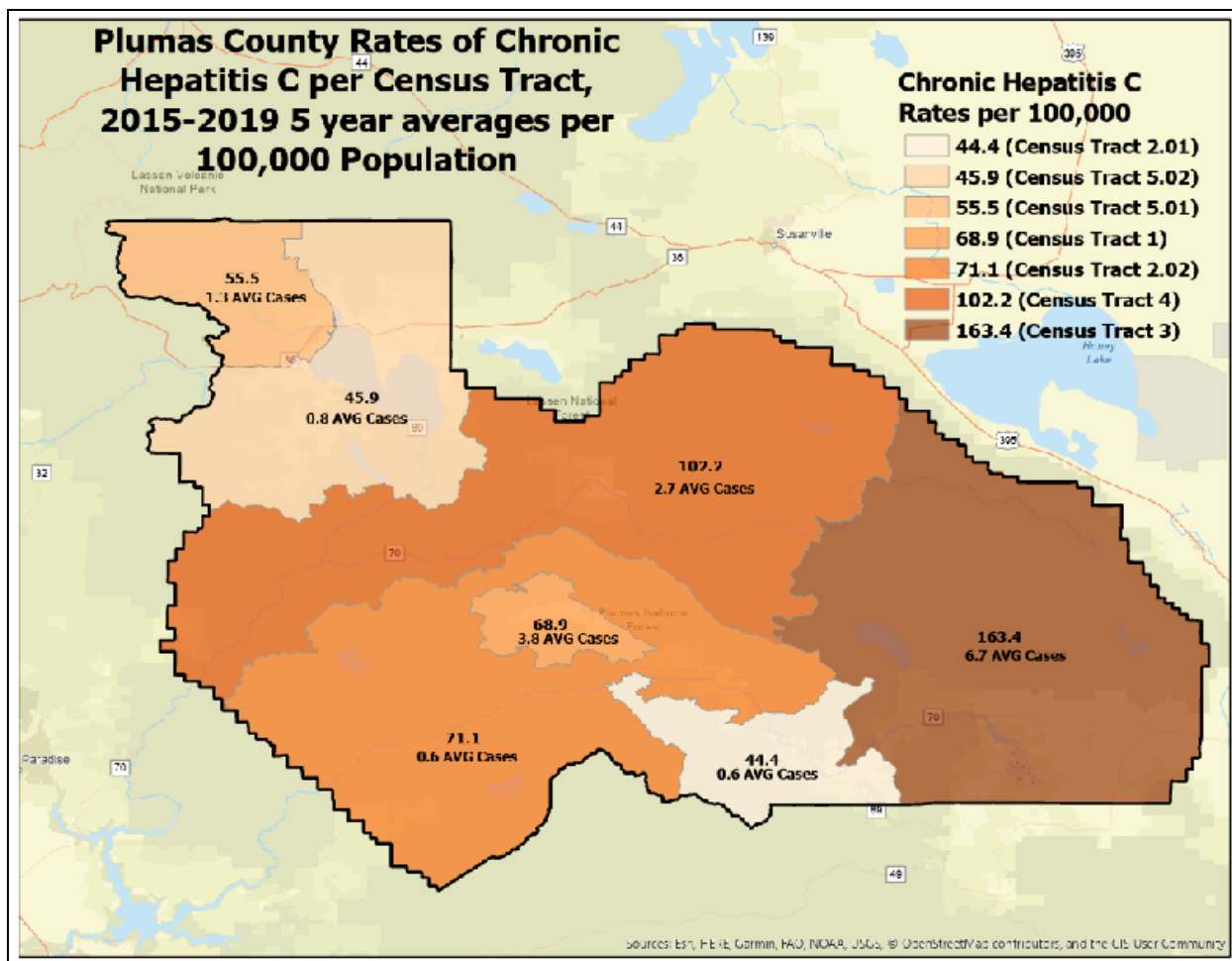
Hepatitis means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected. Hepatitis is often caused by a family of viruses. In the United States, the most common types of viral hepatitis are hepatitis A, hepatitis B, and hepatitis C. There are effective vaccines to prevent hepatitis A and B infection, but not hepatitis C virus (HCV) infection. For some people, HCV infection is a short-term illness, but for more than half of people who become infected with HCV, it becomes a long-term, chronic infection. Chronic HCV infection can result in serious, even life-threatening health problems like cirrhosis and liver cancer. People with chronic HCV can often have no symptoms and do not feel sick. When symptoms appear, they often are a sign of advanced liver disease. Because there is no vaccine for HCV, the best way to prevent HCV infection is by avoiding behaviors that can spread the disease, especially injecting drugs. Being tested for HCV infection is important, because treatments can cure most people with HCV in 8 to 12 weeks³⁰.



Rates of Newly Reported Cases of Chronic HCV in Ranked Order by Local Health Jurisdiction, Excluding Cases in State Prisons, California, 2018. Source: [CDPH Office of Viral Hepatitis Prevention](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/OVHP.aspx)³¹

³⁰ Centers for Disease Control and Prevention. (2020). Viral Hepatitis. What is Viral Hepatitis? Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>

³¹ CDPH Office of Viral Hepatitis Prevention. (n.d.). Retrieved from <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/OVHP.aspx>

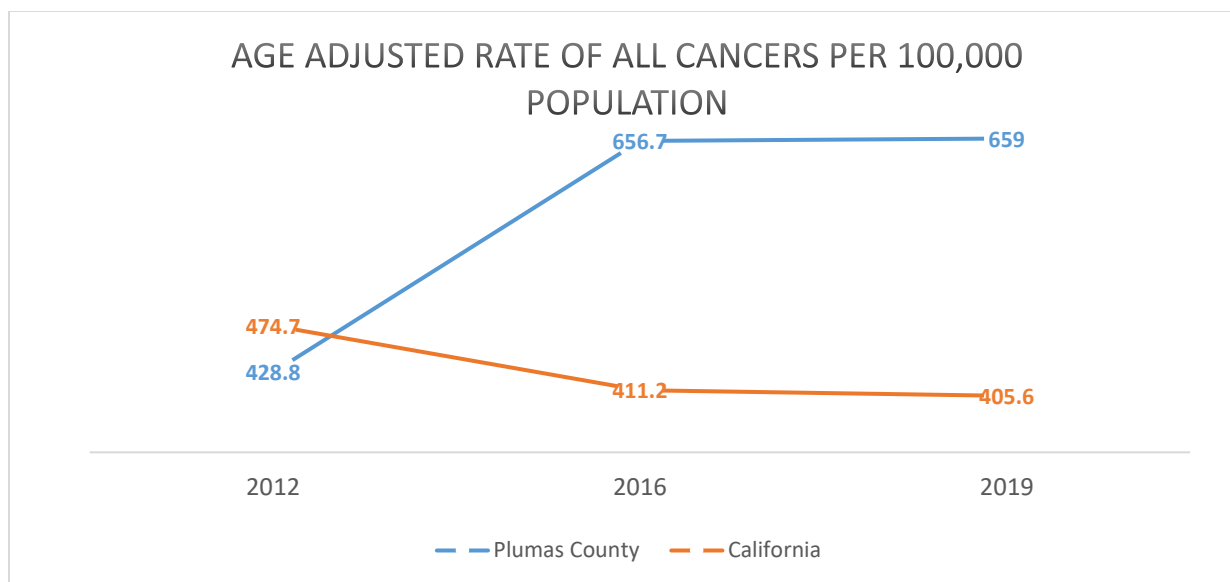


Map 2: Chronic Hepatitis C Virus Rates per Plumas County Census Tracts

In Plumas County, the rate of new cases of chronic HCV was slightly higher than for California overall. Within Plumas County, there was considerable variation between sub regions of the County (e.g. census tracts), with particularly high rates observed in the Eastern portion of the County.

Cancer Rate

Cancer is category of more than 100 different diseases characterized by the uncontrolled growth and spread of abnormal cells. The risk of developing cancer increases with age and varies by gender and race. Family history of cancer is also associated with risk for these diseases. Up to 80% of all cancers are related to lifestyle or environmental factors, such as smoking and diet. Changes in lifestyle or environmental conditions may greatly reduce the incidence of cancer. Opportunities exist to reduce the burden of cancer through improved prevention, early detection, and treatment. For instance, there is convincing evidence that screening for colorectal cancer reduces the death rate (mortality rate) in adults between the ages of 50 and 75. Early detection is key to the effective treatment of many cancers and can be lifesaving. In addition, the cost of treating cancer is significantly lower if detected early.



[CDC United States Cancer Statistics](#)³²; population change used to estimate 2019 rates

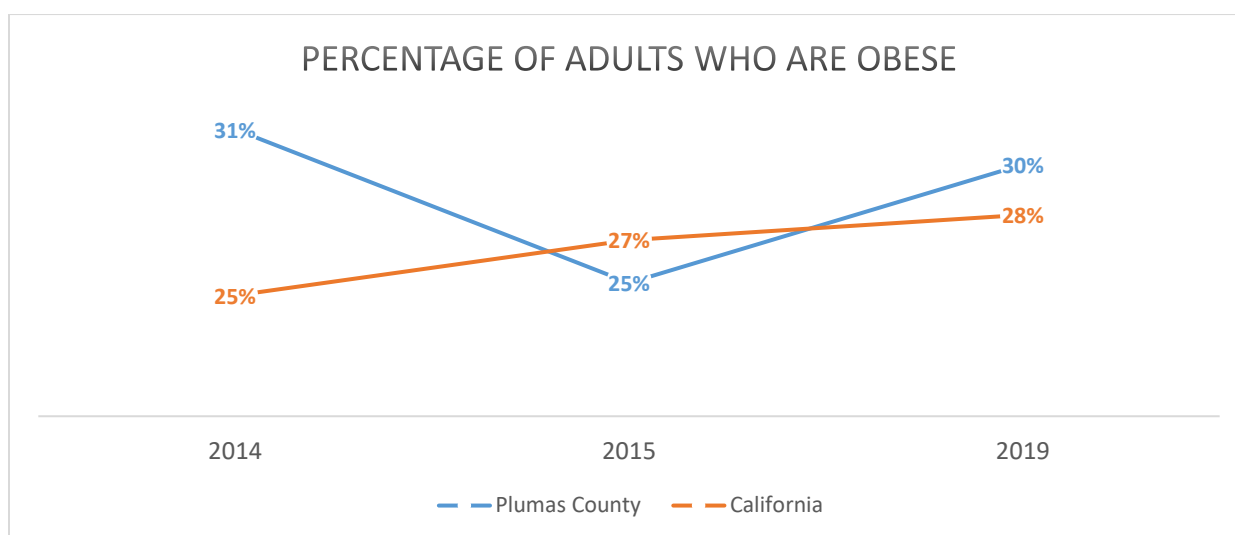
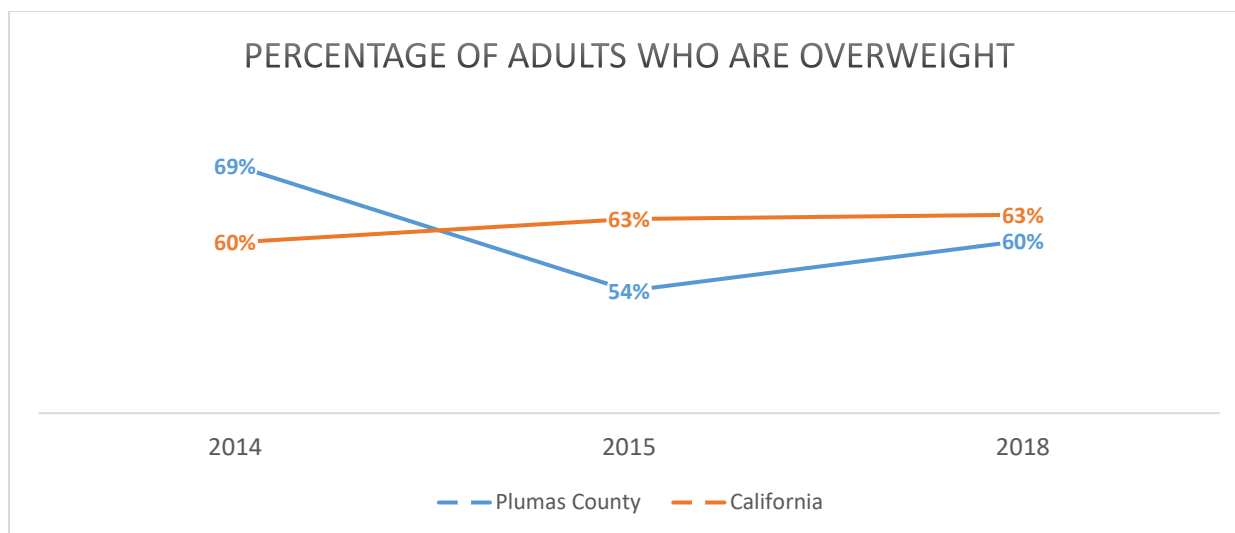
Between 2012 and 2019, the rate of all cancers in Plumas County demonstrated an alarmingly increasing trend. Over this period, rates increased by more than fifty-percent in Plumas County, while they declined considerably in California overall.

Overweight or Obese

In the last three decades, nationwide obesity rates have doubled in adults and tripled in children. Obesity results from a combination of various biological, behavioral, environmental and socioeconomic factors. However, obesity is most often associated with poor diet and limited physical activity. Being overweight or obese increases risk of cardiovascular diseases (such as high cholesterol or high blood pressure); bone and joint problems; sleep apnea; social and psychological problems such as stigmatization and poor self-esteem; and development of Type II diabetes³³.

³² CDC United States Cancer Statistics. (n.d.). Retrieved from <https://www.cdc.gov/cancer/uscs/index.htm>

³³ Centers for Disease Control and Prevention. (2020). Overweight & Obesity. Retrieved from <https://www.cdc.gov/obesity/index.html>



[California Department of Public Health, Nutrition Education and Obesity Prevention Branch](#)³⁴

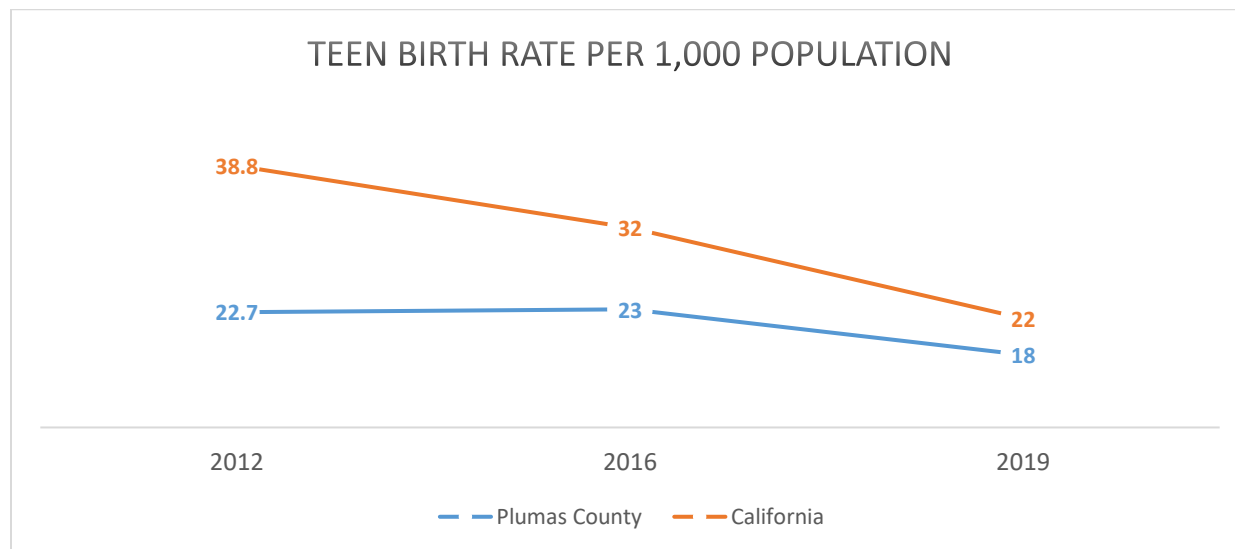
In Plumas County, more than half of adults have been overweight from 2014 through 2019, and more than a quarter have been obese during this period. No clear trend in difference between Plumas County overweight and obesity rates has been seen during this period.

Teen Birth Rate

Giving birth as a teenager can create hardship for parents. Teen parents are more likely to attain lower levels of education, as well as lower income levels. However, it is important to note that some teen parents are able to manage these challenges successfully and reach their educational or career goals later in life. Teen mothers are more likely to have babies born prematurely or with low birth weight, and their infants are at a much greater risk of death. Children born to teen

³⁴ California Department of Public Health. (n.d.). Division of Chronic Disease and Injury Control. Nutrition Education and Obesity Prevention Branch. Retrieved from https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/NEOPB/Pages/Nutrition_Education_Obesity_Prevention_Branch.aspx

mothers are also at a greater risk for physical, social, and emotional challenges than children born to mothers in their 20s and early 30s. In addition, children born to teen mothers are at greater risk of becoming part of the foster care system³⁵.



[County Health Rankings / National Center for Health Statistics](#)^{36, 37}

Between 2012 and 2019, the Plumas County birth rate for teens has been consistently lower than for the state of California overall. Both the Plumas County and statewide teen birthrate have declined over this period, with the statewide rate declining more rapidly than that of Plumas County.

Suicide Rate

Suicide and suicidal behaviors affect people of all ages, ethnicities, religions, socioeconomic groups and geographic locations. Suicidal behavior is influenced by an array of biological, psychological, social, environmental and cultural risk factors. Suicide is the tenth leading cause of death in the Nation, and has increased steadily over the last decade nationwide. Suicide rates in rural areas tend to be higher than in urban settings. It is likely that the number of suicides reported each year is lower than the actual number that occurs due to the negative social stigma associated with committing suicide. Suicide, in combination with drug induced and alcohol related deaths, collectively referred to as *Deaths of Despair*, have resulted in decreasing life expectancy in the United States since 2015^{38,39}.

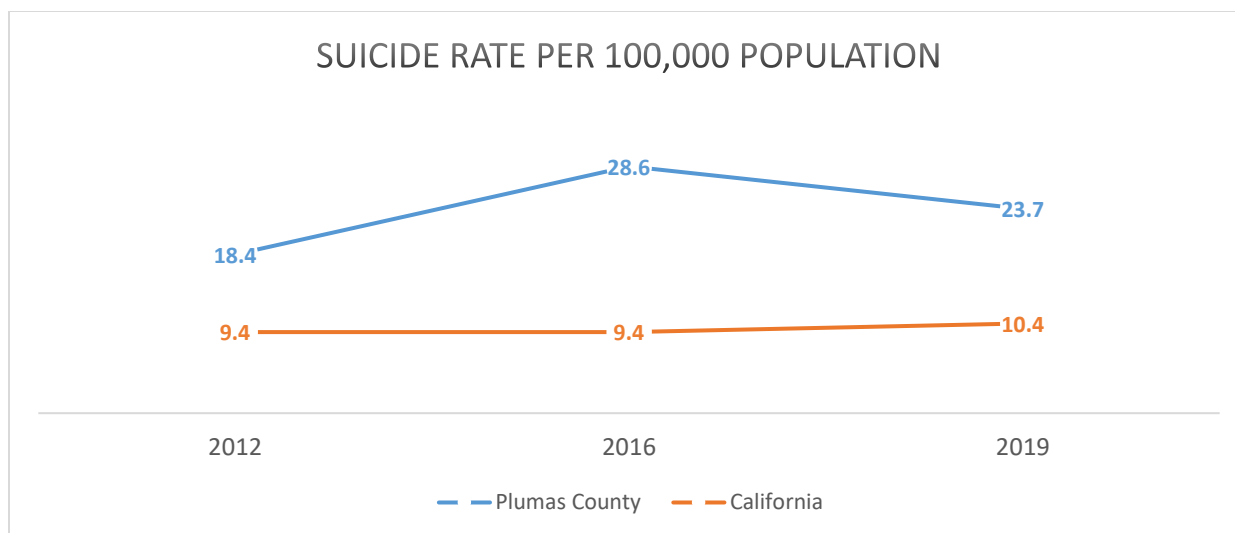
³⁵ Child Trends. (2019). Teen births. Retrieved from <https://www.childtrends.org/indicators/teen-births>

³⁶ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps (2019). Retrieved from www.Countyhealthrankings.org

³⁷ Centers for Disease Control and Prevention. (n.d.). National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/index.htm>

³⁸ Hedegaard H, Curtin SC, Warner M. (2020). Increase in suicide mortality in the United States, 1999–2018. NCHS Data Brief, no 362. Hyattsville, MD: National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/products/databriefs/db362.html>

³⁹ Segal, L.M., et al.. (2017). Pain in the Nation: The Drug, Alcohol and Suicide Crises and the Need for a National Resilience Strategy. Trust for America's Health & Well Being Trust. Retrieved from <https://www.tfah.org/report-details/pain-in-the-nation/>



[California Department of Public Health, County Health Status Profiles](#)⁴⁰

Between 2012 and 2019, Plumas County consistently had a higher suicide rate than California overall, and was at least twice as common per capita in Plumas County as in California overall during this period; approaching a rate three times the state rate in 2016. As with the drug-induced deaths, these rates are sensitive to a small number of events in Plumas County due to the small population size, and should be interpreted with caution. Nevertheless, these rates are concerning in light of the nationwide data demonstrating suicide, and other types of deaths of despair, are significantly more prevalent in rural areas than urban settings.

Social Determinants of Health, Health Disparities, and Health Equity

Social Determinants of Health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Social, economic, and physical conditions in these various environments such as neighborhoods, schools, churches, and workplaces, have been referred to as *place*. In addition to the more material attributes of place, patterns of social engagement and sense of security and well-being are also affected by where people live. Resources that enhance quality of life can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and environments free of life-threatening toxins⁴¹.

A *Health Disparity* exists when a higher burden of illness, injury, disability, or mortality is experienced by one group relative to another, and these occur when a group does not have adequate access to resources. Health disparities cannot be explained by variations in health

⁴⁰ California Department of Public Health. (n.d.). Center for Health Statistics and Informatics. Vital Records Data and Statistics. County Health Status Profiles. Retrieved from <https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx>

⁴¹ Centers for Disease Control and Prevention. (n.d.). Social Determinants of Health: Know What Affects Health. Retrieved from <https://www.cdc.gov/socialdeterminants/>

needs, patient preferences, or treatment recommendations and are closely linked with social, economic, and/or environmental disadvantage (e.g. social determinants of health). Health disparities are observed in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to preventative care and treatment.

Health Equity is achieved when every person has the opportunity to attain their full health potential, and no one is disadvantaged from achieving this potential because of their social position or other socially determined circumstances. In other words, *Health Equity* means that everyone has a fair and just opportunity to be as healthy as possible, and achieving it requires removing obstacles to health such as poverty, discrimination, and their consequences - including powerlessness and lack of access to good jobs with fair pay; quality education and housing; safe environments; and health care. *Equity* and *Equality* differ in that *Equity* acknowledges that some individuals or groups may need more resources than others to overcome disproportionate barriers to good health; while *Equality* would give everyone the same amount of resources regardless of the social position or other socially determined circumstances that may be barriers to attaining their full health potential⁴².

Structural Racism and Health Disparities

Structural Racism is defined as the systems, social forces, institutions, ideologies, and processes that interact with one another to create and reinforce inequities among racial and ethnic groups, and emphasizes the social and environmental conditions that affect racial and ethnic health inequities. Structural racism is not due to the actions or intent of individuals, but rather collective actions of a society that reinforce social conditions and environments which encourage the ongoing existence of systems that favor one racial or ethnic group over another⁴³. In the United States, stark examples of health disparities between racial and ethnic groups exist that cannot be explained biological or genetic differences. For example, African American / Black women have alarmingly higher adverse birth, infant mortality, and maternal mortality rates than non-Hispanic white women⁴⁴. These differences persist even when adjusting for education, income, neighborhood and other socioeconomic factors. A growing body of scientific evidence demonstrates these differences in birth outcomes are related to differences in stress experienced by mothers, and levels of stress hormones released in response to stress such as cortisol, downstream of social determinants of health that are negatively impacted by structural racism. The accumulation of stress over someone's lifetime is called an allostatic load, and structural racism is one type of chronic stressor that can contribute to a high allostatic load. Greater lifetime exposure to these chronic stressors increases risk for poor health outcomes, including those

⁴² Braveman, P., Arkin, E., Orleans, T., Proctor, D., Plough, A. (2017). What Is Health Equity? And What Difference Does a Definition Make? Princeton, NJ: Robert Wood Johnson Foundation. Retrieved from <https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html>

⁴³ American Public Health Association. (2020). Topics & Issues. Health Equity. Racism and Health. Retrieved from <https://www.apha.org/topics-and-issues/health-equity/racism-and-health>

⁴⁴ Chambers, B., Baer, R., McLemore, M. et al. (2019). Using Index of Concentration at the Extremes as Indicators of Structural Racism to Evaluate the Association with Preterm Birth and Infant Mortality—California, 2011–2012. *J Urban Health* 96, 159–170. doi: [10.1007/s11524-018-0272-4](https://doi.org/10.1007/s11524-018-0272-4)

associated with pregnancy. Many other health disparities between racial and ethnic groups exist, with underrepresented and minority groups generally fairing worse than non-Hispanic white populations⁴⁵.

Rural Health Disparities

In the United States, health disparities between rural and urban populations have been identified, and in recent years rurality has become a proxy for a number of social determinants of health. Recent studies have brought to light both the significant gap between the health of rural and urban populations; and some of the differences between rural and urban areas thought to contribute to the gap. People living in rural areas are more likely to die from heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke than people living in urban or suburban areas. Unintentional injury deaths are approximately fifty-percent higher in rural areas than in urban areas, in part due to greater risk of death from motor vehicle crashes and opioid overdoses. Overall, residents of rural areas also tend to be older and in worse health than residents of urban areas⁴⁶.

People living in rural areas tend to have higher rates of cigarette smoking, high blood pressure, and obesity. Rural residents report having less leisure-time physical activity, and lower seatbelt use than people living in urban areas. Rural populations also demonstrate higher rates of poverty, worse access to healthcare, and lower rates of health insurance coverage. People living in rural areas also tend to have lower income levels, worse access to education, and worse access to preventative and specialty health care services compared to those living in urban and suburban areas. They are also more at risk for negative health outcomes due to challenges in rural areas such as slower workforce development, lack of infrastructure and community preservation, and less economic growth. All of these factors can lead to poor health outcomes.

In 2014, the Centers for Disease Control and Prevention (CDC) reported that many premature deaths among rural Americans were preventable, including 25,000 from heart disease, 19,000 from cancer, 12,000 from unintentional injuries, 11,000 from chronic lower respiratory disease, and 4,000 from stroke. According to the CDC, the years of potential life lost (YPLL) from these premature deaths to rural residents could be reduced through implementation of public health programs focusing on prevention of drug and alcohol misuse, poverty, and homelessness; and programs that focus on increasing educational attainment, social support, emotional and mental wellness, and increased access to health care services.

One of the most prevalent and persistent rural health challenges is access to healthcare. Rural communities face multiple barriers to consistently accessing high quality healthcare services. These include an insufficient number of primary care providers (PCPs) practicing in these areas and limited access to specialty care, including general surgery. Residents of rural areas lacking

⁴⁵ National Partnership for Women & Families. (2019). Issue Brief. Advancing Health Equity: Addressing the Role of Structural Racism. Retrieved from <https://www.nationalpartnership.org/our-work/resources/health-care/advancing-health-equity-addressing-the-role-of-structural-racism.pdf>

⁴⁶Centers for Disease Control and Prevention. Rural Health. About Rural Health. Retrieved from <https://www.cdc.gov/ruralhealth/about.html>

reliable access to transportation face even greater barriers to accessing specialty care, such as challenges arranging travel over long distances to receive care. The higher mortality rates observed in rural populations have been directly linked with lower access to primary and preventative care, including early screening, detection, and treatment of chronic conditions⁴⁷.

The higher poverty levels and deterioration of the built environment in rural areas are both associated with higher rates of mental health disorders, such as depression. In recent years, *Deaths of Despair* – those associated with suicide, alcohol, and opioids – have increased nationwide with rural areas demonstrating significantly higher rates than metropolitan and suburban areas⁴⁸. Rural populations often face barriers when it comes to addressing mental health, such as the stigma that is associated with a mental health disorders, the scarcity of mental health service providers, such as counselors, clinical psychologists, and psychiatrists; and a lack of privacy and culturally appropriate care available. Financial hardship is another hurdle to accessing mental health services, highlighting the need for publicly funded treatment. Rural residents also face further distances when seeking services, and without reliable transportation, care may be inaccessible⁴⁹.

Health Disparities in Plumas County

Most of Plumas County is zoned as forest service land, and travel between communities is long and difficult during winter months. Residents face challenges due to the isolated and rural geography of the County. Transportation was emphasized both in focus groups and in key informant interviews. The Plumas County Probation Department noted that parents lacking transportation contributes to high truancy rates. During the winter months, many parents are not able to get their children to bus stops due to unsafe weather conditions. Transportation challenges also affect obtaining medical care; including specialty care, dialysis, cancer treatment, and high-risk pregnancies. Limited transportation options can make access to specialty care difficult, especially during the winter months. During focus groups, seniors indicated that long travel times worsen pain or other health issues, making extended travel for care a poor option.

Only one hospital in Plumas County has the resources needed to deliver babies. Additionally, the perception of focus group participants was that there are limited services in the County for women experiencing high-risk pregnancies. Focus group participants in Chester reported having to travel to Susanville for high-risk prenatal care. The limited prenatal services impose undue hardships on families that must travel out of the County to seek prenatal care, some of which must be seen weekly. Weekly visits for prenatal care have heavy impacts due to requesting time off work, paying for additional gas, and the ability to obtain transportation. There are no dialysis

⁴⁷ Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690145/>

⁴⁸ The American Communities Report. (2020). Deaths of Despair Across America. American Communities Experience Deaths of Despair at Uneven Rates. Volume 31. Retrieved from <https://www.americancommunities.org/chapter/american-communities-experience-deaths-of-despair-at-uneven-rates/>

⁴⁹ National Rural Health Association. About Rural Health Care. Retrieved from <https://www.ruralhealthweb.org/about-nrha/about-rural-health-care>

or cancer treatment providers in the County. Residents must travel to the Reno, Chico, or Truckee areas for care, entailing travel times between 1 to 3 hours. The lack of cancer and dialysis treatment centers in Plumas County are difficulties faced by already vulnerable populations.

Housing, cost of living, and access to healthy food are also areas of concern. It is very difficult to find adequate affordable housing in Plumas County, and the housing inventory is low. Participants in focus groups reported that the cost of homeowner's fire insurance in the Chester area had risen significantly after the Camp Fire in neighboring Butte County destroyed the town of Paradise. Rising housing costs are causing some residents to relocate out of the area. It is difficult for some residents to sustain adequate housing, healthy food, and pay their utilities. During focus groups, participants explained that the cost of groceries at their local grocers was too expensive, resulting in either shopping at discount chains (not offering fresh fruits or vegetables) or having to go out of town. Access to healthy food is difficult as well. Results of the Healthy Store for Healthy Community Survey demonstrated that it was easier to find cherry-flavored tobacco products than fresh cherries in the County. Many people struggle to eat healthy diets due to the high cost of healthy food and remoteness of the area.

Plumas County has an aging population. It is often difficult for seniors to receive the health care needed to live healthy lives. There is a lack of specialty care to meet the needs of the aging population. There is no geriatric specialty care, and seniors need to be referred out of the County to receive adequate care. Seniors have challenges with transportation, seeking medical services, heating their homes, access to healthy food, and experiencing high levels of isolation. During the winter months, it is difficult for seniors on fixed incomes to afford the cost of heating their homes adequately. Many homes in the area have wood stoves as the primary source of heat. Wood stoves can be an issue for the elderly due to the physical requirements needed to cut, stack, and bring wood into the home

When comparing unemployment rates from winter months to summer months, there is a clear difference in the labor market. Seasonal employment is a large factor in the availability of work in the County. In February 2019, the California Employment Development Department (EDD) reported a 12.4% unemployment rate, compared to 5.6% in August. There is a large informal economy in the County (ex. woodcutting) that can work in the warmer months when the weather is not so harsh. With a large percentage of aging and single-family households, the need for wood to heat homes can be significant, and creates a market for non-disabled individuals to earn money during the warmer months.

According to the EDD, the workforce in Plumas County for the November of 2019 was divided into the following, 5,620 workers in the service providing industry, 6,600 total government employees, 4,030 in the private industry and 6,560 in total nonfarm⁵⁰.

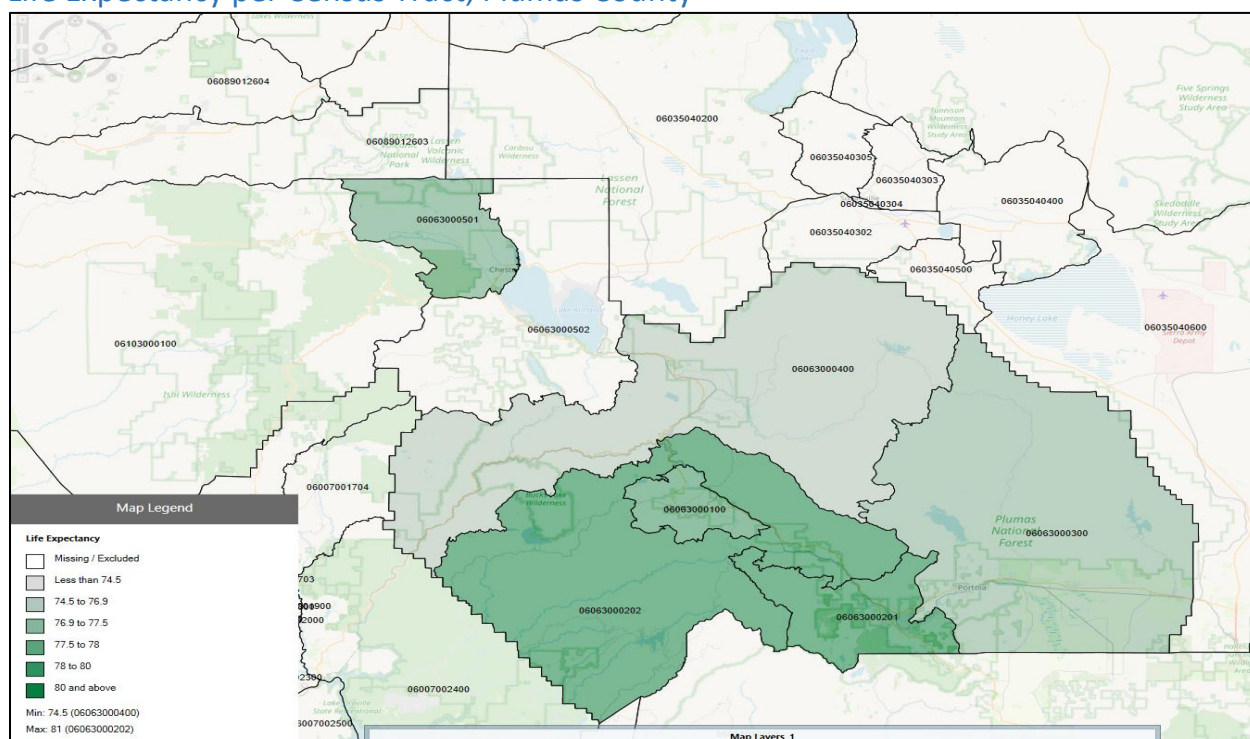
⁵⁰ State of California Employment Development Department. (n.d.). Retrieved from <https://data.edd.ca.gov/Industry-Information-/Industry-Employment-in-California-Counties/nt76-4rha>

Social Determinants of Health and Life Expectancy in Plumas County

Life expectancy at birth is an important health metric that allows the health of populations in different areas to be compared. Life expectancy measures the average number of years from birth a person can expect to live, according to the current age-specific death rates of the population. It takes into account the number of deaths in a given time period and the average number of people at risk of dying during that period, allowing us to compare data with different population sizes across and within different countries, states, and counties.

In the U.S., racial and ethnic health disparities are apparent in life expectancy outcomes, with average life expectancy among the non-Hispanic African American / Black population (75.3 years) being 3.5 years lower than for the non-Hispanic white population (78.8 years)⁵¹. Social determinants of health such as poverty and lower educational attainment are also known to be associated with lower life expectancy. In Plumas County, there are seven unique census tracts, with six having a large enough population to calculate sub-county life expectancies. The range of life expectancy for Plumas County census tracts is 74.5 to 81.0 years.

Life Expectancy per Census Tract, Plumas County



Plumas County Census Tract	63000100	63000201	63000202	63000300	63000400	63000501	63000502
Census Tract Short Hand	1.00	2.01	2.02	3.00	4.00	5.01	5.02
Life Expectancy	78	80	81	76.9	74.5	77.5	*-

[National Center for Health Statistics](#); *-Not enough data to calculate.

⁵¹ Arias, E., Xu, J. (2019). United States Life Tables, 2017. National Vital Statistics Reports 68, no. 7: 1–66.

In Plumas County, life expectancy is significantly correlated with race and ethnicity, decreasing as the percentage of the non-Hispanic white population decreases across census tracts within the County (see Appendix III - Figures 1a; 1b). Life expectancy is also significantly correlated with living below the poverty level, decreasing as the percentage of the population living below the population level increases across census tracts (see Appendix III - Figures 2a; 2b). Educational attainment also demonstrates a trend approaching significance, with life expectancy decreasing as the percentage of the population with less than a high school education increases (see Appendix III - Figures 3a; 3b). These results, calculated from National Center for Health Statistics data and key metrics from the CDC's Social Vulnerability Index are congruent with rankings by the California Healthy Places Index (HPI), which combines 25 community characteristics empirically linked to life expectancy into a single indexed HPI score for each census tract in California^{52, 53, 54}.

⁵² Tejada-Vera B, et al. (2020). Life Expectancy Estimates by U.S. Census Tract, 2010-2015. National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/data-visualization/life-expectancy/>

⁵³ Agency for Toxic Substances and Disease Registry. CDC Social Vulnerability Index. Retrieved from https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html

⁵⁴ The California Healthy Places Index (HPI), a project of the Public Health Alliance of Southern California. Retrieved from <https://healthyplacesindex.org/>

Summary of Major Findings

Areas for Improvement

There are a number of areas where Plumas County experiences poorer health outcomes than California and/or the United States. This is also reflected in feedback from community members that expressed dissatisfaction with some County services.

The health indicator data presented here indicate that Plumas County has higher rates for certain categories, both in a positive ways and in ways that indicate the need for improvement. In regard to educational attainment, Plumas has a higher percentage of the population with a high school diploma when compared with California but a lower percentage with an advanced degree.

Although the County has a large senior population, there are fewer people over the age of 65 living in poverty when compared to the state average. In fact, Plumas has a lower average percentage of people living in poverty than the state in general for the total population.

Although rates have declined over time, Plumas County consistently has unemployment rates higher than the state average. Monthly averages can sometimes be more than double the state rate. These rates can rise dramatically during winter months when some sectors of the economy reduce seasonal employment.

Similar to unemployment rates, Plumas also fares worse in regard to median household income, which is lower than the state average by a third.

In 2019, according to U.S. Census Bureau estimates, Plumas County had twice the percentage of the population that was disabled compared to California (14% and 7% respectively).

In regard to health behaviors and health outcomes, Plumas County has much higher rates of all cancers combined than California (659 per 100,000 vs. 405 per 100,000; age adjusted). There are also slightly higher rates of adult smokers compared to the state. Youth and adolescents in Plumas County have higher rates of being in the *Healthy Fitness Zone* for body composition than their California counterparts.

In terms of mental health outcomes, among Plumas County students there is a higher rate of feeling so sad or hopeless for two weeks or more that they stopped doing some usual activities. The suicide rate in Plumas County is double that of the state with 24 suicides per 100,000 populations in Plumas vs. 10 for California.

Another health indicator of concern is opioid (any type) death rates in Plumas County compared to California. The age-adjusted overdose death rate varies widely through time, and has often surpassed California dramatically. Plumas County's small population means even one overdose death can cause a spike in the comparative rate, but the numbers are concerning nonetheless.

An analysis of the qualitative data reveals four major themes of concern for County residents: lack of transportation options; lack of specialty care locally; difficulty identifying and accessing resources; lack of activities that create social connection (for youth and seniors). These themes have been identified in previous community health assessments, and appear to be ongoing concerns. Detailed qualitative data is presented in Appendix I.

Transportation is consistently ranked as a challenge for Plumas County, especially for low-income residents that may be disproportionately affected by limited public options. Difficulty accessing reliable transportation in a disperse, rural place like Plumas County impacts the ability to obtain medical care, shop for healthy food, maintain employment, fulfill legal obligations (ex. engage with the Probation Department), and maintain social connections. Communities are separated by long travel distances through mountainous terrain, and there is only one bus system in the County along limited routes. It is possible to travel across the County to access services using this bus service, but the process is time-consuming and may be difficult for people with special health needs.

Limited specialty care options in the County is also a common theme among respondents. The financial position of the three clinical access hospital (and associated clinics) makes it difficult to provide many specialty services, and patients are often referred to larger metropolitan areas. This entails travel out-of-County, which creates additional cost and challenges, especially during winter months with adverse weather. It is cost-prohibitive for local hospitals to maintain specialty providers on staff full time due to the relative number of patients. Telehealth options are used as much as possible, and traveling doctors are also contracted for periodic visits to the County. Even with these services, focus group respondents report this situation as a barrier to receiving care.

Many respondents expressed difficulty in identify and locating resources in the County, even if these resources do exist. This was a frequently mentioned topic, especially among seniors, and appears to indicate a widespread barrier to accessing available services. The services mentioned include transportation, nutritional supports, and social support network resources. Options for these resources do exist in the County, but appear to be inadequately advertised.

The fourth major theme from qualitative data collection is a perception that there are limited opportunities for recreation, events promoting social connections, and community events across the County. This was mentioned most often in the youth and senior specific groups, or in reference to youth and seniors when mentioned by the broad focus group participants. Respondents often referenced the negative effects of not having other social engagement, including increased drug and alcohol use among teens, or increased social isolation among seniors.

Areas of Success

There are a number of areas where Plumas County experiences better health outcomes than California and/or the United States. This is also reflected in positive feedback from community members that expressed satisfaction with some County services or community characteristics.

Plumas County exceeds both the Nation and the State of California for the percentage of the population with at least a high school diploma.

There is a smaller percentage of people living in poverty in Plumas County when compared to both the United States and the State of California. This is true for individuals under the age of 18, over the age of 65, and the general population.

Plumas County is fortunate to see a decreasing percentage of adolescents smoking cigarettes. However, this decrease coincides with a general increase in the use of electronic cigarettes or other vaping devices.

In physical fitness, Plumas County adolescents rank better than the California average for the *Healthy Fitness Zone* in body composition. There are fewer overweight adults in Plumas County when compared to California averages.

During focus groups, people from across the County were appreciative of food pantry access as well as the Community Suppers. Support from the faith community, especially in regard to food security, was mentioned as a positive thing about living here.

Although certain populations expressed concerns about feeling of isolation (ex. seniors), many people also mentioned how supportive they felt our communities are. Strong social connections and the willingness of community members to help one another were both listed as positive things. Events aimed at reducing stigma and increasing inclusivity, like the Plumas Pride event, were also viewed as positive. Community events, the County Fair, artistic displays, and things like bike races were given as other examples of a socially connected community.

Groups like the 20,000 Lives community coalition were mentioned as a supportive factor for community organizations that can increase efficiency through collaboration. Similarly, the ability to innovate in a rural community and do things not done in other places was listed as a positive characteristic of Plumas County.

The various family resource and wellness centers across the County were mentioned as critically important to serving low-income individuals. These centers provide types of assistance unavailable through other organizations.

The Future of Community Health Assessment in Plumas County

In the pursuit of continuous monitoring, refreshing, and adding of data and data analysis between CHA cycles, PCPHA is developing a Rural Counties Community Health Assessment Toolkit. This toolkit will be piloted by PCPHA and community partners, and made available to other small, rural local health departments or health care facilities. The hope is that the strategies, tools, and templates made available, as part of this toolkit will allow other jurisdictions the ability to easily replicate a successful, continuous CHA process using limited resources.

One strategy presented in this toolkit involves curating the many ongoing assessments conducted by community partners as part of their agencies work, and consolidating them into an online dashboard / database accessible to the public via the Plumas County Public Health Agency website. Partnership with a variety of countywide organizations working with specific populations will provide information on a continuous basis.

This is a significant improvement to the ability to collect and make available primary data in Plumas County. Broad access to accurate, local data has been a challenge. Due to low population density, state and federal data sets often group Plumas County into a multi-county region in order to achieve statistical significance. This limits the ability to accurately assess local conditions.

As an example, the ongoing assessment conducted by the Plumas County Behavioral Health Department may be consolidated into the same online portal as the yearly parent focus group of the Plumas County Early Education and Child Care Council. Other pertinent surveys, assessments, and population-specific will be sought and made available for public view.

Another important aspect of this toolkit will be careful and detailed planning of activities through time, with specific dates and deliverable outcomes. The schedule of activities in the pilot example will be specific to Plumas County, but replicable in other small, rural jurisdictions.

An important element of this improved approach to the continuous process is consideration of an asset-based approach. In addition to the data dashboard that will be made available through the toolkit, an asset mapping process will be described and the results presented.

Acknowledgments

This work would not have been possible without the contributions of a number of individuals and organizations across Plumas County. Plumas County Public Health Agency would like to thank outgoing Assistant Director, Zach Revene; and University of Nevada, Reno Masters of Public Health Candidate Interns Leila Srouji and Nicole Reinert for their contributions to conducting and authoring the assessment. Likewise, would like to express our gratitude to everyone that took the time to provide feedback, participate in focus groups or interviews, and assist in data collection and analysis. We also appreciate the contributions of our hospital partners at Eastern Plumas Health Care, Plumas District Hospital, and Seneca Healthcare District. A special thanks goes to the residents of Plumas County for their continued engagement and feedback.

Works Cited

1. Robert Wood Johnson Foundation. Commission to Build a Healthier America. (2008). (Accessed 2020). Where We Live Matters for Our Health: Neighborhoods and Health. Issue Brief 3. Retrieved from <http://www.commissiononhealth.org/PDF/888f4a18-eb90-45be-a2f8-159e84a55a4c/Issue%20Brief%203%20Sept%2008%20-%20Neighborhoods%20and%20Health.pdf>
2. State of California, Department of Finance. (n.d.). Table E-6. Population Estimates and Components of Change by County. Retrieved from <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/>
3. United States Census Bureau. (n.d.). Quickfacts. Retrieved from <https://www.census.gov/programs-surveys/sis/resources/data-tools/quickfacts.html>
4. O'Hare, William P. (2009). The forgotten fifth: child poverty in rural America. The Carsey Institute at the Scholars' Repository. Paper 76. Retrieved from <https://scholars.unh.edu/carsey/76>
5. Health, Income, & Poverty: Where We Are & What Could Help. (2018). (Accessed 2020). Health Affairs Health Policy Brief. doi: [10.1377/hpb20180817.901935](https://doi.org/10.1377/hpb20180817.901935).
6. Office of the Assistant Secretary for Planning and Evaluation – HHS Poverty Guidelines for 2020 (Accessed 2020). Retrieved from <https://aspe.hhs.gov/poverty-guidelines>
7. California Employment Development Department. (n.d.). Retrieved from <https://edd.ca.gov/>
8. Okoro, C.A., Hollis, N.D., Cyrus, A.C., Griffin-Blake, S. (2018). Prevalence of Disabilities and Health Care Access by Disability Status and Type Among Adults — United States, 2016. Morbidity and Mortality Weekly Report (MMWR); 67:882–887. doi: [10.15585/mmwr.mm6732a3](https://doi.org/10.15585/mmwr.mm6732a3)
9. Centers for Disease Control and Prevention. Violence Prevention. Preventing Intimate Partner Violence. Retrieved from <https://www.cdc.gov/violenceprevention/intimatepartnerviolence/fastfact.html>
10. Plumas County Office of the District Attorney. (on file).
11. Centers for Disease Control and Prevention. (2019). National Center for Injury Prevention and Control- Division of Violence Prevention. Child maltreatment. Consequences. Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html>

12. California Child Welfare Indicators Project. (n.d.). Retrieved from http://cssr.berkeley.edu/ucb_childwelfare/
13. Centers for Disease Control and Prevention. (2019). About the CDC-Kaiser ACE Study. Violence Prevention. Injury Center. CDC. Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/about.html>
14. Center for Youth Wellness. Findings on Adverse Childhood Experiences in California. Retrieved from <https://centerforyouthwellness.org/wp-content/themes/cyw/build/img/building-a-movement/hidden-crisis.pdf>
15. Kidsdata.org - A Program of the Lucile Packard Foundation for Children's Health. (n.d.). Retrieved from www.Kidsdata.org
16. Child Trends. (2018). (Accessed 2020). Binge drinking. Retrieved from <https://www.childtrends.org/indicators/binge-drinking>
17. California Healthy Kids Survey. (n.d.). Retrieved from <https://www.cde.ca.gov/ls/he/at/chks.asp>
18. Youth and Tobacco Use. (2020). Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/
19. Levine, A., Huang, Y., Drisaldi, B., Griffin, E. A., Jr, Pollak, D. D., Xu, S., Yin, D., Schaffran, C., Kandel, D. B., & Kandel, E. R. (2011). (Accessed 2020). Molecular mechanism for a gateway drug: epigenetic changes initiated by nicotine prime gene expression by cocaine. *Science translational medicine*, 3(107), 107ra109. doi: [10.1126/scitranslmed.3003062](https://doi.org/10.1126/scitranslmed.3003062)
20. US Department of Health and Human Services. (2016). (Accessed 2020). E-cigarette Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, CDC; Retrieved from https://www.cdc.gov/tobacco/data_statistics/sgr/e-cigarettes/pdfs/2016_sgr_entire_report_508.pdf
21. Centers for Disease Control and Prevention. (2020). Smoking & Tobacco Use. Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults. Retrieved from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html
22. California Department of Public Health. (n.d.). Tobacco Control Program. Retrieved from <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/Pages/CaliforniaTobaccoControlBranch.aspx>

23. Centers for Disease Control and Prevention. (2011). (Accessed 2020). Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion. How much physical activity do children need? Retrieved from <http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html>
24. California Department of Education. (n.d.). Physical Fitness Test. Retrieved from <https://www.cde.ca.gov/ta/tg/pf/>
25. US Department of Health and Human Services. (2020). Adolescent Development. Mental Health. Adolescent Mental Health Basics. Retrieved from <https://www.hhs.gov/ash/oah/adolescent-development/mental-health/adolescent-mental-health-basics/index.html>
26. Centers for Disease Control and Prevention. (2019). (Accessed 2020). Oral Health Basics. Children's Oral Health. Retrieved from <https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html>
27. Centers for Disease Control and Prevention. (n.d.). National Center for Health Statistics. National Health and Nutrition Examination Survey (NHANES). Retrieved from <https://www.cdc.gov/nchs/nhanes/index.htm>
28. Centers for Disease Control and Prevention. (2020). Opioid Overdose. Opioid Basics. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/index.html>
29. California Opioid Overdose Surveillance Dashboard. (n.d.). Retrieved from <https://skylab.cdph.ca.gov/ODdash/>
30. Centers for Disease Control and Prevention. (2020). Viral Hepatitis. What is Viral Hepatitis? Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>
31. CDPH Office of Viral Hepatitis Prevention. (n.d.). Retrieved from <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/OVHP.aspx>
32. CDC United States Cancer Statistics. (n.d.). Retrieved from <https://www.cdc.gov/cancer/uscs/index.htm>
33. Centers for Disease Control and Prevention. (2020). Overweight & Obesity. Retrieved from <https://www.cdc.gov/obesity/index.html>
34. California Department of Public Health. (n.d.). Division of Chronic Disease and Injury Control. Nutrition Education and Obesity Prevention Branch. Retrieved from https://www.cdph.ca.gov/Programs/CCDC/DCDC/NEOPB/Pages/Nutrition_Education_Obesity_Prevention_Branch.aspx

35. Child Trends. (2019). Teen births. Retrieved from <https://www.childtrends.org/indicators/teen-births>
36. University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps (2019). Retrieved from www.Countyhealthrankings.org
37. Centers for Disease Control and Prevention. (n.d.). National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/index.htm>
38. Hedegaard H, Curtin SC, Warner M. (2020). Increase in suicide mortality in the United States, 1999–2018. NCHS Data Brief, no 362. Hyattsville, MD: National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/products/databriefs/db362.html>
39. Segal, L.M., De Biasi, A.; Mueller, J. L., May, K., Warren, M., Miller, B.F., Norris, T., Olson, G. (2017). Pain in the Nation: The Drug, Alcohol and Suicide Crises and the Need for a National Resilience Strategy. Trust for America’s Health & Well Being Trust. Retrieved from <https://www.tfah.org/report-details/pain-in-the-Nation/>
40. California Department of Public Health. (n.d.). Center for Health Statistics and Informatics. Vital Records Data and Statistics. County Health Status Profiles. Retrieved from <https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx>
41. Centers for Disease Control and Prevention. (n.d.). Social Determinants of Health: Know What Affects Health. Retrieved from <https://www.cdc.gov/socialdeterminants/>
42. Braveman, P., Arkin, E., Orleans, T., Proctor, D., Plough, A. (2017). What Is Health Equity? And What Difference Does a Definition Make? Princeton, NJ: Robert Wood Johnson Foundation. Retrieved from <https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html>
43. American Public Health Association. (2020). Topics & Issues. Health Equity. Racism and Health. Retrieved from <https://www.apha.org/topics-and-issues/health-equity/racism-and-health>
44. Chambers, B., Baer, R., McLemore, M., et al. (2019). Using Index of Concentration at the Extremes as Indicators of Structural Racism to Evaluate the Association with Preterm Birth and Infant Mortality—California, 2011–2012. *J Urban Health* 96, 159–170. doi: [10.1007/s11524-018-0272-4](https://doi.org/10.1007/s11524-018-0272-4)
45. National Partnership for Women & Families. (2019). Issue Brief. Advancing Health Equity: Addressing the Role of Structural Racism. Retrieved from <https://www.Nationalpartnership.org/our-work/resources/health-care/advancing-health-equity-addressing-the-role-of-structural-racism.pdf>

46. Centers for Disease Control and Prevention. (2017). Rural Health. About Rural Health. Retrieved from <https://www.cdc.gov/ruralhealth/about.html>
47. Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690145/>
48. The American Communities Report. (2020). Deaths of Despair Across America. American Communities Experience Deaths of Despair at Uneven Rates. Volume 31. Retrieved from <https://www.americancommunities.org/chapter/american-communities-experience-deaths-of-despair-at-uneven-rates/>
49. National Rural Health Association. (n.d.). About Rural Health Care. Retrieved from <https://www.ruralhealthweb.org/about-nrha/about-rural-health-care>
50. State of California Employment Development Department. (n.d.). Retrieved from <https://data.edd.ca.gov/Industry-Information-/Industry-Employment-in-California-Counties/nt76-4rha>
51. Arias, E., Xu, J. (2019). United States Life Tables, 2017. National Vital Statistics Reports. 68, no. 7: 1–66. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_04-508.pdf
52. Tejada-Vera B, et al. (2020). Life Expectancy Estimates by U.S. Census Tract, 2010-2015. National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/data-visualization/life-expectancy/>
53. Agency for Toxic Substances and Disease Registry. (n.d.). CDC Social Vulnerability Index. Retrieved from https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html
54. The California Healthy Places Index (HPI), a project of the Public Health Alliance of Southern California. (n.d.). Retrieved from <https://healthyplacesindex.org/>
55. Link MW, Mokdad AH, Stackhouse HF, Flowers NT. Race, ethnicity, and linguistic isolation as determinants of participation in public health surveillance surveys. *Prev Chronic Dis*. 2006;3(1). https://www.cdc.gov/pcd/issues/2006/jan/05_0055.htm#. Accessed April 15, 2025.
56. United States Census Bureau. data.census.gov. Accessed April 15, 2025. <https://data.census.gov/profile?g=050XX00US06063>

Appendix I: Focus Group Summary

20,000 Lives Town hall

The information presented here are individual responses provided by adult participants held at the 20,000 Lives community coalition meeting. Responses are grouped by theme. Editorial comments are provided in red brackets for clarity.

Housing / Utilities

- Senior specific housing [Needed].
- Housing – availability ex. Tiny homes, landowner education, low income, students.
- Community of tiny houses [Participants were discussing the possibility of building tiny homes].
- Landlord and tenants do not know their rights.

Access to Healthcare

- Medical lack of urgent care people uses emergency department instead.
- Need for Veterans clinic in County – outreach to veterans to get signed up for services.
- Does the community know about services such as Tele-health; how do you get the information?
- Nursing home [Needed].
- Access **school age** reproductive health care [Needed].
- Hospice services for Medi-Cal [Needed].
- End of life services [Needed].

Transportation

- Transportation – parents/ students, specialty care out-of-County, gas is expensive [These were all factors listed as issues with transportation].
- Truancy problems due to transportation.
- Parents without transportation – live too far from bus stop to get their kids to school.
- Vehicles for low-income families [Needed].
- Specialty care – transportation [Needed].

Substance Use / Incarceration /

- Substance used disorder detox/ center/ services [Identified as needs in the County].
- Inmates clean up/ fire reduction/ trash removal – opportunity to do good in the community [These activities were listed as potential ways to get inmates involved and doing good work in the community].

Education

- Training for grant writing [Listed as a general need for the community and professionals].

Community Resources / Events / Information

- Need access to internet for school projects/ library closes [Students are given work to complete online, requiring the need for internet. Internet services are not available to all families and creates barriers to students completing projects that require the internet].
- Lack of support for parents - parents are not given resources available [Discussion explaining that parents are either not given or not aware of services that are available to the youth].
- Landlord and tenants do not know their rights.
- Need for fuels reduction [Forest fuels].

- Biofuels reduction = jobs [Discussion explaining that there is a need for biofuels reduction in this area and that it could create local jobs].
- Fire grant funding available for fire fuel reduction.
- Community connections volunteers are needed.
- Time bank [Needed].
- Need support for Veteran Stand Down.
- 20,000 lives discussion [Positive factors].
- Pride event [Positive community factors].
- Access to natural world [Positive community factors].
- Bicycle races [Positive community factors].
- Community events, arts / talent in community/ [Positive community factors].
- County agency collaborating – chipping away at silos [Positive community factors].
- Veteran Stand Down [Positive community factors].
- Strong community connection (people helping people) [Positive community factors].
- Business growth [Positive community factors].
- Business open on weekends [Positive community factors].
- Plumas Crisis Intervention Resource Center (PCIRC), community wellness centers [Positive community factors].
- Fair [Positive community factors].
- Plumas County rural community innovation – able to do things in our rural community that’s not done elsewhere [Positive community factors].

Mental Health

- Mental health crisis response [Needed].
- Crisis response [Needed].
- Mental health crisis [Needed].
- Law enforcement is not the best to respond to mental health crisis.

Employment

- Jobs, online jobs (promote access) [Needed].

Youth / Services/ Foster Youth

- Lack of foster homes leading to 2/3 of the kids have to get sent out of County.
- Support for ALL students [e.g. not just special needs] + parents connecting to resources.
- Tutors / literacy department [Needed].
- Support for students [Needed].
- After school activities for all ages [Needed].

Chester: Adult Focus Group

The information presented here are individual responses provided by four adult participants in a broad focus group held in-person in the community of Chester, California. Responses are grouped by theme. Editorial comments are provided in red brackets for clarity.

Access to Care

- There is a need for doctors. Obamacare providers are not available. There has been up to a 1.5-year wait for appointment in Paradise.
- It is difficult for people with low income to get transportation to care.
- No specialist [Urologist].
- No providers in reasonable distance that accept [Medi-Cal] insurance.
- Can't use doctors in Reno with Medi-Cal.
- Doctors are temporary [only stay a couple of years]. Need long-term doctors. When doctors leave, patients do not know where to go. Even long-term doctors will retire.
- Access to health care is difficult, there was only one provider.
- Constantly getting new doctors and have to start all over again [The participant was explaining that it is difficult to receive quality care when there is no relationship with the doctor].
- California Health and Wellness referred to Truckee (issue in winter) Medi-care is better.
- When Doctor left there was a void; told they could not see her kids? #months wait has to drive out of town every month for care.
- Do not deliver babies here – had to go twice a week to Susanville: no pregnancy monitoring. It has been 12 years since a baby was delivered at the local hospital.
- Young families having babies have to drive to Susanville and having to go twice a week was quite an ordeal. We at least need ultrasounds and monitoring available locally.
- Even a clinic to do the regular monitoring would help [Prenatal].

Transportation

- Cannot travel long distance in the snow.
- I should not have to drive out of town to get services for my kids.
- Cannot drive it's not financially feasible.
- Difficult to get transportation for low-income persons.

Community Resources / Access to Resources

- Damper from Plumas Crisis Intervention (PCIRC) pulling out 1 time per week issue with probation on Monday. Only on Fri [Participant was explaining that when PCIRC reduced its availability, it created hardship in the area].
- More events, community events / winter fest / dance / sculptures [Needed].
- Many services lost when PCIRC left.
- GROWTH OF FOOD PANTRY IS A GOOD THING.
- Church food pantries / Westwood Methodist Church food pantry [Positive factors].
- Nothing for kids in this community. Moved from valley to here for small community but there is nothing for kids 2-3 x/year. If there was something 1 or 2 a month [The community needs regular monthly events for kids].
- Big Brother / Big Sister [Needed].
- Church going to make Thanksgiving basket to all staff for thanking them for assistance [Lake Almanor Community Church].
- Did Chester Park, put playground equipment back together – wished for money to do more [Lake Almanor Community Church volunteers conducted park / playground cleanups].

- Holiday / Seneca.
- We do not get services here like in Quincy. Children's fair held in Quincy not always able to get there.
- Timing nurturing parenting 4-6 [The timing of the trainings are important for accessibility].
- If one community has certain services, they all should.
- Support for grandparents raising grandkids.

Housing/ Cost of Living

- Cost of housing fire insurance has risen dramatically – people are leaving because of this/ some people cannot get insurance.
- Cost of living too high, prices went way up.
- People selling their house and moving out.
- Homeless have grown more at food pantry / hard in winter – they will move on in winter.
- Vast areas in good weather to camp out.

Substance Use / Lifestyle

- NEED Cessation. Called 800 no butts. Need a nurse who quit for 1 year willing to run it [Participants were discussing the need for a local cessation support group. They contacted the 800 NO BUTTS hotline and were told in order to start a local group, a qualified nurse who is a former smoker and quit for over a year would need to facilitate the group].
- Need stop smoking – smoking cessation support = need a nurse that has quit for over a year to facilitate.

Incarcerated Population

- No housing upon release.
- Incarcerated do not have a clue of who to go to for assistance. Let out at midnight [Difficult for inmates to be released out of jail afterhours. There is no one for them to contact to get information regarding services].
- Do not know where to go for help.
- No access to PRS online info.
- It would be good to be able to hand incarcerated individuals a paper with information upon release that can refer them to services.
- Panic guides dealing with suicide [The participant was describing the need for information for people who are dealing with suicide].
- Housing – where do they go? Back to same negative situations [The participant was discussing the need for housing for the incarcerated population. She was explaining that when a person is released from custody they do not have a safe place to go and often returning to negative environments that put them in jeopardy of re-incarceration].
- Inmates need referrals to medical care.

Mental Health / Trauma

- Issues with access to mental health services
- Damper from PCIRC pulling out and only available 1 time per week issue with probation on Monday Only on Fri [Participant was explaining that it is difficult to schedule with PCIRC because it is only open one day a week in that area. The scheduling may conflict with other obligations like probation].
- No local therapist to talk to for behavior health – was talking to Dr. Swarez then was turned down for Medi-Care.

- There are long waiting periods for kids to see therapist.
- Kids had several issues and need medication. Cannot be seen quickly by local therapists [The participant was explain the difficulties of navigating the mental health systems for her children in the Chester area].
- There are no services in the community for youth with trauma or informed educational services, including services for issues such as, RAD / Trauma / PTSD / Anxiety.
- Do not have trained people in this community to help with the issues that kids have.
- There is the behavioral health staff but only available one time per week.

Education / School Services

- Good schools [are needed here] people do not move here/ stay here.
- Fighting battle at school. The schools do not have mental health services would have to travel to Chico or Redding.
- Educational services – youth – RAD / Trauma / PTSD / Anxiety there are no services in the community.

Law Enforcement

- The police cutbacks suck – when calling law enforcement for assistance, I was told it was going to be 1 hour for officer to respond.
- Alleged behavioral health clients were offered drugs, and reports were made.
- Police department cuts leave people vulnerable.

Chester: Youth Focus Group

The information presented here are individual responses provided by 8 youth participants in a focus group held in-person in the community of Chester, California. Responses are grouped by theme. A theme summary is presented at the end of this document. Editorial comments are provided in red brackets for clarity.

Substance Use/ lifestyle

- Vaping – very popular; people thought it was cool and now half the upper classmates are addicted. ½ of upper classmen are vaping.
- One kid just saw another kid giving away a JUUL in the bathroom.
- One JUUL pod = 20 cigarettes [Participants were sharing information].
- There is many new types of flavors of tobacco [Participants were sharing information].
- Obesity – low – quality food is hard to find [Participants were explaining the problem of obesity and food access].
- Smoking / drinking / alcohol.
- Obesity - low– quality food is hard to find.

Mental Health / Bullying

- Mental health and depression [Answer to question: What is the second most important thing that affects youth].
- Drama class for upper classman [Participant identified need].
- More bullying awareness / cyber bullying [Participant identified need].
- Need a support group / a place where you can go to talk about feelings.
- Address bullying and its impact on mental health [Participant identified need].
- Target posters / advertisements to youth [Participant identified need].
- Acknowledge how hard youth try, how hard their life can really be [Youth were explaining the need for adults to acknowledge their struggles].
- One on one therapy / counseling [Participant identified need].
- Depression / Mental health [These are issues that affect them].
- Stress [An issues affecting health].
- Address bullying and its impact on mental health [Needed].
- Target posters / advertisements to youth [Target posters and advertisements are a good way to reach youth].
- Acknowledge how hard youth try, how hard their life can really be.
- One on one therapy / counseling [Participants suggestion].
- Depression / Mental health [Identified as an issue among their peers].
- Stress [Identified as an issue among their peers].
- If things come up during the day that throw off schedule [When unexpected things come up it adds to their stress load].
- Need a study hall / help with homework.
- Mental health – generally accepting / comfortable of approaching teachers; some kids are not comfortable [Participants explained that some youth are comfortable talking with teachers and student service workers while other students are not comfortable talking to the teachers or student service workers].
- Youth don't get enough sleep / use electronics until late night.
- Adults need to be aware of youth if they are having problems [Adults should be trained to identify warning signs].
- There is a division between grade levels.

Resources / Programs

- After school activities = gaming and hanging out [Youth listed this as a need].
- Need more statistics / facts [Regarding health, vaping, substance, mental health, bullying etc.].
- A specific place where people can go [Participants would like to see a safe place where they can go just to talk or have space to be around friends].
- Need more sports for 7-8 grade, also not just sports – need non-athletic activities.
- “There is no coordination between existing programs.” – NEED to all meet / work on similar projects [Participants explained that programs do not seem to communicate regarding scheduling. They have to choose which program to participate in and would like to be able to attend multiple programs].
- Sometimes half the class doesn’t really understand the material, but a few students will so teacher moves on [Participants explained that the teacher will check to see if students understand the material, one or two students will and the teacher will move on. This creates difficulties for the students who do not understand the material].
- Something like “study skills” to get specific help time for homework [Participants explained that having some kind of services such as tutoring, or afterschool homework help for students who are not grasping the material].
- Need a place / location to go access services.
- After school place to relax [Needed].
- There is a division between grade levels.

Greenville: Adult Focus Group

The information presented here are individual responses provided by one adult participant in a focus group held in-person in the community of Greenville, California¹. Responses are grouped by theme. A theme summary is presented at the end of this document. Editorial comments are provided in red brackets for clarity.

Access to care

- Health – god forbid I get sick up here [Participant was explaining that there is such a lack of services that the thought of getting sick causes added stress and fear].
- Its' horrific, the healthcare our indigenous people are getting [Explained that healthcare for the indigenous population is not adequate].
- Seniors are getting sick and have to go off the mountain in order to receive care
- Plumas District Hospital trying – seemed a little together [Participant was explaining that it seems like Plumas District is improving].
- I do not think there is any healthcare for Senior's here.
- A man got approved for IHSS worker but there are no workers available.
- There is a lack of health insurance – people do not have insurance.
- I do not know what happened with mental health and wellness center but it's too bad.

Community / Resources / Engagement

- Not conscious when it comes to recycling. I want recycling signs all over.
- We have a big trash problem here.
- A lot of people end up staying inside and just do the bare minimum – errands [Community members are isolated and tend to stay in their homes].
- When a family advocate can type information and it goes directly at Plumas Crisis Intervention Resource Center (PCIRC) At Social Services case workers do it by hand and clients have to wait long periods [Participant explained that entering information and response time have long wait periods at this agency].
- Loosing Ana's Restaurant is a negative impact on community.

Access to Food

- Everything at the Foodbank is out of date and expired.
- Wellness center has some food shelves, which helps the community.
- Dollar General has good prices [Participant explaining that the Dollar General has some low priced food items].
- No community garden (time and effort) [Listed as a negative community factor, went on to explain that it takes time and effort to get a community garden up and running].
- Senior nutrition lunch went away and now there are only delivers [To homebound seniors, when there was a place to go and eat it provided seniors in the area a place and time to socialize].
- Biggest changes to community – Dollar General has given access to more products for low income, but hurts local business. I fought it at first but now 1 liter of orange soda is a dollar and same bottle is \$2.49 at Evergreen [Participant was explaining that the Dollar General has affordable prices for some food items as compared to the other grocery store in town].

Housing/ Utilities

- Same old thing, widows with no help winterizing / DE winterizing [Participant explained that it is difficult for widows and elderly to prepare their homes for the colder winter months. This includes things like preparing pipes, getting fire wood etc.].

Transportation

- Transportation really sucks. There should be some kind of transportation for low income people without money to get to Quincy to get Home Energy Assistance Program (HEAP) applications in
- There is a need for bus vouchers.
- People cannot get to Quincy.
- It is difficult to shop for anything that is out of the ordinary [Participant was explaining that locally there are only the basic necessities with limited options available. If a person needs anything that is not basic, they would need to travel out of the area to get it].

Mental Health

- Plumas Rural Services and Behavioral Health are trying to expand and do good things.

Substance Use / Criminal / Incarceration

- There is a lot of meth [Participant was explaining that there is a problem with methamphetamines in this community].
- Theft is becoming more common.
- Drugs – All I hear about is the meth.

Education

- I really like the principal at the school. She is making a very positive impact in the community.
- Charter school splitting but elementary school is here [Explaining that the charter school may have left but the elementary school is still functioning].

***-Note:** Targeted invitations were made, flyers were posted around town, and social media was updated to recruit for this focus group, however, only one participant attended. This number is not ideal.

Portola: Adult Focus Group

The information presented here are individual responses provided by two adult participants in a broad focus group held in-person in the community of Portola, California¹. Responses are grouped by theme. A theme summary is presented at the end of this document. Editorial comments are provided in red brackets for clarity.

Transportation

- Transportation is a thing [Participant was explaining that transportation is difficult].
- Some people cannot get on the bus.
- Senior transportation may have to get on at 1:00pm for an appointment at 3:00 pm to ride and pick up others, person has back or neck pain it's hard to ride around [Participant was explaining that it is difficult for some to sit for extended times and have to be in the vehicles longer].
- Even with senior bus there is difficulty, so we bring them care packages [A local church in the community identified that it is difficult for seniors to get what they need, so they make efforts to take them care packages].
- Elderly have vehicles but cannot afford registration or gas, so the vehicles just get parked.

Access to Care /Healthcare Services

- I have undergone exhaustive health concerns and the wait to get care may be up to a month.
- Access to doctors [Access to doctors is very limited with long wait times].
- Glasses for elderly [nowhere to go, Medi-Cal does not cover or not accepted] California health and Wellness only has one eye doctor in Chester. The Chester eye doctor comes twice a month and I had to wait 6 -8 months. A lot of people cannot get to Chester to get eye care.
- One woman can't sit in a car long enough to go to Chester, she wants me to take her to Walmart in Reno and she will pay herself [out of pocket] she had to save for a year [Due to extended wait times and long travel, residents are forced to pay out of pocket for vision services].
- Glasses go to the prison to be made and take over a month to get back, if you break your glasses it becomes an issue when needing to drive [Participant was explaining that eye care is already difficult. When glasses are broken and a necessity for driving it can be dangerous].
- Went to Chester with broken glasses waited until the end of day and told she could not fix them – did not have time to fix them. Given the run around at the front desk and the lady was not helpful.
- Went to Walmart and they fixed it for free.
- Having services, you need to stay healthy [Participant explaining that having services locally available are needed to stay healthy].
- People at home with Dementia/Alzheimer's who cannot do anything on their own.
- Doctors in Portola miss things and can get better service in Quincy or Reno.
- Having no choices but Emergency Room over the weekend is an issue.
- Our daughter got good service at Eastern Plumas Health Care so it is not all bad, but a lot of people have suffered unnecessarily.
- Issue with people actually needing pain medication but Doctors are hypersensitive, some people that actually need it do not get it.
- Need some kind of pain management that is not an opioid.
- Information on what is available [The public needs information on what types of alternative pain medications are available].
- Run into a lot of people who need help or qualify for IHSS but are unaware they qualify.

Housing /Utilities

- Heating especially in the winter- the most forgotten are seniors who do not have access to heat.
- Cost of heating is an issue.
- Cost of propane doubled.

Community Resources/ Access to Resources

- Education – people in IHSS who do not have someone to help or get them to walk, if they do not have someone to help, they will not do it. When I get there, they want me to help clean or cook, not walk...
- We need to come together as a family and help each other.
- Run into a lot of people who need help or qualify for IHSS but are unaware they qualify.
- Faith family – Every Saturday food – 22 deliveries to seniors [A local community Church hosts a food bank and delivers food to seniors].
- We are, because outreach in the summer to do trash clean ups and a big BBQ [Faith community].
- Parents / single parents/ a lot of drugs / abusive relationships. Barriers to trusting neighbors [Participant identified each of these as issues that create difficulty in building relationships and becoming involved with the community].
- People do not go out of the house; people do not know what is available.
- Not a lot of community events.
- Community Supper is positive.
- How to get the word out?
- Biggest – Facebook and word of mouth, teenagers – working relationships with schools.
- Show up to sporting events.
- On bulletin boards in the Post Office.
- Incentives.
- Portola Wellness, KS Market, food.

Access to Healthy Food

- People who need it the most get poor quality food.
- Leonards' is too expensive.
- Food security.

Youth Engagement

- Kids come to the library for free WIFI.
- Thursday's youth outreach free food and events for families [Faith community].
- (Faith family) 65 to 100 youth every Thursday night all kids are welcome.
- Nothing for teenagers to do a lot of kids are in trouble.

***-Note:** Targeted invitations were made, flyers were posted around town, and social media was updated to recruit for this focus group, however, only two participants attended. This number is not ideal.

Quincy: Adult Focus Group

The information presented here are individual responses provided by five adult participants in a broad focus group held in-person in the community of Quincy, California. Responses are grouped by theme. A theme summary is presented at the end of this document. Editorial comments are provided in red brackets for clarity.

Transportation

- Transportation care outside the County, cars, etc. [Needed].
- Does not cover families even to get to the bus stop. It is grueling to get care for cancer treatment every day in Truckee. If we did not have people, I do not know how we would have done it.
- Gas is overwhelming [Price of].
- Not all agencies donate sick time [The participant was explaining that some agencies have the ability to donate sick time, which helps individuals who need to travel out of the County for care. It is difficult for people to take time off work to travel out of County for medical treatment].
- Just unaware / seems confusing / unclear what is offered here.
- Is there a unified website that talks about consolidated information?
- Low income miss appointments so much going on / transportation etc...

Specialty Care

- Middle class cannot get services / incomes so high they cannot afford licensed therapist. Gap if not well off or low income cannot receive these services.
- Low income no medical dentist / medical providers / cannot get services, and have had to wait up to 3 months.
- Waitlist for mental health / depending on services.
- Healthcare all elements, doctor / dentists for all not just those with insurance. [The participant was explaining that all elements of healthcare are lacking. Also that there is a need for individuals and families with no insurance who need medical care].
- There used to be a program called Community Connections with volunteers that were very helpful [The participants were talking about Community Connections and how helpful it was for the community. When the program closed, it created a need in the County].
- Lack of reputable providers.

Services/ Information / Communication

- Dave talks too fast [During the District Attorney's presentation at the Senior Summit]. Phone scam information – needed more detail. Do not always read and get information.
- Services not extensive enough.
- I work with low income individuals. They get services [Explaining that there are local services for low-income persons].
- There are populations that do not know [People are unaware of what resources are available].
- Seniors that do not know or want to ask for help.
- I had a difficult time finding resources to care for elderly
- Had not gone to senior lunch would not know about senior summit.
- Finding dependable people who can do services for house cleaning / services for elders.
- Found a lawn mower / predatory tendency [Participant explained that an individual who was able to assist the elderly turned out to be a predator. There had been no type of background investigation to assure the individual was trustworthy].
- Lack of information / not knowing where to find it.
- People do not know what is out there / how to find it.

- More collaboration from churches – probation – sheriff [Participants were discussing the need for all the agencies to work together].
- Create registry for people with needs to people who need work with background checks.

Housing / Utility

- Wildwood in Chester is wonderful unlike Mountain Manner it has laundry facilities / cook labor day. Do not have access to laundry gallery is locked up cannot socialize there [Participant explaining the resources at Wildwood in Chester far exceed Mountain Manner. Also, that the onsite laundry at Mountain Manner is unavailable and there is no place to socialize].

Community Engagement

- Positive thoughts about life [Needed].
- Involved in community [Needed].
- Network / Relationships [Needed].
- There are some services available to deliver / spiritual / PCIRC / PRS / mental health [Participants listed these as positive community factors].
- Less people go to church, or participating with community groups like elks, rotary. It really is a social change ... churches struggle to get people involved. Lions having a hard time getting people as well.
- Organizations have difficulties gathering revenue to keep buildings open.
- In five were always looking for people.
- Outreach [community] can be difficult; finding ways to get resources out through agencies like the rotary club can be a good idea. County management group might be a good time to reach out with programs.
- For families Thursday folder has flyers at the elementary school (that and Facebook).
- The Plumas County Service Handbook identifies resources. The phone book is hard to access. We need a 3-5-page informational document that can be used to provide information about services in the County.
- Is there a way to put community resource together? Information can include local churches for disaster response, or safe places to go? Some of the churches have kitchen's, gymnasiums etc. [Participants were discussing getting together with local churches to see if they would be willing to set up disaster response teams, if they had an area that could be used for evacuation sites and more].
- Reach out to churches to make disaster plans.
- Print materials for different audiences.
- Community Supper is good for the community.
- Outreach / advertisement – Thursday folders through PUSD Resource handbook printable, resource networks for emergency response [ex. churches].

Health Coverage

- Affordable medical equipment [Needed].
- Cost of medications [Cost of medications is too high].
- I am type 1 diabetic with insulin and it is still expensive.
- Seen families lose their children because they could not afford medications [insulin].
- If you do not have insurance, you cannot play the game [Participant explained that without insurance medical care is not accessible].
- Friend with COPD needs mobile oxygen unit but cannot afford it.
- Middle class cannot get services / incomes so high they cannot afford licensed therapist. Gap if not well off or low income cannot receive these services.

- Out of medications. Cannot get in and cannot afford the medication. She is unstable / does not have the meds.
- Not enough Medi-Cal providers.

Trauma informed care / Mental health Services

- We all need to understand trauma to better serve people.
- Agencies could use training / de-escalation training for trauma.
- Introducing Adverse Childhood Experiences (ACEs) / educating public on ACEs [Needed].
- Social change we experience and do not understand what damage parents with kids don't make eye contact with kids – kid toddler on device / parent on device.
- Studies show lack of empathy when do not have eye contact.
- We need to educate parents [On issues surrounding trauma, ACE's, and Mental Health].
- Traumatized / non-medicated / unstable. People at front desk of agencies in the community do not understand individuals who are dealing with trauma, that are not medicated, and can be unstable. Staff gets frustrated and can re-traumatized the client [Participant explained that when you are working with traumatized / unstable individuals it is important to have provide trauma informed care and be patient otherwise it can worsen the trauma].
- I have been trying to get Resilience [the film] but it is expensive, I did not know that Public Health already has it! All these pockets of people but we do not know what others are working on.
- I have been trying to get resilience but it is expensive, I did not know that Public Health already has it! All these pockets of people but we do not know what others are working on.
- Lack of crisis mental health response.
- Lack of empathy and low social connectivity.
- Need to educate parents about the impact of trauma and ACE's on youth.
- The Sheriff's office does not respond to calls for suicidal persons.
- There is a lack of mental health crisis response team/professionals in our County.

Education / Employment

- Good schools [Needed].
- All kinds of employment from low to high [Needed].

Drugs / Recovery

- Drugs is a big issue in the County. Cannot find truck drivers to pass drug test.
- We have Christian based recovery groups.
- There is Celebrate Recovery a faith based recovery group that addresses addictions, co-dependency, depression, and more, that meets in Quincy, Portola, and Chester.
- The Celebrate Recovery started to help people who are coming out of jail or prison and looking for a group to help sustain the road to recovery. Not intended to fix the person [Referring to the Celebrate Recovery group that goes into the jail and gives the inmates a place to get with a friendly face when they are released].
- I came from Bay Area where there were meetings all the time – I wonder if I could have got sober if I was living in Plumas at the time. There is a lack of social aspect here to support recovery. In the Bay Area, there were dances, picnics, and other activities that were alcohol and drug free.
- There was a football fan, but nowhere to watch the game without alcohol. There is not a lot of connection with other people for people in recovery.
- Recovery issues = food, co-dependency, fear of people, money, alcohol, drugs.

Quincy: Senior Focus Group

The information presented here are individual responses provided by 7 senior participants in a focus group held in-person in the community of Chester, California. Responses are grouped by theme. A theme summary is presented at the end of this document. Editorial comments are provided in red brackets for clarity.

Transportation

- Transportation: Bus goes to Chico but not TRUCKEE / RENO.
- Dealing with medical cuts. No reimbursement transportation. \$10 is very helpful [Participant was explaining that even 10 dollars would help with the cost of transportation].
- Cannot depend on other for transportation.

Specialty Care

- Mom aging – didn't get the care needed to get order for aging mom who is 90 years' old
- Nothing Geriatric here. Local healthcare lacking.
- Taken in by ambulance even though she had a nurse / assistant? Possible heart attack. Sent to Renown 4-5 days later able to come home. I prayed a lot. Heart attacks run in my family. Heart attack at age 45 thought I was exempt. It did something to me, it really messed with my psyche. I used to do things myself. Now husband gets my medicine for me. Found out I had a hernia and had to put off hernia surgery. Blood pressure. Prayed she would pass the stress test [Participant was describing the experience of needing ambulatory care and being transported to the hospital].
- Lack of care for seniors that need assistance in-home care. No assisted living [Services not available in County].
- 9k in Roseville or elsewhere for assisted living. It would be interesting to see assisted living [Participant discussion explaining money raised in other areas to raise awareness and funding for assisted living homes].
- Aging population baby boomers, assisted living not anywhere near enough [Not enough resources for the aging population in Plumas County].

Senior services/ Information / Communication

- Don't know where to go to get information.
- I need my hand held need patient / kind / compassionate to guide me where to go.
- A person to contact after hours? [Participants would like to have a contact that is available after normal business hours].
- A big thing to trust or depend on others, do not want to impose on people [Explaining that it is difficult to depend on others and have been let down. Also, participants do not like having to depend or impose on others].
- Peer to peer – she gets information and gives it to her friends.
- Travel for services out of County [Needed].
- CEO advertises in paper what's available in Eastern Plumas Healthcare Need to be up to speed in Plumas [Participant would like to see advertising in Quincy by Plumas District Hospital like the CEO of Eastern Plumas Healthcare does in Portola].
- Center that offers walk-in talk to live person. People are unaware of local resources [Needed].
- Isolation / having space for visiting would help to see others [Seniors in this community are isolated and need to have a social space for visiting].
- Have to have other options for eye care.

- An Ombudsman for resources [Participants explained that an ombudsman could help with accessing resources].
- Overwhelmed with brain overload to internet / radio [Too much information and participant has a difficult time deciphering between information].
- Maybe come one more time a week and give information. Cannot wait until next summit.
- Summit was too FAST and a lot of information. [Participant was explaining that the Senior Summit was a great idea with helpful information, but the there was too much information too fast. She suggested that someone comes to the senior lunch once a week with information].

Housing / Utility

- I came back from Chico 6 months ago. We became homeless here when we came back to Quincy.
- My son lives in Portola told us to come here. Self, husband, client moved to hotel with no discounts. Paid over \$3,000/month for rent since became homeless [Participant explained the experience of being homeless and paying excess for housing at local motels].
- Golden Umbrella offers assistance to pay for heat. Is there anything that can help with food or medication?
- Decided to go to show or get medication [Participant is on a fixed income and explaining that it comes down to paying for medications and utilities or having money for entertainment such as a show at the local theatre].
- Major problems with Mountain View Manner supposed to be f Management is horrible and horrendous, are not for the people.
- His workers do not have honest enough workers. They are not screening them – person taking social security numbers, felt that a person was going through stuff and stealing from seniors [Referring to staff at Mountain View Manner].
- Blessed I found a place on Jackson street.
- Cannot put rent money in box at Mountain View Manner because it comes up missing.
- People who go top of list. She waited 3 YEARS. Upset with crisis center.
- In order to find housing they had to fork out excessive down payment.
- Crisis Center would not help with homeless person.
- Heating costs are high and there are no guarantees, or Government agencies to advocate for heating assistance.
- Could not pay bills and a plumber.
- House falling apart.
- Grocery store costs increasing.
- Housing and food costs are outrageous.
- When you have to choose to starve / or don't take your pill.
- Need workshops to teach us how to eat low on the food chain – I'm a vegan [Participant was discussing the need for workshops that can teach them how to eat healthy meals on a budget].
- Bus shelters have holes in them. One upside is there are LED lights in them.

Community Engagement

- Need seniors Center like the VA.
- Community Dinner really helps.

- Fresh air, walking, sunshine helps Vitamin D, Sup Vitamin D helps liver. Everything vegan food, no cholesterol anything that causes hear attack/stroke – nutrition extremely important.
- Seventh Day Adventist 8 laws (not advocating for Adventist) [Participant was explaining that the laws include healthy lifestyle choice such as diet, exercise etc.].
- So low income cannot afford internet.
- Senility = I forget about it. Keep track of myself. [The participant was explaining that as she ages, it gets increasingly difficult to keep track of herself. She is getting more forgetful (used the term senility)].
- Real IDs cost for Birth / Marriage / New license \$68 is a lot of money. Barriers to fees for passport / license / certificates.
- Entertainment. So expensive I cannot afford. Should have a senior price at West End, otherwise cannot afford it.
- Senior Angel like thanksgiving at Methodist Church. Nobody knew what was going on [The participant was explaining that there are good resources but she and others did not know it was happening].
- Being able to do things I want when I want [This participant stated that it was important for them to feel independent and have the ability to do things when he/ she wanted].
- There has been a ton of hours focusing on ads, social media, and Facebook out reach for minimal return.
- What's keeping people from getting involved?

Health Coverage

- Medicare will not pay for glasses. Have been without glasses for 2 years/ mine 5 years.
- Why did the insurance drop? [The participant asked this question].

Portola: Youth Focus Group

The information presented here are individual responses provided by 2 youth participants in a focus group held in-person in the community of Portola, California. Responses are grouped by theme. A theme summary is presented at the end of this document. Editorial comments are provided in red brackets for clarity.

Community Resources

- Clean streets [Positive health factors].
- Accepting community [Portola = yes].
- Community = people working together, putting in an effort together.
- Need advertisements about any type of program.
- Social media, Instagram [Suggested ways to advertise].
- Morning Announcements [Suggested ways to advertise].
- Football / Basketball get most of the funding and new equipment.
- People need to know where to access resources.

Mental Health / Bullying

- Mental health, physical health = if they do not feel good they will not have what they need.
- Healthy people, happy people [The participants stated that when people are healthy they are happy].
- Healthy person = self-tracking of mental health, hygiene, how well they are...
- Stigma = being afraid to ask for help when you need it, needing help for mental health issues makes other people judge you
- Stress, balancing jobs / sports.
- Competing against other students that are competing to get into prestigious programs.
- People talk to the Student Services Coordinator.
- Conflict between sports teams; ex. The soccer team will practice on the football field, then football.
- Football/ Soccer talk derogatory ways toward each other.

Access to Healthcare

- Rumors about accessing things like birth control [Participants explained that if other kids know someone is accessing birth control then sometimes rumors will be spread].
- You can e-mail the school nurse or go after school, or go to Reno.
- Promote birth control + consequences of not using it [The participants stated this as a need].

Substance Use

- Peer pressure = drugs / alcohol / dangerous activity.
- Vaping and marijuana are issues here.

Appendix II: Key Informant Interviews Summary

Key Informant Interviews

The information presented here are individual responses provided by 5 adult stakeholders in the community. Participants included representation from hospital CEO's, and leadership and directors from the Non-profit sector. Responses are grouped by theme. Editorial comments are provided in red brackets for clarity.

Access to Care

- Significant barrier there are not enough providers, not federally recognized as health care shortage area, so no funding incentives, loan repayment etc.
- Access to care - Lacking, everyone wants to do right.
- I am very happy with the ambulatory services.
- I think most residents are satisfied, but they do not know what they do not know.
- Access to healthcare is an issue, no avenues to get folks in front of providers, no student services.
- Timely access to care is lacking [Weakness].
- Dental & eye for veterans- we need dental for everyone. [Was discussing the services offered at the Veterans Stand Down, and explained the need in all populations for these services].
- There is an eye doctor in Chester but the waitlist is horrendous.
- Medical needs for specific populations – Jail / seniors/ dialysis / transportation / cancer treatment transportation [Explaining that there are medical needs specific to populations, and that transportation for the already vulnerable population make it all the more difficult].
- We are lucky to have 3 running hospitals and the native Rancheria clinic – it helps the Greenville area.
- Access to care good is needed.
- There is a lack of local cancer treatment in Plumas County.
- Elderly services [Listed as a need].
- Local surgeons do not want to work on elderly (high risk) are sent to larger hospitals.
- Kidney dialysis [Need services].
- High risk pregnancies must go out of town to get care
- Appreciate ambulance service – in Quincy
- The local nursing home closed is negative.
- Large need for nursing / elderly home. Not many choices here, Portola Seneca have a wing and the Loyalton EPHC site.
- Physical therapy- quite a couple offices in Quincy
- At home health is like a godsend – the in-home health nurse comes in and makes sure everything is okay, LVN RN'S come to check on clients.
- Vision dental, there is a need for children's dental and pediatrics.
- They are supportive of local hospitals. (Referring to residents in the County)
- It depends if they had a good experience with our local doctors, thankful we have local doctors.
- Frustration when they must go out of town [Explaining that local people get frustrated when they have to travel out of County for healthcare services].
- Good for rural appreciative of Public Health free flu clinic, family planning services for both men and women.
- Access to cancer treatment is needed in Plumas County. [Lacking in Plumas County].
- For native – If you do not have health insurance, you can be seen at native clinic but if the client gets referred out you must have insurance to be seen.

- Cannot afford medical insurance / cannot afford to not have it [Explaining that the cost of health insurance is too expensive, but you not having health insurance can be very expensive when something happens].
- Healthcare is not up to par, must go to Chico or Reno for care.
- All of that is lacking no matter where, no nursing home here and when you move elderly outside their home it is a death sentence. They do not make it [Discussing healthcare and having to move elderly out of their homes to receive care].
- Vision / dental – good luck getting that here.
- Appointment for daughter in February and was booked two weeks ago [2 – 3-month wait].
- There has been a 5 month wait for dental then they will screen them, additional wait for actual treatment.
- Don't do young kids at clinic here, or orthodontics [Discussing the dental services and orthodontic care].
- Greenville Rancheria has different doctor every couple of months. When you do not see the same provider, it's not intimate healthcare. They do not know who you are.
- Must call Quincy to schedule for Greenville clinic.
- Women who need female stuff done – good luck.

Community Resources / Information

- More services needed for youth, seniors, alcohol and drug.
- Round house takes kids all over – to Washington and other fun trips.
- Native youth live two worlds.
- Focus groups are good, talking circles are good but kids do not want to do that they get tired of being asked to do focus groups all the time.
- I feel like it is not even on the spectrum, not even in the top 10, what recreational facility?
- They did get visual improvement in Greenville but how does that improve health? [Discussing the improvements on the main road in Greenville].
- Locally in Indian Valley needs to be more personal approach. People do not know how things happen in Chester, or Quincy – We find out after the fact. Do more outreach.
- Small town proud community willing to help people when in need [Identified as a Strength].
- Distance in each community and it's not equal, no equity within communities [Identified as a Weaknesses].
- All housed in Quincy if there is it is not known [Discussing various community services].
- Since wellness center there has been more random folks in Greenville and housed at the apartments. A lot more foot traffic of non-local people.
- I think there would be less health issues if there were more positive fun things, alcohol and drug free events.
- Not topic focused “come talk to us about a certain topic and get a 10-dollar gift card”
- Socialize, get out, hang out, not be alone, nothing for elders, no bingo etc. very isolated [Discussing the need for activities and social events for seniors in the community].
- Roundhouse does family night 2 times a month for all ages from little to elders, an elder's luncheon, teen night once a week to talk and just hang out.
- Roundhouse offers after school teaching the language, traditional dance and medicine.
- Good QOL with clean air, drinking water for a rural County in the mountains.
- Seniors and veterans – make sure they know what is available.
- Make sure they have knowledge or what is available, that is why in-home nurses can follow up and make sure they know.

- Good the more we can get people out walking safe, moving, sidewalks, biking in the schools.
- Learning landscapes that take kids to outdoors are all positive. Camping and watershed are good ways to get kids involved.
- College strong recreational program – you learn to swim, bike, hiking, skiing.
- Facebook, social media I like public health does flu season, just using every avenue you can. I try to use to put out current accurate information. Everybody uses social media, use of newspaper / public radio.
- Rural but a lot of people who take care of each other who care and there are support systems **[Identified as a Strength]**.
- Being a rural community funding always an issue, housing (affordable), disasters, where we live 70 % federal forested land with high fire risk **[Identified as a Weaknesses]**.
- Poverty, which brings health issues.
- Elder and their issues.
- Lack of nursing homes.
- Have seen 123 walk-ins in 1 day, the day before thanksgiving, they do not have time for meetings **[Explaining that they serve a large number of clients and do not have time to attend regular meetings]**.
- We have to get to the root of the issue develop relationships / safety net for everyone in the County to keep people on track.
- One stop phone list does not stay up to date.
- Online, a lot of silos. Need for our website to be updated **[Explaining the need to work together with local agencies and update online tools]**.
- How to engage people? Unless you hire and bring people in it is difficult.
- There was a 211 but people would get referred to Chester which is too far.
- Resource center has 877 number with trained professionals, if they do not have services, they refer out.
- Money to support resource center to support the text line need for more crisis phone workers **[Needed]**.
- Point in Time (PIT) contact reduced number of homeless.
- Large community member that care about others, helping each other, will not find in large populations.
- Not terrible. So much to do outside here. For a community this size it is well on its way. **[Discussing activities to do in the community]**.
- The bike trails are great.
- Communication, during work time pay people to come, social media, newspaper, **[listing ways to get people engaged and willing to participate]**.
- Lack of collaboration between facilities.
- Inability to collaborate effectively.
- Physical beauty of the area – push back from the supervisors who do not want people running all over.
- Too many people work 9 – 5 and then are out the door. The clients do not have crisis between 9 to 5. Need professionals who are willing to serve.
- Kathy is available by cell phone 24/7.

Transportation

- Significant Huge barriers to accessing transportation.
- Out-of-County specialty care **[Travel to]**.

- Medi-Cal 800 number has been known to not show up for scheduled rides.
- People waiting at 6:00am for transportation to medical appointments.
- Transportation grant. [Needed].
- Medical vouchers for children with out of County care for transportation to appointments would be nice.
- There needs to be more transportation a vehicle. There are vans that just sit at the County and we could use them for transportation for clients.
- Elderly people making trips [Creates undue hardship].
- Travel is difficult for people who do not have the means.
- Cars are not good.
- No transportation to get care.
- Difficult for elders – no transportation huge deal.
- No transportation to appointments.

Housing / Cost of Living / Utilities

- Quality of life for seniors and high risk – income too low.
- Cost of living too high.
- No access to affordable food.
- Cost of living for senior citizens.
- Heating bills [The cost is too high for some local residents].
- Landlords take advantage – raised the rents.
- Cuts to food services to people who are vulnerable.
- People pay utilities, rent, and no money for food.
- Not enough housing [Affordable housing].
- Bring awareness to our board supervisors ex: affordable housing, education to the B.O.S.
- Not enough senior housing/supportive housing/ have to leave long term care not conducive of health and well-being.

Substance Use / Incarceration

- AOD? [Unsure of what is readily available for the alcohol and drug (AOD) community].
- We need to help parolees transition back to regular life. They get out and do not know how to live and challenged by things in life.
- People being released at 2am. Where are they going and how do they get information? [Explaining the difficulties of inmates who are released at 2 am. There is nowhere for them to get resources].
- Resource or referral [Needed for inmates].
- Healthy people not getting checkups not getting teeth cleaned / drug related / they deal with a lot of meth users.
- Alcohol and drug – prevention goes a long way, things are changing and focusing on rehabilitation.
- Vaping definitely [An issue locally].
- Local – alcohol, drugs, mental health [Issues dealt with locally].
- We talk about preventing alcohol and drug but we do not have anything for them to actually do.
- Alcohol and drugs [need more services].
- Drugs are getting better [Referring to accessibility of SUD treatment].
- Eye care – present there are a couple.
- We are doing dental better.

Mental Health

- Mental health services are non-existent in my opinion.
- Mental health – thanks to Tony Hobson has turned around and providing professional care.
- Mental health – on the radar and improving.
- Such a small community people do not want to be seen in behavioral health due to stigma.
- Wellness centers are good.

Trauma Informed Care

- How to deal with high risk clients [Explained that community agencies need to learn how to deal with clients that have been through trauma].
- People to be treated poorly [Received information from people that are treated poorly when seeking services from local and County agencies].
- Not okay for people already in crisis to be treated less than. Everyone deserves a second, third, and fourth chances.
- Plumas County is a judgmental County.
- Anyone going through the above illnesses can be angry / volatile and people do not have compassion towards them [Explaining that when folks are suffering with illness both mental and physical they may come across as argumentative and difficult to work with. Staff at local and County agencies need to be aware and proceed with a trauma informed compassionate approach].
- De-escalation training needed for County staff not trained or are not applying it, what a waste of County funds.
- Armed guards at the annex, same clients served here, none have come here ... The clients come here with big smiles / welcoming / human [Explaining that they serve the same clients and do not have a need for armed guards. Their procedure is a compassionate trauma informed approach to working with vulnerable populations].

Lifestyle

- Overall people are trying to eat better and take better care. A lot of promotion of eating, exercising, self-care, taking care of yourself – Nationwide still a lot of low-income people that may not have means [how to cook a healthy meal] in schools kids taught to eat / be healthy.

Stigma / Community Stereotypes

- Preconception of people ex. The have's vs. have nots and people do not understand what it is like to not have enough money for food.
- Misconception about homeless.

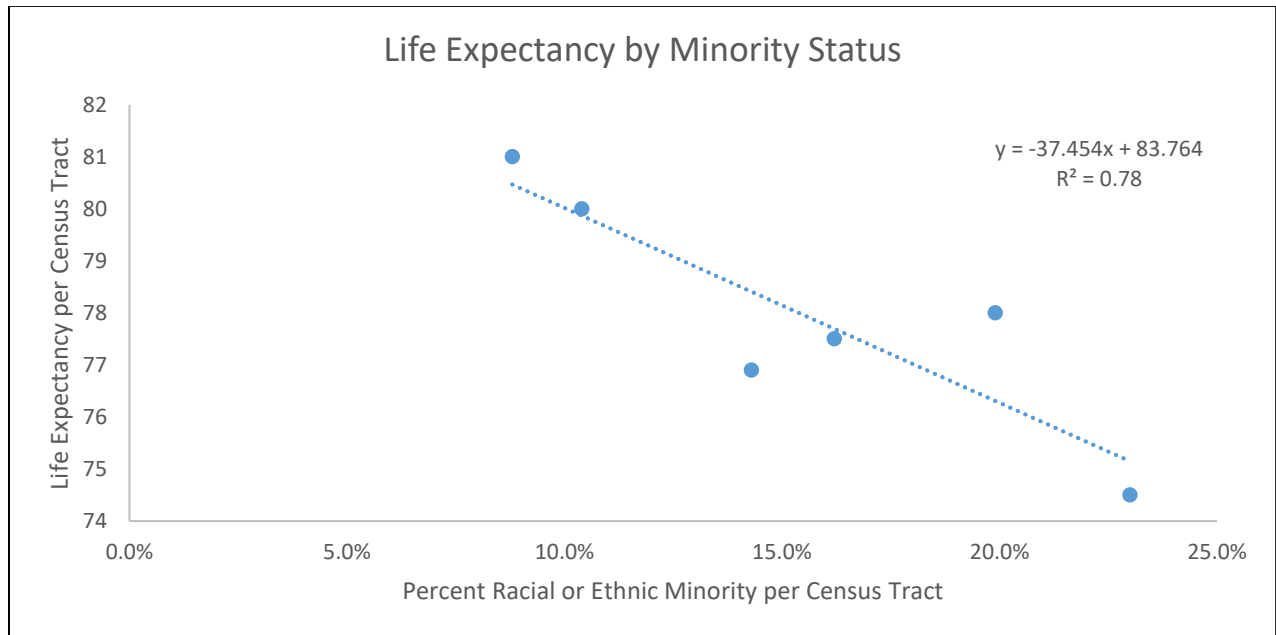
Senior Services / Needs

- Quality of life for seniors and high risk – income too low
- QOL deteriorating due to lack of services to seniors.
- Nursing home closed [The nursing home closing created a need].

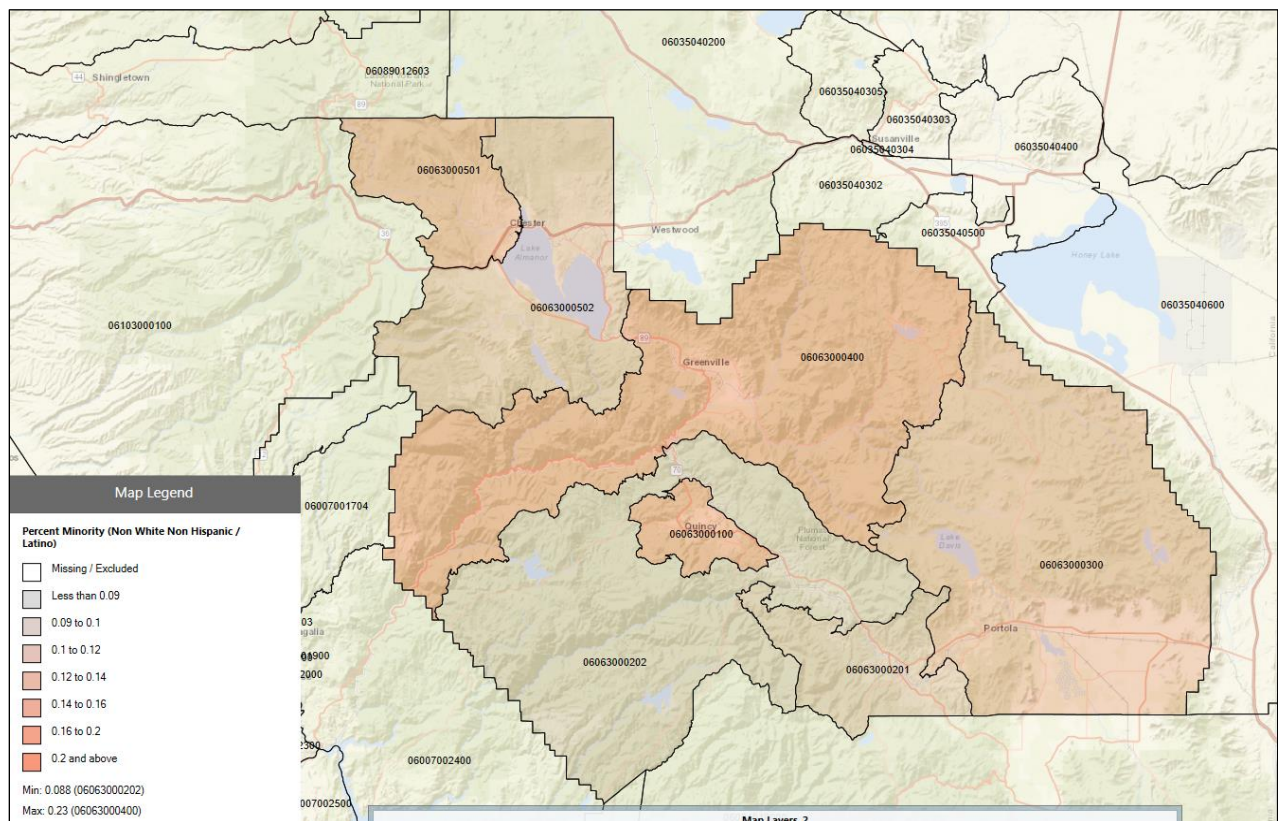
Disaster Relief

- Serving campfire victims [Various community partners in Plumas are still serving campfire victims].

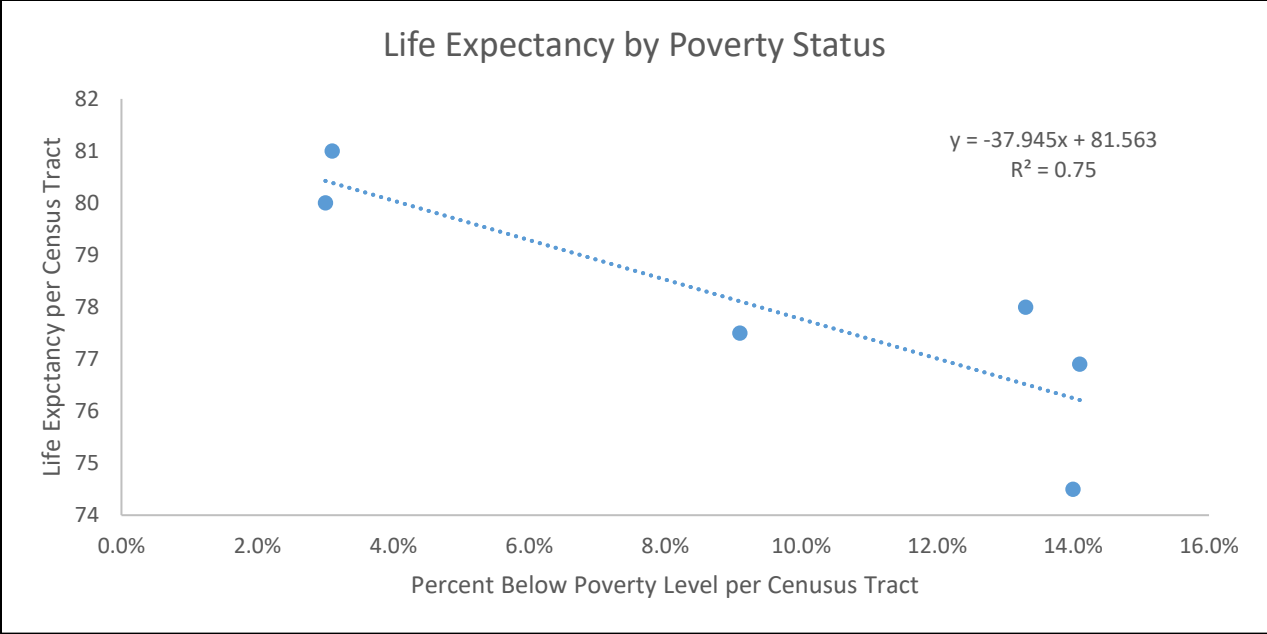
Appendix III: Life Expectancy by Key Social Determinants of Health



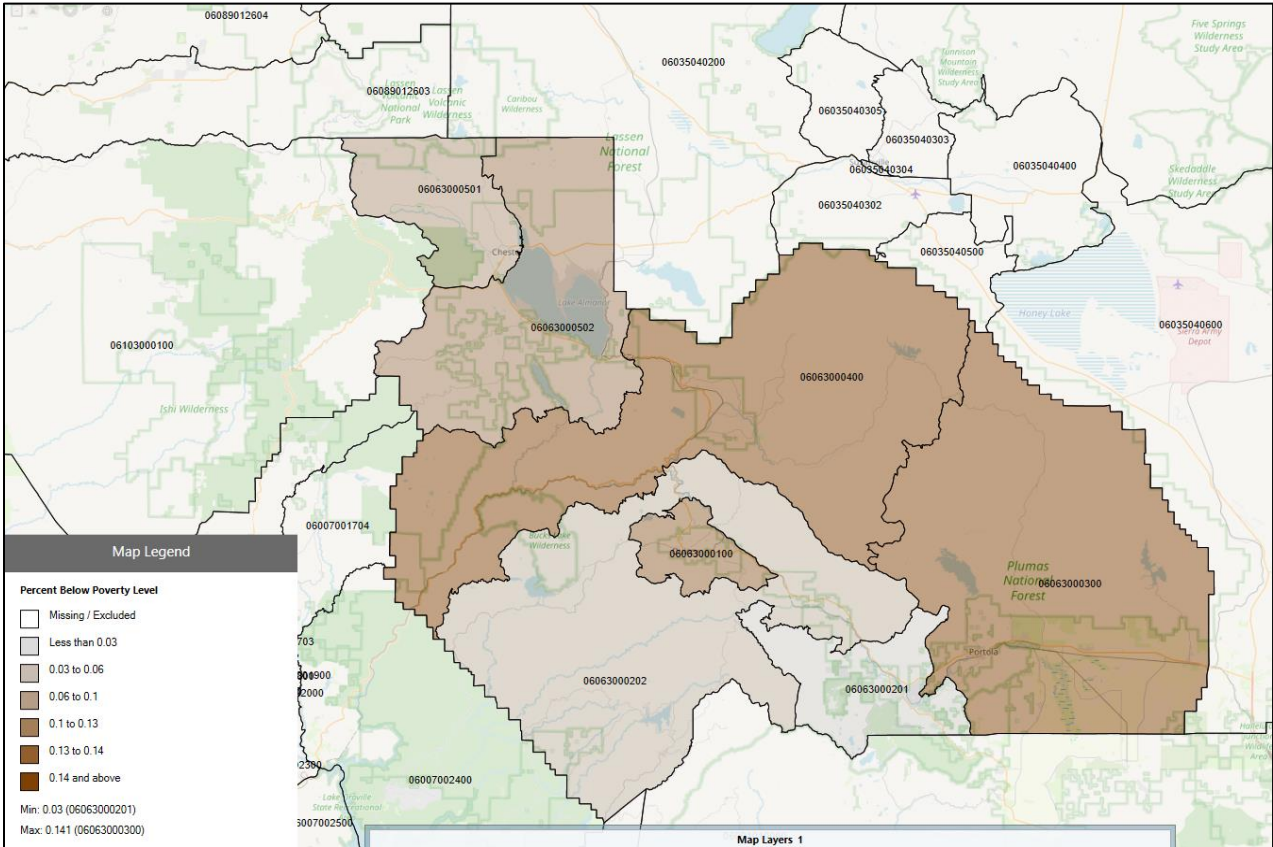
Appendix III - Figure 1a: Percent Other than Non-Hispanic White per Census Tract by Life Expectancy



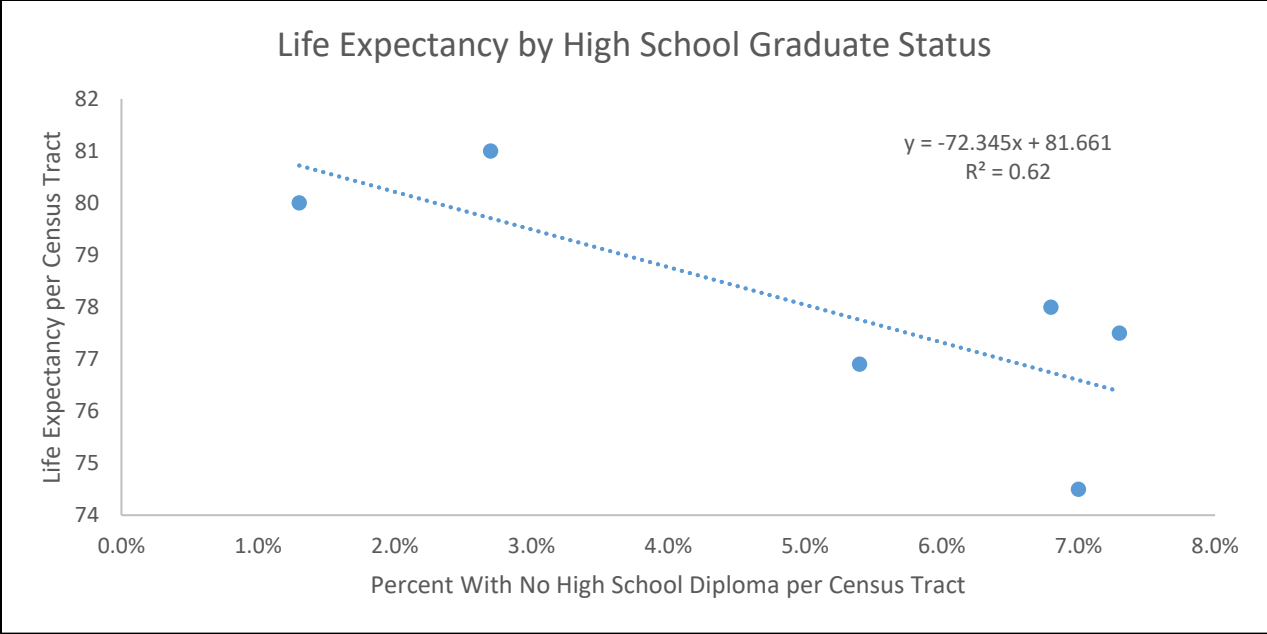
Appendix III - Figure 1b: Percent Other than Non-Hispanic White per Plumas County Census Tract



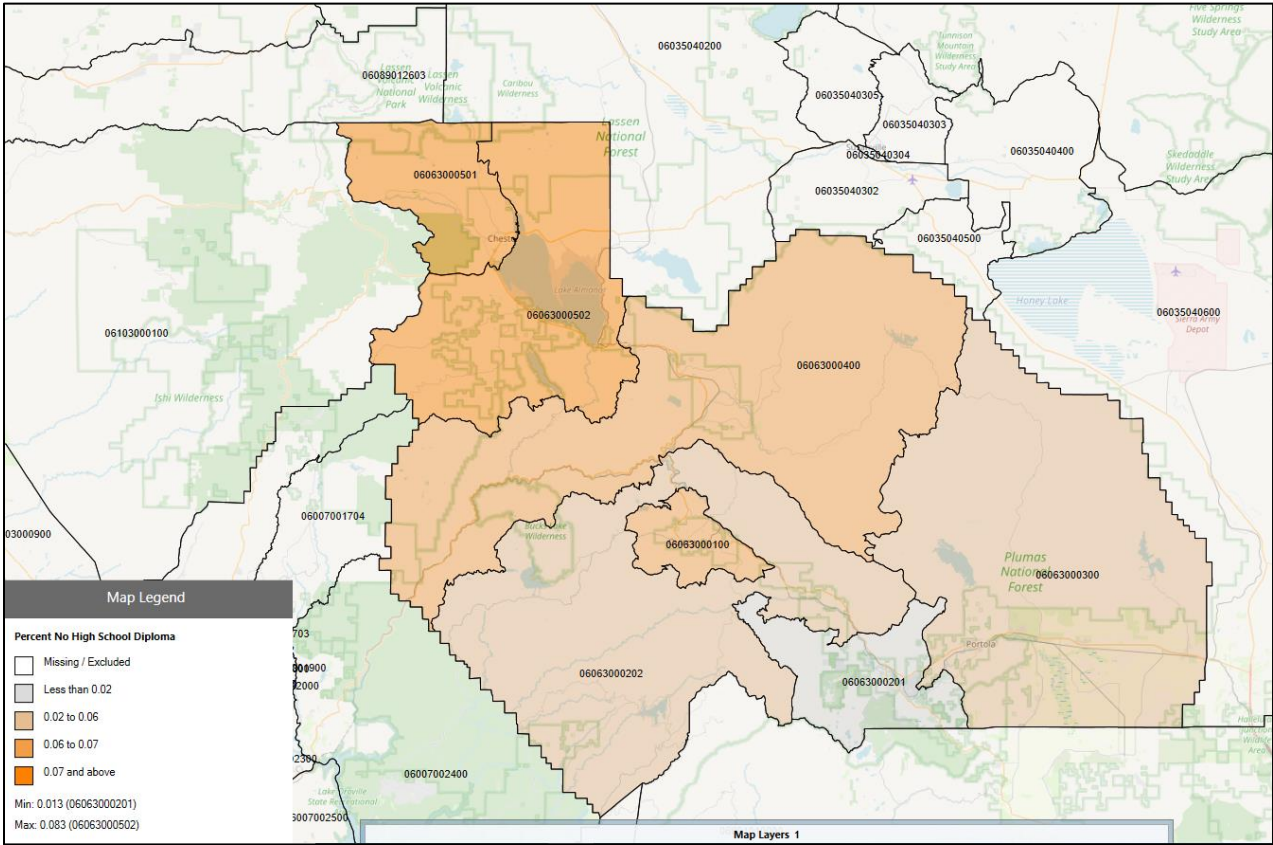
Appendix III - Figure 2a: Percent Below Federal Poverty Level per Census Tract by Life Expectancy



Appendix III - Figure 2b: Percent Below Federal Poverty Level per Plumas County Census Tract



Appendix III - Figure 3a: Percent with No High School Diploma per Census Tract by Life Expectancy



Appendix III - Figure 3b: Percent with No High School Diploma per Plumas County Census Tract

Appendix III - Table 1: Correlations: Life Expectancy and Social Determinants of Health in Plumas County

SDOH Correlated with Life Expectancy per Census Tract in Plumas County	Pearson Correlation	p-value
Percent Racial or Ethnic Minority (other than non-Hispanic white)	-0.8829	0.02
Percent Below Poverty Level	-0.8662	0.03
Percent No High School Diploma	-0.7873	0.06