



# Sierra Nevada Memorial Hospital

## 2022 Community Health Needs Assessment – Data and Technical Section

## Acknowledgements

We are deeply grateful to all those who contributed to this community health needs assessment conducted on behalf of Sierra Nevada Memorial Hospital. Many dedicated healthcare, community health experts, and members of various social service organizations serving the most vulnerable members of the community gave their time and expertise as key informants and survey respondents to help guide and inform the findings of the assessment. Specific survey respondents that expressed a desire to be recognized in the report are listed in the Service Provider Survey section. Many community residents also participated and volunteered their time to tell us what it is like to live in the community and shared the challenges they face trying to achieve better health. To everyone who supported this important work, we extend our heartfelt gratitude.

Community Health Insights ([www.communityhealthinsights.com](http://www.communityhealthinsights.com)) conducted the assessment on behalf of Sierra Nevada Memorial Hospital. 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 Health Science at Sacramento State University, Sacramento CA
- Matthew Schmidlein, PhD, MS, managing partner of Community Health Insights and Associate Professor of Geography at Sacramento State University, Sacramento, CA
- Dale Ainsworth, PhD, MSOD, managing partner of Community Health Insights and Assistant Professor of Health Science at Sacramento State University, Sacramento, CA
- Traci Van, senior community impact specialist of Community Health Insights



## Table of Contents – Data and Technical Section

<b>Sierra Nevada Memorial Hospital (SNMH) 2022 CHNA Data and Technical Section .....</b>	<b>6</b>
<b>Results of Data Analysis.....</b>	<b>6</b>
Compiled Secondary Data.....	6
Length of Life .....	6
Quality of Life .....	8
Health Behavior .....	9
Clinical Care .....	10
Socio-Economic and Demographic Factors.....	11
Physical Environment.....	13
Service Provider Survey Results .....	15
<b>CHNA Methods and Processes.....</b>	<b>16</b>
Conceptual Model .....	16
Process Model .....	18
<b>Primary Data Collection and Processing.....</b>	<b>19</b>
Primary Data Collection.....	19
Key Informant Results .....	20
Key Informant Interview Guide.....	21
Focus Group Results .....	22
Focus Group Interview Guide.....	23
Primary Data Processing .....	23
Service Provider Survey.....	23
<b>Secondary Data Collection and Processing.....</b>	<b>24</b>
Community of Concern Identification Datasets .....	24
ZIP Code Consolidation .....	25
Rate Calculation and Smoothing.....	25
Significant Health Need Identification Dataset.....	26
County Health Rankings Data.....	31
California Department of Public Health.....	33
By-Cause Mortality Data .....	33
COVID-19 Data .....	34
Drug-Induced Deaths Data .....	34
U.S. Health Resources and Services Administration .....	34
Health Professional Shortage Areas.....	34
Psychiatry and Specialty Care Providers .....	35
California Cancer Registry .....	35
Tracking California .....	35
U.S. Census Bureau.....	35
California Office of Environmental Health Hazard Assessment.....	35
California Department of Health Care Access and Information .....	36
California Department of Justice.....	36
U.S. Department of Housing and Urban Development.....	36
Proximity to Transit Stops.....	37
<b>Detailed Analytical Methodology .....</b>	<b>37</b>
Community of Concern Identification .....	38
2019 Community of Concern.....	38
Healthy Places Index (HPI) .....	38
CDPH Mortality Data .....	39
Integration of Secondary Criteria.....	39

Preliminary Primary Communities of Concern .....	39
Integration of Preliminary Primary and Secondary Communities of Concern .....	39
Significant Health Need Identification .....	39
Significant Health Need Prioritization .....	52
<b>Detailed List of Resources to Address Health Needs.....</b>	<b>53</b>
<b>Limits and Information Gaps .....</b>	<b>61</b>

*CHNA Main Report can be found online at*

<https://www.dignityhealth.org/sacramento/about-us/community-health-and-outreach/health-needs-assessment>.

## List of Tables

Table 1: County length of life indicators compared to state benchmarks.....	6
Table 2: County quality of life indicators compared to state benchmarks. ....	8
Table 3: County health behavior indicators compared to state benchmarks. ....	9
Table 4: County clinical care indicators compared to state benchmarks.....	10
Table 5: County socio-economic and demographic factors indicators compared to state benchmarks. ....	11
Table 6: County physical environment indicators compared to state benchmarks.....	13
Table 7: Service provider survey results for Nevada County.....	15
Table 8 : Key Informant List. ....	20
Table 9: Focus Group List .....	22
Table 10: Mortality indicators used in Community of Concern Identification. ....	24
Table 11: Health factor and health outcome indicators used in health need identification. ....	26
Table 12: Sources and time periods for indicators obtained from County Health Rankings. ....	31
Table 13: 2022 Potential Health Needs. ....	40
Table 14: Primary themes and secondary indicators associated with PHN1.....	41
Table 15: Primary themes and secondary indicators associated with PHN2.....	41
Table 16: Primary themes and secondary indicators associated with PHN3.....	42
Table 17: Primary themes and secondary indicators associated with PHN4.....	43
Table 18: Primary themes and secondary indicators associated with PHN5.....	44
Table 19: Primary themes and secondary indicators associated with PHN6.....	44
Table 20: Primary themes and secondary indicators associated with PHN7.....	45
Table 21: Primary themes and secondary indicators associated with PHN8.....	46
Table 22: Primary themes and secondary indicators associated with PHN9.....	46
Table 23: Primary themes and secondary indicators associated with PHN10.....	47
Table 24: Primary themes and secondary indicators associated with PHN11.....	48
Table 25: Primary themes and secondary indicators associated with PHN12.....	49
Table 26: Benchmark comparisons to show indicator performance.....	50
Table 27: Resources available to meet health needs.....	53

## List of Figures

Figure 1: Community Health Assessment Conceptual Model as modified from the County Health Rankings Model, Robert Wood Johnson Foundation, and University of Wisconsin, 2015. ....	17
Figure 2: CHNA process model for SNMH. ....	19
Figure 3: Community of Concern identification process.....	38
Figure 4: Significant health need identification process.....	40

# Sierra Nevada Memorial Hospital (SNMH) 2022 CHNA Data and Technical Section

The following section presents a detailed account of data collection, analysis, and results, as well as appendices to the CHNA/CHA report for the SNMH service area. The main report can be found online at <https://www.dignityhealth.org/sacramento/about-us/community-health-and-outreach/health-needs-assessment>.

## Results of Data Analysis

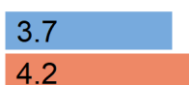





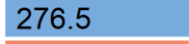
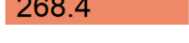

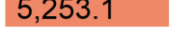


### Compiled Secondary Data

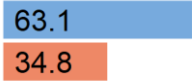
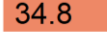
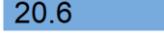

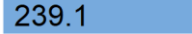
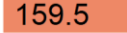









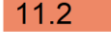

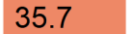

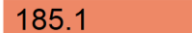
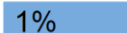

The tables and figures that follow show the specific values for the health need indicators used as part of the health need identification process. Indicator values for Nevada County were compared to the California state benchmark and are highlighted below when the county's performance was worse than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

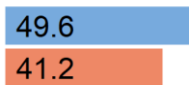
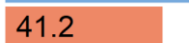


All references for the data presented in Tables 1-6 and Figures 1-6 are contained in Table 11.

### *Length of Life*

Table 1: County length of life indicators compared to state benchmarks.

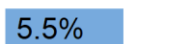
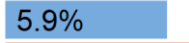

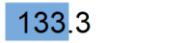

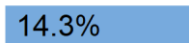
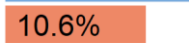


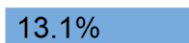
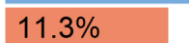


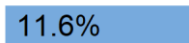
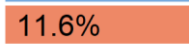
Indicators	Description	Nevada	California	
<b>Early Life</b>				
Infant Mortality	Number of all infant deaths (within 1 year), per 1,000 live births.	3.7	4.2	Nevada:  California: 
Child Mortality	Number of deaths among children under age 18 per 100,000 population.	33.5	36.0	Nevada:  California: 
Life Expectancy	Average number of years a person can expect to live.	81.3	81.7	Nevada:  California: 
<b>Overall</b>				
Premature Age-Adjusted Mortality	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	276.5	268.4	Nevada:  California: 
Premature Death	Years of potential life lost before age 75 per 100,000 population (age-adjusted).	6,068.4	5,253.1	Nevada:  California: 
Stroke Mortality	Number of deaths due to stroke per 100,000 population.	59.2	41.2	Nevada:  California: 

Indicators	Description	Nevada	California	
Chronic Lower Respiratory Disease Mortality	Number of deaths due to chronic lower respiratory disease per 100,000 population.	63.1	34.8	Nevada:  California: 
Diabetes Mortality	Number of deaths due to diabetes per 100,000 population.	20.6	24.1	Nevada:  California: 
Heart Disease Mortality	Number of deaths due to heart disease per 100,000 population.	239.1	159.5	Nevada:  California: 
Hypertension Mortality	Number of deaths due to hypertension per 100,000 population.	14.1	13.8	Nevada:  California: 
<b>Cancer, Liver, and Kidney Disease</b>				
Cancer Mortality	Number of deaths due to cancer per 100,000 population.	235.6	152.9	Nevada:  California: 
Liver Disease Mortality	Number of deaths due to liver disease per 100,000 population.	18.1	13.9	Nevada:  California: 
Kidney Disease Mortality	Number of deaths due to kidney disease per 100,000 population.	11.6	9.7	Nevada:  California: 
<b>Intentional and Unintentional Injuries</b>				
Suicide Mortality	Number of deaths due to suicide per 100,000 population.	19.3	11.2	Nevada:  California: 
Unintentional Injuries Mortality	Number of deaths due to unintentional injuries per 100,000 population.	55.2	35.7	Nevada:  California: 
<b>COVID-19</b>				
COVID-19 Mortality	Number of deaths due to COVID-19 per 100,000 population.	92.7	185.1	Nevada:  California: 
COVID-19 Case Fatality	Percentage of COVID-19 deaths per laboratory-confirmed COVID-19 cases.	1.0%	1.5%	Nevada:  California: 
<b>Other</b>				

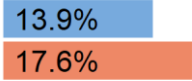
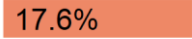
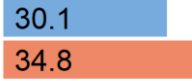



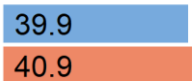

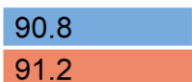

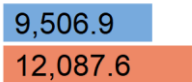
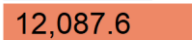
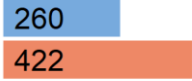

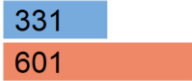

Indicators	Description	Nevada	California	
Alzheimer's Disease Mortality	Number of deaths due to Alzheimer's disease per 100,000 population.	49.6	41.2	Nevada:  California: 
Influenza and Pneumonia Mortality	Number of deaths due to influenza and pneumonia per 100,000 population.	22.2	16.0	Nevada:  California: 

### Quality of Life

Table 2: County quality of life indicators compared to state benchmarks.

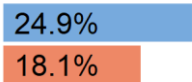
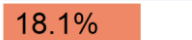
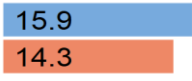

Indicators	Description	Nevada	California	
<b>Chronic Disease</b>				
Diabetes Prevalence	Percentage of adults ages 20 and above with diagnosed diabetes.	5.5%	8.8%	Nevada:  California: 
Low Birthweight	Percentage of live births with low birthweight (< 2,500 grams).	5.9%	6.9%	Nevada:  California: 
HIV Prevalence	Number of people ages 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population.	133.3	395.9	Nevada:  California: 
Disability	Percentage of the total civilian non-institutionalized population with a disability	14.3%	10.6%	Nevada:  California: 
<b>Mental Health</b>				
Poor Mental Health Days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted).	4.3	3.7	Nevada:  California: 
Frequent Mental Distress	Percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted).	13.1%	11.3%	Nevada:  California: 
Poor Physical Health Days	Average number of physically unhealthy days reported in past 30 days (age-adjusted).	3.8	3.9	Nevada:  California: 
Frequent Physical Distress	Percentage of adults reporting 14 or more days of poor physical health per month (age-adjusted).	11.6%	11.6%	Nevada:  California: 

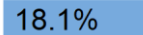
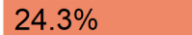
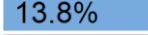
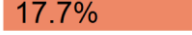
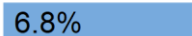



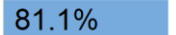
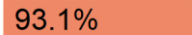


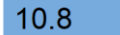

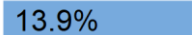
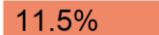


Indicators	Description	Nevada	California	
Poor or Fair Health	Percentage of adults reporting fair or poor health (age-adjusted).	13.9%	17.6%	Nevada:  California: 
<b>Cancer</b>				
Colorectal Cancer Prevalence	Colon and rectum cancers per 100,000 population (age-adjusted).	30.1	34.8	Nevada:  California: 
Breast Cancer Prevalence	Female in situ breast cancers per 100,000 female population (age-adjusted).	29.7	27.9	Nevada:  California: 
Lung Cancer Prevalence	Lung and bronchus cancers per 100,000 population (age-adjusted).	39.9	40.9	Nevada:  California: 
Prostate Cancer Prevalence	Prostate cancers per 100,000 male population (age-adjusted).	90.8	91.2	Nevada:  California: 
<b>COVID-19</b>				
COVID-19 Cumulative Incidence	Number of laboratory-confirmed COVID-19 cases per 100,000 population.	9,506.9	12,087.6	Nevada:  California: 
<b>Other</b>				
Asthma ED Rates	Emergency department (ED) visits due to asthma per 10,000 (age-adjusted).	260.0	422.0	Nevada:  California: 
Asthma ED Rates for Children	Emergency department visits due to asthma among ages 5-17 per 10,000 population ages 5-17 (age-adjusted).	331.0	601.0	Nevada:  California: 

**Health Behavior**


Table 3: County health behavior indicators compared to state benchmarks.




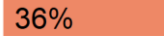


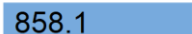



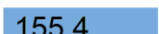

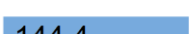
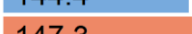

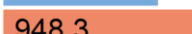
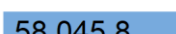
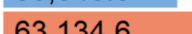
Indicators	Description	Nevada	California	
Excessive Drinking	Percentage of adults reporting binge or heavy drinking (age-adjusted).	24.9%	18.1%	Nevada:  California: 
Drug Induced Death	Drug induced deaths per 100,000 (age-adjusted).	15.9	14.3	Nevada:  California: 

Indicators	Description	Nevada	California	
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/m2.	18.1%	24.3%	Nevada:  California: 
Physical Inactivity	Percentage of adults ages 20 and over reporting no leisure-time physical activity.	13.8%	17.7%	Nevada:  California: 
Limited Access to Healthy Foods	Percentage of population who are low-income and do not live close to a grocery store.	6.8%	3.3%	Nevada:  California: 
Food Environment Index	Index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best).	8.1	8.8	Nevada:  California: 
Access to Exercise Opportunities	Percentage of population with adequate access to locations for physical activity.	81.1%	93.1%	Nevada:  California: 
Chlamydia Incidence	Number of newly diagnosed chlamydia cases per 100,000 population.	215.4	585.3	Nevada:  California: 
Teen Birth Rate	Number of births per 1,000 female population ages 15-19.	10.8	17.4	Nevada:  California: 
Adult Smoking	Percentage of adults who are current smokers (age-adjusted).	13.9%	11.5%	Nevada:  California: 

**Clinical Care**

Table 4: County clinical care indicators compared to state benchmarks.





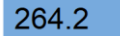
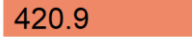



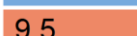

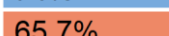
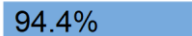
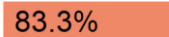
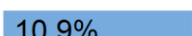
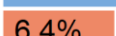




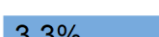

Indicators	Description	Nevada	California	
Primary Care Shortage Area	Presence of a primary care health professional shortage area within the county.	Yes		Nevada:  California:
Dental Care Shortage Area	Presence of a dental care health professional shortage area within the county.	No		Nevada: No California:

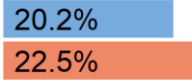
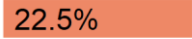


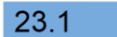

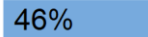
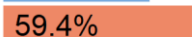
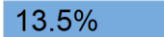
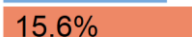
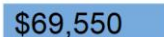
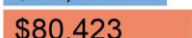
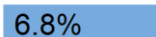



Indicators	Description	Nevada	California	
Mental Health Care Shortage Area	Presence of a mental health professional shortage area within the county.	Yes		Nevada:  Yes California:
Medically Underserved Area	Presence of a medically underserved area within the county.	Yes		Nevada:  Yes California:
Mammography Screening	Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening.	42.0%	36.0%	Nevada:  42% California:  36%
Dentists	Dentists per 100,000 population.	84.2	87.0	Nevada:  84.2 California:  87
Mental Health Providers	Mental health providers per 100,000 population.	858.1	373.4	Nevada:  858.1 California:  373.4
Psychiatry Providers	Psychiatry providers per 100,000 population.	7.1	13.5	Nevada:  7.1 California:  13.5
Specialty Care Providers	Specialty care providers (non-primary care physicians) per 100,000 population.	155.4	190.0	Nevada:  155.4 California:  190
Primary Care Providers	Primary care physicians per 100,000 population + other primary care providers per 100,000 population.	144.4	147.3	Nevada:  144.4 California:  147.3
Preventable Hospitalization	Preventable hospitalizations per 100,000 (age-sex-poverty adjusted)	776.0	948.3	Nevada:  776 California:  948.3
<b>COVID-19</b>				
COVID-19 Cumulative Full Vaccination Rate	Number of completed COVID-19 vaccinations per 100,000 population.	58,045.8	63,134.6	Nevada:  58,045.8 California:  63,134.6

**Socio-Economic and Demographic Factors**

Table 5: County socio-economic and demographic factors indicators compared to state benchmarks.

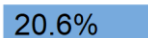
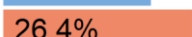
Indicators	Description	Nevada	California	
Community Safety				


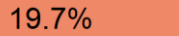
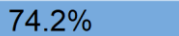
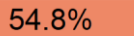
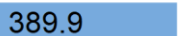
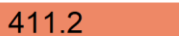
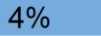
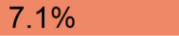
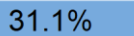
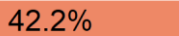
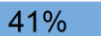
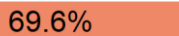
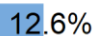
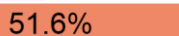


Indicators	Description	Nevada	California	
Homicide Rate	Number of deaths due to homicide per 100,000 population.	1.9	4.8	Nevada:  California: 
Firearm Fatalities Rate	Number of deaths due to firearms per 100,000 population.	13.9	7.8	Nevada:  California: 
Violent Crime Rate	Number of reported violent crime offenses per 100,000 population.	264.2	420.9	Nevada:  California: 
Juvenile Arrest Rate	Felony juvenile arrests per 1,000 juveniles.	3.2	2.1	Nevada:  California: 
Motor Vehicle Crash Death	Number of motor vehicle crash deaths per 100,000 population.	13.2	9.5	Nevada:  California: 
<b>Education</b>				
Some College	Percentage of adults ages 25-44 with some post-secondary education.	74.0%	65.7%	Nevada:  California: 
High School Completion	Percentage of adults ages 25 and over with a high school diploma or equivalent.	94.4%	83.3%	Nevada:  California: 
Disconnected Youth	Percentage of teens and young adults ages 16-19 who are neither working nor in school.	10.9%	6.4%	Nevada:  California: 
Third Grade Reading Level	Average grade level performance for 3rd graders on English Language Arts standardized tests.	3.0	2.9	Nevada:  California: 
Third Grade Math Level	Average grade level performance for 3rd graders on math standardized tests.	2.8	2.7	Nevada:  California: 
<b>Employment</b>				
Unemployment	Percentage of population ages 16 and older unemployed but seeking work.	3.3%	4.0%	Nevada:  California: 
<b>Family and Social Support</b>				

Indicators	Description	Nevada	California	
Children in Single-Parent Households	Percentage of children that live in a household headed by single parent.	20.2%	22.5%	Nevada:  California: 
Social Associations	Number of membership associations per 10,000 population.	9.7	5.9	Nevada:  California: 
Residential Segregation (Non-White/White)	Index of dissimilarity where higher values indicate greater residential segregation between non-White and White county residents.	23.1	38.0	Nevada:  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.	46.0%	59.4%	Nevada:  California: 
Children in Poverty	Percentage of people under age 18 in poverty.	13.5%	15.6%	Nevada:  California: 
Median Household Income	The income where half of households in a county earn more and half of households earn less.	\$69,550.0	\$80,423.0	Nevada:  California: 
Uninsured Population under 64	Percentage of population under age 65 without health insurance.	6.8%	8.3%	Nevada:  California: 
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile.	4.8	5.2	Nevada:  California: 

### Physical Environment

Table 6: County physical environment indicators compared to state benchmarks.

Indicators	Description	Nevada	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	20.6%	26.4%	Nevada:  California: 

Indicators	Description	Nevada	California	
	lack of plumbing facilities.			
Severe Housing Cost Burden	Percentage of households that spend 50% or more of their household income on housing.	19.0%	19.7%	Nevada:  California: 
Homeownership	Percentage of occupied housing units that are owned.	74.2%	54.8%	Nevada:  California: 
Homelessness Rate	Number of homeless individuals per 100,000 population.	389.9	411.2	Nevada:  California: 
<b>Transit</b>				
Households with no Vehicle Available	Percentage of occupied housing units that have no vehicles available.	4.0%	7.1%	Nevada:  California: 
Long Commute - Driving Alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes.	31.1%	42.2%	Nevada:  California: 
Access to Public Transit	Percentage of population living near a fixed public transportation stop	41.0%	69.6%	Nevada:  California: 
<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	12.6%	51.6%	Nevada:  California: 
Air Pollution - Particulate Matter	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).	6.3	8.1	Nevada:  California: 
Drinking Water Violations	Presence of health-related drinking water violations in the county.	No		Nevada: No California:

## Service Provider Survey Results

Table 7: Service provider survey results for Nevada County.

<b>Service Provider Survey Snapshot   Nevada County (n=19)</b>	
<b>Health Needs</b>	<b>% Reporting</b>
<b>Most Frequently Reported</b>	
Access to Basic Needs	84.2%
Access to Specialty and Extended Care	78.9%
Access to Mental/Behavioral Health and Substance Use Services	73.7%
Access to Dental Care and Preventive Services	68.4%
Access to Quality Primary Care Health Services	57.9%
Active Living and Healthy Eating	52.6%
<b>Top 3/ Priority (Most Frequently Reported Characteristics)</b>	
Access to Basic Needs	73.7%
Lack of affordable housing is a significant issue in the area.	
The area needs additional low-income housing options.	
Many people in the area do not make a living wage.	
It is difficult to find affordable childcare.	
Access to Mental/Behavioral Health and Substance Use Services.	42.1%
There aren't enough mental health providers or treatment centers in the area (e.g., psychiatric beds, therapists, support groups).	
Additional services for those who are homeless and experiencing mental/behavioral health issues are needed.	
Substance use is a problem in the area (e.g., use of opiates and methamphetamine, prescription misuse).	
Access to Dental Care and Preventive Services	36.8%
There aren't enough providers in the area who accept Denti-Cal.	
Quality dental services for kids are lacking.	

## **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 model is important because it provides the framework for 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 1. This model organizes a population's individual health-related characteristics in relation to up- or downstream health and health disparities factors. This model illustrates how health outcomes (quality and length of life) result from the influence of health factors describing interrelated individual, environmental, and community characteristics, which in turn are influenced by underlying policies and programs.



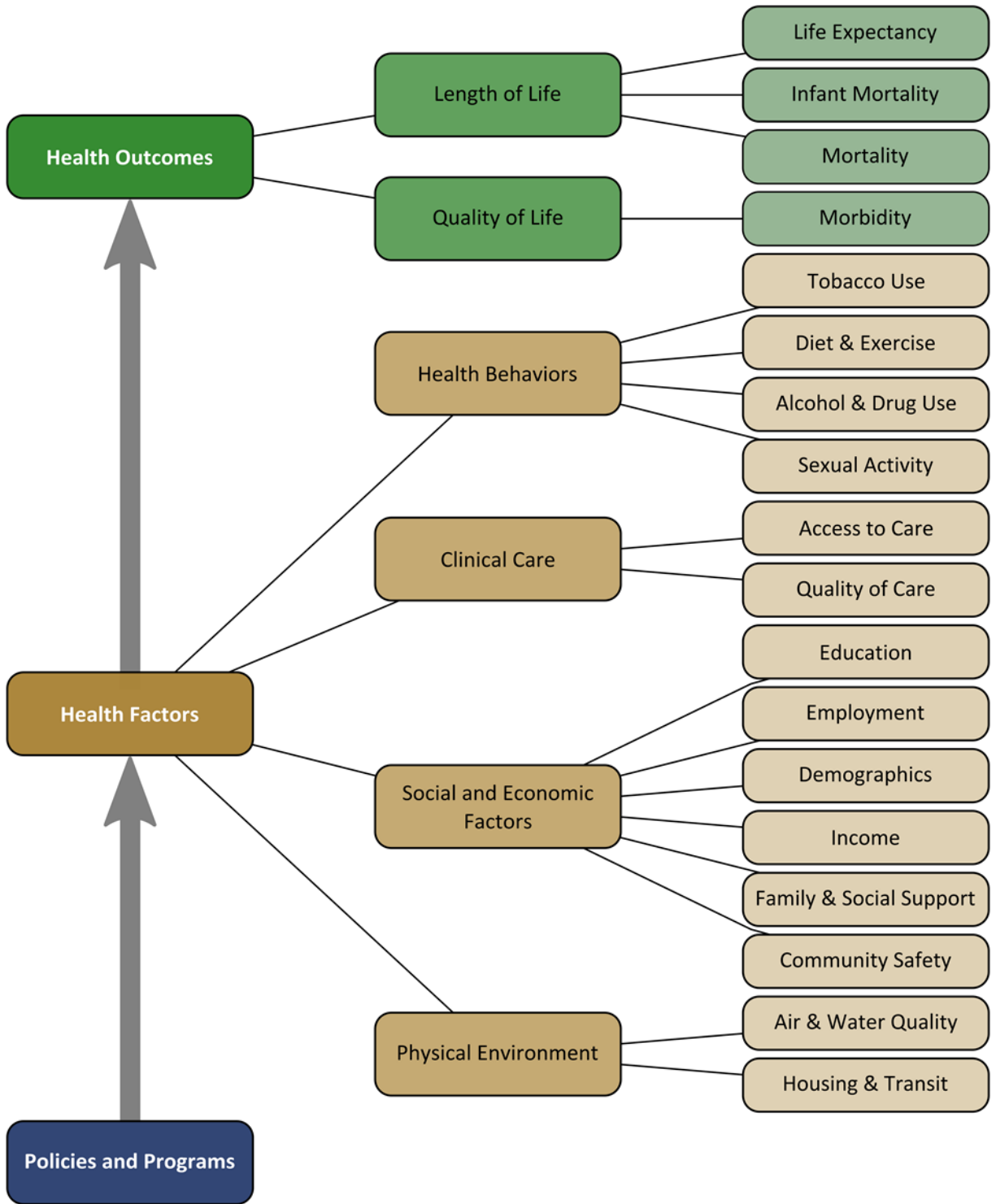


Figure 1: Community Health Assessment Conceptual Model as modified from the County Health Rankings Model, Robert Wood Johnson Foundation, and University of Wisconsin, 2015.

This model was used to guide the selection of secondary indicators in this analysis as well as to illustrate 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 for the assessment, each conceptual model category was reviewed to identify potential indicators that could be used to fully represent the category. The results were then used to guide secondary data collection.

### **Process Model**

Figure 2 outlines the data collection and analysis stages of this process. The project began by confirming the hospital service area (HSA) for Sierra Nevada Memorial Hospital for which the CHNA would be conducted. Primary data collection included key informant interviews and focus groups with community health experts and residents as well as a service provider (SP) survey. 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 HSA. 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.

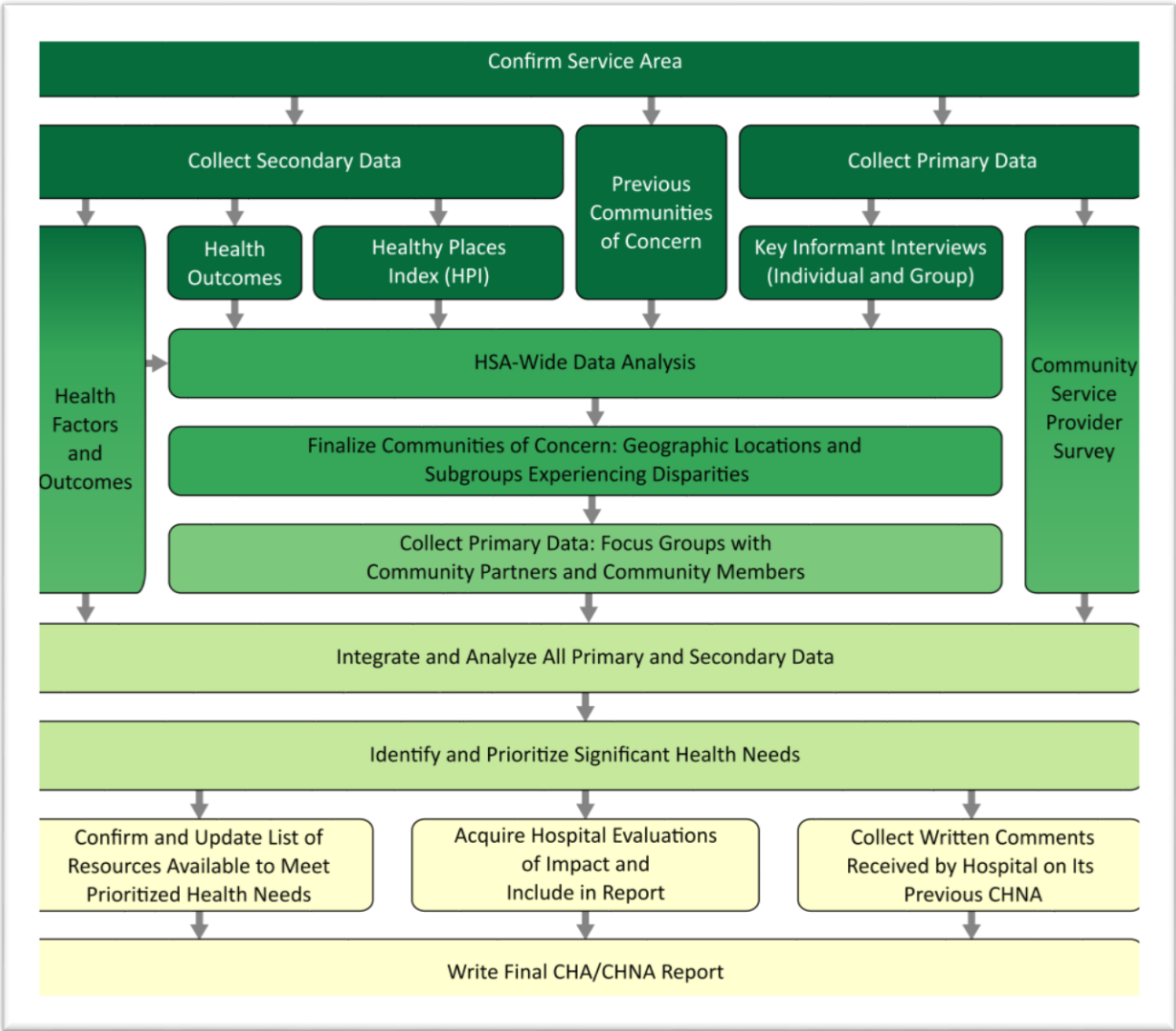


Figure 2: CHNA process model for SNMH.

## Primary Data Collection and Processing

### Primary Data Collection

Input from the community in the SNMH service area 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 groups were conducted with community residents living in identified Communities of Concern or representing communities experiencing health disparities. Third, a countywide survey was administered with community residents.

For key informant interviews and focus groups, 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 of involvement in the interview. All interview data were collected through note-taking.

**Key Informant Results**

Primary data collection with key informants included two phases. Phase one began by interviewing area-wide service providers with knowledge of the service area, including input from the Public Health Department. Data from these area-wide informants, coupled with socio-demographic data, were 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 describe what vulnerable populations existed in the county. As needed for a visual aid, key informants were provided with a map of the hospital service area (has) 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 8 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 8 : Key Informant List.

<b>Organization</b>	<b>Date</b>	<b>Number of Participants</b>	<b>Area of Expertise</b>	<b>Populations Served</b>
Sierra Nevada Memorial Hospital	05/24/2021	7	Acute care hospital: Healthcare services	Western portion of Nevada County
Grass Valley Police Department	05/25/2021	1	Chief of Police, Law Enforcement	Residents of Grass Valley
Nevada County Public Health	05/25/2021	1	Public Health	Nevada County residents
Senior Services: Gold Country Senior Services; FREED Center for Independent Living; Hospice of the Foothills	05/25/2021	4	Aging	Seniors; people living with disabilities
Chapa-De Indian Health	07/12/2021	1	Clinic: Indian Health Services	Underserved; Native American; Alaska Native; non-native
Hospitality House	07/13/2021	2	Homeless Shelter	Homeless; Grass Valley, Nevada City
Connecting Point	07/28/2021	3	Workforce Development; Resource Connection - Basic Needs	Grass Valley, Nevada City
Western Sierra Medical Clinic	08/05/2021	2	Federally Qualified Health Center: Healthcare services,	Low income, underserved;

			dental, behavioral health	Grass Valley, Nevada City
Sierra Family Health Center	08/09/2021	2	Federally Qualified Health Center: Healthcare services, dental and behavioral health services	Indigent and medically underserved

**Key Informant Interview Guide**

The following questions served as the interview guide 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?
    - ii. 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?
  - iii. 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?
  - iv. Probe for:
    - 1. How has the presence of COVID 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.
    - v. 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?

2. 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?
  - vi. 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)
3. SOLUTIONS
- a. What solutions are needed to address the health needs and or challenges mentioned?
    - vii. Probe for:
      1. Policies
      2. Care coordination
      3. Access to care
      4. Environmental change
4. 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?
5. RESOURCES
- a. What resources exist in the community to help people live healthy lives?
    - viii. Probe for:
      1. Barriers to accessing these resources.
      2. New resources that have been created since 2019
      3. New partnerships/projects/funding
6. PARTICIPANT DRIVEN SAMPLING:
- a. What other people, groups or organizations would you recommend we speak to about the health of the community?
    - ix. Name 3 types of service providers that you would suggest we include in this work.
    - x. Name 3 types of community members that you would recommend we speak to in this work.
7. 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 disproportionately experiencing 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 9 contains a listing of community resident groups that contributed input to the CHNA. The table describes the organization hosting the focus group, the date it occurred, the total number of participants, and populations represented by focus group members.

Table 9: Focus Group List

<b>Hosting Organization</b>	<b>Date</b>	<b>Number of Participants</b>	<b>Population Represented</b>
Hospitality House	09/02/2021	7	Homeless

Connecting Point	09/28/2021	4	Underserved community members
------------------	------------	---	-------------------------------

### ***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 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 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?

### **Primary Data Processing**

Key informant and focus group data were analyzed using qualitative analytic software. Content analysis included thematic coding to identify potential health need categories, special populations experiencing health issues, and available 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.

### **Service Provider Survey**

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

Richard Crandall, Lisa Davies, June McKissick, Nicole McNeely, Carly Pacheco, Venus Paxton, and Debra Plass.

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, a set of questions was included 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. This information was used along with other data sources to both identify and rank significant health needs in the community and to describe how the health needs are expressed. In total 18 participants participated as Service Provider survey respondents.

## Secondary Data Collection and Processing

“Secondary data” 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 and 2) support the identification of health needs. This section details the data sources as well as the process for collecting the secondary data and preparing 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>1</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>2</sup> health outcome indicators available at the ZIP Code level. The CDPH mortality data report the number of deaths that occurred in each ZIP Code from 2015-2019 due to each of the causes listed in Table 10.

Table 10: Mortality indicators used in Community of Concern Identification.

Cause of Death	ICD 10 Codes
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 were merged with the

<sup>1</sup> Public Health Alliance of Southern California. 2021. HPI\_MasterFile\_2021-04-22.zip. Data file. Retrieved 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>2</sup> State of California, Department of Public Health. 2021. California Comprehensive Master Death File (Static), 2015-2019.



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 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 for 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 data into the analysis, the point location (latitude and longitude) of all ZIP Codes in California<sup>3</sup> were compared to ZCTA boundaries.<sup>4</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>5</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 numbers 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 adjustment is greater in areas with smaller populations, and less in areas with larger populations.

Because EBRs 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

---

<sup>3</sup> Datasheer, L.L.C. 2018. ZIP Code Database Free. Retrieved from <http://www.Zip-Codes.com>.

<sup>4</sup> US Census Bureau. 2021. TIGER/Line Shapefile, 2019, 2010 nation, U.S., 2010 Census 5-Digit ZIP Code Tabulation Area (ZCTA5) National. Retrieved from <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.

<sup>5</sup> Anselin, Luc. 2003. Rate Maps and Smoothing. Retrieved 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)

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 numbers problem in all cases, it does make the comparison of the resulting 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 11 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 11: Health factor and health outcome indicators used in health need identification.

Conceptual Model Alignment		Indicator	Data Source	Time Period	
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 2021-11-17
			COVID-19 Case Fatality	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2021-11-17
			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 2021-11-17
			Asthma Emergency Department (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
			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 2021-11-17
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, TransitWiki.org, Santa Ynez Valley	2021; 2020

			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>6</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 served 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 12.

Table 12: Sources and time periods for indicators obtained from County Health Rankings.

CHR Indicator	Time Period	Data Source
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
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

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

<b>CHR Indicator</b>	<b>Time Period</b>	<b>Data Source</b>
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



<b>CHR Indicator</b>	<b>Time Period</b>	<b>Data Source</b>
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 provider 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>7</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 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, the state by-cause mortality rate was applied 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.

<sup>7</sup> State of California, Department of Public Health. 2021. California Vital Data (Cal-ViDa), Death Query. Retrieved from <https://cal-vida.cdph.ca.gov/>.

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>8</sup> and completed vaccinations<sup>9</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>10</sup> and report age-adjusted deaths per 100,000.

### ***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>11</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.

---

<sup>8</sup> State of California, Department of Public Health. 2021. Statewide COVID-19 Cases Deaths Tests. Retrieved 17 November 2021 from [https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/046cdd2b-31e5-4d34-9ed3-b48cdbc4be7a/download/COVID-19cases\\_test.csv](https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/046cdd2b-31e5-4d34-9ed3-b48cdbc4be7a/download/COVID-19cases_test.csv).

<sup>9</sup> State of California, Department of Public Health. 2021. COVID-19 Vaccine Progress Dashboard Data . Retrieved 17 November 2021 from <https://data.chhs.ca.gov/dataset/e283ee5a-cf18-4f20-a92c-ee94a2866ccd/resource/130d7ba2-b6eb-438d-a412-741bde207e1c/download/COVID-19vaccinesbycounty.csv>.

<sup>10</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 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).

<sup>11</sup> US Health Resources & Services Administration. 2021. Area Health Resources Files and Shortage Areas. Retrieved from <https://data.hrsa.gov/data/download>.

### ***Psychiatry and Specialty Care Providers***

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 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>12</sup> include 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 2013-2017, and report cases per 100,000. For low-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 ages 5 to 17 were obtained from Tracking California.<sup>13</sup> These data report 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.

### **U.S. Census Bureau**

Data from the U.S. 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>14</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

---

<sup>12</sup> California Cancer Registry. 2021. Age-Adjusted Invasive Cancer Incidence Rates in California. Retrieved from <https://www.cancer-rates.info/ca/>.

<sup>13</sup> Tracking California, Public Health Institute. 2021. Asthma Related Emergency Department & Hospitalization data. Retrieved from [www.trackingcalifornia.org/asthma/query](http://www.trackingcalifornia.org/asthma/query).

<sup>14</sup> California Office of Environmental Health Hazard Assessment. 2018. CalEnviroScreen 3.0. Retrieved from <https://oehha.ca.gov/calenviroscreen/maps-data>.

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>15</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>16</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 - 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.

### **U.S. Department of Housing and Urban Development**

Data from the U.S. Department of Housing and Urban Development's 2020 Annual Homeless Assessment Report<sup>17</sup> were used to calculate homelessness rates for the counties and states. These data report 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.

---

<sup>15</sup> Office of Statewide Health Planning and Development. 2021. Prevention Quality Indicators (PQI) for California. Data files for Statewide and County. Retrieved from <https://oshpd.ca.gov/data-and-reports/healthcare-quality/ahrq-quality-indicators/>.

<sup>16</sup> California Department of Justice, OpenJustice. 2021. Criminal Justice Data: Arrests. Retrieved from <https://data-openjustice.doj.ca.gov/sites/default/files/dataset/2020-07/OnlineArrestData1980-2019.csv>.

<sup>17</sup> US Department of Housing and Urban Development. 2021. 2020 Annual Homeless Assessment Report: 2007 - 2020 Point-in-Time Estimates by CoC. Retrieved from <https://www.huduser.gov/portal/sites/default/files/xls/2007-2020-PIT-Estimates-by-CoC.xlsx>.

## Proximity to Transit Stops

The proximity to transit stops indicator 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>18</sup> so this was the data used to represent the distribution of population for this indicator.

Transit stop data were identified first by using tools in the TidyTransit<sup>19</sup> library for the R statistical programming language.<sup>20</sup> This was used to identify transit providers with stops located within 100 miles of the state's 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>21</sup> Transitland,<sup>22</sup> Transitwiki.org,<sup>23</sup> and Santa Ynez Valley Transit.<sup>24</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>25</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 stops' buffer 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 to help identify Communities of Concern. These Communities of Concern potentially included 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.

---

<sup>18</sup> US Census Bureau. 2011. Census Blocks with Population and Housing Counts. Retrieved from <https://www2.census.gov/geo/tiger/TIGER2010BLKPOPHU/>.

<sup>19</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. <https://CRAN.R-project.org/package=tidytransit>.

<sup>20</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>21</sup> OpenMobilityData. 2021. California, USA. Retrieved all feeds listed on 31 May to 1 June 2021 from <https://openmobilitydata.org/1/67-california-usa>.

<sup>22</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>23</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>24</sup> Santa Ynez Valley Transit. GTFS Files. Retrieved on 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>25</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

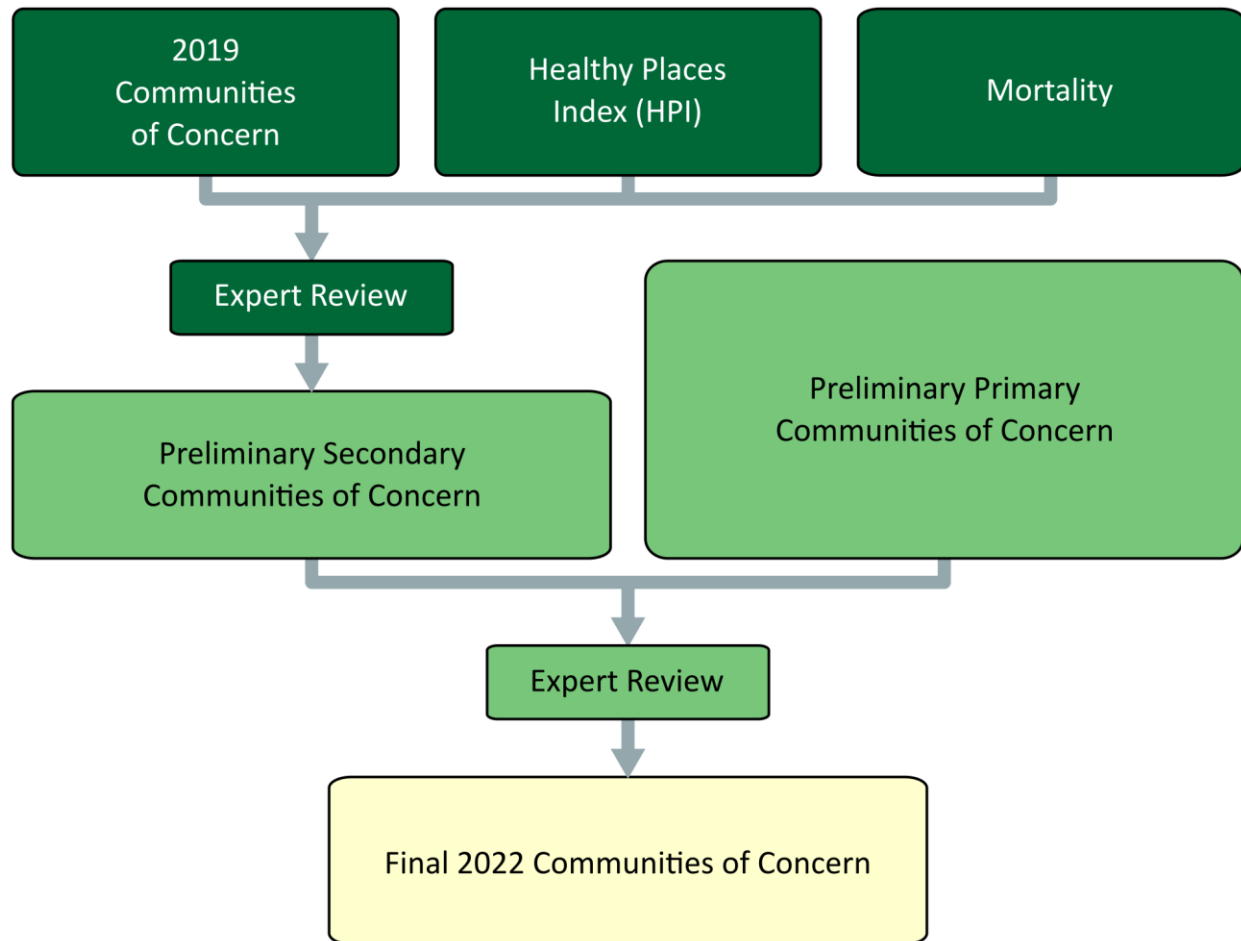


Figure 3: Community of Concern identification process.

As illustrated in Figure 3, 2022 Communities of Concern were identified through a process drawing upon both primary and secondary data. Three main secondary data sources were used in this analysis: Communities of Concern identified in the 2019 CHNA; 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 HSA. The following secondary data selection criteria were used to identify preliminary Communities of Concern.

### **2019 Community of Concern**

A ZCTA was included if it was included in the 2019 CHNA Community of Concern list for the HSA. This was done to allow greater continuity between CHNA rounds and reflects the work of the hospital focused on serving these disadvantages communities.

### **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 HSA. 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 HSA was counted. Those ZCTAs whose counted values exceeded the 80th percentile for all of the ZCTAs in the HSA 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 resulting list 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 conducted 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 4 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 13.

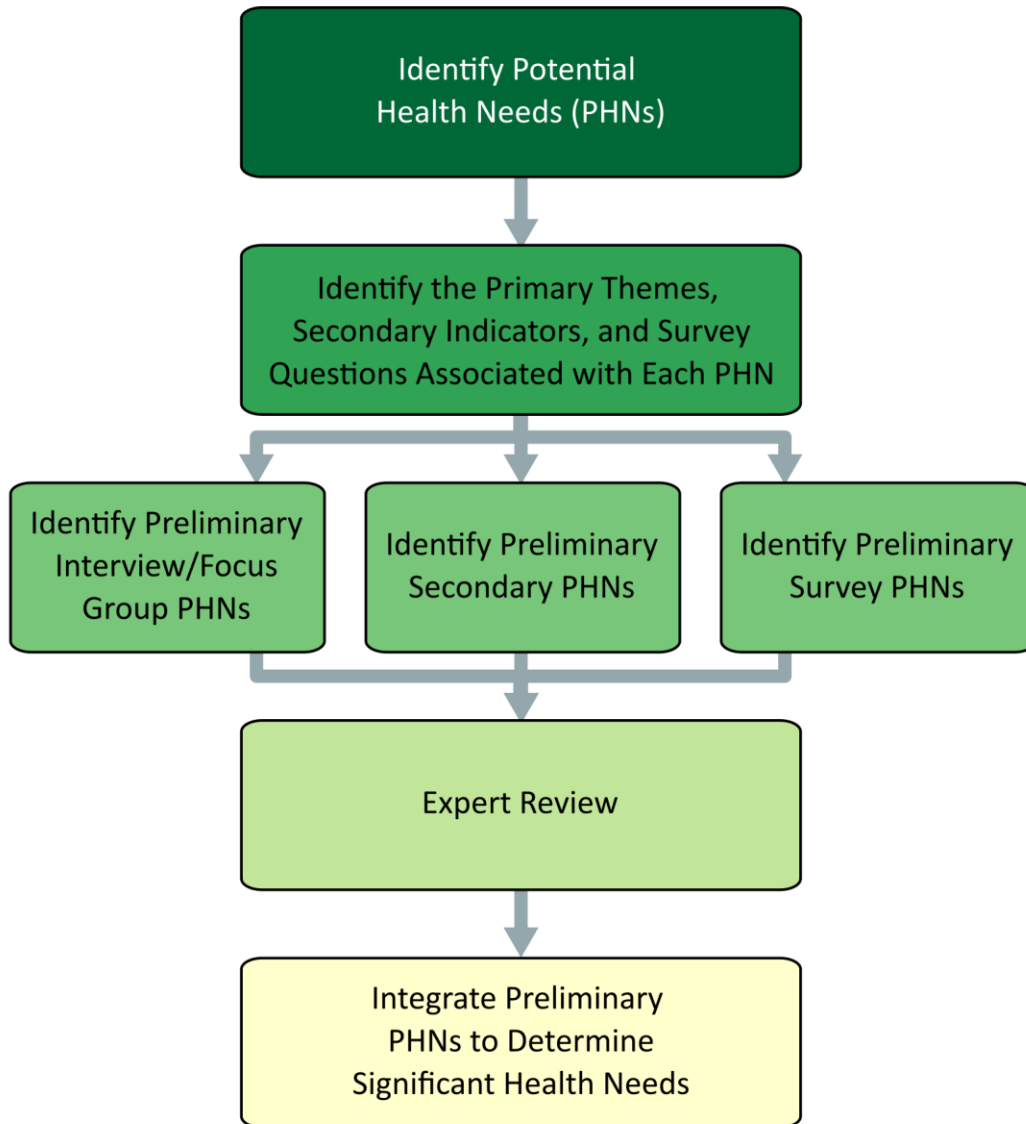


Figure 4: Significant health need identification process.

Table 13: 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



The next step in the process was to identify primary themes and secondary indicators associated with each of these health needs as shown in Table 14 through Table 25. 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 14: Primary themes and secondary indicators associated with PHN1.

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

### Access to Quality Primary Care Health Services

Table 15: Primary themes and secondary indicators associated with PHN2.

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

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

**Active Living and Healthy Eating**

Table 16: Primary themes and secondary indicators associated with PHN3

<b>Primary Themes</b>	<b>Secondary Indicators</b>
<p>There are food deserts in the area where fresh, unprocessed foods are not available.            Fresh, unprocessed foods are unaffordable.            Food insecurity is an issue here.            Students need healthier food options in schools.</p>	<p>Life Expectancy            Premature Age-Adjusted Mortality            Premature Death            Stroke Mortality</p>

<p>The built environment doesn't support physical activity (e.g., neighborhoods aren't walkable, roads aren't bike-friendly, or parks are inaccessible).</p> <p>The community needs nutrition education programs.</p> <p>Homelessness in parks or other public spaces deters residents from their use.</p> <p>Recreational opportunities in the area are unaffordable (e.g., gym memberships, recreational activity programming).</p> <p>There aren't enough recreational opportunities in the area (e.g., organized activities, youth sports leagues)</p> <p>The food available in local homeless shelters and food banks is not nutritious.</p> <p>Grocery store options are limited in the area.</p>	<p>Diabetes Mortality</p> <p>Heart Disease Mortality</p> <p>Hypertension Mortality</p> <p>Cancer Mortality</p> <p>Kidney Disease Mortality</p> <p>Diabetes Prevalence</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</p> <p>Prevalence</p> <p>Breast Cancer Prevalence</p> <p>Prostate Cancer Prevalence</p> <p>Asthma Emergency</p> <p>Department (ED) Rates</p> <p>Asthma ED Rates for Children</p> <p>Adult Obesity</p> <p>Physical Inactivity</p> <p>Limited Access to Healthy Foods</p> <p>Food Environment Index</p> <p>Access to Exercise Opportunities</p> <p>Residential Segregation (Non-White/White)</p> <p>Income Inequality</p> <p>Severe Housing Cost Burden</p> <p>Homelessness Rate</p> <p>Long Commute - Driving Alone</p> <p>Access to Public Transit</p>
---	--

**Safe and Violence-Free Environment**

Table 17: Primary themes and secondary indicators associated with PHN4.

<b>Primary Themes</b>	<b>Secondary Indicators</b>
<p>People feel unsafe because of crime.</p> <p>There are not enough resources to address domestic violence and sexual assault.</p> <p>Isolated or poorly lit streets make pedestrian travel unsafe.</p> <p>Public parks seem unsafe because of illegal activity taking place.</p> <p>Youth need more safe places to go after school.</p> <p>Specific groups in this community are targeted because of characteristics like race/ethnicity or age.</p> <p>There isn't adequate police protection.</p> <p>Gang activity is an issue in the area.</p> <p>Human trafficking is an issue in the area.</p>	<p>Life Expectancy</p> <p>Premature Death</p> <p>Hypertension Mortality</p> <p>Poor Mental Health Days</p> <p>Frequent Mental Distress</p> <p>Frequent Physical Distress</p> <p>Poor or Fair Health</p> <p>Physical Inactivity</p> <p>Access to Exercise Opportunities</p> <p>Homicide Rate</p>

The current political environment makes some concerned for their safety.	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 18: Primary themes and secondary indicators associated with PHN5.

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

### Healthy Physical Environment

Table 19: Primary themes and secondary indicators associated with PHN6.

Primary Themes	Secondary Indicators
The air quality contributes to high rates of asthma. Poor water quality is a concern in the area. Agricultural activity harms the air quality. Low-income housing is substandard. Residents' use of tobacco and e-cigarettes harms the air quality. Industrial activity in the area harms the air quality. Heavy traffic in the area harms the air quality. Wildfires in the region harm the air quality.	Infant Mortality Life Expectancy Premature Age-Adjusted Mortality Premature Death Chronic Lower Respiratory Disease Mortality Hypertension Mortality Cancer Mortality Frequent Mental Distress Frequent Physical Distress Poor or Fair Health Colorectal Cancer Prevalence Breast Cancer Prevalence Lung Cancer Prevalence Prostate Cancer Prevalence Asthma Emergency Department (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 20: Primary themes and secondary indicators associated with PHN7.

<b>Primary Themes</b>	<b>Secondary Indicators</b>
Lack of affordable housing is a significant issue in the area. The area needs additional low-income housing options. Poverty in the county is high. Many people in the area do not make a living wage. Employment opportunities in the area are limited. Services for homeless residents in the area are insufficient. Services are inaccessible for Spanish-speaking and immigrant residents. Many residents struggle with food insecurity. It is difficult to find affordable childcare. Educational attainment in the area is low.	Infant Mortality Child Mortality Life Expectancy Premature Age-Adjusted Mortality Premature Death Hypertension Mortality COVID-19 Mortality COVID-19 Case Fatality Diabetes Prevalence Low Birthweight Poor Mental Health Days Frequent Mental Distress Poor Physical Health Days Frequent Physical Distress Poor or Fair Health COVID-19 Cumulative Incidence Asthma Emergency Department (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 21: Primary themes and secondary indicators associated with PHN8.

Primary Themes	Secondary Indicators
Many residents do not have reliable personal transportation. Medical transport in the area is limited. Roads and sidewalks in the area are not well maintained. The distance between service providers is inconvenient for those using public transportation. Using public transportation to reach providers can take a very long time. The cost of public transportation is too high. Public transportation service routes are limited. Public transportation schedules are limited. The geography of the area makes it difficult for those without reliable transportation to get around. Public transportation is more difficult for some to residents to use (e.g., non-English speakers, seniors, parents with young children). There aren't enough taxi and ride-share options (e.g., Uber, Lyft).	Disability Frequent Mental Distress Frequent Physical Distress Poor or Fair Health Adult Obesity COVID-19 Cumulative Full Vaccination Rate Income Inequality Homelessness Rate Households with no Vehicle Available Long Commute - Driving Alone Access to Public Transit

### Access to Specialty and Extended Care

Table 22: Primary themes and secondary indicators associated with PHN9.

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

**Injury and Disease Prevention and Management**

Table 23: Primary themes and secondary indicators associated with PHN10.

<b>Primary Themes</b>	<b>Secondary Indicators</b>
<p>There isn't really a focus on prevention around here.</p> <p>Preventive health services for women are needed (e.g., breast and cervical cancer screening).</p> <p>There should be a greater focus on chronic disease prevention (e.g. diabetes, heart disease).</p> <p>Vaccination rates are lower than they need to be.</p> <p>Health education in the schools needs to be improved.</p> <p>Additional HIV and sexually transmitted infection (STI) prevention efforts are needed.</p> <p>The community needs nutrition education opportunities.</p> <p>Schools should offer better sexual health education.</p> <p>Prevention efforts need to be focused on specific populations in the community (e.g. youth, Spanish-speaking residents, the elderly, LGBTQ individuals, immigrants).</p> <p>Patients need to be better connected to service providers (e.g. case management, patient navigation, or centralized service provision).</p>	Infant Mortality Child Mortality Stroke Mortality Chronic Lower Respiratory Disease Mortality Diabetes Mortality Heart Disease Mortality Hypertension Mortality Liver Disease Mortality Kidney Disease Mortality 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 Emergency Department (ED) Rates

	<p>Asthma ED Rates for Children</p> <p>Excessive Drinking</p> <p>Drug Induced Death</p> <p>Adult Obesity</p> <p>Physical Inactivity</p> <p>Chlamydia Incidence</p> <p>Teen Birth Rate</p> <p>Adult Smoking</p> <p>COVID-19 Cumulative Full Vaccination Rate</p> <p>Firearm Fatalities Rate</p> <p>Juvenile Arrest Rate</p> <p>Motor Vehicle Crash Death</p> <p>Disconnected Youth</p> <p>Third Grade Reading Level</p> <p>Third Grade Math Level</p> <p>Income Inequality</p> <p>Homelessness Rate</p>
--	--

**Increased Community Connections**

Table 24: Primary themes and secondary indicators associated with PHN11.

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



	Medically Underserved Area Mental Health Providers Psychiatry Providers Specialty Care Providers Primary Care Providers Preventable Hospitalization 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 25: Primary themes and secondary indicators associated with PHN12.

<b>Primary Themes</b>	<b>Secondary Indicators</b>
People may not be aware of the services they are eligible for. It is difficult for people to navigate multiple, different healthcare systems. The area needs more navigators to help to get people connected to services. People have trouble understanding their insurance benefits. Automated phone systems can be difficult for those who are unfamiliar with the healthcare system. Dealing with medical and insurance paperwork can be overwhelming. Medical terminology is confusing. Some people just don't know where to start in order to access care or benefits.	No secondary indicators were assigned to this PHN.

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 26 lists each secondary indicator and describes the comparison made to the benchmark to determine if it was problematic.

Table 26: 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 Emergency Department (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

<b>Indicator</b>	<b>Benchmark Comparison Indicating Poor Performance</b>
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 poorly performing quantitative indicators were identified, they were used to determine preliminary secondary significant health needs. This was done by calculating the percentage of all secondary

indicators associated with a given potential health need (PHN) that were identified as performing poorly within the HSA. While all PHNs represented actual health needs within the HSA 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 HSA.

These sets of criteria (any mention, 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80%) were used because it was not feasible to anticipate which specific standard would be most meaningful within the context of the HSA. Having multiple objective decision criteria allows the process to be more easily described while still allowing for enough flexibility to respond to evolving conditions in the HSA. 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 50% or more of the primary sources as performing poorly, and as a preliminary survey significant health need if it was identified by at least 50% of survey respondents. Finally, a PHN was selected as a significant health need if it was included as a preliminary significant health need in one of these three categories.

### **Significant Health Need Prioritization**

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

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 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 27: Resources available to meet health needs.

Organization Information			Significant Health Needs										Other Health Needs	
Name	Primary ZIP Code	Website	Access to Basic Needs Such as Housing, Jobs, etc.	Access to Mental/Behavioral Health and Substance Use	Access to Quality Primary Care Health Services	Access to Specialty and Extended Care	System Navigation	Increased Community Connections	Access to Functional Needs	Injury and Disease Prevention and Management	Active Living and Healthy Eating	Safe and Violence-Free Environment	Access to Dental Care and Preventive Services	Healthy Physical Environment
2-1-1 Community Services Central	95945	211connectingpoint.org	x	x			x	x	x	x	x	x		x
Adult and Family Services Commission (AFSC) of Nevada County	95959	www.mynevada.com	x		x	x		x				x		
Agency on Aging – Area 4	95815	agencyonaging4.org	x		x	x		x		x		x		
Alliance for Workforce Development, Inc.	95949	afwd.org	x											
Alternatives Pregnancy Center	95825	alternativespc.org		x	x	x								
Alzheimer’s Association	95815	www.alz.org/norcal		x		x		x		x				
American Red Cross	95815	www.redcross.org	x		x			x						
AMI Housing	95604	www.amihousing.org	x											
Anew Day	95959	www.anew-day.com		x				x						
Another Choice Another Chance	95823	acacsac.org		x				x						

Bear Yuba Land Trust	95949	www.bylt.org										X		X
Big Brothers Big Sisters of Nevada County and North Lake Tahoe	95959	www.mynevada county.com/1614/Big-Brothers-Big-Sisters-BBBS		X				X					X	
Breathe California of Sacramento – Emigrant Trails	95814	sacbreathe.org			X			X		X				X
Bright Futures For Youth- The Friendship Club	95959	bffyouth.org/tfc	X	X								X	X	
Cal Fresh – Market Match	95959	marketmatch.org	X									X		
Chapa-De Indian Health	95945	chapa-de.org		X	X		X			X	X		X	
Charis Youth Center	95945	www.charisyouthcenter.org	X	X			X		X					
Child Advocates of Nevada County	95959	www.caofnc.org	X		X								X	
Child Protective Services	95949	mynevadacounty.com	X	X	X			X					X	
Clinical CareForce	95678	www.california careforce.org			X									X
Coalition for a Drug-Free Nevada County Youth	95945	www.cncyouth.org								X			X	
Color Me Human	95945	https://www.colormehuman.org	X					X						
Common Goals Inc.	95945	commongoalsinc.org		X									X	
Communities Beyond Violence	95949	www.cbv.org	X	X			X	X					X	
Community Support Network of Nevada County (CSNC)	95959	csnnc.org	X	X	X							X		

Del Oro Caregiver Resource Center	95610	www.deloro.org		x	x	x	x	x		x				
Dignity Health Sierra Nevada Memorial Hospital	95945	www.dignityhealth.org/sacramento/medical-group/sierra-nevada  https://locations.dignityhealth.org/sierra-nevada-memorial-hospital?utm_source=LocalSearch&utm_medium=Facility&utm_campaign=Sacramento&utm_term=SierraNevadaMemorialHospital		x	x		x			x	x			
Falls Prevention Coalition of Nevada County	95945	supportsierranevada.org/fallspreventioncoalition					x			x				x
First 5 Nevada	95959	www.first5nevado.org	x	x	x			x			x			
Food Bank of Nevada County	95945	foodbankofnc.org	x					x			x			
FREED Center for Independent	95945	freed.org	x	x	x		x	x			x			x
Gender Health Center	95817	www.genderhealthcenter.org	x	x	x							x		
Gold Country Community Services	95945	www.goldcountyservices.org	x					x			x			
Goodwill – Sacramento Valley	95776	www.goodwill-sacto.org	x					x						
Granite Wellness Centers	95945	www.granitewellness.org		x				x						





		e=d&pREC_ID=1178587ncsd.school												
Nevada County Behavioral Health	95945	www.mynevada.com/430/Behavioral-Health		x			x	x		x		x		
Nevada County Consolidated Fire	95959	www.nccfire.com			x							x		
Nevada County Corrections	95945	www.mynevada.com/264/Corrections-Division	x	x	x									
Nevada County-Crisis Stabilization Unit	95945	www.mynevada.com/470/Emergency-Urgent-Care			x			x						
Nevada County Health and Human Services Agency	95945	www.mynevada.com/1331/About-Health-Human-Services	x	x	x	x	x		x	x	x	x	x	x
Nevada County-HOME (Homeless outreach Medical Engagement) Team	95959	www.mynevada.com/2869/HOME-Team	x	x				x		x		x		
Nevada County Local One Stop Business and Career Network	95959	www.nevadacitychamber.com/one-stop-business-career-center	x											
Nevada County Probation	95959	www.mynevada.com/617/Probation										x		
Nevada County Public Health	95959	www.mynevada.com/551/Public-Health		x	x	x	x			x				

Nevada County-Senior Outreach Nurse Program	95959	www.mynevada county.com/1343/Senior-Outreach-Nurses			X									
Nevada County Superintendent of Schools	95945	nevco.org	X	X	X						X	X		
Nevada County WIC	95945	www.mynevada county.com/867/Women-Infants-Children-Program	X		X						X			
Nevada County Youth Probation	95959	www.mynevada county.com/396/Juvenile-Court										X		
North Columbia Schoolhouse Cultural Center	95959	www.northcolu mbiaschoolhou se.org	X					X						
North San Juan Volunteer Fire Department	95960	nsjfire.org	X		X							X		
Sierra Community House	96143	sierracommunit yhouse.org						X			X			
PARTNERS Family Resource Centers	95945	partnersfamilyre sourcecenters.or g	X				X	X			X	X		
Partners in English Language Learning (PiELL)	95959	piell.org	X					X						
Placer-Nevada County Medical Society – Opioid Safety Coalition	95677	www.pncms.org /home.aspx		X			X			X				
PRIDE Industries	95747	www.prideindus tries.com	X											

Rotary Club of Nevada City	95959	www.nevadacityrotary.org	x											
Salvation Army – Del Oro Division	95834	deloro.salvationarmy.org	x	x	x			x						
Salvation Army-Booth Family Center	95945	grassvalley.salvationarmy.org/grass_valley/booth-family-center	x					x						
School of Care	95945	wolfcreekcarecenter/wolf-creek-school-of-care	x					x	x		x			
Shingle Springs Tribal TANF Program	95825	www.shinglespringsrancheria.com/tribal-tanf	x											
Shriner’s Hospital for Children – Northern California	95817	shrinershospitalforchildren.org/sacramento				x	x	x						
Sierra Family Medical Clinic	95959	www.sierraclinic.org		x	x					x	x		x	
Sierra Foothills AIDS Foundation	95602	sierrafoothillsaids.org	x		x			x	x		x			
Sierra Harvest	95959	sierraharvest.org									x			
Sierra Mental Wellness Group	96145	sierramentalwellness.org		x										
Sierra Nevada Children’s Services	95945	www.sncs.org	x	x	x						x	x		
Sierra Roots	95959	www.sierraroots.org	x								x			
Sierra Services for the Blind	95959	sierraservices.org		x				x	x	x				
Spirit Peer Empowerment Center	95945	spiritpeerempowermentcenter.org	x	x					x					
Tahoe Forest Hospital	96161	www.tfhd.com/tahoe-forest-hospital		x	x			x			x	x		

The Center for the Arts	95945	thecenterforthearts.org	x											
The Church of Jesus Christ of Latter-day Saints	95959	www.churchofjesuschrist.org	x					x						
The Clinic!	95945	citizensforchoice.org			x									
The Keaton Raphael Memorial	95661	childcancer.org						x		x				
Tobacco Use Prevention Education (TUBE)	95945	nevco.org/programs-services/tube								x				
Turning Point Community Programs	95670	www.tpcp.org	x	x								x		
Twin Cities Church	95945	www.twincities.church	x					x						
Unity Gold Spiritual Center	95945	www.unitygold.us	x					x						
University of California, Davis	95616	www.ucdavis.edu	x											
VA Northern California Health Care System	95655	www.va.gov/northern-california-health-care/	x	x	x		x							
Volunteers of America – Northern California & Northern Nevada	95821	www.voanncnn.org	x	x				x						
Western Sierra Medical Clinic	95945	wsmcmed.org		x	x		x			x	x		x	
Woman of Worth	95959	www.womenofworth.org	x	x			x	x				x		
YMCA of Superior California	95845	www.ymcasuperiorcal.org						x			x	x		

## Limits and Information Gaps

Study limitations for this CHNA included obtaining secondary quantitative data specific to population subgroups and ensuring 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.

It was challenging to gain access to participant's best representing the populations needed for this assessment's primary data collection (i.e., key information interviews, focus groups, and Service Provider survey). The COVID-19 pandemic made it more difficult to recruit community members to participate in 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, as experienced by various populations, that result in later-in-life disparities can help direct community health improvement efforts for maximum impact.