Adventist Health
Sonora

Adventist Health Sonora
Community Health Needs Assessment

2019

2019 Community Health Needs Assessment

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Executive Summary

Empowering our communities

Adventist Health Sonora (AHSR) would like to thank you for the opportunity to work with our communities to conduct a formal Community Health Needs Assessment (CHNA) to learn about pressing health needs, identify community assets, and hear from all members of the community. This CHNA will help us develop strategies to address the priority needs of the communities we serve. The goals of this assessment are to:

- Engage public health and community stakeholders including low-income, minority and other underserved populations.
- Assess and understand the community's health issues and needs.
- Understand the health behaviors, risk factors and social determinants that impact health.
- Identify community resources and collaborate with community partners to develop collective strategies.
- Use findings to develop and implement a Community Health Plan (implementation strategy) based on the Adventist Health Sonora's prioritized issues.

Partnering with our communities for better health

While conducting the CHNA, we solicited feedback and input from a broad range of stakeholders. Contributors to our CHNA process included Area 12 Agency on Aging, Sonora Area Foundation and Spiritual Road.

Data sources

Primary and secondary data sources are included in this report. Secondary sources include publicly available state and nationally recognized data sources available at the zip code, county and state level. Health indicators for social and economic factors, health system, public health and prevention, and physical environment are incorporated. The top leading causes of death as well as conditions of morbidity that illustrate the communicable and chronic disease burden across Calaveras and Tuolumne Counties are included. A significant portion of the data for this assessment was collected through a custom report generated through CARES Engagement Network CHNA (https://engagementnetwork.org/assessment/). Other sources include California Department of Public Health, County Health Rankings & Roadmaps, and California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. When feasible, health metrics have been further compared to estimates for the state or national benchmarks, such as the Healthy People 2020 objectives.

Adventist Health Sonora worked to identify relevant key informants and topical focus groups to gather more insightful data and aid in describing the community. Key informants and focus groups were purposefully chosen to represent medically under-served, low-income, or minority populations in our community, to better direct our investments and form partnerships. Results of the qualitative analysis, as well as a description of participants, can be found in Appendix D.

In addition, an online survey in English and Spanish was created and distributed for greater community input. It should be noted that the survey results are not based on a stratified random sample of residents throughout the hospital's service area. The perspectives captured in this data simply represent the community members who agreed to participate. In addition, this assessment relies on several national and state entities with publicly available data. All limitations inherent in these sources remain present for this assessment.

Top priorities identified in partnership with our communities

On August 26, 2019, HC2 Strategies, Inc. facilitated a strategy meeting with the 2019 Community Health Needs Assessment Steering Committee to review the results of the CHNA and determine the top 3 priority needs that the Adventist Health Sonora will address, over the next three years. To aid in determining the priority health needs, the 2019 Community Health Needs Assessment Steering Committee, which includes community leaders agreed on the criteria below to consider when making a decision. The criteria listed recognize the need for a combination of information types (e.g, health indicators and primary data) as well as consideration of issues such as practicality, feasibility, and mission alignment.

- Addresses disparities of subgroups
- Availability of evidence or practice-based approaches
- Existing resources and programs to address problems
- Feasibility of intervention
- Identified community need
- Importance to community
- Magnitude
- Mission alignment and resources of Adventist Health Sonora
- Opportunity for partnership
- Opportunity to intervene at population level
- Severity
- Solution could impact multiple problems

Top health needs identified for 2019-2022:

Access to healthcare

- Access to providers including geriatric services and primary care providers
- Preventative care
- Transportation

Mental and behavioral health

- Substance abuse
- Trauma and isolation

Chronic disease

- Asthma
- Obesity

Making a Difference: Results from our 2016 CHNA

Adventist Health Sonora wants to ensure that our efforts are making the necessary changes in the communities we serve. In 2016, we conducted a CHNA and the identified needs and accomplishments were:

Healthy beginnings

Creating an environment where we raise children who thrive in a healthy, educated, active, resilient community through intergenerational connectedness.

Short-term objective

Objective 1: Improving scores in Tuolumne County schools on state physical fitness testing.

- Intervention: Expanding "Fit for the Future" and "Family Fit" programs, which were a collaboration with area schools to bring physical and nutritional education to 5th and 7th graders. While successful, the program is no longer maintained.

Objective 2: Reducing drug/alcohol use among adolescence.

- Intervention: Partner with YES Partnership and other community partners and programs aimed at reducing drug/alcohol use among adolescence in Tuolumne County.

Objective 3: Reducing drug/alcohol use in pregnant women.

- Intervention: Explore area partners and programs, such as Foothill Pregnancy Center, to discern resources and programs to help reduce drug/alcohol use in pregnant women.

Intermediate objective

Objective 1: Expanding "Fit for the Future" and "Family Fit" to all Tuolumne County schools as well as expanding into surrounding counties.

- Intervention: Working with community leaders, fundraising and other resources to find ongoing funding for these programs.

- **Objective 2:** Reducing drug and alcohol use among adolescents.
- Intervention: Partnering with YES Partnership and other community partners and programs aimed at reducing drug and alcohol use among adolescents in Tuolumne County.

Objective 3: Reducing drug and alcohol use in pregnant women.

- Intervention: Collaborating with identified community partners and programs aimed at building healthy, strong families and reducing drug use in pregnant women.

Long-term objective

Objective 1: Reducing the number of Tuolumne County elementary and secondary students who are obese.

- Intervention: Supporting “Fit for the Future”, “Family Fit” and other community initiatives and programs that increase children’s activity level and understanding about health behaviors and eating habits.

Objective 2: Reducing drug and alcohol use among adolescents.

- Intervention: Partnering with YES Partnership and other community partners and programs aimed at reducing drug and alcohol use among adolescents in Tuolumne County.

Objective 3: Reducing drug and alcohol use in pregnant women.

- Intervention: Collaborating with Tuolumne County Health Department on reducing drug use among pregnant mothers in Tuolumne County.

Mental health and substance abuse

Increase access to mental health and substance abuse/addiction resources in Tuolumne County during the next three years:

Short-term objective

Objective 1: Decreasing untreated mental health problems in Tuolumne County.

- Intervention: Exploring options for partnerships to bring more psychiatric care to Tuolumne County.

Objective 2: Decreasing admissions to the hospital for drug overdose.

Intermediate objective

Objective 1: Decreasing hold times for psychiatric patients in the hospital Emergency Department (ED).

- Intervention: Exploring options for partnerships to help with psychiatric evaluations and support for ED patients; e.g., telemedicine.

Objective 2: Decreasing admissions to the hospital for drug overdose.

- Intervention: Continuing the work related to the Opioid Safety Coalition and expanding the Pain Management and Addiction Therapy Clinic at Rural Health.

Long-term objective

Objective 1: Decreasing hold times for psychiatric patients in the hospital Emergency Department (ED).

- Intervention: Expanding psychiatric coverage in Tuolumne County through tele-psyche programs, or other partnerships and programs that can increase psychiatric services to our region.

Objective 2: Decreasing admissions to the hospital for drug overdose.

- Intervention: Partnering with Aegis Treatment Centers to extend their services to Tuolumne County, along with the aforementioned activities.

Access to care

Increase access to local healthcare through an increased number of providers as well as creative access options for those who are in outlying areas.

Short-term objective

Objective 1: Increasing the number of primary care providers in the AHSR service area.

- Intervention: Recruiting physicians and providers to fill access to care needs in Tuolumne County, including options related to telemedicine and other novel ideas for rural settings.

Objective 2: Supporting local training and educational programs that develop the medical care workforce.

- Intervention: Supporting the Yosemite College District nursing and similar area programs.

Objective 3: Decreasing hospital readmissions for chronic diseases.

- Intervention: Expanding diabetes education, pulmonary and cardiac rehab programs, CHR clinic, anticoagulation program, HOPE Van and other such programs.

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- Intervention: Supporting the Yosemite College District nursing and similar area programs.

Objective 3: Decreasing hospital readmissions for chronic diseases.

- Intervention: Expanding diabetes education, pulmonary and cardiac rehab programs, CHR clinic, anticoagulation program, Project HOPE and other such programs.

Acknowledgments

This report was made possible through the leadership of Adventist Health Sonora (AHSR), located in the City of Sonora in Tuolumne County as part of Adventist Health (https://www.adventisthealth.org/). Under the leadership of Mr. Tyler Newton and his team — Mr. Mario DeLise and Mr. Matthew Rose, collaborated with Ms. Laura Acosta of HC2 Strategies, Inc. to conduct key informant interviews, focus groups, and establish priority health needs for the 2019-2021 community health needs cycle.

The analysis method and rankings were invaluable in providing 'at a glance' information for informed decision making. Many of the key health indicators presented in this report were collected from the CARES Engagement Network CHNA. Other sources include California Department of Public Health, County Health Rankings & Roadmaps, and California Environmental Protection Agency's Office of Environmental Health Hazard Assessment.

Finally, we would like to express our sincere gratitude and thank our community members and organizations and all those who gave input for this report through key informant interviews and focus groups. Their perspectives ensure that we are taking into consideration the most vulnerable in our communities to better create initiatives, more meaningful partnerships, and strategic investments into our communities.

Letter from the President

Dear Friends and Colleagues,

At Adventist Health Sonora, it is our greatest privilege to love and care for our community and improve lives by helping those around us achieve better health. Our mission, to live God's love by inspiring health, wholeness and hope, is at the heart of everything we do and is not constrained by the walls of our facilities. We live God's love at work, at home and out in our community.

To truly provide a meaningful impact on the overall wellness of our community, we must fully understand the many factors affecting the health of the people we serve and work to address their greatest needs.

Our 2019 Community Health Needs Assessment provides an in-depth analysis on the social, economic, environmental and health care determinants of health, including employment, housing, chronic disease, longevity, nutrition and physical fitness.

This assessment allows us to identify opportunities and develop innovative ways of working together to provide programs and services that will have the greatest impact. Through effective partnerships we can improve the health of our community and influence the well-being of our families, friends and neighbors now and for generations to come.

I look forward to working together with you as we discover new ways to serve our community. Thank you for your interest in creating a healthier Tuolumne County.

Sincerely,

Michelle Fuentes
President

Introduction

The Community Health Needs Assessment (CHNA) represents our commitment to improving health outcomes in our community through rigorous assessment of health status in our region, incorporation of stakeholder's perspectives, and adoption of related implementation strategies to address priority health needs. The CHNA is conducted not only to partner for improved health outcomes, but also to satisfy our annual community benefit obligations by meeting requirements that are outlined in section 501(r)(3) of the Federal IRS Code, as well as, under the Affordable Care Act of 2010. The goals of this assessment are to:

- Engage public health and community stakeholders including low-income, minority and other underserved populations.
- Assess and understand the community's health issues and needs.
- Understand the health behaviors, risk factors and social determinants that impact health.
- Identify community resources and collaborate with community partners.
- Use Assessment findings to develop and implement a Community Health Plan (implementation strategy) based on the Hospital's prioritized issues.

Adventist Health overview

Adventist Health Sonora is an affiliate of Adventist Health, a faith-based, nonprofit integrated health system serving more than 80 communities on the West Coast and Hawaii. Community has always been at the center of Adventist Health's mission — Living God's love by inspiring health, wholeness and hope. Founded on Seventh-day Adventist heritage and values, Adventist Health provides compassionate community care. Adventist Health entities include:

- 20 hospitals with more than 3,200 beds
- More than 280 clinics (hospital-based, rural health and physician clinics)
- 13 home care agencies and seven hospice agencies
- Four joint-venture retirement centers
- Compassionate and talented team of 35,000 associates, medical staff physicians, allied health professionals and volunteers

We owe much of our heritage and organizational success to the Seventh-day Adventist Church, which has long been a promoter of prevention and whole person care. Inspired by our belief in the loving and healing power of Jesus Christ, we aim to bring physical, mental and spiritual health and healing to our neighbors of all faiths. Every individual, regardless of his/her personal beliefs, is welcome in our facilities. We are also eager to collaborate with members of other faiths to enhance the health of the communities we serve.

Our commitment to quality health care stems from our heritage, which dates back to 1866 when the first Seventh-day Adventist health care facility opened in Battle Creek, Michigan. There, dedicated pioneers promoted the "radical" concepts of proper nutrition, exercise and sanitation. Early on, the facility was devoted to prevention as well as healing. They called it a sanitarium, a place where patients—and their families—could learn to be well.

More than a century later, the health care system sponsored by the Seventh-day Adventist Church circles the globe with more than 170 hospitals and more than 500 clinics, nursing homes and dispensaries worldwide. And the same vision to treat the whole person—mind, body and spirit—continues to provide the foundation for our progressive approach to health care.

Mission

Living God's love by inspiring health, wholeness and hope.

Our values

- Integrity
- Compassion
- Respect
- Excellence

Our vision

Compelled by our mission to live God's love by inspiring health, wholeness and hope, we will transform the health experience of our communities by improving physical, mental and spiritual health; enhancing interactions; and making care more accessible and affordable.

Hospital Identifying Information

Adventist Health Sonora (AHSR) is located in the city of Sonora in Tuolumne County. Tuolumne County is located in the beautiful Sierra Nevada foothills and is located at the gateway to Gold Country. Bay Area natives move to Tuolumne County to retire and get away from the hustle and bustle of the city. The majority of our market is made up of retired and midscale mature adults with no kids. Tourism is a large part of Tuolumne County, as tourists escape from the heat of the summer in the Central Valley to go to one of many reservoirs for boating or swimming or visit Yosemite National Park. Winter tourists enjoy skiing, snowboarding and snowmobiling. The main industries for employment are government, logging, gaming industry (casino), health care and tourism.

A 152-bed (72 med/surg, 68 skilled nursing and 12 transitional care) medical center in Sonora, California, serving nearly 100,000 residents of Calaveras and Tuolumne counties with key services including cardiology, imaging, home health, hospice, intensive care, long-term care, obstetrics, oncology, orthopedics, rural health, surgical services, wellness education, and a large network of primary care, rapid care and specialty medical offices

Healthcare facilities & services that can respond to the health needs of the community.

- Cancer Care
- Cardiopulmonary Services
- Diagnostic Imaging
- Emergency Care
- Family Medicine
- Gastroenterology
- Heart & Vascular Care
- Home Care
- Home Health
- Hospice
- Durable Medical Equipment
- Laboratory Services
- Maternity
- Medical Offices
- Angels Camp
- Angels Camp Family Medical Office
- Angels Camp Orthopedics
- Arnold
- Arnold Family Medical Office
- Groveland
- Groveland Family Medical Office
- Sonora
- Cedarwood Internal Medicine
- Foothill Pediatrics & Rheumatology
- Foothill Specialty Group
- Greenley Oaks ENT
- Greenley Primary Care
- Health Pavilion Primary Care
- Hillside Internal Medicine
- Hillside Internal Medicine 2
- Mountain Medical Physician Medicine & Rehabilitation
- Northern California Spine Institute
- Rural Health Clinic
- Dental Care
- Pediatric Care
- Specialty Care
- Primary Care
- Sierra Cardiology
- Sierra Internal Medicine
- Sierra OB/GYN
- Sierra Orthopedic Institute
- Sierra Vascular
- Sierra General Surgery Associates

- Yosemite Joint Replacement & Orthopedics
- Nutritional Care
- Occupational Health
- Orthopedic Care
- Joint Replacement
- Sports Medicine
- Spine Surgery/Health
- Pharmacy
- Rural Health
- Skilled Nursing
- Sleep Medicine
- Surgical Services
- Telehealth
- Transitional Care
- Wellness
- Anticoagulation Clinic
- Lipid Resource Center
- Diabetes Resource Center
- Pulmonary Rehabilitation
- Cardiac Rehabilitation
- Travel Clinic
- Heart Failure Resource Center
- Wound Care

Mailing Address: 1000 Greenley Road, Sonora, California 95370

Contact Information: 209-536-5012

Website: adventisthealthsonora.org

Primary service area

AHSR's PSA/SSA spans parts of four counties –Mariposa, Tuolumne, Calaveras and Stanislaus. The primary service area includes 15 zip codes and a population of 131,982.

Service Area	Zip Code	City	County
PSA	95222	Angels Camp	Calaveras
	95223	Arnold	Calaveras
	95228	Copperopolis	Calaveras
	95247	Murphys	Calaveras
	95251	Vallecito	Tuolumne
	95310	Columbia	Mariposa
	95311	Coulterville	Tuolumne
	95321	Groveland	Tuolumne
	95327	Jamestown	Tuolumne
	95335	Long Barn	Tuolumne
	95346	MiWuk Village	Tuolumne
	95370	Sonora	Tuolumne

Service Area	Zip Code	City	County
PSA	95379	Soulsbyville	Tuolumne
	95379	Tuolumne	Tuolumne
	95383	Twain Harte	Tuolumne
SSA	95246	Mountain Ranch	Calaveras
	95318	El Portal	Mariposa
	95329	La Grange	Stanislaus
TSA	95232	Glencoe	Calaveras
	95257	Wilseyville	Calaveras

Community Quick Facts – Calaveras County

Key Facts

45,602
Population

55.4
Median Age

2.3
Average Household Size

$52,814
Median Household Income

Households by Income

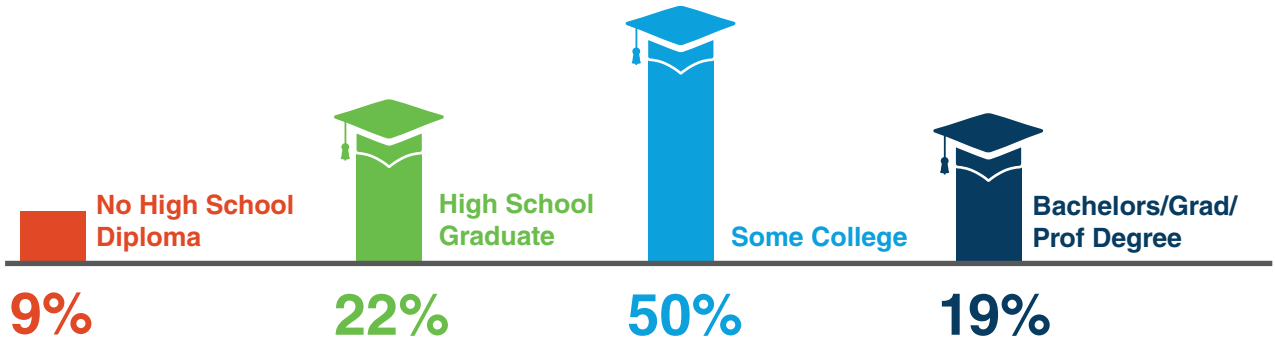
<$15,000	7.1%
$15,000 – $24,999	17.9%
$25,000 – $34,999	10.7%
$35,000 – $49,999	10.7%
$50,000 – $74,999	21.4%
$75,000 – $99,999	14.3%
$100,000 – $149,999	14.3%
$150,000 – $199,999	3.6%
$200,000+	0.0%

Unemployment

3.6%
Calaveras County Unemployment Rate

5.5%
California Unemployment Rate

Education



Data Source: Esri Report, 2019. U..S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2018 and 2023.

Community Quick Facts – Tuolumne County

Key Facts

55,961
Population

50.0
Median Age

2.3
Average Household Size

$50,446
Median Household Income

Households by Income

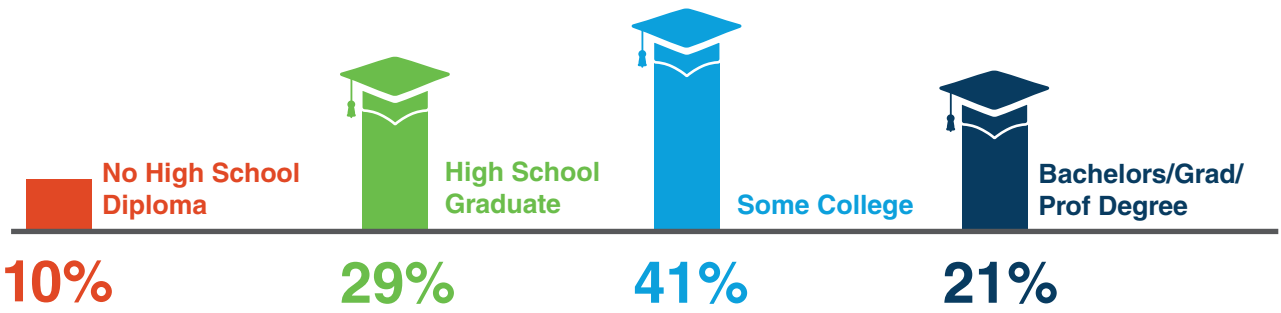
<$15,000	12.2%
$15,000 – $24,999	11.7%
$25,000 – $34,999	11.8%
$35,000 – $49,999	13.8%
$50,000 – $74,999	18.3%
$75,000 – $99,999	11.8%
$100,000 – $149,999	11.0%
$150,000 – $199,999	4.3%
$200,000+	5.1%

Unemployment

6%
Calaveras County Unemployment Rate

5.5%
California Unemployment Rate

Education



Data Source: Esri Report, 2019. U..S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2018 and 2023.

CHNA Overview

Developing metrics for population health interventions are imperative for continued success in elevating the health status of our communities. Including metrics from multiple sectors ensures a holistic assessment that views the health of a community through multiple sectors, helping to identify everyone's role in making improvements. The community health needs assessment (CHNA) ensures we can target our community investments into interventions that best address the needs of our community. The domains used in this regional CHNA encompass national and state community health indicators. While we recognize that health status is a product of multiple factors, each domain influences the next and through systematic and collective action improved health can be achieved. The domains explored in the CHNA are:

- **Social and Economic Factors:** Indicators that provide information on social structures and economic systems. Examples include poverty, educational attainment, and workforce development.
- **Health Systems:** Indicators that provide information on health system structure, function, and access. Examples include health professional shortage areas, health coverage, and vital statistics.
- **Public Health and Prevention:** Indicators that provide information on health behaviors and outcomes, injury, and chronic disease. Examples include cigarette smoking, diabetes rates, substance abuse, physical activity, and motor vehicle crashes.

- **Physical Environment:** Indicators that provide information on natural resources, climate change, and the built environment.

Secondary data sources

Secondary data sources include publicly available state and nationally recognized data sources. A significant portion of the data for this assessment was collected through a custom report generated through CARES Engagement Network CHNA (https://engagementnetwork.org/assessment/). Other sources include California Department of Public Health, County Health Rankings & Roadmaps, and California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. When feasible, health metrics have been further compared to estimates for the state or national benchmarks, such as Healthy People 2020 objectives. Please see Appendix C for a complete listing of data sources.

Primary data sources

To validate data and ensure a broad representation of the community, Adventist Health Sonora engaged our community partners to conduct a community health survey. Questions from the survey focused on: use of and access to healthcare services, visions of a healthy community, and priority community health needs. In addition, Adventist Health Sonora conducted key informant interviews and focus groups to gather deeper and richer data and aid in describing the community. Results of the qualitative analysis can be found later in this document.

Data limitations and gaps

It should be noted that the survey results are not based on a stratified random sample of residents throughout Tuolumne County. The perspectives captured in this data simply represent the community members who agreed to participate and have an interest. In addition, this assessment relies on several national and state entities with publicly available data. All limitations inherent in these sources remain present for this assessment.

Social & Economic Factors

Health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well, staying active, establishing a medical home, living a smoke-free life, getting recommended immunizations and screenings, seeing a medical provider regularly and when sick, all influence health. Our health is also determined in part by access to social and economic opportunities. Positive health outcomes are influenced by the resources and supports available in our homes, neighborhoods and communities as well as the quality of our schooling, safety of our workplaces, cleanliness of our water, environment and our social interactions and relationships. The conditions in which we live explain in part why some Americans are healthier than others and why some are not as healthy as they could be.

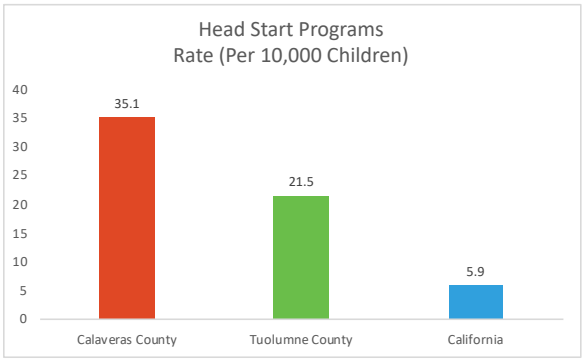
Social determinants of health are environmental conditions in which people are born, live, learn, work, play, worship, and age. These determinants affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) are referred to as "place." In addition to the more material attributes of "place," the patterns of social engagement and sense of security and well-being are also affected by where people live. Quality of life resources can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and an environment free of life-threatening toxins. This section details the indicators related to social and economic factors in our community which play a role in maintaining good health.

Education

Early education is an important factor in health status. Independent of its relationship to behavior, education influences a person's ability to access and understand health information. Education is also correlated with a host of preventable poor health outcomes including increased rates of childhood illness, respiratory illness, renal and liver disease, and diabetes, to name a few. Higher educational levels are associated with lower morbidity and mortality.

Multiple studies show that smart investments in the early years of development can result in profoundly better outcomes for children, families, and the economy. Attending a Head Start program can be an important part of this development. Head Start programs promote school readiness for children ages birth to five from low-income families by supporting their development in a comprehensive way through early learning, health and wellness screenings, and programs that promote family well-being.

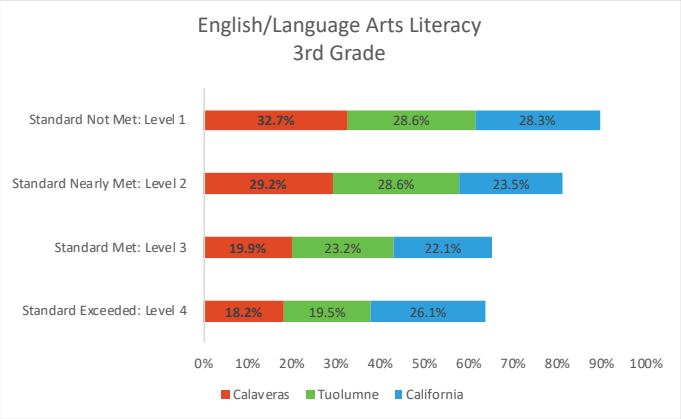
Across the two-county region, for every 10,000 children, Calaveras County has a higher rate of Head Start Facilities at 35.1 than Tuolumne County at 21.5. Comparatively, for the state of California the rate was 5.9 per 10,000.



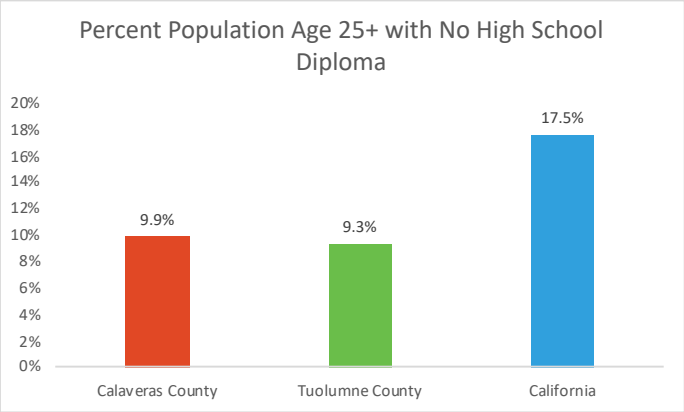
Data Source: CARES Engagement (2019). US Department of Health & Human Services, Administration for Children and Families. 2018. Retrieved May 2019 from https://engagementnetwork.org/assessment/

Student reading proficiency

A report published by the Anne E. Casey Foundation found that children who do not read proficiently by the end of third grade are four times more likely to leave school without a diploma than a proficient reader. At the end of the 2018 school year, testing for third graders found that there was a higher percentage of students in Calaveras County (32.7%) who did not meet the 'Level 1' standard as compared to Tuolumne County (28.6%) and the state (28.3%) estimate. The state average showed that Tuolumne County third graders exceeded 'Level 4' standard (19.5%) as compared to Calaveras County (18.2%). However, both counties were lower than the state estimate.

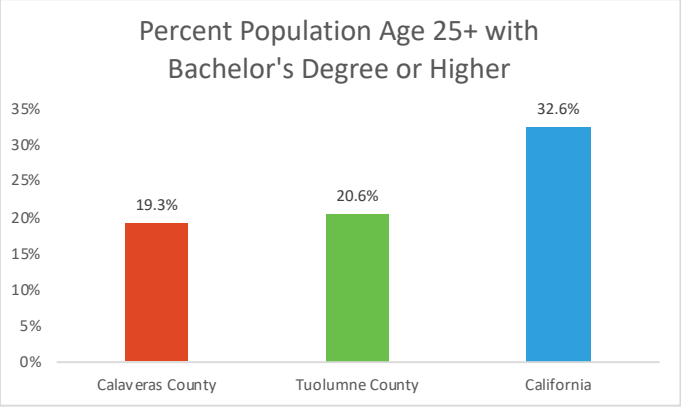


Data Source: CAASPP Reporting (CA Dept of Education). Retrieved September 2019 from https://caaspp.cde.ca.gov/sb2018/



Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

Graduation from high school or a post-secondary education such as receiving a Bachelor's or Associates degree is linked to better health outcomes and increased earning potential. Averages for those aged 25 and older without a high school diploma in Calaveras (9.9%) and Tuolumne Counties, (9.3%), is lower than the state estimate at 17.5%.

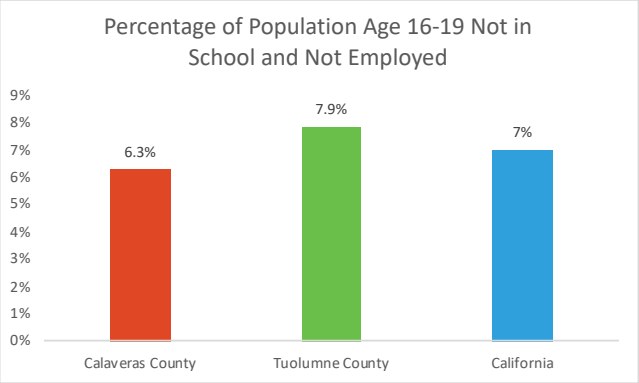


Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

When examining attainment of a Bachelor's Degree or higher, one finds that across the two-county region, Calaveras (19.3%) and Tuolumne (20.6%) Counties are lower than the state estimate of 32.6%.

Employment

Addressing unemployment levels is important to community development. Unemployment can lead to financial instability and serve as a barrier to health care access and utilization. Many people secure health insurance through an employer. However, even with Medicaid expansion, the lack of gainful employment may prevent some from affording medical office co-pays or medications.

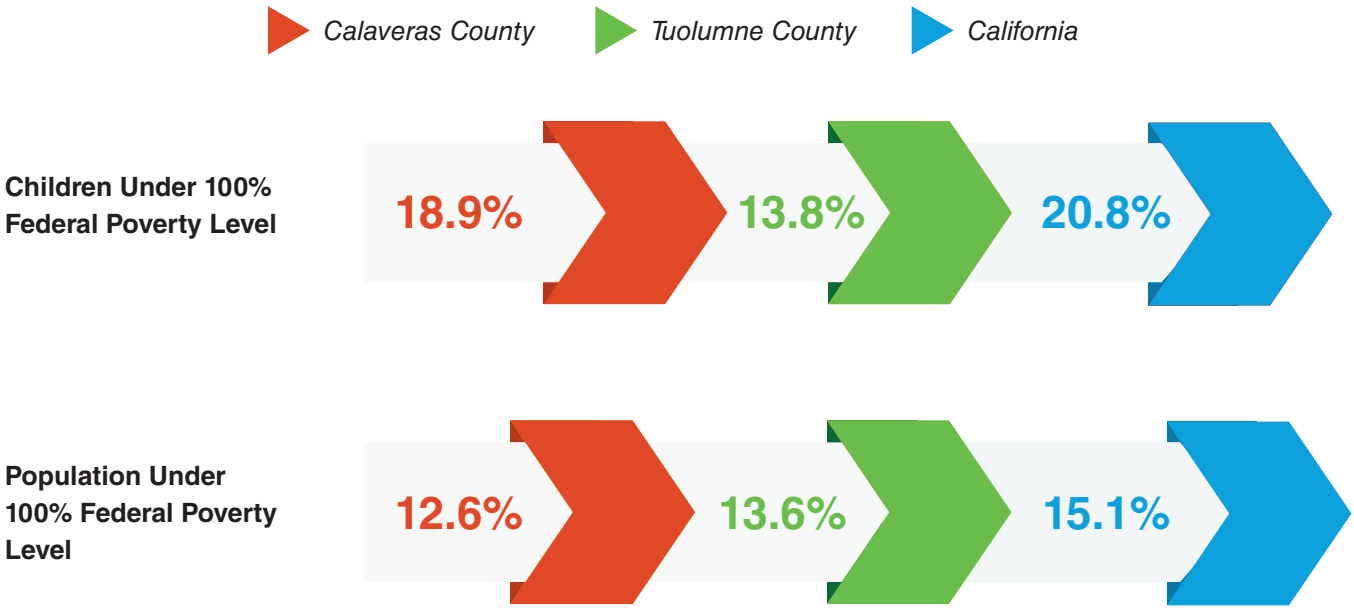


Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

When looking at unemployment figures, Calaveras County's unemployment rate is at 3.6%, while Tuolumne County unemployment rate is at 6%. Calaveras County unemployment rate is lower than the state estimate at 4.7%. Calaveras County (6.3%) has a lower percentage of population age 16-19 not in school and not employed than Tuolumne County (7.9%) and also compared to 7.0% for the state.

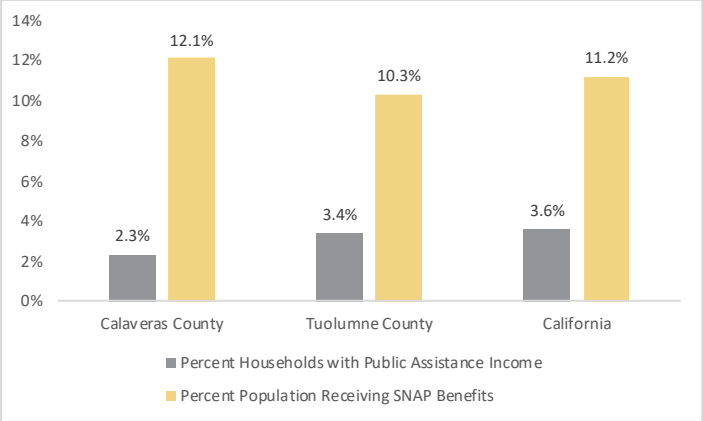
Measures of poverty

Poverty is a particularly strong risk factor for disease and death, especially among children. Children who grow up in poverty are eight times more likely to die from homicide, five times more likely to have a physical or mental health problem, and twice as likely to be killed in an accident. Additionally, family poverty is consistently correlated with high rates of teenage pregnancy, failure to earn a high school diploma, and violent crimes. Across the two-county region, Calaveras and Tuolumne County have a lower percentage of total population and children under age 18 living under the 100% federal poverty level, compared to the state estimate at 15.1% and 20.8%, respectively.



Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

The chart to the right displays two other measures of poverty; the percentage of population receiving supplemental nutritional assistance program (SNAP) benefits, and percentage of population receiving public assistance income.



Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. US Census Bureau, Small Area Income & Poverty Estimates. 2015. Retrieved May 2019 from https://engagementnetwork.org/assessment/

Public assistance income includes general assistance and Temporary Assistance to Needy Families (TANF). Separate payments received for hospital or other medical care (vendor payments) are excluded. This does not include Supplemental Security Income (SSI) or non-cash benefits such as Food Stamps.

These indicators are relevant because they assess vulnerable populations which are more likely to have multiple health access, health status, and social support needs. When combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Calaveras and Tuolumne Counties both have lower percentages of populations receiving Public Assistance Income as compared to the state estimate. However, Calaveras County (12.1%) has a higher percentage of the population receiving SNAP benefits than Tuolumne County (10.3%) and the state estimate (11.2%).

Housing and homelessness

A lack of affordable housing and the limited scale of housing assistance programs have contributed to the current housing crisis and to homelessness. The lack of affordable housing leads to high rent burdens (rents which absorb a high proportion of income), overcrowding, and substandard housing. These phenomena, in turn, have not only forced many people to become homeless; they have put a large and growing number of people at risk of becoming homeless.

Housing affordability

Quality of housing has a major impact on overall health. High housing costs may force trade-offs between affordable housing and other needs. According to the 2018 National Low Income Housing Coalition report, Out of Reach, the High Cost of Housing, in California the Fair Market Rent (FMR) for a two-bedroom apartment is $1,699. This means that in order to afford rent and utilities, without paying more than 30% of their income, a household must net $5,666. In the two-county region, Calaveras County FMR is $902 for a two-bedroom apartment and Tuolumne County, FMR is $957 for a two-bedroom apartment.

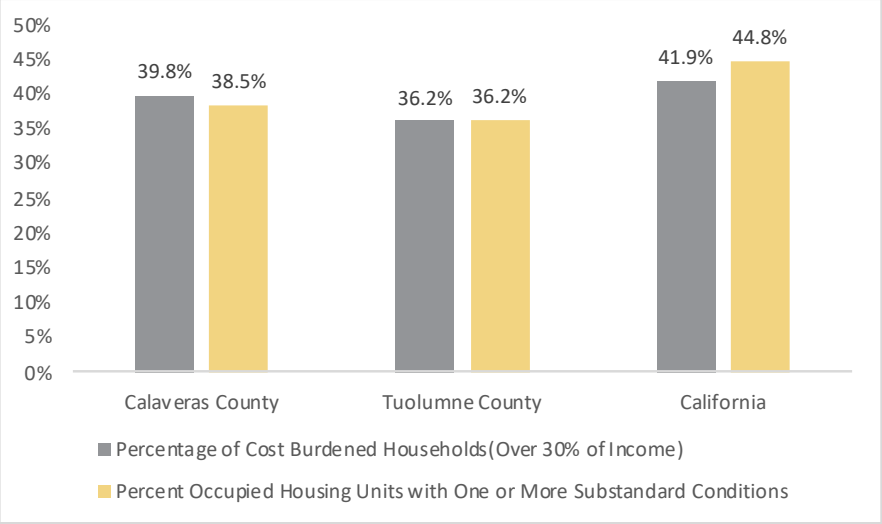
2018 Fair Market Rent (FMR)			
	Calaveras County	Tuolumne County	California
2-bedroom rental home	$902	$957	$1,699
Hourly wage needed to afford 2-bedroom FMR	$17.35	$18.40	$32.68

Income: National Low Income Housing Coalition (2019)

Recognizing that basic needs consume a higher fraction of income for lower income households, the US Department of Housing and Urban Development uses a definition of affordability that applies specifically to households with incomes at or below 80 percent of the area median family income. It currently calls housing affordable if housing for that income group costs no more than 30 percent of the household's income. Families with such cost burdens may have difficulty affording necessities such as food, clothing, transportation, and medical care.

Substandard housing conditions include the number and percentage of owner-and renter-occupied housing units having at least one of the following conditions: 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) with 1.01 or more occupants per room, 4) selected monthly owner costs as a percentage of household income greater than 30%, and 5) gross rent as a percentage of household income greater than 30%. Selected conditions provide information in assessing the quality of the housing inventory and its occupants. This data is used to easily identify homes where the quality of living and housing can be considered substandard.

In Tuolumne County, 36.2% of households exceed 30% of total household income and 41.9% have substandard housing conditions. These figures are better than Calaveras County at 39.8% and 38.5%, respectively. In the two-county region, these percentages are lower than the state estimates at 41.9% and 44.8%, respectively.



Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

Homelessness and health

When looking at the homeless population by various conditions and experiences, one finds that the largest portions suffer from chronic homelessness, mental illness, or substance abuse. A smaller, but still substantial portion have experienced domestic violence/intimate partner violence or have a physical disability. Homelessness results in high levels of stress, which puts individuals and families at greater risk of violence and injury, food insecurity, unhealthy food options, infectious disease and frequent moves. Homelessness has also been linked with negative childhood events such as abuse, neglect, household dysfunction and increased likelihood of smoking and suicide in children.

The 'Point-in-Time Count' surveys the number of sheltered and unsheltered people experiencing homelessness on a single night. Counts are typically provided by household type and are further broken down by subpopulation categories, such as homeless veterans and homeless people in families. In 2019, The Central Sierra Continuum of Care conducted the Point-in-time Homeless Count. The Homeless Data by County represents everyone the COC considers to be homeless including couch surfers. Tuolumne County had a higher count of sheltered households (36) and people (84) as well as the Unsheltered count than Calaveras County.

The second table represents reporting only homeless using the Housing and Urban Development (HUD) data. HUD excludes couch surfers as homeless, thus they are subtracted. One finds that the total population of people is higher in Tuolumne County (385) as compared to the Calaveras County at 186. This is also true for number of households. Tuolumne County has 291 households of homeless population and 116 for Calaveras County.

2019 Homeless Data by County					
County	Sheltered		Unsheltered		Couch Surfing
	Households	People	Households	People	People
Calaveras	5	10	121	176	30
Tuolumne	36	84	255	301	33
Total	**41**	**94**	**376**	**477**	63

2019 Tuolumne HUD Defined Homeless Population		
	Households	People
ES Households w/children	11	34
ES Adults Only	17	18
TH Households w/children	7	31
TH Adults Only	1	1
Unsheltered w/children	6	17
Unsheltered Adults Only	249	284
Unsheltered Children Only	0	0
Total	**291**	**385**

2019 Calaveras HUD Defined Homeless Population		
	Households	People
ES Households w/children	3	8
ES Adults Only	2	2
TH Households w/children	0	0
TH Adults Only	0	0
Unsheltered w/children	10	43
Unsheltered Adults Only	101	133
Unsheltered Children Only	0	0
Total	**116**	**186**

Note: ES denotes Emergency Shelter and TH Transitional Housing. Data Source: 2019 Point in Time Count from the Central Sierra Continuum of Care.

Violence and injury prevention

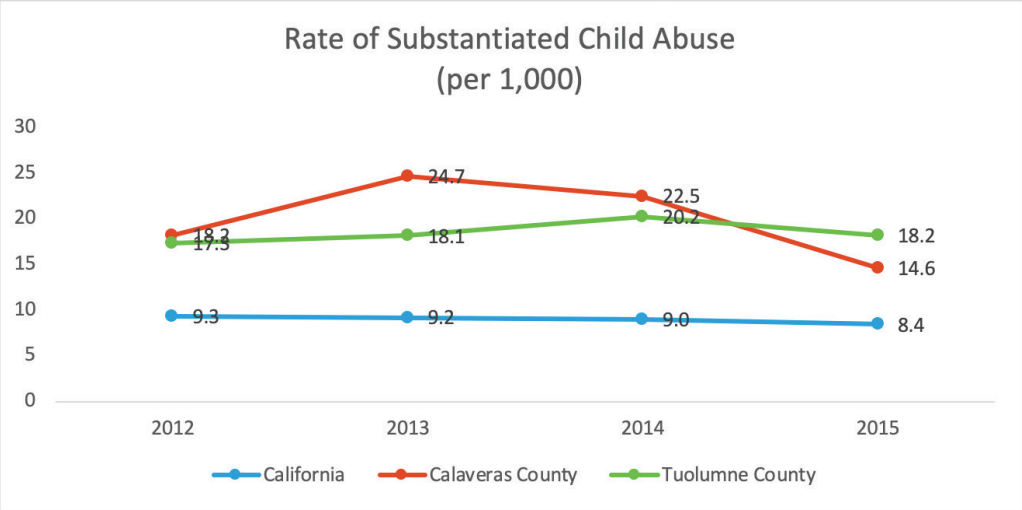
According to the Centers for Disease Prevention and Control injury is the leading cause of death for children and adults between the ages of 1 and 45. Injury not only includes violence, but also unintentional injuries, such as harm caused by motor vehicle crashes.

When looking at violent crimes across the region, Tuolumne County had the highest counts of reports from 2014 to 2016 compared to Calaveras County. However, in 2017, it dropped slightly lower than Calaveras County. When examining rates of substantiated child abuse cases between 2012 and 2015, Calaveras County had the highest number of cases in 2013 at 24.7 per 1,000 and the lowest rate at 14.6 per 1,000 in 2015. During the same time period, both counties exceeded the state rates.

For unintentional injuries, Tuolumne County had a higher rate of drug-induced deaths (age-adjusted) per 100,000 at 32.4 and motor vehicle crashes (age-adjusted) per 100,000 at 12 than the state estimate at 12.7 and 9.5, respectively.

Violent Crimes	2014	2015	2016	2017
Calaveras County	113	129	178	208
Tuolumne County	151	227	187	206

Data Source: State of California Department of Justice (2019). OpenJustice Online Database. Retrieved May 2019 from Source: https://openjustice.doj.ca.gov/data



Data Source: Annie E. Casey Foundation (2019). Kids Count Data Center. Retrieved May 2019 from https://datacenter. kidscount.org/

	Calaveras County	Tuolumne County	California	HP 2020
Drug-Induced Deaths, Age-Adjusted Death Rate per 100,000	17.9*	32.4*	12.7	11.3
Motor Vehicle Traffic Crashes, Age- Adjusted Death Rate per 100,000	26.2*	12.0*	9.5	12.4

Note: *Rates are deemed unreliable when based on fewer than 20 data elements. Data Source: California Department of Public Health, County Health Status Profiles 2019, Individual County Data Sheets. 2015-2017 Death Files. Retrieved from https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx

How is the region doing?

- Across the two-county region, for every 10,000 children, Calaveras County has a higher rate of Head Start Facilities at 35.1 than Tuolumne County at 21.5. Comparatively, for the state of California the rate was 5.9 per 10,000.

- Rates for those aged 25 and older without a high school diploma in Calaveras (9.9%) and Tuolumne (9.3%) Counties, is lower than the state estimate at 17.5%.

- Attainment of a Bachelor's Degree or higher, one finds that across the two county region, Calaveras (19.3%) and Tuolumne (20.6%) Counties are lower than the state estimate of 32.6%.

- Across the two-county region, Calaveras and Tuolumne County have a lower percentage of total population and children under age 18 living under the 100% federal poverty level, compared to the state estimate at 15.1% and 20.8%, respectively.

- In Tuolumne County, 36.2% of households exceed 30% of total household income and 41.9% have substandard housing conditions. These figures are better than Calaveras County at 39.8% and 38.5%, respectively. In the two-county region, these percentages are lower than the state estimates at 41.9% and 44.8%, respectively.

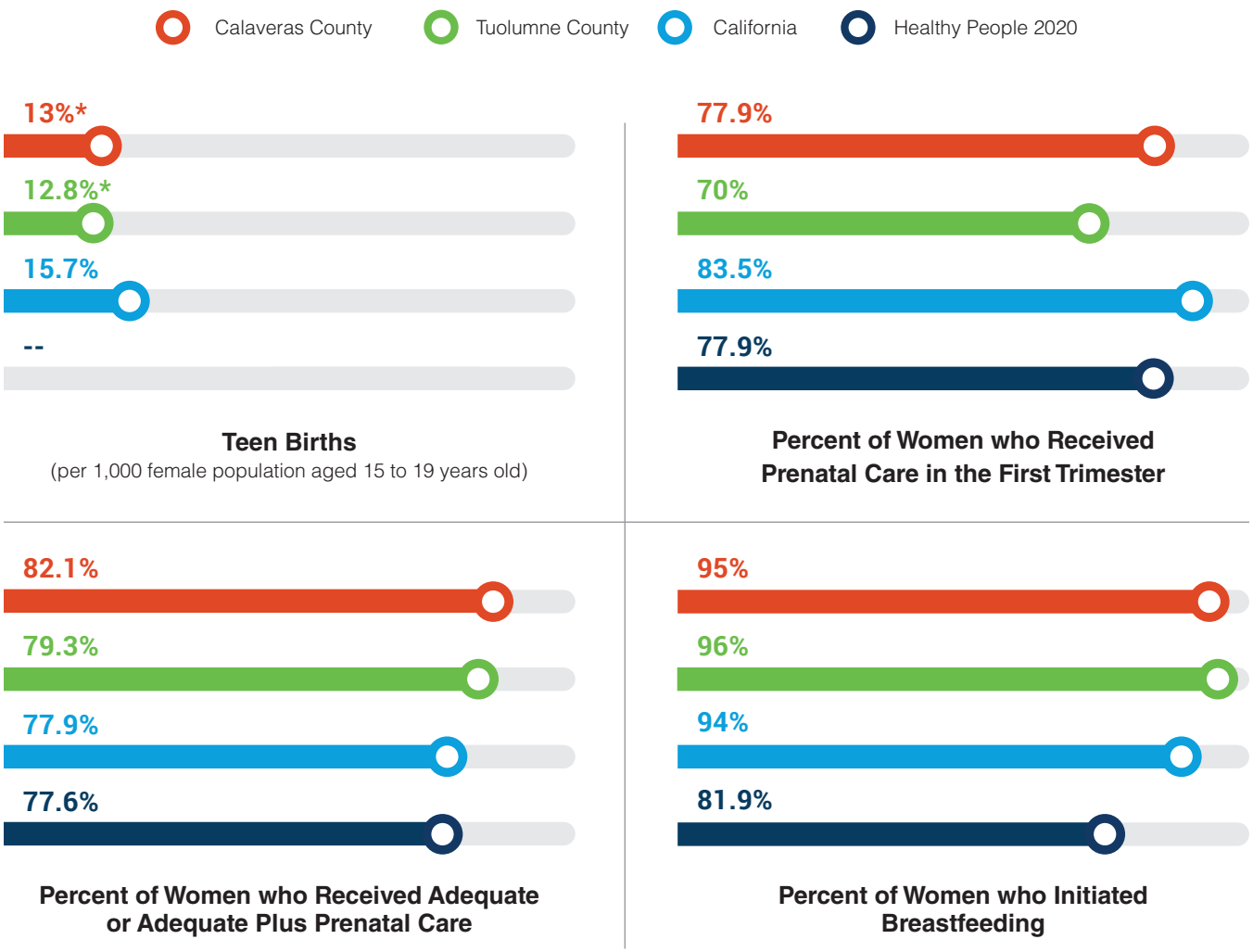
- Within the homeless population, Tuolumne County has 291 households of homeless population and 116 for Calaveras County.

Health System

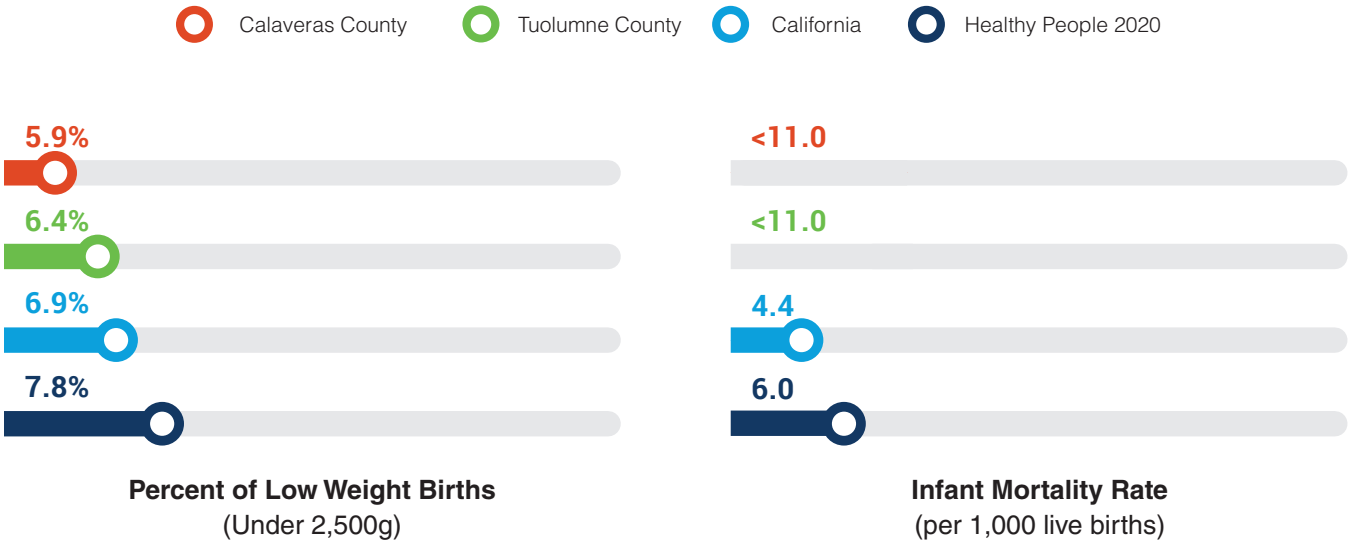
A strong health system is one in which patients receive efficient coordinated care for a variety of illnesses and appropriate follow-up care to prevent unnecessary hospitalizations. In order to strengthen linkages to care, we must first understand the current state of our health system. This begins by understanding the outcomes associated with receiving or not receiving good maternal health care, as well as how one accesses the health care system.

Live births are an indication of population growth and demand on a community's existing resources, infrastructure, schools, and the health care system/services. An adequate health care system is capable of providing preventive, diagnostic, and treatment care according to the requirements of the people being served. Tuolumne County has lower teen birth estimates (12.8) in comparison to the state (15.7) estimate. It is important to note that although the number is smaller than the state estimate, the teen birth rates are deemed unreliable when based on fewer than 20 data elements.

Prenatal care and birth indicators



Prenatal care and outcomes after birth *(Continue)*



Note: (*) Rates are deemed unreliable when an indicator is based on fewer than 20 data elements. The Data De-Identification Guidelines (DDG) was used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. Data Source: California Department of Public Health, County Health Status Profiles 2019, Individual County Data Sheets. 2014-2016 Birth Records. 2015-2017 Death Files. 2014-2016 Birth Cohort-Perinatal Outcome Files. Retrieved May 2019 from https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx

"Early prenatal care" is care started in the 1st trimester (1-3 months). Adequacy of prenatal care calculations are based on the Adequacy of Prenatal Care Utilization Index (APNCU), which measures the utilization of prenatal care based on the timing of initiation of such care using the month prenatal care began as reported on the birth certificate and the ratio of the actual number of visits reported on the birth certificate to the expected number of visits. Adequate-Plus care is defined as prenatal care begun by the 4th month of pregnancy and 110% or more of recommended visits received. Adequate care is defined as prenatal care begun by the 4th month of pregnancy and 80-109% of recommended visits received. These indicators are relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. These indicators can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of health care services. For indicators of prenatal care denoted in the graphs (early first trimester prenatal care and adequate care), in the two-county region, Calaveras County (77.9%) demonstrated a higher proportion of woman receiving care in comparison to Tuolumne County (70%). Notably, Calaveras County meets the Healthy People 2020 performance target of 77.6%.

Calaveras County (13.3*) and Tuolumne County (12.8*) had lower teen birth rates than the state (15.7). The Healthy People 2020 objective was not established due to there was fewer than 20 data elements for this indicator and deemed statistically unreliable.

Breastfeeding has many health benefits for both the mother and infant. Breastfeeding protects against diarrhea and common childhood illnesses such as pneumonia, and may also have longer-term health benefits, such as reducing the risk of overweight and obesity in childhood and adolescence. Across the two-counties, Tuolumne County demonstrated a higher proportion of women across the region initiating breastfeeding at 96%, exceeding the Healthy People 2020 performance target for 81.9% of infants to have "ever been breastfed."

Low birth weight is indicative of the general health of newborns and often a key determinant of survival, health, and development. Infants born at low birth weights are at a heightened risk of complications, including infections, neurological disorders, Sudden Infant Death Syndrome, and even chronic diseases. Calaveras County (5.9%) had the lowest proportion of low birth weights than the state estimate of 6.9% and the Healthy People 2020 goal of 7.8%.

Finally, the infant mortality rate (IMR) is critical as it is indicative of the existence of broader issues pertaining to access to care and maternal child health. Such rates can further provide insights on community health outcomes and areas of needed services and interventions. In the two-county region, Calaveras and Tuolumne Counties infant mortality rates were too small to report on the Health Status profile for 2019. The data for this indicator was suppressed as rates were fewer than 11.0 per 1,000 live births and for the purpose of confidentiality, statistical reliability and DDG compliance. Healthy birth outcomes and early identification can help predict future public health challenges for families, communities, and the health care system.

Access to health care

Access to health care is arguably the most critical component of measuring community health. Access can be measured at both the individual level (i.e., health insurance coverage, Medicaid coverage) and at the system level (i.e., primary care provider rate, health professional shortage areas). When an individual has the means to secure treatment and quality comprehensive treatment is readily available, then access to health care is highest. Understanding provider rates per 100,000 population can be useful for determining areas in most need of providers and potential stresses on existing providers.

Across each provider indicator (dental, mental health, and primary care), Tuolumne County recorded higher proportions of providers to population for dental (117.9) and primary care providers (83.6) than Calaveras County and state estimates. For mental health providers, both Calaveras (157.7) and Tuolumne (156.7) Counties were lower than that state estimate at 327.8 per 100,000 population.

Access to Health Care			
	Calaveras County	Tuolumne County	California
Dentists Rate per 100,000 Population	**41.6**	**117.9**	83.4
Mental Health Care Provider Rate per 100,000 Population	**157.7**	**156.7**	327.8
Primary Care Provider Rate per 100,000 Population	**48.7**	**83.6**	78.5

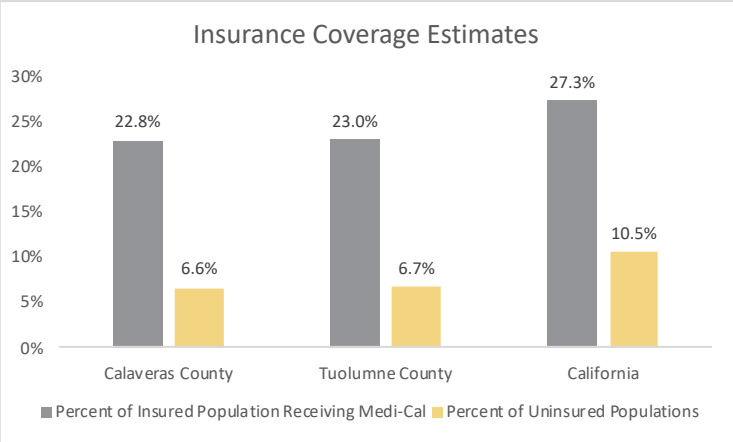
Note: Rates in red are the poorest outcomes in comparison to the state. Rates in green are the best outcomes in comparison to the state. Data Source: Robert Wood Johnson Foundation (2019). County Health Rankings and Roadmaps. Retrieved May 2019 from http://www.countyhealthrankings.org

*Per County Health Rankings, Mental Health Provider rate includes: the number of mental health providers in a county. Mental health providers are defined as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and mental health providers that treat alcohol and other drug abuse, as well as advanced practice nurses specializing in mental health care. Primary Care Provider rate includes: the number of primary care physicians in a county. Primary care physicians include practicing non-federal physicians (M.D.s and D.O.s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics.

Health insurance

Health insurance coverage is also an important indicator to consider when determining the health of a community or health system. Lack of insurance is a key barrier to health care access, regular primary care, specialty care, and other health services, contributing to poor health status. Additionally, knowing the proportion of the population receiving Medi-Cal is important. This information allows for an assessment of vulnerable populations most likely to have multiple health access, health status, and social support needs. When combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Across the two-counties, Calaveras (6.6%) and Tuolumne (6.7%) Counties had the lowest proportion of persons who are uninsured as compared to the state, 10.5%. Both counties also had the lowest percentage of persons covered through the Medi-Cal/Medicaid program.



Data Source: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

Preventable hospital events

Ambulatory or primary care sensitive conditions (ACSCs) are those conditions for which hospital admission could be prevented by interventions in primary care. This indicator reports the discharge rate (per 1,000 Medicare enrollees) for conditions that are ACSCs. ACSC conditions include pneumonia, dehydration, asthma, diabetes, and other conditions which could have been prevented if adequate primary care resources were available and accessed by those patients. This indicator is relevant because analysis of ACSCs discharges demonstrates a possible "return on investment" from interventions that reduce admissions through better access to primary care resources. Calaveras County (28.4) has a slightly higher discharge rate for ACSC, in comparison to Tuolumne County (27.8). However, both counties are lower than the state, 36.2 per 1,000 Medicare enrollees.

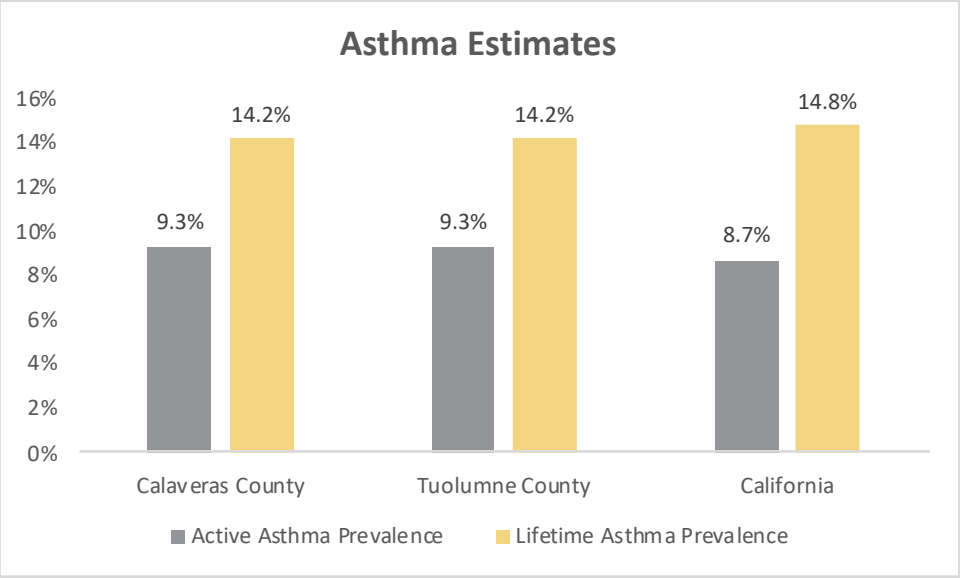
Ambulatory Care Sensitive Condition Discharge Rate Per 1,000 Medicare Enrollees		
Calaveras County	**Tuolumne County**	**California**
28.4	27.8	36.2

Data Source: CARES Engagement Network (2019). Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2015. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

Asthma

Air quality is of great concern to many of the residents in the region and can have detrimental effects on respiratory health. Having asthma can affect a person in many ways. For some people, asthma is a minor nuisance. For others, it can be a major problem that interferes with daily activities and may lead to a life-threatening asthma attack. Examination of trends reveals that both Calaveras and Tuolumne County have the highest rates for emergency department visits per 100,000 related to asthma and the lowest percentage of persons diagnosed with lifetime asthma (14.2%), suggesting under-diagnosis. Comparatively, both counties have the highest percentage of people diagnosed with active asthma, 9.3% as compared to the state at 8.7%.

	Calaveras County	Tuolumne County	California
Asthma ED Visits, Rate per 100,000	**55.1**	53.6	46.9
Asthma Hospitalizations, Rate per 100,000	*	**3.3**	4.7



Data Source: California Department of Public Health, California Breathing. County Asthma Data Tool, 2015-2016. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/CPE/Pages/CaliforniaBreathingData.aspx (lifetime numbers below)

Mortality

Health status and health care utilization measures are central indicators of the performance of the health care system. Health status measures the level of wellness and illness, while health care utilization is the use of services by people for the purpose of preventing and curing health problems. The leading causes of death in the United States are overwhelmingly the result of chronic and preventable disease. Nearly 75% of all deaths in the United States are attributed to ten causes, with the top three of these accounting for over 50% of all deaths. According to the Centers for Disease Control and Prevention, the top three causes of death in the U.S. in 2016 were from heart disease, cancer, and unintentional injuries.

2004-2013 Race/ethnicity number of deaths age-adjusted death rated per 100,00			
Mortality	**Calaveras County**	**Tuolumne County**	**California**
1	Coronary Heart Disease (83.5)	Coronary Heart Disease (101.2)	Coronary Heart Disease (87.4)
2	Accidents (Unintentional Injuries) (51.3)	Accidents (Unintentional Injuries) (61.8)	Cerebrovascular Disease (Stroke) (6.3)
3	Chronic Lower Respiratory Disease (37.8)	Chronic Lower Respiratory Disease (48.0)	Alzheimer's Disease (35.7)
4	Lung Cancer (33.6)	Cerebrovascular Disease (Stroke) (38.4)	Accidents (Unintentional Injuries) (32.2)
5	Motor Vehicle traffic Crashes (26.2*)	Lung Cancer (32.8)	Chronic Lower Respiratory Disease (32.0)
6	Suicide (25.9*)	Drug-Induced Deaths (32.4*)	Lung Cancer (27.5)
7	Cerebrovascular Disease (Stroke) (25.8)	Chronic Liver Disease and Cirrhosis (21.2*)	Diabetes (21.2)
8	Firearm Related Deaths (23.5*)	Female Breast Cancer (20.4*)	Prostate Cancer (19.4)
9	Alzheimer's Disease (23.2*)	Suicide (18.9*)	Female Breast Cancer (18.9)
10	Prostate Cancer (20.0*)	Prostate Cancer (15.0*)	Influenza/Pneumonia (14.2)

Note: * is defined as Rates are deemed unreliable when based on fewer than 20 data elements. Numbers in parenthesis represent the number of deaths due to the specific cause. Data Source: California Department of Public Health, County Health Status Profiles 2019, Individual County Data Sheets. 2014-2017 Death Files. Retrieved May 2019 from https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx#C

The top three leading causes of death for Calaveras and Tuolumne County are: coronary heart disease, unintentional injuries and chronic lower respiratory disease. The fourth through tenth leading causes of death varied, however, for each county these rankings were comprised of motor vehicle traffic crashes, mortality rates for drug-induced deaths, suicide, chronic liver disease and cirrhosis, mortality rates for stroke, female breast cancer, firearm related deaths, Alzheimer's Disease and prostate cancer.

- Calaveras County (5.9%) had a lower proportion of low birth weights than Tuolumne County (6.4%) and the state estimate of 6.9% and the Healthy People 2020 goal of 7.8% or less of infants to be born with weights below 2,500 grams.

- Across each provider indicator (dental, mental health, and primary care), Tuolumne County recorded higher proportions of providers to population for dental (117.9) and primary care providers (83.6) than Calaveras County and state estimates. For mental health providers, both Calaveras (157.7) and Tuolumne (156.7) Counties were lower than the state estimate at 327.8 per 100,000 population.

- Across the two-county region, Calaveras (6.6%) and Tuolumne (6.7%) Counties had the lowest proportion of persons who are uninsured as compared to the state, 10.5%. Both counties also have the lowest percentage of persons covered through the Medi-Cal/Medicaid program.

- Across the two-county region, Tuolumne County boasts the highest rates of Federally Qualified Health Centers (FQHC) to population with 5.42 FQHCs for every 100,000 people. This is higher than the state ratio at 2.91 per 100,000. Conversely, Calaveras County has the lowest rate at 2.19 per 100,000 population.

- Calaveras and Tuolumne Counties have the highest rates for emergency department visits per 100,000 related to asthma and the lowest percentage of persons diagnosed with lifetime asthma (14.2%), suggesting under-diagnosis. Comparatively, both counties have the highest percentage of people diagnosed with active asthma, 9.3% as compared to the state at 8.7%.

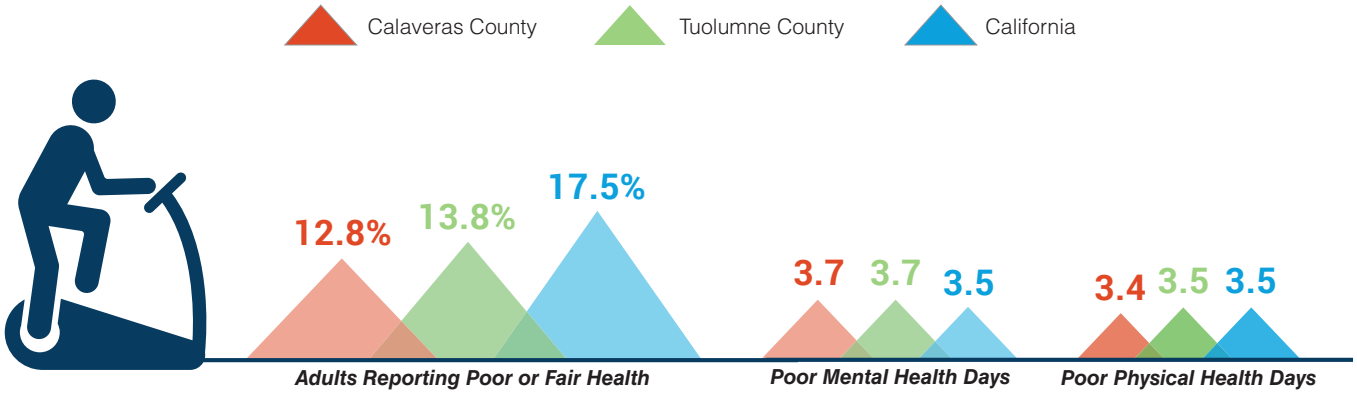
Public Health and Prevention

Public health is the science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing and responding to infectious diseases. When these factors are addressed, a community will enjoy an overall higher level of physical and emotional well-being.

Health status

Health status is determined by more than the presence or absence of any disease. It is comprised of a number of factors, including measures of healthy life expectancy, years of potential life lost, self-assessed health status, chronic disease prevalence, measures of functioning, physical illness, and mental well-being. These measures go hand-in-hand with measures related to health behaviors such as physical activity, nutrition, and alcohol consumption. Measuring health behaviors provides a deeper understanding of health status.

When looking at overall health status, across the two-region counties, Calaveras County had a lower proportion, 12.8%, of adults who rate their health as "fair" or "poor," than the state estimate of 17.5%, while Tuolumne County had a proportion of 13.8%. In addition, both counties (3.7) had a slightly higher number of poor mental health days reported in a 30-day period than the state estimate e of 3.5. The rate of poor physical health days within a reported 30-day period was slightly lower in Calaveras County (3.4) than Tuolumne County (3.5). The state estimate is 3.5.



Data Source: Robert Wood Johnson Foundation (2019). County Health Rankings and Roadmaps. Retrieved May 2019 from http://www.countyhealthrankings.org

Physical activity

Increased physical activity is associated with lower risks of type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. Individuals who live closer to sidewalks, parks, and gyms are more likely to exercise. In California, 17.2% of adults answered "yes" to the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" In Tuolumne and Calaveras County, the percentage of adults who answered yes to this same question was 16.7% and 20.3%, respectively. This percentage is better than the state estimate.

When considering populations who have adequate access to locations for physical activity, figures vary between the county and state. Access to exercise opportunities is defined as the percentage of individuals in a county who live reasonably close to a location for physical activity. Locations for physical activity are defined as parks or recreational facilities. Tuolumne County had a lower percentage of individuals with adequate access to exercise opportunities at 86.3% and Calaveras was even lower (53.5%) as compared to the state at 93%.

Chronic disease

Successfully managing risk factors for chronic diseases is important for preventing unnecessary hospitalizations. According to the Centers for Disease Control and Prevention (CDC), six in ten Americans live with at least one chronic disease, like heart disease, cancer, stroke, or diabetes. These and other chronic diseases are the leading causes of death and disability in America, and they are also a leading driver of health care costs.

Tuolumne County Medicare population have lower rates of heart disease (18.9%) and diabetes (19.2%) as compared to Calaveras County. However, Calaveras County had lower rates of Medicare population with depression (14.3%) and high blood pressure (49.2%).

Chronic Disease Indicators	Calaveras County	Tuolumne County	California
Adults with a Body Mass Index Greater than 30	**23.5%**	**23.2%**	22.5%
Medicare Population with Depression	**14.3%**	15.6%	15.8%
Medicare Population with Diabetes	19.8%	**19.2%**	27.2%
Medicare Population with Heart Disease	21.2%	**18.9%**	24.7%
Medicare Population with High Blood Pressure	**49.2%**	49.8%	52.7%

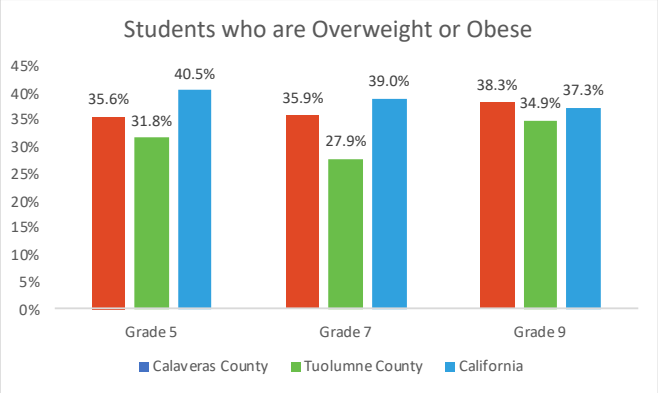
Note: Percentages in red are the poorest outcomes as compared to the state. Percentages in green are the best outcomes as compared to the state. Data Source: CARES Engagement Network (2019). National Center for Chronic Disease Prevention and Health Promotion.2015. US Department of Health & Human Services, Center for Medicare & Medicaid Services, 2017. Retrieved May 2019 from https://engagementnetwork.org/assessment/

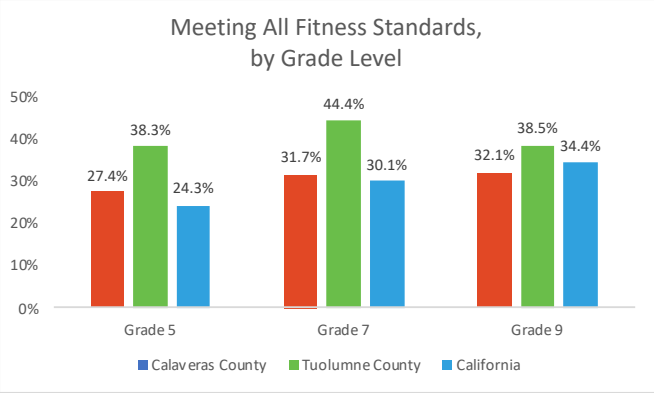
Childhood weight and physical activity

According to a 2015-2016 survey from the Centers for Disease Control and Prevention, more than one-third of U.S. children ages 2-19 are overweight or obese. The childhood obesity rate has more than tripled over the past four decades, though rates have leveled off in recent years. Measuring morbidity and mortality rates allows assessing linkages between social determinants of health and outcomes. This indicator is relevant because excess weight is a prevalent problem and indicates an unhealthy lifestyle and puts individuals at risk for further health issues.

Calaveras County has the highest percentage of students in grade 5, 7 and 9 who were overweight or obese as compared to Tuolumne County. It is important to note that both counties fare better than the state estimate of 40.5%, 39.0% and 37.3%, respectively.

By comparing, for example, the prevalence of certain chronic diseases to indicators in other categories (e.g., poor diet and exercise) with outcomes (e.g., high rates of obesity and diabetes), various causal relationship may emerge, allowing a better understanding of how certain community health needs may be addressed. Tuolumne County shows higher percentages of students in grades 5, 7 and 9 who are considered to have sufficient fitness for good health (aerobic, body composition, muscular strength and endurance, and flexibility) as compared to Calaveras County and state estimates.





Note: Children are classified as obese if their calculated BMI is in the 95th percentile or above for their age. Data Source: Lucile Packard Foundation for Children's Health (2019). Kidsdata.org Retrieved August 2019 from https://www.kidsdata.org/?site=full.

Sexually transmitted infections

Sexually transmitted infections (STIs) are passed from one person to another through intimate physical contact and from sexual activity. STIs are very common. The causes of STIs are bacteria, parasites, yeast, and viruses. In fact, CDC averages 20 million new infections occur every year in the United States. Understanding the rate of STIs are important because they are measures of poor health status, indicates a lack of sexual health education, and the prevalence of unsafe sex practices.

Calaveras and Tuolumne County have lower rates per 100,000 population for chlamydia and gonorrhea incidence, and HIV prevalence as compared to the state at 506.2, 164.9 and 376.4, respectively.

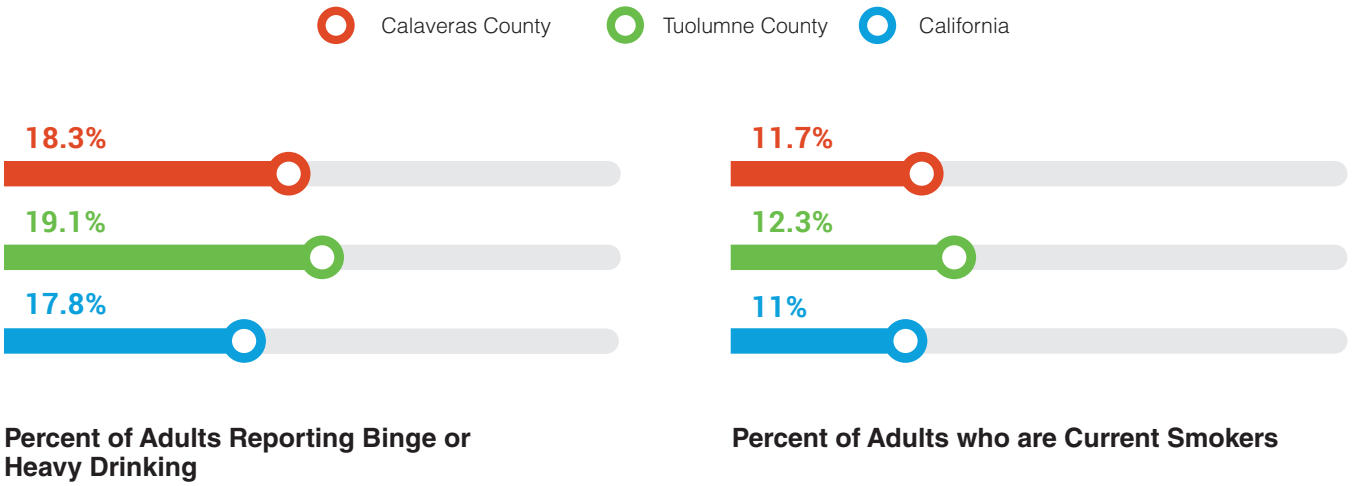
Rate per 100,000 Population	Calaveras County	Tuolumne County	California
Chlamydia Incidence	**191.8**	**258.8**	506.2
Gonorrhea Incidence	**29**	**63.3**	164.9
HIV Prevalence	**90.9**	**80.4**	376.4

Note: Rates in green are the best outcomes as compared to the county state. Data Source: CARES Engagement Network (2019). US Department of Health & Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2016. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

Alcohol and tobacco use

Alcohol and/or tobacco use has major adverse impacts on individuals, families and communities. The effects of abuse are cumulative, contributing to costly social, physical, mental, and public health problems.

According to recent averages, Tuolumne County has the highest percentage (19.1%) of adults who engaged in binge or heavy drinking within the last 30 days as well as percentage of adults who are current smokers (12.3%). Conversely, Calaveras County has the lowest percentage of adults who engaged in binge or heavy drinking. Comparatively, the statewide average is 17.8%. Those same averages also noted that Tuolumne County has the highest percentage of adults who are current smokers as compared to the statewide average of 11.0%.



Percent of Adults Reporting Binge or Heavy Drinking

Percent of Adults who are Current Smokers

Data Source: Robert Wood Johnson Foundation (2019). County Health Rankings and Roadmaps. Retrieved May 2019 from http://www.countyhealthrankings.org

How is the region doing?

- Across the two-region counties, Calaveras County had a lower proportion, (12.8%)%, of adults who reported their health as “fair” or “poor,” than Tuolumne County (13.8%) and the state estimate (17.5%).
- Tuolumne County had a lower percentage of individuals with adequate access to exercise opportunities at 86.3% and Calaveras was even lower (53.5%) as compared to the state at 93%.
- Tuolumne County Medicare population have lower rates of heart disease (18.9%) and diabetes (18.9%) as compared to Calaveras County. Calaveras County has lower rates of Medicare population with depression (14.3%) and high blood pressure (49.2%).
- Calaveras and Tuolumne County had lower rates per 100,000 population for chlamydia and gonorrhea incidence, and HIV prevalence as compared to the state at 506.2, 164.9 and 376.4, respectively.
- Tuolumne County has the highest percentage (19.1%) of adults who engaged in binge or heavy drinking within the last 30 days as well as percentage of adults who are current smokers (12.3%).
- Tuolumne County has the highest percentage of adults who are current smokers as compared to the statewide average of 11.0%.

Physical Environment

We interact with the environment constantly, therefore our physical environment can affect our health behaviors, quality of life, years of healthy life lived, and health disparities. The World Health Organization (WHO) defines environment, as "all the physical, chemical, and biological factors external to a person, and all the related behaviors." This can include air quality and exposure to toxic substances as well as the built environment (human-made surroundings) and housing.

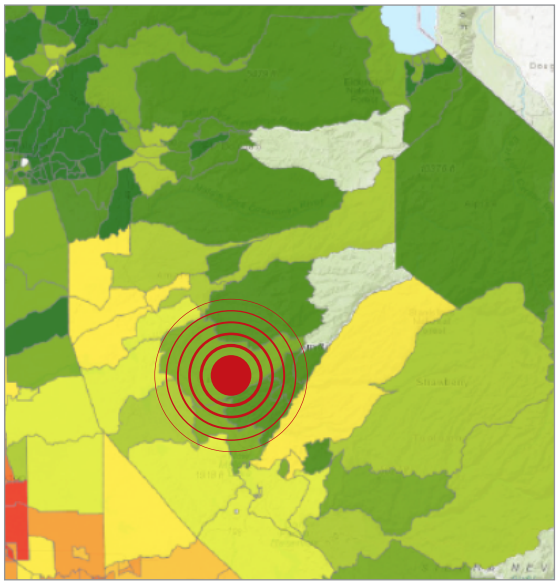
CalEnviroScreen is a science-based mapping tool that was developed by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. This tool helps identify California communities that are affected by many sources of pollution and that are particularly vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce a numerical score for each census tract in the state. A census tract with a high score (colored dark orange to dark red) is one that experiences higher pollution burden and vulnerability than census tracts with low scores (colored shades of green). Indicators that are considered include but are not limited to, ozone, PM 2.5, drinking water quality, pesticides, and hazardous waste.

According to the most recent CalEnviroScreen 3.0 results, Calaveras County (25-30%) and Tuolumne County (30-35%) ranked among the lower percentile in the state on the index. This means that these areas have lower pollution burden.

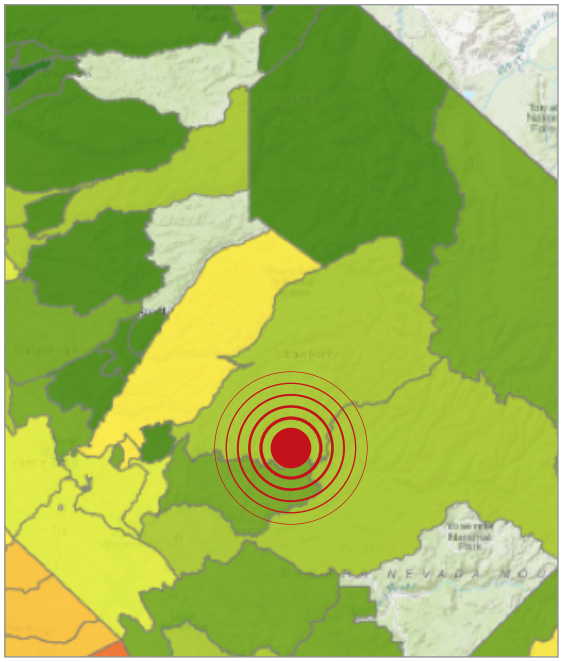
CalEnviroScreen 3.0 Results (June2018 Update)

- 91 - 100% (Highest Scores)
- 91 - 90%
- 71 - 80%
- 61 - 70%
- 51 - 60%
- 41 - 50%
- 31 - 40%
- 21 - 30%
- 11 - 20%
- 1 - 10% (Lowest Scrores)

Calaveras County



Tuolumne County

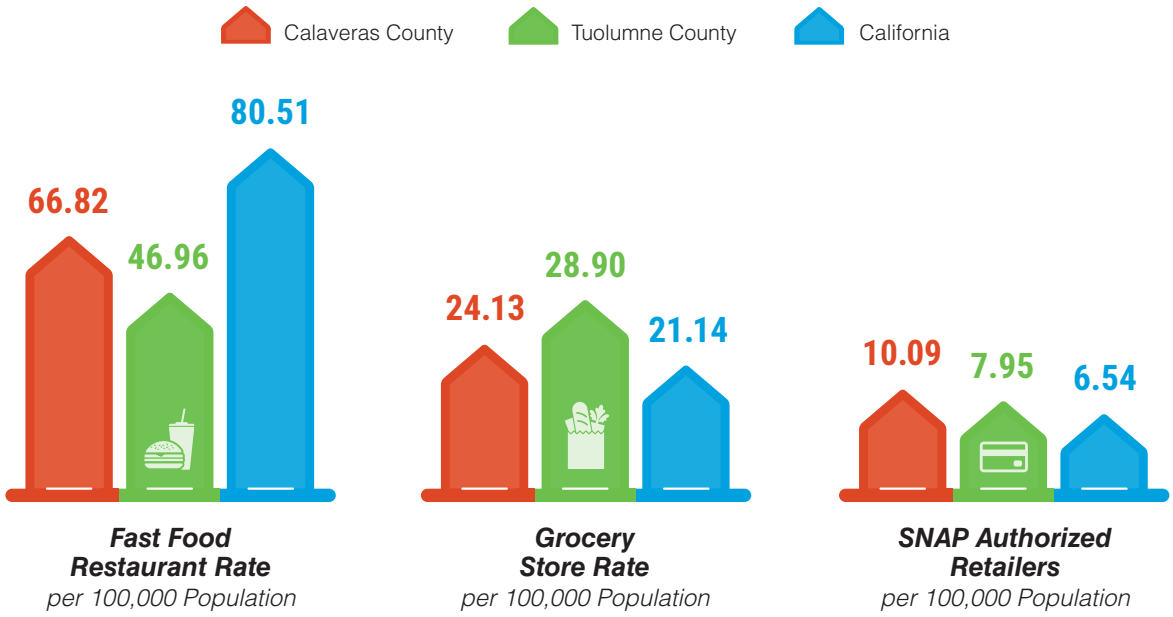


Data Source: Office of Environmental Health Hazard Assessment. CalEnviroScreen 3.0 Overall Results and Individual Indicator Maps, June 2018. Retrieved May 2019 from https://oehha.ca.gov/calenviroscreen/maps-data

Retail food environment

Understanding the retail food environment is important to determining access to healthy foods for populations and overall environmental influences on dietary behaviors.

Three indicators are important to consider: the fast food restaurant rate, the grocery store rate, and the number of retailers authorized to accept Supplemental Nutrition Assistance Program benefits (all calculated as establishments per 100,000 population). Areas with a high fast food rate, low grocery store rate, and low SNAP authorized retailers will inevitably have populations with higher rates of food insecurity, due to lack of access to healthy and affordable foods. Across the two-county region, both counties fared better than the state estimate for fast food restaurant, grocery and SNAP authorized retailers rates per 100,000 population.

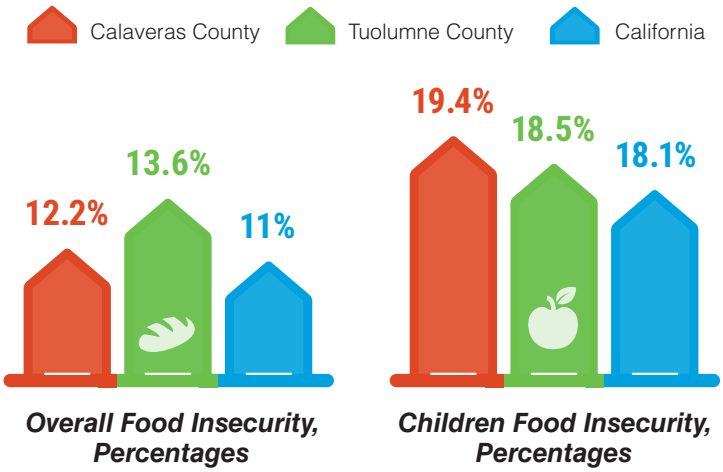


Data Source: CARES Engagement Network (2019). US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2016. US Department of Agriculture, Food and Nutrition Service, USDA - SNAP Retailer Locator. Additional data analysis by CARES. 2019. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

Food insecurity

The US Department of Agriculture defines food insecurity as a lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Food insecurity may reflect a household's need to choose between important basic needs, such as housing or medical bills, and purchasing nutritionally adequate foods.

Food insecurity averages in Calaveras and Tuolumne County for the overall population and children are higher than reported averages for the state (11% and 18.1%, respectively).

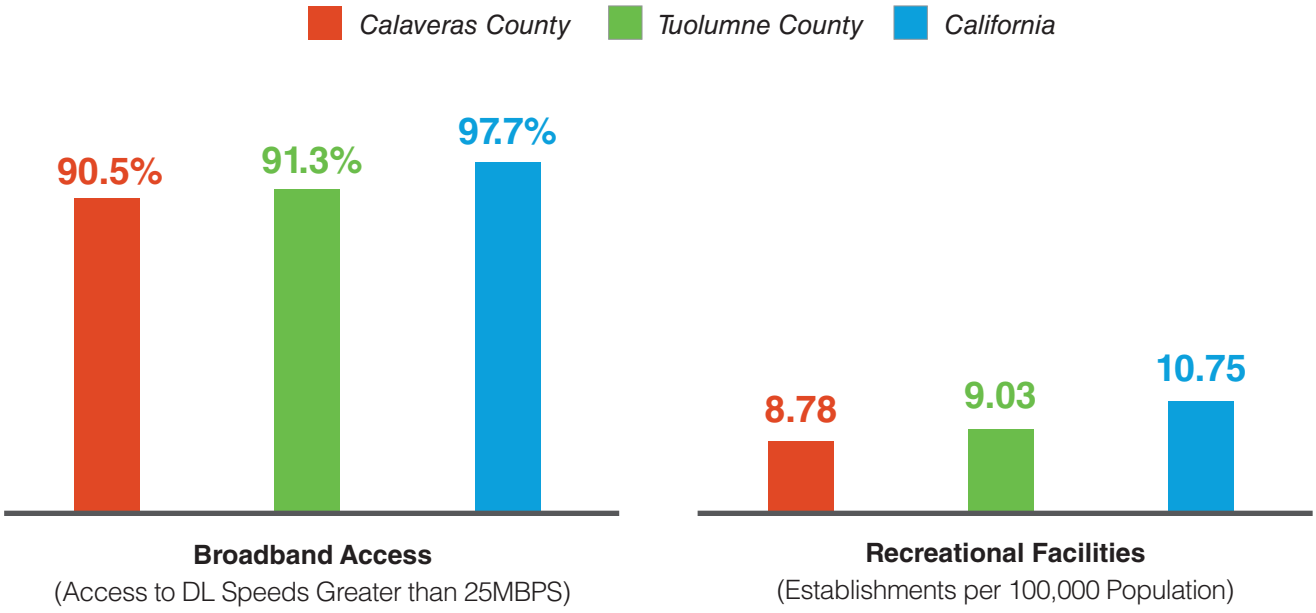


Data Source: Feeding America (2016). Map the Meal Gap, Online Tool. Retrieved May 2019 from http://map.feedingamerica.org/.

Built environment

The term "built environment" refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings to parks. It has been defined as "the human-made space in which people live, work, and recreate on a day-to-day basis." Factors to consider include access to recreational facilities and fitness centers and access to broadband internet access. Access to high-speed internet is important because access to technology opens up opportunities for employment and education. Access to recreational facilities encourages physical activity and other healthy behaviors.

Across the two-county region, both counties have the lowest access to high-speed internet (90.5% and 91.3%) and the fewest recreational facilities (8.78 and 9.03) per 100,000 population than the state at 97.7% and 10.75, per 100,000 population conversely.



Data Source: CARES Engagement Network (2019). National Broadband Map. Dec. 2017. US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2016. Retrieved May 2019 from https:// engagementnetwork.org/assessment/

How is the region doing?

- Calaveras County ranked 25-30% on the CalEnviroScreen 3.0 index for pollution. This percentile is lower than Tuolumne County at 30-35%. This means that these areas have a moderate pollution burden, populations especially sensitive to these factors, and socioeconomic factors that increase vulnerability to pollution.
- Food insecurity averages in Calaveras and Tuolumne Counties for the overall population and children are higher than reported averages for the state (11% and 18.1%, respectively).
- Across the two-county region, both counties have the lowest access to high-speed internet (90.5% and 91.3%) and the fewest recreational facilities (8.78 and 9.03) per 100,000 population than the state at 97.7% and 10.75, per 100,000 conversely.
- Calaveras and Tuolumne Counties fared better than the state estimate for fast food restaurant, grocery and SNAP authorized retailers rates per 100,000 population.

Voices from the Community

A CHNA would not be complete without hearing from the local community. Those chosen to provide input, represent the diversity of our community and those who are medically under-served, low-income and minority populations.

Overview

From March 1, 2019 to May 11, 2019, focus groups, key informant interviews and surveys were administered. Approximately 163 people were surveyed to obtain input from the community in the form of 3 focus groups (with a total of 33 focus group participants), 12 key informant interviews and 118 people responded to the online survey. A full description of key informants and focus group participants can be found in Appendix D of this document.

Focus group

Focus group participants were end-users of programs and services provided by AHSR or members of the community. Populations represented by focus group members included seniors, low-income, homeless/at-risk and a group of stakeholders from an array of agencies who serve families, low-income, domestic abuse woman and other sectors. The majority of focus group participants live in Sonora, Jamestown, and Twain Harte. Additionally, multiple unsuccessful attempts were made to convene a group representative of the Mi Wuk and Black Oak Mi Wuk Tribe. Future reporting cycles will seek to establish and strengthen partnerships to ensure this population is adequately represented.

Key informant interview

Key informant interviews consisted of key leaders in our community from an array of agencies, including those that represent youth services, including schools and education, elderly services, mental and behavioral health, and human services. Public safety, non-profit community, business retention, law, and charities were also represented. Most key informants hold titles such as physician, director positions.

Survey

Survey participants lived in areas similar to that of focus group participants and key informants. Over 93 percent of the survey respondents live in Tuolumne County. Sonora was selected almost 7 times more than any other city, including Jamestown, Groveland, Twain Harte, and Columbia for survey responses.

Methodology

To determine focus groups and key informants, Adventist Health Sonora team members were provided with a list of sample sectors for consideration that included: community-based organizations, local businesses, foundation/ funders, school board/districts, city council, public health department, law enforcement, legal, faith-based organizations, and hospital leaders. Additionally, they were asked to consider the following criteria:

- Does this person represent a vulnerable populations?
- Does this person represent the uninsured/underinsured population?
- Does this person's role transcend over more than one county?
- Do we have representation from all sectors?
- Does it meet the requirement of community health needs assessments?
- Does this person's role cross sectors?

Additionally, they were asked to consider the following populations for inclusion in focus groups: those dealing with mental health issues or substance abuse, minorities, low-income, uninsured/underinsured, and youth populations. While members considered potential groups and venues, they were asked to keep the following criteria in mind:

- Does this focus group represent a medically underserved, low income, or minority population(s)?
- Can this focus group speak to pressing health care issues in our community (i.e. children's health, mental health, or access to care)?
- Does this focus group represent diverse populations or health issues?
- Can this focus group speak to the social determinants of health in our community?

Finally, AHSR team members were encouraged to send survey links to any partner organizations that did not make the key informant list. In addition, a press release was issued to bring awareness of the survey to ensure broader community participation.

Objectives

Through engaging the community our objective was to discover strategies in which our hospital could collaborate to better serve communities and elevate the health status of our region. To better understand the needs, the focus groups and key informant interviews concentrated on these themes:

- Visions of a Healthy Community
- Health and Social Needs
- Existing Resources
- Barriers to Accessing Resources
- Hospital Perception and Opportunities
- Additional Feedback

Additionally, key informants were asked about the greatest health and social needs of children. Respondents to the survey were asked about health problems and needs of the community, including what is healthy in the community, what is not healthy in the community, and what the community needs to be healthy. They were also asked about the greatest health and social needs of children, services that could improve health in the community, barriers for clients from an organizational perspective, and for any additional feedback. Finally, the codebooks and survey results were instrumental in discovering commonalities in themes to inform this report. The key informant codebook, with frequencies, can be found in Appendix E.

Findings — Significant health and social needs

The focus groups, key informants, and surveys contained questions about the most significant health needs in the community. Based on those responses, prioritization was given to issues most frequently mentioned in all three data sources. The top five mentioned below are a combination of all three data sources based on frequency of response. The overarching themes based on the amount of times the issue was mentioned across all three data sources are:

The priority needs were identified by first creating codebooks based on the focus group, key informant interviews, and open text responses from the online survey. The codebooks assisted in combining the separate themes for comparison and analysis. The three sources were coordinated to supply richer interpretation when applicable. Using secondary sources, county information was gathered and compared with the themes found in the focus groups, key informant interviews, and surveys. Table 1 displays the separate ranking of most frequently mentioned health issues by focus group, key informant interview, and online surveys and corresponding data from the secondary sources.

Table 1. Order of Most Frequently Mentioned by Data Source Type

	Focus Groups	Key Informant Interviews	Surveys
1	Mental and behavioral health	Access to health care	Access to health care
2	Access to health care	Mental and behavioral health	High rates of youth or adults engaging in risky health or sexual behaviors
3	Housing and Homelessness	Elderly services	Lack of affordable housing options
4	Immunization	Immunization	Lack of access to mental health services
5	Smoking	Poverty/housing	High rates of chronic diseases

Supporting quotes

"I think it's pretty simple here, it's just a matter of timely access. Just the well-known lack of providers, not just unique to Tuolumne but everywhere. That ranges from physicians to psychiatrist to nurse practitioners, counselors you name it. I mean trying to find a doctor and get him the timely appointment up here is an issue."

"Again, back to the rural nature of things and people feel isolated. Getting information disseminated it might be difficult as well. This county is not entirely covered by cell service range. You don't have to drive too far for that to drop off. So, some people are probably living without cell service in their homes or maybe even internet. So that can delay information or just make it not the habit of accessing it."

"Health issues that we see at our organization medication mismanagement I think it would be probably number one. We see a lot of health issues, a lot of things that go around medication mismanagement overprescribing medications and medication mismanagement. And also, there seems to be looked from again, my perspective, we do have a lot of individuals in our communities with memory loss/dementia, some form of a dementia."

Findings by themes

Visions of a healthy community

The main themes surrounding the vision of a healthy community included inclusiveness and equity of voices. Having adequate, low-income housing, especially for homeless were mentioned. A community that has services, identifies and prioritizes issues, sense of well-being, safety, and connections within the community make it healthy were also indicated as visions of a healthy community. Additionally, finances and economy, safe activities, medical needs healthy environment, education, quality food, transportation, and adult services were also mentioned.

Supporting quotes

"It's a multiple combination of course, healthy just in the context of being healthy. In other words, less diseases, bad habits like smoking, excessive drinking and stuff like that. But then there's also healthy when it comes to the environment we raise our kids in. Whether it's the education system, whether it's parks, whether it's having opportunities for them to stay here after they graduate from high school or college. Or if they go away to university and come back that there's opportunities for them to come back and have their family here. And then you know jobs and opportunities for those who want it and also opportunities to help transitioning populations. Like everything from homeless to prison individuals you know ex-prisoners who need to reintegrate into the community and tie all of that into on the other side providing workers for our companies who then in turn provide good paying jobs, benefits, opportunities for advancement but then also they bring profits back to the community which are reinvested in numerous ways including you know employee salary so on and so forth but also donations to charitable foundations and hospitals and the such."

"My dream is that we would look at our community through a lens of equity."

Social factors

The top social factors mentioned were poverty, isolation, jobs, childcare, housing and homelessness. Education, health insurance, lack of diversity, and mental and behavioral health. Many respondents indicated a multi-factor nature of social issues as effects on health in the community.

Supporting quotes

"Another component is are there is our family structure is up here. So, we have generational poverty as well as you know new poverty that a lot of this is generational poverty. So how do you help? How do you help families break from those barriers that have been in place for a long time? And part of that has to do with changing perspectives and outlook in how the world is. And so, it's not just so you can provide somebody all of the interventions and support that you possibly can. But if the social network around them continues to promote or to say in some way, well this is the way we've always done it and this is the way we've survived. It's almost like a betrayal sometimes to their family and their social systems in which they live in. So, it becomes very hard to change and love that's driven by fear."

"Social factors definitely come into play. You know there are job opportunities in our county but not necessarily a lot of job opportunities. So, we are somewhat limited in that. Obviously, I don't think that poverty has hit our county necessarily the same as what you'd see in some of the cities, but it certainly exists, and we've seen it increase as I've mentioned in our homeless population. So those factors are concerning. Again, I think a lot of the social factors that we're seeing that are impacting health and overall services as are mental health illnesses."

Health and social needs of children

Among focus groups, key informants and surveys, participants felt parenting education and health education focused on nutrition were among the highest needs for children. Other concerns included: affordable and opportunities to engage in physical activities, access to providers, and poverty/homelessness. Additionally, early educational resources/daycare/academic after-school programs, access to health care, and access to educational and mentorship/enrichment opportunities were noted. Many of the comments were focused on issues surrounding drugs, educational needs, and parenting.

Supporting quotes

"One particular area is health education in general. An example, we fund a program in the schools where we have a dental hygienist go in and do basic dental exams and cleaning for fluoride treatment and there is a significant number of children who are not receiving dental care and to me that goes directly back to education and I'm making an assumption that if they're not educated about basic dental care that they're probably not getting to see a primary care physician as they should either."

"The greatest need for kids, young kids is just good parenting. You know I think that some of our parents, they're not well. And so, they're now they've got this young person that they're trying to raise. I think their intentions are they want to do it right. They want to do it well they maybe don't want to have happen to their kids what maybe happened to them. One of the greatest challenges for young people are just good parents."

Existing community assets and resources

The most commonly mentioned community assets and resources for focus groups and key informants were those around community connectedness among services such as access to services, school system, and transportation. Respondents indicated physical activities, health fairs, and mentoring programs as resources in the community. Education programs in the community were a major concern among both the focus groups and key informant interviews. Education programs for youth, such as meals and activities, and parenting program needs were provided as resources in the community.

Supporting quotes

"One of the greatest assets that we have as a community is that we do work well together. When as a community we identify an issue and we rally around that, we can be very effective in addressing that issue."

"We've got a pretty dynamic school system. We have the junior college which is available. There is a lot within our community, there are so many people that want to help and do things within our community. It's a matter of being organized. We have all these different groups focusing on helping a bit of the same thing. I'm going to step away from kids for a second and look at look at homeless. There are 7 different places that feed the homeless just within the City of Sonora. If we could focus and organize those types of events or types of groups."

Barriers to access

The highest responses to barriers from focus group participants, key informants and surveys include transportation, mental and behavioral health, inadequate health services (i.e., addiction services, primary care and physicians who are properly trained). In addition, recent outbreaks of measles and shingles and lack of access to vaccinations, and lack of young people in the community were mentioned.

Supporting quotes

"We live in a very rural area, so we do have a county bus system that's pretty amazing as well as dial a ride. However, they are unable to reach some of our outlying areas. It depends on what the road conditions are like. It depends on where they live, how far out they live. We have folks who, you know, who live as far as you know 45 minutes or more away from the hospital and so that's a huge impact. And when they don't drive any longer or they don't have family involved. Now how are they going to get back and forth to their medical appointments. Again, if they don't drive in need that assistance if they have to go out of county for their medical assistance how are they going to get out of county as well. Transportation is a huge barrier."

"The greatest barrier is stigma. You know, I deal with this a lot with suicide and just any mental health trainings and stuff that I do. There's so much stigma around someone that is struggling with any issue. But I think it really shows up with mental health issues. It shows up with people that are struggling with thoughts of suicide. I think part of it is that we're a small community and there's this kind of belief that you have to be careful what you say to the person that you're having lunch with because you don't know who they know that you know. And so, I think because of that, it just doesn't feel safe for someone that's struggling to seek help. So, I think one barrier that's huge in our small rural community is stigma."

Hospital perception and opportunities

Focus group participants and key informants were asked their perception of the hospital and were asked to offer suggestions for new activities or strategies. Common themes for improvement included: communication and partnership, health care infrastructure investment (i.e.,including mental illness facility, and education programs). In addition, inadequate advertisement, lack of conference room use availability for community meetings, and corporate feeling of the hospital were also mentioned.

Supporting quotes

"They do offer a number of outreach programs smoking cessation, diabetic education and nutrition. Trying to think of the others in cardiac rehab, respiratory rehab. My perception is the way most people find out about this is following your hospitalization. The discharge planner gives some of this information and helps them sign up for other than smoking."

"The biggest thing that we all need to do including Adventist Health is just make sure that our lines of communication are open with each other."

"As a community member I used to know who the main person was at the hospital and I can't even tell you their name at this point. and I used to be able to call by their first name and know who it was and I could not tell you anybody that works other than Tyler going to see it meetings as the only person I really know at the hospital that isn't a doctor or nurse."

Prioritization of Health Needs

Priority health issue and baseline data

The 2019 Community Health Needs Assessment Steering Committee met to collectively review the findings of this assessment and prioritize the top priority needs Adventist Health Sonora and partners involved will focus through 2022.

Identified community health needs

Priority Health Issue	Rationale/Contributing Factors
Access to health care • Access to providers including geriatric services and primary care providers • Preventative care • Transportation	As a critical component of measuring community health, access to health care was a major theme in the focus groups, key informant interviews, and survey responses. Primary care provider and dentist rate per 100,000 population is higher in Tuolumne County than Calaveras County and California, but the mental health provider rate is nearly half the state estimate. Care providers, specifically geriatric, pediatric, and mental health, were most frequently mentioned in the focus groups and key informant interviews. Additionally, the need for preventative care and caregivers was mentioned.
Mental and behavioral health • Substance Abuse • Trauma and isolation	Mental and behavioral health was in the top 2 mentioned health needs among the focus groups, key informant interviews, and survey responses. Substance abuse was mentioned across all three, and trauma and isolation in focus groups and key informant interviews. Both counties are slightly above the state average of reported poor mental health days. Additionally, Medicare populations with depression were slightly less than the state estimates.
Housing and Homelessness	High rent burden, substandard housing, and homelessness are results of lack of affordable housing. In Tuolumne and Calaveras Counties, the fair market rent for a 2-bedroom home were nearly half the price of the state. Although lower than the state, substandard housing conditions are at least 39% percent in both counties. Consistent with the views in the focus groups and key informant interviews, mental illness and poverty intersect with the chronic homelessness. This year, 385 adults and children in Tuolumne County and 186 in Calaveras County have experienced homelessness.

Priority Health Issue	Rationale/Contributing Factors
Chronic disease • Asthma • Obesity	4 of the 5 leading causes of death in Tuolumne County and Calaveras County were chronic diseases. Asthma visits to the emergency department were much higher than state estimates, but asthma hospitalizations were lower. Medicare populations with diabetes and heart disease were lower in both counties than the state rates. Just slightly higher than the state, obesity was approximately 23% in both counties. Medication mismanagement, especially among isolated aging populations, was one of the issues mentioned related to chronic disease in the focus groups. The survey responses indicated high rates of chronic disease as the 5th top health and social needs in the community.
Poverty	Poverty puts people, especially children, at a higher risk of premature death, mental health, malnutrition, and overall poor health. Tuolumne and Calaveras counties are lower that the state for population under 100% poverty level and children under 100% poverty level. Calaveras and Tuolumne Counties have a lower percent of populations receiving Public Assistance Income as compared to the state estimate. However, Calaveras County (12.1%) has a higher percentage of the population receiving SNAP benefits than Tuolumne County (10.3%) and the state estimate (11.2%). One key informant mentioned that although the census and other sources show the county as a retired and wealthier community, there is a large amount of young families in poverty.

Prioritization process and criteria

On August 26, 2019, the 2019 Community Health Needs Assessment Steering Committee met to collectively review the findings of this assessment and determined the top priority needs that Adventist Health Sonora and partners involved will address over the next three years. Stakeholders agreed on the criteria below to consider when making a decision. The criteria listed recognize the need for a combination of information types (e.g, health indicators and primary data) as well as consideration of issues such as practicality, feasibility, and mission alignment.

- Addresses disparities of subgroups
- Availability of evidence or practice-based approaches
- Existing resources and programs to address problems
- Feasibility of intervention
- Identified community need
- Importance to community
- Magnitude
- Mission alignment and resources of hospitals
- Opportunity for partnership
- Opportunity to intervene at population level
- Severity
- Solution could impact multiple problems

After tallying the results, there was a discussion to validate the needs. The top priority needs for 2019-2022 are:

Access to healthcare

- Access to providers including geriatric services and primary care providers
- Preventative care
- Transportation

Mental and behavioral health

- Substance abuse
- Trauma and isolation

Chronic disease

- Asthma
- Obesity

The voting members in attendance were:

- Bob White, YES Partnership
- Kara Rachal, Adventist Health Sonora
- Kathrina McRee, Adventist Health Sonora
- Kelley George, Adventist Health Sonora
- Mario DeLise, Adventist Health Sonora
- Matthew Rose, Adventist Health Sonora
- Steve Boyack, Tuolumne County Public Health
- Tyler Newton, Adventist Health Sonora

Addressing Identified Needs

Plan development

Adventist Health Sonora will develop strategies to address each need identified in this community health needs assessment. Strategies will be documented in a community health improvement plan (CHIP). The CHIP will describe how AHSR plans to address the health needs and plans to commit, potential partners, and metrics used to evaluate success. If AHSR does not intend to address the need, the CHIP will explain why.

The CHIP will describe the strategies intended to address the health needs and anticipated impact and partnerships. Partnerships are an important to addressing health needs, the CHIP will also describe any planned collaboration between AHSR and other facilities/organizations in addressing the health needs. The improvement plan will be made available May 2020.

Adventist Health Sonora 2019-2022 prioritized needs

Access to healthcare

- Access to providers including geriatric services and primary care providers
- Preventative care
- Transportation

Mental and behavioral health

- Substance abuse
- Trauma and isolation

Chronic disease

- Asthma
- Obesity

2016 Evaluation

In this section we evaluate results from our most recent community health needs assessment, organized by prioritized health needs identified in its associated community health improvement plan. The top health issues for the 2016-2019 CHNA and CHP were:

Priority Need: Healthy Beginnings

Interventions:

Family Fit – A partnership with Tuolumne County Schools that brings nutrition and exercise education to the students in our local elementary schools. Students received education and instruction, as well as before and after tests, to assess their knowledge and physical fitness gains from participating in the program.

- Community Members Served: 755. AHSR invested $84,417 into this program aimed at local 3rd graders for staffing and supplies.

Adventist Health Sonora (AHSR) – Tuolumne County Public Health Department (TCPHD) collaborative for substance abusing pregnant women. In 2016 AHSR and the TCPHD began a new collaboration to address what was a growing and disturbing trend in our community, pregnant women presenting to our Obstetrics Department (OB) to deliver their baby who were substance abuse dependent. In this collaborative, the AHSR OB Director met monthly for one hour with the Tuolumne County Maternal Child Adolescent Health Program (MCAH). During this time, they discussed cases and approaches to help the addicted women. This collaborative also grew to include direct hand-off referrals of qualifying OB patients to MCAH programs, which increased the likelihood of success for the mothers seeking help. During the time that this partnership began, and numbers were gathered on women presenting to the OB to deliver who were abusing substances, the numbers have dropped from 24 in 2016 to 18 in 2017, a 25% decrease. Since 2017 the numbers have remained the same at 18 in 2018. 2019 numbers have yet to be determined.

- Number of Community Members Served: 36.

Financial support

YES Partnership, a community-wide coalition dedicated to support Tuolumne County youth and families by preventing suicide, substance, and child abuse.

- Number of Community Members Served: 900

Calaveras Mentoring Foundation, a community organization that utilizes a variety of mentoring roles, including youth to youth and youth to adult, to bring friendship, experience, and resources to help the mentee develop greater self-awareness, support for making healthy life decisions and to experience a smoother road to adulthood.

- Number of Community Members Served: 248

Kiwanis Club of Sonora, AHSR provided back to school clothing for local children.

- Number of Community Members Served: 225

Objective	Baseline Measurement	Performance Target	Intervention	Measurement Update
Increase Student's Physical Fitness and Fitness Knowledge	Tuolumne County 2015 percent meet; 5th graders: 30.6%, 7th graders: 35.3%, 9th graders: 24.2%	Increase in students' Physical Fitness Standard Scores	Family Fit, Support Community Programs	2019: TBD. 2018: 24% improvement in students' knowledge about fitness and nutrition. 78% improvement in physical fitness 2017: 24% improvement in students' knowledge about fitness and nutrition. 69% improvement in physical fitness

Objective	Baseline Measurement	Performance Target	Intervention	Measurement Update
Reduce drug/ alcohol use in pregnant women		Decrease in percentage of drug/alcohol use in pregnant women who present to Adventist Health Sonora OB to deliver their baby.	Collaborate with Tuolumne County Health Department and other area programs and resources	2019: TBD. 2018 = 18 mothers with substance abuse addictions. 2017 = 18 mothers with substance abuse addictions.
Reduce drug/ alcohol use in adolescents	2015 Tuolumne County substance use in last 30 days data; 7th graders: 6%, 9th graders: 26%, 11th graders: 33%.	Decrease in percentages for all areas	Collaboration with YES Partnership and other community programs and resources	Data not yet available

Partners

- Tuolumne County Public Health Department
- Tuolumne County Superintendent of Schools
- YES Partnership
- ATCAA (Amador, Tuolumne, Calaveras Action Agency)
- TeenWorks Mentoring
- Sonora Police Department
- Tuolumne County Sherriff's Office
- Kiwanis Club of Sonora
- Catholic Charities
- Calaveras Mentoring Foundation

Priority Need: Mental Health and Substance Abuse

Interventions:

Opioid Safety Coalition

The coalition has focused on safer prescribing, increasing access to medically assisted treatment, increasing access to Naloxone, and community education and outreach. One outcome from this coalition was adding six emergency department physicians with Sierra Emergency Medical Group (who serve at Adventist Health Sonora). The received their x-waiver license which enables them to treat opioid dependency with approved buprenorphine products. Another outcome of the coalition was talks Dr. Ralph Retherford gave to local 9th grade students, as well as to nursing students, about opioids and substance abuse issues.

- Number of Community Members Served: 537

Addiction Therapy Clinic

To address the increase in Opioid and substance abuse in Tuolumne County, Adventist Health Sonora began an Addiction Therapy Clinic in 2016, where Dr. Ralph Retherford treats patients for opioid dependence.

- Number of Community Members Served: 184

Prescription Drug Take Back Days

Adventist Health Sonora has annually supported, endorsed and collaborated with the Tuolumne County Drug Take Back Days, led by the YES! Partnership and the Tuolumne County Sheriff's Office.

- Number of pounds collected: 1,076 lbs.

Mental Health First Aid (MHFA) training

The Youth MHFA training was a partnership between Adventist Health Sonora (AHSR), ATCAA and YES Partnership. The Adult MHFA training was a partnership between AHSR and SOAR (SSI/SSDI Outreach Access and Recovery). Each course provided 8 CEUs for attendees and was open to the entire community. In Youth MHFA, participants were trained to:

- Recognize the potential risk factors and warning signs of a variety of mental health challenges common among adolescents, including depression, anxiety, psychosis, eating disorders, AD/HD, disruptive behavioral disorders, and substance use disorders.
- Use a 5-step action plan to help a young person in crisis connect with appropriate professional help.
- Interpret the prevalence of various mental health disorders in youth within the U.S. and the need for reduced negative attitudes (stigma) in their communities.
- Apply knowledge of the appropriate professional, peer, social, and self-help resources available to help a young person with a mental health problem, treat and manage the problem and achieve recovery.
- Assess their own views and feelings about youth mental health problems and disorders.

In Adult MHFA, participants are trained to:

- Identify the signs, symptoms and risk factors of mental illness and substance abuse.
- Identify multiple types of professional and self-help resources for individuals with a mental health issue or addiction.
- Increase knowledge of the signs of distress in a person going through a mental health challenge.
- Increase confidence in and likelihood of helping an individual in distress.
- Show increased mental wellness and self-care for an individual including self.
- Number of Community Members Served: 91 (adult), 11 (youth MHFA)

Adventist Health Sonora has sponsored and collaborated with TeenWorks Mentoring, a network of caring and responsible adults committed to helping the "at-risk" youth of Tuolumne County. Through healthy, one-on-one mentoring relationships we seek to provide encouragement, guidance and positive role models for at-risk teens in need of compassion and understanding.

- Number of Community Members Served: 46

Sponsor of Spiritual Roads Inc., a local non-profit that works with our local population that suffers from substance abuse and other addictions.

- Number of Community Members Served: 800

Adventist Health Sonora's Pulmonary Rehabilitation Department offered five Freedom From Smoking classes in 2017. Each class is 8 weeks long. In the 2-hour classes, participants learn how to overcome tobacco addiction and start enjoying the benefits of better health. Topics include medicines that can help with quitting, lifestyle changes that make quitting easier, preparing for quit day, managing stress, avoiding weight gain, developing a new self-image and staying smoke free for good.

- Number of Community Members Served: 28

Objective	Baseline Measurement	Performance Target	Indicator	Status update
Decrease hospital ED hold times for psychiatric patients		Decrease	Collaborate with programs / partners to increase psychiatric services / evaluations in Tuolumne County	Data not Available
Decrease hospital admission for drug overdose		Decrease		Data not yet available

Partners

- Tuolumne County Public Health Department
- Tuolumne County Medical Society
- Tuolumne County Behavioral Health
- Suicide Prevention Taskforce
- SOAR (SSI/SSDI Outreach Access Recovery)
- Sheriff's Department
- YES Partnership
- California Health and Wellness
- Amador Tuolumne Community Action Agency
- Sierra Emergency Medical Group
- Medication Assisted Treatment (MAT) Clinic
- County Schools
- Eric Runte, MD
- Tuolumne County Social Services
- Tuolumne County Courts
- Carlene Maggio
- Tuolumne MeWuk Indian Health Clinic
- Matheisen Clinic
- Sonora Elks
- Probation
- Emergency Medical Services
- Anthem
- Tuolumne County
- Aegis
- Spiritual Roads Incorporated

Priority Need: Access to Care

Interventions:

Screenings and school-based sports physicals

The physical exams exceed the pre-participation requirements by providing an all-in-one visit with multiple physician specialists including cardiology, internal medicine, orthopedics, pediatrics and otolaryngology. Fifty-percent of the fees collected for the sports physicals went back to the schools' athletic departments. The other 50% of fees collected went into a reserve account for the injured athletes fund to help underinsured kids get the services they need. In 2017, AHSR donated $16,076 through these services.

- Number of Community Members Served: 1,100
- Financial contribution: $48,125

Faith Community Nursing (FCN) Program

Our Adventist Health Sonora FCN Program Coordinator organizes and supports 43 health minister volunteers from 27 different faith communities in Tuolumne and Calaveras counties. Through this program, health ministers work with their faith communities to provide a variety of health-related screenings, programs, and visitation as well as help at community events such as health fairs and other outreach.

- Number of Community Members Served: 5,848
- Financial contribution: $52,159

Physician Recruiting

Recruiting new medical providers to Tuolumne County. We continue to work to bring needed specialists and grow the number of primary care providers in our community, which is a designated medically underserved area.

- Recruited 40 new physicians to the area, as well as 18 new physicians through telemedicine programs. Adventist Health Sonora also recruited 15 new Advanced Health Practitioners (NP, PA, PA-C, RNFA, Clinical Psychology). Included in these numbers were: 16 Primary Care Physicians, 8 Family Medicine, 2 Internal Medicine, 2 OB/GYN (and 1 tele-OB), 3 Dentists, 2 General Surgeon, 1 Medical Oncologist, 1 Radiation Oncologist, 1 ENT, 1 Emergency Medicine, along with 2 tele-Rheumatologist, 1 tele-Dermatologist, 1 tele-Endocrinologist, 1 Hematology Oncologist and 2 PMR Physicians
- Financial contribution: $994,780

Enrollment Assistance for Public Medical Programs

- Number of Community Members Served: 3,740
- Adventist Health Sonora invested $293,502 to help enrolled people in Public Medical Programs.

Objective	Baseline Measurement	Performance Target	Indicator	Status update
Increase number of primary care providers in service area	In 2014 there were 41 primary care providers in Tuolumne County, Angels Camp up Highway 4 to Calaveras Boarder	Increase Primary Care Providers to 45 by 2019	Recruited 40 new physicians to the area in 2018, as well as 18 new physicians through telemedicine programs. Also recruited 15 new Advanced Health Practitioners (NP, PA, PA-C, RNFA, Clinical Psychology)) Recruited 22 new providers to the community: 16 Primary Care, 1 General Surgeon, 1 Rheumatologist, 1 Hematology Oncologist and 2 PMR Physicians	Data on number of primary care providers in service area.

Objective	Baseline Measurement	Performance Target	Indicator	Status update
Support local training and educational programs that develop the medical care workforce.	Current support of local training and educational programs.	Ongoing support at previous or exceeded levels.	Financial and In-kind support of Yosemite College District nursing and similar area programs.	Current contribution donations and staff program hours in
Decrease hospital readmissions for chronic diseases.	Readmission rates for COPD in 2016 was 12.64%, for Pneumonia it was 10.34%, for Acute MI 15.79%, Heart Failure 10.34%	Reduction in readmission rates for all areas	Growth of programs aimed at improving the quality of life and health of those individuals with chronic disease	Readmission rates for COPD in 2018 was 7.53%, for Pneumonia it was 8.65%, for Acute MI 10.34%, Heart Failure 8.39% Readmission rates for COPD in 2017 was 9.13%, for Pneumonia it was 12.03%, for Acute MI 2.94%, Heart Failure 13.19%

Partners

- Interfaith Community Services
- Tuolumne County of Public Health
- Tuolumne Band of Mi Wuk Indians
- All Saints Catholic Church
- Chapel in the Pines
- Christian Heights Assembly of God
- Columbia Church of the 49ers
- First Congregational Church – Murphy's
- Foothill Community Church – Angels Camp
- Greeley Hill Seventh-day Adventist Church
- Groveland Seventh- day Adventist Church
- Lake Tulloch Bible Church – Copperopolis
- Mt. Calvary Lutheran Church
- Heritage Christian Church
- Rivers of Life Christian Fellowship

2019 CHNA approval

This community health needs assessment was adopted on 10/17/19 by the Adventist Health System/West Board of Directors. The final report was made widely available on December 31, 2019.

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To request a copy, provide comments or view electronic copies of current and previous community health needs assessments or community benefit implementation strategies, please visit the Community Benefits section on our website at https://www.adventisthealth.org/about-us/community-benefit/

Appendix A: Qualifications of Consultants

HC2 Strategies, Inc. is a strategy consulting company that works with health systems and hospitals, physician groups, communities and other non-profit organizations across the country to connect and transform the health and well-being of their communities. They work to integrate the clinical and social aspects of community health to improve equity and reduce health disparities.

Laura Acosta, MPH, HC2 Strategies, Inc.

Laura Acosta has experience in healthcare administration, community-based activities, faith communities, and healthy communities initiatives. She provides leadership to various community-based activities focused on improving the quality of life for Inland Empire, California residents. She has extensive knowledge and experience with community benefits, community health needs assessments, and community health plans. Ms. Acosta earned her bachelor degree in Business Administration, and a Master in Public Health from Loma Linda University with a focus in policy and leadership. She has been involved in leadership programs with the Inland Empire Economic Partnership and Healthcare Executives of Southern California, and has been actively involved in experience design.

Jaynie Boren, HC2 Strategies, Inc.

Jaynie is a strategy and business development executive with more than 25 years of progressive leadership responsibility in planning, growing market share, creating new revenue opportunities, and facilitating relationships and joint ventures for independent hospitals, major integrated healthcare delivery systems and tertiary medical centers.

She has the ability to bring individuals with diverse interests together to achieve corporate and business objectives. Jaynie is an executive that can bring together her outstanding market research, planning, marketing, strategy, project development, implementation, and relationship building skills. She has documented success in building strategic plans and working with teams to assure implementation of goals.

James A. Martinez, Ed.D., MPH

James earned a master's degree in epidemiology and a doctoral degree in health education from Columbia University, NY. He is a population health data expert using data to tell the community story. He teaches courses in database design, cartography and GIS applications in public health practice at Loma Linda University Health.

He also works on a community-lead partnership with local government on developing a countywide health improvement framework, and asset mapping applications to promote networks of healthy communities and real-time community health management platforms for hospital emergency department visits and solutions for preventing readmissions.

Appendix B: Glossary of Terms

Ambulatory Care Sensitive Conditions (ACSC)

A set of 28 medical conditions/diagnoses "for which timely and effective outpatient care can help to reduce the risks of hospitalization by either preventing the onset of an illness or condition, controlling an acute episodic illness or condition, or managing a chronic disease or condition." Examples of ACSCs include:

- Angina
- Aspiration
- Asthma
- Cellulitis
- Congestive heart failure
- Constipation
- Convulsions/epilepsy
- COPD
- Dehydration and gastroenteritis
- Dental conditions
- Diabetes complications
- Ear, nose and throat infections
- Gangrene
- Gastro-oesophageal reflux disease
- Hypertension
- Iron deficiency anemia
- Influenza
- Nutritional deficiencies
- Pelvic inflammatory disease
- Perforated/bleeding ulcers
- Pneumonia and other acute LRTI
- Tuberculosis and other vaccine preventable
- UTI/pyelonephritis

Benchmark

A benchmark is a measurement that serves as a standard by which other measurements and/or statistics may be measured or judged. A "benchmark" indicates a standard by which a community can determine whether well the community is performing well in comparison to the standard for specific health outcomes.

Community resources

Community resources include organizations, people, partnerships, facilities, funding, policies, regulations, and a community's collective experience. Any positive aspect of the community is an asset that can be leveraged to develop effective solutions.

Federal poverty level

The set minimum amount of gross income that a family needs for food, clothing, transportation, shelter and other necessities. In the United States, this level is determined by the Department of Health and Human Services and used to determine financial eligibility for certain federal programs. One can calculate various percentage multiples of the guidelines by taking the current guidelines and multiplying each number by 1.25 for 125 percent, 1.50 for 150 percent, etc. 150%, 200%, and 400% are included in the table below.

2019 Poverty Guidelines for the 48 Continental United States, Annual Salary				
Persons in Family/ Household Size	Poverty Guideline (Level)	150% of the FPL	300% of the FPL	400% of the FPL
1	$12,490	$18,735	$37,470	$49,960
2	$16,910	$25,365	$50,730	$67,640
3	$21,330	$31,995	$63,990	$85,320
4	$25,750	$38,625	$77,250	$103,000
5	$30,170	$45,255	$90,510	$120,680
6	$34,590	$51,885	$103,770	$138,360
7	$39,010	$58,515	$117,030	$156,040
8	$43,430	$65,145	$130,290	$173,720
For families/households with more than 8 persons, add $4,420 for each additional person.				

2019 Poverty Guidelines for the 48 Continental United States, Monthly Salary				
Persons in Family/ Household Size	Poverty Guideline (Level)	150% of the FPL	300% of the FPL	400% of the FPL
1	$1,041	$1,561	$3,123	$4,163
2	$1,409	$2,114	$4,228	$5,637
3	$1,778	$2,666	$5,333	$7,110
4	$2,146	$3,219	$6,438	$8,583
5	$2,514	$3,771	$7,543	$10,057
6	$2,883	$4,324	$8,648	$11,530
7	$3,251	$4,876	$9,753	$13,003
8	$3,619	$5,429	$10,858	$14,477

Federally Qualified Health Center

Federally Qualified Health Centers are community-based health care providers that receive funds from the Health Resources & Services Administration Health Center Program to provide primary care services in underserved areas. They must meet a stringent set of requirements, including providing care on a sliding fee scale based on ability to pay and operating under a governing board that includes patients. Federally Qualified Health Centers may be Community Health Centers, Migrant Health Centers, Health Care for the Homeless, and Health Centers for Residents of Public Housing.

Focus group

A group of people questioned together about their opinions on an issue. For this CHNA, focus groups answered questions related to components of a healthy community and issues in their community.

Food insecurity

A lack of consistent access to food resulting in reduced quality, variety, or desirability of diet or multiple indications of disrupted eating patterns and reduced food intake.

Health indicator

A single measure that is reported on regularly and that provides relevant and actionable information about population health and/or health system performance and characteristics. An indicator can provide comparable information, as well as track progress and performance over time.

Healthy People 2020

Healthy People 2020 provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time to encourage collaborations across communities and sectors, empower individuals toward making informed health decisions, and measure the impact of prevention activities.

Housing cost burden

Measures the percentage of household income spent on mortgage costs or gross rent. The US Department of Housing and Urban Development currently defines housing as affordable if housing for that income group costs no more than 30 percent of the household's income. Families who pay more than 30 percent of their income for housing are considered cost burdened; families who pay more than 50 percent of their income for housing are severely cost burdened.

Housing units with substandard conditions

Housing that poses a risk to the health, safety or physical well-being of occupants, neighbors, or visitors. Substandard housing increases risk of disease, crime, social isolation and poor mental health. Substandard housing is associated with one or more of the following conditions:

1. Is dilapidated;
2. Does not have operable indoor plumbing;
3. Does not have a usable flush toilet inside the unit for the exclusive use of a family;
4. Does not have a usable bathtub or shower inside the unit for the exclusive use of a family;
5. Does not have electricity, or has inadequate or unsafe electrical service;
6. Does not have a safe or adequate source of heat;
7. Should, but does not, have a kitchen; or
8. Has been declared unfit for habitation by an agency or unit of government.

Infant mortality rate

Expressed as a rate per 1,000 births, this is defined as the death of a child prior to its first birthday (should be read, for example, as 7.8 infant deaths for every 1,000 births).

Low birth weight

Expressed as a rate per 1,000 births, this refers to infants born with a weight between 1,500 and 2,500 grams or between 3.3 and 5.5 pounds. Very low birth weight infants are born with a weight less than 1,500 grams.

Prenatal care

Adequacy of prenatal care calculations are based on the Adequacy of Prenatal Care Utilization Index (APNCU), which measures the utilization of prenatal care on two dimensions. The first dimension, adequacy of initiation of prenatal care, measures the timing of initiation using the month prenatal care began reported on the birth certificate. The second dimension, adequacy of received services, is measured by taking the ratio of the actual number of visits reported on the birth certificate to the expected number of visits. The expected number of visits is based on the American College of Obstetrics and Gynecology prenatal care visitations standards for uncomplicated pregnancies (1), and is adjusted for the gestational age at initiation of care and for the gestational age at delivery. The two dimensions are combined into a single summary index, and grouped into four categories: Adequate Plus, Adequate, Intermediate, and Inadequate.

- *Adequate Plus*: Prenatal care begun by the 4th month of pregnancy and 110% or more of recommended visits received.
- *Adequate*: Prenatal care begun by the 4th month of pregnancy and 80-109% of recommended visits received.

- *Intermediate*: Prenatal care begun by the 4th month of pregnancy and 50-79% of recommended visits received.
- *Inadequate*: Prenatal care begun after the 4th month of pregnancy or less than 50% of recommended visits received.

Primary data

Primary data are new data collected or observed directly from first-hand experience. They are typically qualitative (not numerical) in nature. For this CHNA, primary data were collected through focus groups and key informant interviews.

Secondary data

Data that has already been collected and published by another party. Typically, secondary data collected for CHNAs is quantitative (numerical) in nature (for example, data collected by a local or state department of health, the Centers for Disease Control and Prevention, or a state department of education).

Teen birth rate

Expressed as a rate per 1,000 births, this refers to the quantity of live births by teenagers who are between the ages of 15 and 19.

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Appendix D: Description of Key Informants and Focus Groups

This assessment would not have been possible without input from our community. This section outlines the community leaders that served as key informants for this assessment, as well as a description of the focus groups convened.

- 163 total participants
- 3 focus groups (total of 33 focus group participants)
- 12 key informants
- 118 online survey responses

Description of focus groups

2019 Focus Group				
Organization	**Location**	**Populations Served**	**Language**	**# of Participants**
Area 12 Agency on Aging	19074 Standard Rd., Ste C Sonora, CA 95370	Seniors	English	12
YES Partnership	362 South Stewart Street, Sonora, CA	Community Stakeholders	English	12
Spiritual Roads	Via Zoom conference call	Homeless/At-risk	English	9

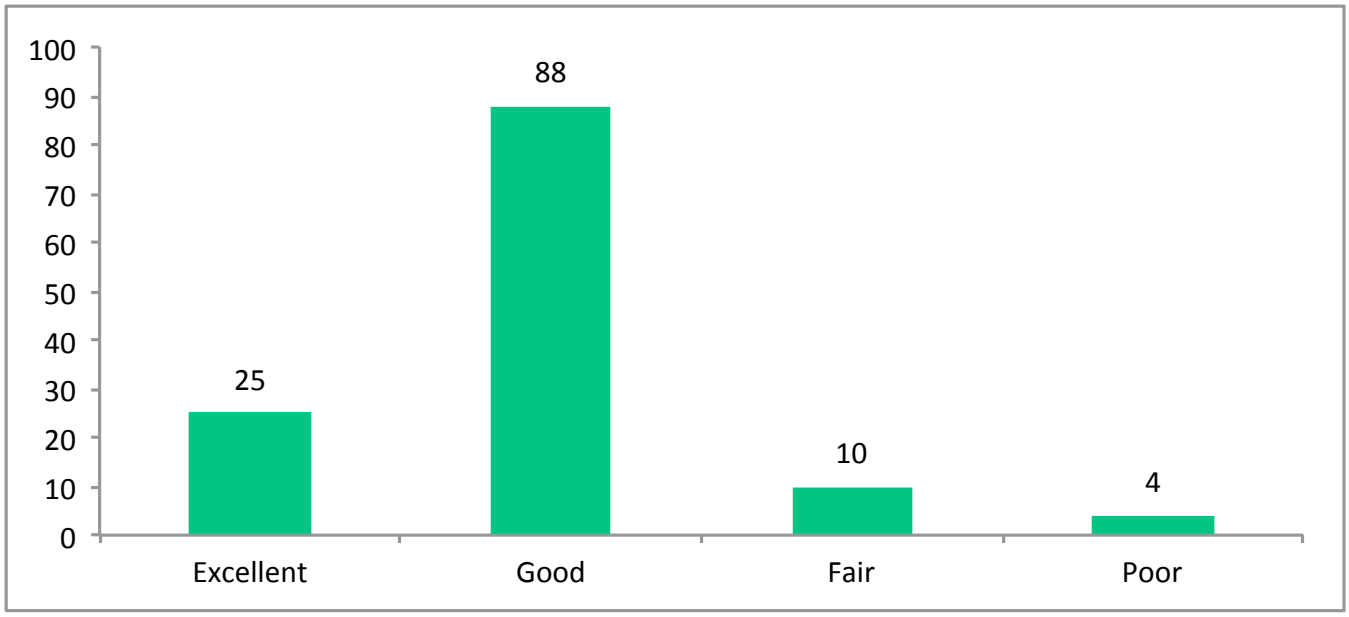
Description of key informants

2019 Key Informant Contact List			
Name	**Title**	**Organization**	**Sector**
Bill Pooley	Tuolumne County Sheriff	Tuolumne County Sheriff	Law Enforcement
Bob White	Director	YES Partnership	Community Based Organization
Catherine Driver	Director	Catholic Charities	Community Based Organization
Cathy Parker	Tuolumne County Superintendent of Schools	Tuolumne County Schools	School District
Darrel Slocum	Executive Director	Sonora Area Foundation	Community Foundation
Dr. Kelly George	Physician	Pediatric Physician	Hospital
Kristin Milhoff	Director	Area 12 on Aging	Senior - Community Based Organization
Larry Cope	Chief Executive Officer	Tuolumne County Economic Development Authority (TCEDA)	Business
Laura Krieg	District Attorney	Tuolumne County District Attorney	Legal
Michael Wilson	Director of Behavioral Health	County Behavioral Health	Public Health Department
Sheila Shanahan	Program Housing Coordinator	County of Tuolumne CRA Housing Division	Housing
Steve Boyack	Assistant HSA Director	Tuolumne County Public Health	Public Health Department

Appendix E: Survey Results

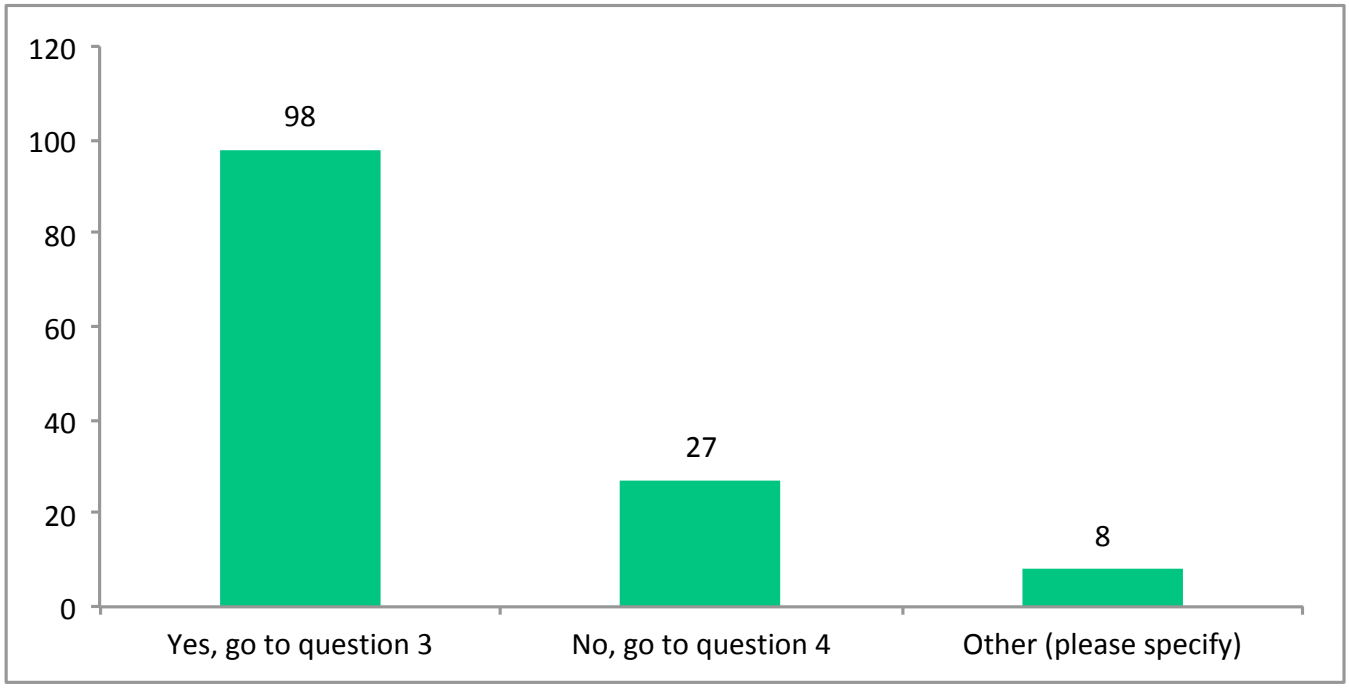
Question 1

Would you say that, in general, your physical health is:



Question 2

Have you needed health care in the last 12 months and were you able to receive it?

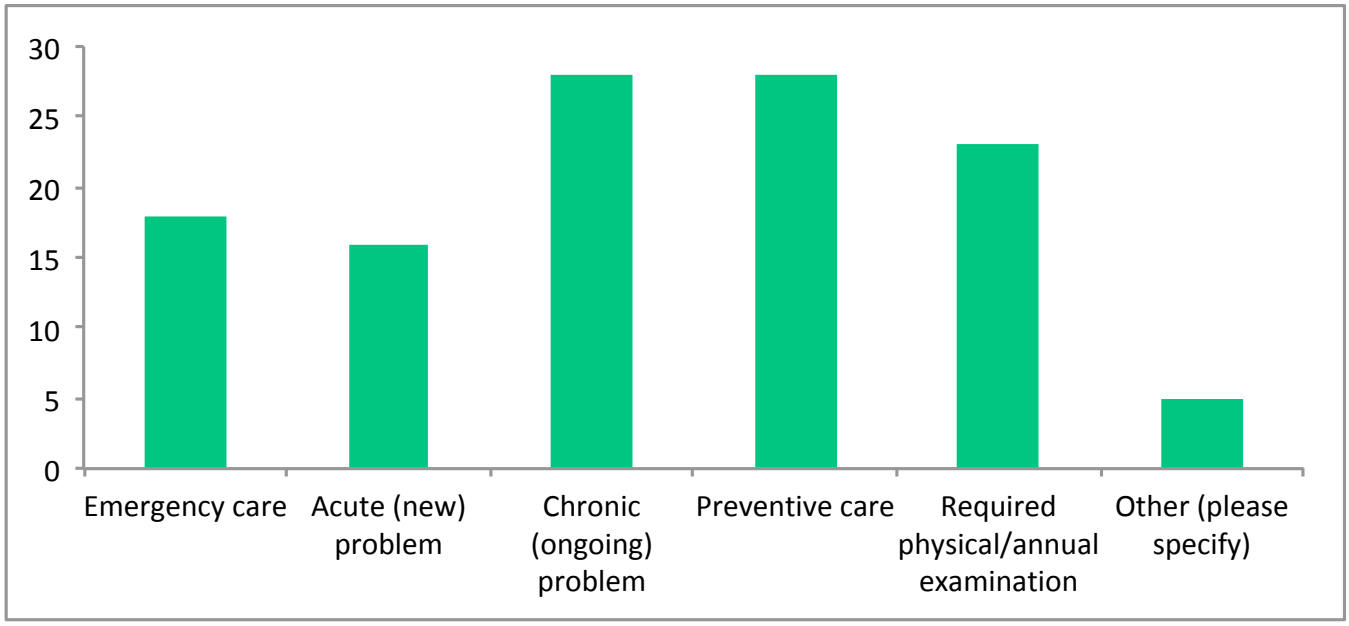


Other Responses:

- Haven't needed any
- Recieved care for some problems but not others
- Emergency care only available
- Was not able to receive it in Tuolumne County
- Yes, but I had to go to Prompt Care because my PCP was unable to see me.

Question 3

If yes, what was the primary reason for your most recent visit? (Mark only one)

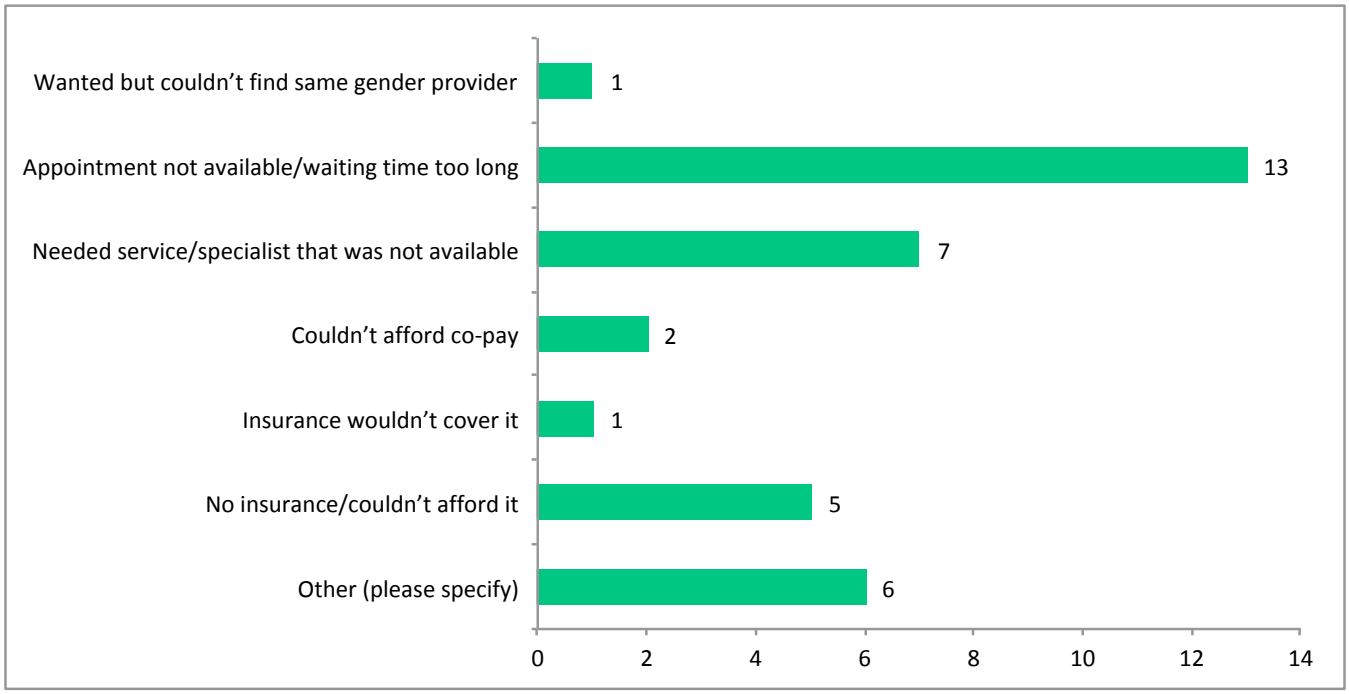


Other Responses:

- Pregnancy
- Physical and mental issues from a family member in addiction.
- Knee replacement
- Follow up care

Question 4

If no, why couldn't you receive it? (Mark all that apply)

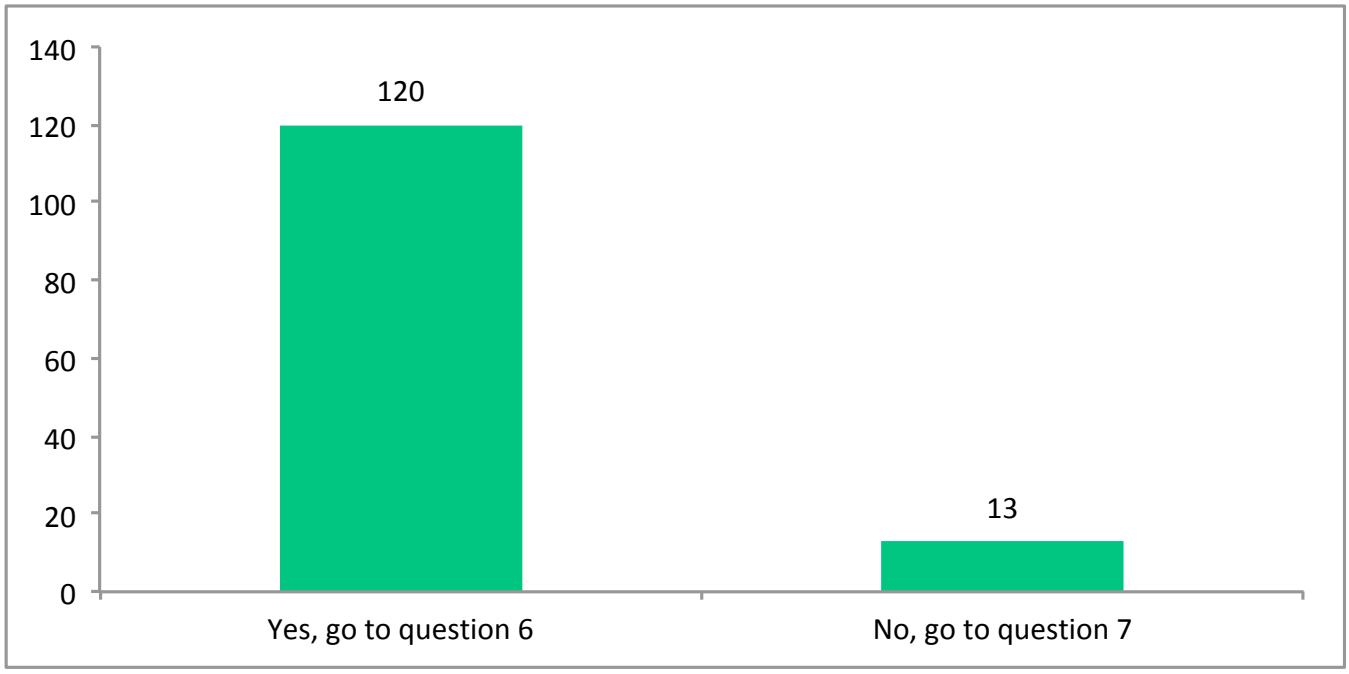


Other Responses:

- Doctors not taking new patients
- Lack of doctors
- 6 month waiting period to see a doctor
- Called for an appt with Ob/GYN that i was an established patient, soonest appt was 5 months out. I found a new Dr. in Modesto at Mountain medical

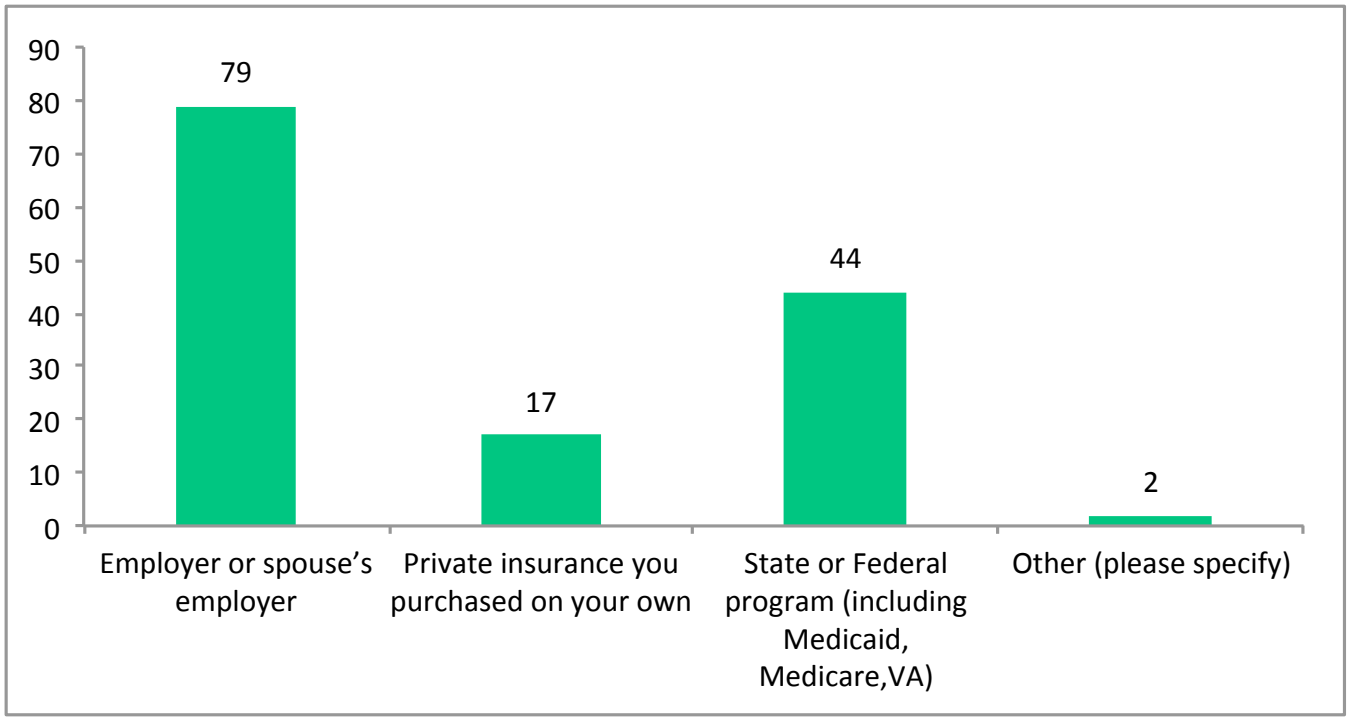
Question 5

Do you have health insurance?



Question 6

If yes, where do you get your health insurance coverage?

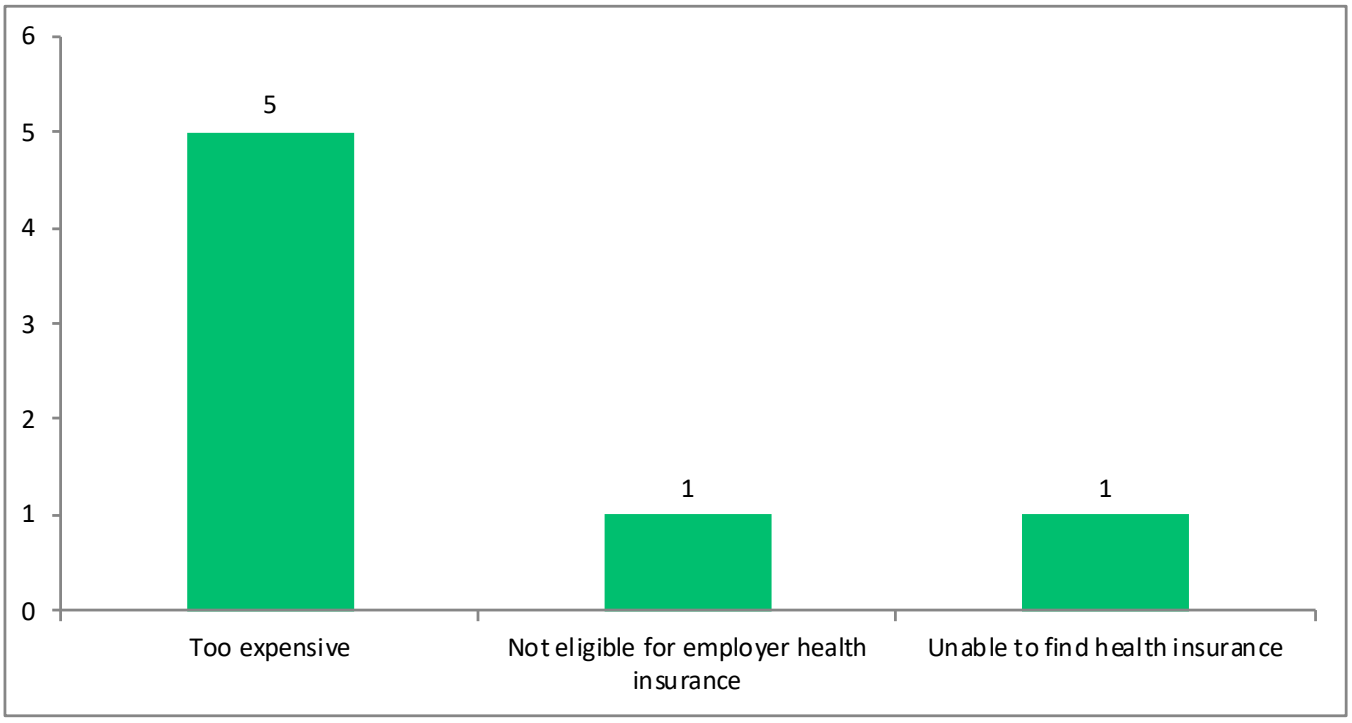


Other Responses:

- Retirement System
- Not currently eligible through employer

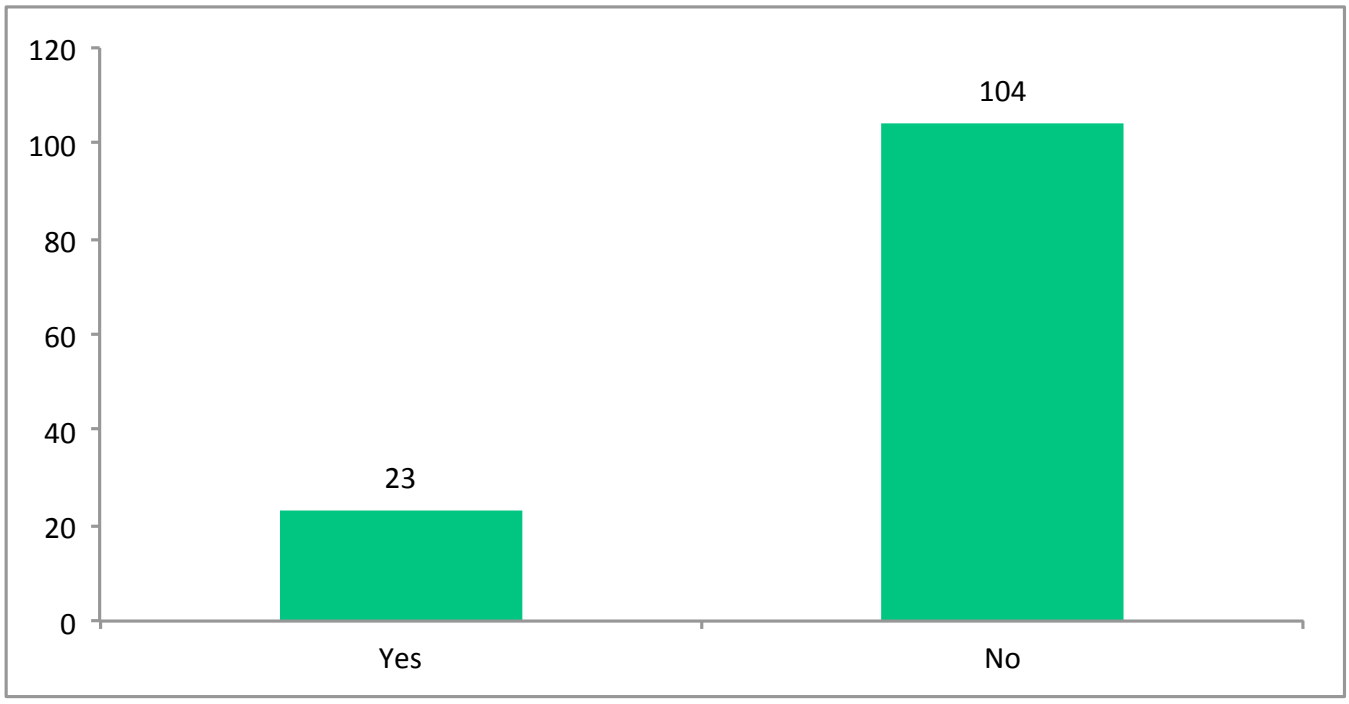
Question 7

If no, why not? (Mark all that apply)



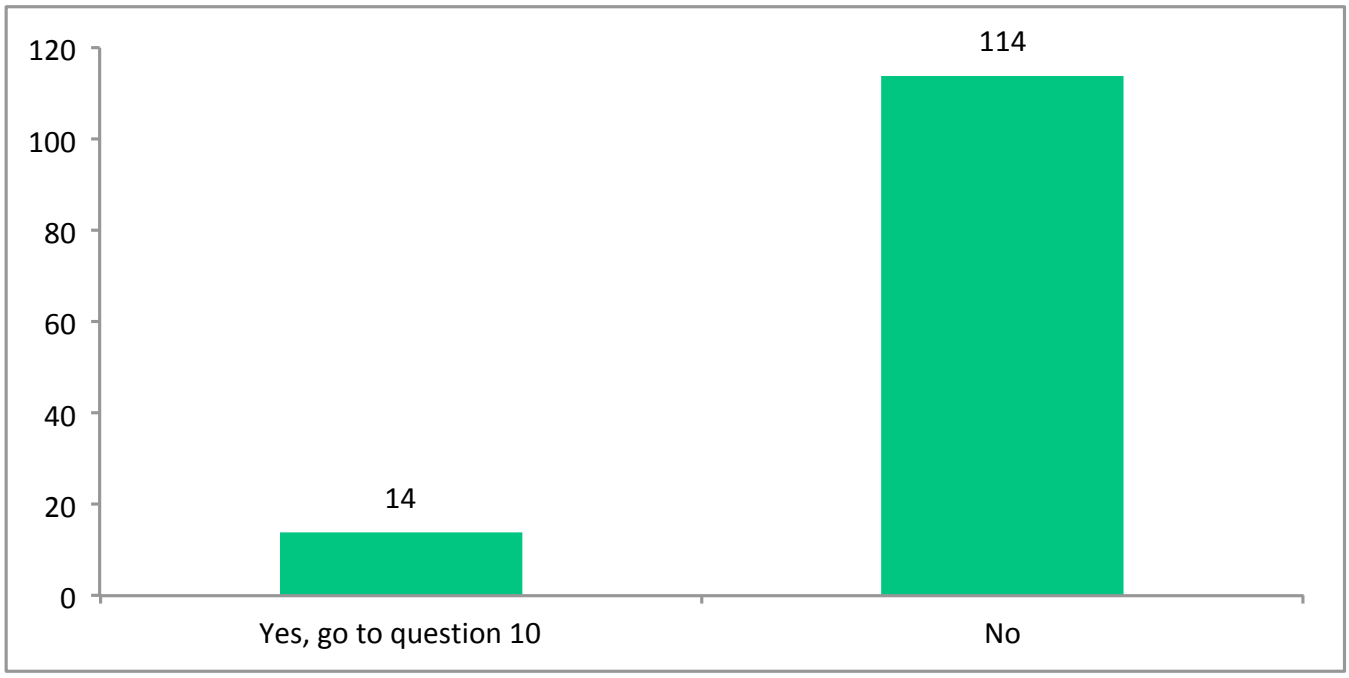
Question 8

In the last 12 months, have you needed mental health services (counseling or other help)?



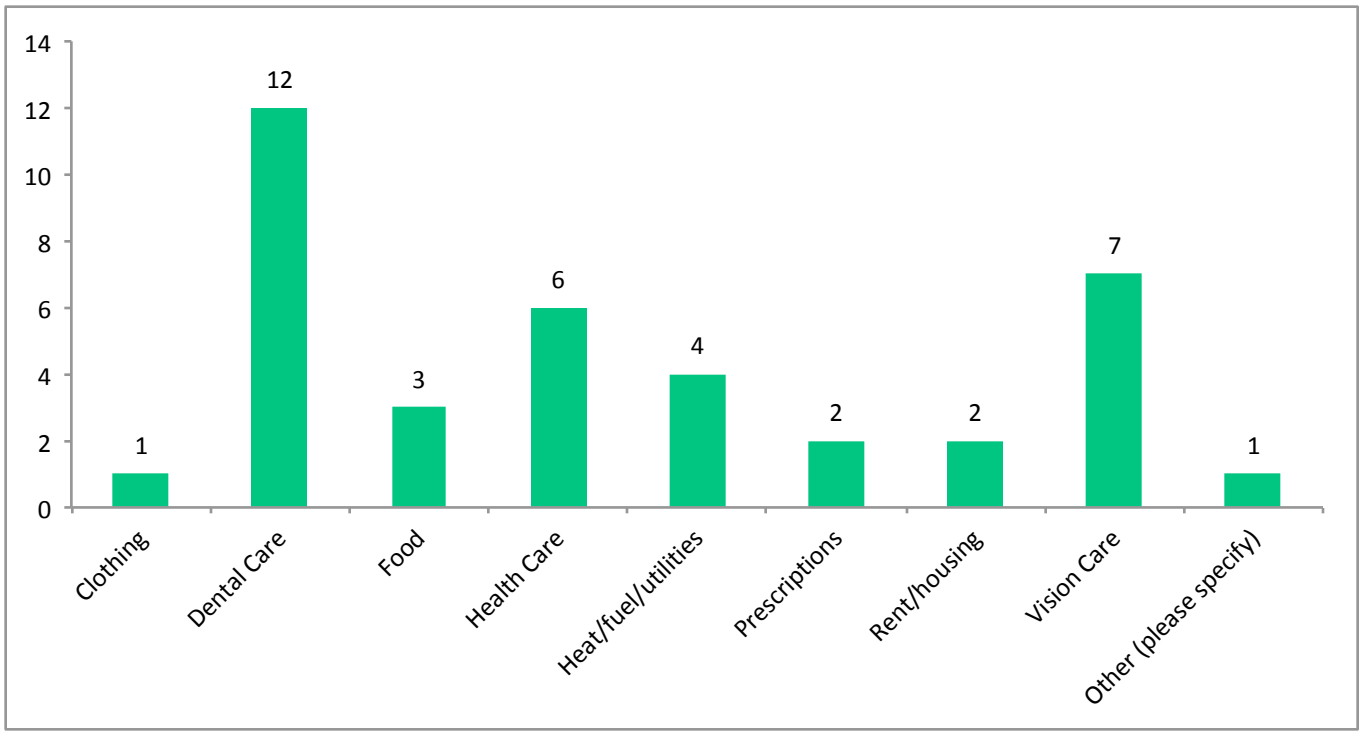
Question 9

In the last 3 months, did you or your family have to go without basic needs such as food, utilities, or clothing?



Question 10

If yes, what did you go without? (Select all that apply)

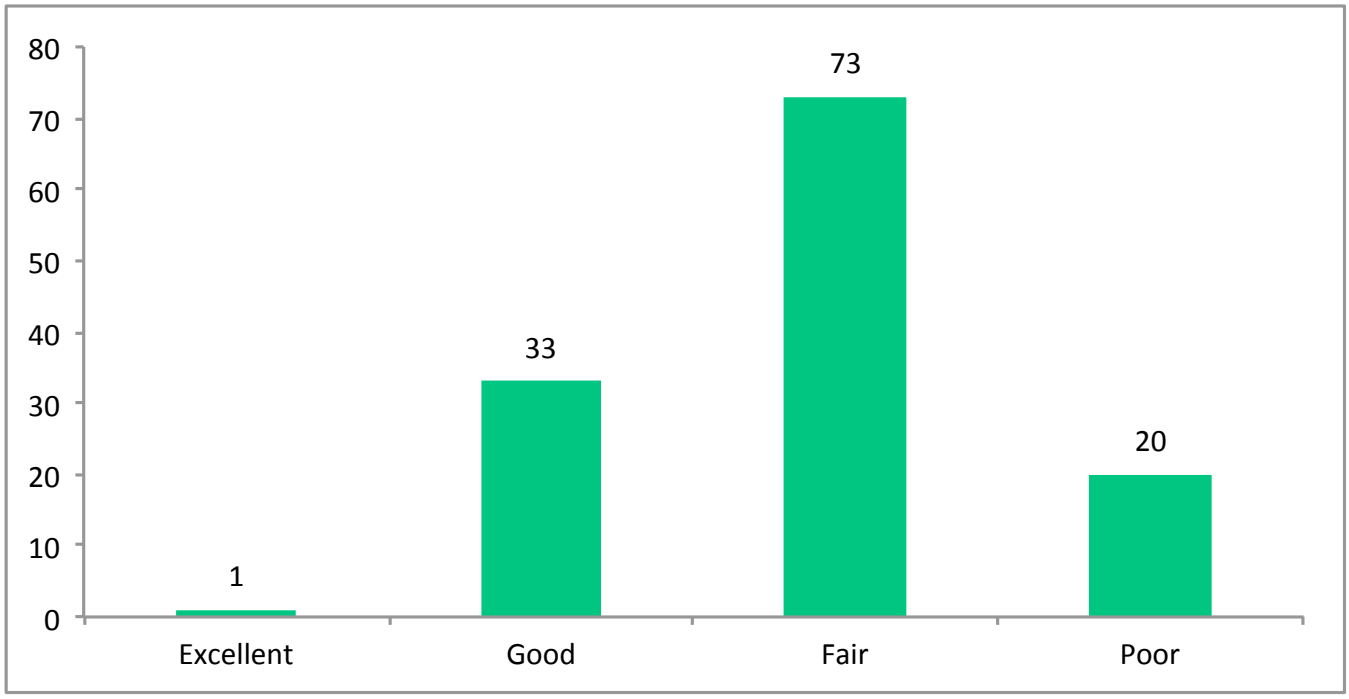


Other Responses:

- Peace of mind

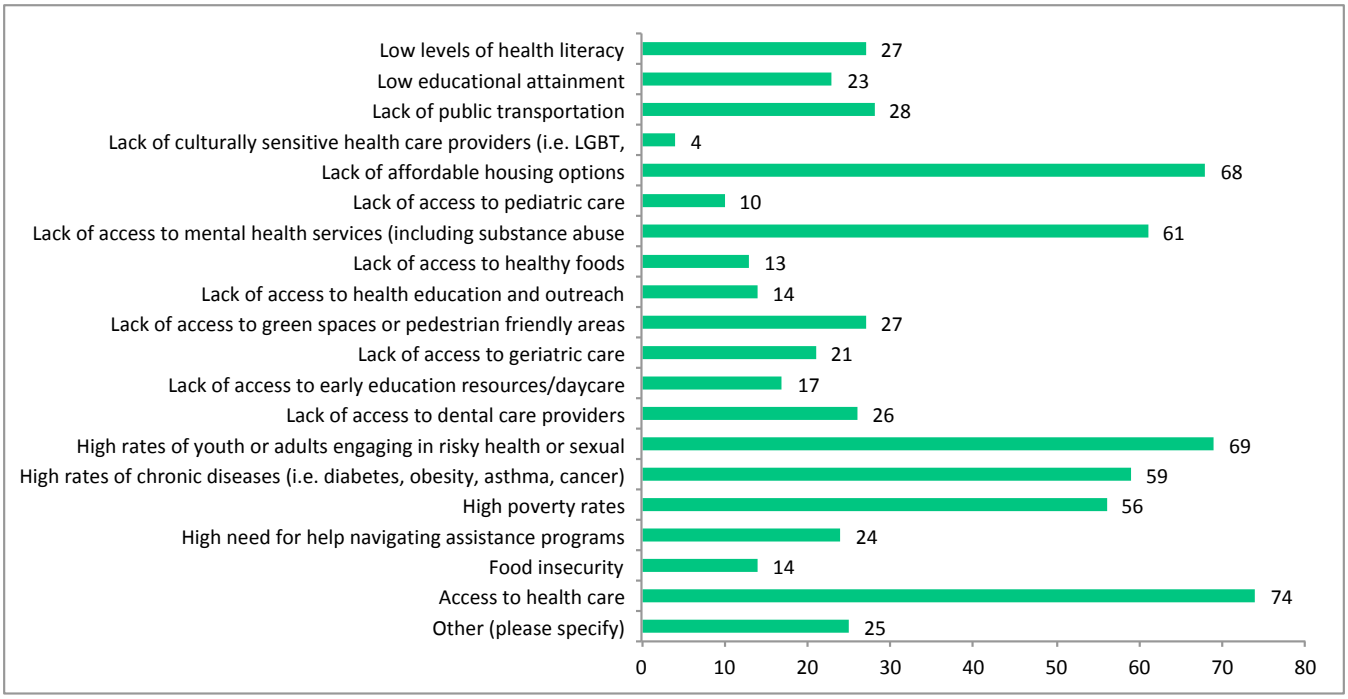
Question 11

How would you rate the health of your community?



Question 12

What do you believe are the top 5 health or social issues in your community?

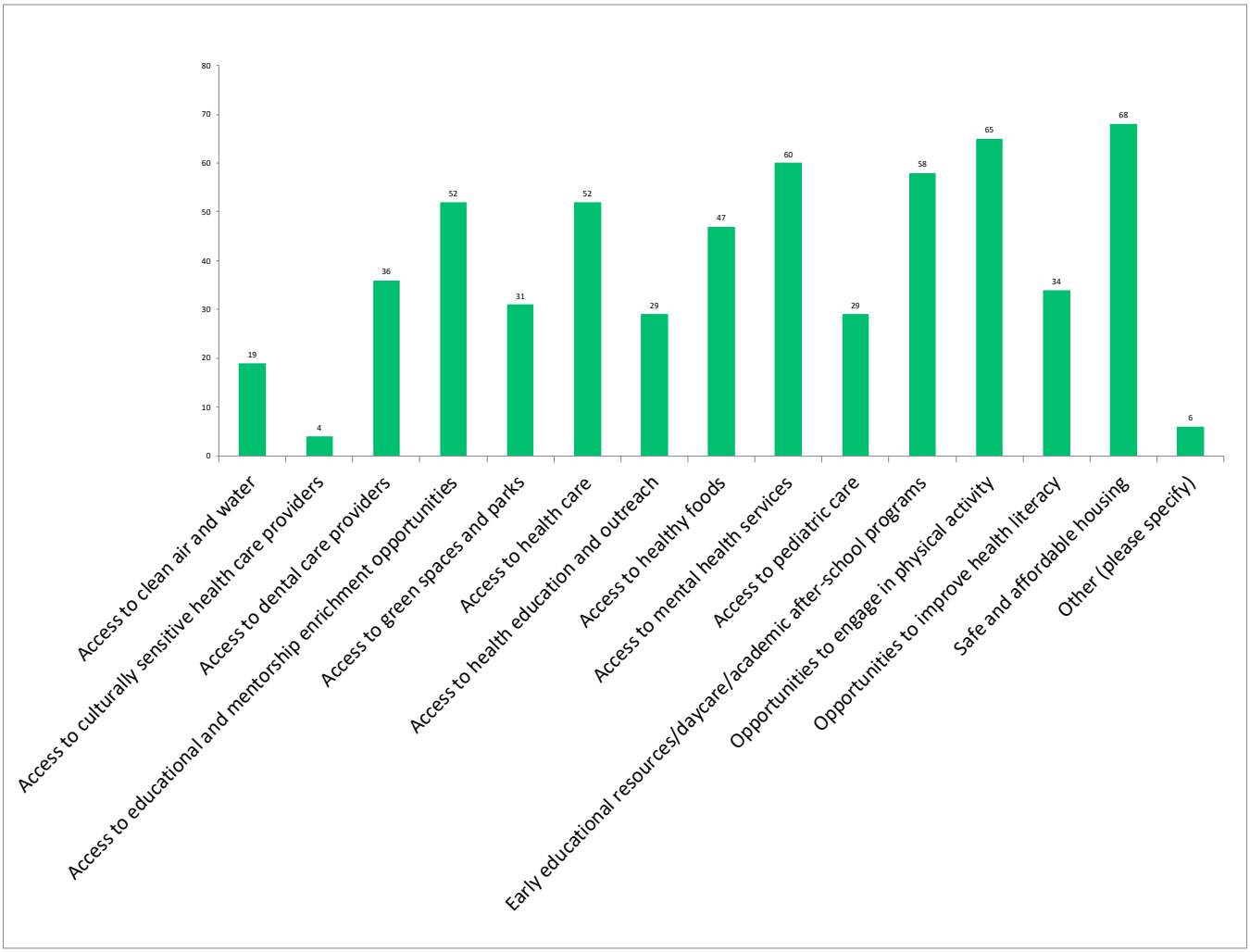


Other Responses:

- Lack of caring by AHS employees
- Homelessness
- Poor access to pediatric care and womens health
- Lack of a hospital that does not discriminate by a person's size
- In hospital dialysis here at this hospital
- Not enough doctors accepting new patients
- Illegal drugs in the Community,Marijuana use is unhealthy
- Number 1 Health problem in Tuolumne County that affects everyone is the drugs!
- Low Quality of Medical Care
- Lack of family care doctors
- Lack of indoor therapeutic pool for the people with chronic diseases

Question 13

What do you believe are the top 5 greatest needs of children in your community?

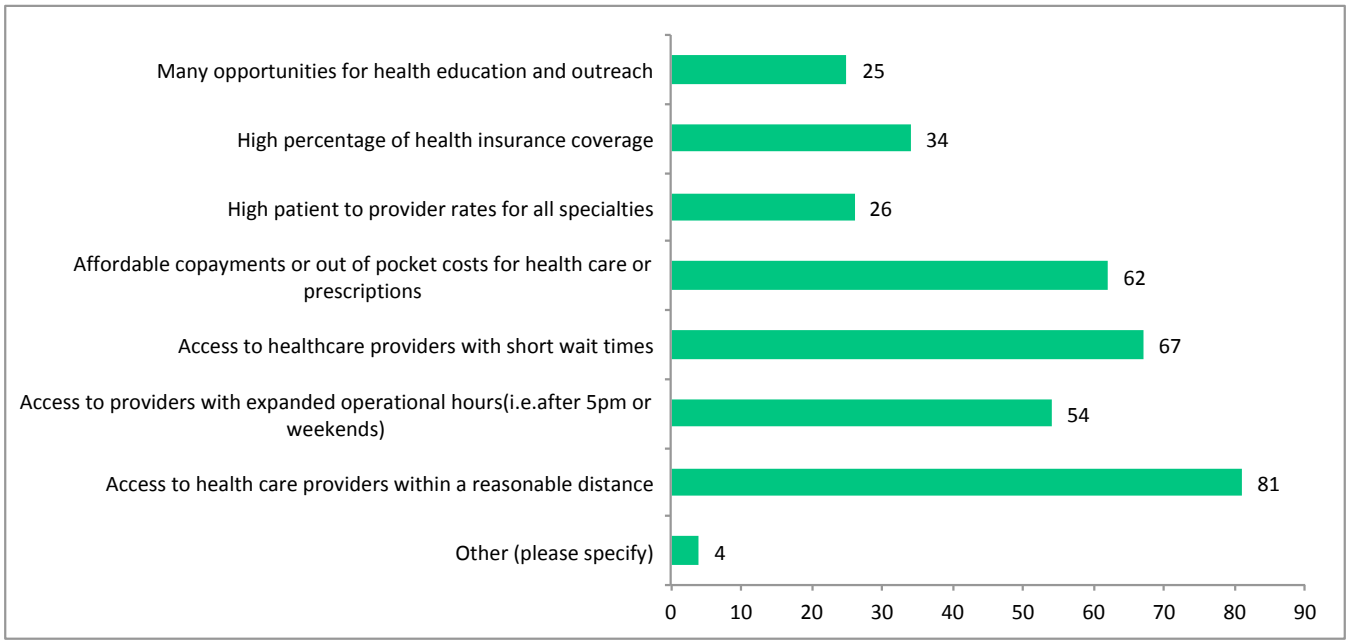


Other Responses:

- Access to immunizations for children
- lack of parents who want work and be good parents
- We NEED a good recreation center like a YMCA or something
- More emphasis on Science & Technology in schools. Also more home & family economics.
- Keep Drugs and repeat drug offenders out of our community
- Drug abuse counselors and rehabs are needed in Tuolumne County.

Question 14

What do you believe are aspects from a hospital perspective that contribute to people's health in a positive way? (Select the top 3)

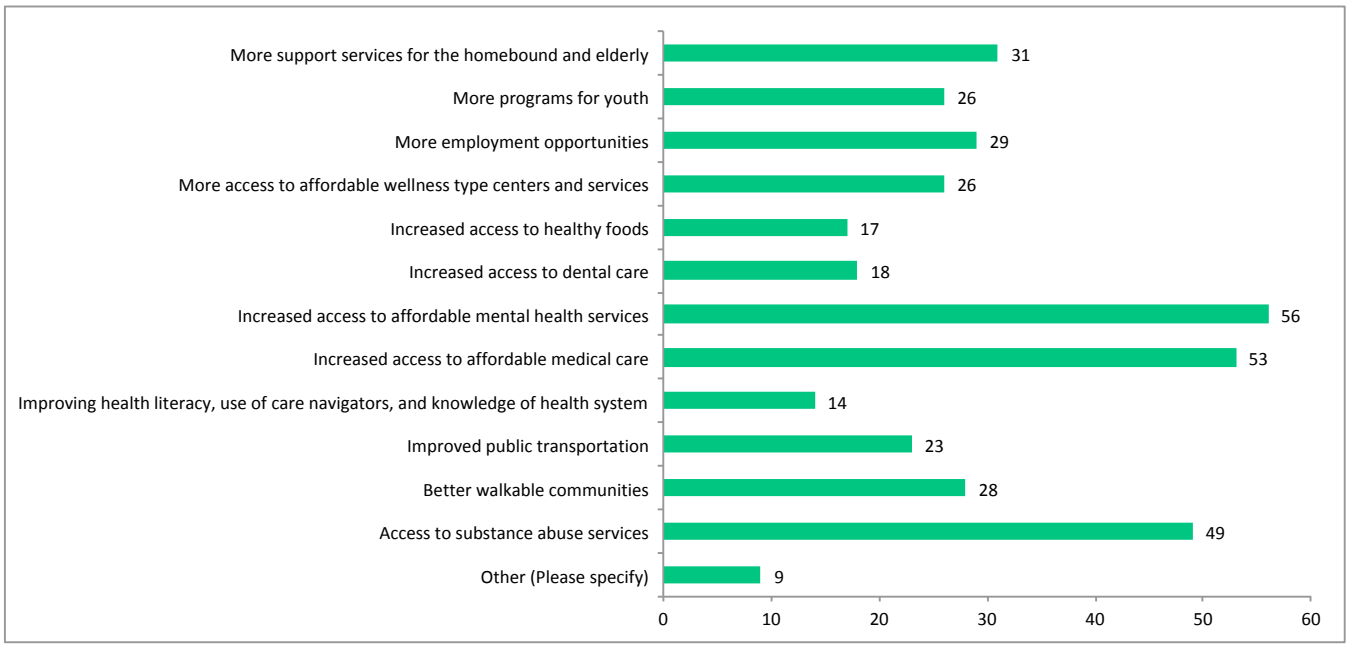


Other Responses:

- Access to in-network emergency care. Contracting with ER providers rather than employing them means almost no one in the county has access to in-network care in an emergency.
- More general practitioners and family practice doctors
- Reporting and making drug users accountable
- More doctors who care

Question 15

What do you believe are ways to improve people's health in your community? (Please select the top 3)

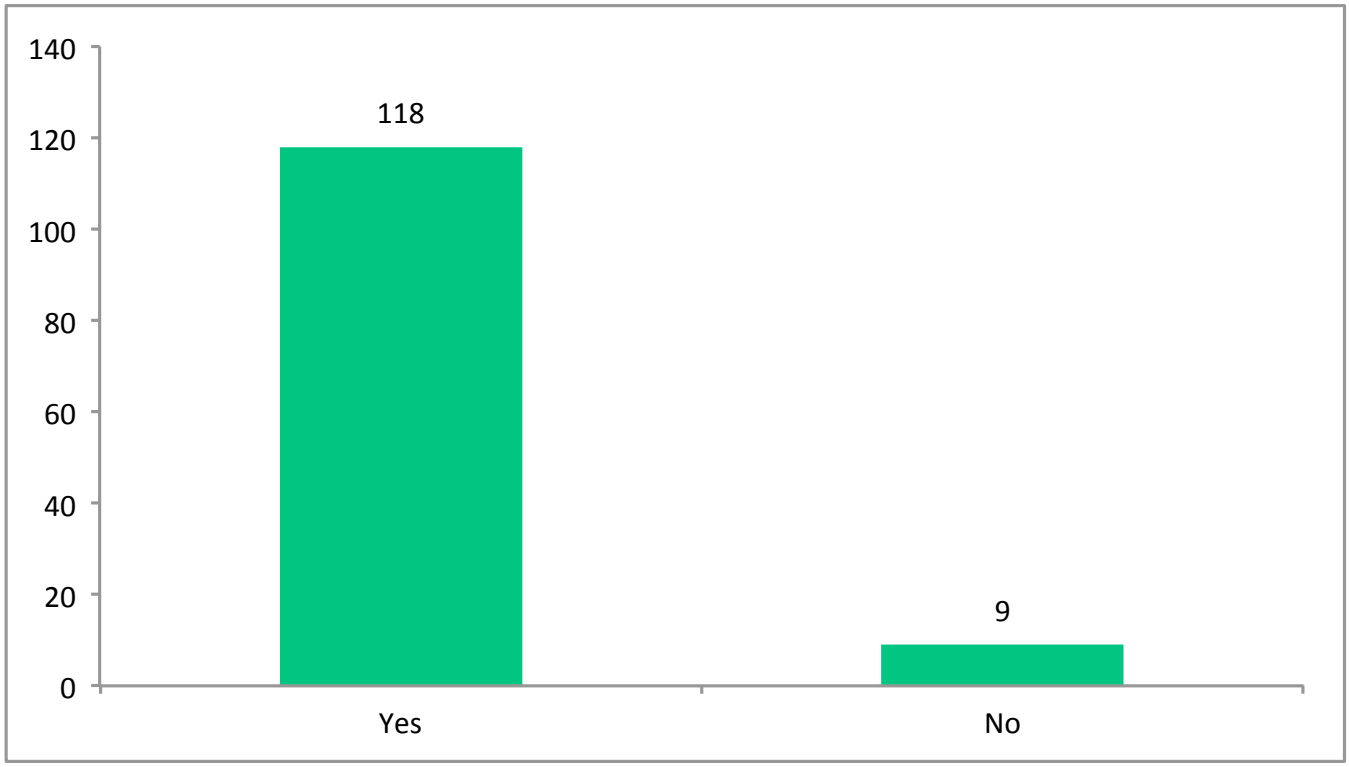


Other Responses:

- Welcoming hospital enviornment
- Increase acces to pediatric visits and immunizations without long waits
- In hospital dialysis at your hospital
- More parks/recreation
- Stop alcohol sales to the homeless
- Keep drugs out of the community
- More doctors
- Drug education enforced in our public schools.
- Increase availability for doctor visits, before or after lunch

Question 16

Do you live in Tuolumne County?



Appendix F: Asset Inventory and Community Resources

Aegis
All Saints Catholic Church
Amador Tuolumne Community Action Agency
Anthem
Area 12 Agency on Aging
Calaveras Mentoring Foundation
California Health and Wellness
Carlene Maggio
Catholic Charities
Chapel in the Pines
Christian Heights Assembly of God
Church of the 49ers
Columbia Church of the 49ers
Columbia College Nursing Program
County Schools
Emergency Medical Services
First Congregational Church – Murphy's
First Five
Foothill Community Church – Angels Camp
Gianelli Law
Greeley Hill Seventh-day Adventist Church
Groveland Seventh-day Adventist Church
Heritage Christian Church
Infant Child Enrichment Services
Interfaith Community Services
Kiwanis Club of Sonora
Lake Tulloch Bible Church – Copperopolis
Matheisen Clinic
Medication Assisted Treatment (MAT) Clinic
Mt. Calvary Lutheran Church
Probation
Rivers of Life Christian Fellowship
Saint Patrick's Catholic Church
Sierra Bible Church
Sierra Emergency Medical Group
SOAR (SSI/SSDI Outreach Access Recovery)
Sonora Baptist Church
Sonora Elks
Sonora Police Department
Sonora Senior Center
Sonora Seventh-day Adventist Church
Sonora United Methodist Church
Soulsbyville United Methodist Church
Spiritual Roads Incorporated
St. Mathew Lutheran Church
Suicide Prevention Taskforce
TeenWorks Mentoring
Tuolumne Band of Me-Wuk Indians
Tuolumne County Behavioral Health
Tuolumne County Courts
Tuolumne County Economic Development Authority
Tuolumne County Human Services Agency
Tuolumne County Medical Society
Tuolumne County of Public Health
Tuolumne County of Superintendent of Schools Office
Tuolumne County Public Health Department
Tuolumne County Sherriff's Office
Tuolumne County Social Services
Tuolumne County Superintendent of Schools
Tuolumne County Transit Authority
Tuolumne County Transportation Council
Tuolumne MeWuk Indian Health Clinic
Twain Harte Bible Church
Word of Life Fellowship
YES Partnership

Adventist Health
Sonora

1000 Greenley Road
Sonora, California 95370