2022 Community Health Needs Assessment

Conducted on behalf of

Dignity Health
St. Elizabeth Community Hospital

2550 Sister Mary Columba Drive
Red Bluff CA 96080

Conducted by

COMMUNITY HEALTH INSIGHTS

Adopted by the Dignity Health North State community board in April 2022

Acknowledgments

We are deeply grateful to all those who contributed to the community health needs assessment conducted on behalf of St. Elizabeth Community Hospital. Many dedicated 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 to help guide and inform the findings of the assessment. 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.

This community health needs assessment report was adopted by the Dignity Health North State community board in April 2022. The report is widely available to the public on the hospital's web site (https://www.dignityhealth.org/north-state/locations/stelizabethhospital, as of April 2022), and a paper copy is available for inspection upon request at the hospital's community health office. Written comments on this report can be submitted to St. Elizabeth Community Hospital, Attn: Community Health, 2550 Sister Mary Columba Drive, Red Bluff, CA 96080.

Table of Contents

List of Tables

List of Figures

Report Summary

Purpose

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

Community Definition

The definition of the community served was the primary service area of SECH, including a large portion of Tehama County and a small portion of Shasta County. Both counties are considered predominately rural, and are located in Northern California, situated along the north-south Interstate 5 corridor. For the purposes of this assessment the service area was further defined by six ZIP codes. These included 96021, 96022, 96035, 96055, 96080, and 96090. The total population of the service area was 69,385

Assessment Process and Methods

The data used to conduct the CHNA were identified and organized using the widely recognized Robert Wood Johnson Foundation's County Health Rankings model.[1] This model of population health includes many factors that impact and account for individual health and well-being. Furthermore, to guide the overall process of conducting the assessment, a defined set of data-collection and analytic stages were developed. These included the collection and analysis of both primary (qualitative) and secondary (quantitative) data. Qualitative data included one-on-one and group interviews with 8 community health experts, social service providers, and medical personnel. Furthermore, 12 community residents or community service provider organizations participated in 5 focus groups across the service area.

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

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

---

[1] See: County Health Rankings Model, Robert Wood Johnson Foundation, and University of Wisconsin, 2021. Retrieved from: http://www.countyhealthrankings.org/.

Process and Criteria to Identify and Prioritize Significant Health Needs

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

List of Prioritized Significant Health Needs

The following significant health needs identified for St. Elizabeth Community Hospital are listed below in prioritized order.

1. Access to Mental/Behavioral Health and Substance-Use Services
2. Access to Quality Primary Care Health Services
3. Access to Basic Needs Such as Housing, Jobs, and Food
4. Access to Specialty and Extended Care
5. Access to Functional Needs
6. Increased Community Connections

Resources Potentially Available to Meet the Significant Health Needs

In all, 68 resources were identified in the service area that were potentially available to meet the identified significant health needs. The identification method included starting with the list of resources from the 2019 CHNA, verifying that the resources still existed, and then adding newly identified resources into the 2022 CHNA report.

Conclusion

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

Introduction and Purpose

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

This report documents the processes, methods, and findings of a CHNA conducted on behalf of St. Elizabeth Community Hospital (SECH), located at 2550 Sister Mary Columba Dr., Red Bluff, CA, 96080. SECH's primary service area includes Tehama County, and a small portion of southern Shasta County. The total population of the service area was 69,385.

SECH is an affiliate of Dignity Health, a nonprofit healthcare system. The CHNA was conducted over a period of six months, beginning in August 2021 and concluding January 2022. This CHNA report meets requirements of the Patient Protection and Affordable Care Act and California Senate Bill 697 that nonprofit hospitals conduct a community health needs assessment at least once every three years.

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

Findings

Prioritized Significant Health Needs

Primary and secondary data were analyzed to identify and prioritize the significant health needs in the SECH service area. In all, 6 significant health needs were identified. Primary data were then used to prioritize these significant health needs.

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

---

[2] Federal Register, Vol. 79, No. 250, (Wednesday, December 31, 2014). Department of the Treasury, Internal Revenue Service.

Table 1: Health need prioritization inputs for SECH service area.

Prioritized Health Needs	Percentage of Key Informants and Focus Groups Identifying Health Need	Percentage of Times Key Informants and Focus Groups Identified Health Need as a Top Priority
Access to Mental/Behavioral Health and Substance-Use Services	90%	29%
Access to Quality Primary Care Health Services	100%	20%
Access to Basic Needs Such as Housing, Jobs, and Food	80%	12%
Access to Specialty and Extended Care	50%	16%
Access to Functional Needs	50%	2%
Increased Community Connections	40%	~

~ Health need not mentioned

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

---

[3] Further details regarding the creation of the prioritization index can be found in the technical report.

St. Elizabeth Community Hospital 2022 Prioritized Health Needs

Access to Mental/Behavioral Health and Substance-Use Services

Access to Quality Primary Care Health Services

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

Access to Specialty and Extended Care

Access to Functional Needs

Increased Community Connections

Prioritization Index Value
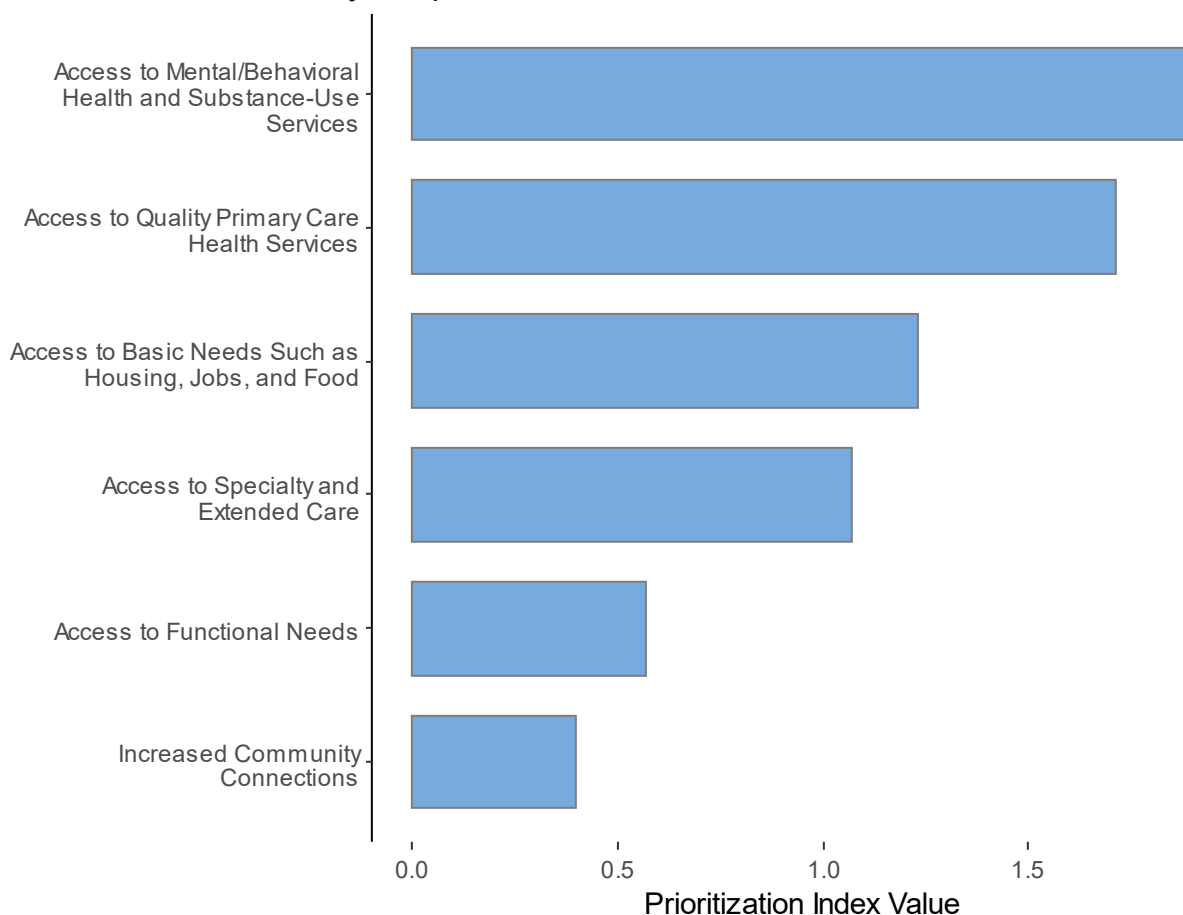
Figure 1: Prioritized significant health needs for SECH service area.

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

The significant health needs are described below. Those secondary data indicators used in the CHNA that performed poorly compared to benchmarks are listed in the table below each significant health ordered by their relationship to the conceptual model used to guide data collection for this report. Results from primary data analysis are also provided in the table. (A full listing of all quantitative indicators can be found in the technical section of this report).

1. Access to Mental/Behavioral Health and Substance-Use Services

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

Primary Data Analysis	Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants and focus group participants:	The following indicators performed worse in the service area when compared to state averages:
- The community lacks adequate substance-use services. - Isolation has increase mental health needs among seniors. - The community lacks in-patient substance-use recovery services. - There is a lack of compassion towards those suffering with substance-use disorders. - Generational substance-use is common in the community. - Few mental health practitioners take Medi-Cal or Medicare insurances. - There are too few mental health providers in the community. - It is difficult to recruit mental health providers to the community. - There is a large methamphetamine issue in the community. - Opioid use has risen in the community resulting in more overdoses and deaths. - Because there are no detox facilities in the area, many detox in the emergency department. - Mental health issues have recently grown in the community. - There is a lack of culturally competent mental health services in the community. - Patients wait an excessive amount of time to be seen by a mental health provider. - There is a stigma associated with seeking mental health services.	- Life Expectancy - Premature Age-Adjusted Mortality - Premature Death - Liver Disease Mortality - Suicide Mortality - Poor Mental Health Days - Frequent Mental Distress - Poor Physical Health Days - Frequent Physical Distress - Poor or Fair Health - Excessive Drinking - Adult Smoking - Primary Care Shortage Area - Mental Health Care Shortage Area - Medically Underserved Area - Mental Health Providers - Psychiatry Providers - Firearm Fatalities Rate - Social Associations - Homelessness Rate

2. Access to Quality Primary Care Health Services

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

Primary Data Analysis	Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants and focus group participants:	The following indicators performed worse in the service area when compared to state averages:
- There are limited healthcare services for many in the county. - Some community members must travel outside of the area to receive medical care. - The community needs more urgent care centers. - The wait times to see healthcare providers can be excessive for some in the community. - It is difficult to attract healthcare providers to the community. - Those covered by Medi-Cal have limited options when seeking healthcare. - Turnover among healthcare providers is very high in the community. - There are a limited number of bilingual providers in the area. - Because of the shortage of healthcare workers, patients get a limited amount of time with providers. - The high turnover of providers results in loss of continuity of care for patients. - Clinicians of color who come to practice in the community have faced racism and discrimination, contributing to high turnover rates of providers.	- Infant Mortality - Child 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 - COVID-19 Mortality - COVID-19 Case Fatality - Alzheimer's Disease Mortality - Influenza and Pneumonia Mortality - Diabetes Prevalence - Poor Mental Health Days - Frequent Mental Distress - Poor Physical Health Days - Frequent Physical Distress - Poor or Fair Health - Colorectal Cancer Prevalence - Lung Cancer Prevalence - Prostate Cancer Prevalence - Asthma ED Rates - Primary Care Shortage Area - Medically Underserved Area - Primary Care Providers - Preventable Hospitalization - COVID-19 Cumulative Full Vaccination Rate - Homelessness Rate

3. Access to Basic Needs Such as Housing, Jobs, and Food

Access to affordable and clean housing, stable employment, quality education, and adequate food for good health are vital for survival. Maslow's Hierarchy of Needs[4] suggests that only when people have

---

[4] McLeod, S. 2014. Maslow's Hierarchy of Needs. Retrieved from: http://www.simplypsychology.org/maslow.html

their basic physiological and safety needs met can they become engaged members of society and self-actualize or live to their fullest potential, including enjoying good health. Research shows that the social determinants of health, such as quality housing, adequate employment and income, food security, education, and social support systems, influence individual health as much as health behaviors and access to clinical care.[5]

Primary Data Analysis	Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants and focus group participants:	The following indicators performed worse in the service area when compared to state averages:
- There are limited good-wage employment opportunities in the community. - The pandemic has increased unemployment; many jobs have been lost among all sectors. - Many in the community are forced to make trade-offs between paying for food, medication, rent, and other bills. - The housing supply in the community is limited. - Educational opportunities are limited in the area. - The number of people experiencing homelessness has grown during the pandemic. - A large number of children in the K-12 school system routinely experience homelessness. - Many are now living in multi-generational housing due to limited housing availability. - People relocating to the area due to recent fires has exacerbated the existing housing shortage. - The housing shortage has resulting in increased property values, making it more difficult to find affordable housing.	- Infant Mortality - Child Mortality - Life Expectancy - Premature Age-Adjusted Mortality - Premature Death - Hypertension Mortality - COVID-19 Mortality - COVID-19 Case Fatality - Diabetes Prevalence - Poor Mental Health Days - Frequent Mental Distress - Poor Physical Health Days - Frequent Physical Distress - Poor or Fair Health - Asthma ED Rates - Adult Obesity - Limited Access to Healthy Foods - Food Environment Index - Medically Underserved Area - COVID-19 Cumulative Full Vaccination Rate - Some College - Third Grade Reading Level - Third Grade Math Level - Unemployment - Children in Single-Parent Households - Social Associations - Children Eligible for Free Lunch - Children in Poverty - Median Household Income - Homelessness Rate - Households with no Vehicle Available

---

[5] See: http://www.countyhealthrankings.org/learn-others/research-articles#Rankingsrationale

4. Access to Specialty and Extended Care

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

Primary Data Analysis	Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants and focus group participants:	The following indicators performed worse in the service area when compared to state averages:
- There are limited services for seniors. - The community needs more rehabilitative services after hospital discharge. - There are not enough memory care services in the area; one must leave the area to find them. - The community needs more specialists; they are difficult to recruit. - The aging population is growing, thus the demand for services is increasing. - Many do understand long-term care services; more education is needed to prepare for those needing these services.	- 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 - COVID-19 Mortality - COVID-19 Case Fatality - Alzheimer's Disease Mortality - Diabetes Prevalence - Poor Mental Health Days - Frequent Mental Distress - Poor Physical Health Days - Frequent Physical Distress - Poor or Fair Health - Lung Cancer Prevalence - Asthma ED Rates - Psychiatry Providers - Specialty Care Providers - Preventable Hospitalization - Homelessness Rate

5. Access to Functional Needs

Functional needs refer to needs related to adequate transportation access and conditions which promote access for individuals with physical disabilities. Having access to transportation services to

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

Primary Data Analysis	Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants and focus group participants:	The following indicators performed worse in the service area when compared to state averages:
- Residents with limited transportation options struggle to get access to healthcare. - The rural nature of the county makes getting around more challenging for some. - Some avoid getting needed care due to limited transportation options. - Those in southern Tehama County must travel extended distances to access healthcare. - Medi-Cal and Medicare coverage for transportation to/from healthcare services is limited. - The digital divide creates challenges for those with limited internet access for those healthcare services delivered virtually. - Many seniors are "technologically behind," creating challenges in access virtual services. - The community has inadequate broadband services; creates barriers in accessing virtual services such as healthcare and education.	- Disability - Frequent Mental Distress - Frequent Physical Distress - Poor or Fair Health - Adult Obesity - COVID-19 Cumulative Full Vaccination Rate - Homelessness Rate - Households with no Vehicle Available - Access to Public Transit

6. Increased Community Connections

As humans are social beings, community connection is a crucial part of living a healthy life. People have a need to feel connected with a larger support network and the comfort of knowing they are accepted and loved. Research suggests "individuals who feel a sense of security, belonging, and trust in their community have better health. People who don't feel connected are less inclined to act in healthy ways or work with others to promote well-being for all."[6] Assuring that community members have ways to connect with each other through programs, services, and opportunities is important in fostering a healthy community. Furthermore, healthcare and community support services are more effective when they are delivered in a coordinate fashion, where individual organizations collaborate with others to build a network of care.

---

[6] Robert Wood Johnson Foundation. 2016. Building a Culture of Health: Sense of Community. See: https://www.rwjf.org/en/cultureofhealth/taking-action/making-health-a-shared-value/sense-of-community.html

Primary Data Analysis	Secondary Data Analysis
The manner in which the health need appeared or was expressed in the community was described as follows by key informants and focus group participants:	The following indicators performed worse in the service area when compared to state averages:
- There is growing social and family disconnection in the community; many seniors are left to live on their own. - Many of the social services systems operate in silos; there needs to be more integration. - The bridging between early care and the K-12 education system needs improved.	- Infant Mortality - Child Mortality - Life Expectancy - Premature Age-Adjusted Mortality - Premature Death - Stroke Mortality - Diabetes Mortality - Heart Disease Mortality - Hypertension Mortality - Suicide Mortality - Unintentional Injuries Mortality - Diabetes Prevalence - Poor Mental Health Days - Frequent Mental Distress - Poor Physical Health Days - Frequent Physical Distress - Poor or Fair Health - Excessive Drinking - Physical Inactivity - Access to Exercise Opportunities - Teen Birth Rate - Primary Care Shortage Area - Mental Health Care Shortage Area - Medically Underserved Area - Mental Health Providers - Psychiatry Providers - Specialty Care Providers - Primary Care Providers - Preventable Hospitalization - COVID-19 Cumulative Full Vaccination Rate - Homicide Rate - Firearm Fatalities Rate - Violent Crime Rate - Some College - Unemployment - Children in Single-Parent Households - Social Associations - Homelessness Rate - Households with no Vehicle Available - Access to Public Transit

Methods Overview

Conceptual and Process Models

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

Public Comments from Previously Conducted CHNAs

Regulations require that nonprofit hospitals include written comments from the public on their previously conducted CHNAs and most recently adopted implementation strategies. SECH requested written comments from the public on its 2019 CHNA and most recently adopted implementation strategy in the documents and through its web site at https://www.dignityhealth.org/north-state/locations/stelizabethhospital/about-us/community-benefit.

At the time of the development of this CHNA report, SECH had not received written comments. SECH will continue to use its website as a tool to solicit public comments and ensure that these comments are considered as community input in the development of future CHNAs.

Data Used in the CHNA

Data collected and analyzed included both primary or qualitative data and secondary or quantitative data. Primary data included 5 interviews with 8 community health experts and 5 focus groups conducted with a total of 12 community residents or community-facing service providers. (A full listing of all participants can be seen in the technical section of this report.)

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

---

[7] See: County Health Rankings Model, Robert Wood Johnson Foundation, and University of Wisconsin, 2021. Retrieved from: http://www.countyhealthrankings.org/.

Data Analysis

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

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

Description of Community Served

The definition of the community served was the primary service area of SECH, including large portions of Tehama County and a smaller portion of southern Shasta County. Both counties are located in Northern California, situated along the Interstate 5 corridor. Tehama County is rural in nature covering 2,962 square miles. The largest city is Red Bluff, both a Micropolitan Statistical Area and the County Seat with a population of just over 14,000 residents. A small portion of southern Shasta County is covered by the hospital's service area and includes the community of Cottonwood. For the purposes of this assessment the service area was further defined by six ZIP codes. These included 96021, 96022, 96035, 96055, 96080, and 96090. The total population of the service area was 69,385. The service area is shown in Figure 2.
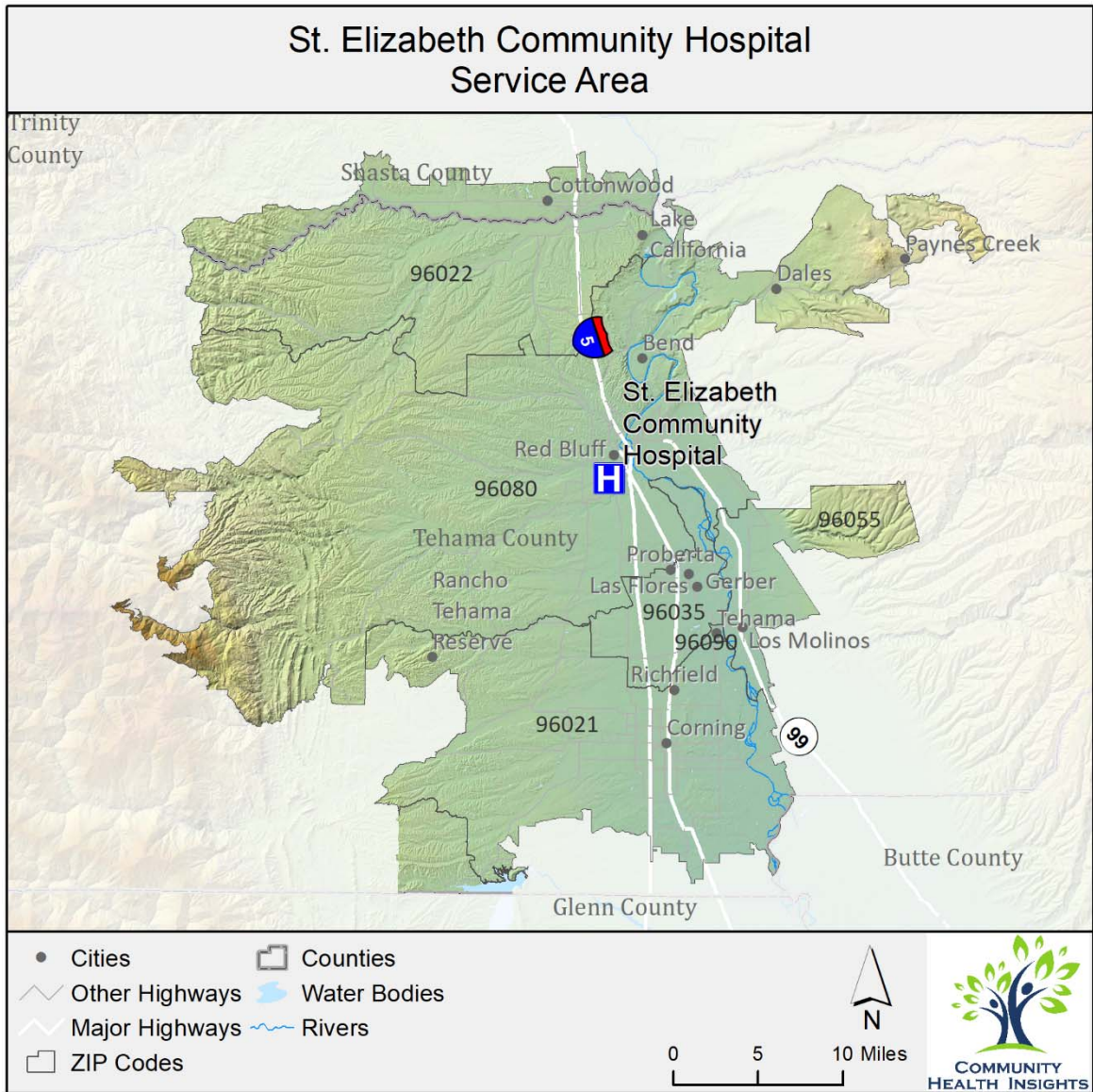
Figure 2: Community served by SECH.

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

Table 2: Population characteristics for each ZIP code located in the SECH service area.

ZIP code	Total Population	% Non-White or Hispanic\Latinx	Median Age (yrs.)	Median Income	% Poverty	% Unemployment	% Uninsured	% Without High School Graduation	% With High Housing Costs	% With Disability
96021	16,017	48.4	37.2	$46,050	25.8	10	7.7	22.6	39.1	15.2
96022	16,253	18.1	40.7	$55,049	20.5	5.2	4.9	11.9	38.8	19.7
96035	3,629	51.4	41.4	$45,417	22.5	7.9	10.3	28.1	39.3	15.6
96055	3,866	20.2	43.3	$48,103	14.6	4.4	4.5	10.1	29.5	18.8
96080	29,139	24.1	41	$41,316	21.2	8.8	5.8	10	38.9	19.9
96090	481	25.6	51	$40,139	23.3	7.4	6.4	17.4	26	25.6
Tehama	63,912	31.7	41	$44,514	22.1	8.6	6.3	15.5	38.4	18.9
California	39,283,497	62.8	36.5	$75,235	13.4	6.1	7.5	16.7	40.6	10.6

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

Health Equity

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

> "*Health equity means that everyone has a fair and just opportunity to be healthier. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.*"

Inequities experienced early and throughout one's life, such as limited access to a quality education, have health consequences that appear later in life as health disparities. Health disparities are defined as "preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health experienced by populations, and defined by factors such as race or ethnicity, gender, education or income, disability, geographic location or sexual orientation."[8]

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

---

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

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

Health Outcomes - the Results of Inequity

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

Table 3: Health outcomes comparing race and ethnicity in the SECH service area.

Health Outcomes	Description	American Indian\Alaska Native	Asian	Black	Hispanic	White	Overall
Life Expectancy	Average number of years a person can expect to live.	~	~	~	84.0	75.1	76.5
Premature Age-Adjusted Mortality	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	519.3	~	~	268.2	494.1	445.4
Premature Death	Years of potential life lost before age 75 per 100,000 population (age-adjusted).	~	~	~	5,898	10,998	9,503.4
Low Birthweight	Percentage of live births with low birthweight (< 2,500 grams).	~	~	~	6.4%	5.6%	6%

~ Data Not Available

Data sources included in the technical section of the report.

Inequities are apparent when examining premature age adjusted mortality rates, where American Indian/Alaskan Natives and Whites far outnumber Hispanic populations.

Health Factors - Inequities in the Service Area

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

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

Health Factors	Description	American Indian\Alaska Native	Asian	Black	Hispanic	White	Overall
Some College[a]	Percentage of adults ages 25 and over with some post-secondary education.	46.1%	39.9%	54.5%	39.4%	58.8%	54.4%

Health Factors	Description	American Indian\Alaska Native	Asian	Black	Hispanic	White	Overall
High School Completion[a]	Percentage of adults ages 25 and over with at least a high school diploma or equivalent.	72.6%	49.8%	80.4%	61.6%	91.2%	84.5%
Third Grade Reading Level	Average grade level performance for 3rd graders on English Language Arts standardized tests	~	~	~	2.4	2.8	2.6
Third Grade Math Level	Average grade level performance for 3rd graders on math standardized tests	~	~	~	2.3	2.6	2.5
Children in Poverty	Percentage of people under age 18 in poverty.	67%	10.6%	~	44%	23.7%	23.7%
Median Household Income	The income where half of households in a county earn more and half of households earn less.	$30,427	~	$80,123	$37,460	$46,945	$51,672
Uninsured Population[b]	Percentage of the civilian non-institutionalized population without health insurance.	12.7%	0.4%	0%	11%	4.7%	6.3%

~ Data Not Available

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

[a]From 2019 American Community Survey 5-year estimates tables B15002, C15002B, C15002C, C15002D, C15002H, and C15002I.

[b]From 2019 American Community Survey 5-year estimates table S2701.

There are apparent inequities when comparing health factors among groups. For example, high school completion varies widely among population groups; just over 60% of Hispanics complete high school, compared to over 90% of Whites. Furthermore, 44% of Hispanic children live in poverty compared to 10% of Asian children.

Population Groups Experiencing Disparities

Key informants were asked to identify population groups that experienced health disparities in the SECH service area. Interview participants were asked, "What specific groups of community members experience health issues the most?" Responses were analyzed by identifying all groups noted as one experiencing disparities. Groups identified by key informants are listed below. The groups are not mutually exclusive—one group could be a subset of another group. One of the purposes of identifying the sub-populations was to help guide additional qualitative data collection efforts to focus on the needs of these population groups.

- Low income
- Senior
- Disabled

- Hispanic
- Homeless
- Migrant farm workers
- Native Americans
- Severely mentally ill
- Those without internet
- Undocumented
- Caucasians

California Healthy Places Index

Figure 3 displays the California Healthy Places Index (HPI)[9] values for the SECH service area. The HPI is an index based on 25 health-related measures for communities across California. These measures included in the HPI were selected based on their known relationship to life expectancy and other health outcomes. These values are combined into a final score representing the overall health and well-being of the community which can then be used to compare the factors influencing health between communities. Higher HPI index values are found in communities with a collection of factors that contribute to greater health, and lower HPI values are found in communities where these factors are less present.

---

[9] Public Health Alliance of Southern California. 2021. The California Health Places Index (HPI): About. Retrieved 26 July 2021 from https://healthyplacesindex.org/about/.
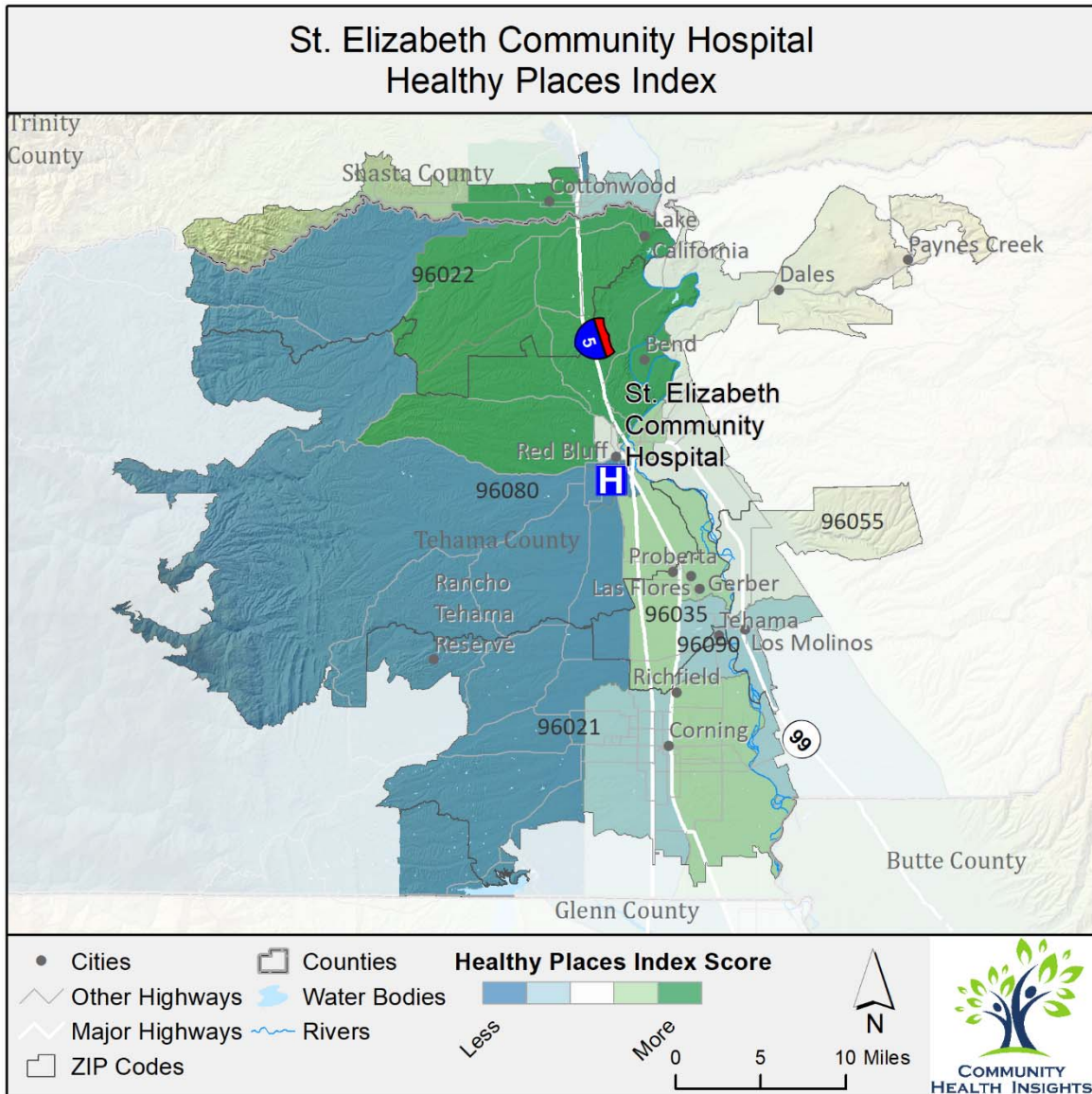
Figure 3: Healthy Places Index for SECH.

Areas with the darkest blue shading in Figure 3 have the lowest overall HPI scores, indicating factors leading to less healthy neighborhoods. The low population density areas in western Tehama and Shasta Counties had low SPI scores, as well as communities situated along the Highway 99 corridor and eastern Cottonwood. There are likely to be a higher concentration of residents in these locations experiencing health disparities.

Communities of Concern

Communities of Concern are geographic areas within the service area that have the greatest concentration of poor health outcomes and are home to more medically underserved, low-income, and diverse populations at greater risk for poorer health. Communities of Concern are important to the

overall CHNA methodology because, after the service area has been assessed more broadly, they allow for a focus on those portions of the region likely experiencing the greatest health disparities. Geographic Communities of Concern were identified using a combination of primary and secondary data sources. (Refer to the technical section of this report for an in-depth description of how these are identified). Analysis of both primary and secondary data revealed 4 ZIP codes that met the criteria to be classified as Communities of Concern. These are noted in Table 5, with the census population provided for each, and are displayed in Figure 4.

Table 5: Identified Communities of Concern for the SECH service area.

ZIP code	Community\Area	Population
96021	Corning, Flournoy	16,017
96035	Gerber, El Camino, Los Flores	3,629
96055	Los Molinos	3,866
96080	Red Bluff	29,139
Total Population in Communities of Concern		*52,651*
Total Population in Hospital Service Area		*69,385*
Percentage of Service Area Population in Community of Concern		*75.9%*

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

Figure 4 displays the ZIP codes highlighted in pink that are Communities of Concern for the SECH service area.

St. Elizabeth Community Hospital
Communities of Concern

Figure 4: SECH Communities of Concern.

The Impact of COVID-19 on Health Needs

COVID related health indicators regard the service area are noted in Table 6.

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

Indicators	Description	Tehama	California	
COVID-19 Mortality	Number of deaths due to COVID-19 per 100,000 population.	222.2	196.9	Tehama: 222.2 California: 196.9

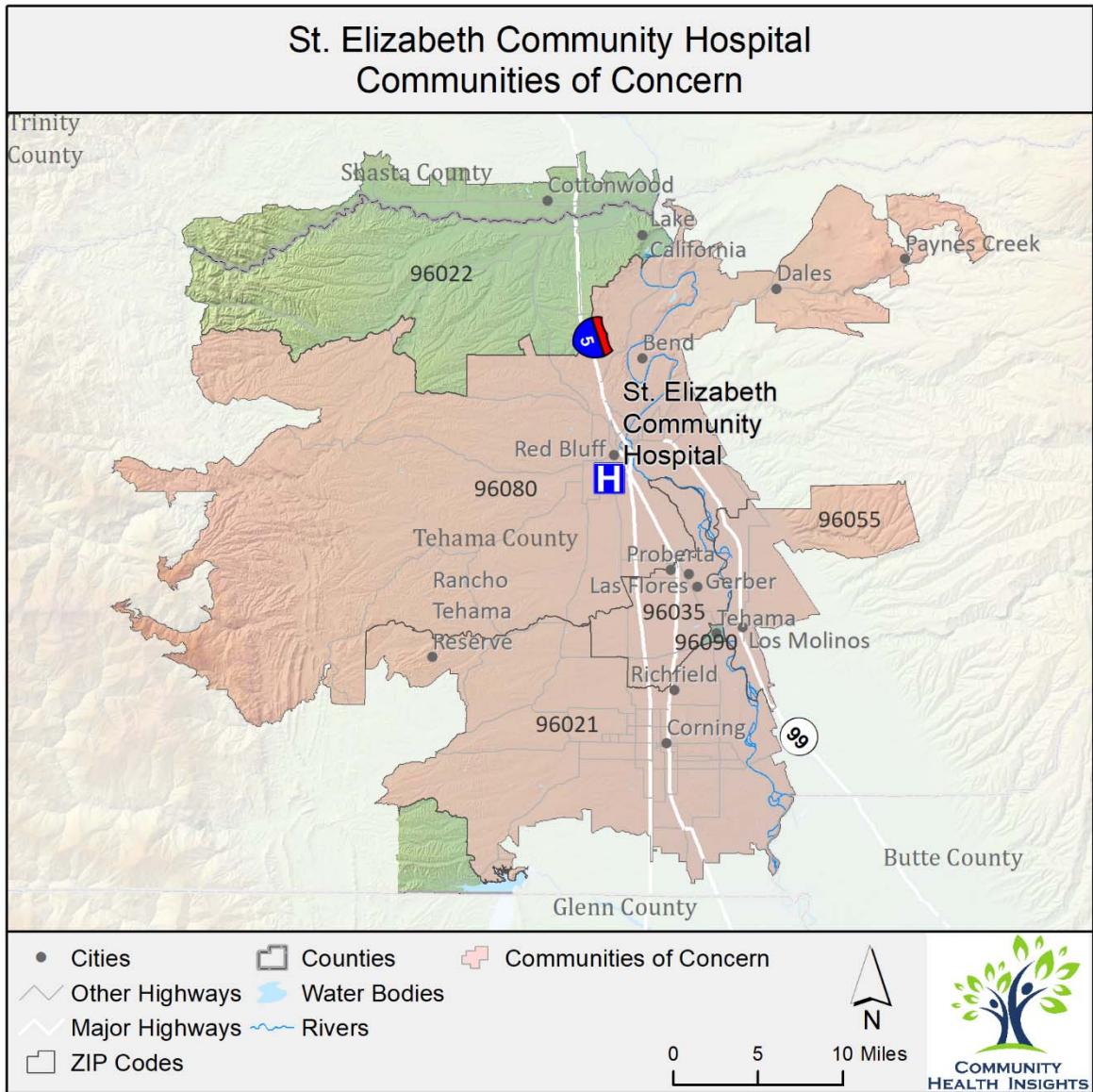| Indicators	Description	Tehama	California	
COVID-19 Case Fatality	Percentage of COVID-19 deaths per laboratory-confirmed COVID-19 cases.	1.4%	1.1%	Tehama: 1.4% California: 1.1%
COVID-19 Cumulative Incidence	Number of laboratory-confirmed COVID-19 cases per 100,000 population.	15,607.4	17,592.6	Tehama: 15,607.4 California: 17,592.6
COVID-19 Cumulative Full Vaccination Rate	Number of completed COVID-19 vaccinations per 100,000 population.	41,757.4	68,318.2	Tehama: 41,757.4 California: 68,318.2

COVID-19 data collected on January 19 2022

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

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

Key Informant and Focus Group Responses

- The isolation brought on by the pandemic has led to an increase in mental health issues and needs.
- Existing mental health issues have been exacerbated by the pandemic.
- It is difficult to virtually engage youth in educational activities.
- The pandemic has brought significant stress to healthcare workers, many are experiencing compassion fatigue and some are leaving the field due to burnout and vaccine mandates; staff are also experiencing harassment from some patients.
- Staffing shortages in healthcare have impacted every aspect of care delivery.
- The political and ideological divide over mask and vaccine mandates have divided the community, increasing stress in virtually every aspect of daily life.
- Many have delayed preventative care; others have avoided healthcare until their conditions became more acute.
- Households with children with poor or no internet were unable to access virtual classes for school.
- Many of the existing social and living conditions that lead to poorer health have been exacerbated by the pandemic.
- Some in the community have lost trust in government and the healthcare system.
- Some workers stayed home to care for children or loved ones during the pandemic, and haven't returned to the workforce.

Resources Potentially Available to Meet the Significant Health Needs

In all, 68 resources were identified in the SECH service area that were potentially available to meet the identified significant health needs. These resources were provided by a total of 44 social service, nonprofit, and governmental organizations, agencies, and programs identified in the CHNA. The identification method included starting with the list of resources from the 2019 St. Elizabeth Community Hospital CHNA, verifying that the resources still existed, and then adding newly identified resources into

the 2022 CHNA report. Examination of the resources revealed the following numbers of resources for each significant health need as shown in Table 8.

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

Significant Health Needs (in Priority Order)	Number of Resources
Access to Mental/Behavioral Health and Substance-Use Services	10
Access to Quality Primary Care Health Services	9
Access to Basic Needs Such as Housing, Jobs, and Food	20
Access to Specialty and Extended Care	6
Access to Functional Needs	8
Increased Community Connections	15
Total Resources	**68**

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

Impact and Evaluation of Actions Taken by Hospital

Regulations require that each hospital's CHNA report include "an evaluation of the impact of any actions that were taken since the hospital facility finished conducting its immediately preceding CHNA to address the significant health needs identified in the hospital facility's prior CHNA(s) (p. 78969)."[10] SECH invested efforts to address the significant health needs identified in the prior CHNA. Appendix A includes details of those efforts.

Conclusion

CHNAs play an important role in helping nonprofit hospitals and other community organizations determine where to focus community benefit and health improvement efforts, including targeting efforts in geographic locations and on specific populations experiencing inequities leading to health disparities. Data in the CHNA report can help provide nonprofit hospitals and community service providers with content to work in collaboration to engage in meaningful community work.

Please send any feedback about this CHNA report to St. Elizabeth Community Hospital via https://www.dignityhealth.org/north-state/locations/stelizabethhospital/about-us/community-benefit, with "CHNA Comments" in the subject line. Feedback received will be incorporated into the next CHNA cycle.

---

[10] Federal Register, Vol. 79, No. 250, (Wednesday, December 31, 2014). Department of the Treasury, Internal Revenue Service.

2022 CHNA Technical Section

The following section presents a detailed account of data collection, analysis, and results for the St. Elizabeth Community Hospital (SECH) Hospital Service Area (HSA).

Results of Data Analysis

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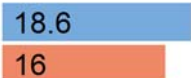
The tables and figures that follow show the specific values for the health need indicators used as part of the health need identification process. Indicator values for Tehama County were compared to the California state benchmark and are highlighted below when performance was worse in the county than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

Length of Life

Table 9: County length of life indicators compared to state benchmarks.
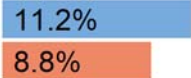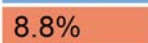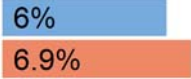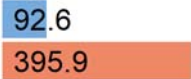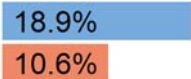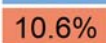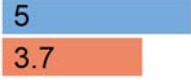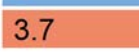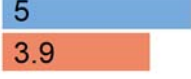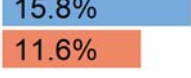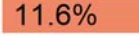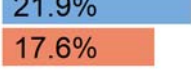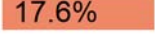
Indicators	Description	Tehama	California	
Early Life				
Infant Mortality	Number of all infant deaths (within 1 year), per 1,000 live births.	5.2	4.2	Tehama: 5.2 California: 4.2
Child Mortality	Number of deaths among children under age 18 per 100,000 population.	52.1	36.0	Tehama: 52.1 California: 36
Life Expectancy	Average number of years a person can expect to live.	76.5	81.7	Tehama: 76.5 California: 81.7
Overall				
Premature Age-Adjusted Mortality	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	445.4	268.4	Tehama: 445.4 California: 268.4
Premature Death	Years of potential life lost before age 75 per 100,000 population (age-adjusted).	9,503.4	5,253.1	Tehama: 9,503.4 California: 5,253.1
Stroke Mortality	Number of deaths due to stroke per 100,000 population.	44.7	41.2	Tehama: 44.7 California: 41.2
Chronic Lower Respiratory Disease Mortality	Number of deaths due to chronic lower respiratory disease per 100,000 population.	77.9	34.8	Tehama: 77.9 California: 34.8

Indicators	Description	Tehama	California	
Diabetes Mortality	Number of deaths due to diabetes per 100,000 population.	27.1	24.1	Tehama: 27.1 California: 24.1
Heart Disease Mortality	Number of deaths due to heart disease per 100,000 population.	242.8	159.5	Tehama: 242.8 California: 159.5
Hypertension Mortality	Number of deaths due to hypertension per 100,000 population.	14.8	13.8	Tehama: 14.8 California: 13.8
Cancer, Liver, and Kidney Disease				
Cancer Mortality	Number of deaths due to cancer per 100,000 population.	213.5	152.9	Tehama: 213.5 California: 152.9
Liver Disease Mortality	Number of deaths due to liver disease per 100,000 population.	22.5	13.9	Tehama: 22.5 California: 13.9
Kidney Disease Mortality	Number of deaths due to kidney disease per 100,000 population.	9.5	9.7	Tehama: 9.5 California: 9.7
Intentional and Unintentional Injuries				
Suicide Mortality	Number of deaths due to suicide per 100,000 population.	16.9	11.2	Tehama: 16.9 California: 11.2
Unintentional Injuries Mortality	Number of deaths due to unintentional injuries per 100,000 population.	61.6	35.7	Tehama: 61.6 California: 35.7
COVID				
COVID-19 Mortality	Number of deaths due to COVID-19 per 100,000 population.	222.2	196.9	Tehama: 222.2 California: 196.9
COVID-19 Case Fatality	Percentage of COVID-19 deaths per laboratory-confirmed COVID-19 cases.	1.4%	1.1%	Tehama: 1.4% California: 1.1%
Other				
Alzheimer's Disease Mortality	Number of deaths due to Alzheimer's disease per 100,000 population.	51.1	41.2	Tehama: 51.1 California: 41.2

Indicators	Description	Tehama	California	
Influenza and Pneumonia Mortality	Number of deaths due to influenza and pneumonia per 100,000 population.	18.6	16.0	Tehama: 18.6 California: 16

Quality of Life

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

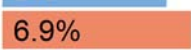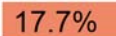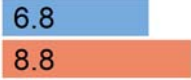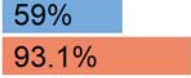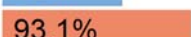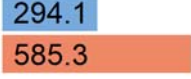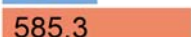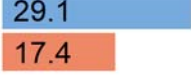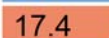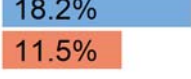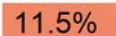| Indicators	Description	Tehama	California	
Chronic Disease				
Diabetes Prevalence	Percentage of adults ages 20 and above with diagnosed diabetes.	11.2%	8.8%	Tehama: 11.2% California: 8.8%
Low Birthweight	Percentage of live births with low birthweight (< 2,500 grams).	6.0%	6.9%	Tehama: 6% California: 6.9%
HIV Prevalence	Number of people aged 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population.	92.6	395.9	Tehama: 92.6 California: 395.9
Disability	Percentage of the total civilian noninstitutionalized population with a disability	18.9%	10.6%	Tehama: 18.9% California: 10.6%
Mental Health				
Poor Mental Health Days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted).	5.0	3.7	Tehama: 5 California: 3.7
Frequent Mental Distress	Percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted).	16.1%	11.3%	Tehama: 16.1% California: 11.3%
Poor Physical Health Days	Average number of physically unhealthy days reported in past 30 days (age-adjusted).	5.0	3.9	Tehama: 5 California: 3.9
Frequent Physical Distress	Percentage of adults reporting 14 or more days of poor physical health per month (age-adjusted).	15.8%	11.6%	Tehama: 15.8% California: 11.6%
Poor or Fair Health	Percentage of adults reporting fair or poor health (age-adjusted).	21.9%	17.6%	Tehama: 21.9% California: 17.6%
Cancer				

Indicators	Description	Tehama	California	
Colorectal Cancer Prevalence	Colon and rectum cancers per 100,000 population (age-adjusted).	41.2	34.8	Tehama: 41.2 California: 34.8
Breast Cancer Prevalence	Female in situ breast cancers per 100,000 female population (age-adjusted).	25.0	27.9	Tehama: 25 California: 27.9
Lung Cancer Prevalence	Lung and bronchus cancers per 100,000 population (age-adjusted).	57.5	40.9	Tehama: 57.5 California: 40.9
Prostate Cancer Prevalence	Prostate cancers per 100,000 male population (age-adjusted).	111.0	91.2	Tehama: 111 California: 91.2
COVID				
COVID-19 Cumulative Incidence	Number of laboratory-confirmed COVID-19 cases per 100,000 population.	15,607.4	17,592.6	Tehama: 15,607.4 California: 17,592.6
Other				
Asthma ED Rates	Emergency department visits due to asthma per 10,000 (age-adjusted).	480.0	422.0	Tehama: 480 California: 422
Asthma ED Rates for Children	Emergency department visits due to asthma among ages 5-17 per 10,000 population ages 5-17 (age-adjusted).	559.0	601.0	Tehama: 559 California: 601

Health Behavior

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

Indicators	Description	Tehama	California	
Excessive Drinking	Percentage of adults reporting binge or heavy drinking (age-adjusted).	19.9%	18.1%	Tehama: 19.9% California: 18.1%
Drug Induced Death	Drug induced deaths per 100,000 (age-adjusted).	9.8	14.3	Tehama: 9.8 California: 14.3
Adult Obesity	Percentage of the adult population (ages 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2.	34.7%	24.3%	Tehama: 34.7% California: 24.3%

Indicators	Description	Tehama	California	
Physical Inactivity	Percentage of adults aged 20 and over reporting no leisure-time physical activity.	28.1%	17.7%	Tehama: 28.1% California: 17.7%
Limited Access to Healthy Foods	Percentage of population who are low-income and do not live close to a grocery store.	9.9%	3.3%	Tehama: 9.9% California: 3.3%
Food Environment Index	Index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best).	6.8	8.8	Tehama: 6.8 California: 8.8
Access to Exercise Opportunities	Percentage of population with adequate access to locations for physical activity.	59.0%	93.1%	Tehama: 59% California: 93.1%
Chlamydia Incidence	Number of newly diagnosed chlamydia cases per 100,000 population.	294.1	585.3	Tehama: 294.1 California: 585.3
Teen Birth Rate	Number of births per 1,000 female population ages 15-19.	29.1	17.4	Tehama: 29.1 California: 17.4
Adult Smoking	Percentage of adults who are current smokers (age-adjusted).	18.2%	11.5%	Tehama: 18.2% California: 11.5%

Clinical Care

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

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

Indicators	Description	Tehama	California		
Mammography Screening	Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening.	39.0%	36.0%	Tehama: 39% California: 36%	
Dentists	Dentists per 100,000 population.	58.4	87.0	Tehama: 58.4 California: 87	
Mental Health Providers	Mental health providers per 100,000 population.	172.1	373.4	Tehama: 172.1 California: 373.4	
Psychiatry Providers	Psychiatry providers per 100,000 population.	1.6	13.5	Tehama: 1.6 California: 13.5	
Specialty Care Providers	Specialty care providers (non-primary care physicians) per 100,000 population.	45.8	190.0	Tehama: 45.8 California: 190	
Primary Care Providers	Primary care physicians per 100,000 population + other primary care providers per 100,000 population.	119.2	147.3	Tehama: 119.2 California: 147.3	
Preventable Hospitalization	Preventable hospitalizations per 100,000 (age-sex-poverty adjusted)	999.2	948.3	Tehama: 999.2 California: 948.3	
COVID					
COVID-19 Cumulative Full Vaccination Rate	Number of completed COVID-19 vaccinations per 100,000 population.	41,757.4	68,318.2	Tehama: 41,757.4 California: 68,318.2	

Socio-Economic and Demographic Factors

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

Indicators	Description	Tehama	California		
Community Safety					
Homicide Rate	Number of deaths due to homicide per 100,000 population.	6.1	4.8	Tehama: 6.1 California: 4.8	
Firearm Fatalities Rate	Number of deaths due to firearms per 100,000 population.	17.2	7.8	Tehama: 17.2 California: 7.8	

Indicators	Description	Tehama	California	
Violent Crime Rate	Number of reported violent crime offenses per 100,000 population.	540.1	420.9	Tehama: 540.1 California: 420.9
Juvenile Arrest Rate	Felony juvenile arrests per 1,000 juveniles	2.0	2.1	Tehama: 2 California: 2.1
Motor Vehicle Crash Death	Number of motor vehicle crash deaths per 100,000 population.	20.9	9.5	Tehama: 20.9 California: 9.5
Education				
Some College	Percentage of adults ages 25-44 with some post-secondary education.	55.4%	65.7%	Tehama: 55.4% California: 65.7%
High School Completion	Percentage of adults ages 25 and over with a high school diploma or equivalent.	84.5%	83.3%	Tehama: 84.5% California: 83.3%
Disconnected Youth	Percentage of teens and young adults ages 16-19 who are neither working nor in school.		6.4%	Tehama: California: 6.4%
Third Grade Reading Level	Average grade level performance for 3rd graders on English Language Arts standardized tests	2.6	2.9	Tehama: 2.6 California: 2.9
Third Grade Math Level	Average grade level performance for 3rd graders on math standardized tests	2.5	2.7	Tehama: 2.5 California: 2.7
Employment				
Unemployment	Percentage of population ages 16 and older unemployed but seeking work.	5.5%	4.0%	Tehama: 5.5% California: 4%
Family and Social Support				
Children in Single-Parent Households	Percentage of children that live in a household headed by single parent.	26.2%	22.5%	Tehama: 26.2% California: 22.5%
Social Associations	Number of membership associations per 10,000 population.	5.5	5.9	Tehama: 5.5 California: 5.9

Indicators	Description	Tehama	California	
Residential Segregation (Non-White/White)	Index of dissimilarity where higher values indicate greater residential segregation between non-White and White county residents.	19.0	38.0	Tehama: 19 California: 38
Income				
Children Eligible for Free Lunch	Percentage of children enrolled in public schools that are eligible for free or reduced price lunch.	69.6%	59.4%	Tehama: 69.6% California: 59.4%
Children in Poverty	Percentage of people under age 18 in poverty.	23.7%	15.6%	Tehama: 23.7% California: 15.6%
Median Household Income	The income where half of households in a county earn more and half of households earn less.	$51,672.0	$80,423.0	Tehama: $51,672 California: $80,423
Uninsured Population under 64	Percentage of population under age 65 without health insurance.	8.1%	8.3%	Tehama: 8.1% California: 8.3%
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile.	4.8	5.2	Tehama: 4.8 California: 5.2

Physical Environment

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

Indicators	Description	Tehama	California	
Housing				
Severe Housing Problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.	21.4%	26.4%	Tehama: 21.4% California: 26.4%
Severe Housing Cost Burden	Percentage of households that spend 50% or more of their household income on housing.	19.5%	19.7%	Tehama: 19.5% California: 19.7%
Homeownership	Percentage of occupied housing units that are owned.	65.4%	54.8%	Tehama: 65.4% California: 54.8%

Indicators	Description	Tehama	California	
Homelessness Rate	Number of homeless individuals per 100,000 population.	469.4	411.2	Tehama: 469.4 California: 411.2
Transit				
Households with no Vehicle Available	Percentage of occupied housing units that have no vehicles available.	7.2%	7.1%	Tehama: 7.2% California: 7.1%
Long Commute - Driving Alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes.	31.2%	42.2%	Tehama: 31.2% California: 42.2%
Access to Public Transit	Percentage of population living near a fixed public transportation stop	45.6%	69.6%	Tehama: 45.6% California: 69.6%
Air and Water Quality				
Pollution Burden Percent	Percentage of population living in a census tract with a CalEnviroscreen 3.0 pollution burden score percentile of 50 or greater	12.2%	51.6%	Tehama: 12.2% California: 51.6%
Air Pollution - Particulate Matter	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).	4.7	8.1	Tehama: 4.7 California: 8.1
Drinking Water Violations	Presence of health-related drinking water violations in the county.	Yes		Tehama: Yes California:

CHNA Methods and Processes

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

Conceptual Model

The conceptual model used in this needs assessment is shown in Figure 5. This model organizes populations' individual health-related characteristics in terms of how they relate to up- or downstream health and health-disparities factors. In this model, health outcomes (quality and length of life) are

understood to result from the influence of health factors describing interrelated individual, environmental, and community characteristics, which in turn are influenced by underlying policies and programs.
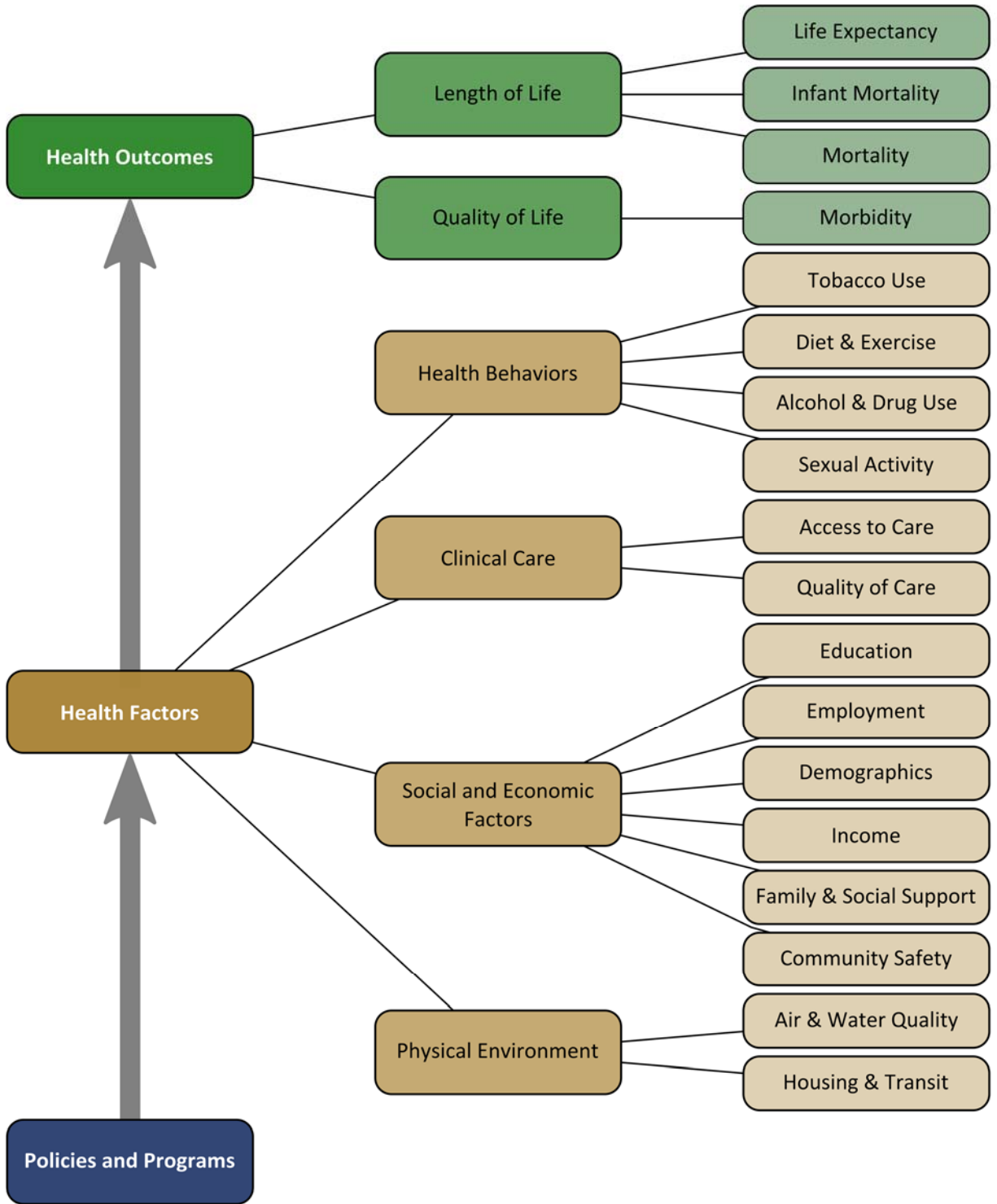
Figure 5: Community Health Assessment Conceptual Model as modified from the County Health Rankings Model, Robert Wood Johnson Foundation, and University of Wisconsin, 2015

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

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

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

Process Model

Figure 6 outlines the data collection and analysis stages of this process. The project began by confirming the HSA for St. Elizabeth Community Hospital for which the CHNA would be conducted. Primary data collection included key informant interviews and focus-groups with community health experts and residents. Initial key informant interviews were used to identify Communities of Concern which are areas or population subgroups within the county experiencing health disparities.

Overall primary and secondary data were integrated to identify significant health needs for the 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.
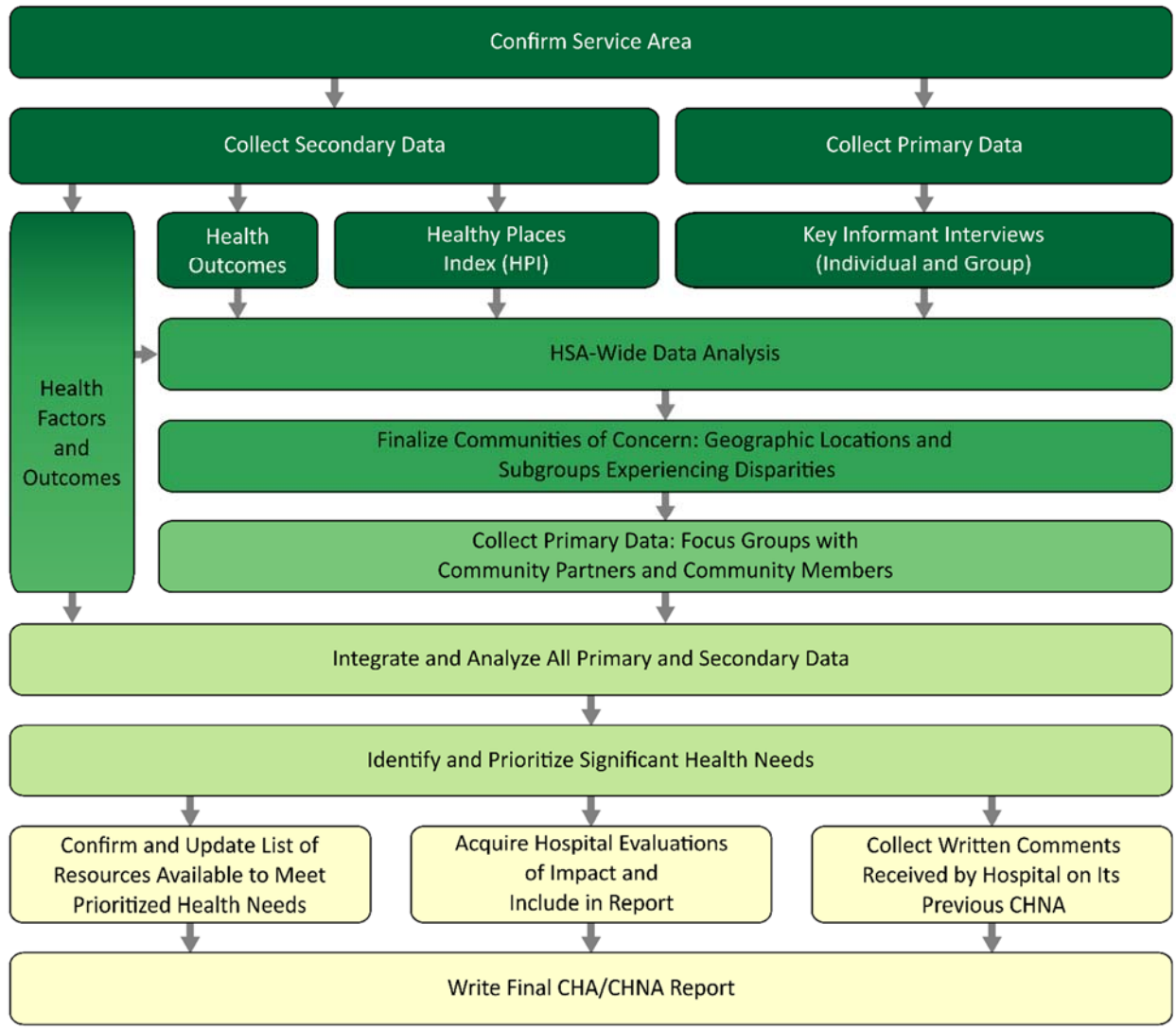
Figure 6: CHNA process model for SECH

Primary Data Collection and Processing

Primary Data Collection

Input from the community served by St. Elizabeth Community Hospital was collected through two 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 that were identified as populations experiencing disparities.

All participants were given an informed consent form prior to their participation, which provided information about the project, asked for permission to record the interview, and listed the potential benefits and risks for involvement in the interview. All interview data were collected through note taking and, in some instances, recording.

Key Informant Results

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

As a part of the interview process, all key informants were asked to identify vulnerable populations. The interviewer asked each participant to verbally explain what vulnerable populations existed in the county. As needed for a visual aid, key informants were provided a map of the HSA 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 15 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 15: Key Informant List

Organization	Date	Number of Participants	Area of Expertise	Populations Served
Red Bluff Tehama County Chamber	10/06/2021	1	Business	Business community
Family Counseling Center	10/13/2021	1	Mental health and behavioral health	Low income, Spanish speaking community members, Medi-Cal recipients
Empower Tehama	10/14/2021	2	Domestic violence, sex trafficking, prevention, education	Tehama County residents
Healthcare Providers: St. Elizabeth Hospital and Dignity Clinics	10/20/2021	2	Acute care hospital,	Tehama County residents
Tehama County Health Services	10/22/2021	2	Public Health, chronic disease prevention, behavioral health	Tehama County residents

Key Informant Interview Guide

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

2022 CHNA Group/Key Informant Interview Protocol

1. **BACKGROUND**
   a) **Please tell me about your current role and the organization you work for?**
      i. Probe for:
         1. Public health (division or unit)
         2. Hospital health system

3. Local non-profit
4. Community member
   b. **How would you define the community (ies) you or your organization serves?**
      i. Probe for:
         1. Specific geographic areas?
         2. Specific populations served?
         3. *Who? Where? Racial/ethnic make-up, physical environment (urban/ rural, large/small)*
2. **CHARACTERISTICS OF A HEALTHY COMMUNITY**
   a. **In your view, what does a healthy community look like?**
      i. Probe for:
         1. Social factors
         2. Economic factors
         3. Clinical care
         4. Physical/built environment (food environment, green spaces)
         5. Neighborhood safety
3. **HEALTH ISSUES**
   a. **What would you say are the biggest health needs in the community?**
      i. Probe for:
         1. How has the presence of COVID impacted these health needs?
   b. **INSERT MAP exercise: Please use the map provided to help our team understand where communities that experience the greatest health disparities live?**
      i. Probe for:
         1. What specific geographic locations struggle with health issues the most?
         2. What specific groups of community members experience health issues the most?
4. **CHALLENGES/BARRIERS**
   a. **Looking through the lens of equity, what are the challenges (barriers or drivers) to being healthy for the community as a whole?**
      i. **Do these inequities exist among certain population groups?**
      ii. Probe for:
         1. Health Behaviors (maladaptive, coping)
         2. Social factors (social connections, family connectedness, relationship with law enforcement)
         3. Economic factors (income, access to jobs, affordable housing, affordable food)
         4. Clinical Care factors (access to primary care, secondary care, quality of care)
         5. Physical (Built) environment (safe and healthy housing, walkable communities, safe parks)
5. **SOLUTIONS**
   a. **What solutions are needed to address the health needs and or challenges mentioned?**
      i. Probe for:
         1. Policies
         2. Care coordination
         3. Access to care
         4. Environmental change
6. **PRIORITY**

a. **Which would you say are currently the most important or urgent health issues or challenges to address (at least 3 to 5) in order to improve the health of the community?**

7. **RESOURCES**
   a. **What resources exist in the community to help people live healthy lives?**
      i. Probe for:
         1. Barriers to accessing these resources.
         2. New resources that have been created since 2019
         3. New partnerships/projects/funding

8. **PARTICIPANT DRIVEN SAMPLING:**
   a. **What other people, groups or organizations would you recommend we speak to about the health of the community?**
      i. Name 3 types of service providers that you would suggest we include in this work?
      ii. Name 3 types of community members that you would recommend we speak to in this work?

9. **OPEN: Is there anything else you would like to share with our team about the health of the community?**

Focus Group Results

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

Table 16 contains a listing of community resident groups that contributed input to the CHNA. The table describes the hosting organization of the focus group, the date it occurred, the total number of participants, and population represented for focus group members.

Table 16: Focus Group List

Hosting Organization	Date	Number of Participants	Population Represented
Latina Community Members	11/30/2022	2	Hispanic Community/Corning/Red Buff
Corning Healthcare District	11/30/2021	1	Low-income; South Tehama County
Passages (Area Agency on Aging)	12/10/2021	4	Seniors
Elder Services Coordinating Council	12/17/2021	1	Seniors
First 5 Tehama County	01/18/2022	4	Children and Families

Focus Group Interview Guide

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

2022 CHNA Focus Group Interview Protocol

1. Let's start by introducing ourselves. Please tell us your name, the town you live in, and one thing that you are proud of about your community.
2. We would like to hear about the community where you live. Tell us in a few words what you think of as "your community". What it is like to live in your community?
3. What do you think that a "healthy environment" is?
4. When thinking about your community based on the healthy environment you just described, what are the biggest health needs in your community?
5. Are needs more prevalent in a certain geographic area, or within a certain group of the community?
6. How has the presence of COVID 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 potential health need categories, the identification of special populations experiencing health issues, and the identification of resources. In some instances, data were coded in accordance to the interview question guide. Results were aggregated to inform the determination of prioritized significant health needs.

Secondary Data Collection and Processing

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

Community of Concern Identification Datasets

Two main secondary data sources were used in the identification of Communities of Concern: California Healthy Places Index (HPI),[11] derived from health factor indicators available at the US Census tract level, and mortality data from the California Department of Public Health (CDPH),[12] health outcome indicators

---

[11] Public Health Alliance of Southern California. 2021. HPI_MasterFile_2021-04-22.zip. Data file. Retrieved 1 May 2021 from https://healthyplacesindex.org/wp-content/uploads/2021/04/HPI_MasterFile_2021-04-22.zip.
[12] State of California, Department of Public Health. 2021. California Comprehensive Master Death File (Static), 2015-2019.

available at the ZIP code level. The CDPH mortality data reports the number of deaths that occurred in each ZIP code from 2015-2019 due to each of the causes listed in Table 17.

Table 17: 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 needed to be merged with the larger ZIP codes in which they were located. Once this was completed, smoothed mortality rates were calculated for each resulting ZIP code.

ZIP code Consolidation

The mortality indicators used here included deaths reported for the ZIP code at the decedent's place of residence. ZIP codes are defined by the U.S. Postal Service as a single location (such as a PO Box), or a set of roads along which addresses are located. The roads that comprise such a ZIP code may not form contiguous areas and do not match the areas used by the U.S. Census Bureau (the main source of population and demographic data in the United States) to report population. Instead of measuring the population along a collection of roads, the census reports population figures for distinct, largely contiguous areas. To support the analysis of ZIP code data, the U.S. Census Bureau created ZIP code Tabulation Areas (ZCTAs). ZCTAs are created by identifying the dominant ZIP code for addresses in a given Census block (the smallest unit of census data available), and then grouping blocks with the same dominant ZIP code into a corresponding ZCTA. The creation of ZCTAs allows us to identify population figures that make it possible to calculate mortality rates for each ZCTA. However, the difference in the definition between mailing ZIP codes and ZCTAs has two important implications for analyses of ZIP code level data.

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

To incorporate these patients into the analysis, the point location (latitude and longitude) of all ZIP codes in California[13] were compared to ZCTA boundaries.[14] 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.[15] Smoothed rates are considered preferable to raw rates for two main reasons. First, the small population of many ZCTAs meant that the rates calculated for these areas would be unstable. This problem is sometimes referred to as the small-number problem. Empirical bayes smoothing seeks to address this issue by adjusting the calculated rate for areas with small populations so that they more closely resemble the mean rate for the entire study area. The amount of this adjustment is greater in areas with smaller populations, and less in areas with larger populations.

Because the EBR were created for all ZCTAs in the state, ZCTAs with small populations that may have unstable high rates had their rates "shrunk" to more closely match the overall indicator rate for ZCTAs in the entire state. This adjustment can be substantial for ZCTAs with very small populations. The difference between raw rates and EBRs in ZCTAs with very large populations, on the other hand, is negligible. In this way, the stable rates in large-population ZIP codes are preserved, and the unstable rates in smaller-population ZIP codes are shrunk to more closely match the state norm. While this may not entirely resolve the small-number 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 18 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.

---

[13] Datasheer, L.L.C. 2018. ZIP code Database Free. Retrieved 16 Jul 2018 from http://www.Zip-Codes.com.
[14] US Census Bureau. 2021. TIGER/Line Shapefile, 2019, 2010 nation, U.S., 2010 Census 5-Digit ZIP code Tabulation Area (ZCTA5) National. Retrieved 9 Feb 2021 from https://www.census.gov/cgi-bin/geo/shapefiles/index.php.
[15] Anselin, Luc. 2003. Rate Maps and Smoothing. Retrieved 14 Jan 2018 from http://www.dpi.inpe.br/gilberto/tutorials/software/geoda/tutorials/w6_rates_slides.pdf

Table 18: 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	Infant Mortality	County Health Rankings	2013 - 2019
		Life Expectancy	Child Mortality	County Health Rankings	2016 - 2019
			Life Expectancy	County Health Rankings	2017 - 2019
			Premature Age-Adjusted Mortality	County Health Rankings	2017 - 2019
			Premature Death	County Health Rankings	2017 - 2019
			Stroke Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Chronic Lower Respiratory Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Diabetes Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Heart Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Hypertension Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Cancer Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Liver Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Kidney Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Suicide Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Unintentional Injuries Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			COVID-19 Mortality	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2022-01-19
			COVID-19 Case Fatality	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2022-01-19
			Alzheimer's Disease Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019
			Influenza and Pneumonia Mortality	CDPH California Vital Data (Cal-ViDa)	2015 - 2019

Conceptual Model Alignment			Indicator	Data Source	Time Period
	Quality of Life	Morbidity	Diabetes Prevalence	County Health Rankings	2017
			Low Birthweight	County Health Rankings	2013 - 2019
			HIV Prevalence	County Health Rankings	2018
			Disability	2019 American Community Survey 5 year estimate variable S1810_C03_001E	2015 - 2019
			Poor Mental Health Days	County Health Rankings	2018
			Frequent Mental Distress	County Health Rankings	2018
			Poor Physical Health Days	County Health Rankings	2018
			Frequent Physical Distress	County Health Rankings	2018
			Poor or Fair Health	County Health Rankings	2018
			Colorectal Cancer Prevalence	California Cancer Registry	2013 - 2017
			Breast Cancer Prevalence	California Cancer Registry	2013 - 2017
			Lung Cancer Prevalence	California Cancer Registry	2013 - 2017
			Prostate Cancer Prevalence	California Cancer Registry	2013 - 2017
			COVID-19 Cumulative Incidence	CDPH COVID-19 Time-Series Metrics by County and State	Collected on 2022-01-19
			Asthma ED Rates	Tracking California	2018
			Asthma ED Rates for Children	Tracking California	2018
Health Factors	Health Behavior	Alcohol and Drug Use	Excessive Drinking	County Health Rankings	2018
			Drug Induced Death	CDPH 2021 County Health Status Profiles	2017 - 2019
		Diet and Exercise	Adult Obesity	County Health Rankings	2017
			Physical Inactivity	County Health Rankings	2017
			Limited Access to Healthy Foods	County Health Rankings	2015
			Food Environment Index	County Health Rankings	2015 & 2018
			Access to Exercise Opportunities	County Health Rankings	2010 & 2019
		Sexual Activity	Chlamydia Incidence	County Health Rankings	2018

Conceptual Model Alignment			Indicator	Data Source	Time Period
			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. Heath Resources and Services Administration	2021
			Dental Care Shortage Area	U.S. Heath Resources and Services Administration	2021
			Mental Health Care Shortage Area	U.S. Heath Resources and Services Administration	2021
			Medically Underserved Area	U.S. Heath Resources and Services Administration	2021
			Mammography Screening	County Health Rankings	2018
			Dentists	County Health Rankings	2019
			Mental Health Providers	County Health Rankings	2020
			Psychiatry Providers	County Health Rankings	2020
			Specialty Care Providers	County Health Rankings	2020
			Primary Care Providers	County Health Rankings	2018; 2020
		Quality Care	Preventable Hospitalization	California Office of Statewide Health Planning and Development Prevention Quality Indicators for California	2019
			COVID-19 Cumulative Full Vaccination Rate	CDPH COVID-19 Vaccine Progress Dashboard Data	Collected on 2022-01-19
	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

Conceptual Model Alignment			Indicator	Data Source	Time Period
		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

Conceptual Model Alignment		Indicator	Data Source	Time Period
		Access to Public Transit	OpenMobilityData, Transitland, TransitWiki.org, Santa Ynez Valley Transit; US Census Bureau	2021; 2020
	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[16] dataset. This was the most common source of data, with 52 associated indicators included in the analysis. Indicators were collected at both the county and state levels. County-level indicators were used to represent the health factors and health outcomes in the service area. State-level indicators were collected to be used as benchmarks for comparison purposes. All variables included in the CHR dataset were obtained from other data providers. The original data providers for each CHR variable are given in Table 19.

Table 19: 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

[16] University of Wisconsin Population Health Institute. 2021. County Health Rankings State Report 2021. Retrieved 6 May 2021 from https://www.countyhealthrankings.org/app/oregon/2021/downloads and https://www.countyhealthrankings.org/app/california/2021/downloads.

CHR Indicator	Time Period	Data Source
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
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

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

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

California Department of Public Health

By-Cause Mortality Data

By-cause mortality data were obtained at the county and state level from the CDPH Cal-ViDa[17] 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.

---

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

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

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

COVID-19 Data

Data on the cumulative number of cases and deaths[18] and completed vaccinations[19] 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[20] and report age-adjusted deaths per 100,000.

---

[18] State of California, Department of Public Health. 2021. Statewide COVID-19 Cases Deaths Tests. Retrieved January 19 2022 from https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/046cdd2b-31e5-4d34-9ed3-b48cdbc4be7a/download/COVID-19cases_test.csv.
[19] State of California, Department of Public Health. 2021. COVID-19 Vaccine Progress Dashboard Data . Retrieved January 19 2022 from https://data.chhs.ca.gov/dataset/e283ee5a-cf18-4f20-a92c-ee94a2866ccd/resource/130d7ba2-b6eb-438d-a412-741bde207e1c/download/COVID-19vaccinesbycounty.csv.
[20] 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 on 21 Jul 2021 from https://www.cdph.ca.gov/Programs/CHSI/CDPH%20Document%20Library/CHSP_2021_Tables_1-29_04.16.2021.xlsx.

U.S. Heath Resources and Services Administration

Indicators related to the availability of healthcare providers were obtained from the Health Resources and Services Administration[21] (HRSA). These included Dental, Mental Health, and Primary Care Health Professional Shortage Areas and Medically Underserved Areas/Populations. They also included the number of specialty care providers and psychiatrists per 100,000 residents, derived from the county-level Area Health Resource Files.

Health Professional Shortage Areas

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

Psychiatry and Specialty Care Providers

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

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

California Cancer Registry

Data obtained from the California Cancer Registry[22] includes age-adjusted incidence rates for colon and rectum, female breast, lung and bronchus, and prostate cancer sites for counties and the state. Reported rates were based on data from 2013 to 2017, and report cases per 100,000. For low-

---

[21] US Health Resources & Services Administration. 2021. Area Health Resources Files and Shortage Areas. Retrieved on 3 Feb 2021 from https://data.hrsa.gov/data/download.

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

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

Tracking California

Data on emergency department visits rates for all ages as well as children aged 5 to 17 were obtained from Tracking California.[23] These data reported age-adjusted rates per 10,000. They were multiplied by 100 in this analysis to convert them to rates per 100,000 to make them more comparable to the standard used for other rate indicators.

US Census Bureau

Data from the US Census Bureau was used for two additional indicators: the percentage of households with no vehicles available (table DPO4, variable 0058PE), and the percentage of the civilian non-institutionalized population with some disability (table S1810, variable C03_001E). Values for both of these variables were obtained from the 2019 American Community Survey 5-year Estimates dataset.

California Office of Environmental Health Hazard Assessment

Data used to calculate the pollution burden percent indicator were obtained from the CalEnviroscreen 3.0[24] dataset produced by the California Office of Environmental Health Hazard Assessment. This indicator reports the percentage of the population within a given county, or within the state as a whole, that live in a US Census tract with a CalEnviroscreen 3.0 Pollution Burden score in the 50th percentile or higher. Data on total population came from Table B03002 from the 2019 American Community Survey 5-year Estimates dataset.

California Department of Health Care Access and Information

Data on preventable hospitalizations were obtained from the California Department of Health Care Access and Information (formerly Office of Statewide Health Planning and Development) Prevention Quality Indicators.[25] 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.[26] 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

---

[23] Tracking California, Public Health Institute. 2021. Asthma Related Emergency Department & Hospitalization data. Retrieved on 24 Jun 2021 from www.trackingcalifornia.org/asthma/query.

[24] California Office of Environmental Health Hazard Assessment. 2018. CalEnviroScreen 3.0. Retrieved on 22 Jan 2021 from https://oehha.ca.gov/calenviroscreen/maps-data.

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

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

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

US Department of Housing and Urban Development

Data from the US Department of Housing and Urban Development's 2020 Annual Homeless Assessment Report[27] were used to calculate homelessness rates for the counties and state. This data reported point-in-time (PIT) homelessness estimates for individual Continuum of Care (CoC) organizations across the state. Each CoC works within a defined geographic area, which could be a group of counties, an individual county, or a portion of a county.

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

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

Proximity to Transit Stops

The proximity to transit stops variable reports the percent of county and state population that lives in a US Census block located within 1/4 mile of a fixed transit stop. Two sets of information were needed in order to calculate this indicator: total population at the Census block level, and the location of transit stops. Likely due to delays in data releases stemming from the COVID-19 pandemic, the most recent Census block population data available at the time of the analysis was from the 2010 Decennial Census,[28] so this was the data used to represent the distribution of population for this indicator.

---

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

[28] US Census Bureau. 2011. Census Blocks with Population and Housing Counts. Retrieved on 7 Jun 2021 from https://www2.census.gov/geo/tiger/TIGER2010BLKPOPHU/.

Transit stop data were identified first by using tools in the TidyTransit[29] library for the R statistical programming language.[30] This was used to identify transit providers with stops located within 100 miles of the state boundaries. A search for transit stops for these agencies, as well as all other transit agencies in the state, was conducted by reviewing three main online sources: OpenMobilityData,[31] Transitland,[32] Transitwiki.org,[33] and Santa Ynez Valley Transit.[34] 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[35] library in R was then used to calculate 1/4 mile (402.336 meter) buffers around each of these transit stops, and then to identify which Census blocks fell within these areas. The total population of all tracts within the buffer of the stops was then divided by the total population of each county or state to generate the final indicator value.

Detailed Analytical Methodology

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

---

[29] 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.

[30] 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/.

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

[32] Transitland. 2021. Transitland Operators. Retrieved all operators with California locations on 31 May to 1 June 2021 from https://www.transit.land/operators.

[33] 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.

[34] Santa Ynez Valley Transit. GTFS Files. Retrieved on 1 Jun 2021 from http://www.cityofsolvang.com/DocumentCenter/View/2756/syvt_gtfs_011921.

[35] 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
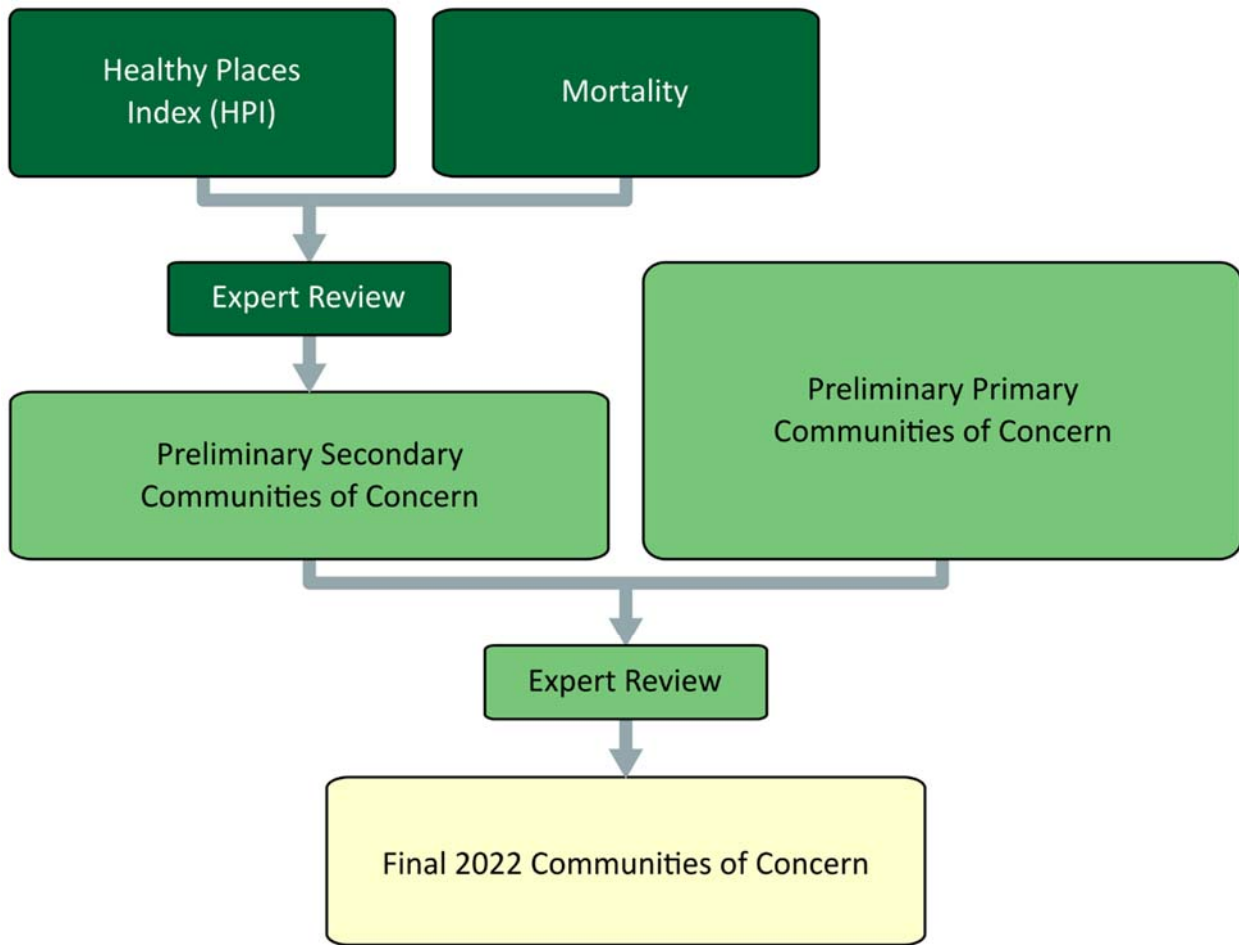
Figure 7: Community of Concern identification process

As illustrated in Figure 7, 2022 Communities of Concern were identified through a process that drew upon both primary and secondary data. Two main secondary data sources were used in this analysis: the census tract-level California Healthy Places Index (HPI) and the CDPH ZCTA-level mortality data.

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

Healthy Places Index (HPI)

A ZCTA was included if it intersected a census tract whose HPI value fell within the lowest 20% of those in the 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 either of the two selection criteria (HPI and Mortality) was reviewed for inclusion as a 2022 Community of Concern. An additional round of expert review was applied to determine if any other ZCTAs not thus far indicated should be included based on some other unanticipated secondary data consideration. This list then became the final Preliminary Secondary Communities of Concern.

Preliminary Primary Communities of Concern

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

Integration of Preliminary Primary and Secondary Communities of Concern

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

Significant Health Need Identification

The general methods through which significant health needs (SHNs) were identified are shown in Figure 8 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 20.
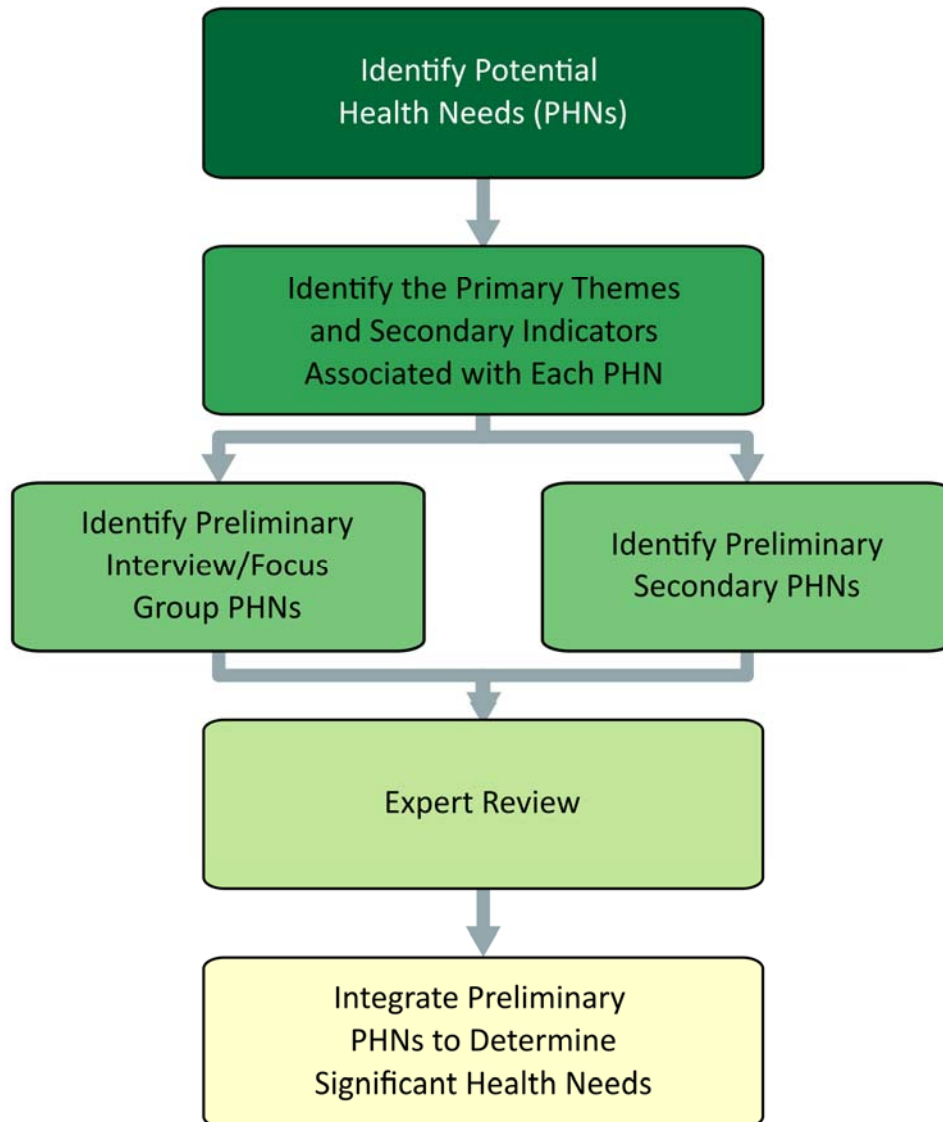
Figure 8: Significant health need identification process.

Table 20: 2022 Potential Health Needs.

Potential Health Needs (PHNs)
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

Potential Health Needs (PHNs)
PHN11 Increased Community Connections
PHN12 System Navigation

The next step in the process was to identify primary themes and secondary indicators associated with each of these health needs as shown in Tables 21 through 32. 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 21: Primary themes and secondary indicators associated with PHN1

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

Access to Quality Primary Care Health Services

Table 22: Primary themes and secondary indicators associated with PHN2

Primary Themes	Secondary Indicators
Insurance is unaffordable.	Infant Mortality
Wait-times for appointments are excessively long.	Child Mortality
Out-of-pocket costs are too high.	Life Expectancy
There aren't enough primary care service providers in the area.	Premature Age-Adjusted Mortality
Patients have difficulty obtaining appointments outside of regular business hours.	Premature Death
	Stroke Mortality
Too few providers in the area accept Medi-Cal.	Chronic Lower Respiratory Disease Mortality
It is difficult to recruit and retain primary care providers in the region.	Diabetes Mortality
Specific services are unavailable here (e.g., 24-hour pharmacies, urgent care, telemedicine).	Heart Disease Mortality
	Hypertension Mortality
The quality of care is low (e.g., appointments are rushed, providers lack cultural competence).	Cancer Mortality
	Liver Disease Mortality
Patients seeking primary care overwhelm local emergency departments.	Kidney Disease Mortality
	COVID-19 Mortality
Primary care services are available, but are difficult for many people to navigate.	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 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

Primary Themes	Secondary Indicators
	Homelessness Rate

Active Living and Healthy Eating

Table 23: Primary themes and secondary indicators associated with PHN3

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

65

Safe and Violence-Free Environment

Table 24: Primary themes and secondary indicators associated with PHN4

Primary Themes	Secondary Indicators
People feel unsafe because of crime.	Life Expectancy
There are not enough resources to address domestic violence and sexual assault.	Premature Death
	Hypertension Mortality
Isolated or poorly-lit streets make pedestrian travel unsafe.	Poor Mental Health Days
Public parks seem unsafe because of illegal activity taking place.	Frequent Mental Distress
Youth need more safe places to go after school.	Frequent Physical Distress
Specific groups in this community are targeted because of characteristics like race/ethnicity or age.	Poor or Fair Health
	Physical Inactivity
There isn't adequate police protection police protection.	Access to Exercise
Gang activity is an issue in the area.	Opportunities
Human trafficking is an issue in the area.	Homicide Rate
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 25: Primary themes and secondary indicators associated with PHN5

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

Healthy Physical Environment

Table 26: Primary themes and secondary indicators associated with PHN6

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

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

Table 27: Primary themes and secondary indicators associated with PHN7

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

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

Access to Functional Needs

Table 28: Primary themes and secondary indicators associated with PHN8

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

Primary Themes	Secondary Indicators
The cost of public transportation is too high.	COVID-19 Cumulative Full
Public transportation service routes are limited.	Vaccination Rate
Public transportation schedules are limited.	Income Inequality
The geography of the area makes it difficult for those without reliable	Homelessness Rate
transportation to get around.	Households with no Vehicle
Public transportation is more difficult for some to residents to use (e.g.,	Available
non-English speakers, seniors, parents with young children).	Long Commute - Driving
There aren't enough taxi and ride-share options (e.g.,Uber, Lyft).	Alone
	Access to Public Transit

Access to Specialty and Extended Care

Table 29: Primary themes and secondary indicators associated with PHN9

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

Primary Themes	Secondary Indicators
	Residential Segregation (Non-White/White)
	Income Inequality
	Homelessness Rate

Injury and Disease Prevention and Management

Table 30: Primary themes and secondary indicators associated with PHN10

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

Primary Themes	Secondary Indicators
	COVID-19 Cumulative Full Vaccination Rate
	Firearm Fatalities Rate
	Juvenile Arrest Rate
	Motor Vehicle Crash Death
	Disconnected Youth
	Third Grade Reading Level
	Third Grade Math Level
	Income Inequality
	Homelessness Rate

Increased Community Connections

Table 31: Primary themes and secondary indicators associated with PHN11

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

Primary Themes	Secondary Indicators
	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 32: Primary themes and secondary indicators associated with PHN12

Primary Themes	Secondary Indicators
People may not be aware of the services they are eligible for.	
It is difficult for people to navigate multiple, different health care 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.	

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

Table 33: Benchmark comparisons to show indicator performance.

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

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

Once these poorly performing quantitative indicators were identified, they were used to identify preliminary secondary significant health needs. This was done by calculating the percentage of all

secondary indicators associated with a given PHN that were identified as performing poorly within the 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: if at least 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80% of the respondents mentioned an associated theme.

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

Health Need Prioritization

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

First, the total percentage of all primary data sources that mentioned themes associated with a significant health need at any point was calculated. This number was taken to represent how broadly a given significant health need was recognized within the community. Next, the percentage of times a theme associated with a significant health 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.

These two 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 34: Resources available to meet health needs.

Organization Information			Significant Health Needs					Other Health Needs						
Name	Primary ZIP code	Website	Access to Mental/Behavioral Health and...	Access to Quality Primary Care Health Services	Access to Basic Needs Such as Housing, Jobs, and Food	Access to Specialty and Extended Care	Access to Functional Needs	Increased Community Connections	Active Living and Healthy Eating	Safe and Violence-Free Environment	Access to Dental Care and Preventive Services	Healthy Physical Environment	Injury and Disease Prevention and Management	System Navigation
211 Tehama	Tehama County	211norcal.org/tehama	x	x	x	x	x				x	x		x
Active 20-30 Club of Red Bluff	96080	www.facebook.com/RedBluff2030			x			x						
Adventist Compassion Care Clinic	96080	www.rbadventist.org/adventist-compassion-care-clinic		x							x			
Anderson Cottonwood Christian Assistance	96007	www.facebook.com/andcca/?ref=page_internal			x									
Brookdale Assisted Living Center	96080	www.assistedlivingcenter.com/facilities/ca/red-bluff/brookdale-red-bluff-96080				x	x	x		x			x	
Corning Chamber of Commerce- Corning Senior Center	96021	business.corningcachamber.org/list/member/corning-senior-center-71						x		x				
Corning Healthcare District	96021	www.corninghealthcaredistrict.org		x	x									
Dignity Health Connected Living	96003	www.dignityhealth.org/north-state/locations/connected-living			x		x	x	x					
Dignity Health- Lassen Medical Clinic	96080	www.dignityhealth.org/north-state/locations/lassen-medical-clinic		x									x	x
Dignity Health- Lassen Medical Clinic Cottonwood	96022	locations.dignityhealth.org/lassen-medical-clinic-cottonwood		x				x					x	x

Organization Information			Significant Health Needs					Other Health Needs						
Name	Primary ZIP code	Website	Access to Mental/Behavioral Health and...	Access to Quality Primary Care Health Services	Access to Basic Needs Such as Housing, Jobs, and Food	Access to Specialty and Extended Care	Access to Functional Needs	Increased Community Connections	Active Living and Healthy Eating	Safe and Violence-Free Environment	Access to Dental Care and Preventive Services	Healthy Physical Environment	Injury and Disease Prevention and Management	System Navigation
Dignity Health- Solano Street Clinic Corning	96021	locations.dignityhealth.org/dignity-health-solano-street-medical-clinic?utm_source=LocalSearch&utm_medium=Facility&utm_campaign=NorthState&utm_term=DignityHealthSolanoStreetMedicalClinic		x									x	x
Disability Action Center	95926	actionctr.org					x			x				
Elders Services Coordinating Council	Tehama County	m.facebook.com/Tehama-County-Elder-Services-Coordinating-Council-256150491429532/?ref=page_internal&mt_nav=0											x	
Empower Tehama	96080	empowertehama.org						x		x				
Evergreen Union School District Foundation	96022	www.evergreenusd.org/#	x		x				x					
Family Counseling Center Red Bluff	96080	www.fccredbluff.com												
First 5 Tehama	Tehama County	www.first5tehama.org						x		x				
Greenville Rancheria Tribal Health Center	95947	www.grth.org		x							x			
Housing Tools	Tehama County	housing-tools.com			x									
Lassen House Senior Living	96080	www.compass-living.com/senior-living/ca/red-bluff/lassen-house/?utm_source=GMB&utm_medium=organic	x	x	x				x					
Latino Outreach of Tehama County	Tehama County	www.latinooutreachoftehamacounty.org			x				x					

Name	Primary ZIP code	Website	Access to Mental/Behavioral Health and...	Access to Quality Primary Care Health Services	Access to Basic Needs Such as Housing, Jobs, and Food	Access to Specialty and Extended Care	Access to Functional Needs	Increased Community Connections	Active Living and Healthy Eating	Safe and Violence-Free Environment	Access to Dental Care and Preventive Services	Healthy Physical Environment	Injury and Disease Prevention and Management	System Navigation
			Significant Health Needs					**Other Health Needs**						
Mercy Housing	96080	www.mercyhousing.org/california/villa-columbia			x	x	x					x		
NAMI-National Alliance on Mental Illness Tehama County	Tehama County	namica.org/locations/nami-tehama-county	x					x						
NorCal Outreach Project	96002	norcaloutreach.org						x		x				
Northern California Child Development Inc.	96080	www.nccdi.com	x					x		x				
Northern Valley Catholic Services- Family Counseling Resource Center Tehama	Tehama County	nvcss.org/tehama			x			x		x				
Northern Valley Catholic Social Services	Tehama County	nvcss.org	x		x					x				
Paratransit Services	96080	taketrax.com					x							
Passages- Area Agency on Aging	96080	www.passagescenter.org			x		x							
PATH- Poor and The Homeless	96080	redbluffpath.org			x									
Rancho Tehama Community Foundation	96021	www.facebook.com/RTCF96021						x						
Red Bluff Healthcare Center	96080	rbhc.biz/home			x	x			x	x				
Red Bluff-Tehama County Chamber of Commerce	Tehama County	redbluffchamber.com						x						
Restpadd Psychiatric Hospital	96001	www.restpadd.com	x											

Organization Information			Significant Health Needs					Other Health Needs						
Name	Primary ZIP code	Website	Access to Mental/Behavioral Health and...	Access to Quality Primary Care Health Services	Access to Basic Needs Such as Housing, Jobs, and Food	Access to Specialty and Extended Care	Access to Functional Needs	Increased Community Connections	Active Living and Healthy Eating	Safe and Violence-Free Environment	Access to Dental Care and Preventive Services	Healthy Physical Environment	Injury and Disease Prevention and Management	System Navigation
Salt Ranch	96080	salt-ranch.business.site			x									
St. Elizabeth Hospital	96080	www.dignityhealth.org/north-state/locations/stelizabethhospital	x	x		x							x	x
Tehama County Adult Protective Services	Tehama County	www.tcdss.org/index.php/adultservices/adult-protective-services-aps			x					x				x
Tehama County Behavioral Health Services	Tehama County	www.tehamacohealthservices.net/services/behavioral-health-services	x											x
Tehama County Community Action Agency	96080	tehamacountycaa.com			x									x
Tehama County Department of Social Services- Adult Services	Tehama County	tcdss.org/index.php/adultservices				x	x							
Tehama County Health Services Agency/Public Health	Tehama County	www.tehamacohealthservices.net/administration/about-us/public-health							x		x	x	x	x
Tehama County Public Health- WIC	Tehama County	www.tehamacohealthservices.net/prevention/women-infants-children-wic			x									x
Tehama County Substance Use Recovery Services	Tehama County	www.tehamacohealthservices.net/services/substance-use-recovery-services	x											x
Tehama Together	96080	www.facebook.com/TehamaTogether			x				x					

Limits and Information Gaps

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

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

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

Appendix A – Impact of Actions Taken

Tehama County – St. Elizabeth community hospital

Impact of Actions Taken Since the Preceding CHNA

Access to care and mental health were identified as significant health needs in the 2019 CHNA. Since the preceding CHNA several improvements in health behaviors, health outcomes, resources and services have been made. In addition, St. Elizabeth Community Hospital annual Community Benefit Reports and Plans describe actions and impacts in greater detail. The most recent report is available at http://www.dignityhealth.org/cm/content/pages/community-benefit-reports.asp.

Below are examples of the programs developed through collaborative efforts with community based organizations that represent actions taken since the preceding CHNA that directly address identified significant health needs.

Access to Care
- Rural Health Clinics offer sliding fee scale for patients who do not qualify for insurance and offer convenient appointments on the weekend acute care walk in or drive through clinic appointments. When appropriate, offer video and telephone visits to those with issues that may limit their ability to drive to their appointment.
- Ongoing physician recruitment effort to increase access to care.
- Emergency Department based patient navigator program focused on assisting patients who rely on the emergency department for non-urgent needs. The navigators assist patients with scheduling follow-up appointments and any other barriers that may create obstacles with accessing care. This program represents a unique collaboration between Partnership Health Plan, a Medi-Cal insurance plan, and the hospital.
- The Oncology and Infusion clinics were opened in October, 2019 and have offered services for infusion, chemo infusion and oncology patients. The volume has steadily increased and additional services and clinician coverage are underway. During the pandemic, the oncology and infusion center assumed the role of RN navigation and provided over 104 hours dedicated to community screening needs.

Mental Health
- Tele-Psychiatry - Psychiatrists are able to provide early evaluation and psychiatric intervention via remote consultations with patients, improving access to timely quality care. Access is available to both the ED and inpatient setting.
- Recruitment of Behavioral Health Specialist (LCSW) to the Women's Health Services Clinic in Red Bluff.

- Outpatient referrals to behavioral health in local communities to Tehama County Behavioral Health, Family Counseling Center in Red Bluff and Corning, and individual therapists in local communities.
- Coordinate behavioral health evaluations with Tehama County Behavioral Health Department to assess patient needs and risks and to provide referrals 24-hours daily, 365 days per year to anyone who presents at the hospital Emergency Departments. These services are provided regardless of the individual's ability to pay or eligibility for care at our facility.
- Health Countywide task force to develop best practices with known local resources. Have developed an even stronger relationship with County Mental Health to manage difficult to place patients.

Ongoing collaboration with internal and external key stakeholders, post-acute care services, and the Care Coordinators has proven to be integral when addressing community needs outside the walls of the hospital.