

# 2022 Community Health Needs Assessment

Conducted on behalf of

## **Dignity Health Mercy Medical Center Mt Shasta**

914 Pine Street  
Mt. Shasta, CA 96067

## **Fairchild Medical Center**

444 Bruce Street  
Yreka, CA 96097

## **Siskiyou County Public Health Department**

810 South Main Street  
Yreka, CA 96097

Conducted by



Adopted for Mercy Medical Center Mt. Shasta by the  
Dignity Health North State community board in April 2022

## Acknowledgments

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This community health needs assessment report was adopted by the Dignity Health North State community board in April 2022. The report is widely available to the public on the hospital's web site (<https://www.dignityhealth.org/north-state/locations/mercy-mtshasta/about-us/community-benefit>, as of April 2022), and a paper copy is available for inspection upon request at the hospital. Written comments on this report can be submitted to Mercy Medical Center Mt. Shasta, Attn: Community Health, 914 Pine Street, Mt. Shasta, CA 96067.

Community Health Insights ([www.communityhealthinsights.com](http://www.communityhealthinsights.com)) conducted the assessment on behalf of Siskiyou County. Community Health Insights is a Sacramento-based research-oriented consulting firm dedicated to improving the health and well-being of communities across Central and Northern California. This joint report was authored by:

- Heather Diaz, DrPH, MPH, Managing Partner of Community Health Insights and Professor of Public Health at California State University, Sacramento
- Mathew Schmidlein, PhD, MS, Managing Partner of Community Health Insights and Professor of Geography at California State University, Sacramento
- Dale Ainsworth, PhD, MSOD, Managing Partner of Community Health Insights and Associate Professor of Public Health at California State University, Sacramento
- Traci Van, Senior Community Impact Specialist of Community Health Insights

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# Report Summary

## Purpose

The purpose of this community health needs assessment (CHNA) was to identify and prioritize significant health needs of the Siskiyou County service area. The priorities identified in this report help to guide nonprofit hospitals' community health improvement programs and community benefit activities as well as their collaborative efforts with other organizations that share a mission to improve health. This CHNA report meets the requirements of the Patient Protection and Affordable Care Act (and in California, Senate Bill 697) that nonprofit hospitals conduct a CHNA at least once every three years. The CHNA was conducted by Community Health Insights ([www.communityhealthinsights.com](http://www.communityhealthinsights.com)).

## Community Definition

Siskiyou County was chosen as the geographical area for the CHNA because it is the primary service area of the two hospitals participating in the joint assessment and is the statutory service area of the public health department. Siskiyou County is located in the most northeastern portion of the state of California and is comprised of both mountain and rural communities. The Yreka is the county seat of Siskiyou County.

## Assessment Process and Methods

The data used to conduct the CHNA were identified and organized using the widely recognized Robert Wood Johnson Foundation's County Health Rankings model.<sup>1</sup> This model of population health includes many factors that impact and account for individual health and well-being. Furthermore, to guide the overall process of conducting the assessment, a defined set of data-collection and analytic stages were developed. These included the collection and analysis of both primary (qualitative) and secondary (quantitative) data. Qualitative data included one-on-one and group interviews with 16 community health experts, social service providers, and medical personnel. Furthermore, 9 community residents or community service provider organizations participated in 2 focus groups across the County. Finally, five community service providers responded to a Community Service Provider (CSP) survey asking about health need identification and prioritization.

Focusing on social determinants of health to identify and organize secondary data, datasets included measures to describe mortality and morbidity and social and economic factors such as income, educational attainment, and employment. Furthermore, the measures also included indicators to describe health behaviors, clinical care (both quality and access), and the physical environment.

At the time that this CHNA was conducted, the COVID-19 pandemic was still impacting communities across the United States, including Siskiyou County. The process for conducting the CHNA remained fundamentally the same. However, there were some adjustments made during the qualitative data collection to ensure the health and safety of those participating. Additionally, COVID-19 data were incorporated into the quantitative data analysis and COVID-19 impact was captured during qualitative data collection. These findings are reported throughout various sections of the report.

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<sup>1</sup> Robert Wood Johnson Foundation, and University of Wisconsin, 2021. County Health Rankings Model. Retrieved 31 Jan 2022 from <http://www.countyhealthrankings.org/>.

## Process and Criteria to Identify and Prioritize Significant Health Needs

Primary and secondary data were analyzed to identify and prioritize significant health needs. This began by identifying 12 potential health needs (PHNs). These PHNs were identified in previously conducted CHNAs. Data were analyzed to discover which, if any, of the PHNs were present in the county. These PHNs were selected as significant health needs. These significant health needs were prioritized based on rankings provided by primary data sources. Data were also analyzed to detect emerging health needs beyond those 12 PHNs identified in previous CHNAs.

## List of Prioritized Significant Health Needs

The following significant health needs identified for Siskiyou County are listed below in prioritized order.

1. Access to Mental/Behavioral Health and Substance Use Services
2. Injury and Disease Prevention and Management
3. Access to Basic Needs Such as Housing, Jobs, and Food
4. Access to Quality Primary Care Health Services
5. Access to Specialty and Extended Care
6. Access to Dental Care and Preventive Services
7. Active Living and Healthy Eating
8. Access to Functional Needs
9. Safe and Violence-Free Environment

## Resources Potentially Available to Meet the Significant Health Needs

In all, 139 resources were identified in the county that were potentially available to meet the identified significant health needs. The identification method included starting with the list of resources from the 2019 CHNA, verifying that the resources still existed, and then adding newly identified resources into the 2022 CHNA report.

## Conclusion

This CHNA details the process and findings of a comprehensive health assessment to guide decision-making for the implementation of community health improvement efforts using a health equity lens. The CHNA includes an overall health and social examination of Siskiyou County and highlights the needs of community members living in parts of the county where the residents experience more health disparities. This report also serves as a resource for community organizations in their effort to improve health and well-being in the communities they serve.

## Introduction and Purpose

Both state and federal laws require that nonprofit hospitals conduct a community health needs assessment (CHNA) every three years to identify and prioritize the significant health needs of the communities they serve. The results of the CHNA guide the development of implementation plans aimed at addressing identified health needs. Federal regulations define a health need accordingly: “Health needs include requisites for the improvement or maintenance of health status in both the community at large and in particular parts of the community (such as particular neighborhoods or populations experiencing health disparities)” (p. 78963).<sup>2</sup>

This report documents the processes, methods, and findings of a CHNA conducted on behalf of a partnership between two not-for-profit hospitals and the county department of public health for all of Siskiyou County with a total population of 43,468.

The partners included:

- Mercy Medical Center Mt Shasta (an affiliate of Dignity Health) - 914 Pine Street., Mt Shasta, CA 96067
- Fairchild Medical Center - 444 Bruce Street, Yreka, CA 96097
- Siskiyou County Public Health Department - 411 Ski Village Dr UNIT C, Mt Shasta, CA 96067

The CHNA was conducted over a period of seven months, beginning in August 2021, and concluding in February 2022. This CHNA report meets requirements of the Patient Protection and Affordable Care Act and California Senate Bill 697 that nonprofit hospitals conduct a community health needs assessment at least once every three years.

Community Health Insights ([www.communityhealthinsights.com](http://www.communityhealthinsights.com)) conducted the CHNA on the behalf of the partnership. Community Health Insights is a Sacramento-based research-oriented consulting firm dedicated to improving the health and well-being of communities across Central and Northern California. Community Health Insights has conducted dozens of CHNAs and CHAs for multiple health systems and local health departments over the previous decade.

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<sup>2</sup> Federal Register, Vol. 79, No. 250, (Wednesday, December 31, 2014). Department of the Treasury, Internal Revenue Service.



## Findings

### Prioritized Significant Health Needs

Primary and secondary data were analyzed to identify and prioritize the significant health needs in the Siskiyou County service area. In all, 9 significant health needs were identified. Primary data were then used to prioritize these significant health needs.

Prioritization was based on three measures that came from the key informant interview, focus group, survey provider survey and community survey results. These included the percentage of sources that identified a health need as existing in the community, and the percentage of times the sources identified a health need as a top priority. Table 1 shows the value of these measures for each significant health need.

*Table 1: Health need prioritization inputs for Siskiyou County service area.*

<b>Prioritized Health Needs</b>	<b>Percentage of Key Informants, Focus Groups, and Service Provider Survey Respondents Identifying Health Need</b>	<b>Percentage of Times Key Informants, Focus Groups, and Service Provider Survey Respondents Identified Health Need as a Top Priority</b>	<b>Percentage of Top Priority Themes from Community Survey Associated with the Health Need</b>
Access to Mental/Behavioral Health and Substance use Services	94%	32%	24%
Injury and Disease Prevention and Management	44%	9%	48%
Access to Basic Needs Such as Housing, Jobs, and Food	88%	22%	4%
Access to Quality Primary Care Health Services	62%	8%	4%
Access to Specialty and Extended Care	50%	6%	8%
Access to Dental Care and Preventive Services	44%	9%	4%
Active Living and Healthy Eating	12%	~	24%
Access to Functional Needs	44%	4%	~
Safe and Violence-Free Environment	19%	~	16%
~ Health need not mentioned			

These measures were then combined to create a health need prioritization index. The highest priority was given to health needs that were more frequently mentioned and were more frequently identified among the top priority needs.<sup>3</sup> The prioritization index values are shown in Figure 1, where health needs are ordered from highest priority at the top of the figure to lowest priority at the bottom.

### Siskiyou County 2022 Prioritized Health Needs

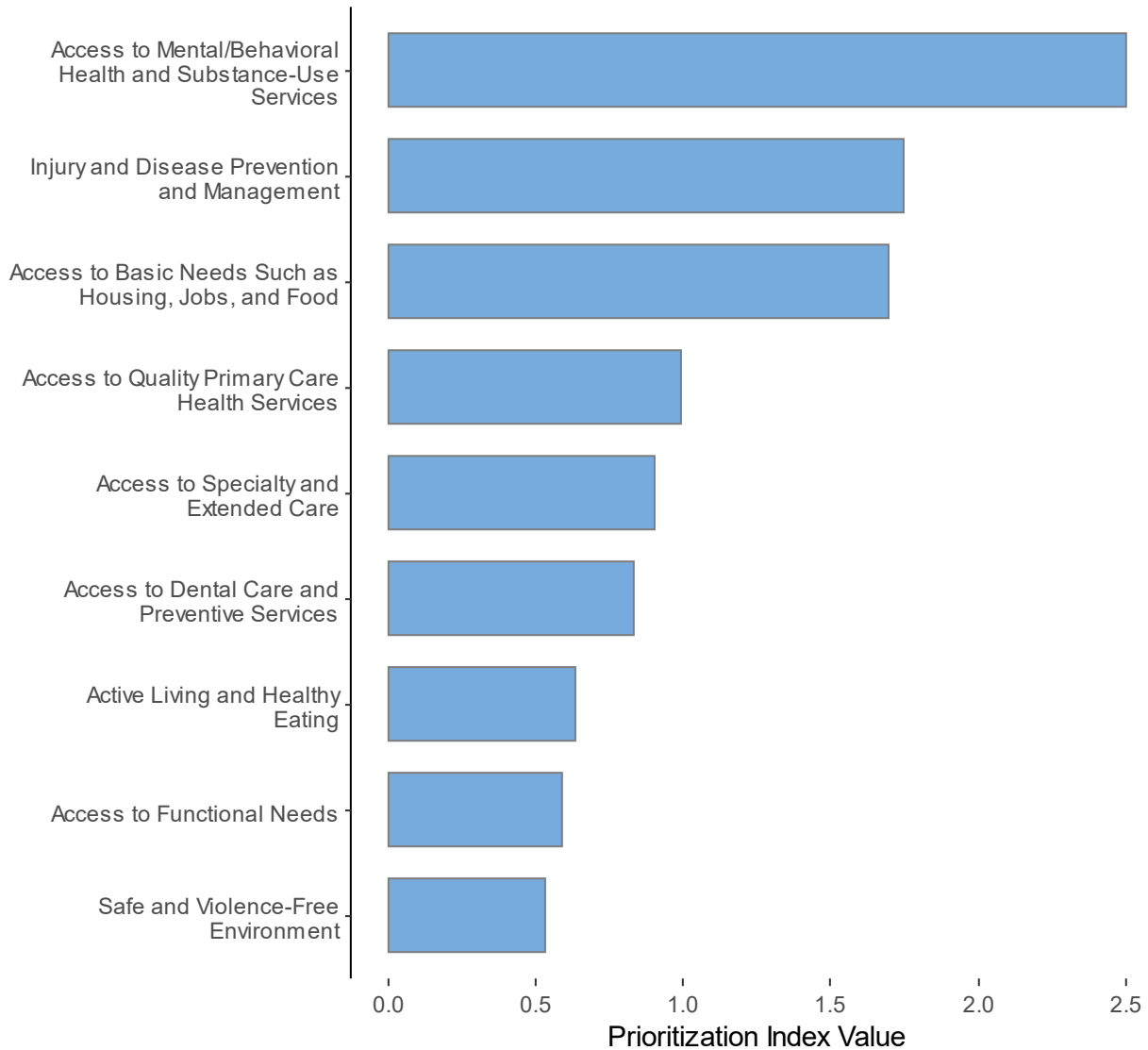


Figure 1: Prioritized significant health needs for Siskiyou County service area.

COVID-19 was top of mind for many participating in the primary data collection process, feedback regarding the impact of COVID-19 confirmed that the pandemic exacerbated existing needs in the community.

<sup>3</sup> Further details regarding the creation of the prioritization index can be found in the technical report.

The significant health needs are described below. Those secondary data indicators used in the CHNA that performed poorly compared to benchmarks are listed in the table below each significant health ordered by their relationship to the conceptual model used to guide data collection for this report. Results from primary data analysis are also provided in the table. Community Survey questions were data performed poorly against corresponding benchmarks are also provided. (For a full description of the community surveys questions and their descriptive values see Table 16. Also, a full listing of all quantitative indicators can be found in the technical section of this report).

**1. Access to Mental/Behavioral Health and Substance use Services**

Individual health and well-being are inseparable from individual mental and emotional outlook. Coping with daily life stressors is challenging for many people, especially when other social, familial, and economic challenges occur. Access to mental, behavioral, and substance use services is an essential ingredient for a healthy community where residents can obtain additional support when needed.

Primary Data Analysis		Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• There aren't enough mental health providers or treatment centers in the area (e.g., psychiatric beds, therapists, support groups).</li> <li>• Lack of providers, heavy reliance on part time and traveling mental health providers.</li> <li>• Lack of employment opportunities contributes to depression and anxiety</li> <li>• High substance usage of heroin, methamphetamines, and fentanyl.</li> <li>• High rates of drug addiction to methamphetamines and fentanyl in the area.</li> <li>• Limited substance use rehabilitation services for tribal communities.</li> <li>• Tribal mental health services are absent on the east side of the county.</li> <li>• Mistrust affecting community's desire to access county mental health services.</li> <li>• Long wait times to access mental health services.</li> </ul>	<ul style="list-style-type: none"> <li>• Felt two or more years of depression</li> <li>• Self or other with suicidal thoughts</li> </ul>	<ul style="list-style-type: none"> <li>• Life Expectancy</li> <li>• Premature Age-Adjusted Mortality</li> <li>• Premature Death</li> <li>• Liver Disease Mortality</li> <li>• Suicide Mortality</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Poor Physical Health Days</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Excessive Drinking</li> <li>• Drug Induced Death</li> <li>• Adult Smoking</li> <li>• Primary Care Shortage Area</li> <li>• Mental Health Care Shortage Area</li> <li>• Medically Underserved Area</li> </ul>

<ul style="list-style-type: none"> <li>• Services specifically for youth are needed (e.g., child psychologists, counselors, and therapists in the schools).</li> <li>• Important to ensure that mental health services are tailored to the rural communities.</li> <li>• Isolation for the elderly, especially in rural areas, contributes to poor mental health.</li> <li>• Mental health in children affected by the isolation related to the COVID-19 pandemic.</li> <li>• Lack of rehabilitation and detox centers in the area for substance use.</li> <li>• Emergency rooms are used as detox centers.</li> <li>• Need for pain management providers in the area.</li> <li>• Few mental health providers for children on Medi-Cal.</li> <li>• More behavioral health specialists needed in the schools.</li> <li>• The stigma around seeking mental health treatment keeps people out of care.</li> <li>• Rural areas have deep need for consistent mental health and behavioral services.</li> <li>• It's difficult for people to navigate for mental/behavioral healthcare.</li> <li>• There aren't enough services here for those who are homeless and dealing with substance-abuse issues.</li> <li>• A safe place to detox prior to transport to a rehab facility is needed.</li> <li>• Awareness of mental health issues among community members is low.</li> <li>• The area lacks the infrastructure to support acute mental health crises.</li> <li>• Substance use treatment options for those with Medi-Cal are limited.</li> <li>• The use of nicotine delivery products such as e-cigarettes and tobacco is a problem in the community.</li> <li>• The cost for mental/behavioral health treatment is too high.</li> </ul>		<ul style="list-style-type: none"> <li>• Psychiatry Providers</li> <li>• Firearm Fatalities Rate</li> <li>• Disconnected Youth</li> <li>• Homelessness Rate</li> </ul>
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## 2. Injury and Disease Prevention and Management

Knowledge is important for individual health and well-being, and efforts aimed at injury and disease prevention are powerful vehicles to improve community health. When community residents lack adequate information on how to prevent, manage, and control their health conditions, those conditions tend to worsen. Prevention efforts focus on reducing cases of injury and infectious disease control (e.g., sexually transmitted infection (STI) prevention and influenza shots), and intensive strategies in the management of chronic diseases (e.g., diabetes, hypertension, obesity, and heart disease) are important for community health improvement.

Primary Data Analysis		Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• Need more COVID education to address vaccine hesitancy.</li> <li>• Need more Promotoras and Community Health Workers for disease prevention.</li> <li>• Disease prevention is more cost effective than intervention.</li> <li>• Increase understanding of how social determinants of health affect health status.</li> <li>• Increase health education and healthy life skills in county schools.</li> <li>• Need for more prevention education around chronic disease prevention.</li> <li>• Increased need for parent education for teen parents.</li> <li>• Health education needs to be age and culturally appropriate.</li> <li>• Need educational and recreational opportunities for area youth and young adults after school.</li> </ul>	<ul style="list-style-type: none"> <li>• Diagnosed with one or more chronic illness</li> <li>• What would help manage chronic illness: setting goals</li> <li>• What would help manage chronic illness: learning skills</li> <li>• What would help manage chronic illness: pain and fatigue management</li> </ul>	<ul style="list-style-type: none"> <li>• Infant Mortality</li> <li>• Child Mortality</li> <li>• Stroke Mortality</li> <li>• Chronic Lower Respiratory Disease Mortality</li> <li>• Diabetes Mortality</li> <li>• Heart Disease Mortality</li> <li>• Hypertension Mortality</li> <li>• Liver Disease Mortality</li> <li>• Kidney Disease Mortality</li> <li>• Suicide Mortality</li> <li>• Unintentional Injuries Mortality</li> <li>• COVID-19 Case Fatality</li> <li>• Alzheimer's Disease Mortality</li> <li>• Diabetes Prevalence</li> <li>• Low Birthweight</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Excessive Drinking</li> <li>• Drug Induced Death</li> <li>• Adult Obesity</li> <li>• Physical Inactivity</li> <li>• Teen Birth Rate</li> <li>• Adult Smoking</li> <li>• COVID-19 Cumulative Full Vaccination Rate</li> <li>• Firearm Fatalities Rate</li> </ul>

		<ul style="list-style-type: none"> <li>• Motor Vehicle Crash Death</li> <li>• Disconnected Youth</li> <li>• Third Grade Reading Level</li> <li>• Third Grade Math Level</li> <li>• Homelessness Rate</li> </ul>
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### 3. Access to Basic Needs Such as Housing, Jobs, and Food

Access to affordable and clean housing, stable employment, quality education, and adequate food for good health are vital for survival. Maslow’s Hierarchy of Needs<sup>4</sup> suggests that only when people have their basic physiological and safety needs met can they become engaged members of society and self-actualize or live to their fullest potential, including enjoying good health. Research shows that the social determinants of health, such as quality housing, adequate employment and income, food security, education, and social support systems, influence individual health as much as health behaviors and access to clinical care.<sup>5</sup>

Primary Data Analysis		Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• Lack of affordable housing.</li> <li>• Loss of logging industry negatively affected job opportunities.</li> <li>• Tenant Fire has resulted in increased job loss in the county.</li> <li>• Many residents struggle with food insecurity.</li> <li>• Food insecurity high with "fire refugees."</li> <li>• Low-income residents do not have the resources to move to an area with more housing options.</li> <li>• Happy Camp lost many homes in Slater Fire in 2020. These homes have not been rebuilt.</li> </ul>	<ul style="list-style-type: none"> <li>• Prevented from mental/emotional health treatment, uncertainty around insurance acceptance</li> <li>• Prevented from mental/emotional health treatment, can't pay co-pays</li> <li>• Prevented from mental/emotional health treatment, stigma</li> <li>• Prevented from mental/emotional health treatment, no time</li> </ul>	<ul style="list-style-type: none"> <li>• Infant Mortality</li> <li>• Child Mortality</li> <li>• Life Expectancy</li> <li>• Premature Age-Adjusted Mortality</li> <li>• Premature Death</li> <li>• Hypertension Mortality</li> <li>• COVID-19 Case Fatality</li> <li>• Diabetes Prevalence</li> <li>• Low Birthweight</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Poor Physical Health Days</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Drug Induced Death</li> <li>• Adult Obesity</li> </ul>

<sup>4</sup> McLeod, S. 2020. Maslow’s Hierarchy of Needs. Retrieved 31 Jan 2022 from <http://www.simplypsychology.org/maslow.html>.

<sup>5</sup> Robert Wood Johnson Foundation, and University of Wisconsin, 2022. Research Articles. Retrieved 31 Jan 2022 from <http://www.countyhealthrankings.org/learn-others/research-articles#Rankingsrationale>.

<ul style="list-style-type: none"> <li>• Childcare services in the region are very limited.</li> <li>• Major lack of services for 0-2 year old in Happy Camp.</li> <li>• Increased job opportunities in Happy Camp area.</li> <li>• Unincorporated areas need more septic camps and wells built.</li> <li>• Community members living without adequate water and sanitation.</li> <li>• Need for economic development that is environmentally-friendly.</li> <li>• Many families must choose between basic needs or paying for health care.</li> <li>• Need to increase food distribution at county Family Resource Centers (FRC).</li> <li>• Increased access to technology, especially in rural areas.</li> <li>• Poverty in the county is high.</li> <li>• Many people in the area do not make a living wage.</li> <li>• Services for homeless residents in the area are insufficient.</li> <li>• Services are inaccessible for Spanish-speaking and immigrant residents.</li> <li>• Educational attainment in the area is low.</li> </ul>		<ul style="list-style-type: none"> <li>• Limited Access to Healthy Foods</li> <li>• Food Environment Index</li> <li>• Medically Underserved Area</li> <li>• COVID-19 Cumulative Full Vaccination Rate</li> <li>• Some College</li> <li>• Disconnected Youth</li> <li>• Third Grade Reading Level</li> <li>• Third Grade Math Level</li> <li>• Unemployment</li> <li>• Children Eligible for Free Lunch</li> <li>• Children in Poverty</li> <li>• Median Household Income</li> <li>• Uninsured Population under 64</li> <li>• Homelessness Rate</li> </ul>
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**4. Access to Quality Primary Care Health Services**

Primary care resources include community clinics, pediatricians, family practice physicians, internists, nurse practitioners, pharmacists, telephone advice nurses, and other similar resources. Primary care services are typically the first point of contact when an individual seeks healthcare. These services are the front line in the prevention and treatment of common diseases and injuries in a community.

<b>Primary Data Analysis</b>	<b>Secondary Data Analysis</b>
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:	The following indicators performed worse in the county

Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	when compared to state averages:
<ul style="list-style-type: none"> <li>• Need for increased access to primary, emergent and surgical care throughout the region.</li> <li>• Transportation to main care hubs for rural communities is lacking and/or expensive.</li> <li>• The Karuk tribe clinic has limited services.</li> <li>• Wait times for care are long at area hospitals.</li> <li>• Lack of healthcare staff in the county.</li> <li>• Capacity of area healthcare providers is low in the county.</li> <li>• Culturally competent care for Spanish Speaking and Hmong is lacking in the area.</li> <li>• Hmong travel long distances out of county for care.</li> <li>• Need for liaisons, translators, patient navigators for Hmong in the healthcare system.</li> <li>• High cost of health care in the county.</li> <li>• The county of "revolving doctors" hard to maintain full time medical doctors in the area.</li> <li>• Large shortage of MDs, NPs, clinical nurses, and pediatricians.</li> <li>• Lack of health care access increases the need for preventive services.</li> <li>• Need more vision care providers, especially for Medi-Cal.</li> <li>• Need more after hours urgent care.</li> <li>• Need for more school based health care in county schools.</li> <li>• Only two schools have a school nurse.</li> <li>• Designated Health Provider Shortage Area (HPSA).</li> </ul>	<ul style="list-style-type: none"> <li>• Unable to see doctor in past 12 months</li> <li>• Unable to see doctor, lack of appointments</li> <li>• Prevented from accessing care, doctor availability</li> </ul>	<ul style="list-style-type: none"> <li>• Infant Mortality</li> <li>• Child Mortality</li> <li>• Life Expectancy</li> <li>• Premature Age-Adjusted Mortality</li> <li>• Premature Death</li> <li>• Stroke Mortality</li> <li>• Chronic Lower Respiratory Disease Mortality</li> <li>• Diabetes Mortality</li> <li>• Heart Disease Mortality</li> <li>• Hypertension Mortality</li> <li>• Cancer Mortality</li> <li>• Liver Disease Mortality</li> <li>• Kidney Disease Mortality</li> <li>• COVID-19 Case Fatality</li> <li>• Alzheimer's Disease Mortality</li> <li>• Influenza and Pneumonia Mortality</li> <li>• Diabetes Prevalence</li> <li>• Low Birthweight</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Poor Physical Health Days</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Lung Cancer Prevalence</li> <li>• Primary Care Shortage Area</li> <li>• Medically Underserved Area</li> <li>• COVID-19 Cumulative Full Vaccination Rate</li> <li>• Uninsured Population under 64</li> <li>• Homelessness Rate</li> </ul>



**5. Access to Specialty and Extended Care**

Extended care services, which include specialty care, are care provided in a particular branch of medicine and focused on the treatment of a particular disease. Primary and specialty care go hand in hand, and without access to specialists, such as endocrinologists, cardiologists, and gastroenterologists, community residents are often left to manage the progression of chronic diseases, including diabetes and high blood pressure, on their own. In addition to specialty care, extended care refers to care extending beyond primary care services that is needed in the community to support overall physical health and wellness, such as skilled-nursing facilities, hospice care, and in-home healthcare.

<b>Primary Data Analysis</b>		<b>Secondary Data Analysis</b>
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• Limited access to specialty care in the county.</li> <li>• Need for elderly hospice care.</li> <li>• Need for more in home care option to "age in place."</li> <li>• Need for specialty care physicians.</li> <li>• Primary care providers see many advanced care patients.</li> <li>• Telehealth specialty care availability low due to COVID.</li> <li>• Residents seek care in Oregon, but reimbursement for providers is lacking.</li> </ul>	<ul style="list-style-type: none"> <li>• Prevented from accessing care, doctor availability</li> </ul>	<ul style="list-style-type: none"> <li>• Infant Mortality</li> <li>• Life Expectancy</li> <li>• Premature Age-Adjusted Mortality</li> <li>• Premature Death</li> <li>• Stroke Mortality</li> <li>• Chronic Lower Respiratory Disease Mortality</li> <li>• Diabetes Mortality</li> <li>• Heart Disease Mortality</li> <li>• Hypertension Mortality</li> <li>• Cancer Mortality</li> <li>• Liver Disease Mortality</li> <li>• Kidney Disease Mortality</li> <li>• COVID-19 Case Fatality</li> <li>• Alzheimer's Disease Mortality</li> <li>• Diabetes Prevalence</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Poor Physical Health Days</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Lung Cancer Prevalence</li> <li>• Drug Induced Death</li> <li>• Psychiatry Providers</li> <li>• Specialty Care Providers</li> <li>• Homelessness Rate</li> </ul>

**6. Access to Dental Care and Preventive Services**

Oral health is important for overall quality of life. When individuals have dental pain, it is difficult to eat, concentrate, and fully engage in life. Oral health disease, including gum disease and tooth decay are preventable chronic diseases that contribute to increased risk of other chronic disease, as well as play a large role in chronic absenteeism from school in children. Poor oral health status impacts the health of the entire body, especially the heart and the digestive and endocrine systems.

Primary Data Analysis		Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• Lack of dental services throughout the county.</li> <li>• Methamphetamine use in the county contributes to the need for dental care.</li> <li>• There aren't enough providers in the area who accept Denti-Cal.</li> <li>• Dental services for kids are lacking</li> <li>• Dental van used to provide services in the area, lack of reimbursement by Denti-Cal.</li> <li>• Need for dental care in rural communities.</li> <li>• The lack of access to dental care here leads to overuse of emergency departments.</li> <li>• People in the area have to travel to receive dental care.</li> <li>• Dental care must meet families where they are in the county.</li> </ul>	<ul style="list-style-type: none"> <li>• Have not seen dentist in over a year</li> </ul>	<ul style="list-style-type: none"> <li>• Frequent Mental Distress</li> <li>• Poor Physical Health Days</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Dental Care Shortage Area</li> <li>• Dentists</li> <li>• Homelessness Rate</li> </ul>

**7. Active Living and Healthy Eating**

Physical activity and eating a healthy diet are important for one’s overall health and well-being. Frequent physical activity is vital for prevention of disease and maintenance of a strong and healthy heart and mind. When access to healthy foods is challenging for community residents, many turn to unhealthy foods that are convenient, affordable, and readily available. Communities experiencing social vulnerability and poor health outcomes often live in areas with fast food and other establishments where unhealthy food is sold. Under resourced communities may be challenged with food insecurity, absent the means to consistently secure food for themselves or their families, relying on food pantries and school meals often lacking in sufficient nutrition for maintaining health.

<b>Primary Data Analysis</b>		<b>Secondary Data Analysis</b>
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• No key informant data spoke to this PHN</li> </ul>	<ul style="list-style-type: none"> <li>• Access to food limited by transportation</li> <li>• What would help manage chronic illness: eating, lifestyle</li> </ul>	<ul style="list-style-type: none"> <li>• Life Expectancy</li> <li>• Premature Age-Adjusted Mortality</li> <li>• Premature Death</li> <li>• Stroke Mortality</li> <li>• Diabetes Mortality</li> <li>• Heart Disease Mortality</li> <li>• Hypertension Mortality</li> <li>• Cancer Mortality</li> <li>• Kidney Disease Mortality</li> <li>• Diabetes Prevalence</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Poor Physical Health Days</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Adult Obesity</li> <li>• Physical Inactivity</li> <li>• Limited Access to Healthy Foods</li> <li>• Food Environment Index</li> <li>• Access to Exercise Opportunities</li> <li>• Homelessness Rate</li> <li>• Access to Public Transit</li> </ul>

**8. Access to Functional Needs**

Functional needs refers to needs related to adequate transportation access and conditions which promote access for individuals with physical disabilities. Having access to transportation services to support individual mobility is a necessity of daily life. Without transportation, individuals struggle to meet their basic needs, including those needs that promote and support a healthy life. The number of people with a disability is also an important indicator for community health and must be examined to ensure that all community members have access to necessities for a high quality of life.

Primary Data Analysis		Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• Transportation to health care services is lacking.</li> <li>• Happy Camp public transportation provider stopped during COVID.</li> <li>• Transportation to health care services from Happy Camp very limited.</li> <li>• Area needs a creative partnership for transporting to care services in the county.</li> <li>• Tribe has a transit provider for their clinics (Karuk, Anav).</li> <li>• It is difficult to recruit and retain specialists in the area.</li> <li>• The area needs more extended care options for the aging population (e.g., skilled nursing homes, in-home care).</li> <li>• Not all specialty care is covered by insurance.</li> <li>• Increase care for veterans in the county.</li> <li>• Additional hospice and palliative care options are needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Access to food limited by transportation</li> <li>• Have some limitations due to an impairment or health problem.</li> </ul>	<ul style="list-style-type: none"> <li>• Disability</li> <li>• Frequent Mental Distress</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Adult Obesity</li> <li>• COVID-19 Cumulative Full Vaccination Rate</li> <li>• Homelessness Rate</li> <li>• Access to Public Transit</li> </ul>

**9. Safe and Violence-Free Environment**

Feeling safe in one’s home and community are fundamental to overall health. Next to having basic needs met (e.g., food, shelter, and clothing) is having physical safety. Feeling unsafe affects the way people act and react to everyday life occurrences. Furthermore, research has demonstrated that individuals exposed to violence in their homes, the community, and schools are more likely to experience depression and anxiety and demonstrate more aggressive, violent behavior.<sup>6</sup>

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<sup>6</sup> Lynn-Whaley, J., & Sugarmann, J. July 2017. The Relationship Between Community Violence and Trauma. Los Angeles: Violence Policy Center.

Primary Data Analysis		Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants, focus group participants, and survey respondents:		The following indicators performed worse in the county when compared to state averages:
Key Informant, Focus Group, and Community Service Provider Survey Responses	Community Survey Responses	
<ul style="list-style-type: none"> <li>• High number of child abuse cases in the county.</li> </ul>	<ul style="list-style-type: none"> <li>• Feared for safety of self or loved one</li> </ul>	<ul style="list-style-type: none"> <li>• Life Expectancy</li> <li>• Premature Death</li> <li>• Hypertension Mortality</li> <li>• Poor Mental Health Days</li> <li>• Frequent Mental Distress</li> <li>• Frequent Physical Distress</li> <li>• Poor or Fair Health</li> <li>• Physical Inactivity</li> <li>• Access to Exercise Opportunities</li> <li>• Homicide Rate</li> <li>• Firearm Fatalities Rate</li> <li>• Motor Vehicle Crash Death</li> <li>• Disconnected Youth</li> <li>• Homelessness Rate</li> </ul>

**Other Emerging Health Needs**

Two additional emerging health needs were identified through analysis of data from key informant interviews and focus groups. Though the volume of data did not warrant being listed as a significant priority health need, the mention was so pervasive in the data that it is detailed below.

***Strengthening Community Relationships***

Five of the 11 key informant interviews and focus groups mentioned the need to improve and strengthen community relationships between community members in Siskiyou County. Some of the main themes in this area include:

- There is fear and suspicion of the Hmong community members among some county residents causing increased trouble and crime. Comments heard ““Go back to my country, you aren’t welcome here.”
- The unwelcoming culture leads to deep fear and suspicion among Hmong about others in the community, therefore they rarely seek services or resources.
- People who don’t speak English are afraid to reach out and call for services, community members are fearful and intimidated of who they will talk to.
- Discrimination towards the Hispanic community is ever-present.
- Many community members do not trust area rural health care providers and services agencies due to a history of mistreatment by them.

## ***Improvements to Workforce Infrastructure***

Ten of 11 key informant interviews and focus groups mentioned a clear need for improvements to the workforce infrastructure in Siskiyou County related to health and social services. Additionally, six of 11 key informant interviews and focus groups indicated that improvements to the workforce infrastructure was a top 3 priority health need. Some of the main themes in this area include:

- Hard to recruit providers to the area.
- Limited affordable safe housing availability directly impacts recruitment and retention of health and social service providers in the county.
- County public health has limited staff.
- There's a lack of staffing and consistency in the school system, high turnover of teachers and educational administrators.
- Turnaround of area healthcare providers makes it difficult for some patients (community members) to establish trusting relationships with their health providers.
- There are too few social workers in the county to meet the area demand.
- There is a need for incentive programs focused on the young people of Siskiyou county returning to work after getting their education to help improve the workforce in the area. A direct quote "Having our young people return would also help our economy thrive by building back our tax base."
- Salaries are low in the county which makes retention and recruitment difficult.
- The care system was negatively impacted by COVID-19, there are even less providers than before the pandemic.
- Medical support staff are also limited. A direct quote "We have outstanding good quality practitioners, but it's hard to retain them if you don't have good support staff."
- As a rural county, there is a need for more loan repayment programs and higher salaries for providers to compete with the urban areas.

## **Methods Overview**

### **Conceptual and Process Models**

The data used to conduct the CHNA were identified and organized using the widely recognized Robert Wood Johnson Foundation's County Health Rankings model.<sup>7</sup> This model of population health includes the many factors that impact and account for individual health and well-being. Furthermore, to guide the overall process of conducting the assessment, a defined set of data collection and analytic stages were developed. For a detailed review of methods, see the technical section.

### **Public Comments from Previously Conducted CHNAs**

Regulations require that nonprofit hospitals include written comments from the public on their previously conducted CHNAs and most recently adopted implementation strategies. Both Mercy Medical Center Mt. Shasta (<https://www.dignityhealth.org/north-state/locations/mercy->

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<sup>7</sup> Robert Wood Johnson Foundation, and University of Wisconsin, 2021. County Health Rankings Model. Retrieved 31 Jan 2022 from <http://www.countyhealthrankings.org/>.

mtshasta/about-us/community-benefit) and Fairchild Medical Center requested written comments from the public on their 2019 CHNAs and most recently adopted Implementation Strategies through their respective websites.

At the time of the development of this CHNA report, neither hospital had received written comments. However, input from the broader community was incorporated in the 2022 CHNA through key informant interviews, focus groups, and the service provider survey. Both hospitals will continue to use its website as a tool to solicit public comments and ensure that these comments are considered as community input in the development of future CHNAs.

## **Data Used in the CHNA**

Data collected and analyzed included both primary (or qualitative) data and secondary (or quantitative) data. Primary data included 9 interviews with 16 community health experts, 2 focus groups conducted with a total of 9 community residents or community-facing service providers, and 5 Service Provider Surveys. (A full listing of all participants can be seen in the technical section of this report.)

Secondary data included multiple datasets selected for use in the various stages of the analysis. A combination of mortality and socioeconomic datasets collected at subcounty levels was used to identify portions of the county with greater concentrations of disadvantaged populations and poor health outcomes. A set of county-level indicators was collected from various sources to help identify and prioritize significant health needs. Additionally, socioeconomic indicators were collected to help describe the overall social conditions within the county. Health outcome indicators included measures of both mortality (length of life) and morbidity (quality of life). Health factor indicators included measures of 1) health behaviors, such as diet and exercise and tobacco, alcohol, and drug use; 2) clinical care, including access to quality care; 3) social and economic factors such as race/ethnicity, income, educational attainment, employment, neighborhood safety, and similar; and 4) physical environment measures, such as air and water quality, transit and mobility resources, and housing affordability. In all, 86 different health-outcome and health factor indicators were collected for the CHNA.

## **Data Analysis**

Primary and secondary data were analyzed to identify and prioritize the significant health needs within the Siskiyou County service area. This included identifying 12 PHNs in these communities. These potential health needs were those identified in previously conducted CHNAs. Data were analyzed to discover which, if any, of the PHNs were present in the county. After these were identified, health needs were prioritized based on an analysis of primary data sources that described the PHN as a significant health need.

For an in-depth description of the processes and methods used to conduct the CHNA, including primary and secondary data collection, analysis, and results, see the technical section of this report.

## **Description of Community Served**

The definition of the community served was Siskiyou County. Siskiyou County is located in the Northern most part of California, situated along the Interstate 5 corridor bordering the state of Oregon on the north. The County is rural in nature covering 6,347 square miles. The largest city is Yreka, which is also

the County Seat with a population of approximately 7,870. The County area has a diverse landscape with high mountain ranges (Mt. Shasta), desert planes, and rivers with magnificent waterfalls and the amazing fishing. The County has a rich history of the Gold Rush Era.

The total population of the Siskiyou County was 43,468 in 2020. Race and ethnicity data for Siskiyou County<sup>8</sup> are presented in Figure 2 and a map of Siskiyou County is shown in Figure 3.

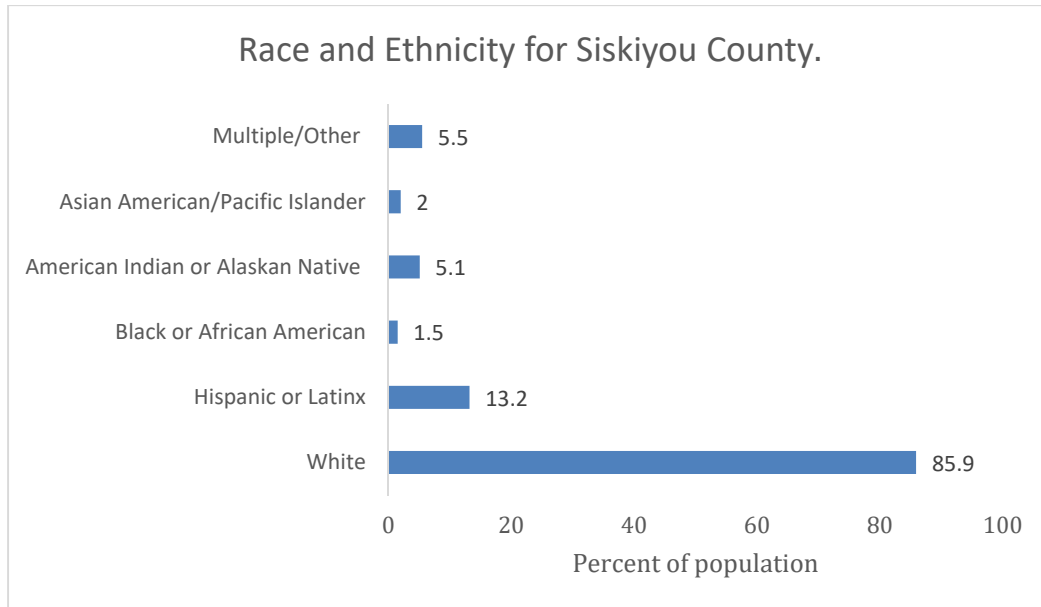


Figure 2: Race and ethnicity for Siskiyou County.

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<sup>8</sup> Race and Ethnicity data for Siskiyou County are based on 2021 Census data as reported here: <https://www.census.gov/quickfacts/fact/table/siskiyoucountycalifornia/INC110219>



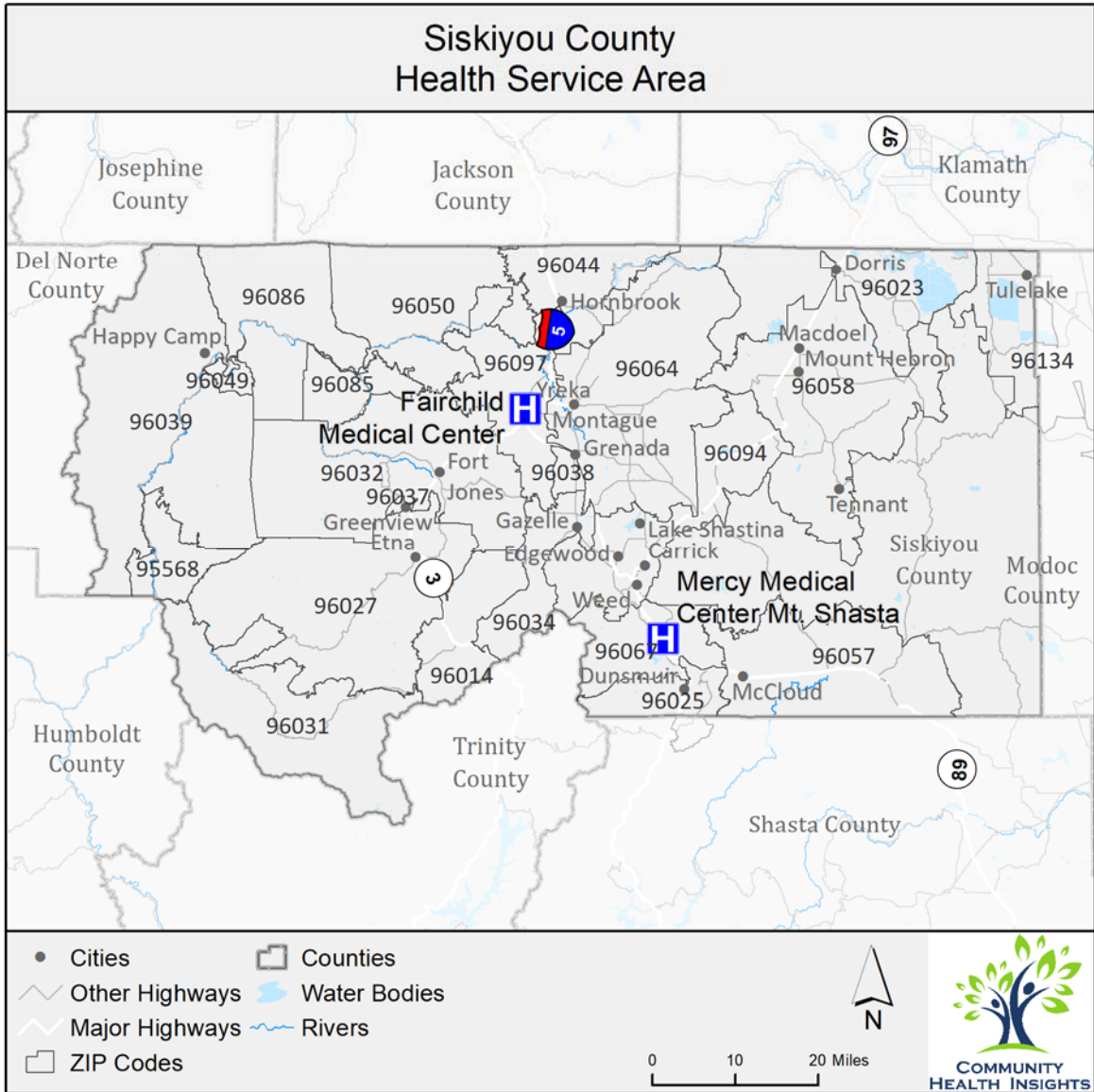


Figure 3: Community served by Siskiyou County.

Population characteristics for each ZIP Code in the county are presented in Table 2. These are compared to the state and county characteristics for descriptive purposes. Any ZIP Code with values that compared negatively to the state or county is highlighted.

Table 2: Population characteristics for each ZIP Code located in the Siskiyou County service area.

ZIP Code	Total Population	% Non-White or Hispanic/Latinx	Median Age (yrs.)	Median Income	% Poverty	% Unemployment	% Uninsured	% Without High School Graduation	% With High Housing Costs	% With Disability
95568	274	58.4	52	\$45,104	29.2	21.1	15.7	11.6	14.0	10.6
96014	135	19.3	58	\$33,813	13.3	0.0	5.9	16.1	29.2	13.3
96023	1,184	36.8	40	\$31,322	26.7	11.6	14.9	26.5	22.7	15.6
96025	2,126	22.9	51	\$35,602	20.6	6.1	11.6	6.1	45.8	18.1
96027	2,327	12.8	53	\$64,865	13.4	7.3	2.6	4.7	23.8	22.6
96031	133	31.6	54	\$22,500	37.6	19.4	5.3	7.8	41.7	14.3
96032	2,653	26.8	42	\$48,036	19.0	12.5	6.5	11.2	31.2	21.0
96034	279	18.6	53	\$39,219	23.7	16.5	13.6	12.8	41.9	13.6
96037	279	11.1	59	\$81,394	23.3	14.8	0.0	4.5	47.1	32.3
96038	732	11.5	44	\$54,423	13.0	3.7	5.7	8.3	31.2	19.1
96039	904	48.9	51	\$36,213	30.2	13.1	2.9	18.7	23.5	23.6
96044	963	14.8	59	\$47,228	19.7	8.2	7.0	12.4	24.1	24.1
96049	90	63.3	34		22.2	23.5	0.0	10.5	37.0	17.8
96050	381	10.2	63	\$24,598	37.5	15.1	7.1	12.5	35.0	26.2
96057	1,235	11.8	56	\$36,635	12.8	13.9	5.1	7.8	25.9	24.9
96058	553	55.3	47	\$41,563	10.8	8.6	17.5	29.7	13.3	15.0
96064	4,533	19.1	49	\$49,604	13.9	6.8	6.1	8.7	27.8	21.6
96067	7,094	13.6	53	\$47,150	17.9	3.3	3.6	4.1	42.3	13.4
96085	54	22.2	60		33.3	16.7	18.5	5.7	21.1	5.6
96086	278	23.7	57	\$45,750	29.9	7.8	11.2	21.1	30.9	26.3
96094	6,611	27.1	47	\$51,857	17.0	6.9	5.0	9.0	33.8	18.1
96097	9,746	26.3	40	\$44,782	19.5	6.1	5.2	10.4	32.9	19.0
96134	2,059	54.9	36	\$34,896	29.1	4.2	11.2	37.0	27.7	12.0
Siskiyou	43,468	23.9	48	\$45,241	18.8	7.1	5.9	9.8	33.2	18.6
California	39,283,497	62.8	37	\$75,235	13.4	6.1	7.5	16.7	40.6	10.6

Source: 2019 American Community Survey 5-year estimates; U.S. Census Bureau.

## Health Equity

The Robert Wood Johnson Foundation’s definition of health equity and social justice is used here to help establish a common understanding for the concept of health equity.

*“Health equity means that everyone has a fair and just opportunity to be healthier. This 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.”<sup>9</sup>*

Inequities experienced early and throughout one’s life, such as limited access to a quality education, have health consequences that appear later in life as health disparities. Health disparities are defined as “preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health experienced by populations, and defined by factors such as race or ethnicity, gender, education or income, disability, geographic location or sexual orientation.”<sup>10</sup>

In the US, and many parts of the world inequities are most apparent when comparing various racial and ethnic groups to one another. Using these comparisons between racial and ethnic populations, it’s clear that health inequities persist across communities, including Siskiyou County.

This section of the report shows inequities in health outcomes, comparing these between race and ethnic groups. These differences inform better planning for more targeted interventions.

### Health Outcomes - the Results of Inequity

The table below displays disparities among race and ethnic groups for the COUNTY for life expectancy, mortality, and low birth weight.

*Table 3: Health outcomes comparing race and ethnicity in the Siskiyou County service area.*

Health Outcomes	Description	American Indian\ Alaska Native	Asian	Black	Hispanic	White	Overall
Life Expectancy	Average number of years a person can expect to live.	72.1	~	~	82.8	76.3	76.5
Premature Age-Adjusted Mortality	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	695.3	~	~	273.4	451.7	445.5
Premature Death	Years of potential life lost before age 75 per 100,000 population (age-adjusted).	~	~	~	6,270.8	9,995	9,929

<sup>9</sup> Robert Wood Johnsons Foundation. 2017. What is Health Equity? And What Difference Does a Definition Make? Health Equity Issue Brief #1. Retrieved 31 Jan 2022 from [https://buildhealthyplaces.org/content/uploads/2017/05/health\\_equity\\_brief\\_041217.pdf](https://buildhealthyplaces.org/content/uploads/2017/05/health_equity_brief_041217.pdf) .

<sup>10</sup> Center for Disease Control and Prevention. 2008. Health Disparities Among Racial/Ethnic Populations. Community Health and Program Services (CHAPS): Atlanta: U.S. Department of Health and Human Services.

Low Birthweight	Percentage of live births with low birthweight (< 2,500 grams).	9.9%	~	~	9.7%	8.1%	8.6%
~ Data Not Available							
Data sources included in the technical section of the report.							

Health Outcomes by race and ethnicity show lower life expectancy than Hispanics and Whites, and higher premature age-adjusted mortality for American Indian/Alaska Native community members. Hispanic community members have the highest life expectancy, and lowest premature mortality and the lowest premature death, compared to other groups.

## Health Factors - Inequities in the County

Inequalities can be seen in data that help describe health factors in the COUNTY, such as education attainment and income. These health factors are displayed in the table below and are compared across race and ethnic groups.

Table 4: Health factors comparing race and ethnicity in the Siskiyou County service area.

Health Factors	Description	American Indian\ Alaska Native	Asian	Black	Hispanic	White	Overall
Some College <sup>a</sup>	Percentage of adults ages 25 and over with some post-secondary education.	51.9%	38%	69.4%	46.8%	67.9%	64.7%
High School Completion <sup>a</sup>	Percentage of adults ages 25 and over with at least a high school diploma or equivalent.	79.6%	66.5%	93.3%	74.5%	93.2%	90.2%
Third Grade Reading Level	Average grade level performance for 3rd graders on English Language Arts standardized tests	~	~	~	2.7	2.8	2.7
Third Grade Math Level	Average grade level performance for 3rd graders on	~	~	~	2.5	2.6	2.6

	math standardized tests						
Children in Poverty	Percentage of people under age 18 in poverty.	29.8%	28.7%	45.8%	33.4%	19.8%	25.5%
Median Household Income	The income where half of households in a county earn more and half of households earn less.	\$35,938	\$40,875	~	\$39,216	\$47,894	\$45,954
Uninsured Population <sup>b</sup>	Percentage of the civilian non-institutionalized population without health insurance.	6.7%	6.5%	6.7%	10.9%	5%	5.9%

~ Data Not Available

Unless otherwise noted, data sources included in the technical section of the report.

<sup>a</sup>From 2019 American Community Survey 5-year estimates tables B15002, C15002B, C15002C, C15002D, C15002H, and C15002I.

<sup>b</sup>From 2019 American Community Survey 5-year estimates table S2701.

Health inequities in the county show Asians and Hispanics having the lowest percent of county residents completing high school and attending some college. Though data is unavailable for many ethnic and racial groups, Hispanics also show lower third grade reading and math scores compared to Whites. There are more Black families with children living in poverty than any other race or ethnic group, while American Indian/Alaskan Natives have the lowest median household income. In addition, Hispanics have the largest percent of uninsured population in the county.

### Population Groups Experiencing Disparities

The figure below describes populations in the Siskiyou County service area identified through qualitative data analysis that were identified as experiencing health disparities. Interview participants were asked, “What specific groups of community members experience health issues the most?” Responses were analyzed by counting the total number of times all key informants and focus-group participants mentioned a particular group as one experiencing disparities. Figure 4 displays the results of this analysis. The groups are not mutually exclusive—one group could be a subset of another group. One of the purposes of identifying the sub-populations was to help guide additional qualitative data collection efforts to focus on the needs of these population groups.

## Frequency of Mentions in Interviews

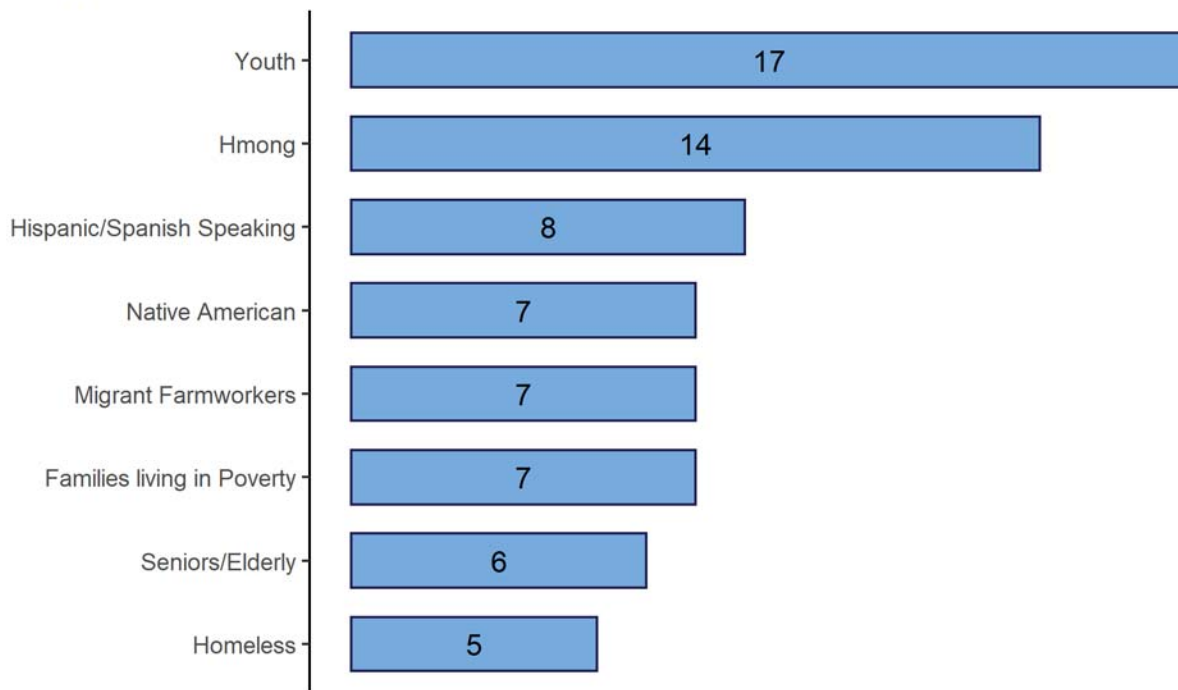


Figure 4: Populations experiencing disparities the Siskiyou County service area.

## California Healthy Places Index

Figure 5 displays the California Healthy Places Index (HPI)<sup>11</sup> values for the Siskiyou County service area. The HPI is an index based on 25 health-related measures for communities across California. These measures included in the HPI were selected based on their known relationship to life expectancy and other health outcomes. These values are combined into a final score representing the overall health and well-being of the community which can then be used to compare the factors influencing health between communities. Higher HPI index values are found in communities with a collection of factors that contribute to greater health, and lower HPI values are found in communities where these factors are less present.

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<sup>11</sup> Public Health Alliance of Southern California. 2021. The California Health Places Index (HPI): About. Retrieved 26 July 2021 from <https://healthyplacesindex.org/about/>.

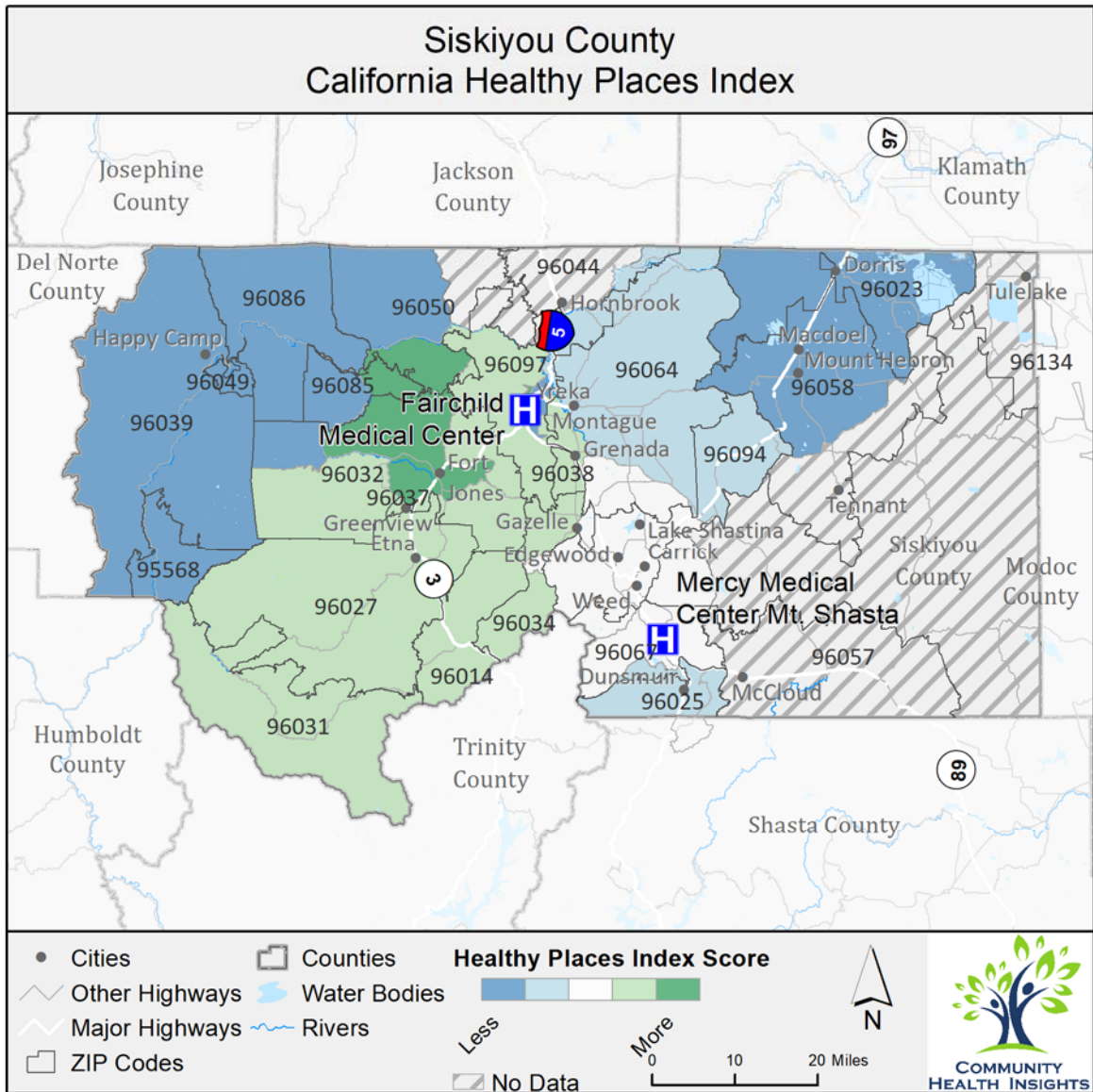


Figure 5: Healthy Places Index for Siskiyou County.

Areas with the darkest blue shading in Figure 5 have the lowest overall HPI scores, indicating factors leading to less healthy social environments. There are likely to be more residents in these locations experiencing health disparities, with a lack of access to health and social service resources.

## Communities of Concern

Communities of Concern are geographic areas within the service area that have the greatest concentration of poor health outcomes and are home to more medically underserved, low-income, and diverse populations at greater risk for poorer health. Communities of Concern are important to the overall CHNA methodology because, after the service area has been assessed more broadly, they allow for a focus on those portions of the region likely experiencing the greatest health disparities. Geographic

Communities of Concern were identified using a combination of primary and secondary data sources. (Refer to the technical section of this report for an in-depth description of how these are identified). Analysis of both primary and secondary data revealed 6 ZIP Codes that met the criteria to be classified as Communities of Concern. These are noted in Table 5, with the census population provided for each, and are displayed in Figure 6.

*Table 5: Identified Communities of Concern for the Siskiyou County service area.*

<b>ZIP Code</b>	<b>Community\Area</b>	<b>Population</b>
<b>Primary</b>		
96097	Yreka	9,746
96039	Happy Camp Area	904
<b>Secondary</b>		
96094	Shasta Valley Area	6,611
96023	Dorris	1,184
96058	Macdoel	553
96134	Tulelake	2,059
<i>Total Population in Communities of Concern</i>		<i>21,057</i>
<i>Total Population in Siskiyou County</i>		<i>44,623</i>
<i>Percentage county population in Communities of Concern</i>		<i>47.2%</i>

Source: 2019 American Community Survey 5-year estimates; U.S. Census Bureau.

Figure 6 displays the ZIP Codes highlighted in pink and blue that are primary and secondary Communities of Concern for the Siskiyou County service area.



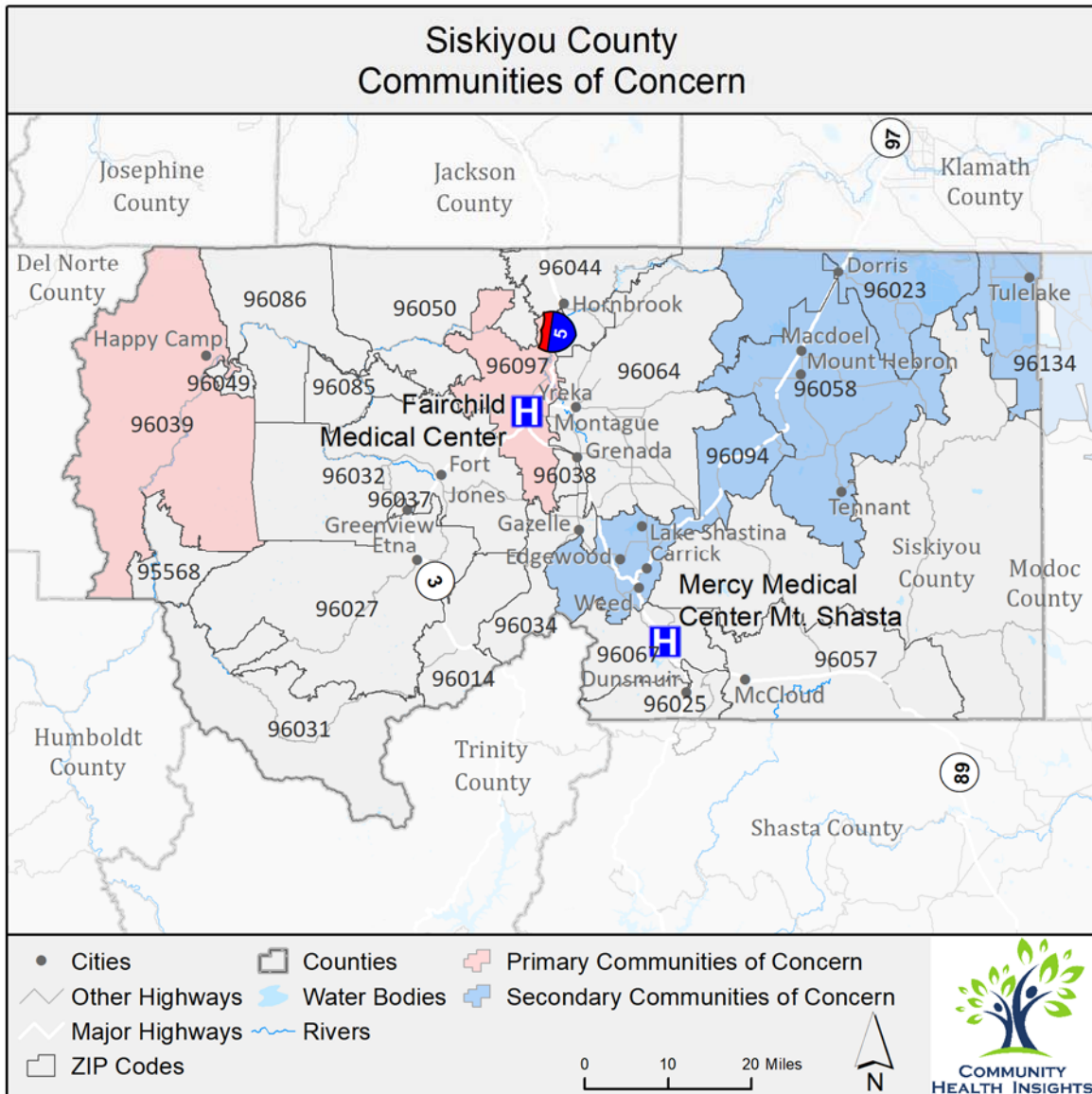


Figure 6: Siskiyou County Communities of Concern.

The primary Communities of Concern, Yreka (96097) and the Happy Camp Area (96039) were chosen due to both primary and secondary data clearly indicating a disproportionate health burden for community members in these areas. The Secondary Communities of Concern consisting of the Shasta Valley Area (96094), Dorris (96023), Macdoel (96058) and Tulelake (96134) were also consistently mentioned by primary data as areas where community members were disproportionately affected by undue health burdens. These areas are listed as secondary Communities of Concern due to the fact that available secondary data may not have flagged it as a priority, however, the voice of area representatives clearly mentioned these areas having disproportionate health impact. The Communities of Concern for Siskiyou County make up 47.2% of the county population. Figure 6 below provides a population density of the county for reference.

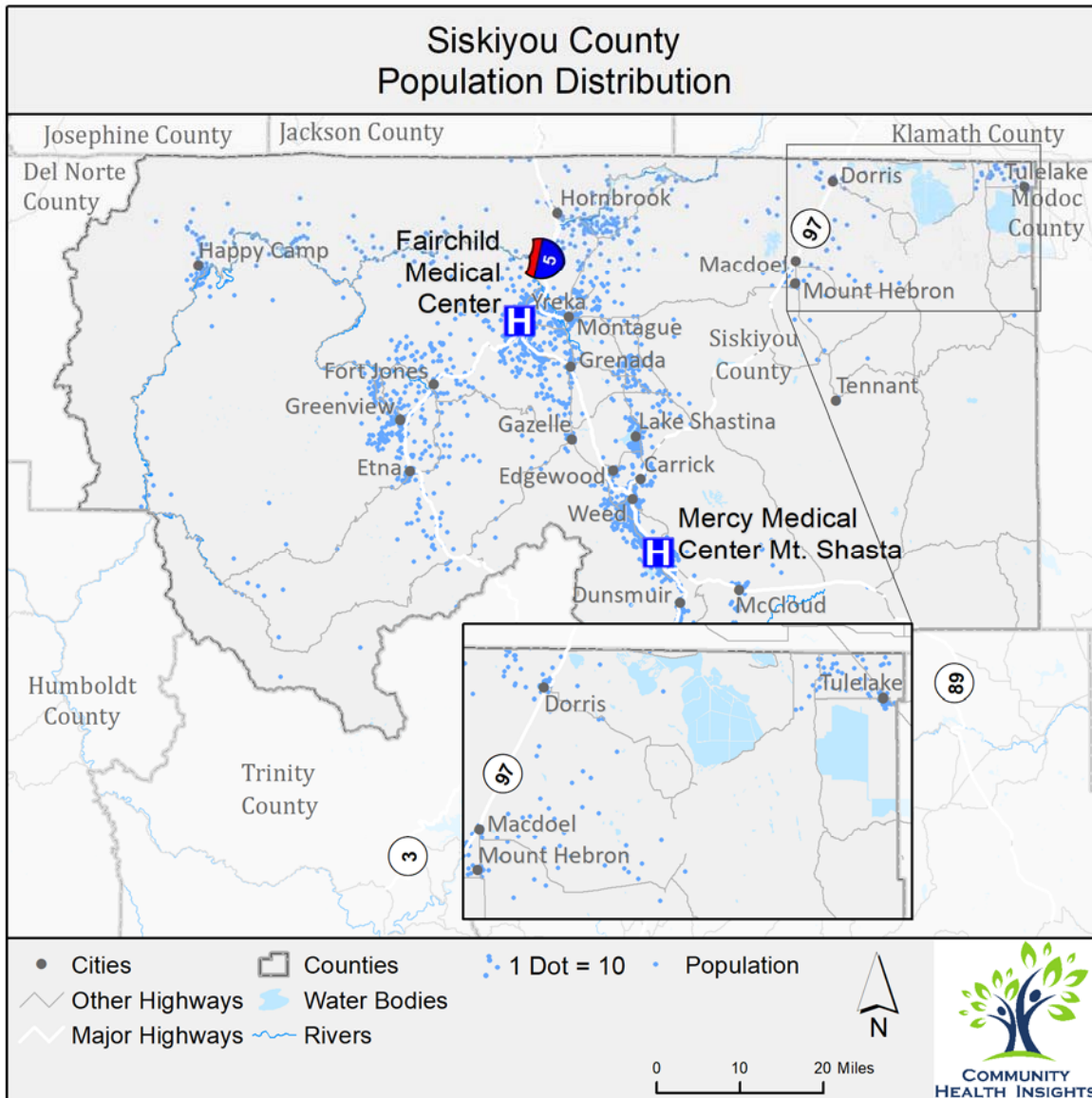


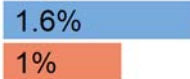
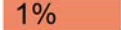

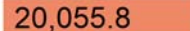


Figure 7: Siskiyou County Population Distribution.

## The Impact of COVID-19 on Health Needs

COVID-19 related health indicators regard the county are noted in Table 6. Results for the county shows the case fatality rate to be higher than the state rate, coupled with lower full vaccination rates.

Table 6: COVID-19-related rates for the Siskiyou County service area.

Indicators	Description	Siskiyou	California	
COVID-19 Mortality	Number of deaths due to COVID-19 per 100,000 population.	151.8	201.8	Siskiyou: <span style="display: inline-block; width: 100px; height: 10px; background-color: #4F81BD;"></span> 151.8 California: <span style="display: inline-block; width: 100px; height: 10px; background-color: #C8513E;"></span> 201.8

COVID-19 Case Fatality	Percentage of COVID-19 deaths per laboratory-confirmed COVID19 cases.	1.6%	1.0%	Siskiyou:  California: 
COVID-19 Cumulative Incidence	Number of laboratory-confirmed COVID-19 cases per 100,000 population.	9,291.9	20,055.8	Siskiyou:  California: 
COVID-19 Cumulative Full Vaccination Rate	Number of completed COVID-19 vaccinations per 100,000 population.	47,200.2	69,117.9	Siskiyou:  California: 

COVID-19 data collected on January 31 2022

Key informants and focus group participants were asked how the COVID-19 pandemic impacted the health needs they described during interviews. A summary of their responses is shown in Table 7.

Table 7: The impacts of COVID-19 on health need as identified in primary data sources.

<b>Key Informant and Focus Group Responses</b>
<ul style="list-style-type: none"> <li>• Low vaccination rates coupled with low health care staffing overwhelmed area healthcare systems. A direct quote “Our biggest challenge has been caring for our community with limited staff, limited ventilators, limited ICU beds.”</li> <li>• Government reimbursement for telehealth visits for rural healthcare clinics do not cover the cost to conduct them, limiting rural clinic capacity during COVID-19 stay at home orders.</li> <li>• Many very sick COVID-19 patients that were hospitalized were unvaccinated resulting in very long hospital stays, limiting the capacity of the hospital to serve the other health needs of community members.</li> <li>• COVID-19 exacerbated the limited health and social service workforce shortages.</li> <li>• Area residents experience increase anxiety and depression related to the fear of COVID-19 and related mandates.</li> <li>• Area tribal elders dies as a result of COVID-19.</li> <li>• Many residents have vaccine hesitancy.</li> <li>• COVID-19 has caused the permanent closer of business.</li> <li>• People that got COVID-19 did not want to disclose to others, COVID-19 stigma is high in the county.</li> <li>• Community engagement activities is a central part of the county culture. COVID-19 took that away.</li> <li>• Vaccine mandate has further exacerbated a limited professional healthcare shortage in the county.</li> </ul>

## Resources Potentially Available to Meet the Significant Health Needs

In all, 112 resources were identified in the Siskiyou County service area that were potentially available to meet the identified significant health needs. These resources were provided by a total of 58 social service, nonprofit, and governmental organizations, agencies, and programs identified in the CHNA. The identification method included starting with the list of resources from the 2019 Siskiyou County CHNA, verifying that the resources still existed, and then adding newly identified resources into the 2022 CHNA report. Examination of the resources revealed the following numbers of resources for each significant health need as shown in Table 8.

*Table 8: Resources potentially available to meet significant health needs in priority order.*

<b>Significant Health Needs (in Priority Order)</b>	<b>Number of Resources</b>
Access to Mental/Behavioral Health and Substance use Services	31
Injury and Disease Prevention and Management	14
Access to Basic Needs Such as Housing, Jobs, and Food	25
Access to Quality Primary Care Health Services	19
Access to Specialty and Extended Care	11
Access to Dental Care and Preventive Services	8
Active Living and Healthy Eating	10
Access to Functional Needs	8
Safe and Violence-Free Environment	10
<b>Total Resources</b>	<b>139</b>

For more specific examination of resources by significant health need and by geographic location, as well as the detailed method for identifying these, see the technical section of this report.

## Impact and Evaluation of Actions Taken by Hospital

Regulations require that each hospital’s CHNA report include “an evaluation of the impact of any actions that were taken since the hospital facility finished conducting its immediately preceding CHNA to address the significant health needs identified in the hospital facility’s prior CHNA(s) (p. 78969).”<sup>12</sup> Mercy Medical Center Mt. Shasta invested efforts to address the significant health needs identified in the prior CHNA. Appendix A includes details of those efforts.

## Conclusion

CHNAs play an important role in helping nonprofit hospitals and other community organizations determine where to focus community benefit and health improvement efforts, including targeting efforts in geographic locations and on specific populations experiencing inequities leading to health

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<sup>12</sup> Federal Register, Vol. 79, No. 250, (Wednesday, December 31, 2014). Department of the Treasury, Internal Revenue Service.

disparities. Data in the CHNA report can help provide nonprofit hospitals and community service providers with content to work in collaboration to engage in meaningful community work.

Please send any feedback about this CHNA report to Mercy Medical Center Mt. Shasta via <https://www.dignityhealth.org/north-state/locations/mercy-mtshasta/about-us/community-benefit>, with “CHNA Comments” in the subject line. Feedback received will be incorporated into the next CHNA cycle.

## 2022 CHNA Technical Section

The following section presents a detailed account of data collection, analysis, and results for the Siskiyou County Service Area.

### Results of Data Analysis

#### Compiled Secondary Data

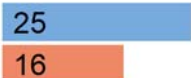

The tables and figures that follow show the specific values for the health need indicators used as part of the health need identification process. Indicator values for Siskiyou County were compared to the California state benchmark and are highlighted below when performance was worse in the county than in the state. The associated figures show rates for the county compared to the California state rates.

#### Length of Life

Table 9: County length of life indicators compared to state benchmarks.

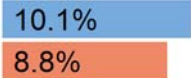
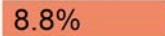

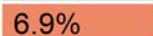
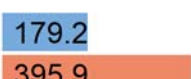

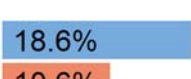
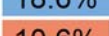


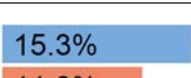
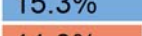
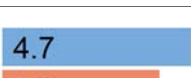

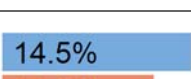
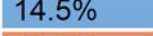
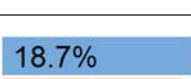
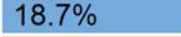
Indicators	Description	Siskiyou	California	
<b>Early Life</b>				
Infant Mortality	Number of all infant deaths (within 1 year), per 1,000 live births.	6.7	4.2	Siskiyou: 6.7 California: 4.2
Child Mortality	Number of deaths among children under age 18 per 100,000 population.	59.7	36.0	Siskiyou: 59.7 California: 36
Life Expectancy	Average number of years a person can expect to live.	76.5	81.7	Siskiyou: 76.5 California: 81.7
<b>Overall</b>				
Premature Age-Adjusted Mortality	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	445.5	268.4	Siskiyou: 445.5 California: 268.4
Premature Death	Years of potential life lost before age 75 per 100,000 population (age-adjusted).	9,929.0	5,253.1	Siskiyou: 9,929 California: 5,253.1
Stroke Mortality	Number of deaths due to stroke per 100,000 population.	59.8	41.2	Siskiyou: 59.8 California: 41.2
Chronic Lower Respiratory Disease Mortality	Number of deaths due to chronic lower respiratory disease per 100,000 population.	101.8	34.8	Siskiyou: 101.8 California: 34.8

Indicators	Description	Siskiyou California		
Diabetes Mortality	Number of deaths due to diabetes per 100,000 population.	34.4	24.1	Siskiyou: 34.4 California: 24.1
Heart Disease Mortality	Number of deaths due to heart disease per 100,000 population.	287.0	159.5	Siskiyou: 287 California: 159.5
Hypertension Mortality	Number of deaths due to hypertension per 100,000 population.	14.9	13.8	Siskiyou: 14.9 California: 13.8
<b>Cancer, Liver, and Kidney Disease</b>				
Cancer Mortality	Number of deaths due to cancer per 100,000 population.	270.1	152.9	Siskiyou: 270.1 California: 152.9
Liver Disease Mortality	Number of deaths due to liver disease per 100,000 population.	21.2	13.9	Siskiyou: 21.2 California: 13.9
Kidney Disease Mortality	Number of deaths due to kidney disease per 100,000 population.	14.5	9.7	Siskiyou: 14.5 California: 9.7
<b>Intentional and Unintentional Injuries</b>				
Suicide Mortality	Number of deaths due to suicide per 100,000 population.	18.3	11.2	Siskiyou: 18.3 California: 11.2
Unintentional Injuries Mortality	Number of deaths due to unintentional injuries per 100,000 population.	82.3	35.7	Siskiyou: 82.3 California: 35.7
<b>COVID-19</b>				
COVID-19 Mortality	Number of deaths due to COVID-19 per 100,000 population.	151.8	201.8	Siskiyou: 151.8 California: 201.8
COVID-19 Case Fatality	Percentage of COVID-19 deaths per laboratory-confirmed COVID19 cases.	1.6%	1.0%	Siskiyou: 1.6% California: 1%
<b>Other</b>				
Alzheimer's Disease Mortality	Number of deaths due to Alzheimer's disease per 100,000 population.	56.2	41.2	Siskiyou: 56.2 California: 41.2

Indicators	Description	Siskiyou California		
Influenza and Pneumonia Mortality	Number of deaths due to influenza and pneumonia per 100,000 population.	25.0	16.0	Siskiyou:  California: 

## Quality of Life

Table 10: County quality of life indicators compared to state benchmarks.

Indicators	Description	Siskiyou California		
<b>Chronic Disease</b>				
Diabetes Prevalence	Percentage of adults ages 20 and above with diagnosed diabetes.	10.1%	8.8%	Siskiyou:  California: 
Low Birthweight	Percentage of live births with low birthweight (< 2,500 grams).	8.6%	6.9%	Siskiyou:  California: 
HIV Prevalence	Number of people ages 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population.	179.2	395.9	Siskiyou:  California: 
Disability	Percentage of the total civilian noninstitutionalized population with a disability	18.6%	10.6%	Siskiyou:  California: 
<b>Mental Health</b>				
Poor Mental Health Days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted).	4.9	3.7	Siskiyou:  California: 
Frequent Mental Distress	Percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted).	15.3%	11.3%	Siskiyou:  California: 
Poor Physical Health Days	Average number of physically unhealthy days reported in past 30 days (age-adjusted).	4.7	3.9	Siskiyou:  California: 
Frequent Physical Distress	Percentage of adults reporting 14 or more days of poor physical health per month (age-adjusted).	14.5%	11.6%	Siskiyou:  California: 
Poor or Fair Health	Percentage of adults reporting fair or poor health (age-adjusted).	18.7%	17.6%	Siskiyou:  California: 
<b>Cancer</b>				

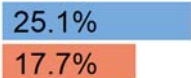
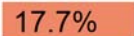
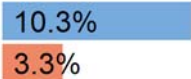

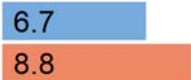

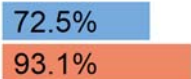
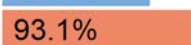
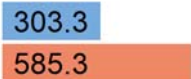
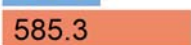
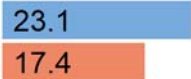
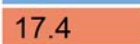
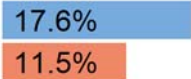
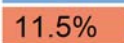


Indicators	Description	Siskiyou California		
Colorectal Cancer Prevalence	Colon and rectum cancers per 100,000 population (age-adjusted).	31.3	34.8	Siskiyou: 31.3 California: 34.8
Breast Cancer Prevalence	Female in situ breast cancers per 100,000 female population (age-adjusted).	22.0	27.9	Siskiyou: 22 California: 27.9
Lung Cancer Prevalence	Lung and bronchus cancers per 100,000 population (age-adjusted).	52.4	40.9	Siskiyou: 52.4 California: 40.9
Prostate Cancer Prevalence	Prostate cancers per 100,000 male population (age-adjusted).	72.4	91.2	Siskiyou: 72.4 California: 91.2
<b>COVID-19</b>				
COVID-19 Cumulative Incidence	Number of laboratory-confirmed COVID-19 cases per 100,000 population.	9,291.9	20,055.8	Siskiyou: 9,291.9 California: 20,055.8
<b>Other</b>				
Asthma ED Rates	Emergency department visits due to asthma per 10,000 (age-adjusted).	341.0	422.0	Siskiyou: 341 California: 422
Asthma ED Rates for Children	Emergency department visits due to asthma among ages 5-17 per 10,000 population ages 5-17 (age-adjusted).	350.0	601.0	Siskiyou: 350 California: 601

## Health Behavior









Table 11: County health behavior indicators compared to state benchmarks.



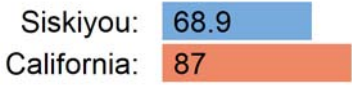

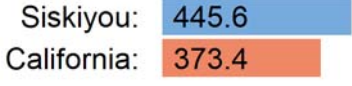





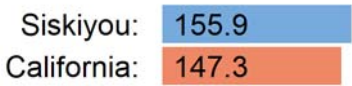

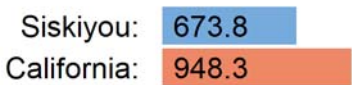

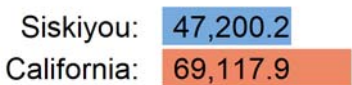

Indicators	Description	Siskiyou California		
Excessive Drinking	Percentage of adults reporting binge or heavy drinking (age-adjusted).	22.7%	18.1%	Siskiyou: 22.7% California: 18.1%
Drug Induced Death	Drug induced deaths per 100,000 (age-adjusted).	17.7	14.3	Siskiyou: 17.7 California: 14.3
Adult Obesity	Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m <sup>2</sup> .	34.5%	24.3%	Siskiyou: 34.5% California: 24.3%

Indicators	Description	Siskiyou California		
Physical Inactivity	Percentage of adults ages 20 and over reporting no leisure-time physical activity.	25.1%	17.7%	Siskiyou:  California: 
Limited Access to Healthy Foods	Percentage of population who are low-income and do not live close to a grocery store.	10.3%	3.3%	Siskiyou:  California: 
Food Environment Index	Index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best).	6.7	8.8	Siskiyou:  California: 
Access to Exercise Opportunities	Percentage of population with adequate access to locations for physical activity.	72.5%	93.1%	Siskiyou:  California: 
Chlamydia Incidence	Number of newly diagnosed chlamydia cases per 100,000 population.	303.3	585.3	Siskiyou:  California: 
Teen Birth Rate	Number of births per 1,000 female population ages 15-19.	23.1	17.4	Siskiyou:  California: 
Adult Smoking	Percentage of adults who are current smokers (age-adjusted).	17.6%	11.5%	Siskiyou:  California: 

### Clinical Care

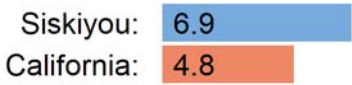
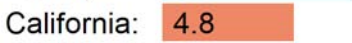
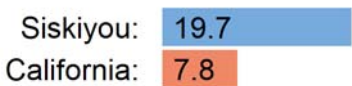

Table 12: County clinical care indicators compared to state benchmarks.

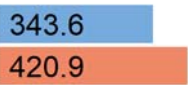
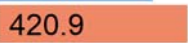
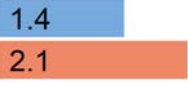

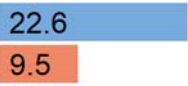

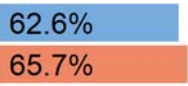

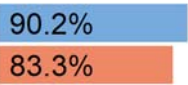

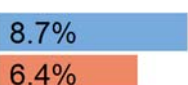

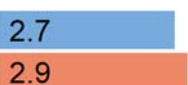

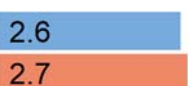



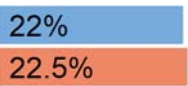
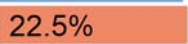
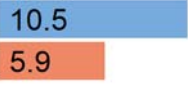

Indicators	Description	Siskiyou California		
Primary Care Shortage Area	Presence of a primary care health professional shortage area within the county.	Yes		Siskiyou:  California: 
Dental Care Shortage Area	Presence of a dental care health professional shortage area within the county.	Yes		Siskiyou:  California: 
Mental Health Care Shortage Area	Presence of a mental health professional shortage area within the county.	Yes		Siskiyou:  California: 
Medically Underserved Area	Presence of a medically underserved area within the county.	Yes		Siskiyou:  California: 



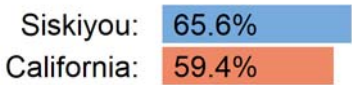
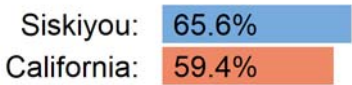
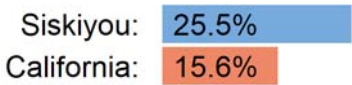
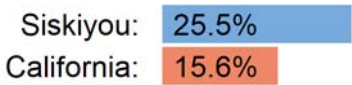


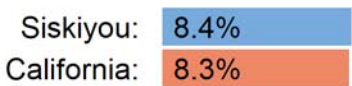
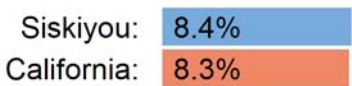
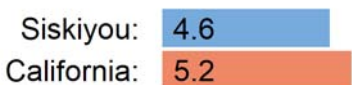
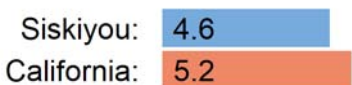
Indicators	Description	Siskiyou California		
Mammography Screening	Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening.	39.0%	36.0%	Siskiyou:  California: 
Dentists	Dentists per 100,000 population.	68.9	87.0	Siskiyou:  California: 
Mental Health Providers	Mental health providers per 100,000 population.	445.6	373.4	Siskiyou:  California: 
Psychiatry Providers	Psychiatry providers per 100,000 population.	4.6	13.5	Siskiyou:  California: 
Specialty Care Providers	Specialty care providers (non-primary care physicians) per 100,000 population.	64.3	190.0	Siskiyou:  California: 
Primary Care Providers	Primary care physicians per 100,000 population + other primary care providers per 100,000 population.	155.9	147.3	Siskiyou:  California: 
Preventable Hospitalization	Preventable hospitalizations per 100,000 (age-sex-poverty adjusted)	673.8	948.3	Siskiyou:  California: 
<b>COVID-19</b>				
COVID-19 Cumulative Full Vaccination Rate	Number of completed COVID-19 vaccinations per 100,000 population.	47,200.2	69,117.9	Siskiyou:  California: 

### Socio-Economic and Demographic Factors

Table 13: County socio-economic and demographic factors indicators compared to state benchmarks.



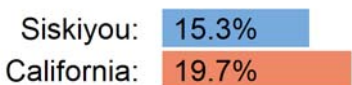
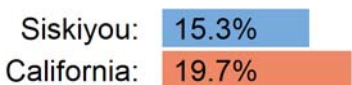


Indicators	Description	Siskiyou	California	
<b>Community Safety</b>				
Homicide Rate	Number of deaths due to homicide per 100,000 population.	6.9	4.8	Siskiyou:  California: 
Firearm Fatalities Rate	Number of deaths due to firearms per 100,000 population.	19.7	7.8	Siskiyou:  California: 

Indicators	Description	Siskiyou	California	
Violent Crime Rate	Number of reported violent crime offenses per 100,000 population.	343.6	420.9	Siskiyou:  California: 
Juvenile Arrest Rate	Felony juvenile arrests per 1,000 juveniles	1.4	2.1	Siskiyou:  California: 
Motor Vehicle Crash Death	Number of motor vehicle crash deaths per 100,000 population.	22.6	9.5	Siskiyou:  California: 
<b>Education</b>				
Some College	Percentage of adults ages 25-44 with some post-secondary education.	62.6%	65.7%	Siskiyou:  California: 
High School Completion	Percentage of adults ages 25 and over with a high school diploma or equivalent.	90.2%	83.3%	Siskiyou:  California: 
Disconnected Youth	Percentage of teens and young adults ages 16-19 who are neither working nor in school.	8.7%	6.4%	Siskiyou:  California: 
Third Grade Reading Level	Average grade level performance for 3rd graders on English Language Arts standardized tests	2.7	2.9	Siskiyou:  California: 
Third Grade Math Level	Average grade level performance for 3rd graders on math standardized tests	2.6	2.7	Siskiyou:  California: 
<b>Employment</b>				
Unemployment	Percentage of population ages 16 and older unemployed but seeking work.	6.5%	4.0%	Siskiyou:  California: 
<b>Family and Social Support</b>				
Children in Single-Parent Households	Percentage of children that live in a household headed by single parent.	22.0%	22.5%	Siskiyou:  California: 
Social Associations	Number of membership associations per 10,000 population.	10.5	5.9	Siskiyou:  California: 

Indicators	Description	Siskiyou	California	
Residential Segregation (Non-White/White)	Index of dissimilarity where higher values indicate greater residential segregation between non-White and White county residents.	22.6	38.0	Siskiyou:  California: 
<b>Income</b>				
Children Eligible for Free Lunch	Percentage of children enrolled in public schools that are eligible for free or reduced price lunch.	65.6%	59.4%	Siskiyou:  California: 
Children in Poverty	Percentage of people under age 18 in poverty.	25.5%	15.6%	Siskiyou:  California: 
Median Household Income	The income where half of households in a county earn more and half of households earn less.	\$45,954.0	\$80,423.0	Siskiyou:  California: 
Uninsured Population under 64	Percentage of population under age 65 without health insurance.	8.4%	8.3%	Siskiyou:  California: 
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile.	4.6	5.2	Siskiyou:  California: 

## Physical Environment

Table 14: County physical environment indicators compared to state benchmarks.

Indicators	Description	Siskiyou	California	
<b>Housing</b>				
Severe Housing Problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.	20.1%	26.4%	Siskiyou:  California: 
Severe Housing Cost Burden	Percentage of households that spend 50% or more of their household income on housing.	15.3%	19.7%	Siskiyou:  California: 
Homeownership	Percentage of occupied housing units that are owned.	65.0%	54.8%	Siskiyou:  California: 

Indicators	Description	Siskiyou		California	
Homelessness Rate	Number of homeless individuals per 100,000 population.	490.7	411.2	Siskiyou: 490.7	California: 411.2
<b>Transit</b>					
Households with no Vehicle Available	Percentage of occupied housing units that have no vehicles available.	6.8%	7.1%	Siskiyou: 6.8%	California: 7.1%
Long Commute - Driving Alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes.	22.2%	42.2%	Siskiyou: 22.2%	California: 42.2%
Access to Public Transit	Percentage of population living near a fixed public transportation stop	47.0%	69.6%	Siskiyou: 47%	California: 69.6%
<b>Air and Water Quality</b>					
Pollution Burden Percent	Percentage of population living in a census tract with a CalEnviroscreen 3.0 pollution burden score percentile of 50 or greater	17.3%	51.6%	Siskiyou: 17.3%	California: 51.6%
Air Pollution - Particulate Matter	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).	4.9	8.1	Siskiyou: 4.9	California: 8.1
Drinking Water Violations	Presence of health-related drinking water violations in the county.	Yes		Siskiyou: Yes	California:

## Community Survey

Table 15: Siskiyou County Community Survey responses compared to selected benchmarks.

Name	Question Number	Question	Value	Benchmark	
Unable to see doctor in past 12 months	16	In the past 12 months, was there a time you wanted to see a doctor, but were unable to?	32%	20%	Value: 32% Benchmark: 20%
Have not seen dentist in over a year	18	Have not seen a dentist or dental clinic in longer than a year	25.3%	20%	Value: 25.3% Benchmark: 20%

Name	Question Number	Question	Value	Benchmark	
Unable to access care aligned with identity	22	Answered False to I am able to access care which respects and aligns with my cultural and gender identity.	6.5%	20%	Value: 6.5% Benchmark: 20%
Experienced or witnessed physical or sexual violence or threat	23	Experienced or witnessed actual or threatened physical or sexual violence directed towards self or another person by a significant other in the last 12 months.	12%	20%	Value: 12% Benchmark: 20%
Feared for safety of self or loved one	24	Felt unsafe or feared for the physical safety of self or loved one in the past 24 months.	22.4%	20%	Value: 22.4% Benchmark: 20%
Unable to access desired substance use treatment	25	Sought or desired to seek treatment for a substance use issue, but been unable to access the care needed, in the past 24 months.	2.6%	20%	Value: 2.6% Benchmark: 20%
Felt two or more years of depression	26	Had two years or more in life when felt depressed or sad most days, even if felt okay sometimes.	43.5%	20%	Value: 43.5% Benchmark: 20%
Self or other with suicidal thoughts	29	Self or someone else known has experienced suicidal thoughts or ideation in the past 24 months.	31.4%	20%	Value: 31.4% Benchmark: 20%

Name	Question Number	Question	Value	Benchmark	
Worried about food running out before more money	30	Sometimes or often worried about whether food would run out before more money would be received to buy more within the past 12 months.	17.6%	20%	Value: 17.6% Benchmark: 20%
Access to food limited by transportation	31	Transportation or distance from a grocery store is sometimes or often a limiting factor in getting to a store which sells healthy, nutritious, and affordable food.	22.5%	20%	Value: 22.5% Benchmark: 20%
Have some limitations due to an impairment or health problem.	32	Have some limitations due to an impairment or health problem.	32.2%	20%	Value: 32.2% Benchmark: 20%
Diagnosed with one or more chronic illness	34	Been diagnosed with one or more chronic illness (e.g., arthritis, COPD, diabetes, heart disease, hypertension, high cholesterol, asthma, cancer, etc.).	50.6%	20%	Value: 50.6% Benchmark: 20%
Unable to see doctor, no health insurance	17a	Unable to see a doctor in the past 12 months because no health insurance	10%	20%	Value: 10% Benchmark: 20%
Unable to see doctor, insurance not accepted	17b	Unable to see a doctor in the past 12 months because health insurance not accepted	5.7%	20%	Value: 5.7% Benchmark: 20%



Name	Question Number	Question	Value	Benchmark	
Unable to see doctor, lack of transportation	17c	Unable to see a doctor in the past 12 months because of a lack of transportation	3.6%	20%	Value: 3.6% Benchmark: 20%
Unable to see doctor, lack of appointments	17d	Unable to see a doctor in the past 12 months because of a lack of appointments	54.3%	20%	Value: 54.3% Benchmark: 20%
Prevented from accessing care due to beliefs	20a	Prevented from accessing needed care by cultural or religious beliefs.	1.2%	20%	Value: 1.2% Benchmark: 20%
Prevented from accessing care, couldn't find doctor	20b	Prevented from accessing needed care because didn't know how to find doctor.	0.9%	20%	Value: 0.9% Benchmark: 20%
Prevented from accessing care, unaware of need	20c	Prevented from accessing needed care because didn't understand the need to see doctor.	0.6%	20%	Value: 0.6% Benchmark: 20%
Prevented from accessing care, fear	20d	Prevented from accessing needed care by fear.	4.6%	20%	Value: 4.6% Benchmark: 20%
Prevented from accessing care, doctor availability	20e	Prevented from accessing needed care by a lack of availability of doctors.	29.4%	20%	Value: 29.4% Benchmark: 20%
Prevented from accessing care, no time off	20f	Prevented from accessing needed care by a lack of time off work to see doctor.	13.6%	20%	Value: 13.6% Benchmark: 20%
Prevented from accessing care, language barrier	20g	Prevented from accessing needed care by language barriers.	0.3%	20%	Value: 0.3% Benchmark: 20%

Name	Question Number	Question	Value	Benchmark	
Prevented from accessing care, no insurance	20h	Prevented from accessing needed care because of no insurance.	4.6%	20%	Value: 4.6% Benchmark: 20%
Prevented from accessing care, can't pay co-pays	20i	Prevented from accessing needed care because unable to pay co-pays or deductibles.	10.6%	20%	Value: 10.6% Benchmark: 20%
Prevented from accessing care, transportation issues	20j	Prevented from accessing needed care by transportation issues.	3.6%	20%	Value: 3.6% Benchmark: 20%
Prevented from mental/emotional health treatment, didn't know where to seek services	28a	Prevented from seeking desired help from a professional for a mental or emotional problem because didn't know where to seek mental health services.	26.9%	20%	Value: 26.9% Benchmark: 20%
Prevented from mental/emotional health treatment, uncertainty around insurance acceptance	28b	Prevented from seeking desired help from a professional for a mental or emotional problem because do not know who takes insurance.	23.9%	20%	Value: 23.9% Benchmark: 20%
Prevented from mental/emotional health treatment, can't pay co-pays	28c	Prevented from seeking desired help from a professional for a mental or emotional problem because can't afford treatment or co-pay costs.	37.7%	20%	Value: 37.7% Benchmark: 20%

Name	Question Number	Question	Value	Benchmark	
Prevented from mental/emotional health treatment, language, or cultural barriers	28d	Prevented from seeking desired help from a professional for a mental or emotional problem because of language or cultural barriers	0.8%	20%	Value: 0.8% Benchmark: 20%
Prevented from mental/emotional health treatment, stigma	28e	Prevented from seeking desired help from a professional for a mental or emotional problem because of stigma or prejudice.	33.1%	20%	Value: 33.1% Benchmark: 20%
Prevented from mental/emotional health treatment, no time	28f	Prevented from seeking desired help from a professional for a mental or emotional problem because do not feel like there is time.	45.4%	20%	Value: 45.4% Benchmark: 20%
Prevented from mental/emotional health treatment, transportation issues	28g	Prevented from seeking desired help from a professional for a mental or emotional problem because issues with transportation to appointments.	0.8%	20%	Value: 0.8% Benchmark: 20%
What would help manage chronic illness: setting goals	35a	Feels setting health goals would help most in managing chronic illness.	41%	20%	Value: 41% Benchmark: 20%
What would help manage chronic illness: insurance availability	35b	Feels availability of insurance would help most in managing chronic illness.	7.7%	20%	Value: 7.7% Benchmark: 20%

Name	Question Number	Question	Value	Benchmark	
What would help manage chronic illness: learning skills	35c	Feels learning new skills on how to manage their chronic illness would help most in managing chronic illness.	25.7%	20%	Value: 25.7% Benchmark: 20%
What would help manage chronic illness: health screenings	35d	Feels more health screenings related to their chronic illness would help most in managing chronic illness.	14.2%	20%	Value: 14.2% Benchmark: 20%
What would help manage chronic illness: understating how to take medications	35e	Feels understanding how to take their medications would help most in managing chronic illness.	1.6%	20%	Value: 1.6% Benchmark: 20%
What would help manage chronic illness: eating, lifestyle	35f	Feels healthy eating and lifestyle support would help most in managing chronic illness.	45.4%	20%	Value: 45.4% Benchmark: 20%
What would help manage chronic illness: quitting smoking	35g	Feels help quitting smoking would help most in managing chronic illness.	3.3%	20%	Value: 3.3% Benchmark: 20%
What would help manage chronic illness: pain and fatigue management	35h	Feels help developing skills to manage their pain and fatigue would help most in managing chronic illness.	21.9%	20%	Value: 21.9% Benchmark: 20%
What would help manage chronic illness: transportation to appointments	35i	Feels transportation to appointments would help most in managing chronic illness.	2.7%	20%	Value: 2.7% Benchmark: 20%

## CHNA Methods and Processes

Two related models were foundational in this CHNA. The first is a conceptual model that expresses the theoretical understanding of community health used in the analysis. This understanding is important because it provides the framework underpinning the collection of primary and secondary data. It is the tool used to ensure that the results are based on a rigorous understanding of those factors that influence the health of a community. The second model is a process model that describes the various stages of the analysis. It is the tool that ensures that the resulting analysis is based on a tight integration of community voice and secondary data and that the analysis meets federal regulations for conducting hospital CHNAs.

### *Conceptual Model*

The conceptual model used in this needs assessment is shown in Figure 8. This model organizes populations' individual health-related characteristics in terms of how they relate to up- or downstream health and health-disparities factors. In this model, health outcomes (quality and length of life) are understood to result from the influence of health factors describing interrelated individual, environmental, and community characteristics, which in turn are influenced by underlying policies and programs.

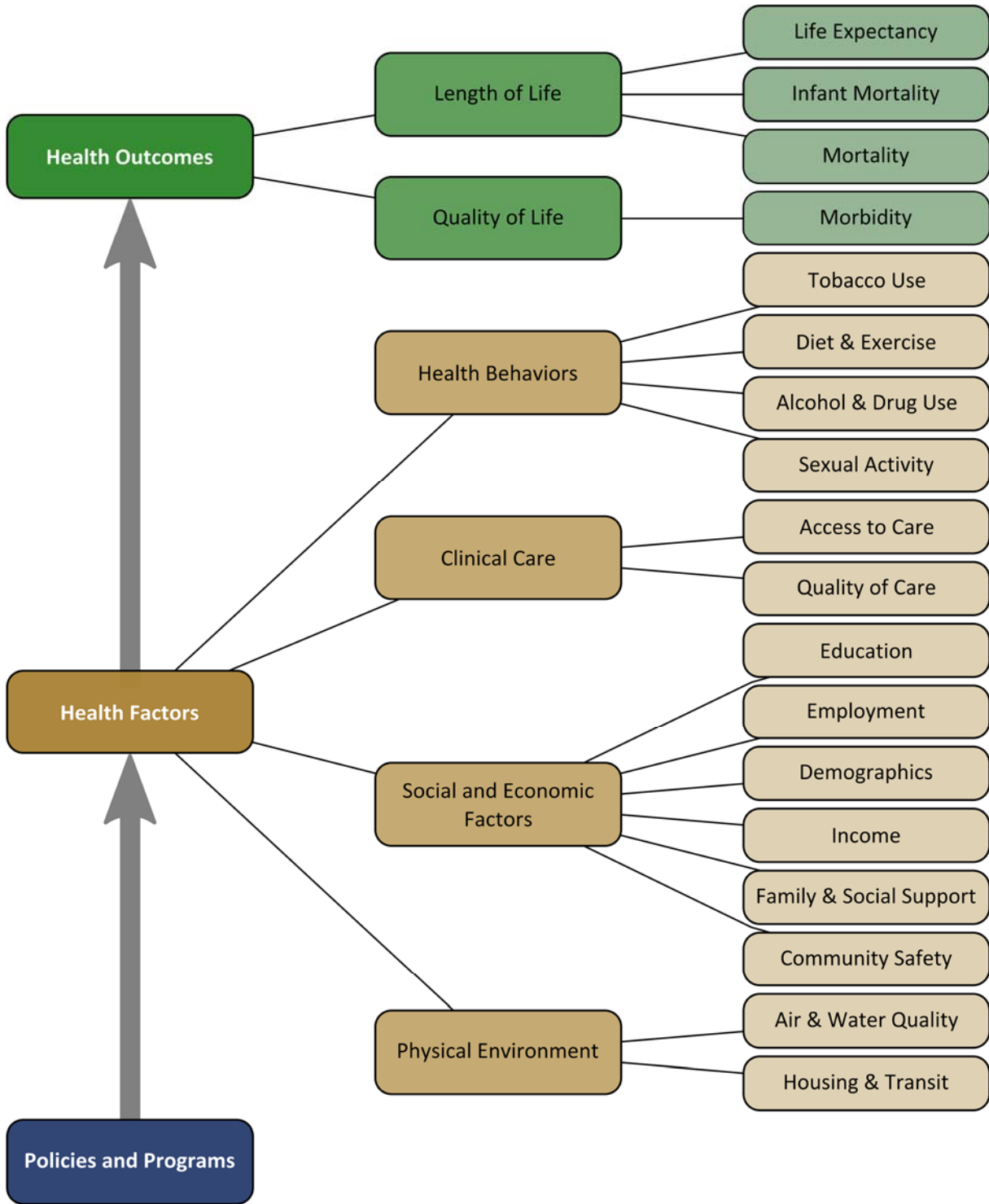


Figure 8: Community Health Assessment Conceptual Model as modified from the County Health Rankings Model, Robert Wood Johnson Foundation, and University of Wisconsin, 2015.

This model was used to guide the selection of secondary indicators in this analysis as well as to express in general how these upstream health factors lead to the downstream health outcomes. It also suggests

that poor health outcomes within the service area can be improved through policies and programs that address the health factors contributing to them. This conceptual model is a slightly modified version of the County Health Rankings Model used by the Robert Wood Johnson Foundation. It was primarily altered by adding a “Demographics” category to the “Social and Economic Factors” in recognition of the influence of demographic characteristics on health outcomes.

To generate the list of secondary indicators used in the assessment, each conceptual model category was reviewed to identify potential indicators that could be used to fully represent the category. The results of this discussion were then used to guide secondary data collection.

### *Process Model*

Figure 9 outlines the data collection and analysis stages of this process. The project began by confirming the service area for Siskiyou County for which the CHNA would be conducted. Primary data collection included key informant interviews and focus-groups with community health experts and residents. Initial key informant interviews were used to identify Communities of Concern which are areas or population subgroups within the county experiencing health disparities.

Overall primary and secondary data were integrated to identify significant health needs for the county. Significant health needs were then prioritized based on analysis of the primary data. Finally, information was collected regarding the resources available within the community to meet the identified health needs. An evaluation of the impact of the hospital’s prior efforts was obtained from hospital representatives and any written comments on the previous CHNA were gathered and included in the report.

Greater detail on the collection and processing of the secondary and primary data is given in the next two sections. This is followed by a more detailed description of the methodology utilized during the main analytical stages of the process.

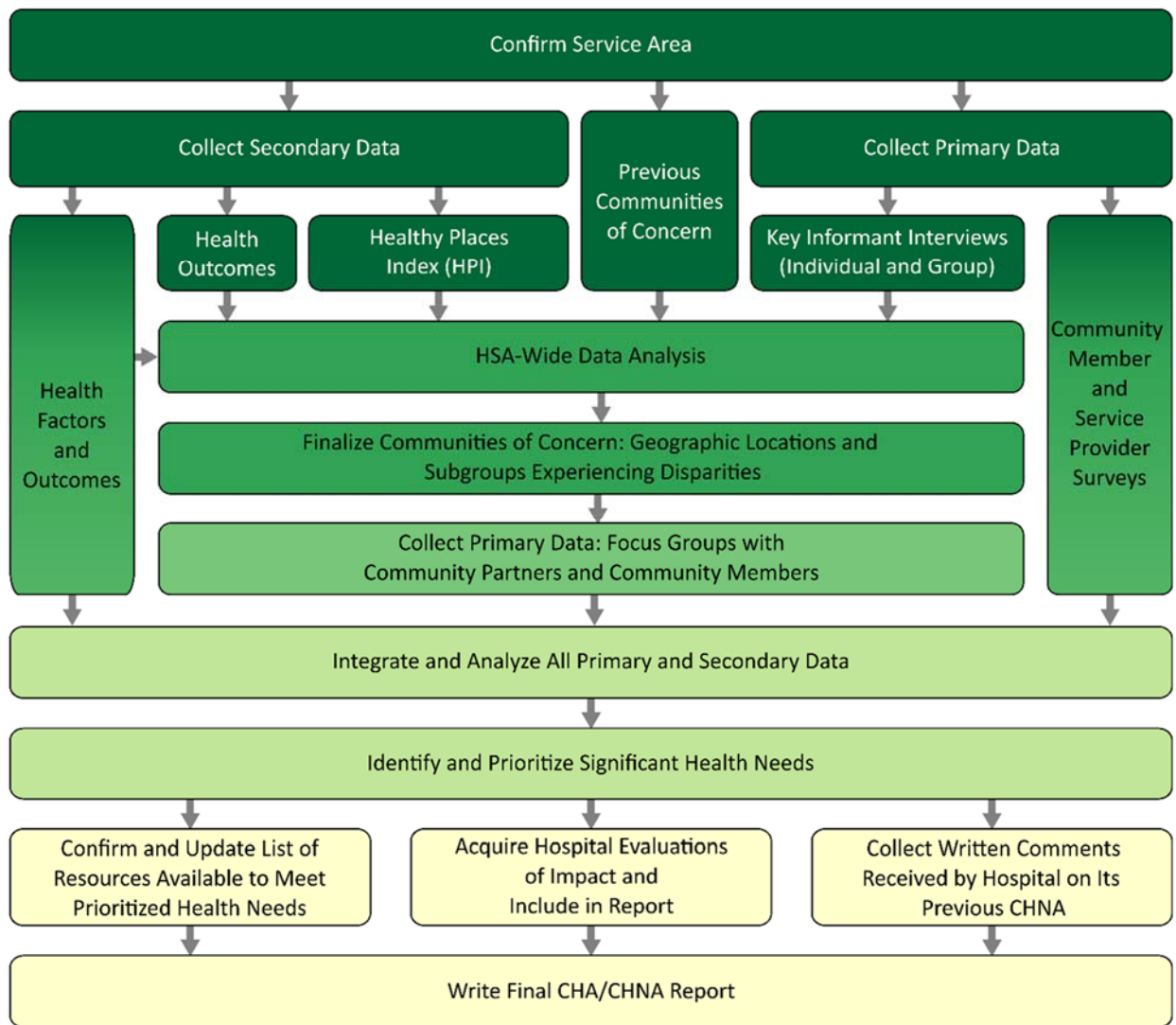


Figure 9: CHNA process model for Siskiyou County.

## Primary Data Collection and Processing

### Primary Data Collection

Input from the community served by Siskiyou County was collected through three main mechanisms. First, key informant interviews were conducted with community health experts and area service providers (i.e., members of social service nonprofit organizations and related healthcare organizations). These interviews occurred in both one-on-one and in group interview settings. Second, focus group interviews were conducted with community residents that were identified as populations experiencing disparities. Third, five area service providers completed a service provider survey which were integrated in the primary results.

For interviews, all participants were given an informed consent form prior to their participation, which provided information about the project, asked for permission to record the interview, and listed the



potential benefits and risks for involvement in the interview. All interview data were collected through note taking and, in some instances, recording.

### *Key Informant Results*

Primary data collection with key informants included two phases. First, phase one began by interviewing area-wide service providers with knowledge of the service area, including input from the designated Public Health Department. Data from these area-wide informants, coupled with socio-demographic data, was used to identify additional key informants for the assessment that were included in phase two.

As a part of the interview process, all key informants were asked to identify vulnerable populations. The interviewer asked each participant to verbally explain what vulnerable populations existed in the county. As needed for a visual aid, key informants were provided a map of the county to directly point to the geographic locations of these vulnerable communities. Additional key informant interviews were focused on the geographic locations and/or subgroups identified in the earlier phase.

Table 16 contains a listing of community health experts, or key informants, that contributed input to the CHNA. The table describes the name of the represented organization, the number of participants and area of expertise, the populations served by the organization, and the date of the interview.

*Table 16: Key Informant List for Siskiyou County.*

<b>Organization</b>	<b>Date</b>	<b>Number of Participants</b>	<b>Area of Expertise</b>	<b>Populations Served</b>
Fairchild Medical Clinic and Fairchild Medical Center	10/08/2021	5	Healthcare system	Residents of Siskiyou County
Siskiyou County Health & Human Services Agency and Public Health	10/12/2021	2	Public Health, social services, behavioral health	Residents of Siskiyou County
Siskiyou County Office of Education	10/13/2021	2	Education	School age youth
Mountain Valleys Health Centers	10/20/2021	2	Federally Qualified Health Centers; healthcare, prevention, behavioral health	Rural communities; low income
Mercy Medical Center Mt. Shasta	11/08/2021	1	Acute care hospital	Residents of Siskiyou County
Hmong Community Activist in Siskiyou County	01/07/2022	1	Hmong	Hmong residents of Siskiyou County
Northern CA Indian Development Council Inc.	12/01/2021	1	Native American Health	Native Community of Siskiyou County

First 5 Siskiyou	01/19/2022	1	Children 0-5; parents of children 0-17	
Tiny Mighty Strong	01/24/2022	1	Rural youth ages 2 - 18 of Tulelake	

*Key Informant Interview Guide*

The following questions served as the interview guides for key informant interviews.

2022 CHNA Group/Key Informant Interview Protocol

- 1. BACKGROUND
  - a. Please tell me about your current role and the organization you work for?
    - i. Probe for:
      - 1. Public health (division or unit)
      - 2. Hospital health system
      - 3. Local non-profit
      - 4. Community member
  - b. How would you define the community (ies) you or your organization serves?
    - i. Probe for:
      - 1. Specific geographic areas?
      - 2. Specific populations served?
      - 3. Who? Where? Racial/ethnic make-up, physical environment (urban/rural, large/small)
- 2. CHARACTERISTICS OF A HEALTHY COMMUNITY
  - a. In your view, what does a healthy community look like?
    - i. Probe for:
      - 1. Social factors
      - 2. Economic factors
      - 3. Clinical care
      - 4. Physical/built environment (food environment, green spaces)
      - 5. Neighborhood safety
- 3. HEALTH ISSUES
  - a. What would you say are the biggest health needs in the community?
    - i. Probe for:
      - 1. How has the presence of COVID-19 impacted these health needs?
  - b. INSERT MAP exercise: Please use the map provided to help our team understand where communities that experience the greatest health disparities live?
    - i. Probe for:
      - 1. What specific geographic locations struggle with health issues the most?
      - 2. What specific groups of community members experience health issues the most?
- 4. CHALLENGES/BARRIERS
  - a. Looking through the lens of equity, what are the challenges (barriers or drivers) to being healthy for the community as a whole?
    - i. Do these inequities exist among certain population groups?
    - ii. Probe for:

1. Health Behaviors (maladaptive, coping)
  2. Social factors (social connections, family connectedness, relationship with law enforcement)
  3. Economic factors (income, access to jobs, affordable housing, affordable food)
  4. Clinical Care factors (access to primary care, secondary care, quality of care)
  5. Physical (Built) environment (safe and healthy housing, walkable communities, safe parks)
5. SOLUTIONS
- a. What solutions are needed to address the health needs and or challenges mentioned?
    - i. Probe for:
      1. Policies
      2. Care coordination
      3. Access to care
      4. Environmental change
6. PRIORITY
- a. Which would you say are currently the most important or urgent health issues or challenges to address (at least 3 to 5) in order to improve the health of the community?
7. RESOURCES
- a. What resources exist in the community to help people live healthy lives?
    - i. Probe for:
      1. Barriers to accessing these resources.
      2. New resources that have been created since 2019
      3. New partnerships/projects/funding
8. PARTICIPANT DRIVEN SAMPLING:
- a. What other people, groups or organizations would you recommend we speak to about the health of the community?
    - i. Name 3 types of service providers that you would suggest we include in this work?
    - ii. Name 3 types of community members that you would recommend we speak to in this work?
9. OPEN: Is there anything else you would like to share with our team about the health of the community?

### *Focus Group Results*

Focus group interviews were conducted with community members or service providers living or working in geographic areas of the service area identified as locations or populations experiencing a disparate amount of poor socioeconomic conditions and poor health outcomes. Recruitment consisted of referrals from designated service providers representing vulnerable populations, as well as direct outreach to special population groups.

Table 17 contains a listing of community resident groups that contributed input to the CHNA. The table describes the hosting organization of the focus group, the date it occurred, the total number of participants, and population represented for focus group members.

Table 17: Focus Group List for Siskiyou County.

Hosting Organization	Date	Number of Participants	Populations Represented
Tulelake Family Resource Center; Modoc County Public Health	01/12/2022	3	Latino, low-income, farmworkers
Happy Camp Community Action, Inc.; Happy Camp Ambulance	01/13/2022	6	Native Americans; White low-income

### Focus Group Interview Guide

The following questions served as the interview guides for focus group interviews.

#### 2022 CHNA Focus Group Interview Protocol

1. Let’s start by introducing ourselves. Please tell us your name, the town you live in, and one thing that you are proud of about your community.
2. We would like to hear about the community where you live. Tell us in a few words what you think of as “your community”. What it is like to live in your community?
3. What do you think that a “healthy environment” is?
4. When thinking about your community based on the healthy environment you just described, what are the biggest health needs in your community?
5. Are needs more prevalent in a certain geographic area, or within a certain group of the community?
6. How has the presence of COVID-19 impacted these health needs?
7. What are the challenges or barriers to being healthy in your community?
8. What are some solutions that can help solve the barriers and challenges you talked about?
9. Based on what we have discussed so far, what are currently the most important or urgent top 3 health issues or challenges to address to improve the health of the community?
10. Are these needs that have recently come up or have they been around for a long time?
11. What are resources that exist in the community that help your community live healthy lives and address the health issues and inequity we have discussed?
12. Is there anything else you would like to share with our team about the health of the community?

#### Community Service Provider Survey

A web-based survey was administered to community service providers (CSP) who delivered health and social services to community residents of the county. A list of CSPs affiliated with the nonprofit hospitals included in this report as our initial sampling frame and sent an email recruitment message to these CSPs detailing the survey aims and inviting them to participate. A snowball sampling technique was used, encouraging participants to forward the recruitment message to other CSPs in their networks. The survey was designed using Qualtrics, an online survey platform, and was available for approximately two weeks. Five respondents completed the survey. Survey respondents were also given the opportunity to be acknowledged for their participation in the report and four organizations are listed as follows:

Quartz Valley Indian Reservation / Anav Tribal Health Clinic, Shasta Cascade Health Centers, McCloud Healthcare Clinics Inc, Siskiyou Food Assistance

After providing socio-demographic information including the county they served and their affiliated organization(s), survey respondents were shown a list of 12 potential health needs and asked to identify which were unmet health needs in their community. In order to reduce any confusion or ambiguity that could introduce bias, participants could scroll over each health need for a definition. Respondents were then asked to select which of the needs they identified as unmet in their community were the priority to address (up to three health needs). Upon selection of these priority unmet health needs, respondents were asked about the characteristics of each as it is expressed in their community. Depending upon the specific health need, respondents were shown a list of between 7-12 characteristics and could select all that apply. Respondents were also offered the opportunity to provide additional information about the health need in their community if it was not provided as a response option. Finally, we included a set of questions about how the COVID-19 pandemic impacted the health needs of the community.

When the survey period was over, incomplete, and duplicate responses were removed from the dataset and the survey responses were double-checked for accuracy. Descriptive statistics and frequencies were run to summarize the health needs. Given the small sample size of five participants for Siskiyou County, each survey entry was coded using the same analytical process as key informant interview and focus groups.

## **Countywide Health Survey Results**

A countywide health survey was distributed from November 8<sup>th</sup> to December 28<sup>th</sup>, 2021. The survey was a revised version of the 2019 community health survey which included questions related to both the perceived health of the community as well as personal health and access to care. The survey was developed and revised in partnership with community organizations, including Fairchild Medical Center and Mercy Medical Center Mt Shasta. When revising the questions for the 2021 survey, questions were removed which did not produce actionable data in the original survey cycle, and questions/ answer options were added to attempt to capture the impacts of the COVID-19 pandemic. The intent of the survey is to help inform actions of community organizations over the next three years based on the Siskiyou County residents' perception of health, available resources, and health related factors. In combination with other data collected through the Community Health Assessment process, this survey provides valuable insight and information.

The community health survey was distributed primarily via social media and integration into organizational website through electronic submission link due to the COVID-19 pandemic. Our target sample size was 381 responses (5% margin of error with a 95% confidence level at 44,000 population size). There were a total of 427 responses. A special thank you to everyone who participated in the survey- we appreciate your time and input. The complete survey is contained in Appendix B. The figure below displays the racial/ethnic profile of the survey respondents in comparison to census counts for the county.

### ***Primary Data Processing***

Key informant, focus group, and service provider survey data were analyzed using qualitative analytic software. Content analysis included thematic coding to potential health need categories, the identification of special populations experiencing health issues, and the identification of resources. In some instances, data were coded in accordance with the interview question guide. Results were aggregated to inform the determination of prioritized significant health needs.

## Secondary Data Collection and Processing

Use “secondary data” to refer to those quantitative variables used in this analysis that were obtained from third party sources. Secondary data were used to 1) inform the identification of Communities of Concern, 2) support the identification of health needs within the Siskiyou County. This section details the data sources and processing steps used to obtain the secondary data used in each of these steps and prepare them for analysis.

### *Community of Concern Identification Datasets*

Two main secondary data sources were used in the identification of Communities of Concern: California Healthy Places Index (HPI),<sup>13</sup> derived from health factor indicators available at the US Census tract level, and mortality data from the California Department of Public Health (CDPH),<sup>14</sup> health outcome indicators available at the ZIP Code level. The CDPH mortality data reports the number of deaths that occurred in each ZIP Code from 2015-2019 due to each of the causes listed in Table 18.

*Table 18: Mortality indicators used in Community of Concern Identification.*

<b>Cause of Death</b>	<b>ICD 10 Codes</b>
Alzheimer's disease	G30
Malignant neoplasms (cancers)	C00-C97
Chronic lower respiratory disease (CLRD)	J40-J47
Diabetes mellitus	E10-E14
Diseases of heart	I00-I09, I11, I13, I20-I51
Essential hypertension and hypertensive renal disease	I10, I12, I15
Accidents (unintentional injuries)	V01-X59, Y85-Y86
Chronic liver disease and cirrhosis	K70, K73-K74
Nephritis, nephrotic syndrome, and nephrosis	N00-N07, N17-N19, N25-N27
Pneumonia and influenza	J09-J18
Cerebrovascular disease (stroke)	I60-I69
Intentional self-harm (suicide)	*U03, X60-X84, Y87.0

While the HPI dataset was used as-is, additional processing was required to prepare the mortality data for analysis. This included two main steps. First, ZIP Codes associated with PO Boxes needed to be merged with the larger ZIP Codes in which they were located. Once this was completed, smoothed mortality rates were calculated for each resulting ZIP Code.

### *ZIP Code Consolidation*

The mortality indicators used here included deaths reported for the ZIP Code at the decedent’s place of residence. ZIP Codes are defined by the U.S. Postal Service as a single location (such as a PO Box), or a set of roads along which addresses are located. The roads that comprise such a ZIP Code may not form contiguous areas and do not match the areas used by the U.S. Census Bureau (the main source of

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<sup>13</sup> Public Health Alliance of Southern California. 2021. HPI\_MasterFile\_2021-04-22.zip. Data file. Retrieved 1 May 2021 from [https://healthyplacesindex.org/wp-content/uploads/2021/04/HPI\\_MasterFile\\_2021-04-22.zip](https://healthyplacesindex.org/wp-content/uploads/2021/04/HPI_MasterFile_2021-04-22.zip).

<sup>14</sup> State of California, Department of Public Health. 2021. California Comprehensive Master Death File (Static), 2015-2019.

population and demographic data in the United States) to report population. Instead of measuring the population along a collection of roads, the census reports population figures for distinct, largely contiguous areas. To support the analysis of ZIP Code data, the U.S. Census Bureau created ZIP Code Tabulation Areas (ZCTAs). ZCTAs are created by identifying the dominant ZIP Code for addresses in a given Census block (the smallest unit of census data available), and then grouping blocks with the same dominant ZIP Code into a corresponding ZCTA. The creation of ZCTAs allows us to identify population figures that make it possible to calculate mortality rates for each ZCTA. However, the difference in the definition between mailing ZIP Codes and ZCTAs has two important implications for analyses of ZIP Code level data.

First, ZCTAs are approximate representations of ZIP Codes rather than exact matches. While this is not ideal, it is nevertheless the nature of the data being analyzed. Second, not all ZIP Codes have corresponding ZCTAs. Some PO Box ZIP Codes or other unique ZIP Codes (such as a ZIP Code assigned to a single facility) may not have enough addressees residing in a given census block to ever result in the creation of a corresponding ZCTA. But residents whose mailing addresses are associated with these ZIP Codes will still show up in reported health-outcome data. This means that rates cannot be calculated for these ZIP Codes individually because there are no matching ZCTA population figures.

To incorporate these patients into the analysis, the point location (latitude and longitude) of all ZIP Codes in California<sup>15</sup> were compared to ZCTA boundaries.<sup>16</sup> These unique ZIP Codes were then assigned to either the ZCTA in which they fell or, in the case of rural areas that are not completely covered by ZCTAs, the ZCTA closest to them. The CDPH information associated with these PO Boxes or unique ZIP Codes were then added to the ZCTAs to which they were assigned.

### *Rate Calculation and Smoothing*

The next step in the analysis process was to calculate rates for each of these indicators. However, rather than calculating raw rates, empirical bayes smoothed rates (EBRs) were created for all indicators possible.<sup>17</sup> Smoothed rates are considered preferable to raw rates for two main reasons. First, the small population of many ZCTAs meant that the rates calculated for these areas would be unstable. This problem is sometimes referred to as the small-number problem. Empirical bayes smoothing seeks to address this issue by adjusting the calculated rate for areas with small populations so that they more closely resemble the mean rate for the entire study area. The amount of this adjustment is greater in areas with smaller populations, and less in areas with larger populations.

Because the EBR were created for all ZCTAs in the state, ZCTAs with small populations that may have unstable high rates had their rates “shrunk” to match the overall indicator rate more closely for ZCTAs in the entire state. This adjustment can be substantial for ZCTAs with very small populations. The difference between raw rates and EBRs in ZCTAs with very large populations, on the other hand, is negligible. In this way, the stable rates in large-population ZIP Codes are preserved, and the unstable rates in smaller-population ZIP Codes are shrunk to match the state norm more closely. While this may not entirely resolve the small-number problem in all cases, it does make the comparison of the resulting

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<sup>15</sup> Datasheer, L.L.C. 2018. ZIP Code Database Free. Retrieved 16 Jul 2018 from <http://www.Zip-Codes.com>.

<sup>16</sup> US Census Bureau. 2021. TIGER/Line Shapefile, 2019, 2010 nation, U.S., 2010 Census 5-Digit ZIP Code Tabulation Area (ZCTA5) National. Retrieved 9 Feb 2021 from <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.

<sup>17</sup> Anselin, Luc. 2003. Rate Maps and Smoothing. Retrieved 14 Jan 2018 from [http://www.dpi.inpe.br/gilberto/tutorials/software/geoda/tutorials/w6\\_rates\\_slides.pdf](http://www.dpi.inpe.br/gilberto/tutorials/software/geoda/tutorials/w6_rates_slides.pdf)

rates more appropriate. Because the rate for each ZCTA is adjusted to some degree by the EBR process, this also has a secondary benefit of better preserving the privacy of patients within the ZCTAs.

EBRs were calculated for each mortality indicator using the total population figure reported for ZCTAs in the 2017 American Community Survey 5-year Estimates table B03002. Data for 2017 were used because this represented the central year of the 2015–2019 range of years for which CDPH data were collected. The population data for 2017 were multiplied by five to match the five years of mortality data used to calculate smoothed rates. The smoothed mortality rates were then multiplied by 100,000 so that the final rates represented deaths per 100,000 people.

### ***Significant Health Need Identification Dataset***

The second main set of data used in the CHNA includes the health factor and health outcome indicators used to identify significant health needs. The selection of these indicators was guided by the previously identified conceptual model. Table 19 lists these indicators, their sources, the years they were measured, and the health-related characteristics from the conceptual model they are primarily used to represent.

*Table 19: Health factor and health outcome indicators used in health need identification.*

<b>Conceptual Model Alignment</b>		<b>Indicator</b>	<b>Data Source</b>	<b>Time Period</b>	
Health Outcomes	Length of Life	Infant Mortality	County Health Rankings	2013 - 2019	
		Life Expectancy	Child Mortality	County Health Rankings	2016 - 2019
			Life Expectancy	County Health Rankings	2017 - 2019
			Premature Age-Adjusted Mortality	County Health Rankings	2017 - 2019
			Premature Death	County Health Rankings	2017 - 2019
			Stroke Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Chronic Lower Respiratory Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Diabetes Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Heart Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Hypertension Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Cancer Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019



			Liver Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Kidney Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Suicide Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Unintentional Injuries Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			COVID-19 Mortality	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2022-01-31
			COVID-19 Case Fatality	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2022-01-31
			Alzheimer's Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Influenza and Pneumonia Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
	Quality of Life	Morbidity	Diabetes Prevalence	County Health Rankings	2017
			Low Birthweight	County Health Rankings	2013 - 2019
			HIV Prevalence	County Health Rankings	2018
			Disability	2019 American Community Survey 5 year estimate variable S1810_C03_001E	2015 - 2019
			Poor Mental Health Days	County Health Rankings	2018
			Frequent Mental Distress	County Health Rankings	2018
			Poor Physical Health Days	County Health Rankings	2018
			Frequent Physical Distress	County Health Rankings	2018
			Poor or Fair Health	County Health Rankings	2018
			Colorectal Cancer Prevalence	California Cancer Registry	2013 - 2017
			Breast Cancer Prevalence	California Cancer Registry	2013 - 2017

			Lung Cancer Prevalence	California Cancer Registry	2013 - 2017
			Prostate Cancer Prevalence	California Cancer Registry	2013 - 2017
			COVID-19 Cumulative Incidence	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2022-01-31
			Asthma ED Rates	Tracking California	2018
			Asthma ED Rates for Children	Tracking California	2018
Health Factors	Health Behavior	Alcohol and Drug Use	Excessive Drinking	County Health Rankings	2018
			Drug Induced Death	CDPH 2021 County Health Status Profiles	2017 - 2019
		Diet and Exercise	Adult Obesity	County Health Rankings	2017
			Physical Inactivity	County Health Rankings	2017
			Limited Access to Healthy Foods	County Health Rankings	2015
			Food Environment Index	County Health Rankings	2015 & 2018
			Access to Exercise Opportunities	County Health Rankings	2010 & 2019
		Sexual Activity	Chlamydia Incidence	County Health Rankings	2018
			Teen Birth Rate	County Health Rankings	2013 - 2019
		Tobacco Use	Adult Smoking	County Health Rankings	2018
	Clinical Care	Access to Care	Primary Care Shortage Area	U.S. Health Resources and Services Administration	2021
			Dental Care Shortage Area	U.S. Health Resources and Services Administration	2021
			Mental Health Care Shortage Area	U.S. Health Resources and Services Administration	2021

			Medically Underserved Area	U.S. Health Resources and Services Administration	2021
			Mammography Screening	County Health Rankings	2018
			Dentists	County Health Rankings	2019
			Mental Health Providers	County Health Rankings	2020
			Psychiatry Providers	County Health Rankings	2020
			Specialty Care Providers	County Health Rankings	2020
			Primary Care Providers	County Health Rankings	2018; 2020
		Quality Care	Preventable Hospitalization	California Office of Statewide Health Planning and Development Prevention Quality Indicators for California	2019
			COVID-19 Cumulative Full Vaccination Rate	CDPH COVID-19 Vaccine Progress Dashboard Data	Collected on 2022-01-31
Socio-Economic and Demographic Factors	Community Safety		Homicide Rate	County Health Rankings	2013 - 2019
			Firearm Fatalities Rate	County Health Rankings	2015 - 2019
			Violent Crime Rate	County Health Rankings	2014 & 2016
			Juvenile Arrest Rate	Criminal Justice Data: Arrests, OpenJustice, California Department of Justice	2015 - 2019
			Motor Vehicle Crash Death	County Health Rankings	2013 - 2019
	Education		Some College	County Health Rankings	2015 - 2019
			High School Completion	County Health Rankings	2015 - 2019
			Disconnected Youth	County Health Rankings	2015 - 2019

			Third Grade Reading Level	County Health Rankings	2018	
			Third Grade Math Level	County Health Rankings	2018	
		Employment	Unemployment	County Health Rankings	2019	
		Family and Social Support	Children in Single-Parent Households	County Health Rankings	2015 - 2019	
			Social Associations	County Health Rankings	2018	
			Residential Segregation (Non-White/White)	County Health Rankings	2015 - 2019	
		Income	Children Eligible for Free Lunch	County Health Rankings	2018 - 2019	
			Children in Poverty	County Health Rankings	2019	
			Median Household Income	County Health Rankings	2019	
			Uninsured Population under 64	County Health Rankings	2018	
			Income Inequality	County Health Rankings	2015 - 2019	
	Physical Environment	Housing and Transit	Severe Housing Problems	County Health Rankings	2013 - 2017	
				Severe Housing Cost Burden	County Health Rankings	2015 - 2019
				Homeownership	County Health Rankings	2015 - 2019
				Homelessness Rate	US Dept. of Housing and Urban Development 2020 Annual Homeless Assessment Report	2020
				Households with no Vehicle Available	2019 American Community Survey 5-year estimate variable DP04_0058PE	2015 - 2019
				Long Commute - Driving Alone	County Health Rankings	2015 - 2019
				Access to Public Transit	OpenMobilityData, Transitland,	2021; 2020

				TransitWiki.org, Santa Ynez Valley Transit; US Census Bureau	
		Air and Water Quality	Pollution Burden Percent	California Office of Environmental Health Hazard Assessment	2018
			Air Pollution - Particulate Matter	County Health Rankings	2016
			Drinking Water Violations	County Health Rankings	2019

The following sections give further details about the sources of these data and any processing applied to prepare them for use in the analysis.

### *County Health Rankings Data*

All indicators listed with County Health Rankings (CHR) as their source were obtained from the 2021 County Health Rankings<sup>18</sup> dataset. This was the most common source of data, with 52 associated indicators included in the analysis. Indicators were collected at both the county and state levels. County-level indicators were used to represent the health factors and health outcomes in the service area. State-level indicators were collected to be used as benchmarks for comparison purposes. All variables included in the CHR dataset were obtained from other data providers. The original data providers for each CHR variable are given in Table 20.

*Table 20: Sources and time periods for indicators obtained from County Health Rankings.*

<b>CHR Indicator</b>	<b>Time Period</b>	<b>Data Source</b>
Infant Mortality	2013 - 2019	National Center for Health Statistics - Mortality Files
Child Mortality	2016 - 2019	National Center for Health Statistics - Mortality Files
Life Expectancy	2017 - 2019	National Center for Health Statistics - Mortality Files
Premature Age-Adjusted Mortality	2017 - 2019	National Center for Health Statistics - Mortality Files
Premature Death	2017 - 2019	National Center for Health Statistics - Mortality Files
Diabetes Prevalence	2017	United States Diabetes Surveillance System
Low Birthweight	2013 - 2019	National Center for Health Statistics - Natality files

<sup>18</sup> University of Wisconsin Population Health Institute. 2021. County Health Rankings State Report 2021. Retrieved 6 May 2021 from <https://www.countyhealthrankings.org/app/oregon/2021/downloads> and <https://www.countyhealthrankings.org/app/california/2021/downloads>.

HIV Prevalence	2018	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Poor Mental Health Days	2018	Behavioral Risk Factor Surveillance System
Frequent Mental Distress	2018	Behavioral Risk Factor Surveillance System
Poor Physical Health Days	2018	Behavioral Risk Factor Surveillance System
Frequent Physical Distress	2018	Behavioral Risk Factor Surveillance System
Poor or Fair Health	2018	Behavioral Risk Factor Surveillance System
Excessive Drinking	2018	Behavioral Risk Factor Surveillance System
Adult Obesity	2017	United States Diabetes Surveillance System
Physical Inactivity	2017	United States Diabetes Surveillance System
Limited Access to Healthy Foods	2015	USDA Food Environment Atlas
Food Environment Index	2015 & 2018	USDA Food Environment Atlas, Map the Meal Gap from Feeding America
Access to Exercise Opportunities	2010 & 2019	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files
Chlamydia Incidence	2018	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Teen Birth Rate	2013 - 2019	National Center for Health Statistics - Natality files
Adult Smoking	2018	Behavioral Risk Factor Surveillance System
Mammography Screening	2018	Mapping Medicare Disparities Tool
Dentists	2019	Area Health Resource File/National Provider Identification file
Mental Health Providers	2020	CMS, National Provider Identification
Psychiatry Providers	2020	Area Health Resource File
Specialty Care Providers	2020	Area Health Resource File
Primary Care Providers	2018; 2020	Area Health Resource File/American Medical Association; CMS, National Provider Identification
Homicide Rate	2013 - 2019	National Center for Health Statistics - Mortality Files
Firearm Fatalities Rate	2015 - 2019	National Center for Health Statistics - Mortality Files
Violent Crime Rate	2014 & 2016	Uniform Crime Reporting - FBI
Motor Vehicle Crash Death	2013 - 2019	National Center for Health Statistics - Mortality Files
Some College	2015 - 2019	American Community Survey, 5-year estimates
High School Completion	2015 - 2019	American Community Survey, 5-year estimates
Disconnected Youth	2015 - 2019	American Community Survey, 5-year estimates
Third Grade Reading Level	2018	Stanford Education Data Archive
Third Grade Math Level	2018	Stanford Education Data Archive
Unemployment	2019	Bureau of Labor Statistics

Children in Single-Parent Households	2015 - 2019	American Community Survey, 5-year estimates
Social Associations	2018	County Business Patterns
Residential Segregation (Non-White/White)	2015 - 2019	American Community Survey, 5-year estimates
Children Eligible for Free Lunch	2018 - 2019	National Center for Education Statistics
Children in Poverty	2019	Small Area Income and Poverty Estimates
Median Household Income	2019	Small Area Income and Poverty Estimates
Uninsured Population under 64	2018	Small Area Health Insurance Estimates
Income Inequality	2015 - 2019	American Community Survey, 5-year estimates
Severe Housing Problems	2013 - 2017	Comprehensive Housing Affordability Strategy (CHAS) data
Severe Housing Cost Burden	2015 - 2019	American Community Survey, 5-year estimates
Homeownership	2015 - 2019	American Community Survey, 5-year estimates
Long Commute - Driving Alone	2015 - 2019	American Community Survey, 5-year estimates
Air Pollution - Particulate Matter	2016	Environmental Public Health Tracking Network
Drinking Water Violations	2019	Safe Drinking Water Information System

The provider rates for the primary care physicians and other primary care providers indicators obtained from CHR were summed to create the final primary care provider indicator used in this analysis.

*California Department of Public Health*

*By-Cause Mortality Data*

By-cause mortality data were obtained at the county and state level from the CDPH Cal-ViDa<sup>19</sup> online data query system for the years 2015-2019. Empirically bayes smoothed rates (EBRs) were calculated for each mortality indicator using the total county population figure reported in the 2017 American Community Survey 5-year Estimates table B03002. Data for 2017 were used because this represented the central year of the 2015–2019 range of years for which CDPH data were collected. The population data for 2017 were multiplied by five to match the five years of mortality data used to calculate smoothed rates. The smoothed mortality rates were then multiplied by 100,000 so that the final rates represented deaths per 100,000 people.

CDPH masks the actual number of deaths that occur in a county for a given year and cause if there are between 1 and 10 total deaths recorded. Because of this, the following process was used to estimate the total number of deaths for counties whose actual values were masked. First, mortality rates for each

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<sup>19</sup> State of California, Department of Public Health. 2021. California Vital Data (Cal-ViDa), Death Query. Retrieved 1 Jun 2021 from <https://cal-vida.cdph.ca.gov/>.

cause and year were calculated for the state. The differences between the by-cause mortality for the state and the total by-cause mortality reported across all counties in the state for each cause and year were also calculated.

Next, we applied the state by-cause mortality rate for each cause and year to estimate mortality at the county level if the reported value was masked. This was done by multiplying the cause/year appropriate state-level mortality rate by the 2017 populations of counties with masked values. Resulting estimates that were less than 1 or greater than 10 were set to 1 and 10 respectively to match the known CDPH masking criteria.

The total number of deaths estimated for counties that had masked values for each year/cause was then compared to the difference between the reported total county and state deaths for the corresponding year/cause. If the number of estimated county deaths exceeded this difference, county estimates were further adjusted. This was done by iteratively ranking county estimates for a given year/cause, then from highest to lowest, reducing the estimates by 1 until they reached a minimum of 1 death. This continued until the estimated deaths for counties with masked values equaled the difference between the state and total reported county values.

### *COVID-19 Data*

Data on the cumulative number of cases and deaths<sup>20</sup> and completed vaccinations<sup>21</sup> for COVID-19 were used to calculate mortality, case-fatality, incidence, and vaccination rates. County mortality, incidence, and vaccination rates were calculated by dividing each of the respective values by the total population variable from the 2019 American Community Survey 5-year estimates table B01001, and then multiplying the resulting value by 100,000 to create rates per 100,000. Case-fatality rates were calculated by dividing COVID-19 mortality by the total number of cases, then multiplying by 100, representing the percentage of cases that ended in death.

### *Drug-Induced Deaths Data*

Drug-induced death rates were obtained from Table 19 of the 2021 County Health Status Profiles<sup>22</sup> and report age-adjusted deaths per 100,000.

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<sup>20</sup> State of California, Department of Public Health. 2021. Statewide COVID-19 Cases Deaths Tests. Retrieved January 31 2022 from [https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/046cdd2b-31e5-4d34-9ed3-b48cdbc4be7a/download/covid19cases\\_test.csv](https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/046cdd2b-31e5-4d34-9ed3-b48cdbc4be7a/download/covid19cases_test.csv).

<sup>21</sup> State of California, Department of Public Health. 2021. COVID-19 Vaccine Progress Dashboard Data . Retrieved January 31 2022 from <https://data.chhs.ca.gov/dataset/e283ee5a-cf18-4f20-a92c-ee94a2866ccd/resource/130d7ba2-b6eb-438d-a412-741bde207e1c/download/covid19vaccinesbycounty.csv>.

<sup>22</sup> State of California, Department of Public Health, Vital Records Data and Statistics. 2021. County Health Status Profiles 2021: CHSP 2021 Tables 1-29. Spreadsheet. Retrieved 21 Jul 2021 from [https://www.cdph.ca.gov/Programs/CHSI/CDPH%20Document%20Library/CHSP\\_2021\\_Tables\\_1-29\\_04.16.2021.xlsx](https://www.cdph.ca.gov/Programs/CHSI/CDPH%20Document%20Library/CHSP_2021_Tables_1-29_04.16.2021.xlsx).



## *U.S. Health Resources and Services Administration*

Indicators related to the availability of healthcare providers were obtained from the Health Resources and Services Administration<sup>23</sup> (HRSA). These included Dental, Mental Health, and Primary Care Health Professional Shortage Areas and Medically Underserved Areas/Populations. They also included the number of specialty care providers and psychiatrists per 100,000 residents, derived from the county-level Area Health Resource Files.

### *Health Professional Shortage Areas*

The health professional shortage area and medically underserved area data were not provided at the county level. Rather, they show all areas in the state that were designated as shortage areas. These areas could include a portion of a county or an entire county, or they could span multiple counties. To develop measures at the county level to match the other health-factor and health-outcome indicators used in health need identification, these shortage areas were compared to the boundaries of each county in the state. Counties that were partially or entirely covered by a shortage area were noted.

### *Psychiatry and Specialty Care Providers*

The HRSA's Area Health Resource Files provide information on physicians and allied healthcare providers for U.S. counties. This information was used to determine the rate of specialty care providers and the rate of psychiatrists for each county and for the state. For the purposes of this analysis, a specialty care provider was defined as a physician who was not defined by the HRSA as a primary care provider. This was found by subtracting the total number of primary care physicians (both MDs and DOs, primary care, patient care, and non-federal, excluding hospital residents and those 75 years of age or older) from the total number of physicians (both MDs and DOs, patient care, non-federal) in 2018. This number was then divided by the 2018 total population given in the 2018 American Community Survey 5-year Estimates table B03002, and then multiplied by 100,000 to give the total number of specialty care physicians per 100,000 residents.

The total of specialty care physicians in each county was summed to find the total specialty care physicians in the state, and state rates were calculated following the same approach as used for county rates. This same process was also used to calculate the number of psychiatrists per 100,000 for each county and the state using the number of total patient care, non-federal psychiatrists from the Area Health Resource Files. It should be noted that psychiatrists are included in the list of specialty care physicians, so that indicator represents a subset of specialty care providers rather than a separate group.

### *California Cancer Registry*

Data obtained from the California Cancer Registry<sup>24</sup> includes age-adjusted incidence rates for colon and rectum, female breast, lung and bronchus, and prostate cancer sites for counties and the state. Reported rates were based on data from 2013 to 2017, and report cases per 100,000. For low-

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<sup>23</sup> US Health Resources & Services Administration. 2021. Area Health Resources Files and Shortage Areas. Retrieved on 3 Feb 2021 from <https://data.hrsa.gov/data/download>.

<sup>24</sup> California Cancer Registry. 2021. Age-Adjusted Invasive Cancer Incidence Rates in California. Retrieved on 22 Jan 2021 from <https://www.cancer-rates.info/ca/>.

population counties, rates were calculated for a group of counties rather than for individual counties. That group rate was used in this report to represent incidence rates for each individual county in the group.

### *Tracking California*

Data on emergency department visits rates for all ages as well as children aged 5 to 17 were obtained from Tracking California.<sup>25</sup> These data reported age-adjusted rates per 10,000. They were multiplied by 100 in this analysis to convert them to rates per 100,000 to make them more comparable to the standard used for other rate indicators.

### *US Census Bureau*

Data from the US Census Bureau was used for two additional indicators: the percentage of households with no vehicles available (table DPO4, variable 0058PE), and the percentage of the civilian non-institutionalized population with some disability (table S1810, variable C03\_001E). Values for both of these variables were obtained from the 2019 American Community Survey 5-year Estimates dataset.

### *California Office of Environmental Health Hazard Assessment*

Data used to calculate the pollution burden percent indicator were obtained from the CalEnviroScreen 3.0<sup>26</sup> dataset produced by the California Office of Environmental Health Hazard Assessment. This indicator reports the percentage of the population within a given county, or within the state as a whole, that live in a US Census tract with a CalEnviroScreen 3.0 Pollution Burden score in the 50th percentile or higher. Data on total population came from Table B03002 from the 2019 American Community Survey 5-year Estimates dataset.

### *California Department of Health Care Access and Information*

Data on preventable hospitalizations were obtained from the California Department of Health Care Access and Information (formerly Office of Statewide Health Planning and Development) Prevention Quality Indicators.<sup>27</sup> These data are reported as risk-adjusted rates per 100,000.

### *California Department of Justice*

Data reporting the total number of juvenile felony arrests was obtained from the California Department of Justice.<sup>28</sup> This indicator reports the rate of felony arrests per 1,000 juveniles under the age of 18. It was calculated by dividing the total number of juvenile felony arrests for each county or state from 2015

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<sup>25</sup> Tracking California, Public Health Institute. 2021. Asthma Related Emergency Department & Hospitalization data. Retrieved on 24 Jun 2021 from [www.trackingcalifornia.org/asthma/query](http://www.trackingcalifornia.org/asthma/query).

<sup>26</sup> California Office of Environmental Health Hazard Assessment. 2018. CalEnviroScreen 3.0. Retrieved on 22 Jan 2021 from <https://oehha.ca.gov/calenviroscreen/maps-data>.

<sup>27</sup> Office of Statewide Health Planning and Development. 2021. Prevention Quality Indicators (PQI) for California. Data files for Statewide and County. Retrieved 12 Mar 2021 from <https://oshpd.ca.gov/data-and-reports/healthcare-quality/ahrq-quality-indicators/>.

<sup>28</sup> California Department of Justice, OpenJustice. 2021. Criminal Justice Data: Arrests. Retrieved 17 Jun 2021 from <https://data-openjustice.doj.ca.gov/sites/default/files/dataset/2020-07/OnlineArrestData1980-2019.csv>.

- 2019 by the total population under 18 as reported in Table B01001 in the 2017 American Community Survey 5-year Estimates program. Population data from 2017 were used as this was the central year of the period over which juvenile felony arrest data were obtained. Population figures from 2017 were multiplied by 5 to match the years of arrest data used. Empirical bayes smoothed rates were calculated to increase the reliability of rates calculated for small counties. Finally, juvenile felony arrest rates were also calculated for Black, White, and Hispanic populations following the same manner, but using input population data from 2017 American Community Survey 5-year Estimates Tables B01001H, B01001B, and B01001I respectively.

### *US Department of Housing and Urban Development*

Data from the US Department of Housing and Urban Development's 2020 Annual Homeless Assessment Report<sup>29</sup> were used to calculate homelessness rates for the counties and state. This data reported point-in-time (PIT) homelessness estimates for individual Continuum of Care (CoC) organizations across the state. Each CoC works within a defined geographic area, which could be a group of counties, an individual county, or a portion of a county.

To calculate county rates, CoC were first related to county boundaries. Rates for CoC that covered single counties were calculated by dividing the CoC PIT estimate by the county population. If a given county was covered by multiple CoC, their PIT were totaled and then divided by the total county population to calculate the rate. When a single CoC covered multiple counties, the CoC PIT was divided by the total of all included county populations, and the resulting rate was applied to each individual county.

Population data came from the total population value reported in Table B03002 from the 2019 American Community Survey 5-year Estimates dataset. Derived rates were multiplied by 100,000 to report rates per 100,000.

### *Proximity to Transit Stops*

The proximity to transit stops variable reports the percent of county and state population that lives in a US Census block located within 1/4 mile of a fixed transit stop. Two sets of information were needed in order to calculate this indicator: total population at the Census block level, and the location of transit stops. Likely due to delays in data releases stemming from the COVID-19 pandemic, the most recent Census block population data available at the time of the analysis was from the 2010 Decennial Census,<sup>30</sup> so this was the data used to represent the distribution of population for this indicator.

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<sup>29</sup> US Department of Housing and Urban Development. 2021. 2020 Annual Homeless Assessment Report: 2007 - 2020 Point-in-Time Estimates by CoC. Retrieved 14 Jul 2021 from <https://www.huduser.gov/portal/sites/default/files/xls/2007-2020-PIT-Estimates-by-CoC.xlsx>.

<sup>30</sup> US Census Bureau. 2011. Census Blocks with Population and Housing Counts. Retrieved 7 Jun 2021 from <https://www2.census.gov/geo/tiger/TIGER2010BLKPOP/HU/>.

Transit stop data were identified first by using tools in the TidyTransit<sup>31</sup> library for the R statistical programming language.<sup>32</sup> This was used to identify transit providers with stops located within 100 miles of the state boundaries. A search for transit stops for these agencies, as well as all other transit agencies in the state, was conducted by reviewing three main online sources: OpenMobilityData,<sup>33</sup> Transitland,<sup>34</sup> Transitwiki.org,<sup>35</sup> and Santa Ynez Valley Transit.<sup>36</sup> Each of these websites list public transit data that have been made public by transit agencies. Transit data from all providers that could be identified were downloaded, and fixed transit stop locations were extracted from them.

The sf<sup>37</sup> library in R was then used to calculate 1/4 mile (402.336 meter) buffers around each of these transit stops, and then to identify which Census blocks fell within these areas. The total population of all tracts within the buffer of the stops was then divided by the total population of each county or state to generate the final indicator value.

## Detailed Analytical Methodology

The collected and processed primary and secondary data were integrated in three main analytical stages. First, secondary health outcome and health factor data were combined with area-wide key informant interviews help identify Communities of Concern. These Communities of Concern could potentially include geographic regions as well as specific sub-populations bearing disproportionate health burdens. This information was used to focus the remaining interview and focus-group collection efforts on those areas and subpopulations. Next, the resulting data, along with the results from the service provider survey, were combined with secondary health need identification data to identify significant health needs within the service area. Finally, primary data were used to prioritize those identified significant health needs. The specific details for these analytical steps are given in the following three sections.

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<sup>31</sup> Flavio Poletti, Daniel Herszenhut, Mark Padgham, Tom Buckley, and Danton Noriega-Goodwin. 2021. tidytransit: Read, Validate, Analyze, and Map Files in the General Transit Feed Specification. R package version 1.0.0. Retrieved 10 Sep 2021 from <https://CRAN.R-project.org/package=tidytransit>.

<sup>32</sup> R Core Team (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.

<sup>33</sup> OpenMobilityData. 2021. California, USA. Retrieved all feeds listed on 31 May to 1 June 2021 from <https://openmobilitydata.org/l/67-california-usa>.

<sup>34</sup> Transitland. 2021. Transitland Operators. Retrieved all operators with California locations on 31 May to 1 June 2021 from <https://www.transit.land/operators>.

<sup>35</sup> Transitwiki.org. 2021. List of publicly-accessible transportation data feeds: dynamic and others. Retrieved on 31 May to 1 June 2021 from [https://www.transitwiki.org/TransitWiki/index.php/Publicly-accessible\\_public\\_transportation\\_data#List\\_of\\_publicly-accessible\\_public\\_transportation\\_data\\_feeds:\\_dynamic\\_data\\_and\\_others](https://www.transitwiki.org/TransitWiki/index.php/Publicly-accessible_public_transportation_data#List_of_publicly-accessible_public_transportation_data_feeds:_dynamic_data_and_others).

<sup>36</sup> Santa Ynez Valley Transit. GTFS Files. Retrieved 1 Jun 2021 from [http://www.cityofsolvang.com/DocumentCenter/View/2756/syvt\\_gtfs\\_011921](http://www.cityofsolvang.com/DocumentCenter/View/2756/syvt_gtfs_011921).

<sup>37</sup> Pebesma, E., 2018. Simple Features for R: Standardized Support for Spatial Vector Data. The R Journal 10 (1), 439-446, <https://doi.org/10.32614/RJ-2018-009>.

### Community of Concern Identification

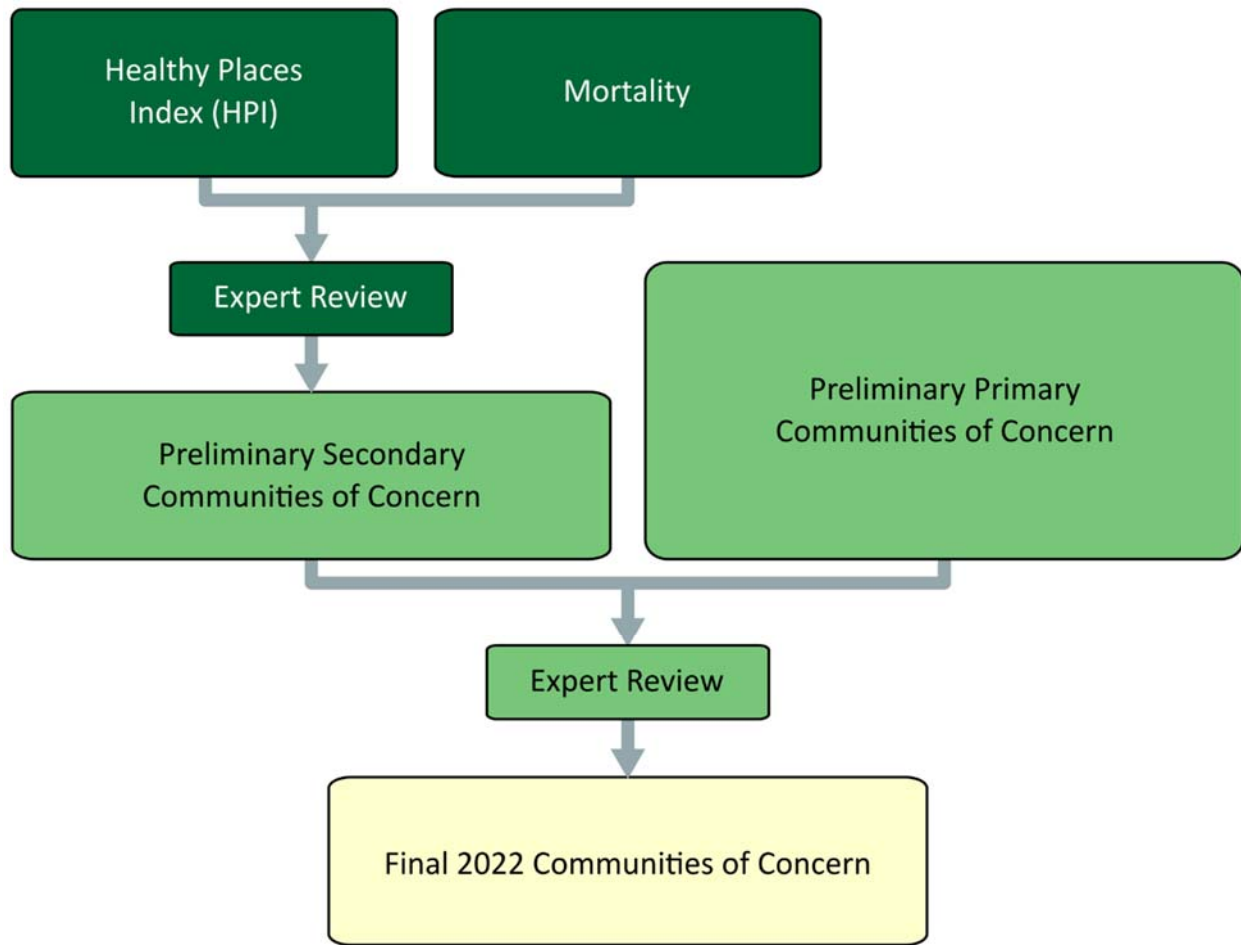


Figure 10: Community of Concern identification process.

As illustrated in Figure 10, 2022 Communities of Concern were identified through a process that drew upon both primary and secondary data. Two main secondary data sources were used in this analysis: the census tract-level California Healthy Places Index (HPI) and the CDPH ZCTA-level mortality data.

An evaluation procedure was developed for each of these datasets and applied to each ZCTA within the county. The following secondary data selection criteria were used to identify preliminary Communities of Concern.

#### ***Healthy Places Index (HPI)***

A ZCTA was included if it intersected a census tract whose HPI value fell within the lowest 20% of those in the COUNTY. These census tracts represent areas with consistently high concentrations of demographic subgroups identified in the research literature as being more likely to experience health-related disadvantages.

### ***CDPH Mortality Data***

The review of ZCTAs based on mortality data utilized the ZCTA-level CDPH health outcome indicators described previously. These indicators were heart disease, cancer, stroke, CLD, Alzheimer’s disease, unintentional injuries, diabetes, influenza and pneumonia, chronic liver disease, hypertension, suicide, and kidney disease mortality rates per 100,000 people. The number of times each ZCTA’s rates for these indicators fell within the top 20% in the COUNTY was counted. Those ZCTAs whose counted values exceeded the 80th percentile for all of the ZCTAs in the COUNTY met the Community of Concern mortality selection criteria.

### ***Integration of Secondary Criteria***

Any ZCTA that met any of the three selection criteria (2019 Community of Concern, HPI, and Mortality) was reviewed for inclusion as a 2022 Community of Concern, with greater weight given to those ZCTAs meeting two or more of the selection criteria. An additional round of expert review was applied to determine if any other ZCTAs not thus far indicated should be included based on some other unanticipated secondary data consideration. This list then became the final Preliminary Secondary Communities of Concern.

### ***Preliminary Primary Communities of Concern***

Preliminary primary Communities of Concern were identified by reviewing the geographic locations or population subgroups that were consistently identified by the area-wide primary data sources.

### ***Integration of Preliminary Primary and Secondary Communities of Concern***

Any ZCTA that was identified in either the Preliminary Primary or Secondary Community of Concern list was considered for inclusion as a 2022 Community of Concern. An additional round of expert review was then applied to determine if, based on any primary or secondary data consideration, any final adjustments should be made to this list. The resulting set of ZCTAs was then used as the final 2022 Communities of Concern.

### ***Significant Health Need Identification***

The general methods through which significant health needs (SHNs) were identified are shown in Figure 11 and described here in greater detail. The first step in this process was to identify a set of potential health needs (PHNs) from which significant health needs could be selected. This was done by reviewing the health needs identified during prior CHNAs among various hospitals throughout Central and Northern California and then supplementing this list based on a preliminary analysis of the primary qualitative data collected for the current CHNA. This resulted the list of PHNs shown in Table 21.

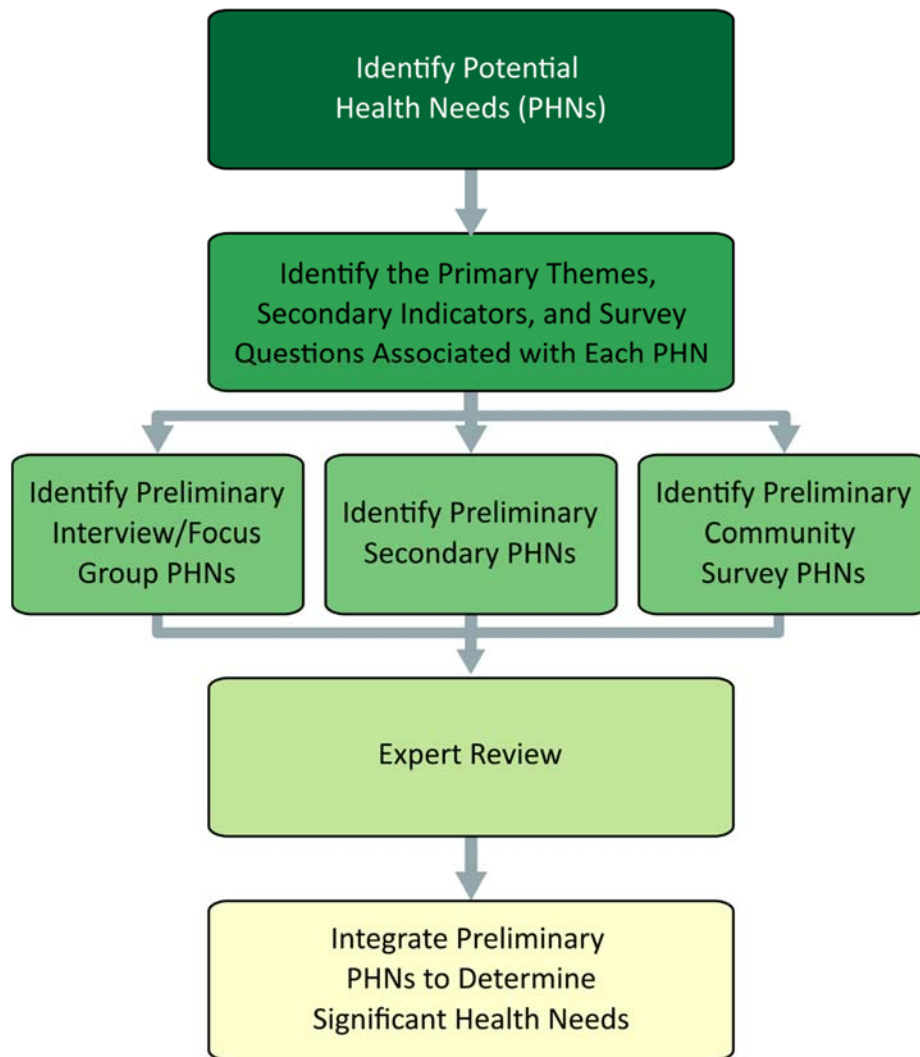


Figure 11: Significant health need identification process.

Table 21: 2022 Potential Health Needs.

<b>Potential Health Needs (PHNs)</b>	
PHN1	Access to Mental/Behavioral Health and Substance use Services
PHN2	Access to Quality Primary Care Health Services
PHN3	Active Living and Healthy Eating
PHN4	Safe and Violence-Free Environment
PHN5	Access to Dental Care and Preventive Services
PHN6	Healthy Physical Environment
PHN7	Access to Basic Needs Such as Housing, Jobs, and Food
PHN8	Access to Functional Needs
PHN9	Access to Specialty and Extended Care
PHN10	Injury and Disease Prevention and Management
PHN11	Increased Community Connections
PHN12	System Navigation

The next step in the process was to identify primary themes and secondary indicators associated with each of these health needs as shown in Tables 22 through 33. Primary theme associations were used to guide coding of the primary data sources to specific PHNs.

### Access to Mental/Behavioral Health and Substance use Services

Table 22: Primary themes and secondary indicators associated with PHN1.

Primary Themes	Secondary Indicators
There aren't enough mental health providers or treatment centers in the area (e.g., psychiatric beds, therapists, support groups).	Life Expectancy
The cost for mental/behavioral health treatment is too high.	Premature Age-Adjusted Mortality
Treatment options in the area for those with Medi-Cal are limited.	Premature Death
Awareness of mental health issues among community members is low.	Liver Disease Mortality
Additional services specifically for youth are needed (e.g., child psychologists, counselors and therapists in the schools).	Suicide Mortality
The stigma around seeking mental health treatment keeps people out of care.	Poor Mental Health Days
Additional services for those who are homeless and dealing with mental/behavioral health issues are needed.	Frequent Mental Distress
The area lacks the infrastructure to support acute mental health crises.	Poor Physical Health Days
Mental/behavioral health services are available in the area, but people do not know about them.	Frequent Physical Distress
It's difficult for people to navigate for mental/behavioral healthcare.	Poor or Fair Health
Substance use is a problem in the area (e.g., use of opiates and methamphetamine, prescription misuse).	Excessive Drinking
There are too few substance use treatment services in the area (e.g., detox centers, rehabilitation centers).	Drug Induced Death
Substance use treatment options for those with Medi-Cal are limited.	Adult Smoking
There aren't enough services here for those who are homeless and dealing with substance use issues.	Primary Care Shortage Area
The use of nicotine delivery products such as e-cigarettes and tobacco is a problem in the community.	Mental Health Care Shortage Area
Substance use is an issue among youth in particular.	Medically Underserved Area
There are substance use treatment services available here, but people do not know about them.	Mental Health Providers
	Psychiatry Providers
	Firearm Fatalities Rate
	Juvenile Arrest Rate
	Disconnected Youth
	Social Associations
	Residential Segregation (Non-White/White)
	Income Inequality
	Severe Housing Cost Burden
	Homelessness Rate

### Access to Quality Primary Care Health Services

Table 23: Primary themes and secondary indicators associated with PHN2.

Primary Themes	Secondary Indicators
Insurance is unaffordable.	Infant Mortality
Wait-times for appointments are excessively long.	Child Mortality
Out-of-pocket costs are too high.	Life Expectancy
There aren't enough primary care service providers in the area.	Premature Age-Adjusted Mortality



Primary Themes	Secondary Indicators
<p>Patients have difficulty obtaining appointments outside of regular business hours.</p> <p>Too few providers in the area accept Medi-Cal.</p> <p>It is difficult to recruit and retain primary care providers in the region.</p> <p>Specific services are unavailable here (e.g., 24-hour pharmacies, urgent care, telemedicine).</p> <p>The quality of care is low (e.g., appointments are rushed, providers lack cultural competence).</p> <p>Patients seeking primary care overwhelm local emergency departments.</p> <p>Primary care services are available, but are difficult for many people to navigate.</p>	<p>Premature Death</p> <p>Stroke Mortality</p> <p>Chronic Lower Respiratory Disease Mortality</p> <p>Diabetes Mortality</p> <p>Heart Disease Mortality</p> <p>Hypertension Mortality</p> <p>Cancer Mortality</p> <p>Liver Disease Mortality</p> <p>Kidney Disease Mortality</p> <p>COVID-19 Mortality</p> <p>COVID-19 Case Fatality</p> <p>Alzheimer's Disease Mortality</p> <p>Influenza and Pneumonia Mortality</p> <p>Diabetes Prevalence</p> <p>Low Birthweight</p> <p>Poor Mental Health Days</p> <p>Frequent Mental Distress</p> <p>Poor Physical Health Days</p> <p>Frequent Physical Distress</p> <p>Poor or Fair Health</p> <p>Colorectal Cancer Prevalence</p> <p>Breast Cancer Prevalence</p> <p>Lung Cancer Prevalence</p> <p>Prostate Cancer Prevalence</p> <p>Asthma ED Rates</p> <p>Asthma ED Rates for Children</p> <p>Primary Care Shortage Area</p> <p>Medically Underserved Area</p> <p>Mammography Screening</p> <p>Primary Care Providers</p> <p>Preventable Hospitalization</p> <p>COVID-19 Cumulative Full Vaccination Rate</p> <p>Residential Segregation (Non-White/White)</p> <p>Uninsured Population under 64</p> <p>Income Inequality</p> <p>Homelessness Rate</p>

## Active Living and Healthy Eating

Table 24: Primary themes and secondary indicators associated with PHN3.

Primary Themes	Secondary Indicators
There are food deserts in the area where fresh, unprocessed foods are not available.	Life Expectancy
Fresh, unprocessed foods are unaffordable.	Premature Age-Adjusted Mortality
Food insecurity is an issue here.	Premature Death
Students need healthier food options in schools.	Stroke Mortality
The built environment doesn't support physical activity (e.g., neighborhoods aren't walk-able, roads aren't bike-friendly, or parks are inaccessible).	Diabetes Mortality
The community needs nutrition education programs.	Heart Disease Mortality
Homelessness in parks or other public spaces deters their use.	Hypertension Mortality
Recreational opportunities in the area are unaffordable (e.g., gym memberships, recreational activity programming).	Cancer Mortality
There aren't enough recreational opportunities in the area (e.g., organized activities, youth sports leagues)	Kidney Disease Mortality
The food available in local homeless shelters and food banks is not nutritious.	Diabetes Prevalence
Grocery store option in the area are limited.	Poor Mental Health Days
	Frequent Mental Distress
	Poor Physical Health Days
	Frequent Physical Distress
	Poor or Fair Health
	Colorectal Cancer Prevalence
	Breast Cancer Prevalence
	Prostate Cancer Prevalence
	Asthma ED Rates
	Asthma ED Rates for Children
	Adult Obesity
	Physical Inactivity
	Limited Access to Healthy Foods
	Food Environment Index
	Access to Exercise Opportunities
	Residential Segregation (Non-White/White)
	Income Inequality
	Severe Housing Cost Burden
	Homelessness Rate
	Long Commute - Driving Alone
	Access to Public Transit

## Safe and Violence-Free Environment

Table 25: Primary themes and secondary indicators associated with PHN4.

Primary Themes	Secondary Indicators
People feel unsafe because of crime.	Life Expectancy
There are not enough resources to address domestic violence and sexual assault.	Premature Death
Isolated or poorly-lit streets make pedestrian travel unsafe.	Hypertension Mortality
Public parks seem unsafe because of illegal activity taking place.	Poor Mental Health Days
Youth need more safe places to go after school.	Frequent Mental Distress
Specific groups in this community are targeted because of characteristics like race/ethnicity or age.	Frequent Physical Distress
There isn't adequate police protection.	Poor or Fair Health
Gang activity is an issue in the area.	Physical Inactivity
Human trafficking is an issue in the area.	Access to Exercise Opportunities
The current political environment makes some concerned for their safety.	Homicide Rate
	Firearm Fatalities Rate
	Violent Crime Rate
	Juvenile Arrest Rate
	Motor Vehicle Crash Death
	Disconnected Youth
	Social Associations
	Income Inequality
	Severe Housing Problems
	Severe Housing Cost
	Burden
	Homelessness Rate

## Access to Dental Care and Preventive Services

Table 26: Primary themes and secondary indicators associated with PHN5.

Primary Themes	Secondary Indicators
There aren't enough providers in the area who accept Denti-Cal.	Frequent Mental Distress
The lack of access to dental care here leads to overuse of emergency departments.	Poor Physical Health Days
Quality dental services for kids are lacking.	Frequent Physical Distress
It's hard to get an appointment for dental care.	Poor or Fair Health
People in the area have to travel to receive dental care.	Dental Care Shortage Area
Dental care here is unaffordable, even if you have insurance.	Dentists
	Residential Segregation (Non-White/White)
	Income Inequality
	Homelessness Rate

## Healthy Physical Environment

Table 27: Primary themes and secondary indicators associated with PHN6.

Primary Themes	Secondary Indicators
The air quality contributes to high rates of asthma.	Infant Mortality
Poor water quality is a concern in the area.	Life Expectancy
Agricultural activity harms the air quality.	Premature Age-Adjusted Mortality
Low-income housing is substandard.	Premature Death
Residents' use of tobacco and e-cigarettes harms the air quality.	Chronic Lower Respiratory Disease Mortality
Industrial activity in the area harms the air quality.	Hypertension Mortality
Heavy traffic in the area harms the air quality.	Cancer Mortality
Wildfires in the region harm the air quality.	Frequent Mental Distress
	Frequent Physical Distress
	Poor or Fair Health
	Colorectal Cancer Prevalence
	Breast Cancer Prevalence
	Lung Cancer Prevalence
	Prostate Cancer Prevalence
	Asthma ED Rates
	Asthma ED Rates for Children
	Adult Smoking
	Income Inequality
	Severe Housing Cost Burden
	Homelessness Rate
	Long Commute - Driving Alone
	Pollution Burden Percent
	Air Pollution - Particulate Matter
	Drinking Water Violations

## Access to Basic Needs Such as Housing, Jobs, and Food

Table 28: Primary themes and secondary indicators associated with PHN7.

Primary Themes	Secondary Indicators
Lack of affordable housing is a significant issue in the area.	Infant Mortality
The area needs additional low-income housing options.	Child Mortality
Poverty in the county is high.	Life Expectancy
Many people in the area do not make a living wage.	Premature Age-Adjusted Mortality
Employment opportunities in the area are limited.	Premature Death
Services for homeless residents in the area are insufficient.	Hypertension Mortality
Services are inaccessible for Spanish-speaking and immigrant residents.	COVID-19 Mortality
	COVID-19 Case Fatality
Many residents struggle with food insecurity.	Diabetes Prevalence
It is difficult to find affordable childcare.	Low Birthweight
Educational attainment in the area is low.	Poor Mental Health Days
	Frequent Mental Distress

Primary Themes	Secondary Indicators
	Poor Physical Health Days
	Frequent Physical Distress
	Poor or Fair Health
	COVID-19 Cumulative Incidence
	Asthma ED Rates
	Asthma ED Rates for Children
	Drug Induced Death
	Adult Obesity
	Limited Access to Healthy Foods
	Food Environment Index
	Medically Underserved Area
	COVID-19 Cumulative Full Vaccination Rate
	Some College
	High School Completion
	Disconnected Youth
	Third Grade Reading Level
	Third Grade Math Level
	Unemployment
	Children in Single-Parent Households
	Social Associations
	Residential Segregation (Non-White/White)
	Children Eligible for Free Lunch
	Children in Poverty
	Median Household Income
	Uninsured Population under 64
	Income Inequality
	Severe Housing Problems
	Severe Housing Cost Burden
	Homeownership
	Homelessness Rate
	Households with no Vehicle Available
	Long Commute - Driving Alone

### Access to Functional Needs

Table 29: Primary themes and secondary indicators associated with PHN8.

Primary Themes	Secondary Indicators
Many residents do not have reliable personal transportation.	Disability
Medical transport in the area is limited.	Frequent Mental Distress
Roads and sidewalks in the area are not well-maintained.	Frequent Physical Distress
The distance between service providers is inconvenient for those using public transportation.	Poor or Fair Health
Using public transportation to reach providers can take a very long time.	Adult Obesity
	COVID-19 Cumulative Full

Primary Themes	Secondary Indicators
The cost of public transportation is too high.	Vaccination Rate
Public transportation service routes are limited.	Income Inequality
Public transportation schedules are limited.	Homelessness Rate
The geography of the area makes it difficult for those without reliable transportation to get around.	Households with no Vehicle Available
Public transportation is more difficult for some to residents to use (e.g., non-English speakers, seniors, parents with young children).	Long Commute - Driving Alone
There aren't enough taxi and ride-share options (e.g., Uber, Lyft).	Access to Public Transit

### Access to Specialty and Extended Care

Table 30: Primary themes and secondary indicators associated with PHN9.

Primary Themes	Secondary Indicators
Wait-times for specialist appointments are excessively long.	Infant Mortality
It is difficult to recruit and retain specialists in the area.	Life Expectancy
Not all specialty care is covered by insurance.	Premature Age-Adjusted Mortality
Out-of-pocket costs for specialty and extended care are too high.	Premature Death
People have to travel to reach specialists.	Stroke Mortality
Too few specialty and extended care providers accept Medi-Cal.	Chronic Lower Respiratory Disease Mortality
The area needs more extended care options for the aging population (e.g. skilled nursing homes, in-home care)	Diabetes Mortality
There isn't enough OB/GYN care available.	Heart Disease Mortality
Additional hospice and palliative care options are needed.	Hypertension Mortality
The area lacks a kind of specialist or extended care option not listed here.	Cancer Mortality
	Liver Disease Mortality
	Kidney Disease Mortality
	COVID-19 Mortality
	COVID-19 Case Fatality
	Alzheimer's Disease Mortality
	Diabetes Prevalence
	Poor Mental Health Days
	Frequent Mental Distress
	Poor Physical Health Days
	Frequent Physical Distress
	Poor or Fair Health
	Lung Cancer Prevalence
	Asthma ED Rates
	Asthma ED Rates for Children
	Drug Induced Death
	Psychiatry Providers
	Specialty Care Providers
	Preventable Hospitalization
	Residential Segregation (Non-White/White)

Primary Themes	Secondary Indicators
	Income Inequality
	Homelessness Rate

## Injury and Disease Prevention and Management

Table 31: Primary themes and secondary indicators associated with PHN10.

Primary Themes	Secondary Indicators
There isn't really a focus on prevention around here.	Infant Mortality
Preventive health services for women are needed (e.g., breast and cervical cancer screening).	Child Mortality
There should be a greater focus on chronic disease prevention (e.g. diabetes, heart disease).	Stroke Mortality
Vaccination rates are lower than they need to be.	Chronic Lower Respiratory Disease Mortality
Health education in the schools needs to be improved.	Diabetes Mortality
Additional HIV and STI prevention efforts are needed.	Heart Disease Mortality
The community needs nutrition education opportunities.	Hypertension Mortality
Schools should offer better sexual health education.	Liver Disease Mortality
Prevention efforts need to be focused on specific populations in the community (e.g. youth, Spanish-speaking residents, the elderly, LGBTQ individuals, immigrants).	Kidney Disease Mortality
Patients need to be better connected to service providers (e.g. case management, patient navigation, or centralized service provision).	Suicide Mortality
	Unintentional Injuries Mortality
	COVID-19 Mortality
	COVID-19 Case Fatality
	Alzheimer's Disease Mortality
	Diabetes Prevalence
	Low Birthweight
	HIV Prevalence
	Poor Mental Health Days
	Frequent Mental Distress
	Frequent Physical Distress
	Poor or Fair Health
	COVID-19 Cumulative Incidence
	Asthma ED Rates
	Asthma ED Rates for Children
	Excessive Drinking
	Drug Induced Death
	Adult Obesity
	Physical Inactivity
	Chlamydia Incidence
	Teen Birth Rate
	Adult Smoking
	COVID-19 Cumulative Full Vaccination Rate

Primary Themes	Secondary Indicators
	Firearm Fatalities Rate
	Juvenile Arrest Rate
	Motor Vehicle Crash Death
	Disconnected Youth
	Third Grade Reading Level
	Third Grade Math Level
	Income Inequality
	Homelessness Rate

### Increased Community Connections

Table 32: Primary themes and secondary indicators associated with PHN11.

Primary Themes	Secondary Indicators
Health and social service providers operate in silos; we need cross-sector connection.	Infant Mortality
Building community connections doesn't seem like a focus in the area.	Child Mortality
Relations between law enforcement and the community need to be improved.	Life Expectancy
The community needs to invest more in the local public schools.	Premature Age-Adjusted Mortality
There isn't enough funding for social services in the county.	Premature Death
People in the community face discrimination from local service providers.	Stroke Mortality
City and county leaders need to work together.	Diabetes Mortality
	Heart Disease Mortality
	Hypertension Mortality
	Suicide Mortality
	Unintentional Injuries Mortality
	Diabetes Prevalence
	Low Birthweight
	Poor Mental Health Days
	Frequent Mental Distress
	Poor Physical Health Days
	Frequent Physical Distress
	Poor or Fair Health
	Excessive Drinking
	Drug Induced Death
	Physical Inactivity
	Access to Exercise Opportunities
	Teen Birth Rate
	Primary Care Shortage Area
	Mental Health Care Shortage Area
	Medically Underserved Area
	Mental Health Providers
	Psychiatry Providers
	Specialty Care Providers
	Primary Care Providers
	Preventable Hospitalization



Primary Themes	Secondary Indicators
	COVID-19 Cumulative Full Vaccination Rate
	Homicide Rate
	Firearm Fatalities Rate
	Violent Crime Rate
	Juvenile Arrest Rate
	Some College
	High School Completion
	Disconnected Youth
	Unemployment
	Children in Single-Parent Households
	Social Associations
	Residential Segregation (Non-White/White)
	Income Inequality
	Homelessness Rate
	Households with no Vehicle Available
	Long Commute - Driving Alone
	Access to Public Transit

## System Navigation

Table 33: Primary themes and secondary indicators associated with PHN12.

Primary Themes	Secondary Indicators
<p>People may not be aware of the services they are eligible for.</p> <p>It is difficult for people to navigate multiple, different health care systems.</p> <p>The area needs more navigators to help to get people connected to services.</p> <p>People have trouble understanding their insurance benefits.</p> <p>Automated phone systems can be difficult for those who are unfamiliar with the healthcare system</p> <p>Dealing with medical and insurance paperwork can be overwhelming.</p> <p>Medical terminology is confusing.</p> <p>Some people just don't know where to start in order to access care or benefits.</p>	

Next, values for the secondary health-factor and health-outcome indicators identified were compared to state benchmarks to determine if a secondary indicator performed poorly within the county. Some indicators were considered problematic if they exceeded the benchmark, others were considered problematic if they were below the benchmark, and the presence of certain other indicators within the county, such as health professional shortage areas, indicated issues. Table 34 lists each secondary indicator and describes the comparison made to the benchmark to determine if it was problematic.

Table 34: Benchmark comparisons to show indicator performance.

<b>Indicator</b>	<b>Benchmark Comparison Indicating Poor Performance</b>
Infant Mortality	Higher
Child Mortality	Higher
Life Expectancy	Lower
Premature Age-Adjusted Mortality	Higher
Premature Death	Higher
Stroke Mortality	Higher
Chronic Lower Respiratory Disease Mortality	Higher
Diabetes Mortality	Higher
Heart Disease Mortality	Higher
Hypertension Mortality	Higher
Cancer Mortality	Higher
Liver Disease Mortality	Higher
Kidney Disease Mortality	Higher
Suicide Mortality	Higher
Unintentional Injuries Mortality	Higher
COVID-19 Mortality	Higher
COVID-19 Case Fatality	Higher
Alzheimer's Disease Mortality	Higher
Influenza and Pneumonia Mortality	Higher
Diabetes Prevalence	Higher
Low Birthweight	Higher
HIV Prevalence	Higher
Disability	Higher
Poor Mental Health Days	Higher
Frequent Mental Distress	Higher
Poor Physical Health Days	Higher
Frequent Physical Distress	Higher
Poor or Fair Health	Higher
Colorectal Cancer Prevalence	Higher
Breast Cancer Prevalence	Higher
Lung Cancer Prevalence	Higher
Prostate Cancer Prevalence	Higher
COVID-19 Cumulative Incidence	Higher
Asthma ED Rates	Higher
Asthma ED Rates for Children	Higher
Excessive Drinking	Higher
Drug Induced Death	Higher
Adult Obesity	Higher
Physical Inactivity	Higher
Limited Access to Healthy Foods	Higher
Food Environment Index	Lower
Access to Exercise Opportunities	Lower

Chlamydia Incidence	Higher
Teen Birth Rate	Higher
Adult Smoking	Higher
Primary Care Shortage Area	Present
Dental Care Shortage Area	Present
Mental Health Care Shortage Area	Present
Medically Underserved Area	Present
Mammography Screening	Lower
Dentists	Lower
Mental Health Providers	Lower
Psychiatry Providers	Lower
Specialty Care Providers	Lower
Primary Care Providers	Lower
Preventable Hospitalization	Higher
COVID-19 Cumulative Full Vaccination Rate	Lower
Homicide Rate	Higher
Firearm Fatalities Rate	Higher
Violent Crime Rate	Higher
Juvenile Arrest Rate	Higher
Motor Vehicle Crash Death	Higher
Some College	Lower
High School Completion	Lower
Disconnected Youth	Higher
Third Grade Reading Level	Lower
Third Grade Math Level	Lower
Unemployment	Higher
Children in Single-Parent Households	Higher
Social Associations	Lower
Residential Segregation (Non-White/White)	Higher
Children Eligible for Free Lunch	Higher
Children in Poverty	Higher
Median Household Income	Lower
Uninsured Population under 64	Higher
Income Inequality	Higher
Severe Housing Problems	Higher
Severe Housing Cost Burden	Higher
Homeownership	Lower
Homelessness Rate	Higher
Households with no Vehicle Available	Higher
Long Commute - Driving Alone	Higher
Access to Public Transit	Lower
Pollution Burden Percent	Higher
Air Pollution - Particulate Matter	Higher
Drinking Water Violations	Present

Once these poorly performing quantitative indicators were identified, they were used to identify preliminary secondary significant health needs. This was done by calculating the percentage of all secondary indicators associated with a given PHN that were identified as performing poorly within the county. While all PHNs represented actual health needs within the county to a greater or lesser extent, a PHN was considered a preliminary secondary health need if the percentage of poorly performing indicators exceeded one of a number of established thresholds: any poorly performing associated secondary indicators; or at least 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80% of the associated indicators were found to perform poorly. A similar set of standards was used to identify the preliminary interview and focus-group health needs: any of the survey respondents mentioned a theme associated with a PHN, or if at least 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80% of the respondents mentioned an associated theme. Finally, similar thresholds (any mention, 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80%) were also applied to the percent of survey respondents selecting a particular health need as one of the top health needs in the county.

These sets of criteria (any mention, 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80%) were used because we could not anticipate which specific standard would be most meaningful within the context of the county. Having multiple objective decision criteria allows the process to be more easily described but still allows for enough flexibility to respond to evolving conditions in the county. To this end, a final round of expert reviews was used to compare the set selection criteria to find the level at which the criteria converged towards a final set of SHNs.

For this report, a PHN was selected as a preliminary quantitative significant health need if 50% of the associated quantitative indicators were identified as performing poorly; as a preliminary qualitative significant health need if it was identified by 40% or more of the primary sources as performing poorly; as a preliminary community survey significant health need if 40% of top priority themes from the survey were associated with the health need; and as a preliminary community survey provider survey significant health need if it was identified by at least 0% of survey respondents. Finally, a PHN was selected as a significant health need if it was included as a preliminary significant health need in two of these categories.

### **Health Need Prioritization**

The final step in the analysis was to prioritize the identified SHNs. To reflect the voice of the community, significant health need prioritization was based solely on primary data. Key informants and focus-group participants were asked to identify the three most significant health needs in their communities. These responses were associated with one or more of the potential health needs. This, along with the responses across the rest of the interviews and focus groups, was used to derive two measures for each significant health need.

First, the total percentage of all primary data sources that mentioned themes associated with a significant health need at any point was calculated. This number was taken to represent how broadly a given significant health need was recognized within the community. Next, the percentage of times a theme associated with a significant health need was mentioned as one of the top three health needs in the community was calculated. Since primary data sources were asked to prioritize health needs in this question, this number was taken to represent the intensity of the need. Finally, the number of times each health need was selected as one of the top health needs by survey respondents was also included.

These three measures were then rescaled so that the SHN with the maximum value for each measure equaled one, the minimum equaled zero, and all other SHNs had values appropriately proportional to the maximum and minimum values. The rescaled values were then summed to create a combined SHN prioritization index. SHNs were ranked in descending order based on this index value so that the SHN with the highest value was identified as the highest-priority health need, the SHN with the second highest value was identified as the second-highest-priority health need, and so on.

## Detailed List of Resources to Address Health Needs

Table 35: Resources available to meet health needs.

Organization Information			Significant Health Needs									Other Health Needs		
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Anav Tribal Health	96032	<a href="http://www.qvir.com/health-clinic.html">www.qvir.com/health-clinic.html</a>	x	x		x		x						
211 NorCal-Siskiyou	96002	<a href="http://211norcal.org/Siskiyou">211norcal.org/Siskiyou</a>	x		x	x	x	x		x		x		x
Beacon of Hope	96097	<a href="http://beaconofhopemission.org">beaconofhopemission.org</a>			x									
CASA	96097	<a href="http://yesiskiyou.org/casa">yesiskiyou.org/casa</a>	x											
Children First Foster Family Agency	96097	<a href="http://childrenfirstffa.com">childrenfirstffa.com</a>			x									
Choices Mt. Shasta and Yreka	Siskiyou County	<a href="http://www.facebook.com/choicesmountshasta">www.facebook.com/choicesmountshasta</a> ; <a href="http://www.facebook.com/choicesyreka">www.facebook.com/choicesyreka</a>			x								x	
Dignity Health Mt. Shasta Community Clinic	96067	<a href="http://www.dignityhealth.org">www.dignityhealth.org</a>	x	x		x								
Dunsmuir	96025	<a href="http://first5siskiyou.org/family-and-community-resource-centers-projects/dunsmuir/">first5siskiyou.org/family-and-community-resource-centers-projects/dunsmuir/</a>												
Eskaton Washington Manor	96067	<a href="http://www.eskaton.org/affordable-housing">www.eskaton.org/affordable-housing</a>					x		x			x	x	

Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Fairchild Medical Center	96097	fairchildmed.org	x	x		x								x
Fairchild Medical Clinic	96097	fairchildmed.org	x	x		x	x	x						x
Family PACT Providers	96097	familypact.org												x
First 5 Siskiyou	Siskiyou County	first5siskiyou.org									x		x	
Great Northern Services	96094	www.gnservices.org		x	x							x	x	
Great Northern Services-Siskiyou Food Pantry	96094	www.gnservices.org/programs-and-services/community-services/food-banks			x									
Grenada Gardens	96038	grenadagardens.com								x			x	
Habitat for Humanity	96097	www.habitatsiskiyou.org			x									
Happy Camp Ambulance	96039	www.happycampambulance.com					x							
Happy Camp Family Resource Center	96039	first5siskiyou.org/family-and-community-resource-centers-projects			x								x	

Organization Information			Significant Health Needs									Other Health Needs		
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Happy Camp Union S.A.F.E. Rockets Programs	96039	happycampca.sites.thrillshare.com/page/safe			x				x		x		x	
Happy Camp Community Action, Inc	96039	greatnonprofits.org/org/happy-camp-community-action-inc			x									
Heal Therapy, Inc.	96097	www.heal-therapy.com	x											
Karuk Tribe	96039	www.karuk.us	x			x				x			x	x
Karuk Tribal Health	96039, 96097	www.karuk.us	x	x		x		x						
Madrone Hospice	96097	madronehospice.org			x		x			x				
Lake Shastina Clinic	96094	www.dignityhealth.org	x	x		x								
Meals on Wheels	South Siskiyou	www.gnservices.org/programs-and-services/community-services/siskiyou-senior-nutrition-community-cafes			x									
Mercy Medical Center Mt. Shasta	96067	www.dignityhealth.org/north-state/locations/mercy-mtshasta?_ga=2.86918616.1704172004.1640276577-1021042974.1614054006	x			x	x							x
Modoc County Public Health	96101	https://modochealthservices.org/	x	x		x			x			x		



Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Mountain Valleys Health Centers	Siskiyou County	www.mountainvalleys.org	x			x		x						x
Mountain Valley Clinics	96013	www.mountainvalleys.org/	x	x		x		x						
Mt. Shasta City Parks and Rec.	96067	www.msrec.org			x						x		x	
Mt. Shasta Community Resource Center	96067	mtshastacrc.com	x										x	
Northern California Indian Development Council, Inc	96097	www.ncidc.org/regional-services/siskiyou			x									
Northern Valley Catholic Services- Six Stones Wellness Center	96097	nvcss.org/programs/six-stones-wellness-center	x						x				x	x
Northern Valley Catholic Social Services	96001	nvcss.org	x						x					x
PSA 2 Area Agency on Aging	Siskiyou	www.psa2.org					x			x	x		x	x

Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
	County													
Quartz Valley Indian Reservation	96032	www.qvir.com	x			x				x			x	x
Quartz Valley Indian Reservation- Anav Tribal Health Clinic	96032	www.qvir.com/health-clinic.html	x			x		x						
Remi Vista, Inc.	96001	remivistainc.org	x		x		x							
Scotts Valley Family Resource Center	96032	first5siskiyou.org/family-and-community-resource-centers-projects/			x								x	
Scott Valley Rural Health Clinic	96027	https://scottvalley.fairchildmed.org		x	x	x	x							
Shasta Cascade Health	Siskiyou County	www.shastacascadehealth.org	x	x		x		x						
Siskiyou Child Care Council	96094	www.siskiyouchildcare.org									x	x		

Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Siskiyou Community Food Bank	96097	<a href="http://www.siskiyoufoodbank.org/home.html">www.siskiyoufoodbank.org/home.html</a>			x									
Siskiyou Community Resource Collaborative	Siskiyou County	<a href="http://www.siskiyoucrc.org">www.siskiyoucrc.org</a>	x	x	x				x	x			x	x
Siskiyou Community Services Council	Siskiyou County	<a href="http://www.co.siskiyou.ca.us/bc/page/siskiyou-community-services-council">www.co.siskiyou.ca.us/bc/page/siskiyou-community-services-council</a>	x	x										x
Siskiyou County Behavioral Health	96097	<a href="http://www.co.siskiyou.ca.us">www.co.siskiyou.ca.us</a>	x	x										x
Siskiyou County Child Protective Services	96097	<a href="http://www.co.siskiyou.ca.us/acs/page/child-protective-services-cps">www.co.siskiyou.ca.us/acs/page/child-protective-services-cps</a>	x		x	x					x		x	
Siskiyou County Health and Human Services	96097	<a href="http://www.co.siskiyou.ca.us/health-humanservices">www.co.siskiyou.ca.us/health-humanservices</a>	x	x							x			x
Siskiyou County Mobile Health Clinic	96097	<a href="http://www.co.siskiyou.ca.us/publichealth/page/siskiyou-county-public-health-mobile-clinic">www.co.siskiyou.ca.us/publichealth/page/siskiyou-county-public-health-mobile-clinic</a>				x								

Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Siskiyou County Office of Education	96097	www.siskiyoucoe.net												x
Siskiyou County Public Health	96097	www.co.siskiyou.ca.us/publichealth	x	x										x
Siskiyou County Public Health-WIC	96097	www.co.siskiyou.ca.us/publichealth/page/woman-infant-children-wic			x								x	
Siskiyou County Social Services	96097	www.co.siskiyou.ca.us/socialservices					x							x
Siskiyou Domestic Violence & Crisis Center	96097	sdvcc.org			x						x			
Siskiyou Family/Community Resource Centers		www.siskiyoucoe.net/cms/lib/CA01001605/Centricity/Domain/43/Siskiyou%20County%20Community-Family%20Resource%20Centers.pdf												
Siskiyou Family YMCA	96097	www.siskiyouymca.org							x		x		x	
Siskiyou Food Assistance	96094	siskiyoufoodassistance.org			x									
Siskiyou Outdoor	96067	siskiyououtdooralliance.org							x				x	

Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to	Injury and Disease	Access to Basic Needs	Access to Quality Primary	Access to Specialty and	Access to Dental Care and	Active Living and Healthy	Access to Functional	Safe and Violence-Free	Healthy Physical	Increased Community	System Navigation
Recreation Alliance														
Siskiyou Springs Senior Living	96097	siskiyousprings-sl.com					x		x	x	x		x	
The HUB Communities Family Resource Center in Montague	96064	first5siskiyou.org/family-and-community-resource-centers-projects/	x											
Tulelake/Newell Family Resource Center	96134	first5siskiyou.org/family-and-community-resource-centers-projects/	x		x								x	
Yreka Community Resource Center	96097	www.siskiyoucrc.org/yreka	x		x								x	
Yreka VA Rural Clinic	96097	www.va.gov/northern-california-health-care/locations/yreka-va-clinic	x	x		x			x					x

## Limits and Information Gaps

Study limitations for this CHNA included obtaining secondary quantitative data specific to population subgroups and assuring community representation through primary data collection. Most quantitative data used in this assessment were not available by race/ethnicity. The timeliness of the data also presented a challenge, as some of the data were collected in different years; however, this is clearly noted in the report to allow for proper comparison.

For primary data, gaining access to participants that best represent the populations needed for this assessment was a challenge for the key informant interviews, focus groups and CSP survey. The COVID-19 pandemic made this more difficult as community members were more difficult to recruit for focus groups. Though an effort was made to verify all resources (assets) through a web search, ultimately some resources that exist in the service area may not be listed.

Finally, though this CHNA was conducted with an equity focus, data that point to differences among population subgroups that are more “upstream” focused are not as available as those data that detail the resulting health disparities. Having a clearer picture of early-in-life opportunity differences experienced among various populations that result in later-in-life disparities can help direct community health improvement efforts for maximum impact.

## Appendix A: Evaluation of the Impact of Actions Taken Since 2019 CHNA for Mercy Medical Center Mt. Shasta

Access to care, maternal/child health, and mental health were identified as significant health needs in the 2019 CHNA. Since the preceding CHNA several improvements in health behaviors, health outcomes, resources and services have been made. In addition, MMCMS's annual Community Benefit Reports and Plans describe actions and impacts in greater detail. The most recent report is available at <http://www.dignityhealth.org/cm/content/pages/community-benefit-reports.asp>. Below are examples of the programs developed through collaborative efforts with community based organizations that represent actions taken since the preceding CHNA that directly address identified significant health needs:

### **Access to Care:**

- Mercy Medical Center Mt. Shasta offered a free mammogram program that included both ultrasounds and MRIs for women in Siskiyou County.
- Clinics owned by Mercy Medical Center Mt. Shasta were able to expand operating hours to expand access to care in the evening and on Saturdays.
- Mercy Medical Center Mt. Shasta reopened the Cancer Center in response to the need expressed by elders in the community to access care that is not available for them if they do not drive or have the resources to get to the next closest facility 66 miles away.
- Mercy Medical Center Mt. Shasta recruited an additional speech therapist, occupational therapist, and cardiac rehab specialist to help expand coverage of services.
- Mercy Medical Center Mt. Shasta provided a van service, taxi vouchers or bus tokens to patients who needed assistance getting to healthcare facilities.

### **Maternal/Child Health:**

- Mercy Medical Center Mt. Shasta offered breastfeeding support groups, lactation counseling services, prenatal breastfeeding classes, and child birth classes.
- Mercy Medical Center Mt. Shasta collaborated with the First Five Book Program in Rural Health Clinic Setting.
- Provided Safe sleep Education to the community to help reduce infant mortality rates
- Great Northern Services received several community grant to continue offering the Summer Lunch Program.

### **Mental Health:**

- Mercy Medical Center Mt. Shasta offered bereavement classes and grief support groups.
- Mercy Medical Center Mt. Shasta contracted with Telemed 2 U to provide additional behavioral health services for the community. Psychiatrists are able to provide early evaluation and psychiatric intervention via remote consultations with patients, improving access to timely quality care. Access is available to both the ED and inpatient setting.
- The hospital's Rural Health Clinic (RHC) provides Suboxone treatment for community members. The RHC has collaborated with the hospital's emergency room to assist with the Medication Assisted Treatment plan for a patient following their emergency room visit, creating a smooth transition and continuum of care for the individual while continuing to decrease recreational drug use. Ongoing collaboration with internal and external key stakeholders, post-acute care services, and the Care Coordinators has proven to be integral when addressing community needs outside the walls of the hospital.

# Appendix B: Siskiyou County Community Health Status Survey



## Siskiyou Well Community Health Survey

Siskiyou County Public Health, Fairchild Medical Center and Mercy Medical Center, Mt Shasta  
In collaboration with community partners

### Part I: Demographics

1. Zip Code: where you live \_\_\_\_\_

2. Age:  25 or less  
 26 – 39  
 40 – 54  
 55 - 64  
 65 or over

3. Gender \_\_\_\_\_

4. Ethnicity: Check all you identify with  
 African American / Black  
 Asian / Pacific Islander  
 Hispanic / Latino  
 Native American  
 White / Caucasian  
 Other \_\_\_\_\_

5. Household Income

- Less than \$20,000  
 \$20,000 to \$29,999  
 \$30,000 to \$49,999  
 More than \$50,000

6. Education

- Less than high school  
 High school diploma or GED  
 College degree or higher  
 Other \_\_\_\_\_

### Part II: Community Health

7. How would you rate the overall health of our community?

Very unhealthy    Unhealthy    Somewhat healthy    Healthy    Very healthy

8. How would you rate your own personal health?

Very unhealthy    Unhealthy    Somewhat healthy    Healthy    Very healthy

9. Do you feel you are able to access the services you need in order to positively change your health? Such as healthy foods, activity, disease/ pain management services, access to care options and other health services.

No!   1   2   3   4   5   Yes!

10. In the following list, what do you think are the **five most important factors for a “Healthy Community”**? (Factors which would most improve the quality of life in our community). **Check Only Five**

<input type="checkbox"/> Low crime / safe neighborhoods	<input type="checkbox"/> Excellent race/ethnic relations activity	<input type="checkbox"/> Emergency preparedness
<input type="checkbox"/> Low level of child abuse/neglect	<input type="checkbox"/> Good jobs and healthy economy	<input type="checkbox"/> Adolescent health education (nutrition, lifestyle habits, safe sex)
<input type="checkbox"/> Good schools	<input type="checkbox"/> Strong family life	<input type="checkbox"/> Support for caregivers
<input type="checkbox"/> Access to health care	<input type="checkbox"/> Healthy behaviors and lifestyles	<input type="checkbox"/> Other _____
<input type="checkbox"/> Local transportation options	<input type="checkbox"/> Low adult death and disease rates	
<input type="checkbox"/> Clean environment	<input type="checkbox"/> Low infant deaths	
<input type="checkbox"/> Affordable housing	<input type="checkbox"/> Opportunities for physical	
<input type="checkbox"/> Activities for teens/ families		



11. In the following list, what do you think are the five most important “health problems” in our community? **Check Only Five**

<input type="checkbox"/> Aging problems / support for the elderly	<input type="checkbox"/> Chronic Illness (diabetes, high blood pressure, heart disease, ect)	<input type="checkbox"/> Motor vehicle crash injuries
<input type="checkbox"/> Access to birth control	<input type="checkbox"/> Firearm-related injuries	<input type="checkbox"/> Rape / sexual assault
<input type="checkbox"/> Access to healthy, affordable foods	<input type="checkbox"/> HIV / AIDS	<input type="checkbox"/> Respiratory / lung disease
<input type="checkbox"/> Affordable Housing	<input type="checkbox"/> Homicide	<input type="checkbox"/> Sexually transmitted diseases
<input type="checkbox"/> Cancers	<input type="checkbox"/> Infant Death	<input type="checkbox"/> Suicide
<input type="checkbox"/> COVID 19	<input type="checkbox"/> Infectious Diseases	<input type="checkbox"/> Teenage pregnancy
<input type="checkbox"/> Child abuse / neglect	<input type="checkbox"/> Mental health (including undiagnosed)	<input type="checkbox"/> Other _____
<input type="checkbox"/> Dental problems/ Access	<input type="checkbox"/> Behavioral Health	
<input type="checkbox"/> Domestic Violence	<input type="checkbox"/> Chronic stress	

12. In the following list, what do you think are the five most common “risky behaviors” in our community? **Check Only Five**

<input type="checkbox"/> Alcohol abuse	<input type="checkbox"/> Not getting vaccines (shots) to prevent disease	<input type="checkbox"/> Unsafe sex
<input type="checkbox"/> Being overweight	<input type="checkbox"/> Racism	<input type="checkbox"/> Unsecured firearms
<input type="checkbox"/> Dropping out of school	<input type="checkbox"/> Tobacco use	<input type="checkbox"/> Other _____
<input type="checkbox"/> Drug abuse	<input type="checkbox"/> Not using birth control	
<input type="checkbox"/> Lack of exercise	<input type="checkbox"/> Not using seat belts / child safety seats	
<input type="checkbox"/> Lack of maternity care		
<input type="checkbox"/> Poor eating habits		

13. What are the top five things you think negatively influence child wellness and safety in our community? **Check only 5**

<input type="checkbox"/> Limited access to affordable, nutritious food	<input type="checkbox"/> Medicines, drugs, or cleaning supplies are accessible to children in the home	<input type="checkbox"/> situations (examples: sleeping with soft objects, no hard bed surface, not sleeping alone )
<input type="checkbox"/> Limited physical activity	<input type="checkbox"/> Cigarette smoke exposure	<input type="checkbox"/> Lack of support services for children with special health care needs
<input type="checkbox"/> No safe place to play	<input type="checkbox"/> Parents abuse alcohol & drugs	<input type="checkbox"/> I think generally child wellness and safety in our community is positive
<input type="checkbox"/> Not enough parenting classes	<input type="checkbox"/> Teen drug, alcohol, or tobacco use/abuse	<input type="checkbox"/> Other _____
<input type="checkbox"/> Parents not knowing child safety recommendations	<input type="checkbox"/> Bullying or harassment	
<input type="checkbox"/> Not enough safe sports equipment or not used	<input type="checkbox"/> Not enough adult supervision	
<input type="checkbox"/> Inappropriate use of seat belts or child safety seats	<input type="checkbox"/> Child abuse	
<input type="checkbox"/> Child unable to swim, not using a lifejacket, or needs water safety education	<input type="checkbox"/> Not enough infant safe sleep education for parents and caregivers	
<input type="checkbox"/> Violence in home or community	<input type="checkbox"/> Parents or caregivers put infants in high-risk sleep	

14. What are the top three reasons you think people do not get the mental health services they need?  
Please choose only 3.

<input type="checkbox"/> Not enough screenings and referrals for Mental Health	<input type="checkbox"/> Stigma or prejudice	<input type="checkbox"/> Lack of Support (community, family, friends)
<input type="checkbox"/> Not enough Mental Health Providers	<input type="checkbox"/> Lack of coping skills or problem-solving strategies	<input type="checkbox"/> Violence in the home
<input type="checkbox"/> Not enough family, individual, or group therapy services	<input type="checkbox"/> Chronic stress	<input type="checkbox"/> Violence or crime in the community
<input type="checkbox"/> Not understanding Mental Health Disorders	<input type="checkbox"/> Drug or alcohol abuse	<input type="checkbox"/> Financial concerns
<input type="checkbox"/> Multiple mental health disorders	<input type="checkbox"/> Social acceptance of alcohol and/or drug use	<input type="checkbox"/> I think people generally get the mental health services they need
<input type="checkbox"/> Multi-generational mental health issues	<input type="checkbox"/> Untreated substance use problems	<input type="checkbox"/> Other _____
<input type="checkbox"/> Language or cultural barriers	<input type="checkbox"/> Not enough substance use screening and treatment	
	<input type="checkbox"/> Not aware of the negative effects of substance use	

15. What would you like to see Public Health and the Hospitals, in collaboration with community partners, focus on over the next three years? Please choose only 3.

<input type="checkbox"/> Help people get to doctors appointments (transportation)	<input type="checkbox"/> and eat more healthy foods	<input type="checkbox"/> child abuse and neglect, or elder abuse and neglect
<input type="checkbox"/> Help people sign up for insurance	<input type="checkbox"/> Help women who are pregnant to have a healthy pregnancy	<input type="checkbox"/> Help people get mental health care
<input type="checkbox"/> Help people get the medicine they need to stay healthy	<input type="checkbox"/> Help people to stay healthy who have a chronic disease like diabetes, heart failure, lung disease, cancer, etc.	<input type="checkbox"/> Help adults and teens to stop using illegal drugs, opioids, alcohol, or tobacco
<input type="checkbox"/> Increase the number of family doctors or increase number of appointments	<input type="checkbox"/> Help prevent teen pregnancy	<input type="checkbox"/> Help support caregivers
<input type="checkbox"/> Increase the number of specialists	<input type="checkbox"/> Help prevent sexually transmitted diseases	<input type="checkbox"/> COVID-19 recovery
<input type="checkbox"/> Help people to lose weight	<input type="checkbox"/> Help stop domestic violence.	<input type="checkbox"/> Other _____

**HEALTH CARE ACCESS**

16. In the past 12 months, was there a time that you needed to see a doctor, but were unable to?  
 Yes  No

17. If you answered "yes" to question #19, please specify why:  
 I did not have health insurance.  
 My health insurance was not accepted.  
 Lack of transportation  
 Other (please explain briefly) \_\_\_\_\_

18. About how long has it been since you last were seen by a dentist or dental clinic?  
 Within the past year  
 More than a year but within the past two years  
 Not Sure  
 Never

19. Has COVID 19 caused any of the following changes in how you access care? **Check all that apply.**

- Unable to get appointments when I need them
- Avoided seeking medical care when needed
- Unable to schedule medical procedures
- Other \_\_\_\_\_

20. Do you have any challenges that prevent you from accessing care when you need, unrelated to COVID-19? **Check all that apply.**

- |  |   |
|--|---|
| <input type="checkbox"/> Cultural/ Religious beliefs             | <input type="checkbox"/> No insurance                       |
| <input type="checkbox"/> Don't know how to find doctor           | <input type="checkbox"/> Unable to pay co-pays/ deductibles |
| <input type="checkbox"/> Don't understand the need to see doctor | <input type="checkbox"/> Transportation                     |
| <input type="checkbox"/> Fear                                    | <input type="checkbox"/> I have no issues accessing care    |
| <input type="checkbox"/> Lack of availability of doctors         | <input type="checkbox"/> Other _____                        |
| <input type="checkbox"/> Lack of time off work to see doctor     |   |
| <input type="checkbox"/> Language barriers                       |   |

21. In the past 24 months, have you used technology as part of your healthcare? **Check all that apply.**

- Online Virtual Care Visit from mobile device or computer
- Hospital or Provider Online Patient Portal
- Telemedicine Visit in the Hospital or Provider's office
- Mobile App
- I have not used any technology as a part of my healthcare
- Other \_\_\_\_\_

22. True or false: I am able to access care which respects and aligns with my cultural and gender identity  
Completely false———Completely True

**INJURY and Violence PREVENTION**

23. In the last 12 months, was there ever an occasion when you experienced or witnessed actual or threatened physical or sexual violence directed toward you or another person by a significant other?  
 Yes  No

24. In the past 24 months, I have felt unsafe or feared for the physical safety of myself/a loved one

### ALCOHOL/ DRUG USE

25. Have you in the past 24 months sought or desired to seek treatment for a substance use issue, but been unable to access the care you needed?  
 Yes  No

### MENTAL HEALTH

26. Have you had two years or more in your life when you felt depressed or sad most days, even if you felt okay sometimes?

Yes  No

27. Have you ever sought help from a professional for a mental or emotional problem?

Yes  No

28. Have you ever wished to seek help from a professional for a mental or emotional problem, but been prevented for any of the following reasons? **Mark all that apply**

- |   |   |
|---|---|
| <input type="checkbox"/> I do not know where to seek mental health services | <input type="checkbox"/> Language or cultural barriers  |
| <input type="checkbox"/> I do not know who takes my insurance               | <input type="checkbox"/> Stigma or prejudice            |
| <input type="checkbox"/> Can't afford treatment/ co pay costs               | <input type="checkbox"/> I feel like I do not have time |
|   | <input type="checkbox"/> Transportation to appointments |

29. Have you or somebody you know experienced suicidal thoughts or suicidal ideation in the last 24 months?

Yes  No

### NUTRITION

30. In the past 12 months, were you worried whether your food would run out before you received money to buy more?

Often true  Sometimes true  Never true

31. Is transportation or distance from a grocery store a limiting factor in getting to a store which sells healthy, nutritious, and affordable food?

Often true  Sometimes true  Never true

**EXERCISE/PHYSICAL ACTIVITY**

32. Are you limited in any way in any activities because of any impairment or health problem?

Yes  No (if not skip to #33)

33. If you answered "yes" to question #32, what is the major impairment(s) or health problem(s) that limits you? (please check all that apply)

- |  |   |                                      |
|--|---|--------------------------------------|
| <input type="checkbox"/> Arthritis/Rheumatism                    | <input type="checkbox"/> Hearing Problem                  | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Addiction                               | <input type="checkbox"/> Heart Problem                    |                                      |
| <input type="checkbox"/> Back or Neck Problem                    | <input type="checkbox"/> Hypertension/High Blood Pressure |                                      |
| <input type="checkbox"/> Cancer                                  | <input type="checkbox"/> Lung/Breathing Problem           |                                      |
| <input type="checkbox"/> Depression, Anxiety, Emotional Problems | <input type="checkbox"/> Stroke Problem                   |                                      |
| <input type="checkbox"/> Diabetes                                | <input type="checkbox"/> Walking Problem                  |                                      |
| <input type="checkbox"/> Eye/Vision Problem                      | <input type="checkbox"/> Weight/Overweight                |                                      |
| <input type="checkbox"/> Fractures, Bone/Joint Injury            | <input type="checkbox"/> Amputation                       |                                      |

**CHRONIC DISEASE**

34. Have you been diagnosed with one or more chronic illness? (E.g. arthritis, COPD, diabetes, heart disease, hypertension, high cholesterol, asthma, cancer, etc)

- Yes, one  
 Yes, more than one  
 No (if no skip to #35)

35. If yes, what do you feel would help you most in managing your chronic illness(s)?

**Check all that apply**

- |  |   |
|--|---|
| <input type="checkbox"/> Setting health goals                                    | <input type="checkbox"/> Healthy eating and lifestyle support                 |
| <input type="checkbox"/> Availability of Insurance                               | <input type="checkbox"/> Help quitting smoking                                |
| <input type="checkbox"/> Learning new skills on how to manage my chronic illness | <input type="checkbox"/> Help developing skills to manage my pain and fatigue |
| <input type="checkbox"/> More health screenings related to my chronic illness    | <input type="checkbox"/> Transportation to appointments                       |
| <input type="checkbox"/> Understanding how to take my medications                | <input type="checkbox"/> Other _____  |