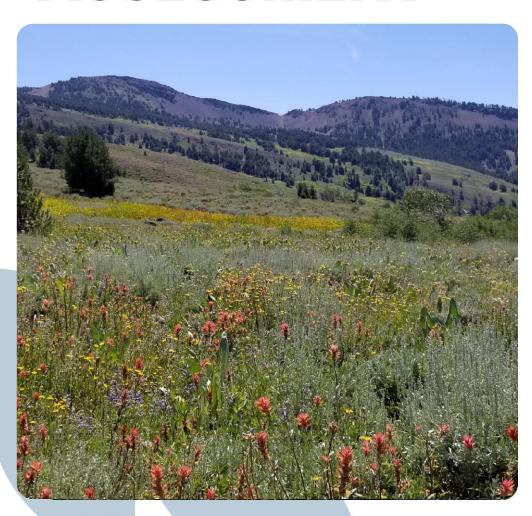




MODOC COUNTY

COMMUNITY HEALTH NEEDS ASSESSMENT



2024

EXECUTIVE SUMMARY

This Community Health Needs Assessment (CHNA) was developed and conducted by Modoc County Public Health. Leadership and staff from this organization contributed time and effort in accessing and reviewing data. Important contributing partners include community members who participated in interviews and surveys.

Quantitative data indicators in this CHNA are organized using The Public Health Framework for Reducing Health Inequities as a guide. These indicators include measures of the social conditions that drive the health of a community in addition to living conditions, health risk behaviors, and health outcomes. Qualitative data was obtained through focus groups, key informant interviews, and a community health survey.

Social drivers impact people's health, wellbeing, and quality of life as well as contribute to health disparities and inequities in the community. Important social and economic challenges in Modoc County include:

- Modoc County has one of the lowest median household incomes in the state at \$51,090 in 2021, compared to \$84,097 in California.
- The county has a high percentage of the population (20%) living below the poverty level, compared to the statewide average of 12%. Nearly double the percentage of Modoc County children live in poverty (30%) compared to 16% of California children.
- About 20% of adults in Modoc County have a bachelor's degree or higher, significantly less than the California estimate of 35%.

The health of a community is significantly influenced by the conditions in which its residents live, work, learn, and play. Poor physical environments can give rise to various health issues, ranging from respiratory problems like asthma caused by air pollution to obesity due to limited access to nutritious foods or safe places to exercise. Living conditions of note include:

- Modoc County enjoys less pollution burden, including cleaner air and water, than most other counties in the state.
- Seventeen percent of low-income Modoc County residents do not live near a grocery store, making access to healthy foods a challenge. Only 3% of low-income Californians have limited access to healthy food.
- Modoc County residents have limited access to exercise opportunities with only 55% living in an area within half a mile of a park or within three miles of a recreational facility.
- Modoc County has a high rate of homeownership. Three out of every four housing units (75%) are owner-occupied compared to only 55% in California.

Health behaviors, are actions that can improve or damage the health of individuals or communities. These behaviors are influenced by the choices available in the environment. Health risk behaviors identified among Modoc residents include:

- Almost 17% of Modoc County adults report being current smokers, almost twice the percentage of California adults (9%).
- The percentage of adults who report excessive drinking, including binge drinking or heavy drinking in Modoc County is significantly higher than statewide (22% compared to 18%, respectively).
- The rate of substantiated maltreatment (child abuse or neglect) among Modoc County children 0-17 years is consistently 2 to 3 times higher than the state rate.

The following health outcomes were identified as issues in Modoc County.

- The percent of adults reporting a diagnosis of coronary heart disease is significantly higher among Modoc County residents than Californians overall (6% compared to 3%, respectively).
- The percent of adults reporting a diagnosis of chronic obstructive pulmonary disease (COPD) is also higher in Modoc County than the state (7% compared to 4%, respectively).
- Among Modoc County adults, nearly 22% report being diagnosed with depression, significantly greater than the California percentage (15%).
- The age-adjusted premature mortality rate in Modoc County is significantly higher than that of the state (690 per 10,000 compared to 578 per 10,000) and is the 13th highest of all counties in California.
- Average life expectancy in Modoc (76.9 years) is four years less than the statewide average (81.9 years).

Respondents to the Community Health Survey identified mental health, substance use, chronic disease, and domestic violence as major health issues. Barriers to a healthy community that were identified include poverty, lack of suitable jobs, limited access to services and healthcare, and insufficient public transportation.

Focus group participants voiced similar concerns. Transportation, housing, limited services such as banks and grocery stores, and challenges accessing health care were identified as main issues for participants.

TABLE OF CONTENTS

ANCESTRAL LAND ACKNOWLEDGEMENT	6
METHODS	6
EXISTING ASSETS AND RESOURCES	7
RESULTS	٤
DEMOGRAPHIC PROFILE	
Veterans	10
Language	10
Rural living	10
COMMUNITY HEALTH PROFILE	10
SOCIAL DRIVERS OF HEALTH	11
Educational Attainment	11
Income	12
Poverty	13
Unemployment	14
Health Care Access	14
LIVING CONDITIONS	15
Physical Environment	15
Access to Exercise Opportunities	16
Food Insecurity	16
Broadband Internet Connection	17
Homeownership	17
Severe Housing Cost Burden	17
RISK BEHAVIORS	18
Early Entry into Prenatal Care	18
Alcohol Use	18
Substantiated Child Maltreatment	19
Tobacco Use and Vaping	19
HEALTH OUTCOMES AND MORTALITY	20
Disability	20
Chronic Health Conditions	21
Mental Health	21
Mortality And Premature Mortality	22
Life Expectancy	23
QUALITATIVE FINDINGS	23
Survey Findings	23
Key Informant Interviews	26
Focus Group Observations	28
DISCUSSION	28
APPENDIX	30

INTRODUCTION

The Modoc County Community Health Needs Assessment (CHNA) is a report on the health and wellbeing of the people of Modoc County for the period between 2016 to 2023 and provides a description of social, economic, and health factors across the 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 establishes a baseline from which to track 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 CHNA, 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.

ANCESTRAL LAND ACKNOWLEDGEMENT

For thousands of years, this land, now known as Modoc County, has been home to the people of the Northern Paiute, Modoc and Pit River Nations.

We respectfully recognize their committed stewardship, which has endured over many centuries and would like to express our deepest gratitude that, today, we are able to live together on this beautiful land.

METHODS

This Community Health Needs Assessment (CHNA) was developed and conducted by Modoc County Public Health. Leadership and staff from this organization contributed time and effort in accessing and reviewing data. Important contributing partners include community members who participated in interviews and surveys. County government officials also contributed information and expertise.

A number of recognized assessment frameworks were considered for use at the start of the CHNA process. In addition to broadly following the Mobilizing for Action through Planning and Partnerships (MAPP), much of the guidance from the Rural Health Information Hub's "Rural Community Health Toolkit" was used, as was guidance from the American Hospital Association's

Community Health Assessment Toolkit.¹ A group of individuals from a number of existing partnerships and coalitions within Modoc County, all seeking to improve or benefit aspects of the health and wellbeing of the community, were designated to move the CHNA process forward.

The information presented in this document was collected through a Community Health Survey available in both English and Spanish and in paper and electronic formats, key informant interviews, focus groups with community members throughout the county and a review of health indicators from a variety of secondary data sets. Secondary data were evaluated and areas where significant differences were identified compared to the state, or where disparities existed, were highlighted. Key informant interviews were conducted with local decision makers in the health care and local government sectors and with leaders from a number of different community-based organizations.

The Public Health Framework for Reducing Health Inequities² was used as a conceptual blueprint to guide indicator selection and organization within the CHNA (<u>Appendix Figure A</u>). Indicators from Healthy Places Index and Robert Wood Johnson Foundation County Health Rankings and Roadmap were selected to operationalize the framework. Indicators include measures of the social conditions that drive the health of a community in addition to living conditions, health risk behaviors, and health outcomes.

Obtaining robust, reliable, quantitative data for Modoc County is often challenging because the small county population often results in insufficient data to produce meaningful analyses, especially when examining specific groups who experience inequities. We have attempted to address these challenges by careful consideration of both quantitative and qualitative data in addition to comparing indicators to the state overall to identify areas of concern.

EXISTING ASSETS AND RESOURCES

Modoc 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, tireless leadership, and a commitment to their Modoc County neighbors and community members. Appendix Table A represents some of the organizations in Modoc County that may have resources available to meet the health needs identified in this community health assessment.

 $^{^{1}}$ particularly with respect to their focus on making equity foundational throughout the process.

² See <u>Figure A</u> in the Appendix.

RESULTS

DEMOGRAPHIC PROFILE

Modoc County is a sparsely populated, frontier county in the northeastern corner of California, bordering Oregon to the north and Nevada to the east. According to California Department of Finance population estimates, approximately 8,600 residents lived in Modoc County in 2022, a decrease of about 10% in the past decade (Figure 1). In general, the county has seen a year over year decline in the number of residents.³ This decreasing trend appears to be slowing.

Figure 1. Trend in population, Modoc County

9,686 9,713 _{9,479} _{9,341 _{9,049} _{8,959} _{8,952} _{8,795} _{8,691} _{8,755} _{8,703} _{8,579} _{8,640}}

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Source: California Department of Finance, E-6. July 1, 2010-2020, 2020 - 2022

The County has been designated by legislation as a "frontier county," which means that service delivery is hampered by the extremely low density of residents, 2.2 people per mile.⁴ Though population density is sparse, Modoc County enjoys scenic beauty and abundant natural resources. There are small towns, ranches, farmlands, lava beds, wildlife refuges, caverns, lakes, reservoirs, and forests within its borders. Modoc County ranks as the twelfth largest county in the state geographically, boasting 3,918 square miles of land ⁵ and 286 square miles of water, for a total area of 4,203 square miles.⁶

Modoc County has only one incorporated city, Alturas, the county seat, with a population of just over 2,500 people. Major metropolitan areas are outside the county, or outside the state, 98-180 miles away. There are a number of small, rural communities located in the county. East of the Warner Mountains are Cedarville, Eagleville, Lake City, and Fort Bidwell; in the northern part of the county are Davis Creek, Willow Ranch, and New Pine Creek; to the west and northwest are Day, Canby, Newell/Tulelake, Tionesta, Lookout and Adin; and in the south, is Likely. The population of these unincorporated communities ranges from less than 60 to 800.

³ California Department of Finance, Population Estimates E6, Jul 2010-2020, 2020-2022

⁴ US Census Bureau Quick Facts, Geography 2022

⁵ California State Association of Counties

⁶ https://en.wikipedia.org/wiki/Modoc County, California

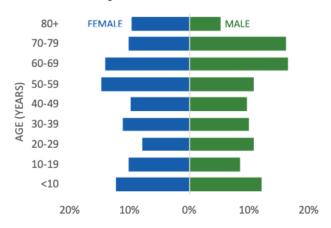
⁷ http://www.city-data.com/city/Alturas-California.html

Historically, the local economy has been based on agriculture and forestry, with some recreation. In 2021, 3,360 people over 16 years were employed in Modoc County. The largest industries were educational services, healthcare and social assistance (637 employees), agriculture, forestry, fishing and hunting (620 employees), and public administration (332 employees); the highest paying industries were transportation, warehousing, and utilities (median earnings, \$76,250), manufacturing (median earnings, \$65,571), and finance and insurance (median earnings, \$60,417).8

There has been a major decline in forestry jobs over the last 25 years and some decline in agriculture, forestry, fishing, hunting and mining which now accounts for only 20% of jobs. Like other Northern California counties, individuals aged 30-39 in particular have migrated out of the area, lured by academic and employment opportunities elsewhere. In 2021, 43% of the working population were employed in professional, scientific, management and administrative roles, waste management services, education, healthcare & social assistance, and public administration. The annual average unemployment rate in Modoc County in 2022 was 5% compared to the unemployment rate for California of 4.2%.

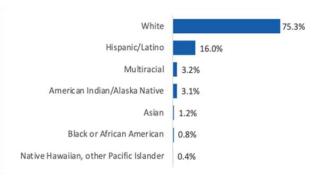
Approximately 12% of the county population is under 10 years of age; 9% are ages 10-19; and 42% are ages 20-59. More than 36% of the county population is 60 years of age or older - one and a half times that of the state (20%). Females represent 50% of the population. Among women, the greatest proportion of the population is 50-69 years and for men it is 60-79 years (Figure 2). The majority (75%) of Modoc County residents identify themselves as White and 16% identify as Hispanic or Latino. American Indians comprise approximately 3% of residents. Smaller numbers of Asian, Pacific Islanders, and Black or African American residents also live in Modoc (Figure 3)¹³

Figure 2. Population distribution by sex, Modoc County



Source: US Census Bureau, ACS, 2021 5 Year Estimates, Table S0101

Figure 3. Population distribution by race and ethnicity, Modoc County



Source: CDC Wonder, Single Race Population, 2021

⁸ US Census Bureau, American Community Survey (ACS), 2021 5 Year Estimates, Table S2413

⁹ US Census Bureau, ACS 2021 5 Year Estimates, Table DP03

¹⁰ CDC Wonder, Bridged-Race Population Estimates, 1997 to 2020

¹¹ Bureau of Labor Statistics, Local Area Unemployment Statistics, 2022

¹² US Census Bureau, ACS 2021 5 Year Estimates, Table S0101

¹³ CDC Wonder, Single Race Population, 2021

Veterans

In Modoc County there are an estimated 876 veterans, representing 12% of the adult population.¹⁴ This is a considerably higher percentage than veterans living in California (4.8%) or in the United States as a whole (6.9%).

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.¹⁵

Language

It is estimated that about 12% of the population of Modoc County speak a language other than English at home. ¹⁶ Ninety percent of those who don't speak English at home speak Spanish and 10% speak other languages. ¹⁷ Spanish is the only designated threshold language in Modoc County, though many American Indians speak Pitt or other tribal languages at home.

Rural living

While those who live in Modoc County can enjoy the advantages of rural living, they also face the challenges of a once-thriving, but now depressed rural economy, a geography that isolates them, and harsh winter weather often lasting into May, which causes further isolation. The size and topography make it difficult for individuals and families to access needed support systems. The lengthy distances are further compounded by the fact that public transportation in the county is nearly nonexistent. Unemployment has caused many working age adults and families to leave the county. A higher than average percentage of the population who are over 65 years presents special challenges. Within the population, Isolation and lack of access to gainful employment are often barriers to community engagement and participation.

COMMUNITY HEALTH PROFILE

Modoc County has some of California's least healthy community conditions, according to the Healthy Places Index. The Healthy Places Index ranks the social drivers of health and health conditions of California's 58 counties, and places Modoc County in the bottom 25% (Figure 4).

¹⁴ US Census Bureau, ACS 2021 5 Year Estimates Table S2101

 $^{^{15}}$ This does not include the 4-6 months for initial training or yearly summer camps.

¹⁶ US Census Bureau, ACS 2021 5 Year Estimates Table S1610

¹⁷ "Other languages" as defined by the US Census Bureau include more than 40 different languages

These analyses are consistent with findings from Robert Wood Johnson Foundation's County Health Rankings and Roadmap 2023 report which also ranks Modoc County among the least healthy counties in California.

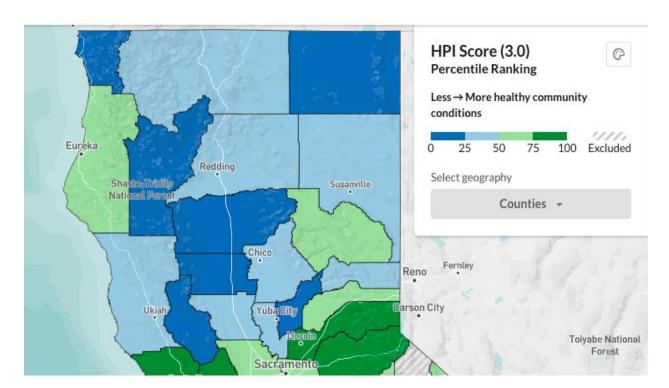


Figure 4. Northern California Counties by Healthy Places Index Quartile

SOCIAL DRIVERS OF HEALTH

Social drivers of health are the conditions in the environments where people live, learn, work, and play. These conditions impact people's health, wellbeing, and quality of life as well as contribute to health disparities and inequities. Social drivers of health 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, and violence. ¹⁸

Educational Attainment

Education is an important predictor of health. Adults with higher educational attainment live healthier and longer lives compared to those with less education.¹⁹

¹⁸ US Department of Health and Human Services, Office of Disease Prevention and Health Promotion, Healthy People 2030

¹⁹ Zajacova A, Lawrence EM. The Relationship Between Education and Health: Reducing Disparities Through a Contextual Approach. Annu Rev Public Health. 2018 Apr 1;39:273-289. doi: 10.1146/annurev-publhealth-031816-044628. Epub 2018 Jan 12. PMID: 29328865; PMCID: PMC5880718.

An estimated 86% of adults in Modoc County aged 25 years or older have graduated from high school, similar to California (84%); however, only about 20% have a bachelor's degree or higher, significantly less than the California estimate of 35%. ²⁰ Men and women were equally as likely to have a bachelor's degree or higher (20%). ²¹ Among the two most populous racial and ethnic groups in the county, disparities in education are evident. White, non-Hispanic residents 25 years and older are almost twice as likely to have a bachelor's degree or higher than Hispanic or Latino residents (22% compared to 12%, respectively). ²²

Income

Income is also strongly associated with an individual's health. The greater one's income, the lower one's likelihood of disease and early death. Limited access to resources and unmet social needs, environmental conditions, and barriers to accessing health care contribute to worse health outcomes for people with lower incomes.²³

Modoc County has one of the lowest median household incomes in the state at \$51,090 in 2021, compared to \$84,097 in California. The median household income for Modoc County increased from 2014

Figure 5. Median household income, Modoc County and California



Source: US Census Bureau, ACS 2021 5 Year Estimates Table S19013

through 2021; however, during this time, median income remained significantly lower than the median household income in California, and the difference in median income between the county and the state has increased (Figure 5). There are differences in median income by sex with maleheaded households (with no spouse present) making about one and a half times that of femalehouseholds (with no spouse present) - \$52,750 compared to \$36,098. Disparities in median income also exist by race. American Indian or Alaska Native and multiracial residents have the lowest median incomes (\$28,869 and \$33,875, respectively) and White residents have the highest median

²⁰ US Census Bureau, ACS 2021 5 Year Estimates Table S1501

²¹ US Census Bureau, ACS 2021 5 year estimates, Table B15002

²² Small numbers can result in wide margins of error and unstable estimates. Interpret with caution.

²³ US Department of Health and Human Services, Office of Disease Prevention and Health Promotion, Healthy People 2030

income (\$53,803). The median income for Hispanic or Latino residents (\$50,247) is similar to the county average. ^{24,25}

Poverty

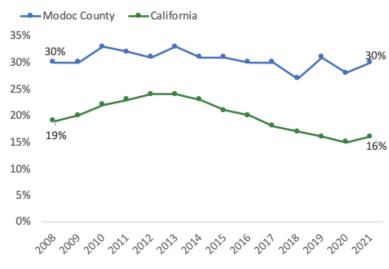
Poverty significantly impairs access to resources necessary for wellbeing and is a risk factor for a variety of negative health outcomes. According to the 2021 federal poverty guidelines, a single-person household is living in poverty if they earn less than \$12,880 per year; a two-person household, less than \$17,420; and a household of four less than \$26,500. The county has a high percentage of the population living below the federal poverty level, 20%, compared to the statewide average of 12% in 2021.

While California has seen a decrease in the percentage of the population below the poverty level since 2014, the rate in Modoc County remains stable at around 20%. In addition, racial disparities

in poverty levels exist. Over 53% of Black residents, 32% of multiracial residents, and 22% of American Indian or Alaska Native residents live below the federal poverty level compared to 19% of White residents.²⁶ About 21% of Hispanic or Latino residents live below the poverty level.^{27,28}

Thirty percent of Modoc County children live in poverty compared to 16% of California children²⁹ and while there has been a steady decrease in the rate of child poverty in California, the rate in Modoc remains high (Figure 6).

Figure 6. Percent of children in poverty, Modoc County and California



Source: RWJF, County Health Rankings and Roadmaps

In addition, more than 2 out of 3

(69%) Modoc children receive free or reduced cost lunches at school.³⁰ In 2021, an estimated 20% of children living in Modoc County resided in households that were unable to provide adequate

²⁴ US Census Bureau, ACS 2021 5 Year Estimates Table S1903

²⁵ Small numbers can result in wide margins of error and unstable estimates. Interpret with caution.

²⁶ Small numbers can result in wide margins of error and unstable estimates. Interpret with caution.

²⁷ US Census Bureau, ACS 2021 5 Year Estimates Table S1701

²⁸ Small numbers can result in wide margins of error and unstable estimates.

²⁹ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

³⁰ California Department of Education, DataQuest

food for all household members for the entire year, due to insufficient resources.³¹ Children living with food insecurity are at higher risk for a host of health problems, including developmental, behavioral and mental health issues, as well as acute and chronic medical conditions.

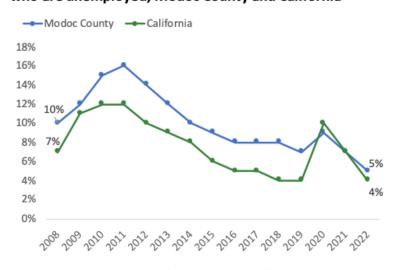
Food assistance programs, such as CalFresh (SNAP – Supplemental Nutrition Assistance Program) and WIC (Special Supplemental Nutrition Program for Women, Infants and Children) help ensure adequate levels of nutrition are made available to families, expectant mothers, and children. These programs have been shown to reduce the negative effects of poverty and to improve the health and wellbeing of children and adults.³² Approximately 21% of Modoc County residents were using CalFresh benefits in 2020, up from 16% in 2015. The number and proportion of the population enrolled in Medi-Cal also increased during this time, from 41% to 47% of residents. Enrollment in WIC, however, decreased, tracking with a slight decrease in births.

Unemployment

Despite perceptions of high unemployment voiced by participants in focus groups and the Community Health Survey, and the spike in the percentage of people unemployed during the peak at the start of the COVID-19 pandemic in the spring of 2020, unemployment levels in Modoc County have consistently fallen since 2011.

After a decade of higher rates than the state, Modoc County had a similar unemployment rate to California in 2021 (Figure 7), although latest figures.

Figure 7. Percent of the population 16 years and older who are unemployed, Modoc County and California



Source: US Bureau of Labor Statistics (not seasonally adjusted) 2002-2022

Health Care Access

Receiving timely, routine health care is important for maintaining health. Health insurance is often provided through employment and consistently high unemployment rates indicate the potential for a chronically underinsured population. In addition, the rural nature and limited transportation

³¹ Feeding America, Modoc County

³² Kidsdata.org Food Research and Action Center. (2019). *WIC is a critical economic, nutrition, and health support for children and families*, Peltz, A., & Garg, A. (2019). Food insecurity and health care use. *Pediatrics*, 144(4), e20190347.

options of Modoc County creates challenges for accessing necessary health care. Lastly, a shortage of local providers is a barrier to accessing appropriate health care.

About 12% of Modoc residents are uninsured compared to only 7% of California residents. Racial disparities exist in rates of uninsured with over 20% of American Indian or Alaska Native residents without health insurance compared to 12% of White residents. About 11% of Hispanic or Latino residents were uninsured.^{33,34} The percentage of the population who are uninsured also varies by poverty status. About 35% of Modoc residents at 100% of the federal poverty level were uninsured compared to just 9% of those at 400% of the federal poverty level.

Accessing health care in an area with a limited supply of clinicians is challenging. While improvements have occurred in this area over the past 10 years, Modoc County continues to have fewer primary care physicians and dentists per population than California - 1 physician per 1,750 residents and 1 dentist per 1,440 residents compared to 1 physician per 1,230 residents and 1 dentist per 1,100 residents in California overall.³⁵

LIVING CONDITIONS

The health of a community is significantly influenced by the conditions in which its residents live, work, learn, and play. Individuals interact with this environment through the air they breathe, the water they drink, the housing they inhabit, the transportation they use, and the recreational resources available to them. Poor physical environments can give rise to various health issues, ranging from respiratory problems like asthma caused by air pollution, to obesity due to limited access to nutritious foods or safe places to exercise.³⁶

Physical Environment

Modoc County enjoys cleaner air and water than many other counties in California.³⁷ The rural nature of the county also offers the benefit of low traffic volume and its associated pollution.³⁸ According to CalEnviroscreen 4.0 the pollution burden in Modoc County census tracts is among the lowest in the state (ranges from 0 - 29th percentile).³⁹

³³ US Census Bureau, ACS 2021 5 Year Estimates Table S2701

³⁴ Small numbers can result in wide margins of error and unstable estimates. Interpret with caution.

³⁵ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

³⁶ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

³⁷ Healthy Places Index, 2.0 Clean Environment

³⁸ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

³⁹ CalEnviroscreen, 4.0 https://experience.arcgis.com/experience/ed5953d89038431dbf4f22ab9abfe40d/

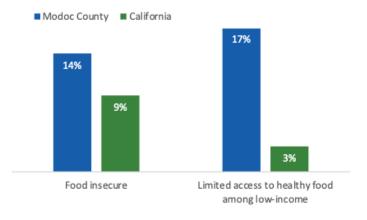
Access to Exercise Opportunities

Regular physical activity is important for maintaining health. It is associated with lower risks of type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality. The built environment is important for encouraging physical activity. Individuals who live closer to sidewalks, open spaces, and gyms are more likely to exercise. ⁴⁰ Although according to County Health Rankings & Roadmaps 2023, compared to 95% of California residents with adequate access to locations for physical activity, Modoc County residents have limited access to exercise opportunities with only 55% living in an area within half a mile of a park or within three miles of a recreational facility, this measure does not take into account how rural Modoc County is. In reality, within the County, there are: a number of commercial Gyms & Golf courses; opportunities for horse riding; hiking trails that cater for various fitness levels and abilities; local classes offering (amongst other things) Zumba, Tai Chi, Yoga and Karate and, weather conditions permitting, skiing and snowboarding at Cedar Pass Snow Park.

Food Insecurity

Being food insecure means having limited and unreliable access to enough food for a healthy, active lifestyle. Food insecurity and the lack of access to affordable, nutritious food are associated with increased risk for multiple chronic health conditions such as diabetes, obesity, heart disease, mental health disorders, and other chronic diseases. Fourteen percent of people in Modoc County do not have a reliable source of healthy food (food insecure) compared to 9% of Californians. In addition, 17%

Figure 8. Percent of the population with inadequate access to healthy food, Modoc County and California



Source: RWJF, County Health Rankings and Roadmaps 2023

of low-income Modoc County residents do not live near a grocery store, making access to healthy foods a challenge. Only 3% of low-income Californians have limited access to healthy food (Figure 8). In Modoc seasonal fruit and vegetables and local produce is available through Modoc Harvest⁴¹ and at Farmers Markets held throughout the summer months, in Alturas and Cedarville.

 $^{^{}m 40}$ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

⁴¹ Modoc Harvest Certified Farmers' Markets

Broadband Internet Connection

Compared to 90% of California households overall, just 76% of Modoc County households have a broadband internet connection.⁴² Internet connectivity, particularly access to broadband, is playing an increasingly important role in both healthcare and public health. Telehealth is a promising approach to reduce health disparities by bringing specialized healthcare to communities where specialty care was previously unavailable, facilitating monitoring and follow-up care for chronic health conditions, and connecting providers in remote areas. Broadband connection also impacts social drivers of health like education and employment opportunities.⁴³

Homeownership

Housing plays a pivotal role in facilitating a fulfilling and healthy life, and having secure and reasonably priced housing is an important component of thriving communities. Owning a home is linked to improved well-being, reduced instances of illness, and lower levels of depression and anxiety. High rates of homeownership are connected to greater housing stability and more cohesive communities. Modoc County has an overall high rate of homeownership. Three out of every four housing units (75%) are owner-occupied compared to only 55% in California; however, homeownership varies by race with 79% of White households owning their homes compared to 60% of Hispanic or Latino households.

Severe Housing Cost Burden

There is compelling evidence linking health and stable and affordable housing. When a significant portion of income is spent on rent or mortgage payments, accessing healthcare, nutritious foods, utility payments, and dependable transportation becomes challenging. This can lead to stress and emotional strain. Modoc County has a low severe housing cost burden with only 11% of households spending more than half of their income on rent or mortgages compared to 20% of California households.

⁴² University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

⁴³ Bauerly BC, McCord RF, Hulkower R, Pepin D. Broadband Access as a Public Health Issue: The Role of Law in Expanding Broadband Access and Connecting Underserved Communities for Better Health Outcomes. J Law Med Ethics. 2019 Jun;47(2 suppl):39-42

⁴⁴ Macintyre S, Hiscock R, Kearns A, Ellaway A. Housing, tenure and health inequalities: A three-dimensional perspective on people, homes, and neighborhoods. In: Graham H, ed. Understanding Health Inequalities. New York: Open University Press; 2000.

⁴⁵ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

RISK BEHAVIORS

Health behaviors, are actions that can improve or damage the health of individuals or community members. These behaviors are influenced by the choices available in neighborhoods and communities. 46

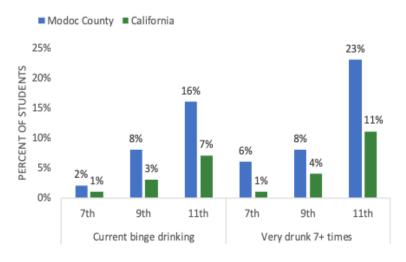
Early Entry into Prenatal Care

Prenatal care can help reduce or prevent complications and educate birthing parents about important steps they can take to ensure a healthy pregnancy and infant. Early entry into prenatal care (within the first trimester) is both a measure of risk and of access to care. From 2019-2021 about 59% of Modoc County births received early prenatal care, significantly less than the state (88%). The percentage of Modoc County births receiving early prenatal care has decreased consistently over the past 15 years. ⁴⁷

Alcohol Use

Excessive alcohol use can have multiple negative effects. These include short-term effects like violence, motor vehicle collisions and other injuries, and longer-term effects like chronic liver disease, heart disease, and cancer. Underage alcohol consumption has been linked to a wide range of social, academic and health challenges, in addition to other risky health behaviors such as unprotected sex, impaired driving, motor vehicle accidents, physical and/or partner (dating) violence, crime, and suicide attempts.

Figure 9. Alcohol use-related behaviors of 7th, 9th, and 11th graders, Modoc County and California



Source: The California School Climate, Health, and Learning Survey (CalSCHLS) System - Public Dashboards 2019-2021

The percentage of adults who report excessive drinking, including binge drinking or heavy drinking, is significantly higher for Modoc County than for the state overall (22% compared to 18%,

⁴⁶ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

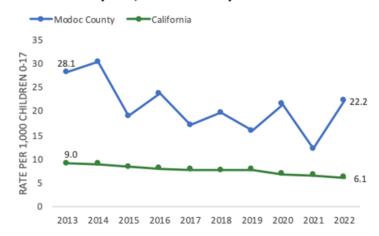
⁴⁷ https://www.cdph.ca.gov/Programs/CFH/DMCAH/surveillance/Pages/Prenatal-Care.aspx

respectively).⁴⁸ In addition, from 2019-2021 the percentage of 7th, 9th, and 11th graders in Modoc County who reported binge drinking was significantly higher for all grade levels than the state. The percent of students reporting ever being very drunk seven or more times was also higher for all grade levels in the county compared to the state (Figure 9).⁴⁹

Substantiated Child Maltreatment

Child maltreatment is a serious public health issue that can lead to severe injury and death. The impacts of child abuse and neglect can result in physical, emotional, and behavioral problems. Children who are abused or neglected are at increased risk for a number of health issues including anxiety, depression, delinquency, difficulty in school, and early sexual activity. Family and community risk factors for child abuse and neglect include poverty, substance abuse or mental illness in the family, parental stress, social isolation, unintended pregnancy, and domestic or neighborhood violence.50

Figure 10. Substantiated child maltreatment per 1,000 children 0-17 years, Modoc County and California



Source: California Child Welfare Indicators Project, <u>CCWIP Reports</u>. UC Berkeley & California Dept. of Social Services 2013-2022

While the rate of substantiated maltreatment among Modoc County children 0-17 years appears to be decreasing, it is consistently 2 to 3 times higher than the state rate (Figure 10).⁵¹

Tobacco Use and Vaping

Tobacco use and vaping can have serious health consequences for users and those exposed to secondhand smoke or vaping chemicals. The health effects of tobacco exposure range from anxiety and asthma to heart disease and lung cancer. Some social drivers of health can lead to stress, which can affect people's tobacco use. Stress from financial problems, discrimination, or unsafe neighborhoods can make it harder to quit smoking and can even increase use of tobacco products.⁵²

⁴⁸ Centers for Disease Control, Places 2021

⁴⁹ The California School Climate, Health, and Learning Survey (CalSCHLS) System - Public Dashboards

⁵⁰ Centers for Disease Control, Violence Prevention, Child Abuse and Neglect

⁵¹ California Child Welfare Indicators Project, CCWIP Reports 2013-2022

⁵² Centers for Disease Control, Improving Tobacco-Related Health Disparities

About 17% of Modoc County adults report currently smoking, almost twice the percentage as for California adults (9%).⁵³ Thirteen percent of Modoc County 11th graders reported currently smoking cigarettes, significantly higher than the California estimate of 2%. Vaping is also of concern, with 25% of Modoc County 11th graders reporting vaping compared to 10% of California 11th graders. Rates of cigarette smoking and vaping among 11th graders increased from 2018 to 2022.⁵⁴

HEALTH OUTCOMES AND MORTALITY

Health outcomes, like prevalence of disease or rates of premature death, describe how long people live on average within a community, and how much physical and mental health people experience in a community while they are alive. These outcomes are influenced by the social drivers and risk behaviors present among individuals and communities.⁵⁵

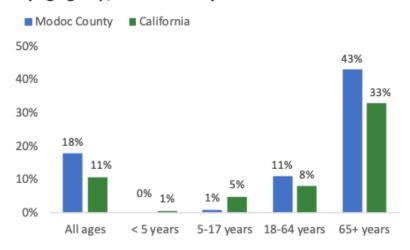
Disability

According to the 2021 American Community Survey 5-year estimates, 18% of the population of Modoc County had at least one disability compared to 11% in California. Individuals with disabilities are more likely than people without disabilities to report having poorer overall health, limited access to adequate health care, inadequate access to health insurance coverage that their health needs, skipped medical care because of associated costs, and engaging in risky health behaviors

including smoking and physical inactivity. 56

Disability is highly correlated with age with a greater proportion of older people experiencing disability than younger people. The larger proportion of older adults in Modoc County drives the higher disability rate (Figure 11). 57,58

Figure 11. Percent of the population with a disability by age group, Modoc County and California



Source: US Census Bureau, ACS 20215 Year Estimates, Table S1810

⁵³ Centers for Disease Control, Places 2021

⁵⁴ The California School Climate, Health, and Learning Survey (CalSCHLS) System - Public Dashboards

⁵⁵ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023

⁵⁶ Centers for Disease Control, Disability and Health Information for Healthcare Providers

⁵⁷ US Census Bureau, ACS 2021 5 Year Estimates, Table S1810

⁵⁸ Small numbers can result in wide margins of error and unstable estimates. Interpret with caution.

Chronic Health Conditions

A combination of genetics, community conditions, access to health care, and behaviors puts individuals at risk for certain health conditions. The percent of adults reporting a diagnosis of coronary heart disease is significantly higher among Modoc County residents than Californians overall (5.9% compared to 2.9%, respectively). The percent of adults reporting a diagnosis of chronic obstructive pulmonary disease (COPD) is also higher in Modoc County than the state (7.4% compared to 4.3%, respectively).⁵⁹

Mental Health

Mental health and wellbeing is defined as a state in which every individual realizes their own potential, is able to cope with the normal stresses of life, functions productively and fruitfully, and is able to make a contribution to their community.⁶⁰

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 a major risk factor for suicide, which is the second leading cause of death in the US for 15 to 24 year-olds. For those young people who have mental health disorders, early intervention and treatment can help lessen the impact over the course of their lives.

Among Modoc County adults, nearly 22% report ever being told they have a form of depression, significantly greater than the California percentage (15%). Eighteen percent of Modoc County adults report that their mental health was "not good" for 14 or more days in the past month, also higher than the state (15%).⁶¹

More than 1 in 3 teens in Modoc County report feeling so sad or hopeless for two weeks or more that they stopped doing some usual activities, similar to California; however, while 15% of 9th

⁵⁹ Centers for Disease Control, Places 2021

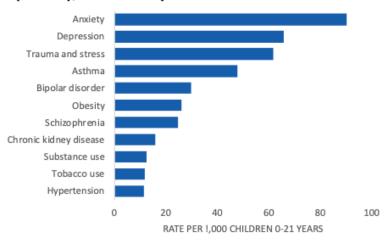
⁶⁰ World Health Organization, Mental Health

⁶¹ Centers for Disease Control, Places 2021

graders and 16% of 11th graders in California report considering suicide, 22% of 9th graders and 31% of 11th graders in Modoc County report considering doing so.⁶²

In addition, four of the top five most prevalent chronic health conditions among children 0-21 years enrolled in Partnership Health Plan (Medi-Cal) in 2022 were mental health related (Figure 12).

Figure 12. Leading chronic health conditions among children 0-21 years (n=395), Partnership Health Plan Modoc



Source: Partnership Health Plan, 2022

Mortality And Premature Mortality

All-cause age-adjusted mortality rates are comparable for Modoc County and California (60 per 10,000 and 63 per 10,000). Modoc County men have a higher age-adjusted mortality rate than women (70 per 10,000 compared to 50 per 10,000). Disparities exist by race and ethnicity with an age-adjusted mortality rate for American Indian or Alaska Native residents more than double those of White and Hispanic or Latino residents (152 per 1,000 compared to 66 per 10,000 and 45 per 10,000, respectively).⁶³

The leading causes of death in Modoc County track with those of the state (Table 1). The age-adjusted death rate for unintentional injury, the third leading cause of death, is 2.5 times higher for Modoc County than for California (8.7 per 10,000 population compared to 3.6 per 10,000 population, respectively). ⁶⁴

⁶² The California School Climate, Health, and Learning Survey (CalSCHLS) System - Public Dashboards 2019-2021

⁶³ California Community Burden of Disease Engine, 2018-2022

⁶⁴ CDC Wonder 2019-2021

Table 1. Leading cause of death, Modoc County 2019-2021

		Number of	
		deaths - 3	Percent of
	Cause of Death	year total	total deaths
1	Heart disease	89	24%
2	Cancer	75	20%
3	Unintentional injuries	34	9%
4	Chronic lower respiratory diseases	29	8%
5	Stroke	26	7%
6	COVID-19	14	4%
7	Diabetes	13	3%

Source: CDC Wonder, 2019-2021

Modoc County's age-adjusted death rates from both cancer and heart disease are comparable to those of the state. The death rate from chronic obstructive pulmonary disorder (which is not a leading cause of death) is significantly higher among Modoc County residents than for Californians overall (6 per 10,000 compared to 2 per 10,000, respectively).⁶⁵

Premature death is defined as the number of years of life lost before age 75 (YLL-75). The age-adjusted premature death rate in Modoc County is significantly higher than that of the state (690 per 10,000 compared to 578 per 10,000) and the 13th highest of all counties in California. The age-adjusted premature death rate among American Indian or Alaska Native residents of Modoc County is more than 3 times that of White residents (2,739 per 10,000 compared to 803 per 10,000) and 17 times that of Hispanic or Latino residents (154 per 10,000).

Life Expectancy

Life expectancy is the average number of years a person can expect to live. Average life expectancy in Modoc County (76.9 years) is significantly lower than the statewide average of 81 years and similar to the national average (75.5 years).

QUALITATIVE FINDINGS

Survey Findings

A Community Health Survey was administered by Modoc County Public Health. The survey was launched via the Modoc County Public Health website and in person at the Modoc District Fair. Flyers and posters (bilingual Spanish and English) promoting the survey were distributed at locations throughout the county, in county offices, medical and dental offices, and the library. Paper copies of the survey were also left at these locations. The survey was also sent by email to partner community-based organizations and other contacts for dissemination throughout these

⁶⁵ CDC Wonder, 2016-2020

⁶⁶ California Community Burden of Disease Engine, 2018-2022

groups. Data were analyzed by staff at Modoc County Health Services, California Department of Public Health (CDPH) and Data Strategy Consulting.

Two-hundred forty-one people completed the survey. Sixty-one percent of respondents were 18-39 years of age, 30% were 40-64 years of age, and 9% were 65 years or older. Fifty-six percent of respondents identified as female. Sixty-nine percent of survey respondents were White, non-Hispanic, 13% were Hispanic or Latino, 8% were Black or African American, 4% were Native American, 2% were multi-racial, and 1% were Asian. Most respondents (89%) spoke English only. Half of the respondents had a college degree or higher, 20% had some college, 24% had a high school degree or equivalent, and 6% had less than a high school diploma.

The survey included questions about the challenges and barriers to a healthy community. The top five most common responses are presented for each question below.

- 1. What are the three biggest health problems in your area?
 - Mental health issues (13%)
 - Alcohol and drug use (13%)
 - Heart disease (7%)
 - o Cancer (7%)
 - o Domestic violence (7%)
- What are the three behaviors that most affect health in your community?
 - O Drug abuse (14%)
 - Poor eating habits (14%)
 - o Alcohol abuse (13%)
 - Not getting regular checkups by doctor (10%)
 - Not able to deal with life stress (10%)
- 3. What are the three biggest social and economic problems affecting health in your community?
 - Limited housing options (14%)
 - o Poverty (12%)
 - O Not enough well-paying jobs (11%)
 - Not enough interesting activities for youth (9%)
 - Not enough healthy food (8%)
- 4. What are the three biggest barriers to having a healthy environment in your community?
 - o Poor housing (14%)
 - Not enough places to buy healthy food (13%)
 - Severe weather conditions (10%)
 - Not enough safe places to be physically active (9%)
 - O Discarded drug paraphernalia (8%)
- 5. What are the most important parts of a healthy, thriving community?
 - Safe place to raise kids (12%)
 - o Jobs (12%)

- Access to health care (10%)
- Access to healthy food (8%)
- o Good air quality (7%)

Additional questions were asked about the perceived health status of individual, family, and community health. Respondents were more likely to say that family and individual health was "Excellent" or "Good" than community health (Figure 13).

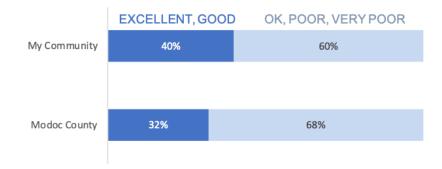
Respondents were also asked to rate how well their neighbors work together to solve community problems. Respondents were more likely to rate problem-solving ability as "OK", "Poor", or "Very Poor" than "Excellent" or "Good" for their communities and Modoc County as a whole (Figure 14).

Respondents were asked about health care access in the county. About 13% of

Figure 13. Perceived health status of survey respondents, Modoc County Community Health Survey



Figure 14. Perceived ability of neighbors to work together to solve community problems, Modoc County Community Health Survey



respondents indicated they had no health insurance, tracking with estimates from the US Census Bureau. The following were indicated as barriers to getting health care:

- Not enough doctors
- No health care available on nights and weekends
- Medi-Cal and Covered California are too hard to get
- Can't get off work to see a doctor
- Wait times to see doctor are long
- Medicines are too expensive
- High copays and deductibles

- No transportation
- Doctors and staff don't speak my language

Key Informant Interviews

Interviews were conducted with decision makers in the community including CEOs and senior staff of medical services (hospital, primary & secondary care), key leaders of community-based organizations encompassing services for children, adults and seniors, senior staff of resource, family and migrant centers, superintendent of schools, senior social worker and director of pre-school school programs. Areas of expertise include health care, mental health, housing, transportation, life skills, nutrition, and substance use. Table 2 lists the three biggest health issues identified by key informants by their areas of expertise.

Table 2. Biggest health issues by key informant area of expertise, Modoc County

Health care	Lack of home health care
	Lack of specialty care
	Lack of pediatric dental care
Mental health	Lack of transportation
	Lack of accessibility
	Lack of pediatric care
Housing	Lack of affordable, good housing
	Drug use
	Mental health issues
Transportation	Lack of transportation
	Lack of access to basic services and medical services
	Lack of physical fitness activities for adults and youth
Nutrition	Lack of nutrition
	Access to health care and transporation
	Access to clean, potable water
Life skills	Lack of knowledge/life skills
	Poor parenting skills
	Lack of consistency in children's lives
Substance use	Alcohol use
	Substance use
	After-effects of COVID-19

Respondents pointed to limited knowledge about healthy behaviors, stigma about mental health issues, and lack of quality education as main contributing factors to these issues.

Challenges in the community were discussed. Themes by issue area are listed below as well as the biggest barriers in each of these areas.

Social and Economic

- Poverty
 - Low incomes
 - Lack of affordable housing
 - Lack of access to healthy food
- Education
 - Lack of quality education
 - Lack of job training opportunities
- Transportation
 - Lack of public transportation
 - Lack of affordable transportation options

Healthy Environment

- Housing
 - Lack of affordable housing
 - Lack of quality housing
 - Lack of housing for seniors
- Community
 - Lack of sense of community
 - Lack of activities for people to do together
 - Lack of opportunities for people to connect
- Transportation
 - Lack of public transportation
 - Lack of walking paths
 - Lack of access to cars

Access to Health Care

- Cost
 - O High cost of health care
 - Lack of insurance
- Access to providers
 - Limited number of providers
 - o Difficulty recruiting and retaining providers
- Transportation
 - Lack of public transportation,
 - Long distances to travel for care

Finally, key informants were prompted to provide ideas about how to strengthen the three areas identified in the Community Health Survey as the most important aspects of a healthy, thriving community: jobs, a safe place to raise kids, and access to health care. Suggestions included:

- Jobs
 - Developing viable industries
 - O Bringing in more providers
 - Keep it [number of providers/industries] small and manageable to enable steady growth
- Safe place to raise kids
 - Improve transportation
 - Provide more activities in the community
 - Make the community feel safer
- Access to health care
 - o Recruit more health care providers
 - Bridge gaps across state lines
 - Provide bus passes for public transportation

Focus Group Observations

A number of focus groups were conducted in the community to understand the health needs and concerns of Modoc County residents.

Focus groups conducted with seniors attending the Senior Centers in Alturas and Cedarville and the Big Valley 50+ Group in Bieber (which serves both Lassen and Modoc Residents), highlighted that many seniors are concerned that in order to access specialized care, they are forced to travel considerable distances. A number of people reported challenges accessing more convenient and closer care outside of California because Medi-Cal is not accepted, requiring them to travel longer distances in state to see a provider. Weather, traffic conditions, and time constrictions also pose challenges for accessing care. The long journey and driving at night further add to the stress of seeing a healthcare professional. One senior, expressed that "if it's snowing or the road is closed for any reason, you could die before you're able to get there to get something checked out." Transportation is an issue, with seniors expressing the opinion that although they appreciate the services provided by the local bus operators, they would like more routes, more bus stops and greater flexibility/convenient timetables. Several seniors said they car share with friends instead.

Another challenge articulated was the scarcity of food stores and stores selling other essential items. A number of the focus group participants expressed the feeling that it was due to the meals they received at the Senior Centers that they were able to enjoy a healthy, balanced diet and fresh food at a reasonable cost.

In separate focus groups, Latino members of Tulelake and Alturas voiced a number of concerns. Transportation, limited year-round jobs, access to healthcare providers, and limited services such as banks and stores, especially services offered in languages other than English, were raised as main issues. One participant lamented the loss of the only food bank in town. Limited housing and the high cost of rent was also a concern. While participants felt safe in their communities, they expressed a desire for more community engagement and better infrastructure (e.g. sidewalks).

DISCUSSION

While Modoc County enjoys scenic beauty, abundant natural resources, and a clean physical environment, it ranks poorly among counties in California for many community conditions that support a healthy and long life. Economic challenges such as high rates of poverty and unemployment are barriers to achieving optimum health for the people of Modoc County. Lower educational attainment among residents likely contributes to these issues. Residents also experience limited access to healthcare due to the rural nature of the county, high rates of uninsured, and fewer health care providers per population than the state.

The difference in life expectancy between Modoc County and the state is underscored by the burden of illness and premature death in the community. High prevalence of risk behaviors, chronic

disease and poor physical and mental health reduce quality of life and wellbeing among residents of the county leading to higher rates of disability and early death than in California overall.

Focus groups, key informant interviews, and survey results echo these findings. Limited job opportunities, high rates of poverty and unemployment, a lack of access to healthcare, and few services in the community make it difficult to achieve or maintain health. Participants identified alcohol and substance use, poor mental health, few safe places to exercise, and unhealthy diet as specific health issues of concern.

APPENDIX

Figure A. Health Inequities Initiative Framework

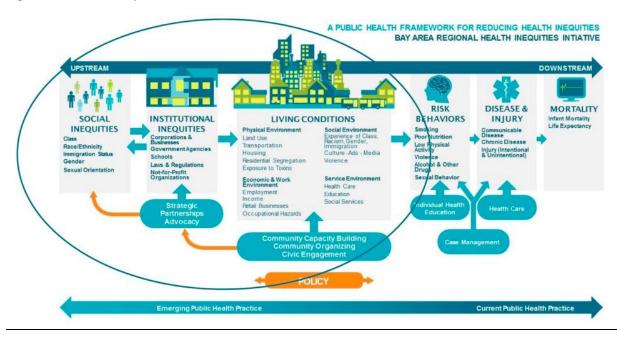


Table A. Existing Assets and Resources⁶⁷

Name of Resource	Primary ZIP	Website	Telephone
	Code		
Alliance for Workforce Development	96101	https://afwd.org	(530) 233- 4161
Adin Branch Library	96006	https://modoccountylibrary.org/node/20	(530)299- 3502
Adin Community Bible Church	96006	https://www.adincommunitybiblechurch.com	(530) 299- 3238
Alturas Chamber of Commerce	96101	https://alturaschamber.org/	(530)708- 1086
Alturas Municipal Airport	96101		(530) 233- 5125
Alturas Elementary School	96101	https://aes.modoc.k12.ca.us	(530) 233- 7201
Alturas Elementary State Preschool	96101	https://www.modoccoe.k12.ca.us/Teams/Pre- Schools/Alturas-Elementary-State-Pre-School/index.html	(530) 233- 1705

⁶⁷ This list is not exhaustive and contact details, although correct at time of publishing, may change.

Name of Resource	Primary ZIP	Website	Telephone				
Alturas Lions Club	96101	https://e-clubhouse.org/sites/alturas/					
Alturas Police Department	96101	http://cityofalturas.us/departments/public_safety/index.php	(533) 233- 2011				
Alturas Senior Center	96101		(530) 233- 4438				
Alturas State Preschool	96101	https://www.modoccoe.k12.ca.us/Teams/Pre- Schools/Alturas-State-Pre-School/index.html	(530) 233- 2507				
Alturas Sunrise Rotary	e Rotary 96101 https://www.facebook.com/AlturasSunriseRotary						
Big Valley 50 Plus (Bieber)	96009	https://www.facebook.com/people/Big-Valley-50- Plus/100064336013580/	(530) 294- 5745				
Big Valley Dental Center	96009	http://www.mountainvalleys.org	(530) 999- 9011				
Big Valley Health Center, Bieber	96009	http://www.mountainvalleys.org	(530) 999- 9010				
Big Valley Veterinary Clinic (Adin)	96006		(530) 299- 3121				
B.L.M Bureau of Land Management	96101	https://www.blm.gov/office/applegate-field-office	(530) 233- 4666				
Cal-Fire Lassen-Modoc Unit	96101	https://www.facebook.com/CALFIRELMU	(530) 233- 2723				
California Highway Patrol	96101	https://www.chp.ca.gov/find-an-office/northern-division/offices/(170)-alturas	(530) 708- 9000				
Canby Clinic (Medical & Dental)	96015	http://www.modocmedicalcenter.org	(530) 708- 8830				
Cedarville Senior Citizens Center	96104		(530)279- 2181				
Church of Jesus Christ of Latter-Day Saints (Alturas)	96101	https://local.churchofjesuschrist.org/en/us/ca/alturas/104- east-13th-street	(541) 860- 8685 or (530) 233- 2782				
Church of Jesus Christ of Latter-Day Saints (Cedarville)	96104	https://local.churchofjesuschrist.org/en/us/ca/cedarville	(541) 860- 8685				
Church of Jesus Christ of Latter-Day Saints (Tulelake)	96134	https://local.churchofjesuschrist.org/en/us/ca/tulelake/195 5-atkins-road	(458) 232- 7471 or (530) 667- 5244				

Name of Resource	Primary ZIP Code	Website	Telephone
Church of Jesus Christ Rivers of Living Water (Southern Baptist) Cedarville	96104		(530) 279- 2225
City of Alturas	96101	http://cityofalturas.us/	(530) 233- 2512
County of Modoc	96101	https://www.co.modoc.ca.us/	
Early Head Start (Alturas)	96101	https://www.modoccoe.k12.ca.us/Teams/Early-Head- Start/index.html	(530) 233- 7134
Early Head Start (Tulelake)	96134	https://www.modoccoe.k12.ca.us/Teams/Early-Head- Start/index.html	(530) 667- 3119
Elks	96101	https://www.elks.org/lodges/home.cfm?LodgeNumber=17 56	(530) 233- 2929
Environmental Health	96101	https://environmentalhealth.co.modoc.ca.us	(530) 233- 6310
Faith Baptist Church (Alturas)	96101	https://faithbaptistchurch.org	(530) 233- 2015
First Five	96101	https://first5modoc.com/about/	(530) 233- 7122
Head Start	96101	https://www.facebook.com/people/Alturas-Head- Start/100057151702183/	(530) 233- 4134
High Desert Community Day School	96101	https://www.cde.ca.gov/SchoolDirectory/details?cdscode= 25735852530111	(530) 233- 7201
Last Frontier Pharmacy	96101	www.modocmedicalcenter.org	(530) 708- 8850
Lookout Library	96054	https://modoccountylibrary.org/node/20	(530) 294- 5776
Modoc College Center	96101	http://www.advancingmodoc.org	(707) 354- 5510
Modoc County Behavioral Health	96101	https://behavioralhealth.co.modoc.ca.us/programs services/mental_health_services.php	(530) 233- 6312
Modoc County Library	96101	https://modoccountylibrary.org/node/20	(530) 233- 6340
Modoc County Public Health	96101	https://publichealth.co.modoc.ca.us/	(530) 233- 6311
Modoc County Sheriff's Department	96101	https://www.modocsheriff.us	(530) 233- 4416
Modoc County Veterans Services	96101	www.cacvso.org/modoc-county-office	(530) 233- 6209

Name of Resource	Primary ZIP	Website	Telephone
Modoc Crisis Center	Code 96101	https://www.teachinc.org/modoc-crisis-center/	(530) 233- 4575 or hotline 1- 855-855- 6745
Modoc Harvest & Farmers Markets	96101	https://modocharvest.org/modoc-harvest-certified-farmers-markets/	(530) 456- 6362
Modoc High School	96101	https://mhs.modoc.k12.ca.us/o/mhs	(530) 233- 7201
Modoc Medical Center (Clinic)	96101	https://www.modocmedicalcenter.org	(530) 708- 8820
Modoc Medical Center (Hospital)	96101	https://www.modocmedicalcenter.org	(530) 708- 8800
Modoc Middle School	96101	https://mms.modoc.k12.ca.us/o/mms	(530) 233- 7201
Modoc National Wildlife Refuge	96101	https://www.fws.gov/refuge/modoc	(530) 233- 3572
Modoc Record (Newspaper)	96101	https://www.modocrecord.com/?vm=r	(530) 233- 2632
Modoc Veterinary Center	96101	https://www.modocvetcenter.com/	(530) 233- 4156
Mountain Valleys Health Center, Tulelake	96134	http://www.mountainvalleys.org	(530) 999- 9060
New Beginning Family Fellowship (Church in Lookout)	96054	https://newbeginningsfamilyfellowship.com/	(530) 249- 4751
Newell Child Development Center (Seasonal opening)	96134	http://www.qcsteam.com/qcs-newell-cdc.html	(530) 664- 2349
Newell Migrant Center	96134		(530) 664- 3251
Niles Theater	96101	https://nilestheater.com	(530) 233- 5454
Pit River Health Services XL Clinic	96101	http://www.pitriverhealthservice.org	(530) 233- 3223
Rite Aid (Pharmacy)	96101	Rite Aid 432 North Main Street, Alturas, CA Pharmacy, Wellness Clinic, Online Refills	(530) 233- 3113
Rotary Club of Alturas	96101	https://alturasrotary.org	(530) 233- 2616
Sacred Heart Catholic Church (Alturas)	96101	http://www.sacredheart-alturas.org	(530) 233- 2119

Name of Resource	Primary ZIP Code	Website	Telephone
Sage Stage	96101	http://www.sagestage.com	(530) 233- 6410
Social Services	96101	http://www.co.modoc.ca.us/departments/social_services.p hp	(530) 233- 6501
St James Catholic Church (Cedarville)	96104	http://www.sacredheart-alturas.org	(530) 233- 5408
St Stephen Catholic Church (Bieber)	96009	http://www.stfrancisburney.org	(530) 335- 2372
Strong Family Health Center	96101	https://strongfamilyhealthcenter.com	(530) 233- 4591
Sunrays of Hope	96101	https://www.facebook.com/sunrays.ofhope	(530) 233- 9696
Surprise Valley Chamber of Commerce	96104	https://surprisevalleychamber.com/	(530) 936- 7822
Surprise Valley Community Church	96104	https://surprisevalleychamber.com/history/church.htm	(530) 279- 6225
Surprise Valley Community Hospital	96104	https://www.svhospital.org	(530) 279- 6111
Surprise Valley Elementary School	96104	https://www.svjusd.org/schools/surprise-valley- elementary-school	(530) 279- 6141
Surprise Valley High School	96104	https://www.svjusd.org/schools/surprise-valley-high-school	(530) 279- 6141
Surprise Valley Medical Clinic	96104	http://www.svhospital.org	(530) 279- 6115
Surprise Valley State Pre-School	96104	https://www.modoccoe.k12.ca.us/Teams/Pre- Schools/Surprise-Valley-State-Pre-School/index.html	(530) 279- 2030
Surprise Valley Veterinary	96104		(530)279- 2141
TAY Center (Transitional Age Youth)	96101	https://behavioralhealth.co.modoc.ca.us/informationre_sources/tay_center.php	(530) 394- 6251
T.E.A.C.H. Budding Tree	96101		(530) 233- 4933
TEACH	96101	https://Teachinc.org	(530) 233- 3111
Tulelake #1 State Pre- School	96134	https://www.modoccoe.k12.ca.us/Teams/Pre- Schools/Tulelake-1-State-Pre-School/index.html	(530) 667- 2131
Tulelake Basin Elementary School	96134	https://www.tulelakeschools.org/o/tes	(530) 667- 2294

Name of Resource	Primary ZIP	Website	Telephone
	Code		
Tulelake High School	96134	https://www.tulelakeschools.org/o/ths	(530) 667- 2292
Tulelake/Newell Family	96134		(530) 667-
Resource Center			2147
US Forest Service	96101	https://www.fs.usda.gov/modoc	(530) 233-
Modoc National Forest			5811
Warner Mountain	96112	www.ihs.gov/california/index.cfm/health-	(530) 279-
Clinic, Fort Bidwell		programs/northern-california/warner-mountain	6194
Warnerview Skilled	96101	www.modocmedicalcenter.org	(530) 708-
Nursing Facility			8840
WIC		https://northeasternhealth.org/wic/	(530) 257-
Women, Infants &			7094
Children			

Table B. Indicators and Data Source

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE	HISPANIC OR LATINO	MULTIRACIAL	WHITE	YEAR	SOURCE
SOCIAL DRIVERS									
Educational attainment	Percent of population 25+ years with at least a high school education	86%	84%	-	57%**	-	89%**	2017-2021	ACS 2021 5 Year Estimates Table S1501
Educational attainment	Percent of population 25+ years with a bachelor's degree or higher	20%	35%	-	12%**	-	22%**	2017-2021	ACS 2021 5 Year Estimates Table S1501
Median Income	Household median income - Total population	\$51,090 \$	84,097	\$28,869	\$50,247	\$33,875	\$53,803	2017-2021	ACS 2021 5 Year Estimates Table S1903
Median Income	Household median income - Male headed households - no spouse present	\$52,750\$	73,734	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S1903
Median Income	Household median income - Female headed households - no spouse present	\$36,098 \$	58,724	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S1903
Poverty	Percent of population below the federal poverty level	20%	12%	-	-	-		2017-2021	ACS 2021 5 Year Estimates Table S1701

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE		MULTIRACIAL	WHITE	YEAR	SOURCE
Poverty	Percent of children below the federal poverty level	30%	16%	26%**	28%**	-	31%**	2021	Small Area Income and Poverty Estimates
Poverty	Percent of children receiving free and reduced priced lunch	69%	60%	-	-	-	-	2022/2023	California Department of Education, DataQuest
Unemployment	Percent of the civilian population 16 years and older unemployed	5%	4%	-	-	-	-	2022	Bureau of Labor Statistics, 2022
Uninsured	Percent of the population without health insurance - Total population	12%	7%	21**%	11%**	-	12%**	2017-2021	ACS 2021 5 Year Estimates Table S2701
Uninsured	Percent of the population without health insurance - <100% of the federal poverty level	35%	12%	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S2701
Uninsured	Percent of the population without health insurance - 400+% of the federal poverty level	9%	3%	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S2701
Primary care physicians	Ratio of population to primary care physicians	1,750:1	1,230:1	-	-	-	-	2020	County Health Rankings, RWJF
Dentists	Ratio of population to dentists	1,440:1	1,100:1	-	-	-	-	2021	County Health Rankings, RWJF

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE	HISPANIC OR LATINO	MULTIRACIAL	WHITE	YEAR	SOURCE
LIVING CONDITIONS									
Broadband internet access	Percent of the population with broadband internet connection	76%	90%	-	-	-	-	2017-2021	County Health Rankings, RWJF
Food insecurity	Percent of the population with a lack of access, at times, to enough food for an active, healthy life or with uncertain availability of nutritionally adequate foods.	14%	9%	-	-	-	-	2020	County Health Rankings, RWJF
Access to healthy food	Percentage of population who are low-income (<200% federal poverty level) and do not live close to a grocery store (within 10 miles in rural or 1 mile non-rural areas)	17%	3%	-	-	-	-	2019	County Health Rankings, RWJF
Access to exercise opportunities	Percent of the population with adequate access to locations for physical activity (reside ins a census block within 1/2 mile of a park, within one mile of a recreational facility in urban area, or within 3 miles of recreational facility in rural area)	55%	95%	-	-	-	-	2020 & 2022	County Health Rankings, RWJF
Homeownership	Percent of owner occupied housing units	75%	55%	-	60%	-	79%	2017-2021	County Health Rankings, RWJF

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE		MULTIRACIAL	WHITE	YEAR	SOURCE
Severe housing cost burden	Percent of households who spend more than 50% of their household incomes on housing costs	11%	20%	-	-	-	-	2017-2021	County Health Rankings, RWJF
RISK BEHAVIORS									
Excessive drinking	Percent of adults who report excessive drinking, binge or heavy drinking	22%	18%	-	-	-	-	2020	County Health Rankings, RWJF
Excessive drinking	Percent of students who report ever being very drunk 7+ times - 7th grade	6%	1%	-	*	-	*	2019-2021	The California School Climate, Health, and Learning Survey
Excessive drinking	Percent of students who report ever being very drunk 7+ times - 9th grade	8%	4%	-	*	-	*		The California School Climate, Health, and Learning Survey
Excessive drinking	Percent of students who report ever being very drunk 7+ times - 11th grade	23%	11%	-	*	-	*	2019-2021	The California School Climate, Health, and Learning Survey
Binge drinking	Percent of students who report binge drinking in past 30 days - 7th grade	2%	1%	-	*	-	*	2019-2021	The California School Climate, Health, and Learning Survey
Binge drinking	Percent of students who report binge drinking in past 30 days - 9th grade	8%	3%	-	*	-	*	2019-2021	The California School Climate, Health, and Learning Survey

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE		MULTIRACIAL	WHITE	YEAR	SOURCE
Binge drinking	Percent of students who report binge drinking in past 30 days - 11th grade	16%	7%	-	*	-	*		The California School Climate, Health, and Learning Survey
Substantiated child maltreatment	Rate of substantiated child maltreatment per 1,000 children 0-17 years	22.2	6.1		*	-	*		California Child Welfare Indicators Project, UC Berkeley & California Dept. of Social Services 2013-2022
Tobacco use	Percent of adults who report current smoking	17%	9%	-	-	-	-	2021	CDC Places
Tobacco use	Percent of 11th graders who report smoking in the past 30 days	13%	2%	-	*	-	*		The California School Climate, Health, and Learning Survey
Tobacco use	Percent of 11th graders who report vaping in the past 30 days	25%	10%	-	*	-	*		The California School Climate, Health, and Learning Survey
HEALTH OUTCOMES									
Disability	Percent of the population who had one or more disabilities - Total population	18%	11%	-	-	-	-		ACS 2021 5 Year Estimates Table S1810
Disability	Percent of the population who had one or more disabilities - <5 years	0%	1%	-	-	-	-		ACS 2021 5 Year Estimates Table S1810

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE		MULTIRACIAL	WHITE	YEAR	SOURCE
Disability	Percent of the population who had one or more disabilities - 5-17 years	1%	5%	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S1810
Disability	Percent of the population who had one or more disabilities - 18-64 years	11%	8%	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S1810
Disability	Percent of the population who had one or more disabilities - 65 years and older	43%	33%	-	-	-	-	2017-2021	ACS 2021 5 Year Estimates Table S1810
Chronic disease	Percent of adults who report being diagnosed with coronary heart disease	6%	3%	-	-	-	-	2021	CDC Places
Chronic disease	Percent of adults who report being diagnosed with chronic obstructive pulmonary disease (COPD)	7%	4%	-	-	-	-	2021	CDC Places
Mental health	Percent of adults who report being diagnosed with depression	22%	15%	-	-	-	-	2021	CDC Places
Mental health	Percent of adults who report mental health was "not good" for 14+ days in the past month	18%	15%	-	-	-	-	2021	CDC Places
Mental health	Percent of students who report feeling so sad and hopeless for 2+ weeks they stopped doing some usual activities - 7th grade	29%	32%	-	-	-	-	2019-2021	The California School Climate, Health, and Learning Survey

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE	HISPANIC OR LATINO	MULTIRACIAL	WHITE	YEAR	SOURCE
Mental health	Percent of students who report feeling so sad and hopeless for 2+ weeks they stopped doing some usual activities - 9th grade	43%	37%	-	-	-	-	2019-2021	The California School Climate, Health, and Learning Survey
Mental health	Percent of students who report feeling so sad and hopeless for 2+ weeks they stopped doing some usual activities - 11th grade	36%	42%	-	-	-	-	2019-2021	The California School Climate, Health, and Learning Survey
Mental health	Percent of students who report contemplating suicide - 7th grade	14%	14%	-	-	-	-	2019-2021	The California School Climate, Health, and Learning Survey
Mental health	Percent of students who report contemplating suicide - 9th grade	22%	15%	-	-	-	-	2019-2021	The California School Climate, Health, and Learning Survey
Mental health	Percent of students who report contemplating suicide - 11th grade	31%	16%	-	-	-	-	2019-2021	The California School Climate, Health, and Learning Survey
Mortality	Age-adjusted all cause mortality rate per 10,000 population - Total population	59.7	63.4	152.3	45.3	-	65.9	2018-2022	<u>California Community Burden</u> <u>of Disease Engine</u>
Mortality	Age-adjusted all cause mortality rate per 10,000 population - Female	49.6	52.0	-	-	-	-	2018-2022	<u>California Community Burden</u> <u>of Disease Engine</u>

INDICATOR	DEFINITION	MODOC COUNTY	CALIFORNIA	AMERICAN INDIAN OR ALASKA NATIVE	HISPANIC OR LATINO	MULTIRACIAL	WHITE	YEAR	SOURCE
Mortality	Age-adjusted all cause mortality rate per 10,000 population - Male	69.5	76.5	-	-	-	-	2018-2022	California Community Burden of Disease Engine
Mortality	Age-adjusted unintentional injury mortality rate per 10,000 population	8.7	3.6	-	-	-	-	2016-2020	CDC Wonder
Mortality	Age-adjusted COPD mortality rate per 10,000 population	6.1	2.2	-	-	-	-	2016-2020	CDC Wonder
Mortality	Life expectancy at birth	76.9	81.0	-	-	-	-	2018-2020	County Health Rankings, RWJF
Premature mortality	Age-adjusted all cause premature mortality rate (Years of Life Lost before 75 years) per 10,000 - Total population	689.5	578.1	2739.2	153.7		802.7	2018-2022	<u>California Community Burden</u> <u>of Disease Engine</u>
Premature mortality	Age-adjusted all cause premature mortality rate (Years of Life Lost before 75 years) per 10,000 - Female	521.3	398.9	-	-	-	-	2018-2022	California Community Burden of Disease Engine
Premature mortality	Age-adjusted all cause premature mortality rate (Years of Life Lost before 75 years) per 10,000 - Male	854.2	757.8	-	-	-	-	2018-2022	California Community Burden of Disease Engine