Community Health Needs Assessment

Alexander Valley Healthcare

2025

Future Health and Wellness Center

Alexander Valley Healthcare

Feel Good... We Have You Covered

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Credits and Suggested Citation

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Suggested citation:

John Severson & Associates, *Community Health Needs Assessment: Alexander Valley Healthcare 2025* (Cloverdale, Calif.: Alexander Valley Healthcare, Sept. 2025).

Front Cover illustration: Artist's rendering of the planned future Alexander Valley Health and Wellness Center in Cloverdale, prepared by Stromberg Architecture, Berkeley, Calif., *http://www.strombergarchitecture.com*.

EXECUTIVE SUMMARY

Overview

Coppertower Family Medical Center (dba) Alexander Valley Healthcare (AVH) has conducted a community health needs assessment every two to three years since 2011, using a wide range of external community data sources as well as data from its own electronic health record system. These needs assessments have been used by the AVH board, staff, and community partners in strategic planning and program development.

This report updates the 2022 needs assessment, using the latest community health data, more recent economic data, current electronic health record data, and more recent U.S. Census Bureau's five-year American Community Survey estimates for 2019-2023.[1]

AVH's 2022 needs assessment identified the need for a new, larger facility to serve AVH's expanding patient population. This 2025 needs assessment tracks the continued evolution of the health center's service model and its adaptation to serve more high-risk patients.

The 2022 needs assessment was significant for documenting AVH's efforts during the SARS-CoV-2 (COVID-19) pandemic. It also contrasted data from the last two years (2018–2019) prior to the COVID-19 pandemic with the first two years (2020-2021) as the pandemic faded, creating a platform for measuring impacts of that pandemic going forward. This 2025 needs assessment also addresses some of the lingering impact on AVH staff and community since.

Population Served

Coppertower began in 1994 as a response to survey documentation of an inadequate supply of physicians and other health professionals accepting low-income Medi-Cal, Medicare, or uninsured patients. The organization secured designation of low-income area patients as a Medically Underserved Population (MUP), which allowed Coppertower to be federally designated as a rural health clinic (under PL 95-210) and later a Section 330 grant-funded Federally Qualified Health Center (FQHC).

[1] Unless otherwise indicated, population data in this report are based on U.S. Census Bureau American Community Survey 5-year estimates, 2019–2023. Comparisons made between that five-year period and the 2014-2018 five-year ACS are cited in the text or footnotes.

In the years since AVH's founding, other physicians retired or relocated, leaving AVH the service area's sole medical provider. AVH began seeing more insured patients while remaining the only dental and behavioral health organization that serves uninsured, Medi-Cal, and Medicare patients. Today, one in five of AVH's patients has private insurance – either through their employer or through direct purchase. However, many of these privately insured patients are underinsured, meaning they either have gaps in the services their insurance covers or have high deductibles, copayments, and other out-of-pocket costs they cannot afford.

As a FQHC, AVH continues to offer a sliding-scale discount system that helps uninsured or underinsured low-income patients access the care they need at a cost they can afford, based on their income and household size.

Caring for Vulnerable Populations

In the 2022-23 period, AVH served **5,331** unduplicated patients. Of those patients:

- **77.1%** were low-income
- **20.8%** were uninsured
- **2.6%** were experiencing homelessness
- **47.0%** were ethnic or racial minorities
- **25.7%** had limited English proficiency
- **3.2%** were veterans
- **6.3%** were migrant or seasonal agricultural workers
- **18.3%** were children or adolescents
- **19.7%** were women of childbearing age
- **21.1%** were seniors

CHRONIC CONDITIONS

In the past two years, **half** of all AVH patients (50 percent) had one or more chronic medical or mental health conditions:

- **36.6 percent** of patients (1,953) had **one or more chronic medical conditions**, such as hypertension, overweight or obesity, chronic pain, diabetes, asthma, heart disease, or chronic lower respiratory disease.

- **32.6 percent** of patients (1,739) had **one or more chronic mental or behavioral health conditions**, such as depression, anxiety disorders (including PTSD), substance use disorders, attention deficit disorders, or other mental health conditions.
- **19.2 percent** of all patients (1,024) had BOTH **one or more chronic medical AND one or more mental health conditions**.

COLLABORATION IN A RURAL AREA

As a sole medical provider in a rural portion of a geographically large county, AVH faces the issue that its area lacks the other resources that help make up a "whole delivery system".

There are no sub-specialists in the service area, no emergency room, no hospitals, no radiology, no mammograms, limited lab services, no physical therapy, no sports medicine, no dietitian or nutritionists, few social services, and only one skilled nursing facility.

AREA RESIDENTS AT RISK

Residents of the AVH service area face a number of social and economic **barriers to health and wellness** and/or their ability to receive health care, including:

- **High cost of housing**: An estimated 54.7 percent of service area residents spend more than 30 percent of their income on housing.[2]

- **High cost of heating and cooling**: The two most common fuels for heating and cooling rental housing in the service area are utility/natural gas (46.1 percent) and electricity (32.6 percent).[3] Both fuels are more costly in California than nationally. In December 2024, natural gas was $20.25 per thousand cubic feet in California, and only $12.99 nationally[4]. **The average residential electricity rate in California is 26.84 ¢/kWh**, more than twice the national average of 12.89 ¢/kWh.[5]

- **Overcrowded and substandard housing**: Using the U.S. Census benchmark of more than one person per room, 8.4 percent of service area rental housing is estimated to be

[2] U.S. Census Bureau American Community Survey 5-year estimates, 2019-2023, Table S2501.

[3] Ibid.

[4] U.S. Energy Information Administration (EIA).

[5] *https://www.electricchoice.com/electricity-prices-by-state/,* April 22, 2025

overcrowded, compared to 6.3 percent of rental housing nationally.[6] Of the 296 mobile homes in the service area, 70 percent are renter-occupied, and 30 percent are owner-occupied.[7] The Census also estimates that 2.6 percent of area rental housing lacks complete plumbing and 2.5 percent of rental units lack complete kitchen facilities. [8]

- **Food insecurity**: In 2023, an estimated 11.4 percent of Sonoma County residents, 15.6 percent of Mendocino County residents, and 16.3 percent of residents of Lake County were living in households that met the USDA definition of "food insecure."[9]

- **Higher food costs**: In 2023, the USDA average meal cost per person in Sonoma County was $4.56 per meal, 25.6 percent higher than the $3.63 per-meal average cost for California as a whole. Average food cost per meal was also higher than the State in neighboring Mendocino and Lake counties ($4.23 and $4.16 per meal, respectively). [10]

- **Free or reduced-price school lunch**: 56.7 percent of students in the Cloverdale Unified School District qualify for free or reduced-price school lunches.[11]

- **Lack of Internet access**: According to the Census, 9.1 percent of households in the AVH service area lack broadband internet access, compared to 6.5 percent of Sonoma County as a whole, which prevented those households from using telehealth virtual visits and also interfered with students' virtual attendance at school during the COVID-19 pandemic.[12] Recognizing the disparity in access to internet services in parts of the AVH service area, the Sonoma County Board included construction of additional network coverage in the low-income neighborhood of East Cloverdale as part of the

[6] U.S. Census Bureau American Community Survey 5-year estimates, 2019-2023, Table S2504

[7] Ibid.

[8] Ibid.

[9] Feeding America, Map the Meal Gap, "Food Insecurity among Overall (all ages) Population in California," as of March 21, 2021, *https://map.feedingamerica.org/county/2020/overall/california*.

[10] Ibid.

[11] California Dept. of Education, Free or Reduced-Price Meal (Student Poverty) Data; National Center for Education Statistics, Digest of Education Statistics (Jul. 2021), as cited on kidsdata.org, a program of Population Reference Bureau.

[12] U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023 Table S2504

federal broadband funding package. It is estimated that this will bring access to an additional 298 households. [13]

- **Isolation**: The service area has a significant population living in isolated living arrangements. The ACS estimates there are **1,307 householders living alone, 22.3 percent of all service area households**. This includes 714 solo male households and 593 solo female households. **Of these solo householders, 61.8 percent were over age 65.**

- **Limited public transportation**: Cloverdale is the only community in the service area with any local bus transportation. That service consists of Cloverdale Shuttle Route 68. This route is entirely on the west side of the Highway 101 freeway, which divides Cloverdale, making it less accessible to the large lower-income population in eastern Cloverdale.

- Bus service to larger cities such as Healdsburg, Windsor, and Santa Rosa is very infrequent, creating barriers to hospital and specialist care in central Sonoma County. Once or twice a day, Amtrak bus service connects Cloverdale to Ukiah, California, the main hub of hospital care in Mendocino County.[14]

- **Private Automobile Dependence**: In addition to this limited bus service, Cloverdale has no local taxi service, and no ride-hailing /ride-share services such as Uber®, Lyft®, or Waymo®. Nor is there any home delivery service such as DoorDash®. This has made the area heavily automobile dependent. That is a barrier to health care and other services for the 3.9 percent of all service area households with no available vehicle.[15] An additional 33.8 percent have only one vehicle available.[16]

- **Transportation to work is costly**: An estimated 74.6 percent of employees in the service area commute alone by car or truck.[17] For those dependent on cars for transportation, gasoline is costly. As of April 1, 2025, the price of regular gasoline in California was around $4.85 U.S. dollars per gallon, the highest state average in the nation. This was some $1.6 dollars above the national average of $3.2 U.S. dollars.

[13] Economic Development Collaborative, County of Sonoma, File #2024-1331, 10/30/2024

[14] *https://www.rome2rio.com/s/Cloverdale-Sonoma-County-CA-USA/Ukiah*

[15] Ibid.

[16] Ibid.

[17] U.S. Census Bureau American Community Survey 5-year estimates, 2019-2023, Table DP03

- **No regular source of care**: 55.2 percent of uninsured residents of Sonoma County are without a regular source of healthcare, compared to 53.9% of uninsured persons statewide.[18]

AVH Model of Care

FQHCs accept both public and private insurance and offer sliding-scale discounts based on income and family size to patients who are uninsured or between coverage. This approach was designed to address the financial instability that low-income patients often face. Additionally, since FQHC patients can continue to be seen by the same group of providers despite changes in coverage, this financial model improves continuity of clinical care.

AVH has built its own clinical care model on top of this FQHC financial framework, with the same goal of continuity of care.

AVH encourages patients to establish "health homes" with AVH provider teams. And medical, dental, and mental health care teams work in tandem to achieve "whole person" care. Through coordination between teams or referrals to outside providers when needed, AVH encourages patients to use the full range of services they need to improve their health and wellness rather than only seeking care for a current illness or injury.

Patients' medical care is organized around **physician-led teams** which include nurse practitioners, nurses, case managers, referral coordinators, and medical assistants. These teams focus on health promotion and managing chronic conditions as well as treating critical health problems.

This model is built on **establishing relationships** between patients, providers, and their support teams. The goal is for staff to get to know patients and patients to come to trust their care teams. To that end, patients usually select a regular provider, and providers usually have regular assigned support staff. If a patient has lab results, or has fallen behind on screenings, lab work, or rechecks (e.g., blood pressure re-checks), it is the familiar support staff or provider from the patient's own care team that contacts the patient to follow up.

Care teams also address economic or social barriers to health by providing financial assistance staff who can assist patients with enrolling in Medicare; Medi-Cal; CalFresh (California's SNAP

[18] California Health Interview Survey (CHIS), UCLA Center for Healthcare Policy Research, 2021,2022,2023 pooled data. Retrieved from Ask CHIS, *http://ask.chis.ucla.edu/ask/*.

/food stamp program); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); or housing assistance programs as needed.

Care teams are supported by AVH's electronic health record system, which is used to report health outcomes, flag patients who are due for a particular recheck, screening, lab test, or follow-up care. Prescriptions are ordered through the e-prescribing section of the system, while lab tests are ordered and lab results received electronically and directed to the patient's record, with a notification automatically sent to their provider. Patients can contact their provider or care team members via AVH's online patient portal as well as by phone.

Using a two-year state grant, AVH has expanded its care management staffing and is addressing high-risk, complex dual-diagnosis patients at risk of repeated emergency department use, hospital admission, and readmission. This high-risk population includes patients who have been experiencing homelessness, have cognitive as well as physical disabilities, or both mental health and medical diagnoses. These are cases that are particularly costly to the Medi-Cal and Medicare programs.

AVH has evidence to show that its model has been working:

- The National Committee on Quality Assurance (NCQA)[19] recognized AVH as a Level 3 Patient-Centered Medical Home.
- AVH has received both Health Center Quality Leader and Advancing Health Information Technology for Quality recognition from the Health Resources & Services Administration (HRSA), the agency that funds FQHCs.
- In 2019, AVH was honored as a Hypertension Control Champion as part of the Million Hearts national initiative co-led by the Centers for Disease Control (CDC) and the Centers for Medicare & Medicaid Services (CMS).

Response to COVID-19 Pandemic

AVH has a history of disaster planning and preparedness, beginning with the 2009 H1N1 (swine flu) pandemic. AVH clinicians anticipated and responded early to the COVID-19 pandemic,

[19] The National Committee on Quality Assurance (NCQA) is a national healthcare accreditation organization, headquartered in Washington, D.C., which reviews and accredits health plans' and providers' quality of care. See *https://www.ncqa.org/about-ncqa/*.

conducting the first staff COVID-19 test in December 2019 and the first patient COVID-19 test in January 2020. (Sonoma County recorded its first confirmed COVID-19 case on March 2, 2020.)

AVH established community-wide COVID-19 testing a few months later at an off-site location to keep symptomatic patients from infecting non-infected patients.

In March 2020, state and local public health officials issued "shelter in place" orders and restricted nonessential healthcare visits. On the recommendation of the California Dental Association (CDA), all non-emergency dental services were suspended by public order. Many patients in each care department chose to remain at home.

AVH launched its first telehealth services for medical and mental health visits and established data connections to ensure that all remote and virtual services could be captured in the health center's electronic health record system and accessed by providers working remotely. In the five years since, AVH has delivered 14,592 telehealth medical visits, 12,352 telehealth mental health visits, and 2,523 telehealth enabling visits.

When COVID-19 vaccines became available, AVH established community-wide vaccination sites at the Cloverdale train station parking lot, administering more than 15,000 vaccine doses. According to Sonoma County estimates,[20] as of Oct. 2, 2021, 87.7 percent of eligible residents of the Cloverdale ZIP Code were fully vaccinated, and an additional 9 percent were partially vaccinated. In the Geyserville ZIP Code, 89 percent of eligible residents were fully vaccinated, and 11 percent were partially vaccinated as of that date.[21]

On May 21, 2021, the Cloverdale Chamber of Commerce and the Sonoma County Economic Development Board honored AVH for its vaccination effort with a ***Spirit of Sonoma Award.***

However, all of these COVID-19 pandemic efforts had a substantial impact on the health center itself. AVH lost both providers and clinical support staff due to a combination of pandemic-related and family factors. As providers and support staff left, the workload on the remaining staff grew increasingly severe until replacements could be hired, triggering further resignations.

[20] Sonoma County Coronavirus Data Dashboard, *https://socoemergency.org/emergency/novel-coronavirus/coronavirus-cases/*.

[21] Later vaccination data for the service area is not available on a per-ZIP Code basis, but as of Oct. 7, 2022, the Sonoma County dashboard estimates that 78 percent of the county's population is fully vaccinated and 66.2 percent of eligible residents (i.e., aged 5 or older) have received at least one COVID-19 booster dose.

Limitations of Current Facilities

If AVH had had sufficient facilities and a larger staff, much of this extra workload could have been spread across more providers and support staff, lessening the impact on its small number of individual staff members.

AVH's past community needs assessments found that the capacity of existing medical and dental facilities was a major barrier to AVH's continued growth, essentially capping patient volume at 4,000 to 4,200 per year due to the limited number of available medical exam rooms, dental operatories, and counseling rooms. This limited space prevented hiring additional providers to expand service volume.

However, as documented in the "Service Patterns" chapter of this and the earlier 2022 AVH Community Needs assessment, demand for AVH's services has continued to increase. The gap between staffing capacity and the number of patients who look to AVH for primary care had become a significant obstacle to the goal of enabling all patients to establish a true medical home at AVH, rather than only seeking episodic care when ill.

AVH has taken a number of steps to maximize utilization of existing space, including establishing longer clinical hours five days a week to make greater use of exam rooms; expanding phone and internet contacts with patients; using secondary modular buildings for some administrative functions; and restructuring the interior layout of both the medical clinic building and the dental clinic building.

The pandemic exacerbated the problems of inadequate space. Due to space constraints, AVH initially had difficulty establishing a clear separation of patient flow between symptomatic patients coming in for COVID-19 testing and healthy patients coming in for routine care, screenings, or vaccination.

Despite these obstacles, AVH increased the number of unduplicated patients served during the 2020–2021 period by 4.3 percent compared to the two prior years, 2018–2019. As previously noted, this expansion was largely made possible by AVH's initiation of its first telehealth services in early 2020.

Patient acceptance of telehealth has been positive. Patients appreciate the reductions in lost work time and the convenience of not having to travel to the health center. Telehealth also allowed some staff to work from home.

However, some services can only be provided in person (e.g., dental care, medical screenings, childhood and adult vaccinations, and lab tests). A clinical backlog of such in-person-only services has developed since the pandemic began. The limits on space and staffing made it difficult to catch up on that backlog, despite these services being essential parts of AVH's care model.

Facility Growth Opportunities

Alexander Valley Healthcare has already developed plans to replace its now-outgrown facilities. However, this will require new construction, as there is no existing building of suitable size or location available for use or remodeling in Cloverdale. Land for the new facility has been purchased, designs have been developed, and city planning approval is underway.

The planned site is located on the local bus route, close to freeway exits, and adjacent to the Cloverdale Citrus Fairgrounds, which are used as a staging area and temporary shelter during natural disasters. AVH plans to have the new facility store emergency supplies and equipment in collaboration with area emergency response teams, continuing AVH's disaster-preparedness efforts.

The planned new facility is designed to serve as a "hub" for an expanded range of healthcare services in the mostly rural areas of northern Sonoma County, southern Mendocino County and southern Lake County. The 26,233 square foot facility would be large enough to:

- Allow 8,000 or more patients to be seen annually;
- Combine AVH's medical, dental, and behavioral health services in one location to allow better integration of services and improve providers' ability to cross-refer patients;
- Allow co-location of other health services such as WiC, a pharmacy, or a medical lab;
- Allow co-location of social services in the same facility, including some organizations that AVH is partnering with on social needs that are barriers to care; and
- House new services not currently present in the community, either provided directly by AVH or by other service organizations/providers sharing the site, which current space restrictions would not permit.

PART ONE: Service Area

This chapter describes the location of Alexander Valley Healthcare, its history, relationship to neighboring community health centers, primary and secondary service areas from which it draws its patients, the economics and sources of employment of the area, as well as describing key socioeconomic characteristics of the area that affect the health and wellness of its residents.

Subsequent chapters will examine changes in patient population, service patterns, and community health status since 2022, and future directions for AVH.

Geography

Alexander Valley Healthcare is located in Cloverdale, the northernmost incorporated city in Sonoma County, California. Cloverdale is located along both sides of U.S. Highway 101, the main north/south freeway route that runs from the Golden Gate Bridge through the larger cities in Marin County, Sonoma County, and Mendocino County.

The Russian River, which brings water from northern counties into Sonoma County, passes through the City of Cloverdale on its way to the center of the county before turning west toward the Pacific Ocean. The Russian River is a major source of water for not only Cloverdale but also most of the northern part of the county and much of the county's agriculture.

History

Alexander Valley Healthcare (AVH) was incorporated in 1994 as Coppertower Family Medical Center.[22] The organization was created to provide medical and dental care for low-income Medicare, Medicaid, and uninsured patients in the Cloverdale area who had been federally designated as a Medically Underserved Population (MUP) (ID 00325), based on a survey documenting that local providers were not serving this portion of the community. This MUP designation remains current. AVH is designated as a Primary Care Health Professional Service Area (HPSA), Dental Care HPSA, and Mental Health HPSA. [23]

[22] Coppertower Family Medical Center remains the legal name of the organization, although it is doing business as (dba) Alexander Valley Healthcare.

[23] MUP ID 00325 remains active. Alexander Valley Healthcare also has a federally designated health professional shortage area (HPSA) designation for medical, dental, and mental health providers. See the HRSA website at: *https://data.hrsa.gov/tools/shortage-area/mua-find*

A decade after Coppertower Family Medical Center was founded, the last private practice physicians left Cloverdale. AVH became the **sole medical provider** in the area from Healdsburg to Ukiah, and the only dental or mental health practice in that area accepting Medi-Cal (California's Medicaid program) or uninsured patients. The organization rose to this challenge, moving to larger leased medical and dental clinic sites, welcoming private insurance patients who had lost their private physicians, and adopting the dba name of **Alexander Valley Healthcare** to reflect its growing identity.

In 2013, AVH successfully applied to become a Federally Qualified Health Center (FQHC), a designation that provides both annual grant funding and higher Medi-Cal and Medicare reimbursement rates. AVH has used these new revenues to expand services, including hiring more medical and dental providers, expanding mental health staff, adding substance use counseling, and arranging for contracted pharmacy services.

Collaboration

Alexander Valley Healthcare is one of six FQHCs based in Sonoma County, each serving a part of the county's low-income population. The six FQHCs, all Health Resources and Services Administration (HRSA) grantees, are

- Alexander Valley Healthcare, Cloverdale, CA
- Alliance Medical Center, Healdsburg, CA
- Petaluma Health Center, Petaluma, CA
- Santa Rosa Community Health Centers, Santa Rosa, CA
- Sonoma Valley Community Health Center, Sonoma, CA
- West County Community Health Centers, Inc., Guerneville, CA

Like AVH, Sonoma County's other five FQHCs all began with documentation of insufficient supply of physicians willing to serve low-income patients who were uninsured, or enrolled in Medi-Cal or Medicare, leading to designation of low-income residents in five different parts of the county as medically underserved populations (MUPs) in the period 1994 and 1995. From 2000 to 2013, each of the health centers that developed in these communities became federally granted FQHCs.

In 2024, these six FQHCs reported a total of 118,931 unduplicated patients, nearly one in four (24.5 percent) of county residents. Their 2024 patients included:

- 97,096 patients below 200% of the federal poverty level (FPL), 79,794 under 100 percent of FPL;
- 78,019 Medi-Cal patients,
- 14,034 Medicare patients, and 7,362 both Medicare-Medi-Cal enrollees, and
- 13,913 uninsured patients;
- 64,670 ethnic minority patients;
- 28,159 women of childbearing age (15-44)
- 34,685 children under age 18
- 16,470 patients age 65 and over
- 5,660 people experiencing homelessness,
- 3,367 migrant and seasonal agricultural workers and their families,
- 923 veterans, and
- 810 patients with HIV.

These six FQHCs have been close collaborators through most of their histories,

- They have conducted joint training in such areas as emergency preparedness, managing natural disaster responses, population health, chronic disease management, patient interview skills, advanced scheduling systems, as well as screening for social determinants of health.
- They jointly evaluated and planned for the implementation of **electronic health record systems**, although not all members chose the same system.
- Developed a clinician workgroup led by CMOs that explored how the E.H.R. data would be collected, pooled, and analyzed. This **Quality Improvement Peer Group** shared best

practices, focusing on such areas as diabetes, cardiovascular health, and increasing breast, cervical, and colorectal cancer screening.

- Jointly planned and negotiated participation in a **Medi-Cal managed care plan** as the State of California expanded managed care in member counties.
- Jointly pursued preparation of individual FQHCs as they applied for recognition as patient-centered health homes.
- They jointly conducted **emergency preparedness training** that helped the CHCs' staff better cope with the H1N1 epidemic and the COVID pandemic.

In these efforts, Sonoma County health centers collaborated with FQHCs and other licensed community health centers in a four-county area of Sonoma, Marin, Napa, and Yolo counties to form **Redwood Community Health Coalition (RCHC).** The coalition gained HRSA recognition as a health center-controlled network (H.C.C.N.) and provided a wide range of support to members using foundation, county, state, and federal funding.

In January 2022, RCHC merged with the Community Clinic Consortium, adding health center members in Contra Costa and Solano counties, and growing to 17 health center organizations. On January 1st, 2023, RCHC changed its name to ***Aliados Health*** to reflect the newly merged entity and its new strategic vision for serving its membership. [24]

Aliados Health staff and member CHCs collaborate in four areas:

- **Advocacy** on policies that affect the CHCs' communities and patients.
- **Community Outreach and Enrollment** to help CHC patients access programs such as CalFresh, Medi-Cal, and Covered California ACA insurance coverage.
- **Health Informatics** to support health centers' use of health information technology and population health tools through peer groups, trainings, and analytics to improve population health outcomes.
- **Quality Improvement** initiatives in areas such as prenatal care, chronic disease management, cancer screening, and social drivers of health through shared clinical

[24] Aliados Health's website is found at *https://aliadoshealth.org/*

guidelines, policies, procedures, and protocols, communicated through peer learning networks.

AVH Service Area

The following section focuses on determining whether the service area identified in the 2022 report continues to reflect the area from which AVH draws most of its patients.

DEFINING THE PRIMARY SERVICE AREA

The HRSA Bureau of Primary Health Care (BPHC), which oversees FQHCs, defines the "service area" of an FQHC as the set of ZIP Codes in which **at least 75 percent of the health center's patients reside**.

BPHC requires that each FQHC annually review its service area boundaries to determine whether that service area continues to accurately reflect where the health center's patients reside and to assess whether there are other geographic areas in the region whose residents may also need healthcare services.

Historically, the principal AVH service area has included three ZIP Codes: two in northern Sonoma County and one continuous ZIP Code in Mendocino County:

- **Cloverdale:** ZIP Code 95425 (in Sonoma County)
- **Geyserville:** ZIP Code 95441 (in Sonoma County), and
- **Hopland:** ZIP Code 95449 (in Mendocino County).

In its community needs assessments, AVH examines patient origin data in two ways:

Studying the ZIP Codes of residence of all unduplicated users in a single calendar year.

Analyzing the residential ZIP Codes of all unduplicated users in the most recently completed two-calendar-year period.

Examining **two years** of unduplicated patient data has proven an accurate means of identifying all of the patients who look to AVH as their **principal source of care**, including those who do not have a face-to-face encounter with a licensed provider every year. Still, it may use other services during that period. This multi-year assessment process is also a valuable method for identifying patients with active or chronic health problems who may be underutilizing services.

These considerations have become more urgent in the wake of the COVID-19 pandemic, which created a clinical backlog of services (e.g., dental prophylaxis, well-person visits, immunizations, chronic disease check-ups, lab tests) that were missed or postponed due to the public health emergency while increasing the need for case management and lab work.

Both the one-year and two-year data confirm that the three ZIP Codes that comprise the historical AVH service area continue to be the source of more than 75 percent of its patients.

- **One-year profile:** As reported in its Uniform Data System (UDS) report, AVH served 4,188 unduplicated patients in 2024, of whom 3,247 (77.5 percent) were residents of the three service area ZIP Codes; 3,096 (73.9 percent) were residents of the Cloverdale ZIP Code, 95425.

Table 1. AVH Patients by ZIP Code/ZIP Code Tabulation Area (ZCTA), 2024

ZIP Code	Post Office Name	Number of Patients*	Percentage of Patients in Service Area	Percentage of All Patients
95425	Cloverdale	3,096	95.3%	73.9%
95441	Geyserville	83	2.6%	2.0%
95449	Hopland	68	2.1%	1.6%
Subtotal	Service Area	3,247		
TOTALS	**N/A**	**4,188**	**100.0%**	**77.5%**

* Patients whose complete addresses were known

Table 2. Total AVH Patients, 2020–2021

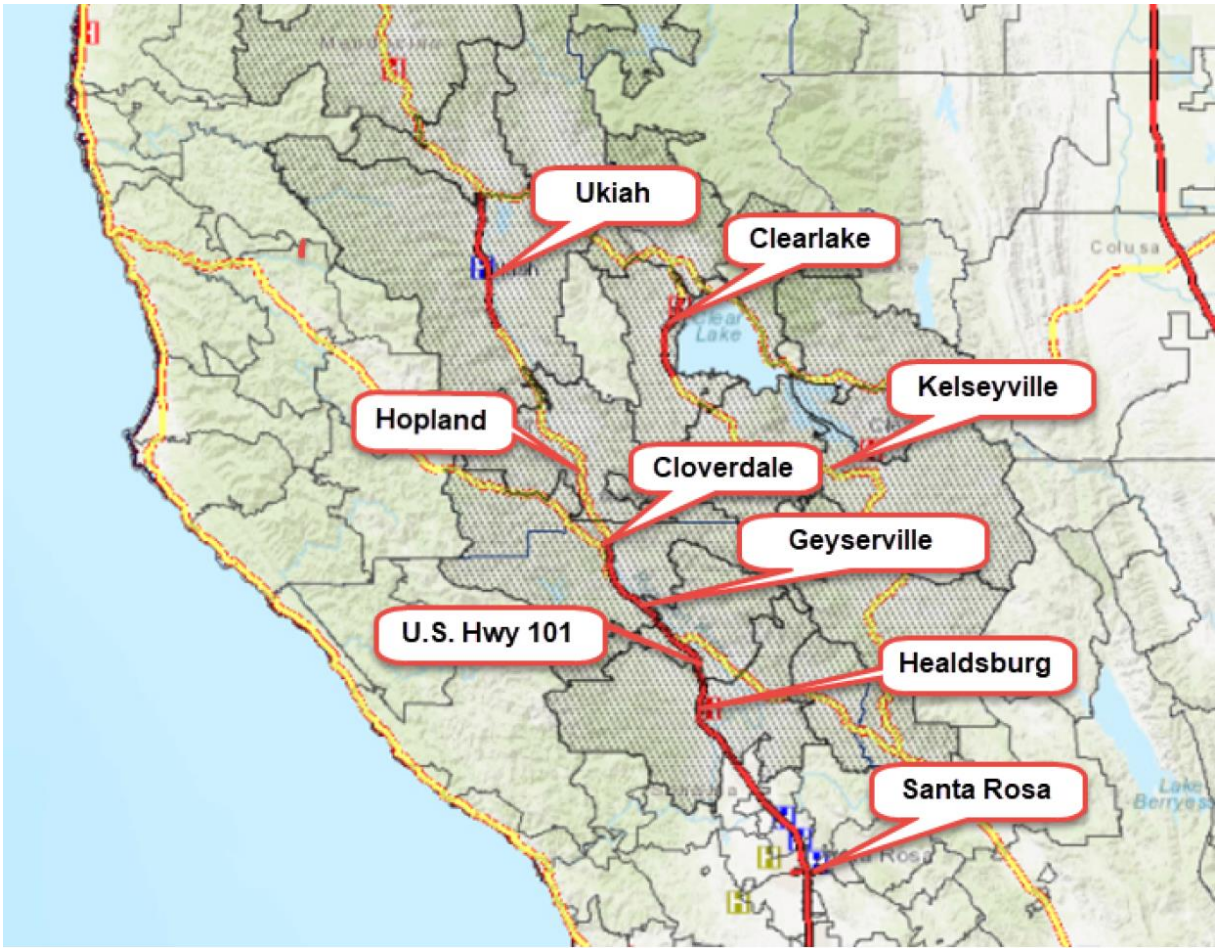
Origin	2020	2021	2020–2021
Total unduplicated patients, all areas	4,064	4,514	5,708
From service area ZIP Codes	3,305	3,637	4,512
% service area residents	81.3%	80.6%	79.0%

Table 3. Total AVH Patients, 2022–2023

Origin	2022	2023	2022-2023
Total unduplicated patients, all areas	4,121	3,841	5,331
From service area ZIP Codes	3,309	3,310	4,088
% service area residents	81.3%	86.2%	76.7%

- **Two-year profile:** In the period Jan. 1, 2022 – Dec. 31, 2023, AVH served 5,331 unduplicated patients, of whom 4,088 (76.7 percent) were residents of the three service area ZIP Codes.

Figure 1. Map of Combined AVH Primary and Secondary Catchment Areas, 2021



Source: Health Resources and Services Administration (HRSA), UDS Mapper web application, 2021

AVH's 2019 and 2022 community needs assessments both noted that more patients were coming to AVH from other parts of Sonoma County and from Mendocino and Lake Counties. Those areas were described as a "secondary catchment area" and have been tracked as a possible future expansion area.

Previous reports proposed several likely reasons people were traveling to AVH for care:

- Some out-of-area patients work in or near the service area and were seeking care closer to their work.
- Some patients who previously lived in the service area have moved farther away due to job changes or housing availability, but wished to continue care with AVH.
- Some patients may have lacked available care closer to home or convenient hours.
- Providers closer to home may not have offered sliding-scale discounts.
- Providers closer to home may not offer Spanish-speaking providers or support staff.
- Out-of-area patients needed the additional services available at AVH (e.g., dental, mental health, substance use counseling or enabling services).

A decrease in the number of patients from these more distant communities was anticipated as a possible result of the COVID-19 pandemic. However, the 2022 needs assessment found that AVH had retained most of its patients from outside the core service area, although the **growth** in the number of users from more distant communities slowed somewhat.

In the more recent 2022— 2023 patient origin study, the population from these other ZIP Codes has also remained fairly stable, as illustrated in the table below.

The small fluctuations in the number of patients in each ZIP Code reflect a mild variable given the shortfall in the supply of provider visits experienced in 2022 and 2023 calendar years. As discussed in Part Three, Service Patterns, that drop in volume is a result of a drop in overall provider supply due to staff turnover during that period, itself a consequence of the COVID-19 pandemic.

Table 4. AVH Patients by ZIP Code Origin, 2020-2021 and 2022–2023

ZIP Code	Post Office Name	AVH Patients 2020-2021	AVH Patients 2022–2023
95425	Cloverdale	4,284	3,869
Multiple ZIP Codes	Santa Rosa	232	275
95482	Ukiah	210	227
95448	Healdsburg	165	166
95441	Geyserville	137	109
95492	Windsor	94	75
95449	Hopland	91	88
95453	Lakeport	45	49
95451	Kelseyville	36	35
95470	Redwood Valley	30	35
95490	Willits	26	34
95494	Yorkville	25	23
94928	Rohnert Park	24	17
95472	Sebastopol	17	29
95437	Fort Bragg	13	15
95436	Forestville	16	9
95445	Gualala	11	9
95464	Nice	10	2
95423	Annapolis	<10	10
95458	Lucerne	10	10
95415	Boonville	<10	10
95437	Petaluma	<10	15
Other ZIP Codes**	Other**	217	225
Total Patients	**N/A**	**5,708**	**5,331**

** Includes other local, out-of-area, and out-of-state patients. Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy.

HEALTH CENTER MARKET PENETRATION

Alexander Valley Healthcare remains the only medical provider located in the Cloverdale ZIP Code or the neighboring Geyserville or Hopland ZIP Codes. Additionally, although there are two private dental practices in the area, AVH is the only dental practice in the area that accepts Medi-Cal or offers sliding-scale discounts to uninsured or underinsured patients.

According to the Geo Care Navigator, maintained by HRSA, approximately one out of every three residents of the three service area ZIP Codes received care in 2023 from one or more federally funded community health centers,[25] including:

- 36.5 percent of all Cloverdale residents
- 22.2 percent of all Geyserville residents
- 26.7 percent of all Hopland residents, and
- 33.5 percent of the overall service area population.

Within the AVH service area, AVH's 2023 market position was as follows:

- **In the Cloverdale ZIP Code (95425):** Alexander Valley Healthcare was the predominant health center provider, while Alliance Medical Center served the second-largest share of Cloverdale patients seen by any health center.
- **In the Geyserville ZIP Code (95441):** Alliance Medical Center had the largest share of health center-served patients, while Alexander Valley Healthcare had the second-largest market share.
- **In the Hopland ZIP Code (95449):** Mendocino Community Clinic was the leading health center provider, while Alexander Valley Healthcare had the second-largest market share.

Alexander Valley Healthcare had the second-largest market share of any health center in several other ZIP Codes: Ukiah, Lakeport, and Kelseyville. AVH ranked third in health center market share in Boonville, Yorkville, and Healdsburg.

This three ZIP Code area covers 554.8 square miles and a population of approximately 15,846, for **a population density of 28.56 people per square mile.**[26] This gives the area a far more rural character than Sonoma County as a whole (310.3 people per square mile), and makes it similar

[25] Geo Care Navigator, Health Resources and Services Administration, based on 2023 data from HRSA's Uniform Data System (UDS) reports submitted by federally qualified health centers *https://geocarenavigator.hrsa.gov/*

[26] U.S. Census Bureau, using 2024 one-year estimate population data. This one-year estimate reflects the Bureau's estimate that the area's population is continuing to grow.

to Mendocino County to the north (26.12 people per square mile) and Lake County to the north-east (54.2 people per square mile).

Economics

Sonoma County is a prosperous mid-size California county with a diverse employment base and population. According to data compiled by the U.S. Bureau of Economic Analysis, Sonoma County's 2023 gross domestic product (GDP) — the most recent available figure — was $31.011 billion.[27] This is virtually the same GDP as reported at the time of the 2022 Community Health Needs Assessment ($31.3 billion), reflecting both growth and retraction that have occurred in the county's economic output.[28]

The total Sonoma County population has fallen in recent years, after a long period of population growth. The U.S. Census American Community Survey 2019-2023 estimates Sonoma County's total civilian, non-institutional population was 482,063 in the period 2019-2023, a drop of 15,004 (-3.0 percent) from the 497,067 total persons estimated in the 2014-2018 ACS.[29]

In the same period, Sonoma County's population continued to age. Residents 65 years and older rose from 89,660 in 2014-2018 to 100,656 in 2019-2023, an increase of 10,996 (+12.6 percent). The relative proportion of persons working in particular areas of employment shifted. Participation in the civilian labor force dropped from 64.8 percent of persons over age 16 to 64.3 percent of persons over age 16.

EMPLOYMENT

The county benefits from a diverse employment base. The top six categories of employment are education and healthcare; retail trade; professional, scientific, and administrative occupations; leisure and hospitality (associated with the county's tourism business); manufacturing; and construction.

The AVH service area also has a diverse economic base, including a mixture of education and health care, light manufacturing, professional, scientific, and administrative occupations, retail

[27] Bureau of Economic Analysis, U.S. Department of Commerce, 2023 *https://www.bea.gov/data/gdp/gdp-county-metro-and-other-areas*

[28] Cited in Sonoma County Economic Development Board (EDB), 2022 Sonoma County Indicators: Industry Report 2022 (Santa Rosa, Calif.: Sonoma EDB, 2022), retrieved from *http://sonomaedb.org/Data-Center/Indicators/*.

[29] U.S. Census Bureau American Community Survey, 2019-2023, Table CP03

trade, and tourism, notably including a casino in Geyserville. Most businesses are small employers (with fewer than 25 employees), and many jobs are seasonal.

Table 5. Employment by Occupational Category, Sonoma County and AVH Service Area (Cloverdale and Geyserville), 2019–2023

Occupational Category	Sonoma County, Total	Sonoma County, %	AVH Service Area, Total	AVH Service Area, %
Management, business science, and arts occupations	103,052	41.9%	2,592	34.1%
Service occupations	46,366	18.8%	1,379	18.2%
Sales & office occupations	48,395	19.7%	1,237	16.3%
Natural resources and maintenance occupations	24,907	10.1%	1,333	17.3%
Production, transportation, and material moving	23,357	9.5%	1,058	13.9%
Total Civilian Employment	**246,077**	**100.0%**	**7,599**	**100.0%**

Civilian employment totals for persons aged 16 and older. Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2019–2023. Table DP03

Table 6. Employment by Industry, Sonoma County and AVH Service Area (Cloverdale and Geyserville), 2019–2023

Industry	Sonoma County, Total	Sonoma County, %	AVH Service Area, Total	AVH Service Area, %
Agriculture, forestry, fishing, and mining	6,357	2.6%	644	8.5%
Construction	22,764	9.3%	818	10.8%
Manufacturing	25,180	10.2%	1,217	16.0%
Wholesale trade	5,441	2.2%	218	2.8%
Retail trade	27,003	11.0%	785	10.3%
Transportation, warehousing, and utility	9,374	3.8%	200	2.4%
Information	4,335	1.8%	33	0.4%
Finance, insurance, real estate, rentals, and leasing	12,158	4.9%	218	2.9%
Professional, scientific, management, and administration, waste management	31,168	12.7%	738	9.7%
Education, health care, and social assistance	55,274	22.5%	1,528	20.1%
Arts, entertainment, recreation, food, and accommodations	23,747	9.7%	611	8.0%
Other services, except public administration	12,446	5.1%	194	2.6%
Public administration	10,830	4.4%	397	5.2%
Total Civilian Employment	**246,077**	**100.0%**	**7,599**	**100.0%**

Civilian employment totals for persons aged 16 and older. Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2019–2023. Table DP003

The distribution of employment by industry in the AVH service area differs from Sonoma County as a whole in several key ways:

- **In the AVH service area, agriculture** (including growing wine grapes), forestry/lumbering, and fisheries account for 8.5 percent of employment, compared to only 2.6 percent of all employment in the county. That is not surprising, since a substantial portion of Sonoma County agriculture is located in the Healdsburg-Geyserville-Cloverdale area. This area also has a major fish hatchery.

- **Manufacturing** accounts for 16.0 percent of jobs in the AVH service area, an increase from 12.4 percent in 2020. This is above the 10.2 percent of jobs countywide in manufacturing.

- **Construction** accounts for 10.8 percent of service area jobs, up from 7.9 percent in 2020. This is higher than 9.3 percent of all jobs countywide (also up from 2020).

- **Professional, scientific, and management occupations** account for only 9.7 percent of service area employment, compared to 12.7 percent of employment countywide.

- **Retail sales** jobs are more common in central Sonoma County, reflecting that area's greater population density. However, the retail sector accounts for only 11.7 percent of all county employment, but 12.1 percent of all jobs in the more sparsely populated AVH service area.

- **Education, healthcare, and social services** now represent the largest employment segment, making up 22.5 percent of Sonoma County employment and 20.1 percent of AVH service area employment. Healthcare organizations, including tertiary hospitals in the Santa Rosa area, are among the County's 20 largest private employers.

- Other large employers in the county include manufacturers, food producers, tourism businesses such as casinos, a number of wineries, financial institutions, grocery chains, a construction firm, telecommunications giant AT&T, and dairies. Tourism**,** including casinos and resorts, coastal tours, restaurants, and other venues, is also important to the service area and Sonoma County. Among the larger employers in the county are the River Rock Casino in Geyserville and the Graton Resort and Casino in Rohnert Park to the south.

Although Hispanic residents remain a minority of the county's population, their role in local business has grown substantially. A 2017 report by the Sonoma County Economic Development

Board (EDB) noted that the number of Hispanic-owned businesses in the county grew 24 percent between 2007 and 2015, from 4,056 businesses to 5,024. By that time, more than one in five new businesses in the county were Hispanic-owned.[30] That full study has not been repeated since, but the Economic Development Collaborative in 2024 reports that both women-owned and minority-owned businesses have continued to increase in number and size since 2019.[31]

Sonoma County has a large number of self-employed individuals. Many are "non-employer establishments," which the U.S. Census Bureau defines as business establishments that have no paid employees subject to federal income tax. The ratio of non-employer establishments to payrolled businesses in Sonoma County in 2018 was higher than statewide (2.3:1 to 2.2:1), but lower than the nation as a whole (2.65:1).[32] Sonoma County had a total of 46,153 such non-employer businesses, generating a total of $2,559,891,000 in revenue, according to the U.S. Census. These non-employer businesses included 9,616 professional, scientific, and technical service providers, but also included a wide range of arts & entertainment, construction, manufacturing, agriculture and forestry, transportation, real estate & leasing, financial services, wholesaling, and retail trade. [33]

While these non-employer establishments are undoubtedly entrepreneurial ventures, there has been growing concern statewide in recent years over the growth of the so-called "gig economy." As independent contractors, workers must bear a significantly greater proportion of payroll and other taxes; are not eligible for employer-subsidized health insurance or the paid sick leave to which most California employees are now entitled; and have less-stable incomes than do hourly or salaried employees. These differences can have a significant negative effect on the ability to afford housing, childcare, and healthcare.

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[30] Sonoma County Economic Development Collaborative, *2017 Hispanic Demographic Trends: Demographics Report* (Santa Rosa, Calif.: Sonoma EDB, April 2017), retrieved from *http://sonomaedb.org/Data-Center/Demographics/*.

[31] Economic Development Collaborative, 2024 Demographics Report::*https://sonomaedc.org/Microsites/Economic%20Development%20Board/Documents/Reports/2024/2024%20Annual%20Demographics%20FINAL%20ADA.pdf*

[32] 2018 data from Sonoma County Economic Development Board, *2022 Sonoma County Indicators: Industry Report 2022* (Santa Rosa, Calif.: Sonoma EDB, 2022), retrieved from *http://sonomaedb.org/Data-Center/Indicators/*.

[33] U.S. Census Bureau, downloaded 7-28-2025 from table NONEMP2018.NS1800NONEMP *https://data.census.gov/advanced*

UNEMPLOYMENT

According to the California Employment Development Department (EDD), Sonoma County unemployment, which peaked at 11 percent during the "Great Recession," had fallen to only 3.0 percent as of July 2019, its pre-pandemic best. This was below both the national unemployment rate of 3.7 percent and the statewide rate of 4.1 percent at the time.

Official unemployment in neighboring Mendocino and Lake counties was only slightly higher at 5.5 percent and 5.0 percent, respectively. Unemployment in Cloverdale was only 1.9 percent.[34]

In March 2020, the COVID-19 pandemic impacted employment statewide. Public health officials ordered the closure of nonessential services, except those that could be conducted remotely. These "shelter-in-place" orders, combined with the fear of contracting COVID-19, had a pronounced impact on many local sources of employment, notably restaurants, casinos, hotels, and other tourist venues.

By April 2020, the state's unemployment rate had risen to 8.3 percent. Sonoma County's unemployment was at 8.1 percent, Mendocino County was at 8.9 percent, and Lake County was at 9.6 percent. Cloverdale's unemployment rose as well, but only to 4.1 percent.

All three counties' employment had substantially recovered by the time of AVH's 2022 needs assessment. Unemployment rates were near pre-pandemic levels or lower. However, as federal funding that flowed to communities during the pandemic was rolled back, employment and unemployment levels have been more mixed, as illustrated in the table below.

Sonoma County has lost 4,900 people in its labor force since 2019, and 900 of those losses have occurred since 2022. Mendocino County's workforce has dropped 520 persons since 2019. Lake County has gained 150 employees since 2019. All three counties have healthy current unemployment rates, especially in Cloverdale.

[34] California Economic Development Department (EDD), preliminary data (not seasonally adjusted) for July 2019, June 2025, retrieved from *https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html*.

Table 7. Employment and Unemployment, Sonoma, Mendocino, and Lake Counties and City of Cloverdale, 2019–2025

Employment by Geography	Pre-Pandemic 2019	Mid-Pandemic 2020	Recovery Sep. 2022	April 2025
SONOMA COUNTY				
Total labor force	254,400	310,390	250,400	249,500
Employed	252,400	284,540	243,700	239,500
Unemployed	7,000	25,290	7,000	10,000
Unemployed, percentage	**2.7%**	**8.1%**	**2.8%**	**4.0%**
MENDOCINO COUNTY				
Total labor force	38,930	37,020	38,410	36,940
Employed	27,390	33,170	37,090	34,900
Unemployed	1,550	3,290	1,320	2,040
Unemployed, percentage	**4.0%**	**8.9%**	**3.4%**	**5.5%**
LAKE COUNTY				
Total labor force	29,160	28,270	29,610	26,540
Employed	27,690	25,570	28,300	24,730
Unemployed	1,470	2,700	1,310	1,820
Unemployed, percentage	**5.0%**	**9.6%**	**4.4%**	**6.8%**
TOTAL, THREE COUNTIES				
Total labor force	322,490	310,390	318,420	312,980
Employed	317,480	284,540	309,090	299,130
Unemployed	10,020	25,290	9,630	13,860
Unemployed, percentage	**3.1%**	**8.1%**	**3.0%**	**4.4%**
City of Cloverdale				
Total labor force	4,400	3,900	4,400	4,600
Employed	4,400	3,700	4,300	4,500
Unemployed	100	200	100	100
Unemployed, percentage	**1.5%**	**4.1%**	**0.9%**	**1.7%**

Source: California Economic Development Department (EDD) preliminary data (not seasonally adjusted), retrieved from *https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html*

According to EDD estimates, **Cloverdale now has 200 more people in its active workforce than it did pre-pandemic.** Cloverdale also has an unemployment rate of 1.7 percent, lower than Sonoma County (4.0 percent), Mendocino County (5.5 percent), or Lake County (6.8 percent).

AGRICULTURE

Agriculture remains a major sector of the Sonoma County economy, with an economic impact far exceeding the number of persons directly employed in the industry.

Agriculture has been an ongoing source of both initial and ongoing employment for many of the county's lowest-income residents. The growing, tending, and harvesting of wine grapes; raising of livestock; and processing of related products such as milk, butter, cheese, and eggs tend to generate more year-round employment, while the seasonal harvesting of apples, vegetables, and other crops draws migrant and seasonal agricultural workers to Sonoma County.

The economic value of Sonoma County's agriculture hit the $1 billion mark for the first time in 2018, with a reported total value of $1,106,662,100. This total, an increase of 23.8 percent from 2017, did not include other products or economic activities based on these crops (e.g., winemaking, tourism, or packaged frozen foods).[35] It also did not include the value of marijuana being grown or marketed in the state's new legal standing.

Table 8. Crops or Livestock Products with Annual Value of $1 Million or More, Sonoma County, 2018–2023

Crop or Product Group	2018 Sales	2019 Sales	2020 Sales	2021 Sales
Wine grapes	$777.7 million	$654.0 million	$357.5 million	$715.8 million
Milk	$141.2 million	$127.1 million	$157.8 million	$58.3 million
Misc. livestock and poultry	$41.0 million	$42.7 million	$43.4 million	$40.6 million
Misc. livestock and poultry products	$38.9 million	$31.3 million	$33.1 million	$12.6 million
Cattle and calves	$20.7 million	$19.1 million	$20.5 million	$21.0 million
Sheep and lambs	$11.3 million	$5.8 million	$5.3 million	$5.4 million
Nursery – ornamentals	$20.4 million	$22.0 million	$19.5 million	$31.5 million
Nursery – miscellaneous	$18.1 million	$20.1 million	$15.0 million	$20.5 million
Nursery – cut flowers	$6.1 million	$4.7 million	$4.0 million	$6.1 million
Nursery – bedding plants	$5.6 million	$6.1 million	$7.7 million	$9.4 million
Vegetables	$8.4 million	$9.2 million	$5.8 million	$2.2 million
Apples – late varieties	$2.4 million	$2.7 million	$2.4 million	$1.8 million
Apples – Gravenstein	$1.2 million	$1.3 million	$1.5 million	$1.7 million
Silage rye and oats	$1.5 million	$1.4 million	$2.2 million	$1.2 million
Rye and oat hay	$1.2 million	$0.9 million	$1.2 million	$2.8 million
Total, all crops	**$1,106.7 million**	**$958.6 million**	**$680.6 million**	**$945.7 million**

Source: Sonoma County Dept. of Agriculture/Weights & Measures, Sonoma County Crop Reports for 2018, 2019, 2020, and 2023. These figures represent total gross production values, not net income. The "all crops" total includes some not otherwise listed, including legally cultivated cannabis plants valued at $25.7 million in 2023.

Sonoma County is the largest wine producer in California's "Wine Country" region, which also includes Napa, Mendocino, and Lake Counties. Much of the growth in 2018 was due to a 34.4

35 Sonoma County Dept. of Agriculture/Weights & Measures, 2018 Sonoma County Crop Report (Santa Rosa, Calif.: Sonoma County Dept. of Agriculture/Weights & Measures, Aug. 2019).

percent increase in the value of wine grapes. With a 2018 value of $777.6 million, wine grapes accounted for 70.2 percent of the total dollar value of the county's agricultural products, exceeding the combined annual value of *all* Sonoma County agricultural output a decade ago.

From one year to the next, the total tonnage of wine grapes sold may increase or decline, although that loss has often been made up by steady increases in average price per ton, according to Sonoma County's annual Crop Reports. In 2023, both the total tonnage increased (to 240,937 tons), and the average value of winegrapes increased to $2,975.22 per ton, creating an overall increase in value of 30.88 percent over 2022.[36]

The preeminence of wine growing and harvesting has changed the nature of agricultural employment for many workers. The authors of *A Portrait of Sonoma County*, a report prepared in 2014 for Sonoma County Department of Health Services, explain the significance as follows:

Vineyard workers are more highly skilled than other agricultural workers because producing grapes for premium wines involves a series of specialized tasks … which must be done by hand and require expertise and experience. Thus, vineyard workers in Sonoma County and neighboring Napa County tend to earn more than farmworkers elsewhere in the state, though their wages are still on the low end of the wage distribution. In addition, unlike farms growing crops that require tending by many workers at harvest time and almost none the rest of the year, vineyards have work to be done nine or ten months of the year.[37]

This has led to more formerly migrant families settling in the area full-time. However, it is difficult to quantify how this process has affected the flow of migrant workers to the area. In any case, agriculture continues to employ more than 6,100 workers countywide.

Sonoma County's six federally funded community health centers reported serving a total of 3,367 known migrant and seasonal farmworkers (including family members) in calendar year

[36] Smith, Andrew F., Agriculture Commissioner, Sealer of Weights and Measures, "2023 Sonoma County Crop Report", Sonoma County Department of Agriculture/Weights & Measures, Sept 2024. *https://sonomacounty.ca.gov/Main%20County%20Site/Natural%20Resources/Agricultural%2C%20Weights%20%26%20Measures/Documents/Crop%20Reports/2024-0630%202023%20Sonoma%20County%20Crop%20Report_ADA_Compressed.pdf*

37 Sarah Burd-Sharps, et al, A Portrait of Sonoma County: Sonoma County Human Development Report 2014 (Brooklyn, N.C.: Measure of America (A project of the Social Science Research Council), May 2014), p. 65.

2024.[38] This is likely an undercount, as not all patients who work in agriculture necessarily indicate that they are migrants or seasonal workers when seeking services at a community health center.

What is clear is that there is a shortage of farmworkers, both for vineyards and other agricultural businesses, aggravated by current immigrant deportation campaigns, as well as the emergence of other employment opportunities for legal immigrants, such as in the construction industry, during the recent periods of economic expansion.[39]

The growing and harvesting of wine grapes is only one aspect of the wine industry's impact on Sonoma County's economy. The county's 425 wineries produce an estimated $8 billion (U.S. retail value) of wine each year.[40] They also contribute to destination tourism, a major sector of Sonoma County's economy, further discussed below.

DAIRY

Milk and dairy products are Sonoma County's second-largest agricultural sector by dollar value. Dairying has been a major part of the county's economy for more than 150 years. There are currently 65 registered dairies, including locally prominent Clover Sonoma and Straus Family Creamery. In addition to milk, the county is home to producers of cheese and yogurt.

According to Sonoma County Conservation Action, 84 percent of the county's dairies are now organic.[41]

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[38] Source: Uniform Data System (UDS) reports submitted to the Health Resources and Services Administration (HRSA) Bureau of Primary Health Care by the six grantees in 2024. See: *https://data.hrsa.gov/tools/data-reporting/program-data*

[39] Chris Morris, "California Vineyards Struggle Amid Farmworker Shortage," Fortune, Sep. 4, 2018, *https://fortune.com/2018/09/04/immigration-worker-shortage-california-vineyards/*, and Bill Swindell, "North Coast grape growers depend on foreign workers and machines for annual harvest," The Press Democrat [Santa Rosa, Calif.], Aug. 31, 2018, *https://www.pressdemocrat.com/business/8669341-181/north-coast-grape-growers-depend*.

[40] Sonoma County Vintners (SCV) website, *https://sonomawine.com/wine-community-impact/*.

[41] California Climate and Agriculture Network CalCAN , *https://calclimateag.org/no-on-measure-j-sonoma-county/#:~:text=Approximately%2084%25%20of%20Sonoma%20County's,potentially%20spreading%20beyond%20Sonoma%20County*., and Sonoma County Conservation Action (SCCA) website, *https://www.conservationaction.org*.

TOURISM

The combination of Sonoma County's Pacific Coast location, the county's 425 wineries[42] wine industry, an abundance of high-quality restaurants, and the presence of several large casinos[43] has made tourism a major source of revenue and employment in Sonoma County.

The COVID-19 public health emergency had a severe impact on that industry during the pandemic years of 2020 and 2021. According to official county reports, destination spending by travelers totaled $2.237 billion in 2019, generating an estimated 22,358 jobs. In 2020, that spending fell by nearly half, to $1.250 billion, and employment generation fell to 16,290 jobs.

In 2021, visitor spending rose again, to $1.969 billion, increasing related employment to 17,640 jobs, although both figures remained below the pre-pandemic peak of 2019.

By 2024, visitor spending in Sonoma County had reached $2.4 billion, generating $218.4 million in state and local taxes and 22,500 jobs, above pre-pandemic levels.[44] There is concern, however, that current tariffs and trade disputes may lower tourism in the years ahead.[45]

Passenger volume at Charles M. Schulz – Sonoma County Airport dropped from a peak of 488,179 passengers in 2019, fell to 195,303 passengers in 2020, but rose again to 435,427 in 2021 and 614,480 in 2022. Since then, the number of passengers has continued to rise to 641,178 in 2023 and 772,758 in 2024.[46]

HIGH COST OF LIVING

Sonoma County has had a consistently high cost of living. According to Sperling's Best Places, an online real estate guide, in 2025, Sonoma County's cost of living was 151.8 percent of the U.S.

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[42] Sonoma County Tourism Bureau *https://www.sonomacounty.com/articles/sonoma-wine-country/*

[43] According to TripAdvisor, the county's largest casinos are Graton Resort & Casino in Rohnert Park, Parkwest Casino in Sonoma, and River Rock Casino in Geyserville; see *https://www.tripadvisor.com/Attractions-g1109451-Activities-c53-Sonoma_County_California.html*.

[44] Dean Runyan Associates, Inc. Visit California *https://industry.visitcalifornia.com/research/reports/economic-impact?selectedCounty=Sonoma&selectedRegion=&selectedScope=counties*

[45] Ibid.

[46] Sonoma County Tourism, "Research & Reports: Tourism in Sonoma County," *https://www.sonomacounty.com/articles/partners/statistics*.

average, led by housing costs that were 252.7 percent of the U.S. average for owner-occupied single-family homes.[47]

The U.S. Bureau of Labor Statistics (BLS) measures changes in prices of consumer goods and services to calculate the Consumer Price Index for All Urban Consumers (CPI-U), which is also used to adjust the federal poverty guidelines and other economic measures for inflation. CPI-U data is available for Census regions, geographical divisions, and certain large metropolitan areas, but generally not on an individual state or county level.[48]

In the San Francisco-Oakland-Hayward region, the metropolitan area closest to the service area, the CPI-U was already substantially higher than the Pacific Division average even before the pandemic. Still, it rose a further 9.6 percent between August 2020 and August 2022. It has risen another 6.2 percent between August 2022 and August 2024.

This inflation indicates that residents of the service area and the region are now paying significantly more for housing, food, utilities, fuel, and services, and costs are still rising, which places further strain on the budgets of low-income households.

The cost of living impacts the health of area residents in several ways:

- **High housing costs** reduce residents' ability to afford regular healthcare.
- **High food costs** affect diet and nutrition choices (for example, by making it harder to afford fresh fruits and vegetables).
- **The high cost and limited availability of transportation** impact access to employment and the ability to access healthcare when needed, or travel to sub-specialty care located outside of the service area (e.g., Santa Rosa, San Francisco, Davis, etc.)
- **Food insecurity, housing insecurity, and employment insecurity** are also major threats to family and individuals' mental health, and can contribute to behavioral health issues like substance abuse.

[47] Sperling's Best Places, "Cost of Living in Sonoma County, California," last updated July 1, 2025, *https://www.bestplaces.net/cost_of_living/county/california/sonoma*.

[48] U.S. Bureau of Labor Statistics, "Consumer Price Index: Regional Resources," *https://www.bls.gov/cpi/regional-resources.htm*.

FOOD COSTS

- In 2023, the USDA average meal cost per person in Sonoma County was $4.56 per meal, 25.6 percent higher than the $3.63 per-meal average cost for California as a whole. Average food cost per meal was also higher than in the neighboring Mendocino and Lake counties ($4.23 and $4.16 per meal, respectively). The U.S. cost per meal was $3.58.[49]

According to the nonprofit organization Feeding America, an estimated 13.7 percent of California residents (5,352,790 people) were living in households that met the USDA definition of **food insecure** in 2023. This is an increase from 9.1 percent statewide in 2020.[50]

The level of **food insecurity** in AVH's service counties in 2023 has also risen since 2020:

- An estimated 11.4 percent of Sonoma County residents in 2023 are food insecure, up from 9.3 percent in 2020;
- 15.6 percent of people in Mendocino County are now food insecure, up from 13.9 percent in 2020; and
- 16.3 percent of Lake County residents are food insecure, up from 15.0 percent in 2020.[51]
- 56.7 percent of students in Cloverdale Unified School District qualified for free or reduced-price school lunches.[52]

TRANSPORTATION

Cloverdale is the only community in the AVH service area with **local bus transportation**. The Sonoma County Transit system's Route 68 Cloverdale Shuttle makes 15 stops within the City of

[49] Ibid.

[50] Ibid. Food-insecure households are defined as households that are unable to provide adequate food for all household members for the entire year due to insufficient resources.

[51] Ibid.

[52] California Dept. of Education, Free or Reduced-Price Meal (Student Poverty) Data; National Center for Education Statistics, Digest of Education Statistics (Jul. 2021), as cited on kidsdata.org, a program of Population Reference Bureau.

Cloverdale, albeit only on the western side of U.S. Highway 101. This routing underserves the city's lower-income population living east of the Highway 101 corridor.

The Route 60 bus line connects Cloverdale to Healdsburg, which has the area's nearest hospital, and Santa Rosa, the county's principal source of specialty and tertiary hospital care. However, this line's schedule is designed for commuters: from 7:25 a.m. to 8:05 p.m., it runs every 32 to 55 minutes and makes up to 83 stops. Depending on the number of stops, a one-way trip from Cloverdale to Healdsburg can take 35 to 40 minutes, while a one-way trip to Santa Rosa can take 85 to 90 minutes.[53] This timetable is not well-suited to people who need to travel to healthcare providers, particularly if they are sick.

There is a twice-daily Amtrak bus service from the Hopland/Cloverdale area to the City of Ukiah, the other source of some specialty and hospital-based care in the area. The trip ($8 each way) is approximately 27 miles (43 km) and takes up to an hour. A (Ukiah-based) taxi can be arranged between Cloverdale and Ukiah, takes 30 minutes, and costs an estimated $95-$110.[54]

The limited availability of public transportation adds to the car-dependency of the area, creating barriers to care as well as to employment, shopping, and access to hospital-based specialty healthcare services. An estimated 11.1 percent of service area renter households have no vehicle available.[55]

HOUSING COSTS

Sonoma County has high housing costs, which have risen sharply over the past decade.

Since 1981, federal housing programs have applied the "30-percent rule," which holds that low-income households should spend no more than 30 percent of their monthly income on housing.[56] According to the 2019-2023 ACS, a majority (54.4 percent) of Sonoma County

[53] Sonoma County Transit estimate information, via *https://sctransit.com*.

[54] *https://www.busbud.com/en/bus-cloverdale-ukiah/r/9qbsdd-9qbqs6*

[55] U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023.

[56] U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research (PDR), "Rental Burdens: Rethinking Affordability Measures," *PD&R Edge*, Sep. 22, 2014, *https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html*.

renters spend more than 30 percent of their income on rent alone, as do 55.4 percent of Lake County renters and 36.3 percent of Mendocino County renters.[57]

The magnitude of rent increases over the past 12 years is reflected in the rise of HUD Fair Market Rents (FMR)[58] for Sonoma County. During the years between 2014 and 2025, FMR more than doubled for most-sized housing units.

Table 9. HUD Fair Market Rent by Home Type, Sonoma County, 2014–2025

Home Type	2014 Fair Market Rent (Sep. 2013)	2025 Fair Market Rent (Sep. 2022\4)	Percentage Increase, 2014–2025
Studio/efficiency	$820	$1,879	229.1%
One bedroom	$856	$2,089	244.0%
Two bedrooms	$1,251	$2,740	219.0%
Three bedrooms	$1,843	$3,743	203.1%
1%Four bedrooms	$2,160	$3,960	183.3%

Source: U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research, "Fair Market Rents (40th Percentile Rents)," *https://www.huduser.gov/portal/datasets/fmr.html*

By HUD definitions, households that spend 30 to 50 percent of their income on housing are "cost-burdened," while households that spend more than half of their monthly income on housing have a "severe rent burden."[59]

In 2025, the FMR of a one-bedroom unit was $1,549, 147.7 percent of the federal poverty level for a single person in 2025 and 50.8 percent of the income of two people living on an income of 200 percent of FPL. The 2025 HUD FMR for a one-bedroom unit, released in September 2022, shows a further 10.5 percent increase for 2023.

[57] U.S. Census Bureau American Community Survey 5-year estimates, 2019-2023, Table S2501.

[58] U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research, "Fair Market Rents (40th Percentile Rents)," *https://www.huduser.gov/portal/datasets/fmr.html*. HUD Fair Market Rents are 40th percentile estimates, meaning that 40 percent of rents are below and 60 percent of rents are above this dollar value. This measure is used by HUD for setting Section 8 housing assistance payments and as a measure of comparison between regions.

[59] U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research (PDR), "Rental Burdens: Rethinking Affordability Measures," *PD&R Edge*, Sep. 22, 2014, *https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html*.

These trends indicate that most low-income households in Sonoma County — and many households that are not considered low-income by FPL — are experiencing severe rent burden by HUD definitions.

Figure 2. HUD Fair Market Rent by Home Type, Sonoma County, 2019–2025

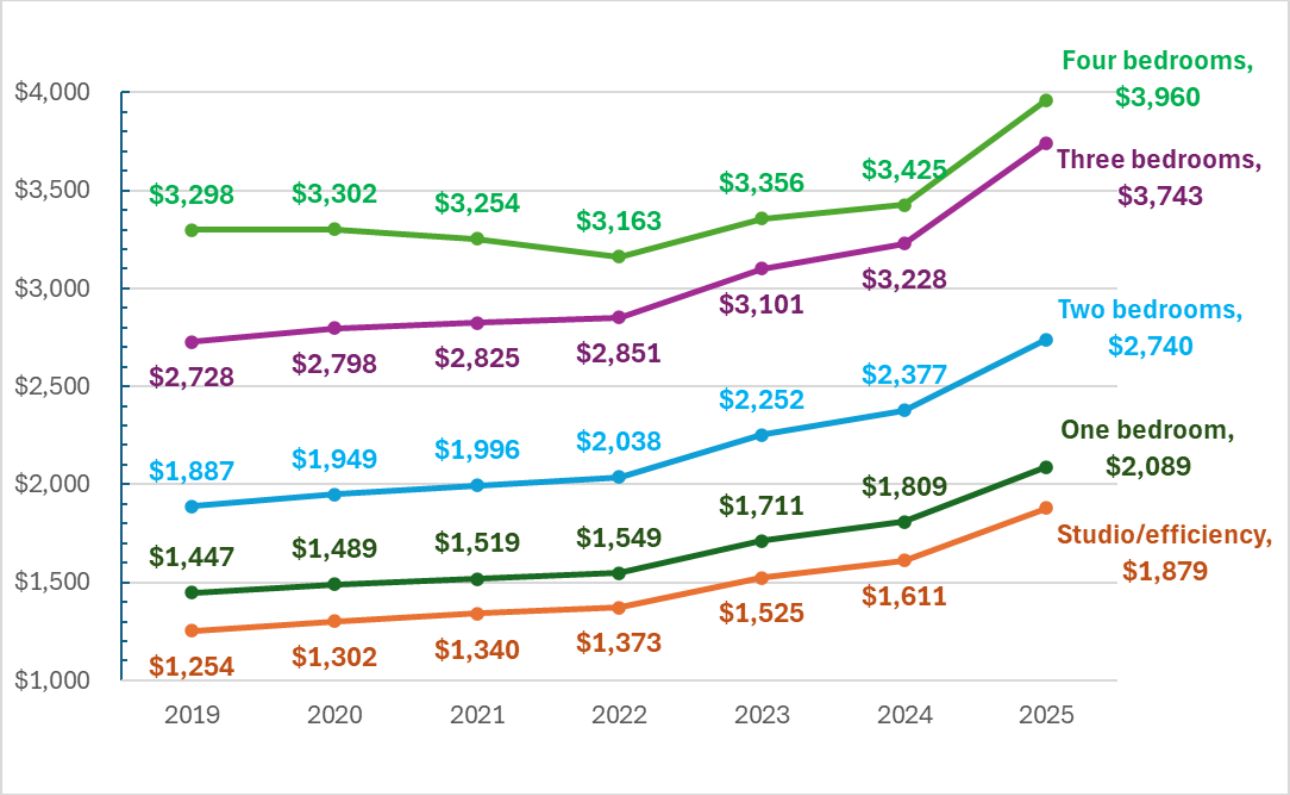

Table 10. HUD Fair Market Rent by Home Type, Sonoma County, 2019–2025[60]

Home Type	2019	2020	2021	2022	2023	2024	2025
Studio/efficiency	$1,254	$1,302	$1,340	$1,373	$1,525	$1,611	$1,879
One bedroom	$1,447	$1,489	$1,519	$1,549	$1,711	$1,809	$2,089
Two bedrooms	$1,887	$1,949	$1,996	$2,038	$2,252	$2,377	$2,740
Three bedrooms	$2,728	$2,798	$2,825	$2,851	$3,101	$3,228	$3,743
Four bedrooms	$3,298	$3,302	$3,254	$3,163	$3,356	$3,425	$3,960

[60] U.S. Department of Housing and Urban Development: *https://www.huduser.gov/portal/datasets/fmr.html*

Adding to the shortage of rental housing in Sonoma County is the fact that approximately 4.5 percent of the county's housing stock is used for short-term tourist rentals.[61]

As a matter of further concern, an alarming percentage of Sonoma County's maternal population is at risk of housing loss during pregnancy. In the most recent Sonoma County Maternal and Infant Health Assessment (MIHA) study period,[62] 6.7 percent of all expectant mothers and approximately 12.8 percent of expectant mothers below 200 percent of FPL reported having to move during their pregnancy because of problems paying rent or mortgage. Approximately one in every 36 expectant mothers in the county (2.8 percent) experienced homelessness during their pregnancy.[63]

Homeowners in the service area fare better in terms of living costs, but only if they are mortgage-free. According to the ACS, an estimated 39.1 percent of homeowners in Sonoma County who have mortgages spend more than 30 percent of their monthly income on housing costs, compared to 27.8 percent nationwide.

Only 17.9 percent of homeowners without mortgages spend more than 30 percent of their income on housing costs. However, that is higher than the 13.9 percent of homeowners without mortgages who spend over 30 percent of their income on housing nationally.[64]

The most dramatic increases in both rents and prices on homes for sale followed in the wake of the 2017 Tubbs Fire. The Tubbs Fire burned 36,807 acres, much of it urban, and destroyed 5,636 structures, including 5,297 housing units in Sonoma County and damaged thousands more. Housing losses occurred in both middle-class neighborhoods and trailer parks full of low-income elderly residents. There were 22 confirmed casualties in the fire, many of whom were seniors.

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[61] U.S. Census data, reported in Sonoma County Economic Development Board, *Sonoma County Indicators Report: Industry Report 2022* (Santa Rosa, Calif.: Sonoma County EDB, 2022), *https://sonomaedb.org/Microsites/Economic%20Development%20Board/Documents/Reports/2022/2022%20Indicators%20Report%20Final%20w%20ADA.pdf*.

[62] MIHA Data Snapshots, California: Health Indicators from the 2016–2018 Maternal and Infant Health Assessment (MIHA) Survey (Sacramento, Calif.: California Dept. of Public Health, Maternal, Child, and Adolescent Health (MCAH) Division, 2022), *https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Data-and-Reports.aspx*.

[63] Ibid.

[64] ACS 2019-2023, Table S2501.

In the summer of 2018, two other interrelated wildfires hit north of Cloverdale. The Mendocino Complex Fires in Lake and Mendocino Counties to the north grew to become the largest fire by area in California history up to that time, burning 459,123 acres before being fully contained in late September 2018. Although the area affected by the fires was mainly open land, 280 structures burned, including 157 residences, further reducing the area's housing supply.

Although many of these units have been replaced in the years since these fires, the 2019-2023 ACS reports 206,315 housing units in Sonoma County compared to 207,631 units in the 2014-2018 ACS, **evidencing a net loss of 1,312 units that persists despite six years of rebuilding efforts**.

HOUSING DEVELOPMENT

In response to the pressure of housing cost and availability, the City of Cloverdale has worked to identify parcels that can be used for the development of more housing, including units for low- and moderate-income families, and part of the Housing Element of its General Plan.

Table 11. City of Cloverdale Planned, Approved, and Pending Housing Projects

Project	Total Units	Status	Anticipated Occupancy
Alexander Valley Resort	65	Development agreement approved, ready for building permits	2026-2029
Baumgardner Ranch	231	Final map recorded, annexation complete, building permits issued, site work commenced	Apartments Dec.2023, Row houses 2024 Single Family Homes 2025-2026
Vista Oaks	33	Approved June 2022 and ready for building permits	2025
Holt Mixed-Use Building	1	Ready for building permits	2023
Taylor Lynn Apartments 2	22	Grading permit issues, ready for building permits	2023
Bi'Du Kahale	25	Annexed entitlements approved, in plan check status	2025-2026
Sunrise Hills 2	2	Ready for building permits	2023-2026
Biglari	3	Ready for building permits	2023
Opperman	3	Approved. The final map needs to be recorded	2025
Alexander Valley Apartments	75	Approved by Planning Commission	2023-2024
Thyme Square	48	Planned, not yet approved	2026
Total Units	**508**		

Source: City of Cloverdale Housing Element Update 2023-2031 *https://www.cloverdale.net/458/Housing-Element-Update*

Taken together, these projects would increase the City of Cloverdale's total housing units by 11.2 percent over the current 4,515 occupied units reported by the ACS.

Cloverdale's plan also reflects the commitment the city has made as a member of the Association of Bay Area Governments[65] to include affordable housing as part of its housing development plans. Cloverdale has pledged 335 units to **ABAG's regional housing need allocation** (RHNA). The above projects are projected to yield the following number of RHNA-qualifying units:

- **36: Extremely Low Income**
- **142: Very Low Income**
- **112: Low Income**
- **16: Moderate Income**
- **203: Above Moderate Income**

In addition to fostering these developments, the city has adopted new codes to allow permitting of **accessory dwelling units** (ADUs) on the property of existing housing units, and as many as two per site. An average of 4.4 such ADUs have been permitted each year from 2018 to 2022.[66]

City officials are also currently considering a number of other developments and sites.

CHILDCARE COST AND AVAILABILITY

Like housing costs, the high cost and limited supply of childcare present economic challenges for families in Sonoma, Lake, and Mendocino Counties. In those counties and throughout the state, the demand for childcare exceeds the number of available spaces in licensed childcare facilities by at least five to seven times. The annual cost of childcare is also very high, as illustrated in the following table.

The U.S. Department of Health and Human Services (HHS) uses 7 percent of household income as a benchmark for affordable childcare.[67] Although the average cost of childcare in Sonoma,

[65] Association of Bay Area Governments *https://abag.ca.gov/*

[66] U.S. Census Bureau American Community Survey, 5 year 2019-2023, Table S2504.

[67] See the discussion at 81 FR 67438, *https://www.federalregister.gov/documents/2016/09/30/2016-22986/child-care-and-development-fund-ccdf-program*.

Mendocino, and Lake Counties is below the state average, the cost of childcare significantly exceeds the HHS benchmark for many low-income households.

Table 12. Availability and Annual Cost of Childcare by Licensed Provider Type, California, Sonoma County, Mendocino County, and Lake County, 2023

Provider Type, Spaces, Cost	California	Sonoma County	Mendocino County	Lake County
LICENSED CHILD CARE CENTER				
Total spaces available	**718,815**	**8,075**	**1,356**	**716**
Annual cost, full-time infant care	$19,716	$12,648	$14,460	$13,596
Annual cost, full-time toddler care	$12,288	$10,416	$10,536	$10,200
Annual cost, full-time preschooler care	$11,700	$10,268	$8,724	$8,448
Percent offering evening, weekend, or overnight care	2%	0%	0%	0%
LICENSED FAMILY CHILD CARE HOME				
Total spaces available	**271,517**	**3,212**	**656**	**768**
Annual cost, full-time infant care	$14,784	$14,880	$12,456	$12,060
Annual cost, full-time toddler care	$12,384	$12,060	$11,028	$10,716
Annual cost, full-time preschooler care	$11,228	$11,616	10,440	10,128
Percent offering evening, weekend, or overnight care	35%	10%	31%	14%
ALL LICENSED FACILITIES				
Total spaces available	990,332	11,287	2,012,	1,44
Est. number of children 0–12 (in 2023)	6,077,962	65,821	13,619	10,912
Number of children per space	6.7	5.8	6.8	7.4
# Children enrolled in subsidized childcare	389,213	3,751	975	892

Source: California Child Care Resource & Referral Network, 2023 California Child Care Portfolio, May 2025, *https://rrnetwork.org/research/child_care_portfolio*

Availability is a particular concern with regard to infant care. Although care for children aged 0–2 accounted for 38 percent of all childcare requests statewide in 2019, only 6.7 percent of available spaces in licensed care centers were open to children aged two and under.[68]

Finding childcare can also be a major problem for parents who work evenings or weekends. In 2023, only 2 percent of Licensed Child Care Centers statewide provided such care. No licensed childcare centers in Sonoma, Mendocino, or Lake Counties offered evening, weekend, or overnight childcare.

[68] California Child Care Resource & Referral Network, *2019 California Child Care Portfolio*, Feb. 2020, *https://rrnetwork.org/research/child_care_portfolio.*

Licensed Child Care Homes were more likely to offer overnight, evening, or weekend coverage. However, in Sonoma County, only 10 percent of licensed family childcare homes offered such evening or weekend, or overnight care, compared to 31 percent of licensed homes in Mendocino County and 14 percent in Lake County. Statewide, 35% of Licensed Child Care Centers provide evening, weekend, or overnight care.[69]

The limited availability of childcare can create a barrier to family members' employment. For example, if childcare is not available, it may be difficult or impossible for both parents in a two-parent household to work at the same time, or for a single parent to work full-time.

Educational Attainment

Education is increasingly seen as a major factor in the financial well-being of individuals and families, and consequently in their health. In the human development index used for *A Portrait of Sonoma County*, education was one of the three weighted indices used to assess the county's overall health. The analysis in that 2014 report revealed pronounced differences in educational attainment in the 12 neighborhood areas that comprise most of northern Sonoma County. The East Cloverdale neighborhood scored the lowest among the 12 neighborhoods in terms of adults who had completed high school, a college degree, or a graduate or professional degree.[70]

According to U.S. Census American Community Survey estimates for 2019-2023, only 81.8 percent of adults over age 25 in the AVH service area are high school graduates, compared to 87.5 percent in Sonoma County and 84.7 percent statewide.

Women in the service area were more likely to have completed high school than men (86.4 versus 77.7 percent). In Sonoma County as a whole, 89.6 percent of women over 25 and 85.2 percent of men over 25 had completed high school.

Service area adults are also less likely to have completed a bachelor's or higher degree: 30.0 percent have done so, compared to 37.4 percent of Sonoma County adults.

[69] Ibid.

[70] Sarah Burd-Sharps et al, A Portrait of Sonoma County: Sonoma County Human Development Report 2014 (Brooklyn, N.C.: Measure of America (A project of the Social Science Research Council), May 2014), p. 47.

This difference has long-term implications for employment opportunities, income, health benefits, and health.

Table 13. Education Attainment, Sonoma County and AVH Service Area

Population Group	Sonoma County, #	Sonoma County, %	Service Area, #	Service Area, %
Population 25 years of age or older	354,748	100.0%	11,446	100.0%
Has not completed high school	44,382	12.5%	2,086	18.2%
High school graduate or higher	310,367	87.5%	9,360	81.8%
Bachelor's degree or higher	132,782	31.4%	3,475	30.4%

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023

Table 14. Education Attainment, Mendocino and Lake Counties

Population Group	Mendocino County, #	Mendocino County, %	Lake County #	Lake County %
Population 25 years of age or older	64,380	100.0%	48,642	100.0%
Has not completed high school	7,301	11.3%	6,118	12.6%
High school graduate or higher	57,079	88.7%	42,524	87.4%
Bachelor's degree or higher	18,292	28.4%	8,189	16.8%

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023

The COVID-19 public health emergency made education more difficult for public school students at all levels. In March 2020, public health orders kept students from attending school in person. This was followed by periods of in-person classes, online classes, part-time classes, and other variations. While virtual classes have been safer from a public health standpoint, the technology required to attend those classes (including both equipment and access to high-speed Internet service) was unfamiliar or unavailable to some households, creating additional barriers to educational equity.

The Family Experiences During the COVID-19 Pandemic questionnaire series found that in July 2021, shortly after the end of the 2020–2021 school year, almost half (46.2 percent) of California caregivers with school-age children (aged 5–17) reported being either "moderately concerned" or "extremely concerned" that their child was falling behind in school. In Bay Area counties (including Sonoma County), the percentage was even higher: 48.9 percent.[71]

[71] American Academy of Pediatrics, Centers for Disease Control and Prevention, Prevent Child Abuse America, and Tufts Medical Center, *Family Experiences During the COVID-19 Pandemic* questionnaire (Jul. 2021), including California oversample courtesy of the Lucile Packard Foundation for Children's Health and California Essentials for

Subsequent research supports that concern. In 2022, the National Center for Education Statistics (NCES) conducted a special administration of the National Assessment of Education Progress (NAEP) Long-Term Trend (LTT) reading and mathematics assessments for age nine students to examine achievement during the COVID-19 pandemic. That data reveals that average scores for age nine students in 2022 were 5 points lower in reading and 7 points lower in mathematics than in 2020.

This represents the largest decline in reading scores recorded since 1990, and the first-ever drop in mathematics scores. Furthermore, the scores of lower-performing students (those below the 25th percentile) fell farther than did those of their higher-performing peers (those at or above the 75th percentile).[72]

Population Experiencing Homelessness

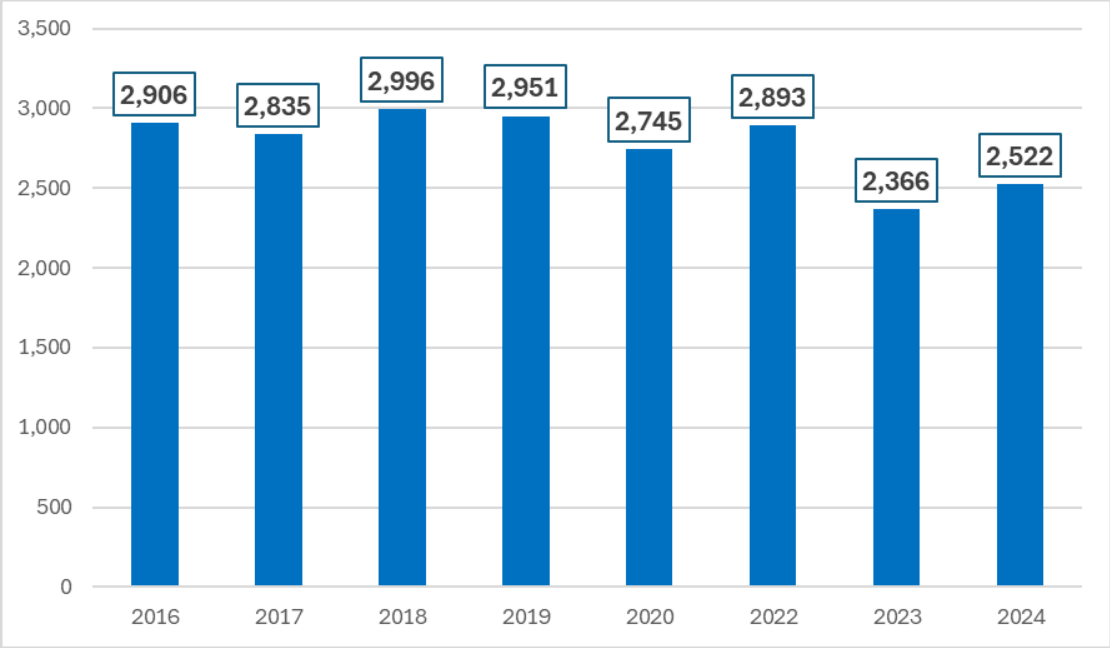
Sonoma County conducts a regular "point in time" census of its homeless population, per U.S. Department of Housing and Urban Development (HUD) requirements. The two most recent published counts were conducted the night of January 24, 2024.

According to these censuses, the number of homeless individuals in Sonoma County grew 11.3 percent over the 2023 "point-in-time" count, from 2,266 individuals in 2023 to 2,522 individuals in 2024. However, the total number of homeless individuals counted remains well below the peak of the "point-in-time" count of 4,359 recorded in 2011, during the last recession.

Childhood Initiative (California Dept. of Public Health, Injury and Violence Prevention Branch and California Dept. of Social Services, Office of Child Abuse Prevention), as cited on kidsdata.org.

[72] U.S. Dept. of Education, National Center for Education Statistics, "Fast Facts: Long-term trends in reading and mathematics achievement," Sep. 12, 2022, *https://nces.ed.gov/fastfacts/display.asp?id=38*.

Figure 3. Point-in-Time Homeless Counts, Sonoma County, 2016–2024



Source: Applied Survey Research, *County of Sonoma, 2024 Point in Time Count Results*. No point-in-time count was conducted in 2021.

Using its methodology, Applied Survey Research (ASR) extrapolates from the "point-in-time" data to a projected number of "unique homeless experiences" persons likely had during the year. For 2024, ASR projected 5,591 such homelessness experiences in Sonoma County.

Local service agencies and advocates generally consider the point-in-time figures to be undercounts of the number of persons experiencing homelessness, for several reasons:

- First, the total reported is lower than the number of homeless patients that the six federally funded health centers in Sonoma County report serving in a year in their annual Uniform Data System (UDS) reports. Those six organizations reported a total of 5,660 patients experiencing homelessness in calendar year 2024. Adding the number of homeless individuals served by organizations that are not required to submit UDS reports, such as the Sonoma County Indian Health Project (SCIHP) and County of Sonoma Health Services, would likely make the total even greater.

- Second, the 11.3 percent increase recorded is well below the increase across all such point-in-time censuses in 2023. Statewide, these censuses counted 173,800 homeless

individuals, an increase of 22,500 (14.9 percent) over the previous census in 2019.[73] (Note: no "point-in-time" count was conducted during 2020 due to the COVID-19 pandemic).

- Third, the point-in-time methodology depends to some extent on homeless shelters, and many areas of the county (primarily rural areas) lack any shelters. Moreover, some homeless individuals may stay in places that are difficult for volunteer census-takers to reach or identify (e.g., in cars or vans), and some individuals may be reluctant to be counted.

Despite their limitations, the point-in-time counts remain the most detailed available enumerations of the county's homeless population and its characteristics.

HOMELESS POPULATION: SHELTERED VS. UNSHELTERED

Only 37.5 percent of the people identified in this count were **sheltered** (down from 43.0 percent in 2023), leaving 1,577 people **unsheltered**, as compared to 1,291 in 2023.

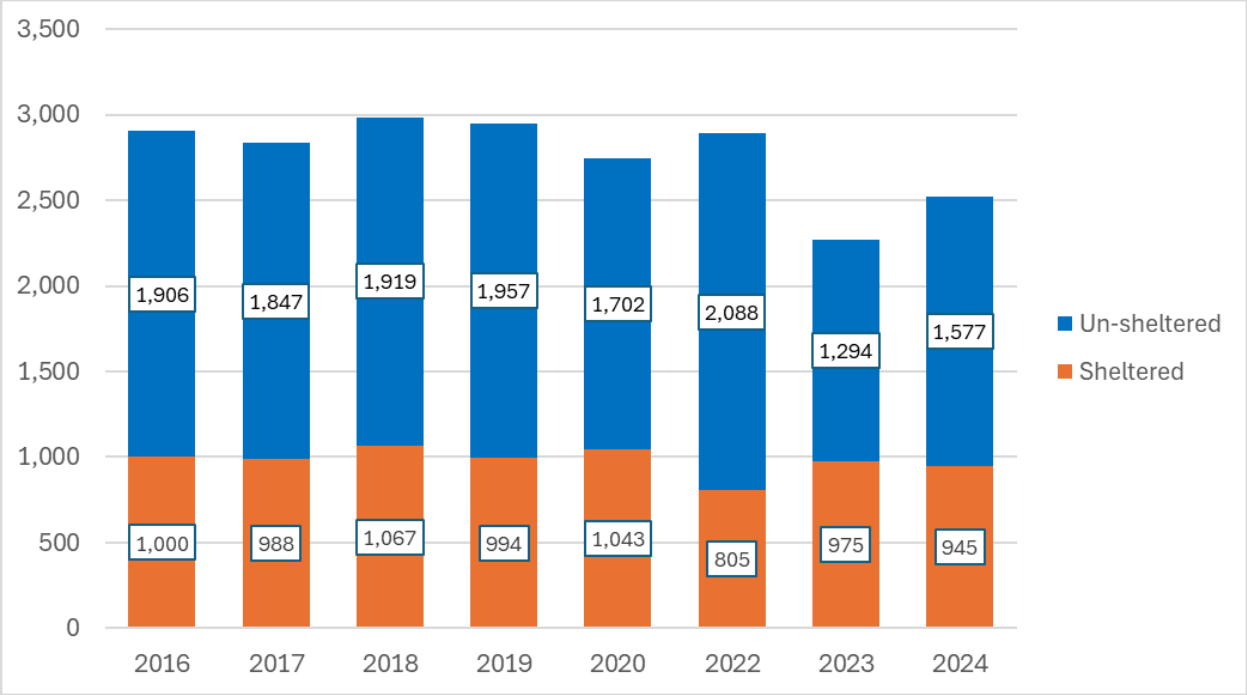
The unsheltered individuals were living in vehicles (13 percent), in tents/encampments (11 percent), in motels (5 percent), in abandoned buildings (2 percent), as well as those sleeping rough on the street (51 percent).

Table 15. Sheltered or Unsheltered Persons by Year of Point-in-Time Homeless Count

Year	2016	2017	2018	2019	2020	2022	2023	2024
Sheltered	1,000	988	1,067	994	1,043	805	975	945
Un-sheltered	1,906	1.847	1,919	1,957	1,702	2,088	1,294	1.577
Total	2,906	2,835	2,996	2,951	2,745	2,893	2,366	2,522

[73] Manuela Tobias, "California Homeless Population Grew by 22,000 Over Pandemic," CalMatters, Oct. 6,2022. https://calmatters.org/housing/2022/10/california-homeless-crisis-latinos/.

Figure 4. Point in Time Homeless Count by Year, By Sheltered or Unsheltered



The homeless population most likely to be sheltered were homeless families with children. The 2024 point-in-time count recorded families with 198 members, of whom only six were unsheltered.

Table 16. Sonoma County Homeless Population, Number Sheltered and Unsheltered, Point-in-Time Counts, 2023 and 2024

Category	In Shelter, 2023	Not in Shelter, 2023	Total, 2023	In Shelter, 2024	Not in Shelter, 2024	Total, 2024
All homeless	975	1,291	2,266	945	1,577	2,411
In families with children	194	9	203	187	11	198
Unaccompanied children (<18) and transition-age youth (18–24)	26	269	294	32	115	147
Chronically homeless	231	319	550	189	477	606
Veterans	36	74	110	24	138	162

Table 17. Sonoma County Homeless Population, Percent Sheltered and Unsheltered, Point-in-Time Count, 2023 and 2024

Category	In Shelter, 2023	Not in Shelter, 2023	In Shelter, 2024	Not in Shelter, 2024
All homeless counted	**43%**	**57%**	**37%**	**63%**
In families with children	95.6%	4.4%	94.4%	5.6%
Unaccompanied children (<18) and transition-age youth (18–24)	8.8%	91.5%	7%	93%
Chronically homeless	42.0%	58.0%	31%	69%
Veterans	32.7%	67.3%	24%	76%

Source: Applied Survey Research, County of Sonoma 2024 Point in Time Count Results

As the tables above indicate, the number of unaccompanied homeless children under age 18 and transition-age young adults (aged 18–24) fell from 294 in 2023 to 147 in 2024. These are highly vulnerable populations, 78.2 percent of whom were unsheltered in 2024.

The number of persons who met the HUD definition of "chronically homeless individuals"[74] rose from 550 in 2023 to 606 in 2024, a 10.2 percent increase. More than 78.7 percent of chronically homeless individuals were unsheltered in the 2024 count.

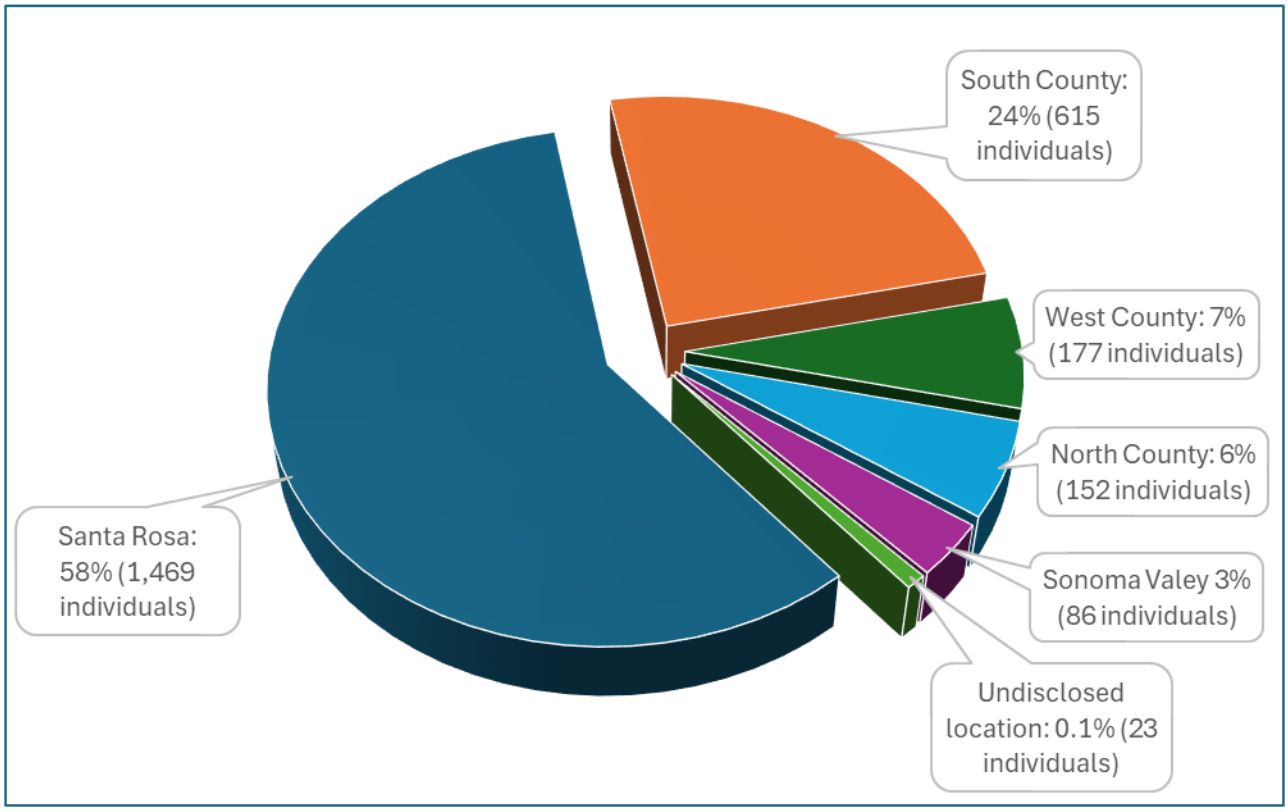
Geographic Distribution

Almost three-fifths (58.2 percent) of the homeless individuals counted in 2024 were in the Santa Rosa area (which includes the City of Santa Rosa and surrounding unincorporated areas).

Of the remainder, 6.0 percent were in the North County area (which includes Cloverdale, Healdsburg, Windsor, and unincorporated areas); 24.4 percent were in the South County area (which includes Cotati, Petaluma, Rohnert Park, and unincorporated areas); 7.0 percent were in the West County area (which includes the City of Sebastopol and unincorporated areas); and the remaining 3.4 percent were in the Sonoma Valley area (which includes the City of Sonoma and unincorporated areas). About 1 percent were people whose location was undisclosed.

[74] HUD defines a chronically homeless individual as someone who has experienced homelessness for a year or longer, or who has experienced at least four episodes of homelessness totaling 12 months in the last three years, and also has a disabling condition that prevents them from maintaining work or housing.

Figure 5. Sonoma County Homelessness by Region of the County, 2024 Point-In-Time Count



Homeless Demographics

Nearly half (47 percent) of the persons contacted in the homelessness count reported as white. The second largest population was Hispanic/Latino (15 percent), followed by Black/African American (7 percent), American Indian/Alaskan Native/or Indigenous (6 percent), and several groups of multi-racial individuals.

The majority of homeless individuals in the two most recent point-in-time counts were men: 60 percent in 2023, and 62 percent in 2024.

Survey Responses

Along with the point-in-time counts, Sonoma County conducts in-person surveys to assess other characteristics of the homeless population. There were 361 respondents in 2024.

Approximately 29 percent of survey respondents in 2024 said they were experiencing homelessness for the first time. This was slightly lower than the 35 percent in 2023 who reported being homeless for the first time.

Of respondents who reported being homeless for the first time in 2022:

- 13 percent were under age 18.
- 25 percent were aged 18–24.
- 48 percent were aged 25–49.
- 14 percent were aged 50 and older.

Seventy-seven percent of 2024 respondents said their current episode of homelessness had lasted for a year or more. This is an increase from 69 percent of 2023 survey respondents who indicated that their current experience of homelessness had lasted for a year or more.

Seventy-nine percent of 2024 respondents said they had lived in Sonoma County before losing housing, while 14 percent had resided elsewhere in California. Only seven percent said they had lived out of state before becoming homeless.

The most common reason 2020 and 2022 respondents reported for becoming homeless was a lost job: 25 percent in 2024 compared to 19 percent in 2023. Other reasons included: Drug or alcohol use (18 percent), argument with family, friends, or roommate (16 percent), Eviction (15 percent), or cost of living (10 percent).

When asked about the obstacles to their obtaining permanent housing, the most common responses are lack of a job (given by 57 percent) or not enough income (47 percent), no money for moving costs (35 percent), no housing available (28 percent), or lack of transportation (27 percent).

Other Survey Results

Seventeen percent of 2024 respondents described themselves as lesbian, gay, bisexual, transgender, queer, or other (LGBTQ+). This is significantly greater than recent national estimates of the overall LGBTQ population (which Gallup put at 4.5 percent in 2018)[75], reflecting the disproportionate economic vulnerability of LGBTQ Americans. It is also lower than the 20 percent of Sonoma County 2023 survey respondents who identified as LGBTQ.

[75] Frank Newport, "In U.S., Estimate of LGBT Population Rises to 4.5%," Gallup, May 22, 2018, *https://news.gallup.com/poll/234863/estimate-lgbt-population-rises.aspx*.

Twenty-five percent of all 2024 respondents reported experience of domestic violence, down from 27 percent in the 2023 survey.

Eleven percent of 2024 survey respondents said they had at some point traded sex for money or shelter, and three percent of respondents said they had been victims of sex trafficking (i.e., forced to participate in commercial sex).

In the 2024 survey, 17 percent of respondents reported a history of being in the foster care system in 2022.

Many survey respondents reported **health conditions** that affect their housing stability or employment. In the 2024 survey:

- 30 percent of respondents reported having a disabling condition, as defined by HUD.[76]
- 47 percent reported that they had drug or alcohol problems.
- 43 percent reported having psychiatric or emotional conditions.
- 30 percent had a physical disability.
- 47 percent reported suffering from post-traumatic stress disorder (PTSD).
- 32 percent had chronic health conditions.
- 17 percent had suffered a traumatic brain injury.
- One percent had HIV/AIDS.

Disabilities

According to the U.S. Census Bureau 2019–2023 American Community Survey data, 13.0 percent of residents of the United States and 11.3 percent of California residents have at least one disability, while 12.4 percent of Sonoma County residents have at least one disability. Each of these percentages represents an increase in the number of disabled estimated in the 2016-2020 ACS data and reported in the 2022 AVH Community Health Needs Assessment. In that

[76] The executive summary of the 2022 homeless census report explains that by HUD definitions, a disabling condition is “a development disability, HIV/AIDS, or a long-term physical or mental impairment that impacts a person’s ability to live independently but could be improved with stable housing.”

ACS, 8.7 percent of U.S. residents, 11.7 percent of Sonoma County residents were estimated to be disabled.

Approximately 1,602 residents in AVH's three Service Areas ZIP Codes (10.7 percent) have disabilities according to the most recent ACS. The ACS estimates that the percentage of persons with disabilities is higher in neighboring counties to the north, such as Mendocino County (17.5 percent) and Lake County (22.2%).

Currently, the Census Bureau reports on six disability types:

Hearing difficulty: Being deaf or having serious difficulty hearing

Vision difficulty: Being blind or having serious difficulty seeing, even when wearing glasses

Cognitive difficulty: Having difficulty remembering, concentrating, or making decisions because of a physical, mental, or emotional problem

Ambulatory difficulty: Having serious difficulty walking or climbing stairs

Self-care difficulty: Having difficulty bathing or dressing

Independent living difficulty: Having difficulty doing errands such as visiting a doctor's office or shopping alone because of a physical, mental, or emotional problem.

Table 18. Population with Disabilities by Type of Disability and Geographical Area, State of California, Sonoma, Mendocino, and Lake Counties

Disability Type	California	Sonoma County	Mendocino County	Lake County
Population on which the estimates are based	38,761,738	479,124	88,387	67,314
Est. Total Persons with any Disability	4,364,431	59,400	15,465	14,949
# Males with a disability	2,100,090	28,472	7,905	8,009
# Females with a disability	**2,264,341**	**30,928**	**7,560**	**6,940**
# Persons by Type of Disability				
Hearing disability	1,155,765	17,989	6,233	4,595
Vision disability	825,795	8,672	2,795	4,183
Cognitive disability	1,733,010	23,783	5,413	5,485
Ambulatory disability	2,137,316	4,516	7,896	7,453
Self-care disability	993,179	11,158	3,356	3,679
Independent living disability	1,734,690	22,665	6,937	6,703

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023, Table S1810

Table 19. Percent of Population with Disabilities by Gender, by Type of Disability, and by Geographical Area, State of California, Sonoma, Mendocino, and Lake Counties

Disability Type	California	Sonoma County	Mendocino County	Lake County
Population on which the estimates are based	38,761,738	479,124	88,387	67,314
Percent of Persons with any disability	**11.3%**	12.4%	17.5%	22.2%
% Persons with a Disability				
% Males with a disability	10.9%	12.1%	17.6%	24.2%
% Females with a disability	11.6%	12.7%	17.4%	20.3%
% of Persons by Type of Disability				
Hearing disability	3.0%	3.8%	7.1%	6.8%
Vision disability	20.9%	1.7%	3.2%	6.2%
Cognitive disability	4.7%	5.2%	6.4%	8.6%
Ambulatory disability	5.8%	5.1%	9.4%	11.7%
Self-care disability	2.7%	2.4%	4.0%	5.8%
Independent living disability	5.8%	5.8%	9.8%	12.7%

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019-2023, Table B18108

The proportion of the population that has two or more disabilities also rises by age, as illustrated in the two tables below.

Table 20. Number of People with Disabilities by Age Group and Geographical Area, California, Sonoma, Mendocino, and Lake Counties

Age Group and Disabilities	California	Sonoma County	Mendocino County	Lake County
Under 18, one disability	230,907	3,068	1,365	441
Under 18, two or more disabilities	127,234	1,007	0	252
18-34 years, one disability	356,280	3,169	852	661
18-34 years, two or more disabilities	259,555	3,970	534	608
35–64 years, one disability	833,841	11,407	2,202	1,879
35-64 years, two or more disabilities	670,896	7,734	3,041	3,616
65-74, one disability	437,557	6,729	1,597	2,140
65-74 years, two or more disabilities	390,469	5,262	832	2,154
75 and over, one disability	450,000	7,965	1,753	1,144
75 and over, two or more disabilities	763,000	9,089	3,289	2,054

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019-2023, Table B18108

Table 21. Percent of Population with Disabilities, Age Group, and Geographical Area, California, Sonoma, Mendocino, and Lake Counties

Age Group and Disabilities	California	Sonoma County	Mendocino County	Lake County
Under 18, one disability	2.7%	3.4%	7.7%	3.0%
Under 18, two or more disabilities	1.5%	1.1%	0	1.7%
18-34 years, one disability	3.8%	3.4%	5.6%	5.6%
18-34 years, two or more disabilities	2.8%	4.2%	3.5%	5.2%
35–64 years, one disability	3.9%	3.4%	6.7%	5.6%
35-64 years, two or more disabilities	2.8%	4.1%	9.2%	5.2%
65-74 years, one disability	11.2%	10.7%	12.8%	19.8%
65-74 years, two or more disabilities	10.8%	8.4%	6.7%	20.0%
75 and over, one disability	17.4%	18.1%	17.6%	17.0%
75 and over, two or more disabilities	29.6%	20.7%	33.0%	30.6%

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019-2023, Table B18108

Sonoma County's ethnic populations with the highest percentage of people with disabilities parallel California as a whole:

1. Native American/American Indian
2. Black/African American
3. White non-Hispanic

Hispanics/Latinos of any race have lower proportions of people with disabilities in Sonoma County than in the State, Mendocino, or Lake counties.

However, a higher proportion of Asians in Sonoma County have one or more disabilities than statewide.

Whites in both Mendocino and Lake counties have higher percentages of people with disabilities than either Sonoma County or California overall.

Table 22. Percent of Population with Disabilities by Race and Ethnicity, and Geographical Area, California, Sonoma, Mendocino, and Lake Counties

Race & Ethnicity	California	Sonoma County	Mendocino County	Lake County
Percent of total persons with any disability	**11.3%**	12.4%	17.5%	22.2%
White alone	13.9%	13.9%	21.5%	25.4%
Black/ African American alone	14.5%	14.6%	N	N
American Indian and Alaska Native alone	15.7%	13.2%	15.1%	N
Asian Alone	7.9%	14.6%	N	N
Native Hawaiian and Other Pacific islanders	12.7%	N	N	N
Some other race alone	10.0%	9.8%	18.4%	12.6%
Two or more races	10.2%	8.4%	8.9%	17.5%
White Alone, Not Hispanic or Latino	14.3%	14.2%	21.6%	25.6%
Hispanic or Latino any race	**9.9%**	**9.2%**	**10.4%**	**13.8%**

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019-2023, Table B18108

Although AVH's Service Area has a lower percentage of residents with disabilities than Sonoma County, the three ZIP Codes (ZCTAs) that make up the Service Area have varying disability percentages. Both Geyserville (ZIP Code 95441) and Hopland (ZIP Code 95449) have higher rates than Cloverdale (ZIP Code 95425).

Table 23. ACS Estimated Population with Disabilities by Type of Disability and Geographical Area, AVH Service Area ZIP Codes (ZCTAs)

Disability Type	Service Area	Cloverdale ZCTA 95425	Geyserville ZCTA 95441	Hopland ZCTA 95449
Total population estimate is based upon	14,993	11,345	1,820	1,825
Est. # Persons with one or more disabilities	1,602	1,134	236	232
# Males with one or more disabilities	729	408	166	134
# Females with one or more disabilities	874	726	70	78
Estimated # Persons by Type of Disability				
Hearing disability	667	492	101	74
Vision disability	153	95	14	44
Cognitive disability	461	370	31	60
Ambulatory disability	748	452	149	0
Self-care disability	192	127	30	35
Independent living disability	565	401	63	101

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023, Table S1810

Table 24. Percent Population with Disabilities by Type of Disability and Geographical Area, AVH Service Area ZIP Code (ZCTAs)

Disability Type	Service Area	Cloverdale ZCTA 95425	Geyserville ZCTA 95441	Hopland ZCTA 95449
Total Population estimate is based upon	14,993	11,345	1,820	1,825
Est. % Total Persons with a disability	**10.7%**	**10.0%**	**13.0%**	**12.7%**
Males with a disability	9.5%	7.3%	16.0%	14.9%
Females with a disability	11.9%	12.6%	8.9%	9.8%
% of Total Persons by Type of Disability				
Hearing disability	4.4%	4.3%	5.5%	4.1%
Vision disability	1.0%	0.8%	0.8%	2.4%
Cognitive disability	3.1%	3.3%	1.7%	3.3%
Ambulatory disability	5.0%	4.0%	8.2%	0
Self-care disability	1.3%	1.1%	1.6%	1.9%
Independent living disability	3.8%	3.5%	3.5%	5.5%

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019–2023, Table S1810

The distribution of disabilities by age illustrates the higher number of older Service Area residents who have multiple physical or cognitive impairments, and a decreasing ability to live on their own without family caregivers or other support.

Table 25. Number of Disabilities by Age Groups and Types of Disabilities, AVH Service Area ZCTAs

AVH Service Area	Under 18 years	18-34 years	35-64 years	65-74 years	75 years and over	Totals
Est. Population by Age	2,659	2,630	6,249	2,360	1,095	14,993
Type of Disability						
Hearing difficulty	31	-	44	180	412	667
Vision difficulty	-	5	81	38	29	153
Cognitive difficulty	36	29	158	133	105	461
Ambulatory difficulty	8	2	196	339	203	748
Self-Care difficulty	8	2	77	76	29	192
Independent Living difficulty	0	28	250	158	129	565
Totals	83	66	806	924	907	2,786
Percent with disability	**3.1%**	**2.5%**	**12.9%**	**39.2%**	**82.3%**	

Source: U.S. Census Bureau, American Community Survey 5-year estimates, 2019-2023, Table S1810

Health Insurance Changes

Sonoma County's percent of uninsured residents has continued to fall in recent years. The 2014-2018 ACS reported that only 6.9 percent of Sonoma County's residents were uninsured. The 2019-2023 ACS estimated that only 5.4 percent of residents were uninsured. Among residents under age 19, the percentage of uninsured is even lower: 3.2 percent.

Examined by age group, the ACS data for 2019-2023 suggests a new observation: that a rising number of Sonoma County and AVH Service Area residents have multiple health insurance coverages. Several factors may be triggering this pattern of multiple coverages. For example:

- Many residents with employer insurance may have **family members who are not covered by their employer insurance**. Therefore, they seek direct purchase of health insurance (including through the Covered California ACA marketplace) to fill coverage gaps.

- More seniors are continuing to work past age 65 and have some employer insurance, even when they enroll in Medicare, which would be reported as having both employer coverage and Medicare.

- Many **low-income Medicare beneficiaries are also eligible for Medi-Cal** and need Medi-Cal coverage to pay for Medicare Part B premiums, deductibles, and co-payments, and for services such as vision and dental care, that fee-for-service Medicare does not cover.

- People **under age 65 with *Social Security survivor benefits or disability benefits*** may qualify for Medicare benefits and Medi-Cal.

Table 26. Detailed Health Insurance Coverage Estimates for AVH Service Area

	Under 19	Ages 19 - 64	65 & Older	Totals
AVH SERVICE AREA				
# Persons for Whom Coverage is Est.				14,993
Private Coverage – 58.2%				
• Employer-based insurance	1,640	5,597	1,051	**8,289**
• Direct purchase Insurance	219	1,224	1,267	**2,710**
• Tricare/military insurance	0	27	11	**38**
Public Coverage – 36.9%				
• Medicare	0	336	3,219	**3,555**
• Medicaid/CHIP	1,146	1,470	503	**3,219**
• Veterans Administration/other	0	31	184	**215**
Subtotals	3,106	8,685	6,235	**18,026**
Uninsured – 4.9%	24	794	120	**938**
Totals	3,130	9,479	6,355	**18,964**

Table 27. Detailed Health Insurance Coverage Estimates for Sonoma County

	Under 19	Ages 19 - 64	65 & Older	Totals
SONOMA COUNTY				
# Persons for Whom Coverage is Est.				479,124
Private Coverage - 59.5%				
Employer-based insurance	57,847	179,560	34,063	**271,470**
Direct purchase of Insurance	8,883	36,572	34,778	**80,233**
Tricare/military insurance	1,404	2,144	3,491	**7,039**
Public Coverage – 36.2%				
Medicare	373	8,439	101,734	**110,546**
Medicaid/CHIP	32,368	51,727	14,003	**98,098**
Veterans Administration/other	31	2,855	6,654	**9,540**
	100,906	281,297	194,723	**576,926**
Uninsured - 4.3%	3,231	22,168	661	**26,060**
	104,137	303,465	195,384	**602,986**

Based on the larger firms in Santa Rosa, Petaluma, and other urban areas of the County, it might be anticipated that the county as a whole would have a higher percentage of residents with employer coverage than AVH's service area. However, when all sources of insurance are considered, the percentage of privately insured residents in Sonoma County as a whole (59.5 percent) is less than 1.3 percentage points higher than AVH's Service area (58.2 percent).

The proportion of residents on public insurance in the AVH service area (36.9 percent) is 0.7 percent higher than in Sonoma County (36.2 percent). Sonoma County residents as a whole

have a lower percentage (4.3 percent) of uninsured residents than AVH service area residents (4.9 percent). [77]

[77] A NOTE: On July 17, 2025, the Centers for Medicare and Medicaid (CMS) issued a press release saying that as many as 2.8 million Americans enrolled in Medicaid or the Children's Health Insurance Program (CHIP) and simultaneously enrolled in a subsidized health plan in an Affordable Care Act (ACA) exchange plan were being covered twice. The data on which that announcement was made has not been publicly released. This data is from the U.S. Census Bureau American Community Survey five-year estimates and is not detailed enough to make such a cross-coverage analysis.

PART TWO: Population Served

Overview

This chapter examines the demographics of the patients served by Alexander Valley Healthcare (AVH), comparing the last two years before the COVID-19 pandemic, **2018–2019**, the first two years of the pandemic, **2020–2021**, with the two years since**, 2022-2023**, to assess how the origins, age, gender, ethnicity, poverty status, and insurance coverage of the AVH patient population have shifted since the 2022 needs assessment.

Overall Patient Population Trends

AVH EHR data shows that the number of single-year unduplicated users fell from 4,221 in 2019, the last year before the COVID-19 pandemic, to 4,064 in 2020, the first year of the pandemic, a drop of 3.5 percent. This modest decline primarily reflects the restrictions on nonessential services during the early months of the pandemic, which discouraged patients from seeking nonemergency care and made some services, such as dental care, temporarily unavailable.

In 2021, the number of unduplicated users rose to 4,514, an increase of 11.7 percent from 2020 and 6.9 percent more than in 2019. This swift recovery provides strong evidence that the 2020 decline was a short-lived side effect of the pandemic and that AVH will resume the growth pattern reported in the 2019 needs assessment.

Comparing two-year unduplicated user totals reveals that AVH had 5,472 unduplicated patients in the 2018–2019 period, rising to 5,708 unduplicated users during the 2020–2021 period, a 4.3 percent gain. The two-year totals leveled off in 2022-2023, to 5,331 unduplicated users.[78]

Age

The age ranges of **annual unduplicated AVH patients**, which had been relatively consistent through 2019, underwent a number of changes in the periods 2020-2021 and 2022-2023.

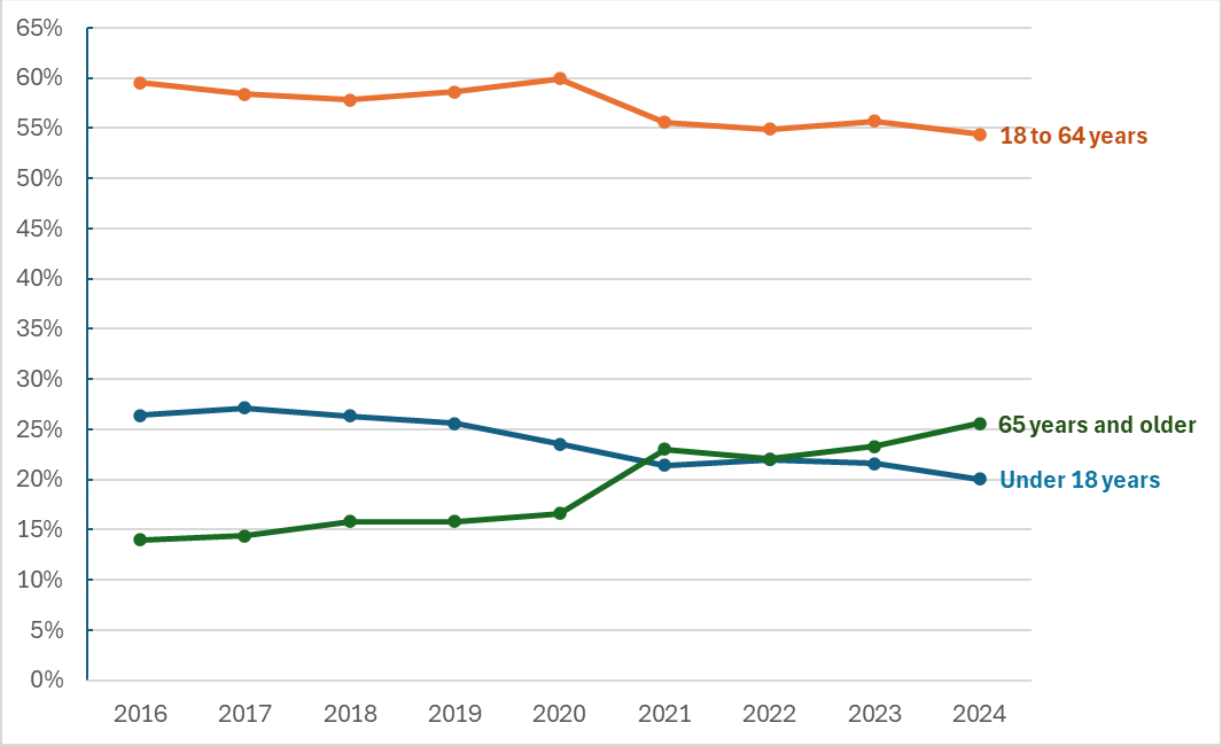
[78] Important Note: Although AVH served a total of 5,472 unduplicated patients in 2018–2019 and 5,708 unduplicated patients in 2020–2021, the electronic health record system contains complete data in all necessary demographic fields for only 5,460 users in the 2018–2019 study period and 5,697 users in 2020–2021. To ensure comparability of the demographic data, the two-year patient data presented in the following sections include only those unduplicated patients for whom complete data were available.

- The annual unduplicated patients under age 18 fell slightly from 26.4 percent in 2016 to 25.6 percent in 2019, to 22.0 percent in 2022, and 20.1 percent in 2024.
- The annual percentage of nonelderly adult patients (aged 18–64) fell slightly from 59.5 percent in 2016 to 58.6 percent in 2019, to 54.9 percent in 2022, and 54.3 percent in 2024.
- The annual percentage of patients over 65 increased from 14.0 percent in 2016 to 15.8 percent in 2019, to 22.03 percent in 2022, and 26.6 percent in 2024.

Table 28. AVH Patient Age Groups as Percentage of All Unduplicated Patients, 2016–2024

Age Group	2016	2017	2018	2019	2020	2021	2022	2023	2024
Under 18 years	26.4%	27.1%	26.3%	25.6%	23.5%	21.4%	22.0%	21.6%	20.1%
18 to 64 years	59.5%	58.4%	57.8%	58.6%	59.9%	55.6%	54.9%	55.7%	54.3%
65 years and older	14.0%	14.4%	15.8%	15.8%	16.6%	23.0%	22.03%	23.3%	26.6%

Figure 6. Trends in AVH Patient Age Groups as Percentage of All Patients, 2016–2024



The percentage of AVH patients under 18 years of age fell from 25.0 percent for the two pre-pandemic years (2018-2019) to 21.4 percent for the first two years of the pandemic (2020-2021). In the post-pandemic (2022-2023) period, the percentage of patients under 18 was nearly the same, 21.2 percent. However, this was still higher than the percentage of the service area and Sonoma County as a whole, which was under 18.

Comparing two-year study periods, the percentage of non-elderly adult patients (aged 18–64) fell from 59.9 percent in 2018–2019 to 58.5 percent in 2020–2021 and 56.9 percent in 2022-2023. These figures are lower than the 59.1 percent of the 2019-2023 ACS service area population and 59.7 percent of the Sonoma County population who were aged 18–64.

The most dramatic shift in the two-year data was in the percentage of patients over age 65, which increased substantially, from 15.1 percent of all unduplicated patients in the pre-pandemic 2018–2019 period to 20.0 percent in 2020–2021 and 21.9 percent in 2022-2023. This proportion is now above Census ACS estimates of the elderly population of Sonoma County (21.0 percent) but still below the 23.2 percent of the AVH service area age 65 or over.

Table 29. Number of Persons by Age Groups, Totals, 2020–2021 and 2022-2023

Age Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020-2021	AVH Patients, 2022-2023
Under 18 years	2,659	93,938	1,219	1,128
18 to 64 years	8,918	289,899	3,336	3,033
65 years and older	3,503	101,805	1,142	1,170
TOTALS	**15,080**	**485,642**	**5,697**	**5,331**

Table 30. Percent of Persons by Age Groups, Percentages, 2020–2021 and 2022–2023

Age Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020-2021	AVH Patients, 2022-2023
Under 18 years	17.6%	19.3%	21.4%	21.2%
18 to 64 years	59.1%	59.7%	58.5%	56.9%
65 years and older	23.2%	21.0%	20.0%	21.9%

Gender

AVH has consistently had a greater proportion of female than male patients, although the figures have generally been fairly close. The percentage of female patients rose from 51.7 percent in 2018–2019 to 52.5 percent in 2020–2021, while the percentage of male patients dropped proportionally, from 48.3 percent in 2018–2019 to 47.5 percent in 2020–2021. This trend continued in the 2022- 2023 data period, with females now accounting for 53.7 percent, and males totaling 46.3 percent of all patients.

Table 31. AVH Patients by Gender, 2020-2021 and 2022–2023

Gender	2020-2021 Users	2020-2021 Percentage	2022-2023 Users	2022–2023 Percentage
Male	2,708	47.5%	2,467	46.3%
Female	2,989	52.5%	2,864	53.7%

Special Populations

Through its federal Uniform Data System (UDS) reports, AVH tracks a number of special populations that are considered vulnerable from a health perspective.

Table 32. Special Populations, Totals, 2020–2021 and 2022–2023

Population Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020-2021	AVH Patients, 2022–2023
Children from birth to 5 years	501	22,837	277	218
School-age (5 to 17 years)	2,158	71,701	941	869
Female, 15 to 44 years	2,397	88,466	1,156	1,053
Female, 15-50 years	2,775	102,961	1,339	1,243

Table 33. Special Populations, Percentages, 2020–2021 and 2022–2023

Population Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020-2021	AVH Patients, 2022-2023
Children from birth to 5 years	3.5%	4.7%	4.6%	4.1%
School-age (5 to 17 years)	14.3%	14.6%	16.5%	17.1%
Female, 15 to 44 years	15.9%	15.9%	20.3%	19.7%
Female, 15-50 years	18.4%	21.2%	23.5%	23.3%
% of females	35.8%	41.7%	52.4%	53.6%

INFANTS & YOUNG CHILDREN

Infants and young children under 5 years of age comprised 4.6 percent of AVH patients in 2020-2021 and 4.1 percent of unduplicated 2022–2023 patients. These patient percentages are higher than the percentage of residents under age five in the service area (3.5 percent), but lower than Sonoma County (4.7 percent), according to the 2019-2023 ACS.

SCHOOL-AGE CHILDREN

During the pandemic, the total number of school-age children (aged 5 to 17) served by AVH dropped from 1,026 (18.8 percent) in 2018–2019 to 941 (16.5 percent) in 2020–2021, a drop that at the time seemed to be a COVID-19-related caution about seeking care during the pandemic. At that time, children were often attending school via the internet. The total number of school-aged children fell further to 910 (17.1 percent) in 2022-2023, after COVID precautions had been lifted. This drop no longer appears to be a temporary one, but rather a reflection of demographic shifts. Comparing the five-year U.S. Census American Community Survey for 2019-2023 to the 2014- 2018 ACS shows the number of school-age children in Sonoma County had fallen from ages 5 to 15, and rose only one-tenth of one percent (0.1 percent) among youths aged 15 to 19.

However, school-aged children still comprise a greater percentage of AVH patients than the percentage of school-age children among either the service area (14.3 percent) or Sonoma County (14.7 percent) residents.

WOMEN OF CHILDBEARING YEARS

Women and girls aged 15 to 44 made up an estimated 15.9 percent of Sonoma County and AVH's service area population in 2019-2023, but 19.7 percent of AVH's 2022-2023 patients. This was down from 20.3 percent in 2020-2021.

Census alternative age bracket for women of childbearing years has been included in the 2019-2023 ACS: females aged 15-50. This new age range included 18.4% of AVH's service area population and 21.2% of Sonoma County population. Measured using this larger age range, 23.5 percent of AVH's 2020-2021 patients and 23.3 percent of AVH's 2022-2023 patients were within this definition of female patients in childbearing age.

OTHER SPECIAL POPULATIONS

The pandemic did not significantly alter the number of patients AVH serves from other special populations, such as migrant and seasonal farmworkers, veterans, or persons experiencing homelessness.

Table 34. AVH Other Special Population Patients: Agricultural Workers, Veterans, and Homeless, 2020-2021 and 2022–2023

Population	2020	2021	2020–2021*	2022	2023	2022–2023*
Migrant and seasonal agricultural workers	325	343	399	184	263	338
Veterans	129	128	178	144	131	173
Persons experiencing homelessness	98	71	102	101	134	137

* Total two-year unduplicated patients

Migrant and Seasonal Agricultural Workers

There has been a steady year-over-year increase in the number of agricultural workers and their dependents served by AVH, rising from 240 patients in 2018 to 343 patients in 2021 and 399 unduplicated patients over the two-year period 2020–2021. In 2022, the number of agricultural workers and their family members fell, probably in tandem with the depression in agricultural output that Sonoma County was experiencing, as cited in the last chapter. That decline reversed in 2023. For the two-year 2022-2023 period, AVH had 338 total unduplicated migrant and seasonal agricultural worker patients.

For the single-year period of calendar 2024, the number of migrant and seasonal agricultural employees and their dependents rose to 413 from 305 in calendar 2023.

Migrant and seasonal agricultural worker patients have been across all age ranges, from under 18 to over 65 years of age.

Table 35. AVH Migrant and Seasonal Agricultural Worker Patients, 2020–2021 and 2022–2023

Age Group	2020–2021, Total Users	2020–2021, Percentage	2022–2023, Total Users	2022–2023, Percentage
Under 18 years	148	37.1%	92	27.3%
18 to 64 years	230	57.6%	212	62.7%
65 years and older	21	5.3%	34	10%
Male	202	50.6%	175	51.8%
Female	197	49.4%	168	48.2%
TOTALS	**399**	**100.0%**	**338**	**100.0%**

Veterans

The number of AVH patients who are veterans rose from 124 in 2018–2019 to 178 patients in 2020–2021, a 43.5 percent increase. In the 2022-2023 period, the number of veterans was 173, close to the previous period, despite the drop in total patients.

The percentage of female veterans among those patients increased from 13.7 percent to 17.4 percent of veterans during the 2020-2021 period, and 16 percent in the 2022-2023 period.

The most significant change has been the proportion of veteran patients who are over age 65, which has risen from 53.2 percent in 2018-2019 to 57.9 percent in 2020-2021, and to 71 percent in the 2022-2023 period.

For the single-year period of calendar 2024, the number of unduplicated veterans rose to 121 from 102 in calendar 2023.

Patients Experiencing Homelessness

AVH's patient statistics do not show an increase in persons experiencing homelessness during the first two years of the COVID-19 pandemic; in fact, the total decreased from 98 in 2018 to 72 in 2021. This may reflect the hesitation of resource people like family or friends to "push people out during a pandemic." Following the theoretical end of COVID-19 restrictions, the number of

AVH patients experiencing homelessness has risen again, to 137 unduplicated persons in the 2022-2023 period.

However, as previous needs assessments have explained, it is challenging to measure homelessness in a rural population without shelter facilities. Unhoused people who are temporarily doubled up with friends or relatives do not necessarily report or even identify themselves as being "homeless" when staying in someone else's home. For example, the most recent data available from the Cloverdale Unified School District indicates that of 57 students experiencing homelessness, 55 reported that they were "doubled up with family and friends."[79] For the single-year period of calendar 2024, the number of unduplicated patients who reported experiencing homelessness at the time of service rose to 173, up from 116 in 2023.

Table 36. AVH Patients Experiencing Homelessness, 2020–2021 and 2022–2023

Age Group	Total Users, 2020-2021	Percentage, 2020–2021	Total Users, 2022-2023	Percentage, 2022–2023
Under 18 years	<10	3.9%	12	8.9%
18 to 64 years	90	88.2%	106	77.2%
65 years and older	<10	7.8%	19	13.9%
Male	97	55.9%	72	52.6%
Female	45	44.1%	65	47.4%
Total	**102**	**100.0%**	**137**	**100.0%**

Note: Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy

Race and Ethnicity

Comparing the current 2019-2023 five-year ACS data with the previous five-year 2014-2018 data, one of the most significant shifts in Sonoma County demographics is the rise in persons who report two or more races, from 5.6 percent to 13.7 percent of all residents.

The percentage of AVH's patients who were counted as Hispanic (41.6 percent) exceeded the American Community Survey estimates for the service area (32.6 percent) and Sonoma County (29.4 percent).

[79] California Dept. of Education, Coordinated School Health and Safety Office, Oct. 2019, as cited on kidsdata.org, a program of Population Reference Bureau.

According to the ACS, Mexican Americans comprised 90.6 percent of the estimated Hispanic population in the AVH service area and 80.9 percent of Sonoma County's Hispanics. Puerto Ricans comprised 2.4 percent of the service area's Hispanic residents and 1.5 percent of Sonoma County's Hispanic residents. The balance was comprised of residents of other Hispanic, Latina, or other Spanish origins.

Table 37. Race and Ethnicity, Totals, 2018–2019 and 2020–2021

Race/Ethnicity Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020–2021	AVH Patients, 2022–2023
Hispanic	4,912	142,986	2,340	2,220
White, non-Hispanic	10,057	313,481	2,574	2,376
Black, non-Hispanic	148	7,546	34	41
Asian, non-Hispanic	179	21,539	57	53
American Indian, non-Hispanic	272	6,186	48	46
Native Hawaiian and other Pacific Islanders, non-Hispanic	36	1,511	15	11
Some Other Race	1,940	68,565	N/A	N/A
Other or two or more, non-Hispanic	2,448	66,532	186	134
Unknown or refused to report	N/A	N/A	463	450
Total population	15,080	485,642	5,697	5,331
Any minority	5,023	172,161	2,660	2,506

Source: U.S. Census ACS 2019-2023, Table DP05 AVH Patient Data

Table 38. Race and Ethnicity, Percentages, 2018–2019 and 2020–2021

Race/Ethnicity Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020–2021	AVH Patients, 2022–2023
Hispanic	32.6%	29.4%	44.7%	**41.6%**
White, non-Hispanic	66.7%	64.5%	49.2%	44.6%
Black, non-Hispanic	1.2%	1.5%	0.6%	0.8%
Asian, non-Hispanic	1.8%	4.3%	1.1%	1.0%
American Indian, non-Hispanic	1.8%	0.3%	0.9%	0.9%
Native Hawaiian and Other Pacific Islanders, non-Hispanic	0.2%	0.5%	0.3%	0.2%
Other or two or more, non-Hispanic	4.0%	4.6%	3.2%	0.2%
Any minority	39.8%	35.5%	50.8%	47.0%

Source: U.S. Census ACS 2019-2023, Table DP05 AVH Patient Data

As a result of the shortage of provider staff in the 2020-2023 period, AVH recorded a drop in overall patient volume and a 2.1 percentage-point drop in Hispanic patients served. However, the percentage of AVH patients who are Hispanic (41.6 percent) continues to be greater than the proportion of the Hispanic population of either the service area (32.6 percent) or Sonoma County (29.4 percent).

Language

According to data from AVH's health records, approximately 25.7 percent of patients in the 2022–2023 period "were best served in a language other than English." This was higher than the 21.3 percent of AVH patients who needed an interpreter in 2020–2021.

The percentage of patients needing an interpreter had been dropping steadily, reflecting greater assimilation among service area residents, as well as an increasing number of young Hispanic patients whose English proficiency exceeds that of their parents and grandparents.

However, the rise in the number of seniors in the past four years may have increased the percentage of patients who need language intermediaries.

Poverty Levels

In the 2020–2021 period, 39.1 percent of AVH patients with known incomes were below 100 percent of the federal poverty level (FPL), and 89.0 percent were below 200 percent of the FPL.[80]

This represented a decrease from the 2018–2019 period, during which 46.0 percent of AVH patients had incomes below 100 percent of FPL and 88.4 percent had incomes below 200 percent of FPL. However, the percentages are still far higher than the percentage of Sonoma County residents or service area residents who were low-income in 2020. According to the American Community Survey 2019-2023 estimates, only 8.5 percent of Sonoma County residents had incomes below 100 percent of the FPL, while an estimated 20.0 percent had incomes below 200 percent of the FPL. Similarly, Census estimates indicate that only 6.5 percent of residents of the AVH service area have incomes below 100 percent of the federal poverty level, and only 16.7 percent have incomes under 200 percent of FPL.

Over the past eight years, the percentage of AVH patients with incomes below 200 percent of the federal poverty level has remained high, while the percentages of patients below 100 percent of FPL and between 100 and 200 percent of FPL have fluctuated with economic trends.

Table 39. Patient Poverty Group by FPL, Percentage of Patients of Known Incomes, 2016–2023

Poverty Group	2016	2017	2018	2019	2020	2021	2022	2023
Under 100% of FPL	36.5%	40.5%	42.1%	39.6%	34.5%	36.5%	30.3%	28.4%
100–199% of FPL	47.8%	46.6%	46.0%	52.1%	54.5%	49.8%	56.7%	48.8%
Over 200% of FPL	15.7%	12.9%	11.9%	8.3%	11.1%	13.8%	13.0%	22.9%

[80] The federal poverty level, more properly known as the "poverty guidelines," is an income level set each January by the U.S. Department of Health and Human Services (HHS) and used to determine financial eligibility for many programs intended to support low-income households. For example, community health centers are required to offer sliding scale discounts to patients with incomes up to 200 percent of the poverty guidelines. The HHS poverty guidelines differ somewhat from the poverty thresholds the U.S. Census Bureau uses to estimate poverty, but for population-level calculations such as needs assessments, the Census and HHS figures are generally comparable. For more information, see *https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/frequently-asked-questions-related-poverty-guidelines-poverty*.

Figure 7. Trends in AVH Patient Poverty Group by FPL, Percentage of Patients of Known Incomes, 2014–2021

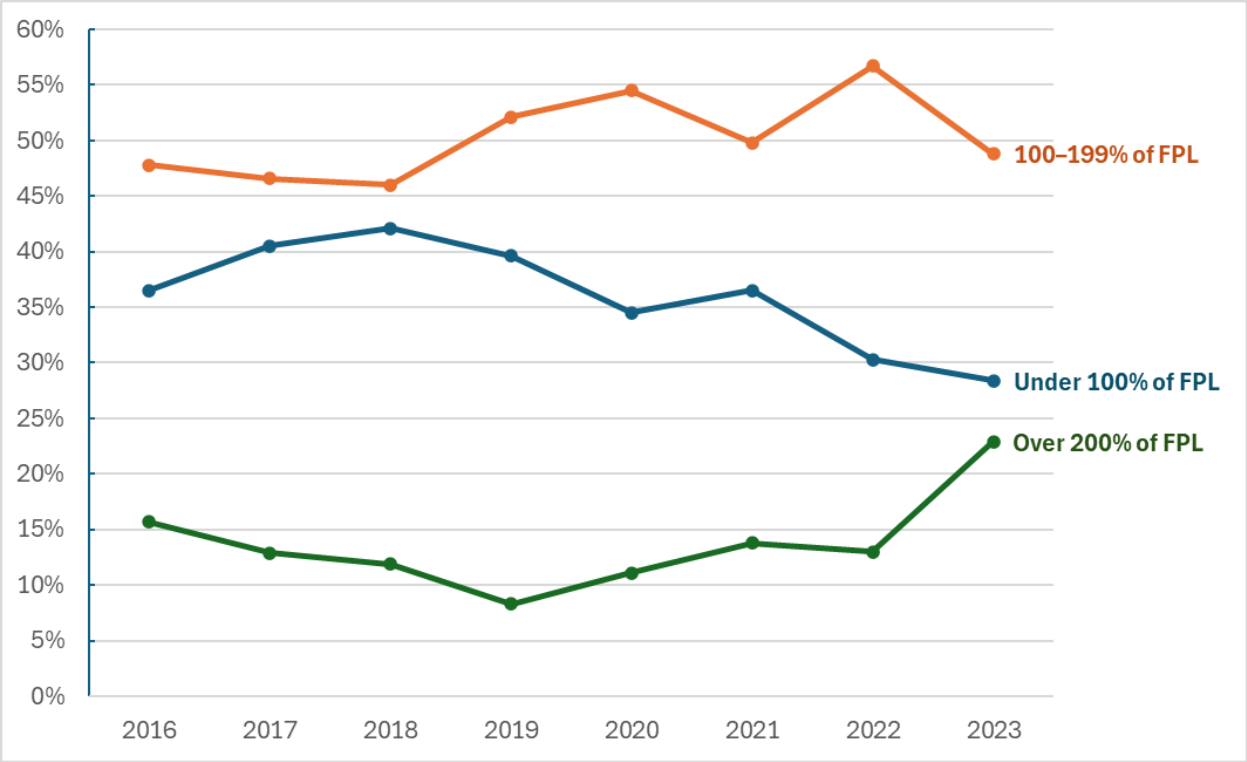


Table 40. AVH Patient Income by FPL, Totals, 2020–2021 and 2022–2023

Income	Service Area, AACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients 2020–2021	AVH Patients, 2022–2023
Below 100% FPL	949	42,142	1,176	1,047
100–199% FPL	1,494	55,738	1,978	1,790
200% FPL and above	12,358	387,994	692	845
Unknown or not reported	---	----	1,861	1,649
Population for whom poverty was determined	14,642	485,874	3,846	3,682
Under 200% of FPL	2,449	97,880	3,154	2,837

Source: Census ACS, Table

Table 41. AVH Patient Income by FPL, Percentages, 2020–2021 and 2022–2023

Income	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020–2021*	AVH Patients, 2022–2023*
Below 100% FPL	6.5%	8.5%	30.6%	28.4%
100–199% FPL	10.2%	11.5%	51.4%	48.6%
200% FPL and above	83.3%	80.0%	18.0%	22.9%
Unknown or not reported				
Under 200% of FPL	13.7%	20.0%	82.0	77.1%

* Percentage of patients with known incomes.

Table 42. Poverty Status (Under 100% FPL) and Major Demographic Group, Percentages, 2020–2021 and 2022–2023

Demographic Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020-2021	AVH Patients, 2022-2023
Under 18 years, all genders	7.3%	8.5%	5.5%	2.1%
18 to 64 years, all genders	5.5%	8.9%	21.6%	12.7%
65 years and older, all genders	8.1%	9.3%	18.4%	5.8%
Male, all ages	17.3%	8.5%	18.2%	10.3%
Female, all ages	27.3%	9.3%	17.0%	10.3%
Hispanic, all ages and genders	8.3%	11.3%	20.6%	9.8%
White, non-Hispanic, all ages and genders	5.6%	7.2%	7.9%	9.0%
Total population	6.4%	8.9%	17.5%	20.6%

Source: U.S. Census, American Community Survey, 2019-2023, Table S1701 and AVH EHR.

Patient Insurance Coverage

Compared to the pre-pandemic 2018–2019 period, the first two years of the pandemic showed substantial shifts in the insurance status of AVH patients, some of which were unexpected.

Between 2018–2019 and 2020–2021, the number of AVH patients served who were Medicare beneficiaries rose unexpectedly from 727 (13.3 percent) to 902 (14.7 percent), possibly due to more seniors choosing to receive their care closer to home. The number of private insurance patients and uninsured patients remained nearly the same.

In the next two years, 2022-2023, the proportion of Medicare patients and private insurance patients drifted downward again, while the number of Medi-Cal and uninsured patients remained close to or above the previous period.

The total number of patients dropped from 5,707 to 5,331, a 6.6 percent decline precipitated by a temporary reduction in provider time during a period of staff turnover, as discussed further in the Service Patterns chapter.

Table 43. Insurance Status, Totals, 2020-2021 and 2022–2023

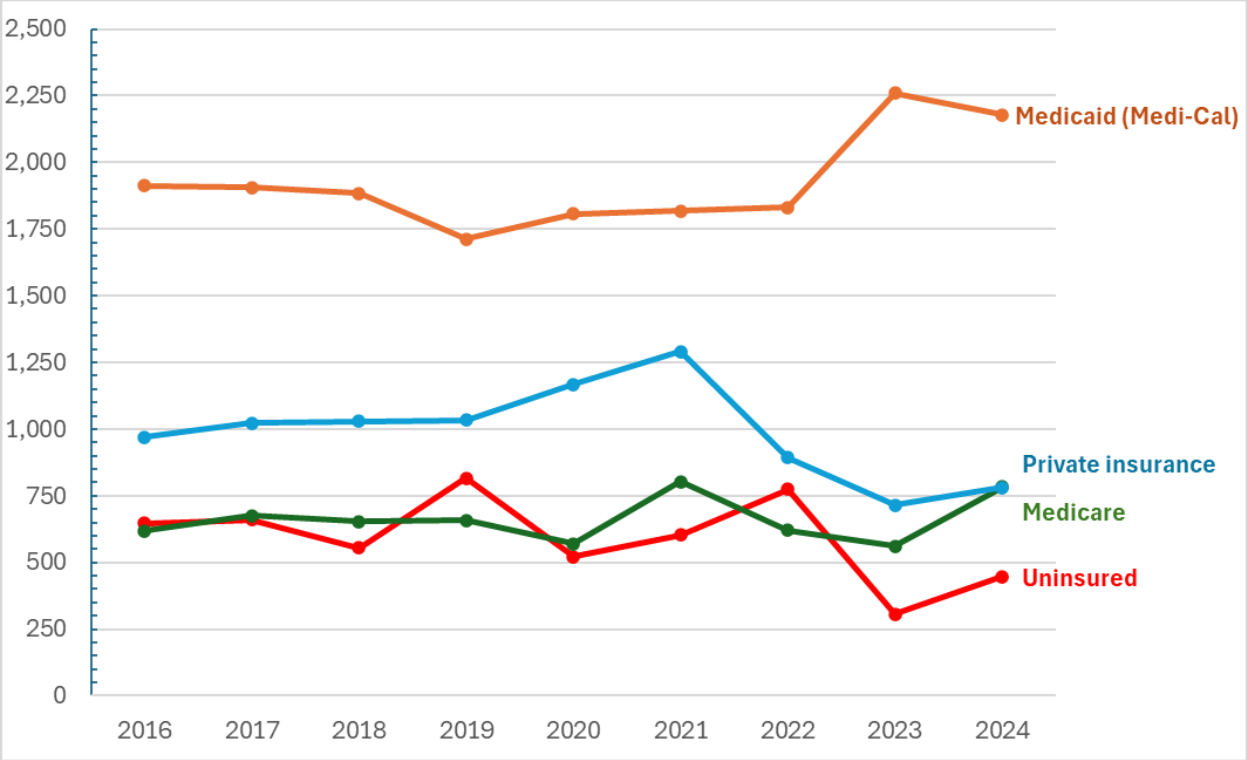
Insurance Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023.	AVH Patients, 2020-21	AVH Patients, 2022–2023
Population of known health insurance status	14,993	479,124	5,707	5,331
Uninsured	938	26,060	968	932
Private health insurance			1,368	1,139
Medicare	3,555	110,546	1,121	973
Medicaid (Medi-Cal)	3,219	98,098	2,250	2,287
Other public insurance*	215	2,233	0	0

Table 44. Insurance Status, Percentages, 2020–2021, and 2022-2023

Insurance Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020-21	AVH Patients, 2022–2023
Uninsured	6.3%	5.4%	17.0%	17.5%
Private health insurance	58.7%	63.7%	24.0%	21.4%
Medicare	12.6%	12.1%	19.6%	18.9%
Medicaid (Medi-Cal)	21.7%	17.7%	39.4%	42.9%
Other public insurance*	0.9%	0.5%	0.0%	0.0%

* Includes military (TRICARE)/Veterans Administration coverage and other state or county programs.

Figure 8. Trends in AVH Patient Insurance Coverage, Totals, 2014–2024



When viewed on an annual user basis, some shifts in patient insurance coverage during the pandemic have dissipated, while others have recurred. For example:

- The number of privately insured patients rose during the pandemic period and then fell back to below pre-pandemic levels, and is now slowly rising again.
- The number of uninsured patients fell, and Medi-Cal patients rose during the pandemic, as people could remain on Medi-Cal longer. But when the extended coverage rules expired (often referred to as “the unwinding”), the percentage of Medi-Cal fell, and the uninsured rose again.
- There was a rise, fall, and gradual rise again in Medicare patients as a percent of all patients.

However, these shifts are small enough that they could reflect AVH’s loss of provider capacity in 2022 and 2023, which began improving again in 2024.

Table 45. AVH Patient Insurance Coverage, Annual Totals, 2016–2024

Insurance Group	2016	2017	2018	2019	2020	2021	2022	2023	2024
Uninsured	647	660	554	816	521	602	775	306	447
Medicaid (Medi-Cal)	1,913	1,906	1,884	1,713	1,806	1,817	1,832	2,260	2,178
Medicare	619	675	654	658	569	804	620	561	783
Private insurance	969	1,023	1,030	1,034	1,168	1,291	894	714	782
All patients	4,148	4,264	4,122	4,221	4,064	4,514	4,121	3,841	4,188

Table 46. AVH Patient Insurance Coverage, Percentages, 2016–2024

Insurance Group	2016	2017	2018	2019	2020	2021	2022	2023	2024
Uninsured	15.6%	15.5%	13.4%	19.3%	12.8%	13.3%	18.8%	8.0%	10.6%
Medicaid (Medi-Cal)	46.1%	44.7%	45.7%	40.6%	44.4%	40.3%	44.5%	58.8%	52.0%
Medicare	14.9%	15.8%	15.9%	15.6%	14.0%	17.8%	15.0%	14.6%	18.7%
Private insurance	23.4%	24.0%	25.0%	24.5%	28.7%	28.6%	21.7%	18.6%	18.7%

Table 47. Uninsured Individuals by Major Demographic Group, 2020–2021 and 2022–2023

Demographic Group	Service Area, ACS 2019-2023	Sonoma County, ACS 2019-2023	AVH Patients, 2020–2021	AVH Patients, 2020–2021
Under 19 years of age	0.8%	3.2%	5.5%	2.1%
19 to 64 years	9.1%	7.9%	21.6%	12.7%
65 years and older	5.5%	0.9%	18.4%	5.8%
Male	7.9%	6.2%	18.2%	10.3%
Female	4.5%	4.6%	17.0%	10.3%
Hispanic	13.0%	11.0%	20.6%	8.6%
White, non-Hispanic	3.1%	2.8%	7.9%	9.0%
Total population	**6.3%**	**5.4%**	**17.5%**	**20.6%**

Source: U.S. Census, American Community Survey, 2019-2023, Table S 1701 and AVH EHR

Insurance alone is no guarantee that patients can access healthcare when they need it. They need a regular source of care, such as a primary care provider. However, lack of health insurance can be a major barrier to patients establishing a regular source of care.

In Sonoma County, 45 percent of residents without health insurance are without a regular source of care.[81]

DENTAL INSURANCE

According to the California Health Interview Survey,[82] a greater proportion of Sonoma County adults are without dental insurance than are California adults statewide: 36.6 percent versus 29.5 percent.

A similar gap exists among residents with incomes below 200 percent of the federal poverty level: 50.5 percent of Sonoma County adults below 200 percent of FPL have no dental insurance, compared to 35.0 percent of adults with incomes below 200 percent of FPL statewide. These figures would likely be even higher except that more low-income adults are covered by Medi-Cal, which includes adult dental insurance during this period.

Statewide, only 7.4 percent of children across all income levels lack dental insurance. In Sonoma County, 12.7 percent of children across all income levels lack dental insurance. Among low-income children, this gap is wider.

Statewide, 8.0 percent of children in families with incomes below 200 percent of the federal poverty level lacked dental insurance, but 33.6 percent of Sonoma County's low-income children did. [83]

UNDERINSURANCE & MEDICAL DEBT

The U.S. Census Bureau's American Community Survey estimates the number of persons with health insurance coverage. Still, it does not address the extent to which even people with health insurance may be **underinsured or incur personal debt for medical or dental bills.**

For individuals and families who have health insurance, cost may still present a significant barrier to accessing needed care for a variety of reasons:

[81] California Health Interview Survey (CHIS), UCLA Center for Healthcare Policy Research, 2019–2023 pooled data. Retrieved from Ask CHIS, *https://ask.chis.ucla.edu/ask/*.

[82] Ibid.

[83] Ibid.

- Available providers may not accept that insurance or may not be covered by it ("out of network").
- The health plan may not cover the specific services or medications needed.
- The plan may not cover needed care or medications until the insured person has met a particular deductible amount.
- Provider visits and prescriptions may be subject to copayments.

Even after any deductible and copayment, the insurance plan may cover only a percentage of the total cost of services — typically ranging from 60 to 90 percent, and often less if the patient's chosen provider is "out-of-network" (i.e., not a regular contractor of the insurance organization. Whatever the insurance carrier does not pay is the patient's responsibility (sometimes described as "coinsurance")).

In the report ***"Paying for It: How HealthCare Costs and Medical Debt Are Making Americans Sicker and Poorer,"*** The Commonwealth Fund explores the issue of uninsurance, underinsurance, and medical debt.[84] The report is based on a biennial health insurance survey commissioned by **The Commonwealth Fund.** The most recent survey, published in October 2023, found that half (51 percent) of working-age adults (aged 19-64) reported difficulty affording health care costs.

Thirty-eight percent (38 percent) reported delaying or skipping needed healthcare or purchasing a prescription drug in the previous year because they couldn't afford it.

This included 29 percent of respondents with employer-purchased health coverage, 37 percent enrolled in individual or marketplace plans, 38 percent enrolled in Medicaid, 42 percent enrolled in Medicare, and 64 percent uninsured.

Forty-six percent said they had skipped or delayed care because of cost.

[84] Sara R Collins, Shreya Roy, Relebohile Maitha, Paying for It: How Health Care Costs and Medical Debt and Making Americans Sicker and Poorer – Findings from the Commonwealth Fund 2023 Health care Affordability Survey, Commonwealth Fund, Oct.2023 *Healthcare Affordability in America | Commonwealth Fund*.

About one-fourth of those with chronic health problems (e.g., diabetes) said they had skipped medication doses or not filled a prescription for their condition due to the high out-of-pocket cost of prescription drugs.

More than half of respondents who said they had delayed or skipped care due to cost said a health problem worsened as a result.

According to the Kaiser Family Foundation (KFF) Health Care Debt Survey,[85] 41 percent of U.S. adults currently have debt from medical or dental bills. An additional 16 percent report having had healthcare debt in the past five years that has since been paid off.

Fifty-seven percent of all adults with annual incomes under $40,000 report current healthcare debt, as do 56 percent of Black adults and 50 percent of Hispanic adults. Women are significantly more likely than men to have healthcare debt (48 percent versus 34 percent).

The KFF survey emphasizes that **healthcare debt is by no means limited to the uninsured**. Forty-four percent of currently insured adults under age 65 reported having medical or dental debt, often due to a one-time or short-term expense such as a single hospitalization. Other frequent sources of debt are lab fees, diagnostic tests, and emergency care that insurance didn't fully cover.

A KFF analysis of U.S. Census Survey of Income and Program Participation (SIPP) data estimates total U.S. medical debt as "at least $195 billion."[86]

Medical debt can also result in other financial consequences, including wage garnishment, seizure of property, and bankruptcy, as well as difficulty in obtaining housing or vehicle financing.[87]

[85] Lunna Lopes et al, "Health Care Debt in the U.S.: The Broad Consequences of Medical and Dental Bills," Kaiser Family Foundation, June 16, 2022, https://www.kff.org/report-section/kff-health-care-debt-survey-main-findings/.

[86] Matthew Rae et al, "The Burden of Medical Debt in the United States," Peterson-KFF Health System Tracker, March 10, 2022, https://www.healthsystemtracker.org/brief/the-burden-of-medical-debt-in-the-united-states/.

[87] Consumer Finance Protection Bureau, *Medical Debt Burden in the United States*.

Because Medicare covers most U.S. seniors, adults aged 65 and older are much less likely than are nonelderly adults to report having current healthcare debt.[88] However, adults 65 and older have **higher average out-of-pocket healthcare costs than any other age group**.[89]

Medicare typically does not cover common healthcare needs such as hearing, vision, or dental care. Moreover, Medicare does not cover long-term care, whereas Medicaid covers only certain types of long-term care.

Consequently, half of Medicare beneficiaries enroll in Medicare Advantage plans. Other Medicare beneficiaries have some other form of **supplemental coverage**. Without such coverage, the cost of services not covered by Medicare and the copays for prescription drugs can quickly become prohibitive.[90]

Households

Households in Alexander Valley Healthcare's service area have a higher proportion of married couples than in Sonoma County, but a lower proportion of households with children.

The service area has a higher proportion of households with seniors than Sonoma County, but also a significant at-risk population of seniors living alone.

The ACS estimates that there are **5,853 total households** across the three ZIP Codes in AVH's service area.[91]

Of these households, 3,207 households (54.8 percent) are married couples. This is a higher percentage of married couples than Sonoma County as a whole (47.8 percent), or neighboring Mendocino County (40.2 percent), or Lake County (40.5 percent).

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[88] Lopes et al.

[89] Juliette Cubanski et al, "How Much Do Medicare Beneficiaries Spend Out of Pocket on Health Care?" Kaiser Family Foundation, Nov. 4, 2019, *https://www.kff.org/medicare/issue-brief/how-much-do-medicare-beneficiaries-spend-out-of-pocket-on-health-care/*.

[90] Wyatt Koma et al, "A Snapshot of Sources of Coverage Among Medicare Beneficiaries in 2018," Kaiser Family Foundation, March 23, 2021, *https://www.kff.org/medicare/issue-brief/a-snapshot-of-sources-of-coverage-among-medicare-beneficiaries-in-2018/*.

[91] U.S. Census Bureau American Community Survey 2019-2023, for ZIP Code Tabulation Areas (95425, 95441, and 95449, Table DP02.

Of the married couple households, 961 had children under 18.

An additional 624 (10.7 percent) households are headed by two cohabiting adults. This is a higher percentage of cohabiting households than in Sonoma, Mendocino, or Lake counties.

One in five (21.8 percent) cohabiting households in the service area had children under age 18, which is a far lower percentage of cohabiting couples with children under 18 than Sonoma County (28.5 percent), Mendocino (32.2 percent) or Lake (42.1 percent) counties.

Over a third of all households in the service area (34.5 percent) are headed by single householders, without a spouse or partner. In Sonoma County as a whole, 43.3 percent of all households had householders without partners.

Of the service area's 2,022 single-household heads, 1,059 were female (52.4 percent), and 963 were male (47.6 percent).

Few single-headed households in the AVH service area had young children. Female-headed households were more likely to have children under age 18 than male-headed households: 202 female-headed households had children under 18, compared with only 4 male-headed households.

Children: There are 2,659 children under 18 in the service area, 17.6 percent of the total population, compared with 19.3 percent of the Sonoma County population who are under age 18.[92]

Out of a total of 1,453 households**, 24.8 percent have one or more children**. This is lower than the 27.4 percent of households in Sonoma County overall that have one or more children under age 18.

Seniors: There are 3,503 persons age 65 and over in the service area. A total of 2,484 households, **42.4 percent of all service-area households, have at least one member over 65.** This is higher than the 38.3 percent of Sonoma County households with one or more persons age 65 or over. In this way, the AVH service area more resembles Lake and Mendocino counties, which each have 44.1 percent of households with one or more persons over 65.

[92] U.S. Census Bureau American Community Survey 2019-2023, for ZIP Code Tabulation Areas (95425, 95441, and 95449, Table DP05

The service area has a significant population living in isolated living arrangements. The ACS estimates there are **1,307 householders living alone, 22.3 percent of all service area households**. This includes 714 solo male households and 593 solo female households.

Of these solo householders, 808 (or 61.8 percent) were over age 65:

- 398 male householders age 65 or older, and
- 410 female householders age 65 or older.

With AVH acting as the area's only local primary medical provider, this isolation and potential lack of personal support can be an added risk factor in a serious illness. This is particularly concerning in an older population with disabilities or chronic medical or behavioral health conditions.

Family and Informal Caregivers

As aging populations suffer long-term illness, chronic conditions, disabilities, or other impairments that limit their ability to perform major life activities without assistance, the importance of family or informal caregivers has become more important both nationally, statewide, and locally.

A substantial portion of the service area population may need supportive care, either currently or in the foreseeable future. Depending on the individual, the care needed may be temporary or ongoing. It may take many different forms, ranging from periodic assistance with certain tasks (e.g., laundry or grocery shopping), or rides to medical appointments, to full-time invalid care.

Paid trained supportive care is costly, may not be readily available, particularly in less populated areas, and may not be covered by insurance except in certain narrowly defined circumstances. All of these factors may make in-home supportive care prohibitively expensive for many elderly or disabled individuals who need the care.

That gap is often filled by family members or other informal caregivers, such as neighbors, friends, or other volunteers who are not necessarily members of the care recipient's family.

A 2011 health policy brief from the UCLA Center for Health Policy Research estimated that there were about 6.2 million informal caregivers in California. [93]

By 2020, a follow-up UCLA policy brief estimated that the number of informal caregivers had grown to about 6.7 million — more than one in five California adults. [94] Neither brief presents any county-specific estimates.

Table 48. Informal Caregivers and Care Recipients by Age Group, California, 2020

Age Group	Percentage of Caregivers	Percentage of Care Recipients
0–17	N/A	3.3%
18–44	41.2%	14.0%
45–64	38.9%	18.0%
65+	20.0%	64.7%

Source: 2020 California Health Interview Survey. Percentages may not add to 100 percent due to rounding.

According to the 2020 California Health Interview Survey (CHIS), 86 percent of recipients of informal care in California are members of the caregiver's family, most commonly a parent (47 percent), grandparent (8 percent), or spouse or partner (13 percent).

Approximately 58 percent of informal caregivers in California are women. The racial and ethnic demographics of caregivers cross all racial and ethnic groups.

FINANCIAL IMPACT OF CAREGIVING

In UCLA's 2020 study, 44.4 percent of caregivers reported experiencing some level of **financial stress due to caregiving**. Financial stress was higher among caregivers with lower incomes (under 300 percent of FPL) and increased with the number of hours spent on caregiving each week.

[93] Geoffrey Hoffman and Carolyn A. Mendez-Luck, *Stressed and Strapped: Caregivers in California* (Los Angeles: UCLA Center for Health Policy Research, Sep. 2011), retrieved from *https://www.uclahealth.org/news/caregivers-for-friends-relatives-suffer-emotional-and-financial-strain*. This health policy brief is based on data from the 2009 California Health Interview Survey (CHIS).

[94] Sean Tan et al, *Who Is Caring for the Caregivers? The Financial, Physical, and Mental Health Costs of Caregiving in California* (Los Angeles: UCLA Center for Health Policy Research, Dec. 2021), *https://healthpolicy.ucla.edu/publications/search/pages/detail.aspx?PubID=2252*. This health policy brief is based on data from the 2020 California Health Interview Survey (CHIS).

According to the study, most (53.4 percent) caregivers have a full-time job, while another 9.7 percent work part-time. For many, their caregiving role is, in essence, an additional part-time job: Almost half (48.9 percent) spend at least 6 hours a week caregiving, while about one in four (24.5 percent) spend 20 or more hours a week.[95]

Only 8.8 percent receive any compensation for the hours they spend assisting a care recipient. Since fewer than half of all care recipients live with the person who provides care, the caregiver may also need to "commute" multiple times a week to assist the care recipient, adding to the burden. These caregivers also play a key role in the relationship between AVH and the community it serves. They may help patients identify when they need to see a health care provider, provide transportation to appointments, or get prescriptions filled, get lab work done, help patients understand their provider's instructions, oversee taking medication, or ensure that the patient has timely meals. With a patient's permission, they may also access virtual services, lab results, and education materials that AVH supplies online.

A 2017 AARP Public Policy Institute study estimated the annual economic value of unpaid contributions by these informal caregivers at $63 billion in California and approximately $470 million nationwide.[96]

A 2019 study[97] found that "intensive" caregivers (defined as those who provide 20 or more hours of care per week) are significantly more likely than non-caregivers to reduce their working hours or schooling, take unpaid time off, quit a job, or retire early. Such economic "spillover" effects are in addition to direct out-of-pocket costs a caregiver incurs for care-related household and medical expenses.

A 2021 AARP study estimated that caregivers across the U.S. also spend an average of $7,242 per year on out-of-pocket expenses related to the care they provide.[98]

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[95] Ibid.

[96] Susan C. Reinhard et al, *Valuing the Invaluable: 2019 Update: Charting a Path Forward* (Washington, D.C.: AARP Public Health Policy Institute, Nov. 2019). doi:10.26419/ppi.00082.001

[97] Josephine C. Jacobs et al, "Economic Spillover Effects of Intensive Unpaid Caregiving," *Pharmaco-Economics* 2021;37(4):553–62. doi:10.1007/s40273-019-00784-7

[98] Lauren Skufca and Chuck Rainsville, *Caregiving Out-of-Pocket Costs Study* (Washington, D.C.: AARP Research, June 2021). doi:10.26419/res.00473.001

CAREGIVING CAN IMPACT THE HEALTH OF THE CAREGIVER

Caregiving can also have health consequences for caregivers. In the 2020 CHIS,[99] almost one in seven caregivers (13.5 percent) reported that they had suffered **physical or mental health problems due to caregiving** in the past 12 months.

By 2023, CHIS data indicated that the percentage had increased to 15.8 percent of caregivers statewide, saying they had experienced **physical health problems** in the past 12 months, and 27.2 percent had experienced **mental health problems.**[100]

An even higher percentage of caregivers living in Sonoma, Mendocino, and Lake counties were reporting **physical health problems (19.6 percent)** and **mental health problems (50.1 percent)** than respondents statewide.[101]

SUPPORT NEEDED BY CAREGIVERS

A frequent source of stress facing caregivers is trying to manage a care recipient's medical condition with little or no appropriate training. This may include a variety of relatively complex tasks, such as administering medications, draining wounds, changing dressings, assessing the symptoms of a chronic condition, and maintaining medical equipment (e.g., cleaning CPAP machines). **Caregivers are typically not trained nurses or home health aides, but they may be required to perform similar functions**, often with no more guidance than they find in an Internet search.

Dealing with dementia and cognitive decline is often taxing for caregivers and can greatly compound the difficulty of managing other medical conditions. For example, suppose a care recipient suffers from confusion and forgetfulness. In that case, the caregiver may have to take responsibility for administering medications, since the care recipient may be unable to do so reliably. About one-fifth of 2020 CHIS respondents reported that they were caring for someone with Alzheimer's disease or other cognitive impairment.

[99] Hoffman and Mendez-Luck, based on 2009 CHIS data. The more recent 2020 CHIS data do not provide age group breakdowns of caregiver-recipient relationships or whether the caregiver and recipient live together.

[100] California Health Interview Survey (CHIS), UCLA Center for Health Policy Research, 2023, retrieved July 16, 2025.

[101] Ibid.

Financial factors contributing to adverse mental health symptoms included needing to decrease living expenses to pay for things, having family disagreements about not helping enough, feeling underprepared for caregiver situations, and resenting their caregiving role.[102]

[102] Skufca and Rainsville Ibid.

PART THREE: Service Patterns

Introduction

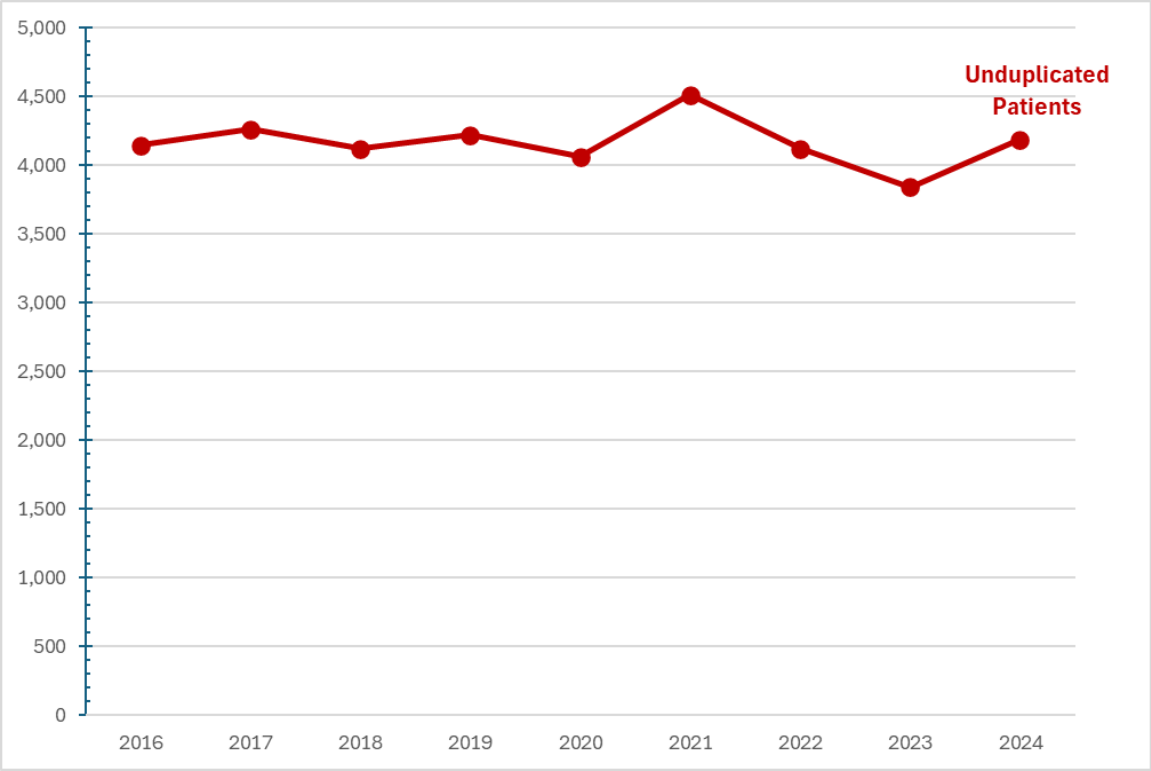
AVH grew rapidly after it became an FQHC and, by 2017, its third year of federal funding, had reached its maximum annual patient capacity in a given year with existing staffing and space.

Consequently, the total number of patients served annually has remained in the 4,100 to 4,250 range, despite steps taken to maximize space utilization through changes to the existing buildings, the addition of several modular units, and shifts in hours and operational procedures.

Table 49. Total Annual Unduplicated AVH Patients, 2016–2024

Age Group	2016	2017	2018	2019	2020	2021	2022	2023	2024
Unduplicated Patients	4,148	4,264	4,122	4,221	4,064	4,514	4,121	3,841	4,188

Figure 9. Total Annual Unduplicated AVH Patients, 2016–2024



The only notable deviation from this pattern occurred in 2021, when the availability of telehealth visits, introduced during the COVID-19 pandemic, enabled AVH to serve a total of 4,514 unduplicated patients.

Within this same five-year period, 700 to 1,000 new patients approached AVH for services annually, stretching available resources. However, while patient demand would have justified hiring additional clinical providers, the limited space available in AVH's leased medical and dental clinic facilities — and the practical limits on how many exam rooms, counseling rooms, and dental operatories fit into that space – capped the number of providers AVH could house.

Interim Strategy

After hitting this ceiling on provider staffing (and therefore patient volume), AVH began exploring replacements for its two leased clinic facilities. Unfortunately, there were no existing buildings in Cloverdale of adequate size that could be renovated for this purpose, so AVH began planning a large-scale new construction project.

In the interim, AVH has addressed the inadequate size of its existing facilities in several ways:

- Extended clinic schedules (from 8 a.m. to 7 p.m., five days a week) have increased utilization of the available exam rooms and dental operatories.
- Provider productivity has been increased through the use of new scheduling models, hiring additional support staff, and the use of electronic health record tools.
- Administrative functions were transferred to modular units of 750 square feet and 950 square feet to free up more space for direct client services.
- At the start of the COVID-19 pandemic, AVH leased a 2,400-square-foot building to use for COVID-19 testing and care. In 2022, this space was repurposed for administrative functions.
- The launch of telehealth services expanded medical and mental health services beyond what could be provided on-site. However, the continuation of telehealth will depend on whether Medicare, Medi-Cal (California's Medicaid program), and private insurers continue to reimburse for virtual visits.

COVID Pandemic Impact

Unfortunately, the **COVID pandemic increased demands** on AVH's space. For example, the need to set up isolated COVID testing spaces and to separate sick patients from those seeking more routine care and preventive services made space layout more difficult. These demands also split clinical staff among separate areas.

Clinical staff time was also allocated to conducting large-scale community vaccination clinics, such as the vaccination effort at the fairgrounds.

Staff also covered extra shifts for staff who were out sick or at home caring for ill family members.

All of these COVID-19 pandemic efforts had a substantial impact on the health center itself. AVH lost both providers and clinical support staff due to a combination of pandemic-related factors and non-pandemic factors, including:

- family emergencies,
- staff contraction of the illness, and fear of exposure, and
- overwork due to staffing other off-site clinic sessions, or
- the need to do extra shifts to fill in for absent staff.

As providers and support staff left, the workload on remaining providers grew more severe until replacements could be recruited. This triggered other resignations in 2022 and 2023. In 2024, staffing stabilized, with total patient volume and visits rising again.

The need to create a larger facility was clear, and planning for a new one has accelerated. The property has been purchased, building designs have been developed and submitted through the City of Cloverdale approval process, and a capital campaign has been launched.

Patient and Visit Summary

During the two-year period, Jan. 1, 2020 – Dec. 31, 2021, AVH served 5,708 unduplicated patients in 40,125 provider visits. This was an **increase** of 4.3 percent over the 5,472 users served in the previous two years (2018–2019). The two-year unduplicated patient count fell to 5,331 users in 2022-2023, during staffing turnovers.

However, the total **number of visits decreased** from 42,727 to 37,486 visits in 2022–2023, a drop of 5,241 visits (12.3 percent) that cut deeply into AVH's revenues. This decline was due to staff turnover in 2022 and 2023.

In 2024, medical and provider time and productivity rose. As a result, the total number of users rose to 4,188, and total visits to 20,963.

Table 50. Total Number of Users and Provider Visits, 2020–2023

Totals	2020	2021	2020–2021
Unduplicated patients	4,064	4,514	5,708
Patient visits, all departments	19,133	20,542	40,125

Table 51. Total Number of User and Provider Visits, 2022–2023

Totals	2022	2023	2022–2023
Unduplicated patients	4,121	4,070	5,331
Patient visits, all departments	18,434	18,525	37,486

New versus Returning Patients

A close examination of data from the AVH electronic health record system indicates that the decline in the number of patients between 2019 and 2020 was due to **fewer new patients entering the practice** compared to prior years, likely due to the pandemic-associated concerns over entering a health care setting unless urgently necessary.

The number of **established patients** with a provider visit in the prior year who were served in 2020 remained nearly unchanged from pre-pandemic levels. However, the number of **new, first-time patients** declined from 898 in 2019 to 730 in 2020. In 2021, as the pandemic wound down, the number of new patients rose to 1,058 individuals.

Among the larger group of established patients served in the past four years, the proportion who had been seen in the previous year declined steadily from 87.6 percent in 2018 to 70.9 percent in 2020 and 2021, while the proportion of **patients returning** from any other prior year grew from 11.1 to 13.1 percent. The percentage of new patients seen leveled out at 17.8 percent in 2022 and 17.7 percent in 2023.

This combination of the steady numbers of new patients and the return of previously established patients from prior years **evidences pent-up demand for services within the service area and among AVH patients**, which supports the need for AVH to expand capacity.

Table 52. Patients by Patient History Category, Totals, 2020–2021 and 2022–2023

Patient History Category	2020	2021	2022	2023
Established patients seen in the current year	3,317	3,462	3,388	3,348
Returning from the previous year	2,869	2,862	2,961	2,860
Returning from any other prior year	448	590	427	488
New patients	730	1,058	733	722
Total patients for the current year	**4,047**	**4,510**	**4,121**	**4,070**
Seen in previous year, but not the current year	1,337	1,1187	1,552	1,160

Table 53. Patients by Patient History Category, Percentages, 2020–2021 and 2022–2023

Patient History Category	2020	2021	2022	2023
Established patients seen in the current year	81.9%	76.8%	82.2%	82.3%
Returning from the previous year	70.9%	63.5%	71.8%	70.3%
Returning from any other prior year	11.1%	13.1%	10.4%	12.0%
New patients	18.0%	23.5%	17.8%	17.7%

Telehealth

The decline in medical and mental health visits would likely have been more severe had it not been for AVH's launch of telehealth services in March 2020.

AVH began offering telehealth primary care visits for the first time in March 2020, in response to COVID-19 pandemic "shelter-in-place" orders issued by the State of California and Sonoma County.

Although AVH had not previously offered telehealth services, the health center rapidly introduced telehealth visits for certain medical and mental health visits by mid-March 2020.

These medical and mental health clinician visits were conducted "virtually" via the Internet, with providers often working from home. Secure internet connections were established to capture these visits in AVH's electronic health record system.

Therefore, the total 2020–2021 visits discussed in this chapter include both telehealth and in-person encounters. Visit totals for 2019 and earlier years include only in-person visits.[103]

For patients with no internet connection, telephone visits were also available. However, they were not usually reimbursable and could not be counted as "virtual visits" in UDS reports if the patient and provider could not "see each other".

Table 54. Visits by Department, by Visit type, 2020-2024

Department & Visit Type	2020	2021	2022	2023	2024
Medical visits, in-clinic	7,754	9,825	7,666	6,131	8,088
Medical visits, virtual	6,429	3,440	1,455	1,480	1,798
Dental visits, in-clinic	3,494	4,505	6,538	7,523	7,990
Dental visits, virtual	0	0	0	0	0
Mental health visits, in-clinic	418	0	0	329	813
Mental health visits, virtual	1,044	2,737	2,700	2,616	1,376
Enabling visits, in-clinic*	381	368	0	0	543
Enabling visits, virtual*	437	1,292	75	446	343
Total in-clinic visits**	12,038	14,698	14,204	13,983	17,441
Total virtual visits**	7,900	7,469	4,230	4,542	3,522
Total in-clinic and virtual**	19,947	22,167	18,434	18,525	20,963

[103] Through 2019, HRSA Uniform Data System (UDS) reporting rules for health centers defined a UDS-countable "visit" as a face-to-face encounter between a patient and a licensed or credentialed clinical provider. However, in response to the COVID-19 pandemic, this definition was revised in 2020 to include both in-person and "virtual" (i.e., telehealth) visits with a licensed or certified provider.

Table 55. Percent of Visits by Department, by Visit Types 2020 -2024

Department & Visit Type	2020	2021	2022	2023	2024
Medical visits, in-clinic	38.9%	44.3%	41.6%	33.1%	38.6%
Medical visits, virtual	32.2%	15.5%	7.9%	8.0%	8.6%
Dental visits, in-clinic	17.5%	20.3%	35.5%	40.6%	38.1%
Dental visits, virtual	0.0%	0.0%	0.0%	0.0%	0.0%
Mental health visits, in-clinic	2.1%	0.0%	0.0%	1.8%	3.9%
Mental health visits, virtual	5.2%	12.3%	14.6%	14.1%	6.6%
Enabling visits, in-clinic*	5.2%	12.3%	14.6%	14.1%	6.6%
Enabling visits, virtual*	2.2%	5.8%	0.4%	2.4%	1.6%
Total in-clinic visits**	60.3%	66.3%	77.1%	75.5%	83.2%
Total virtual visits**	39.6%	33.7%	22.9%	24.5%	16.8%
Total in-clinic and virtual**	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AVH electronic health record, Uniform Data System report data.

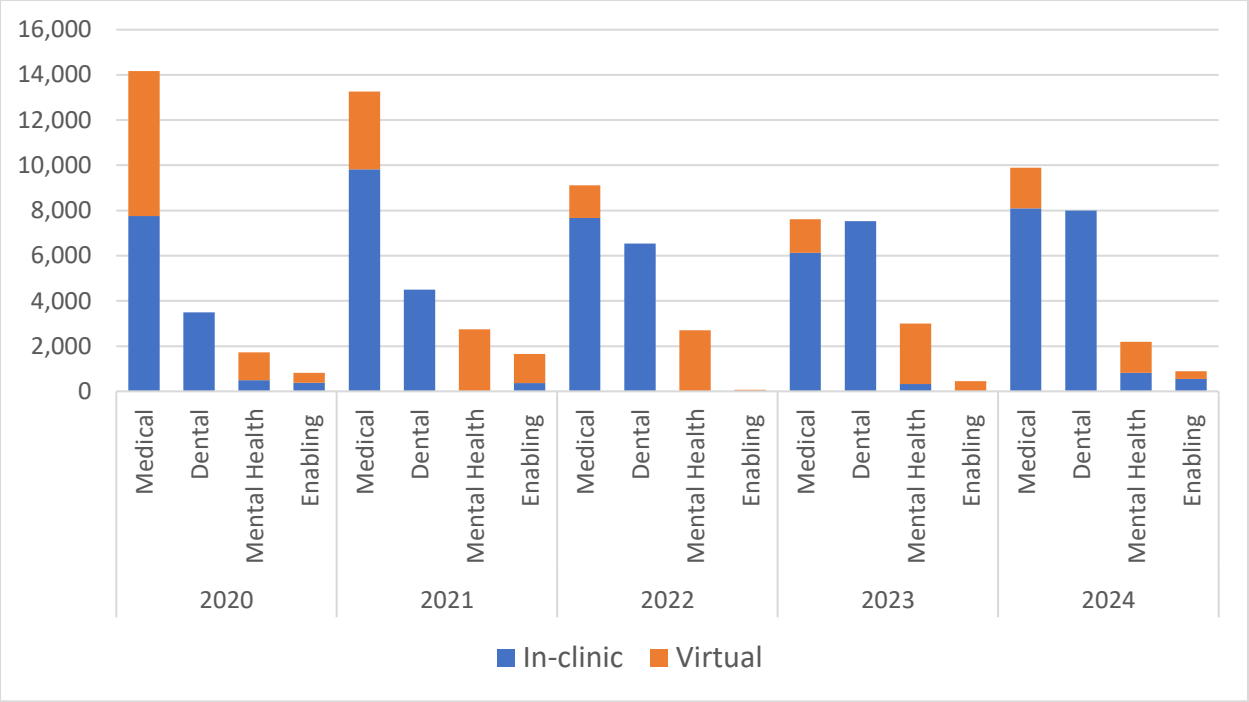
In pandemic-dominated 2020, the first year AVH offered telehealth visits, AVH medical providers recorded 7,754 in-clinic visits and 6,419 virtual visits. Virtual visits accounted for 45.3 percent of all 2020 medical visits.[104]

In 2021, the number of in-clinic medical visits rose to 9,825, while virtual visits declined to 3,440 (25.9 percent of medical visits), reflecting greater patient confidence in seeking in-person services as new COVID cases in the area dropped. However, this was still a fairly high level of acceptance for a service method that was relatively new to most patients in 2020.

In 2022 and 2023, AVH's Medical Department faced the peak impact of staff turnover. In-clinic visits fell from 7,666 to 6,131, but virtual visits rose slightly from 1,455 to 1,480.

[104] This total does not include telephone-only encounters that did not qualify as visits under HRSA UDS reporting guidelines or most payers' reimbursement rules.

Figure 10. Visits, In-Clinic and Virtual, 2020-2024



ACCEPTANCE OF TELEHEALTH

The feedback regarding virtual visits from both medical and mental health and substance use disorder counseling patients has been positive. Patients have appreciated the greater safety of receiving services at home (during the pandemic), reduced lost work time, the elimination of travel, and (in some cases) increased privacy. Telehealth also fits the new work-from-home model of some patients.

While the number of virtual visits has dropped compared with in-clinic visits over the last two years, it is unlikely that AVH will phase out telehealth visits or that patients will ignore them as an option.

UTILIZATION PATTERNS – AVERAGE VISITS PER PATIENT

AVH uses the average number of visits per patient as a measure of service utilization by different groups of patients. This analysis reveals that the service disruptions in 2020 and 2021 reduced the average number of visits per unduplicated patient from 7.8 total visits/patient in 2018–2019 to 7.0 total visits/patient in 2020–2021, a decline of 10.3 percent.

Table 56. Average Visits Per Patient per Year by Department, 2020–2021 and 2022–2023

Department	2020	2021	2020–2021	2022	2023	2022–2023
All departments	4.7	4.6	7.0	4.4	4.8	7.0
Medical	3.9	3.5	5.6	0.8	3.2	4.6
Dental	3.3	3.0	4.2	3.5	3.8	5.2
Mental health	6.5	8.4	9.2	8.8	10.0	12.0

These average visit figures reflect the following trends by department:

- **Average medical visits** fell slightly, from 5.7 visits per medical patient in 2018–2019 to 5.6 visits per medical patient in 2020–2021, but then fell more sharply to 4.6 visits per person in the 2022-2023 period, a 17.9 percent drop. As a result, 2024 and 2025 have been a "rebuilding" period for the department.

- **Average dental visits** at the start of the pandemic fell more sharply, from 5.8 visits per dental patient in 2018–2019 to 4.2 visits per dental patient in 2020–2021, a 27.6 percent drop due to several months of state-ordered closures. However, the dental department had a stronger turnaround in 2022- 2023, ending at 5.2 visits per patient, and is still growing.

- **Average mental health visits** rose from 7.3 visits per mental health patient in 2018–2019 to 9.2 visits per patient in the 2019–2020 period, a 26.0 percent increase. This increase was due in large part to the implementation of virtual visits. That growth continued in 2022-2023, reaching 12.0 visits per patient.

Other trends reflected in the data are discussed in the sections below.

By Age Group

For patients under 18 years of age, average visits per patient fell from 7.3 visits per patient in 2018–2019 to 5.9 visits/patient in 2020–2021, and 5.7 visits per patient for the period 2022-23. For nonelderly adult patients aged 18–64, the average number of visits per patient fell from 7.5 visits per patient in 2018–2019 to 7.1 visits in 2019–2020, and rose again to 7.9 visits for the period 2022-23. For patients 65 and older, average visits per patient fell from 9.6 visits per patient in 2018–2019 to 7.7 visits in 2020–2021, but then rose to 8.7 visits in 2022-23.

Table 57. Average Visits Per Patient Per Year by Age and Gender, 2018–2019 and 2020–2021

Demographic Group	2020	2021	2020–2021	2022	2023	2022–2023
Under age 18	3.7	3.8	5.9	3.6	3.7	5.7
18-64	4.9	4.8	7.1	4.5	5.3	7.9
65 and over	5.7	4.9	7.7	4.8	5.6	8.7
Female patients	5.4	5.2	8.1	4.9	5.1	7.9
Male patients	4.0	3.8	5.7	3.8	4.3	5.7

By Gender

The average number of visits per female patient dropped from 9.0 visits/patient in 2018–2019 to 8.1 visits for the 2020–2021 period, and 7.9 visits in 2022-2023. However, the average number of visits for female patients was still well above that for male patients, as was the case in prior needs assessments.

The average number of visits per male patient fell from 6.6 visits/patient in the 2018–2019 period to 5.7 visits/patient in 2020–2021, but has remained at 5.7 visits/patient over two years in the 2022-23 period.

By Insurance Coverage

As reported in the 2022 AVH Community Health Needs Assessment, compared to the pre-pandemic period 2018–2019, average visits per patient across all departments fell by 10.3 percent during the first two years of the COVID pandemic. This decline reflected a number of interrelated issues related to COVID-19, including public health cautions about unnecessary outings, the lack of COVID-19 vaccines for children in the early part of the pandemic, and the cost during a time of economic uncertainty.

Using the 2020-2021 period as a new baseline, the two-year 2022-23 recovery period saw a further drop in AVH's visits during provider staff turnover. Average Medicare visits per person fell the most, proportionately, 25.5 percent, which may reflect that seniors were the most likely to be hesitant when asked to see "providers they did not know". The average number of visits per person among privately insured patients, most likely working-age adults, did not decline. Average visits per uninsured patient actually rose, although only by a modest 5.7 percent.

Table 58. Average Visits per Patient by Insurance Category, 2020–2021 vs. 2022–2023

Insurance Category	2020	2021	2020–2021	2022	2023	2022–2023	2-Year Change	% Change
Uninsured	2.9	2.9	3.5	2.8	3.0	3.7	+0.2	-5.7%
Medicaid (Medi-Cal)	4.8	4.7	7.3	4.6	4.8	7.1	-.2	-2.7%
Medicare	6.2	6.3	9.8	4.4	5.0	7.5	-2.3	-23.5%
Private Insurance	3.3	3.1	4.4	2.9	3.3	4.4	0	0
Average Visits, all departments	**4.2**	**4.1**	**5.9**	**3.8**	**4.1**	**5.7**	**-0.2**	**-3.4%**

Some of these trends can be put into context by considering recognized patient tendencies across different age groups and insurance categories.

First, Medicare and Medicaid recipients tend to average more visits per patient than do patients in other insurance categories, due to age and/or poor health status. For example, Medicare patients, who are over age 65, disabled, or both, have more health problems, which require more visits. Medicaid patients tend to include more pregnant or postpartum women and more children, who need more well-child visits and screenings.

Second, the substantially lower per-patient visit averages for uninsured and privately insured patients are consistent with the typical economic priorities of those patient groups. As reported in the 2019 needs assessment, the largest proportion of AVH's uninsured patients are adults of working age (18–64), who are more likely than younger or older age groups to be deterred by the time and wages lost while seeking care, particularly if their jobs do not provide sick leave or other paid time off.

The same is generally true for patients in this age range with private insurance, even if their employer provides it.

The lower average number of visits by uninsured patients may reflect the **higher relative cost** of taking time away from work for a low-income worker, and the lower likelihood that they have

paid health leave benefits as part of their employment. It may also reflect the high cost of living (and in particular the high cost of housing) in Sonoma County, which may leave low-income families unable to afford AVH's fees even with sliding-scale discounts.

To help address the cost-of-housing issue, in mid-2018, AVH's board approved changes to how income is computed for the sliding-scale program, effectively discounting the gross income of patients whose housing costs exceed 34 percent of their income.

This change contributed to an increase in the average number of visits per uninsured patient, from 3.0 visits in 2017 to 3.3 visits/patient in 2018 and 2019. The average fell to 3.2 visits/patient in 2020 and 2.9 visits/patient in 2021, which may reflect ongoing financial challenges amid pandemic-related layoffs and inflation. As discussed in the Service Area chapter, the high cost of living continues to hit lower-income households particularly hard, often being a barrier to seeking needed care.

UTILIZATION AND STAFFING TRENDS BY DEPARTMENT

AVH service utilization by service type has not consistently followed a clear pattern of growth or contraction across departments over the past five years. Instead, medical, dental, or mental health service volume (as measured in annual visits) has tended to fluctuate even within a single two-year period.

For example, in the 2018–2019 period, the number of medical visits fell in 2018 and rose in 2019, while the number of dental visits declined from 2018 to 2019. In 2021, dental, mental health, and other visits recovered somewhat from the low volume in 2020, while medical visits fell.

Many of these fluctuations were the result of staff turnover, which hits AVH particularly hard because of its small size. Furthermore, even when a provider vacancy is filled, it may take time for the subsequent increase in total visits to be reflected in the departmental data.

Table 59. Provider Visits by Department, 2018–2019

Department	2018	2019	2018–2019
Medical	13,322	13,954	27,276
Dental	5,949	5,431	11,380
Mental health	2,464	1,607	4,071
Total	21,735	20,992	42,727

Table 60. Provider Visits by Department, 2020–2021

Department	2020	2021	2020–2021
Medical	14,176	13,273	28,124
Dental	3,498	4,508	8,929
Mental health	1,465	2,761	3,072
Total	19,133	20,542	40,125

Table 61. Provider Visits by Department, 2022–2023

Department	2022	2023	2022–2023
Medical	9,121	7,611	16,732
Dental	6,538	7,522	14,060
Mental health	2,700	2,945	5,645
Total	18,359	18,078	36,437

Note: The total on the three tables above does not include enabling and case management visits.

AVH has an organizational goal of improving patient health by increasing interdisciplinary service integration, as measured by the number of patients served across multiple departments. This goal is made more complex by medical and dental departments being housed in separate facilities. Integration is usually a multi-year process, with new patients beginning care in one department and then being referred to other departments, or self-referring to them as they learn about available services.

That has been more difficult to measure over the past four years because service capacity has varied and fewer in-person visits have meant fewer opportunities for one department to make a person-to-person referral. However, the percentage of patients who are both medical and dental has risen from 17.3 percent to 20.0 percent, and the percentage of patients who are seen in all three departments rose modestly from 2.9 percent in 2020-2021 to 3.7 percent in 2022-2023.

Table 62. Total Patients by Department, 2020–2021 and 2022–2023

Departments	Number of Patients, 2020-2021	Percentage of 2020–2021 Patients	Number of Patients, 2022–2023	Percentage of 2022–2023 Patients
Total patients	5,697	100.0%	5,331	100.0%
Medical	4,900	86.0%	3,869	72.6%
Dental	1,915	33.6%	2,697	50.6%
Mental health	457	8.0%	440	8.3%
Medical only	3,496	61.4%	2,392	44.9%
Dental only	756	13.3%	1,434	26.9%
Mental health only	35	0.6%	23	0.4%
Medical and dental	986	17.3%	1,064	20.0%
Medical and mental health	251	4.4%	218	4.1%
Dental and mental health	0	0.0%	4	0.1%
All three departments	167	2.9%	195	3.7%

Medical Services

STAFFING

Historically, AVH has had limited access to *locum tenens* coverage. Other staff often filled in by taking extra shifts or seeing more patients. As the COVID-19 pandemic unfolded, it became more difficult for staff to work in this way. Providers working remotely found it harder to assist one another. Illness hit some providers and support staff. Time devoted to COVID-19 testing, and later to managing community-wide vaccine programs at the local Cloverdale train depot parking lot, also drew heavily on support staff time and required at least one provider per event. The workload led to the loss of providers and support staff.

Departures had a significant effect on the medical clinic. The other staff could not fully absorb the workload of the two clinicians who left, or all of their duties. For example, the two departing physicians had been leaders in local opioid response efforts, duties other staff providers were not prepared to take on. Vacancies took more than six months to fill. During physician and nurse practitioner recruitment, medical visit capacity fluctuated.

Table 63. Provider FTEs by Year 2020-2024

Provider FTEs	2020	2021	2022	2023	2024
MEDICAL					
Family Physicians	3.36	2.90	1.62	2.37	2.41
Nurse Practitioners	0.83	1.18	1.24	1.00	1.49
Physician Assistants					0.26

Total visits and provider productivity per FTE rose in 2024, reaching a total of 9,886 visits for the calendar year.

Table 64. Visits by Provider Type by Year 2020-2024

Visits	2020	2021	2022	2023	2024
MEDICAL					
Family Physicians	11,240	8,942	4,440	4,082	5,226
Nurse Practitioners	2,933	4,193	4,169	2,527	3,638
Physician Assistants					499
Nurse		127	512	1,012	523
Total	14,173	13,262	9,121	7,621	9,886

Source: AVH submitted and accepted UDS annual reports 2020-2024

PRODUCTIVITY

Historically, AVH's physician productivity remained relatively consistent through 2019 and 2020, with 3,455 visits per FTE in 2019, 3,345 in 2020, 3,083 in 2021, and 2,740.7 in 2022. All three years exceeded the UDS-reported national productivity averages for family physicians.[105]

[105] National productivity averages for FQHC primary care physicians were calculated based on 2023 HRSA Health Center Program UDS data summaries (retrieved via *https://data.hrsa.gov/tools/data-reporting/program-data*) by dividing total family physician visits (including clinic visits and virtual visits) by the total family physician FTEs shown in Table 5.

However, AVH physicians' productivity fell below the national average in 2022 and 2023. While the AVH physician average per FTE increased in 2024 to 2,168, it was still below the national average for 2023, 2,549 visits per FTE.

AVH's nurse practitioner productivity was 3,506 visits per FTE in 2019, 3,534 visits per FTE in 2020, and 4,193 visits per FTE in 2021. Nationally, average nurse practitioner productivity was 2,515 visits per FTE in 2019, 2,377 visits per FTE in 2020, and 2,430 visits per FTE in 2021.[106]

In 2023, AVH's average productivity per FTE nurse practitioner declined but remained above the national average per FTE.

Table 65. Average Annual Productivity per FTE by Provider Type, 2020-2024

Average Productivity Per FTE	2020	2021	2022	2023	2024
MEDICAL					
Family Physicians	3,345	3.083	2,741	1,722	2,168
Nurse Practitioners	3,534	3,646	3,362	2,527	2,442
Physician Assistants					1,913

National Uniform Data System (UDS) data from 1,363 grantee CHCs for calendar 2023 averages:

- 2,549 visits per Family Physician FTE;
- 2,427 visits per Nurse Practitioner FTE;
- 2,679 visits per Physician Assistant FTE.

Some of this fluctuation was the adjustment to bringing on more FNPs, and the beginning of AVH acting as a nurse practitioner training experience site for the **University of California (U.C.) Davis Doctor of Nursing Practice (DNP) – Family Nurse Practitioner (FNP) degree program.**

[106] National productivity averages for FQHC nurse practitioners (NPs) were calculated based on 2023 HRSA Health Center Program UDS data summaries (retrieved via *https://data.hrsa.gov/tools/data-reporting/program-data*) by dividing total NP visits (including clinic visits and virtual visits) by the total nurse practitioner FTEs shown on Line 9a of Table 5: Staffing and Utilization for each year.

In 2024-2025**,** AVH had four candidates doing their clinical rotations at AVH. [107] This ongoing rotation program is already fostering proven recruitment prospects for AVH.

PATIENTS

Remarkably, AVH saw an increase in unduplicated medical patients during the pandemic: the number rose from 4,806 in 2018–2019 to 4,900 in 2020–2021. However, over the following two-year period, unduplicated medical patients fell to 3,869, largely due to reduced medical provider time during the turnover.

However, there were shifts in patient mix. The number and percentage of medical patients under age 18 fell from 1,176 (24.5 percent) in 2018–2019 to 1,063 (21.7 percent) in 2020–2021, possibly because parents deferred care for children for whom COVID-19 vaccines were then unavailable. During the 2022-2023 period, the number of patients under 18 fell by 221. Still, the percentage of patients who were under 18 remained nearly constant (21.8 versus 21.7 percent), suggesting the drop was due to a reduced time available from medical providers.

The number of nonelderly adult patients (aged 18–64) in the medical department increased from 2,892 to 2,927 patients between 2018-2019 and 2020-2021, although the percentage decreased slightly, from 60.2 percent to 59.7 percent. In the subsequent 2022-2023 period, this age group fell to 57.1 percent of medical patients. The total number of non-elderly patients fell by 711 patients over the two years.

The number of medical patients over 65 rose from 738 (15.4 percent) to 908 (18.3 percent) between the 2018-2019 and 2020-2021 periods. Patients over 65 fell to 817, but as a percent of patients, rose to 21.1 percent.

[107] The UC Davis Nurse Practitioner program, specifically the Doctor of Nursing Practice - Family Nurse Practitioner (DNP-FNP), is a three-year hybrid program designed to prepare advanced practice providers for evidence-based primary care. *uc davis nurse practitioner program - Search*

Table 66. Medical Users by Age, Gender, and Ethnicity, 2020–2021 and 2022–2023

Demographic Group	Number of Patients, 2020–2021	Percentage of 2020–2021 Patients	Number of Patients, 2022–2023	Percentage of 2022–2023 Patients
Total two-year medical users	4,900	100.0%	3,869	100.0%
Under 18 years	1,065	21.7%	844	21.8%
18-64 years	2,927	59.7%	2,208	57.1%
65 years and older	908	18.3%	817	21.1%
Male	2,338	47.7%	1,757	45.4%
Female	2,562	52.3%	2,112	54.6%
Hispanic, any race	2,083	42.5%	1,684	43.5%
White, non-Hispanic	2,156	44.0%	1,642	42.4%
Black, non-Hispanic	31	0.6%	30	0.8%
Asian, non-Hispanic	47	1.0%	38	1.0%
American Indian, non-Hispanic	43	0.9%	40	1.0%
Native Hawaiian or other Pacific Islanders, Non-Hispanic	15	0.3%	10	0.3%
Other or two or more, non-Hispanic	132	2.7%	99	2.6%
Unknown or refused to report	393	8.0%	326	8.4%

Dental Services

Pandemic-related closures during early 2020 had a disproportionate impact on AVH's dental unit, since most dental services must be provided in person. Additionally, even once the state-mandated restriction on nonemergency services was lifted, not all patients were willing or able to return for dental care that year. Consequently, total dental visits fell from 11,380 in the period 2018–2019 to 8,929 in the period 2020–2021, a 21.5 percent drop. Most of that drop occurred in 2020, and calendar 2021 saw a partial recovery.

STAFFING

AVH lost a dentist at the start of the COVID pandemic, but recruited its part-time dental director to become a full-time dentist for AVH. He has rebuilt his staff by adding a second dentist and additional part-time dental hygienists. Despite a brief drop in visits in 2023 during a period of staff turnover, the dental practice has experienced steady growth in volume.

Table 67. Provider FTEs by Year 2020-2024

Provider FTEs	2020	2021	2022	2023	2024
DENTAL					
Dentists	0.79	0.90	1.67	1.73	1.63
Dental Hygienists	0.59	0.90	1.05	1.50	1.48

Table 68. Visits by Provider Type by Year, 2020-2024

Average Productivity Per FTE	2020	2021	2022	2023	2024
DENTAL					
Dentists	2,693	3,098	4,169	2,527	5,168
Dental Hygienists	801	1,407	1.618	2,449	2,722
Total	3,494	4,505	5,787	4,976	7,990

PRODUCTIVITY

AVH's dental productivity levels in 2019, 2020, and 2021 were above the nationwide UDS averages of 2,624 visits per dentist FTE in 2019, 1,928 visits per FTE in 2020, and 2,176 visits per FTE in 2021.[108] The decline in national productivity suggests that the pandemic-related factors affecting AVH's dental practice were common across health centers nationwide.

In 2022 and 2023, AVH dentist productivity leveled off at 2,946 and 2,933 visits per FTE, respectively. This was better than the national UDS average of 2,307 visits per dentist FTE in 2023.[109] By 2024, AVH dentist productivity had risen to 3,232 per dentist FTE.

[108] National productivity averages for FQHC dentists were calculated based on 2019–2021 HRSA Health Center Program UDS data summaries (retrieved via *https://data.hrsa.gov/tools/data-reporting/program-data*) by dividing total dentist visits (including clinic visits and virtual visits) by the total dentist FTEs shown on Line 16 of Table 5: Staffing and Utilization for each year.

[109] National productivity data were computed from UDS data summaries available at *Health Center Program Uniform Data System (UDS) Data Overview*

Table 69. Average Annual Productivity per FTE by Provider Type, per Year, 2020-2024

Average Productivity Per FTE	2020	2021	2022	2023	2024
DENTAL					
Dentists	3,409	3,442	2,946	2,933	3,232
Dental Hygienists	1,511	1,523	1,541	1,633	1,839

National Uniform Data System (UDS) data from 1,363 grantee CHCs for calendar 2023 averages:

- 2,307 visits per Dentist FTE;
- 1,079 visits per dental hygienist FTE;

Dental hygienist productivity declined from 1,944 visits per FTE in 2019 to 1,511 visits per FTE in 2020. AVH's dental hygienist productivity fell further in 2021, to 1,407 visits per hygienist FTE.

By 2022, hygienist productivity rose to 1,541 and reached 1,633 in 2023, compared to 1,079 nationally in 2023. In 2024, AVH dental hygienist productivity reached 1,840 per FTE.

PATIENTS

Even with the temporary reduction in visits in 2020 due to the pandemic, AVH appears to have retained nearly all of its pre-pandemic dental patient volume. The total number of unduplicated dental patients was 1,951 in 2018–2019 and 1,915 in 2020–2021, a decline of only 1.8 percent. This was followed by an increase of 2,697 dental patients in the 2022- 2023 period, a 40.8 percent rise.

Dental patients under age 18 increased from 569 to 696, representing a smaller 22.3 percent increase. The proportion of dental patients who were under 18 fell from 29.7 percent to 25.8 percent. The proportion of dental patients aged 18–64 rose from 49.7 percent to 53.3 percent. The percent of dental patients over age 65 has remained constant: 20.6 percent in the 2020-2021 period and 20.9 percent in 2022- 2023. The proportion of male dental patients rose from 43.9 percent to 44.8 percent, while the proportion of female patients dropped slightly from 56.1 percent to 55.2 percent.

Table 70. Dental Users by Age, Gender, and Ethnicity, 2020–2021 and 2022–2023

Demographic Group	Number of Patients, 2020–2021	Percentage of 2020–2021 Patients	Number of Patients, 2022–2023	Percentage of 2022–2023 Patients
Total two-year dental users	1,915	100.0%	2,697	100.0%
Under 18 years	569	29.7%	696	25.8%
18-64 years	951	49.7%	1,438	53.3%
65 years and older	395	20.6%	563	20.9%
Male	840	43.9%	1,208	44.8%
Female	1,075	56.1%	1,489	55.2%
Hispanic, any race	846	44.2%	1,166	43.2%
White, non-Hispanic	816	42.6%	1,164	43.2%
Black, non-Hispanic	17	0.9%	29	1.1%
Asian, non-Hispanic	25	1.3%	25	0.9%
American Indian, non-Hispanic	15	0.8%	21	0.8%
Native Hawaiian or other Pacific Islanders, Non-Hispanic	<10	<1.0%	<10	<1.0%
Other or 2 or more, non-Hispanic	69	3.6%	60	2.2%
Unknown or refused to report	121	6.3%	224	8.3%

Note: Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy

The number of Hispanic dental patients rose from 846 to 1,166 (a 37.8 percent increase), and the number of white, non-Hispanic dental patients rose from 816 to 1,164 (a 42.6 percent increase), leaving both main patient populations roughly equal at 43.2 percent of dental patients.

Mental Health Services

Alexander Valley Healthcare expanded its mental health services after becoming federally funded in 2013. Total mental health visits increased from 1,842 in 2013 to 2,544 in 2014. Annual mental health visits subsequently remained in the 2,500-visit range through 2018. However, beginning in 2019, staff turnover in the mental health department reduced total annual visits to around 1,600. The department was in the middle of a recruitment process to rebuild staffing when the COVID pandemic hit.

Table 71. Provider FTEs by Year 2020-2024

Provider FTEs	2020	2021	2022	2023	2024
MENTAL HEALTH					
Licensed Clinical Psychologist	1.29	1.38	1.37	1.32	0.56
Licensed Clinical Social Worker	0.38	0.94	0.63	0.50	0.17
Other Licensed MH Prof.	0	0.10	0.10	1.02	0.51
Other MH Professional	0	1.50	1.50	1.34	0.93
Substance Use Counselor	0	0.50	0.50	0.50	1.00

Even with the availability of virtual visits, total mental health visits fell by 8.8 percent between 2019 and 2020, from 1,607 visits to 1,465. Mental health visits rose again in 2021, remained higher in 2021 and 2022, but fell in 2023 and 2024 as provider FTEs declined.

Table 72. Visits by Provider Type, by Year, 2020-2024

Average Productivity Per FTE	2020	2021	2022	2023	2024
MENTAL HEALTH					
Licensed Clinical Psychologist	1.100	1,189	1,104	1,117	695
Licensed Clinical Social Worker	952	1,193	1,627	1,458	236
Other Licensed MH Prof.	0	510	510	636	743
Other MH Professional	0	280	260	259	393
Substance Use Counselor	0	226	260	302	129
Total	2,052	3,398	3,761	2,500	2,196

AVH was not alone in seeing a drop in mental health visits in 2020. Compared with the same period in 2019, the Centers for Medicare & Medicaid Services (CMS) estimates a 34 percent

decline in the number of mental health services used by children under age 19 and a 22 percent decline in the number of mental health services used by adults aged 19–64.[110]

PATIENTS

The total number of unduplicated mental health patients fell from 556 in the pre-pandemic 2018–2019 period to 457 patients in the 2020–2021 period, and 426 in 2022-2023. Most of the 2020-2021 decrease was among male patients, whose number declined from 216 to 136 patients. In the period 2022-2023, male mental health patients remained nearly even at 135. Female patients fell from 321 in 2020-2021 to 293 unduplicated patients in 2022-2023. The biggest declines by age range were working-age adults (aged 18–64).

The proportion of Hispanic behavioral health patients rose slightly from 33.6 percent in 2018–2019 to 35.7 percent in 2020–2021, then remained at 36.0 percent in 2022-2023. However, the number of total behavioral health patients fell from 457 to 436 during that period. The number of Hispanic patients declined from 163 to 154, as did the total number of patients in other ethnic groups.

[110] This estimate is based on analysis of actual claims data for CHIP and Medicaid, as cited in the Centers for Medicare & Medicaid Services, *Medicaid & CHIP and the COVID-19 Public Health Emergency: Preliminary Medicaid and CHIP Data Snapshot: Services through October 31, 2020*, *https://www.medicaid.gov/state-resource-center/downloads/covid-19-medicaid-data-snapshot.pdf*.

Table 73. Mental Health Users by Age, Gender, and Ethnicity, 2020–2021 and 2022–2023

Demographic Group	Number of Patients, 2020–2021	Percentage of 2020–2021 Patients	Number of Patients, 2022–2023	Percentage of 2022–2023 Patients
Total mental health users	457	100.0%	426	100.0%
Under 18 years	95	20.8%	79	18.5%
18-64 years	299	65.4%	285	66.6%
65 years and older	63	13.8%	64	15.0%
Male	136	29.8%	135	31.5%
Female	321	70.2%	293	68.5%
Hispanic, any race	163	35.7%	154	36.0%
White, non-Hispanic	231	50.5%	219	51.7%
Black, non-Hispanic	<10	<1.0%	<10	<1.0%
Asian, non-Hispanic	<10	<1.0%	<10	<1.0%
American Indian, non-Hispanic	<10	<1.0%	<10	<1.0%
Native Hawaiian or other Pacific Islanders, Non-Hispanic	0	0.0%	<10	<1.0%
Other or 2 or more, non-Hispanic	20	4.4%	16	3.7%
Unknown or refused to report	36	7.9%	33	7.7%

Note: Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy

PRODUCTIVITY

Table 74. Average Annual Productivity per FTE by Provider Type, by Year, 2020-2024

Average Productivity Per FTE	2020	2021	2022	2023	2024
MENTAL HEALTH					
Licensed Clinical Psychologist	852	861	805	846	1,241
Licensed Clinical Social Worker	952	1,193	1,627	1,458	1,388
Other Licensed MH Prof.	0	510	510	636	1,457
Other MH Professional	0	280	260	259	422
Substance Use Counselor	0	226	260	302	129

National Uniform Data System (UDS) data from 1,363 grantee CHCs for calendar 2023 averages:

- 995 visits per licensed clinical psychologist FTE;
- 918 visits per licensed clinical social worker FTE;
- 1,030 visits per other licensed mental health provider FTE
- 407 visits per other mental health personnel; and
- 709 visits per substance use disorder service personnel.

Substance use counseling is AVH's newest behavioral health service and the only one in which productivity remains below the national average. Total visits fell by half between 2019 and 2020 (from 511 to 258), reflecting the difficulty of serving a highly vulnerable population during a stressful period. Also, although 72.1 percent of 2020 visits (186 visits) were virtual, utilization of substance use counseling has been driven by internal referrals from other AVH clinicians (e.g., face-to-face "warm handoffs"), which are more difficult when patients don't have face-to-face provider visits in other departments. However, substance use staff have become an integral part of care management with patients who have substance use disorder, being available on-call to other departments, and building links in the community.

Chronic Medical and Mental Health Conditions

As in previous needs assessments, this assessment included an analysis of data on the numbers of unduplicated AVH patients served in the period 2022-2023 with specific diagnosed chronic conditions. Chronic conditions were divided into two groups:[111]

Group A includes the following chronic medical conditions:

- Asthma
- Chronic bronchitis and emphysema
- Chronic pain
- Diabetes mellitus
- Heart disease (selected)

[111] The definitions of these diagnosis coding groups were taken from the UDS report criteria, with the exception of chronic pain, for which diagnosis codes are not part of UDS Table 6A. The codes used were 338.21, 338.28, 338.29, 338.3, 338.4, G89.21, G89.22, G89.28, G89.29, G89.3, or G89.4.

- Hypertension
- Overweight and obesity.

Group B includes the following chronic mental health or behavioral health conditions:

- Alcohol-related disorders
- Tobacco-use disorder
- Other substance-related disorders
- Depression and other mood disorders
- Anxiety disorders, including PTSD
- Attention deficit and disruptive behavior disorders
- Other mental disorders, excluding drugs or alcohol.

In 2022–2023, **more than half (50.0 percent) of all AVH patients** had one or more chronic medical or mental health conditions:

- **36.6 percent (1,963 patients)** had one or more **chronic medical conditions**, including hypertension, overweight or obesity, chronic pain, diabetes, asthma, heart disease, and chronic lower respiratory disease;
- **32.6 percent (1,739 patients)** had one or more **chronic mental or behavioral health conditions**, including depression, anxiety disorders, including PTSD, substance use disorders, attention deficit disorders, and other mental health conditions.
- **19.2 percent (1,024 patients)** had BOTH one or more chronic medical conditions AND one or more mental health conditions.

Among those patients with common chronic **medical conditions** in 2022–2023 were:

- 880 patients with hypertension
- 653 patients with overweight or obesity
- 586 patients with chronic pain

- 429 patients with diabetes mellitus
- 362 patients with asthma
- 305 patients with heart disease, and
- 132 patients with chronic lower respiratory disease.

Among those patients with common **mental health diagnoses** during that period were:

- 921 patients with anxiety disorders, including PTSD
- 652 patients with depression
- 272 patients with tobacco use disorders
- 147 patients with substance use-related disorders
- 114 patients with alcohol use disorders
- 101 patients with attention deficit disorders, and
- 749 patients with other mental health diagnoses other than drug or alcohol use.

A major limitation of the UDS data used for these calculations is that it excludes patients who have not been seen recently, even though AVH staff may still be these patients' most recent primary care providers. Therefore, the above figures should be considered minimum counts.

Table 75. Patients with Selected Chronic Conditions, 2020–2021 and 2022–2023

Diagnoses	# of Patients 2020–2021	% of 2020–2021 Patients	# of Patients 2022–2023	% of 2022–2023 Patients	% Change in Patients
GROUP A					
Asthma	372	6.5%	362	6.8%	-2.7%
Chronic bronchitis and emphysema	150	2.6%	132	2.5%	+1.5%
Chronic pain	536	9.4%	586	11.0%	+9.3%
Diabetes mellitus	447	7.8%	429	8.0%	-4.0%
Heart disease (selected)	337	5.9%	305	5.7%	-9.5%
Hypertension	927	16.2%	880	16.5%	-5.1%
Overweight and obesity	659	11.5%	653	12.2%	-1.0%
Any Group A diagnosis	**2,088**	**36.6%**	**1953**	**36.6%**	**-6.5%**
GROUP B					
Alcohol-related disorder	111	1.9%	114	2.1%	+2.7%
Tobacco use disorder	148	2.6%	272	5.1%	+83.8%
Other substance-related disorders	181	3.2%	147	2.8%	-18.8%
Depression and other mood disorders	735	12.9%	652	12.2$	-11.3%
Anxiety disorders, including PTSD	935	16.4%	921	17.3%	-1.5%
Attention deficit and disruptive behavior disorders	82	1.4%	101	1.9%	+23.1%
Other mental disorders, excluding drugs or alcohol	775	13.6%	749	14.0%	-3.4%
Any Group B diagnosis	**1,822**	**31.9%**	**1,739**	**32.6%**	**-4.6%**
Any diagnosis from Group A or Group B	2,870	50.3%	2,668	50.0%	-7.0%
Any Group A and any Group B diagnosis	1040	18.2%	1,024	19.2%	-1.5%
No diagnosis from Group A or B	2,838	49.7%	2,663	50.0^	-6.2%
Total unduplicated patients	**5,697**	**100.0%**	**533**	**100.0%**	**-6.4%**

Source: EHR data for unduplicated AVH patients seen Jan. 1, 2018–Dec 31, 2019, and Jan. 1, 2020–Dec 31, 2021, for whom complete data were available in all necessary fields

Analyzing patients with chronic conditions by age group yields several notable observations:

- Patients under 18 generally have lower rates of chronic illness, except asthma, which affects a greater proportion of children than of any other age range. However, approximately 14.3 percent of AVH patients under 18 had at least one chronic medical condition, and 18.3 percent had one or more behavioral health conditions.

- Nearly 30 percent (29.7 percent) of adult patients aged 18–50 had at least one chronic medical condition, and 33.8 percent had one or more chronic behavioral health conditions.

- More than half (52.9 percent) of older nonelderly adult patients (aged 51–64) have at least one chronic medical condition, and 39.0 percent have one or more behavioral health conditions. Almost two-thirds (65.2 percent) have been diagnosed with either a chronic condition or a mental health condition.

- Almost one-third (29.3 percent) of adult patients aged 50–64 have BOTH one or more chronic medical conditions AND one or more behavioral health conditions.

- Patients aged 51–64 years have the highest percentage of chronic mental or behavioral health conditions: 17.7 percent have been diagnosed with depression, and one in five (20.0 percent) have been diagnosed with an anxiety disorder (including PTSD).

- Two-thirds of patients aged 65 and older have at least one chronic medical condition or at least one behavioral health condition; 58.9 percent have one or more chronic medical conditions, and 36.1 percent have a behavioral health condition.

- Approximately 29.4 percent of all patients over 65 have BOTH a chronic medical disease and one or more mental health conditions.

Table 76. Chronic Conditions by Patient Age Group, 2022–2023

Diagnosis	All, #	All, %	Under 18, #	Under 18, %	18–50, #	18–50, %	51–64, #	51–64, %	65+, #	65+, %
Group A										
Asthma	362	6.8%	71	6.3%	132	6.5%	80	8.1%	79	6.8%
Chronic bronchitis and emphysema	132	2.5%	0	0.0%	9	0.4%	34	3.4%	89	7.6%
Chronic pain	586	11.0%	10	0.9%	177	8.7%	174	17.6%	225	19.2%
Diabetes mellitus	429	8.0%	2	0.2%	87	4.3%	144	14.5%	196	16.8%
Heart disease (selected)	305	5.7%	2	0.2%	31	1.5%	77	7.8%	195	16.7%
Hypertension	880	16.5%	1	0.1%	140	6.9%	272	27.5%	467	39.9%
Overweight and obesity	653	12.2%	101	9.0%	307	15.0%	149	15.1%	96	8.2%
Any Group A diagnosis	929	17.4%	120	10.6%	264	12.9%	234	23.6%	311	26.6%
Group B										
Alcohol-related disorder	114	2.1%	1	0.1%	56	2.7%	40	4.0%	17	1.5%
Tobacco use disorder	272	5.1%	1	0.1%	109	5.3%	94	9.5%	68	5.8%
Other substance-related disorders	147	2.8%	3	0.3%	84	4.1%	42	4.2%	18	1.5%
Depression and other mood disorders	652	12.2%	21	1.9%	299	14.6%	154	15.6%	178	15.2%
Anxiety disorders, including PTSD	921	17.3%	78	6.9%	455	22.3%	214	21.6%	174	14.9%
Attention deficit and disruptive behavior disorders	101	1.9%	37	3.3%	56	2.7%	6	0.6%	2	0.2%
Other mental disorders, excluding drug or alcohol	749	14.0%	127	11.3%	272	13.3%	153	15.5%	197	16.8%
Any Group B diagnosis	1,739	32.6%	192	17.0%	762	37.3%	381	38.5%	404	34.5%
Any diagnosis from Group A **or** Group B	2,668	50.0%	312	27.7%	1,026	50.2%	615	62.1%	715	61.1%
Any Group A **and** any Group B diagnosis	1024	19.2%	43	3.8%	357	17.5%	287	29.0%	337	28.8%
No diagnosis from Group A or B	2,663	50.0%	816	72.3%	1,017	49.8%	375	37.9%	455	38.9%
Total patients	5,331		1,128		2,043		990		1,170	

Note: Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy

The percentages of patients with chronic conditions are generally similar for patients who live within the AVH service area and those who live outside the primary service area. This was true for both the 2020–2021 and 2018–2019 periods.

Table 77. Patients with Selected Chronic Conditions by Patient Origin, 2022–2023

Diagnosis	All, #	All, %	In Service Area, #	In Service Area, %	Out of Area, #	Out of Area, %
Group A						
Asthma	362	6.8%	284	7.0%	78	6.1%
Chronic bronchitis and emphysema	132	2.5%	98	2.4%	34	2.7%
Chronic pain	586	11.0%	426	10.5%	160	12.5%
Diabetes mellitus	429	8.0%	338	8.3%	91	7.1%
Heart disease (selected)	305	5.7%	237	5.8%	68	5.3%
Hypertension	880	16.5%	677	16.7%	203	15.9%
Overweight and obesity	653	12.2%	530	13.1%	123	9.6%
Any Group A diagnosis	1,953	36.6%	1,523	37.6%	430	33.7%
Group B						
Alcohol-related disorder	114	2.1%	90	2.2%	24	1.9%
Tobacco use disorder	272	5.1%	214	5.3%	58	4.5%
Other substance-related disorders	147	2.8%	104	2.6%	43	3.4%
Depression and other mood disorders	652	12.2%	488	12.0%	164	12.9%
Anxiety disorders, including PTSD	921	17.3%	719	17.7%	202	15.8%
Attention deficit and disruptive behavior disorders	101	1.9%	70	1.7%	31	2.4%
Other mental disorders, excluding drugs or alcohol	749	14.0%	594	14.6%	155	12.1%
Any Group B diagnosis	1,739	32.6%	1,352	33.3%	387	30.3%
Any diagnosis from Group A **or** Group B	2,668	50.0%	2,093	51.6%	575	45.1%
Any diagnosis from Group A and Group B	1024	19.2%	782	19.3%	242	19.0%
No diagnosis from Group A or B	2,663	50.0%	1,962	48.4%	701	54.9%
Total patients	**5,331**	**100.0%**	**4,055**	**76.1%**	**1,276**	**23.9%**

Patients with chronic medical and/or mental health conditions have become a large part of AVH's clinical workload, in part because the patients need more visits per year, and because they are more complex cases, requiring more support staff time, referrals, and follow-up.

Table 78. All-Department Two-Year Average UDS Visits, 2020–2021 and 2022–2023

Diagnosis Group	2020-21 Patients	2020–2021 Avg. Visits/ Patient	2022–2023 Patients	2022–2023 Avg. Visits/ Patient*
Any Group A diagnosis	2,088	11.8	1,953	9.7
Any Group B diagnosis	1,822	13.3	1,739	11.1
Any Group A or B diagnosis	2,870	11.0	2,668	9.5
Any Group A and any Group B diagnosis	1,040	16.7	1,024	12.6
No diagnosis from Group A or Group B	2,838	4.5	2,663	4.6
All patients	**5,708**	**7.5**	**5,331**	**7.0**

* Includes medical, mental health, and dental visits

In 2020–2021, patients with one or more chronic medical conditions averaged 11.8 visits per patient across all departments over the two-year period, down from 12.8 visits/patient in the 2018–2019 period. By contrast, patients *without* a chronic medical or behavioral health condition averaged just 4.5 visits across all departments during the period, down slightly from 4.9 visits in 2018–2019. Additionally:

- **Patients with at least one Group B chronic behavioral health condition** averaged 13.3 visits across all departments during 2020–2021. This all-department average represents a drop from 14.0 visits in 2018–2019.

- Patients with BOTH a chronic medical condition AND one or more diagnosed behavioral health conditions averaged 16.7 visits across all departments in 2020–2021, the same as in 2018–2019.

There may be several causes for this greater utilization of services. Many patients with chronic medical conditions also suffer from depression and anxiety; this is particularly true for patients with chronic pain, heart disease, or other conditions that limit physical mobility.

The following tables illustrate the overlap of AVH patients with chronic medical conditions and chronic behavioral health conditions.

Table 79. Patients with Both Chronic Medical and Mental Health Conditions, Totals, 2022–2023

Diagnosis Groups	Alcohol related disorders	Tobacco use disorder	Other substance-related disorders	Depression and other mood disorders	Anxiety disorders including PTSD	Attention deficit and disruptive behavior disorder	Other mental disorders, excluding drug or alcohol	Any diagnosis from Group B
Asthma	<10	27	17	105	129	10	102	212
Chronic lower respiratory diseases	10	51	19	48	58	<10	40	103
Chronic pain	39	108	87	218	269	18	194	427
Diabetes mellitus	14	42	15	87	103	<10	89	206
Heart disease	12	43	14	76	93	<10	88	187
Hypertension	34	93	32	217	232	<10	206	477
Overweight and obesity	23	47	31	159	183	11	137	311
Any diagnosis from Group A	**74**	**204**	**114**	**468**	**562**	**36**	**442**	**1024**

Note: Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy

Table 80. Patients with Both Chronic Medical and Mental Health Conditions, Percentage of All Patients with One or More Chronic Conditions, 2022–2023

Diagnosis Groups	Alcohol related disorders	Tobacco use disorder	Other substance-related disorders	Depression and other mood disorders	Anxiety disorders including PTSD	Attention deficit and disruptive behavior disorder	Other mental disorders, excluding drug or alcohol	Any diagnosis from Group B
Asthma	0.7%	2.6%	1.7%	10.3%	12.6%	1.0%	10.0%	20.7%
Chronic lower respiratory diseases	1.0%	5.0%	1.9%	4.7%	5.7%	0.2%	3.9%	10.1%
Chronic pain	3.8%	10.5%	8.5%	21.3%	26.3%	1.8%	18.9%	41.7%
Diabetes mellitus	1.4%	4.1%	1.5%	8.5%	10.1%	0.3%	8.7%	20.1%
Heart disease	1.2%	4.2%	1.4%	7.4%	9.1%	0.2%	8.6%	18.3%
Hypertension	3.3%	9.1%	3.1%	21.2%	22.7%	0.5%	20.1%	46.6%
Overweight and obesity	2.2%	4.6%	3.0%	15.5%	17.9%	1.1%	13.4%	30.4%
Any diagnosis from Group A	**7.2%**	**19.9%**	**11.1%**	**45.7%**	**54.9%**	**3.5%**	**43.2%**	**100%**

Note: Data has been suppressed where the number of patients is fewer than 10, in the interests of privacy

The correlation of chronic medical conditions such as chronic pain, diabetes, hypertension, or overweight and obesity with mental health diagnoses is clear, as are the risks of treating only one-half of the patient's needs.

When these patients' insurance coverage was reviewed, Medicare beneficiaries accounted for 71.8 percent of patients with chronic medical conditions, and 51.4 percent of patients with chronic mental health conditions.

Medi-Cal patients accounted for 27.9 percent of those with chronic medical conditions, and 15.4 percent of those with mental or behavioral health conditions.

However, it is important to note that 44 percent of AVH's Medicare patients are dual-eligible persons – BOTH Medi-Cal and Medicare beneficiaries. AVH care for patients with chronic conditions benefits both programs.

Private insurance patients account for 41.4 percent of AVH patients with chronic medical conditions, and 21.4 percent of patients with chronic mental or behavioral health conditions.

Table 81. Chronic Medical and Mental Health Conditions by Insurance Payor 2022-2023

Insurance Status	# All Patients	%	# Uninsured Patients	%	# Medicaid (Medi-Cal)	%	# Medicare Patients	%	#Private Insurance	%
Diagnosis										
Group A	#	%	#	%	#	%	#	%	#	%
Asthma	362	6.8%	20	2.1%	161	7.0%	95	9.8%	86	7.6%
Chronic bronchitis and emphysema	132	2.5%	0	0.0%	23	1.0%	99	10.2%	10	0.9%
Chronic pain	586	11.0%	27	2.9%	167	7.3%	291	29.9%	101	8.9%
Diabetes mellitus	429	8.0%	48	5.2%	94	4.1%	191	19.6%	96	8.4%
Heart disease (selected)	305	5.7%	9	1.0%	58	2.5%	198	20.3%	40	3.5%
Hypertension	880	16.5%	52	5.6%	174	7.6%	468	48.1%	186	16.3%
Overweight and obesity	653	12.2%	56	6.0%	286	12.5%	118	12.1%	193	16.9%
Any Group A diagnosis	**1,953**	**36.6%**	**144**	**15.5%**	**638**	**27.9%**	**699**	**71.8%**	**472**	**41.4%**
Group B	#	%	#	%	#	%	#	%	#	%
Alcohol-related disorder	114	2.1%	8	0.9%	50	2.2%	28	2.9%	28	2.5%
Tobacco use disorder	272	5.1%	8	0.9%	105	4.6%	102	10.5%	57	5.0%
Other substance-related disorders	147	2.8%	6	0.6%	82	3.6%	37	3.8%	22	1.9%
Depression and other mood disorders	652	12.2%	30	3.2%	260	11.4%	229	23.5%	133	11.7%
Anxiety disorders, including PTSD	921	17.3%	50	5.4%	391	17.1%	246	25.3%	234	20.5%
Attention deficit and disruptive	101	1.9%	0	0.0%	64	2.8%	6	0.6%	31	2.7%

Insurance Status	# All Patients	%	# Uninsured Patients	%	# Medicaid (Medi-Cal)	%	# Medicare Patients	%	#Private Insurance	%
Diagnosis										
behavior disorders										
Other mental disorders, excluding drug or alcohol	749	14.0%	28	3.0%	346	15.1%	237	24.4%	138	12.1%
Any Group B diagnosis	1,739	32.6%	99	10.6%	729	31.9%	500	51.4%	411	36.1%
Any diagnosis from Group A **or** Group B	2,668	50.0%	205	22.0%	1009	44.1%	789	81.1%	665	58.4%
Any Group A **and** any Group B diagnosis	1024	19.2%	38	4.1%	358	15.7%	410	42.1%	218	19.1%
No diagnosis from Group A or B	2,663	50.0%	727	78.0%	1278	55.9%	184	18.9%	474	41.6%
Total patients	5,331	**100.0%**	932	17.5%	2287	42.9%	973	18.3%	1139	21.4%

INCOMPLETE REFERRALS

Given the complexity of many chronic condition patients managed by AVH providers, the connection to specialist/sub-specialty evaluations and consultations, or to outside diagnostic services such as mammograms or biopsies, can be critically important to managing care. Referrals can also be time-critical. Given the number of referrals made in a year, AVH has a system to track whether referrals have been completed and which are still pending.

Before the COVID-19 pandemic, the percentage of referrals made by AVH providers to outside consulting providers which were completed by AVH patients was approximately two-thirds (67 percent in 2018 and 68 percent in 2019).

During the pandemic, this percentage dropped sharply to less than half (47 percent in 2020 and 48 percent in 2021). Post-pandemic, the rate has risen (to 51 percent in 2023 and 57 percent in 2024).

Even though the completion rate has risen since the pandemic, the number of referrals has also increased. Total canceled or expired referrals have remained over 1,000 per year for each of the past four years.

Table 82. Number of Outside Referrals and Referral Completion Rate by Year 2018-2024

Year	Total Referrals Created	Completed, Report Received	Percent Completed	Canceled or Expired
2018	2,569	1,729	**67%**	840
2019	2,443	1,668	**68%**	775
2020	2,033	1029	**51%**	1,004
2021	2,759	1284	**47%**	1,475
2022	2,104	1,006	**48%**	1,098
2023	2,410	1,218	**51%**	1,192
2024	2,585	1,464	**57%**	1,121

Source: AVH's electronic health record systems.

There are many reasons why a referral visit might not be kept.

Transportation is typically the chief barrier to referral completion. As there are no medical subspecialists or psychiatrists locally, these referrals are to Santa Rose (32-36 miles), U.C. San Francisco (86-88 miles), or U.C. Davis Medical Center (116 miles). By car, the drive can be 40 minutes to Santa Rosa, an hour and a half to San Francisco, or over 2 hours to Davis, California. By any other form of transportation, it can become a day of bus travel, or a combination of bus and taxi travel.

Second, a patient with a severe medical or mental health limitation may be dependent on a family member or friend to accompany them for the consultation trip.

Third, either the patient or a companion may be unable to take time off work to make the trip.

Fourth, the patient or their companion may lack the funds to make the trip.

There are consequences for referral visits not completed. It can alienate specialist offices, which may become less willing to accept AVH patients, less willing to "double book" patients who have been no-shows in the past, or unwilling to extend free or reduced-fee care to AVH's uninsured patients.

PART FOUR: Health Status Update

Introduction

Part Four presents health status data updates for California and for Alexander Valley Healthcare's service area and adjacent counties. The data is presented in five broad sections:

Chronic Conditions provides current local prevalence data on chronic conditions such as arthritis, asthma, cancer, coronary heart disease, cerebrovascular disease /strokes, high cholesterol, high blood pressure /hypertension, chronic kidney disease, chronic obstructive pulmonary disease (COPD), diabetes, depression, obesity, and tuberculosis.

Health Risk Factors updates data on behaviors of youth and adults in areas such as heavy use of alcohol and binge drinking, current smoking, drug use, poor diet, lack of physical activity, excess "screen time", short sleep duration, and exposure to sexually transmitted infections (STIs). This section also covers:

Use of Prevention Services, such as annual medical and dental visits, prevention screenings, and services such as vaccinations, healthy diets;

Social Risk Factors, such as hate incidents, witnessing hate incidents, gun ownership, domestic violence, and encounters with law enforcement;

Environmental Risks, such as droughts, heatwaves, wildfires, exposure to wildfire smoke, electrical grid disruptions, geological instability, earthquakes, and liquefaction.

Health Outcomes updates COVID-19 pandemic impacts since the 2022 AVH Community Health Needs Assessment, reports on current life expectancy, premature mortality, maternity outcomes, and infant mortality, provides data on the high-risk nature of Sonoma County maternal population, maternal mortality, and reports mortality by cause of death for Sonoma County and neighboring Mendocino and Lake counties.

Health Access explores the connection between differences in self-reported health status and access to timely care by geographic area, insurance status, income, and race/ethnicity.

Healthcare Workforce reports on shortages of key primary health care providers statewide, regionally, and at the county level, which may be affecting access to health care. Provider supply data is presented on physicians, nurse practitioners and physician assistants, dentists and dental hygienists, and California's wide range of certified and licensed behavioral health providers. The section also reports on differences in language and ethnicity between providers and patient populations.

Chronic Conditions

Chronic diseases are the leading causes of illness, disability, and death in the United States. They are also the leading drivers of our nation's annual health care costs. According to the Centers for Disease Control and Prevention, as much as ninety percent of the nation's $4.9 trillion in annual health care expenditures are for people with chronic physical and mental health conditions. Interventions to prevent and manage these diseases have been shown to have significant health and economic benefits.[112] [113]

More than three in four American adults have at least one chronic condition, and over half have two or more chronic conditions.[114] Eleven percent (11.3) have three or more chronic conditions.[115] Furthermore, many chronic conditions contribute to, or may be aggravated by, other chronic conditions. For example, diabetes is a serious risk factor for heart disease and strokes, chronic kidney disease, and loss of sight.

Table 83. CDC Examples of Impact, Prevalence, and Costs of Chronic Disease and Key Health Risk Behaviors in the United States and California

Disease Group or Risk Behaviors	Aggravated by or may Increase Risk for:	Prevalence in the U.S.A.	Prevalence in CA	# U.S.A. Cases or deaths/yr	National Economic Costs /Yr*
Heart Disease & Stroke	Aggravated by smoking, obesity, type 2 diabetes, and inactivity	6.4% heart disease +3.4% strokes	7.4% heart disease +3.3% strokes	843,000 deaths/yr	$233 billion care cost
Cancer	Aggravated by smoking	7.9%	7.1%	600,000 deaths /yr	$208.9 billion

[112] *Health and Economic Benefits of Chronic Disease Interventions | National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) | CDC*

[113] National health expenditure data: historical. Center for Medicare & Medicaid Services. Updated December 18, 2024. Accessed March 4, 2025. *https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/historical*

[114] Watson KB, Wiltz JL, Nhim K, Kaufmann RB, Thomas CW, Greenlund KJ. Trends in Multiple Chronic Conditions Among US Adults, By Life Stage, Behavioral Risk Factor Surveillance System, 2013–2023. Prev Chronic Dis 2025;22:240539. DOI: *http://dx.doi.org/10.5888/pcd22.240539*

[115] American Health Rankings Annual Report 2025. *ahr_2025annual_comprehensivereport_final-web.pdf*

Disease Group or Risk Behaviors	Aggravated by or may Increase Risk for:	Prevalence in the U.S.A.	Prevalence in CA	# U.S.A. Cases or deaths/yr	National Economic Costs /Yr*
Depression & Anxiety	Aggravated by chronic pain, diabetes, hypertension, and life events, can contribute to lack of sleep, obesity, heart disease, and cancer	22.0%	17.8%	48,824 suicide deaths per year	$382.4 billion
Diabetes	Contributes to heart disease, stroke, kidney disease, and blindness	12.0%	12.6%	38 million + 98 million with prediabetes	$306 billion,
Arthritis	Leading cause of disability & chronic pain	25.4%	21.3%	53.2 -60 million	$300 billion
Obesity	Contributes to diabetes, heart disease, and numerous types of cancers	32.8%	29.1%	100 million, 8.5 million in CA	$173 billion
Alzheimer's Disease	Increase risk of falls, injuries, loss of independent function	n/a	n/a	6.7 million, 720,000 in CA	$360 billion
Chronic Kidney Disease	Complicated by diabetes and hypertension	Est. 14%	3.9%	35.5 million, 4.4 million in CA	$95.7 billion
Cigarette Smoking	Contributes to heart disease, lung cancer, and other cancers	11.4%	5.5%	16 million smokers, 480,000 deaths/yr	$240 billion care costs
Excess Alcohol Use	Contributes to obesity, heart disease, some cancers, traffic, and other accidental injury deaths	15.2%	16.6%	178,000 deaths/yr, 20,000 in CA+ 1,355 alcohol related auto deaths	$249 billion
Physical Inactivity	Contributes to heart disease and type 2 diabetes, some cancers, and obesity	24.5%	n/a	n/a	$192 billion

Principal Sources: *[Fast Facts: Health and Economic Costs of Chronic Conditions | Chronic Disease | CDC]() and **[Health and Economic Benefits of Chronic Disease Interventions | National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) | CDC]()

Between 2013 and 2023, the proportion of adults in the United States who had been diagnosed with at least one of the following chronic conditions increased from 72.3 percent to 76.4 percent: arthritis, asthma, chronic kidney disease, chronic obstructive pulmonary disease, cardiovascular disease (heart disease, heart attack or stroke), cancer (excluding non-melanoma skin cancer), depression or diabetes.

By 2023, 59.6 percent of adults aged 18-34, 78.4 percent of adults aged 35-64, and 90 percent of adults aged 65 and older had at least one chronic condition. [116]

Table 84. Percentage of Adults by Life Stage with One or More Chronic Conditions in the United States, Changes Over Ten Years, 2013 and 2023

Years	All Adults	Adults Ages 18-34	Adults Ages 35-64	Adults Ages 65 or Older
2013	72.3%	52.5%	76.5%	93.1%
2023	76.4%	59.5%	78.4%	93.0%

Source: CDC "Trends in Multiple Chronic Conditions Among U.S. Adults, By Life Stage", Behavioral Health Risk Factor Surveillance System, 2013-2023, Original Research- Volume 22-April 17, 2025.

RISE OF MULTIPLE CHRONIC CONDITIONS

By 2023, more than half of adults in the United States (51.4 percent) had two or more chronic conditions, an 8.7 percent increase from the same ten-year period.

The largest increase in adults with two or more chronic conditions from 2013 to 2023 occurred among adults ages 18 to 34, up 24.3 percent.

Table 85. Percentage of Adults by Life Stage, with Two or More Chronic Conditions in the United States, Changes Over Ten Years, 2013 and 2023

Years	All Adults	Adults Age 18-34	Adults Age 35-64 years	Adults Age 65 or Older
2013	47.3%	21.8%	51.1%	78.4%
2023	51.4%	27.1%	52.7%	78.8%

[116] CDC "Trends in Multiple Chronic Conditions Among U.S. Adults, By Life Stage", Behavioral Health Risk Factor Surveillance System, 2013-2023, Original Research- Volumn22-April 17, 2025.

Source: CDC "Trends in Multiple Chronic Conditions Among U.S. Adults, By Life Stage", Behavioral Health Risk Factor Surveillance System, 2013-2023, Original Research- Volume 22-April 17, 2025.

An independent analysis of 2024 BRFSS data for the American Health Rankings (AHR) Annual Report 2025 showed that the national percentage of adults with three or more chronic conditions increased from 10.7% to 11.3% between 2023 and 2024.[117] The analysis included arthritis, asthma, chronic kidney disease, chronic obstructive pulmonary disease, cardiovascular disease (heart disease, heart attack, or stroke), cancer (excluding non-melanoma skin cancer), depression, or diabetes.

California scored better in this analysis than other states, with only 8.2 percent of the state's adults having three or more of those conditions. This ranked California #1 among states for the lowest percentage of adults with three or more chronic conditions, according to the AHR Annual Report 2025.[118]

However, 49 percent of California residents age 65-74 have three or more chronic conditions, ranking California 16th among states for this age group.

The proportion of adults nationally who suffer from multiple chronic conditions also varies widely by race and ethnicity. According to the AHR 2025 Annual Report:

- 3.2 percent of Asians
- 7.0 percent of Hispanics
- 11.0 percent of Hawaiian and Pacific Islanders
- 11.6 percent of Blacks
- 13.2 percent of whites
- 15.0 percent of multiracial individuals

[117] American Health Rankings Annual Report 2025: Source: U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention, CDC Behavioral Risk Factor Surveillance System 2024.

[118] America's Health Rankings analysis of U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, accessed 2026.

- 15.1 percent of persons of other races and
- 16.5 percent of American Indian/Alaskan Natives had three or more chronic conditions.

Between 2023 and 2024, the proportion of adults in metropolitan areas with three or more chronic conditions rose from 9.7 percent to 10.6 percent. The proportion of non-metropolitan area adults with three or more chronic conditions rose from 14.4 percent to 15.4 percent.

CRITICAL ROLE OF PRIMARY CARE

A recent study by the Milbank Memorial Fund and The Physicians Foundation demonstrates that **consistent primary care plays a critical role in restraining the costs of chronic conditions.**[119] The study was conducted by researchers from the Robert Graham Center for Health Policies in Primary Care, based on an analysis of Medical Expenditure Panel Survey (MEPS) and Medicare fee-for-service claims data. The researchers found that:

- **Having a regular primary care clinician is associated with 54 percent lower health care expenditures for adults with chronic conditions, and 40 percent lower health care expenditures for children.**
- **Among Medicare patients with a chronic disease, those with higher rates of contact with their primary care clinician had lower rates of hospitalization and emergency department use, and lower overall costs.**
- **Adults with a regular source of primary care were more likely to receive preventive services for chronic disease (95.5 percent) compared to 67.6 percent of adults without a usual source of care.**
- Compared to children without a usual source of care, children with a usual source of primary care were more likely to receive prevention services such as:

[119] Jabbarpour, Yalda, Jetty, Anuradha, Byun, Hoon, Siddiqi, Anam, Park, Jeongyoung, Koller, Christopher F.: "Investing in Primary Care: The Missing Strategy in America's Fight Against Chronic Conditions", Milbank Memorial Fund, February 12, 2026. *https://www.milbank.org/publications/investing-in-primary-care-the-missing-strategy-in-americas-fight-against-chronic-disease/*

- **Vision testing (73.7 percent versus 20.9 percent);**
- **Accident or injury prevention education (43.7 percent versus 21.7 percent);**
- **Secondhand smoke prevention (37.1 percent versus 20.9 percent), and**
- **Obesity prevention (95.6 percent versus 80.6 percent).**

In response to the US Department of Health and Human Services' agenda to "***Make America Health Again,"*** calling for a shift to preventing chronic disease or slowing its progress earlier, the authors of the Milbank article argue that:

"Primary Care is the specialty best positioned to lead that shift. Defined by the comprehensiveness of its care, and its focus on prevention, primary care enables patients to build trusting, long-term relationships with clinicians who understand all their health needs. Studies have shown that robust primary care systems are associated with lower overall health care costs, improved mortality rates, and better health outcomes for all communities."

PREVENTION QUALITY INDICATORS

The Agency for Healthcare Research and Quality (AHRQ) has developed a set of quality indicators, the Prevention Quality Indicators (PQIs), using hospital discharge data to identify areas (communities, counties, regions) with excess hospitalizations that could have been prevented. These measures use hospital discharge data to identify admissions for ambulatory care-sensitive conditions that evidence suggests may have been avoided through access to quality outpatient care.

The PQIs are population-based indicators that capture all cases of potentially preventable complications that occur in a given population (in a community, county, or region), whether during a hospitalization or in a subsequent hospitalization.[120]

In 2023, there were 270,647 preventable hospitalizations of adults in California. Of those, 217,872 (80.5 percent) were for chronic conditions and may have been prevented, according to

[120] Agency for Healthcare Research and Quality, US. Department of Health and Human Services. *AHRQ QI: Prevention Quality Indicators in Inpatient Settings Overview | AHRQ Quality Indicators*

the California Department of Health Access and Information (HCAI), which computes the PQI data for the state.[121]

Of the 2023 preventable hospitalizations, **nearly one quarter - 68,194 hospitalizations - were for a diabetes-related condition** that the AHRQ's PQI methodology considers preventable or treatable in primary care prior to the need to hospitalize the patient.

Approximately 20 percent of preventable hospitalizations among adults in 2023 were for acute conditions, including community-acquired pneumonia, urinary tract infections, and a composite of other acute conditions, which could also have been treated in an outpatient primary care setting if treated earlier or if the patient had a consistent source of primary care. **Sonoma, Mendocino and Lake counties do better than the state on most of these PQI measures.**

Table 86. Selected Preventable Hospitalizations, Risk-Adjusted Rates per 100,000 Population, California and Sonoma, Mendocino, and Lake Counties, 2023

PQI#	Description	California	Sonoma County	Mendocino County	Lake County
PQI #90	**Overall Composite**	941.0	886.5	627.2	812.6
PQI #91	Acute Composite	186.6	157.6	142.4	196.2
PQI #92	Chronic Condition Composite	754.2	724.8	484.4	615.8
PQI #93	Diabetes Composite	234.4	217.1	140.9	200.2

Source: 2023 data from the California Dept of Health Care Access and Information (HCAI), *Preventable Hospitalizations for Diabetes - HCAI* Note: The risk-adjusted rates are adjusted for age, sex, and poverty, and are calculated per 100,000 state or county population. Because the PQI software calculates rates regardless of the number of cases recorded, rates based on only a few cases should be interpreted with caution.

[121] California Department of Health Access and Information (HCAI) *Preventable Hospitalizations for Chronic Conditions - HCAI*

Chronic Conditions in AVH's Area

ARTHRITIS

The **Arthritis Foundation** reports that in 2023, 60 million Americans were living with arthritis, including approximately 7.8 million California residents.[122] The Foundation estimates that 3,895,000 of these California residents have limitations on daily activities, with 43 percent having work limitations.[123]

Yet California has the second-lowest percentage of residents diagnosed with arthritis among 49 reporting states: **21.3 percent of adults**,[124] below the **national level of 25.4 percent of adults** reported by the CDC's PLACES website for the five years 2019-2023.

The percentage of Sonoma County residents diagnosed with arthritis is closer to the national level: 24.5 percent. Twenty-four (24.0) percent of City of Cloverdale residents have been diagnosed with arthritis.[125]

Neighboring Mendocino County (29.3 percent) and Lake County (29.8 percent) are well above Sonoma County, California, and the United States as a whole.

Table 87. Current Prevalence of Arthritis in Adult Populations: United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Arthritis	25.4%	21.3%	24.5%	29.3%	29.8%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California data from American Health Rankings: 2024 data: *Explore Arthritis in California | AHR*

The category of arthritis includes more than 100 conditions that affect the joints, tissues around the joints, and other connective tissues. The six most common types of arthritis and related

[122] Arthritis Foundation Fact Sheet for California: *2023-Advocacy-State-Fact-Sheets.pdf*

[123] Ibid.

[124] American Health Rankings: 2024 data: *Explore Arthritis in California | AHR*

[125] *PLACES: Local Data for Better Health | PLACES | CDC*

conditions are: osteoarthritis, rheumatoid arthritis, fibromyalgia, gout, lupus, and psoriatic arthritis.[126]

ASTHMA

Nationally, 9.8 percent of adults in the United States were estimated to have been diagnosed with asthma, averaged across the five years 2019-2023.[127] More recent 2024 data suggests that the percentage has risen to 10.9 in 2024.[128]

American Health Rankings reports that California's 8.1 percent of adults diagnosed with asthma is the lowest among 49 reporting states.[129]

The percentage of Sonoma County residents diagnosed with asthma is the same as the national level: 9.8 percent. However, asthma prevalence in the City of Cloverdale[130] (10.0 percent) and in neighboring Mendocino County (10.6 percent) and Lake County (10.8 percent) are above the asthma prevalence in Sonoma County, California, and the United States as a whole.

Table 88. Current Prevalence of Adult Asthma in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Asthma (Adults)	9.8%	8.1%	9.8%	10.6%	10.8%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California data from American Health Rankings 2025: 2024 data. *Explore Asthma in the United States | AHR*

[126] U.C. Davis *https://health.ucdavis.edu/blog/cultivating-health/6-common-types-of-arthritis-and-related-conditions-symptoms-causes-and-risk-factors/2024/04*

[127] CDC PLACES website: *PLACES: Local Data for Better Health | PLACES | CDC*

[128] California data from American Health Rankings 2025: 2024 data. *Explore Asthma in the United States | AHR*

[129] Ibid.

[130] CDC PLACES-Comparison Measures -Places.

Emergency department visits and hospitalizations for asthma showed wide variation across local counties in 2023.[131] Sonoma County had both emergency department and hospitalization rates below the statewide California rates, while Mendocino County and Lake County had rates for both measures well above the statewide rate.

- **Mendocino County emergency department cases were 30.4 percent higher than the statewide rate.**
- **Lake County emergency department cases were 56.2 percent higher than the statewide rate.**

However, Mendocino's hospitalization rate was only 2.7 percent higher than the state's rate, while Lake County's hospitalization rate was 216.2 percent higher than the state's rate.

Table 89. Number and Age-Adjusted Rate of Emergency Department Cases, and Hospitalizations for Asthma in California, Sonoma, Mendocino, and Lake Counties, All Ages, 2023

Geography	Emergency Department Cases	Rate per 10,000 Residents	Hospitalizations	Rate Per 10,000 residents
California	**128,345**	**34.9**	**13,624**	**3.7**
Sonoma County	1,348	31.1	262	3.3
Mendocino County	364	45.5	52	3.8
Lake County	315	54.5	100	8.8

Source: California Department of Public Health: Tracking California website: *https://data.trackingcalifornia.org/?area=ncdm_asthma&event=ASHO&type=AR10K&sex=TOTL&age=TOTL&race=TOTL&year=2023&co=*

There were also wide differences in emergency department use and hospitalization by county for younger asthma patients, ages 0-4 and ages 5-17.

[131] California Department of Public Health: Tracking California website: *https://data.trackingcalifornia.org/?area=ncdm_asthma&event=ASHO&type=AR10K&sex=TOTL&age=TOTL&race=TOTL&year=2023&co=*

Table 90. Number and Age-Adjusted Rate of Emergency Department Cases, and Hospitalizations for Asthma in California, Sonoma, Mendocino, and Lake Counties, Ages 0-4 and Ages 5-17, 2023

Geography	Emergency Department Cases	Rate per 10,000 Residents	Hospitalizations	Rate Per 10,000 residents
California - Ages 0-4	**15,830**	**72.3**	**3,223**	**14.7**
Ages 5-17	**32,410**	**49.2**	**3,599**	**5.5**
Sonoma County - Ages 0-4	160	71.3	41	19.3
Ages 5-17	256	38.2	24	3.6
Mendocino County - Ages 0-4	29	61.7	N/A	N/A
Ages 5-17	78	56.1	N/A	N/A
Lake County – Ages 0-4	21	57.5	N/A	N/A
Ages 5-17	77	76.2	N/A	N/A

Source: California Department of Public Health: Tracking California website: *https://data.trackingcalifornia.org/?area=ncdm_asthma&event=ASHO&type=AR10K&sex=TOTL&age=TOTL&race=TOTL&year=2023&co=*

CANCER

Cancer is the second leading cause of death in the United States, accounting for 619,876 deaths compared with 683,491 deaths from heart disease. From 2018 to 2022, there were more than 9 million new cancer cases (incidence) and 3 million deaths. The most common cancer types for both incidence and death rates during these years were female breast, prostate, lung and bronchus, and colon and rectum (colorectal).[132] These cancer types made up 48% of the total number of cancers diagnosed and 44% of cancer deaths from 2018 to 2022.

While heart disease is the leading cause of death in California and the United States, **cancer is the leading cause of death in Sonoma County.**[133] This is a function both of Sonoma County having higher crude and age-adjusted death rates for cancer than the state, and because Sonoma County has lower crude and age-adjusted death rates for coronary artery disease.

Sonoma County, Mendocino County, and Lake County **all have cancer mortality rates above the state mortality rates for colorectal, lung, breast, and prostate cancers.** (Also see the Mortality by Cause of Death sub-section of Health Outcomes below.)

[132] Centers for Disease Control and Prevention *Common Cancers in Metropolitan and Non-metropolitan Counties | U.S. Cancer Statistics | CDC*

[133] Count of Sonoma Department of Health Services *Leading Health Indicators*

In 2024, California had the second-lowest cancer prevalence rate, 7.1 percent, among the 49 states for which data is available.[134] However, Sonoma County (9.0 percent) and both neighboring Mendocino and Lake counties (9.9 percent) had cancer prevalence rates well above the state and national rates.

This follows a pattern of residents in non-metropolitan counties having a higher incidence of lung and bronchus cancer and colon and rectal cancers than metropolitan residents. Of the most common cancers, only female breast cancer rates are higher in urban areas than in non-metropolitan areas.[135]

Table 91. Prevalence of Cancer in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Cancer (Adults)	**7.9%**	**7.1%**	**9.0%**	**9.9%**	**9.9%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California data from American Health Rankings 2025: 2024 data. *Explore Cancer in the United States | AHR*.

CEREBROVASCULAR DISEASE (STROKES)

The prevalence of cerebrovascular disease/strokes in California and Sonoma County is close to the national rate of 3.4%. The prevalence rates for Mendocino County (4.4 percent) and Lake County (4.7 percent) are both higher.

Table 92. Prevalence of Cerebrovascular Disease/Strokes in the United States, California, Sonoma, Mendocino and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Cerebrovascular Disease (Strokes)	3.4%	**3.3%**	3.3%	4.4%	4.7%

[134] America's Health Rankings *Explore Cancer in the United States | AHR*

[135] CDC *Common Cancers in Metropolitan and Non-metropolitan Counties | U.S. Cancer Statistics | CDC*

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California data from American Health Rankings.

CHRONIC KIDNEY DISEASE

One in seven adults in the United States has chronic kidney disease (CKD), 35.5 million people, or 14 percent of adults. However, as many as 90 percent of adults with CKD may be unaware that they have the condition considered chronic kidney disease.[136] California has an estimated 4.4 million residents living with chronic kidney disease, 3.96 million of whom are unaware of their illness.[137]

There have been approximately 55,000 deaths per year from **nephritis, nephrotic syndrome, and nephrosis in the United States.** California accounted for 4,927 of those deaths, giving it a death rate of 10.6 deaths per 100,0000 in 2023 compared to the national rate of 16.2 per 100,000 adults.

There are 110,332 Californians **living with kidney failure**, including **81,798 on dialysis,** and **29,035 living with a kidney transplant**.[138] Causes of kidney failure include diabetes, which is indicated in 47 percent of all kidney failure cases, and high blood pressure/hypertension, which is indicated in 28 percent of all kidney failure cases.[139]

No county-specific prevalence rates for chronic kidney disease are currently available in California. However, in the period 2011-2013, **Lake County had the highest rate of hospitalizations for acute kidney injuries (AKIs)** of any California county: **261.5 hospitalizations per 100,000 population.[140]**

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[136] Centers for Disease Control and Prevention. Chronic Kidney Disease in the United States, 2023. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2023. *Chronic Kidney Disease in the United States, 2023*

[137] "US Kidney Statistics/Kidney Disease Statistics in California, USA," Interdisciplinary Science of Nephrology (ISN), March 18,2026. *Chronic Kidney Disease Statistics in California | USA Data & Trends - Interdisciplinary Science of Nephrology (ISN)*

[138] Ibid.

[139] Ibid.

[140] Ibid.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

The prevalence of chronic obstructive pulmonary disease among adults in both California (4.0 percent) and Sonoma County (5.8 percent) is lower than the prevalence of COPD in the United States as a whole (6.2 percent).

However, the prevalence of COPD is substantially higher in neighboring Mendocino County (8.5 percent) and Lake County (9.1 percent) than in California, Sonoma County, and the nation as a whole.

Table 93. Prevalence of Chronic Obstructive Pulmonary Disease Cancer in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Chronic Obstructive Pulmonary Disease (COPD)	**6.2%**	**4.0%**	**5.8%**	**8.5%**	**9.1%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California data from American Health Rankings 2025, 2024 data.

As a consequence, both emergency room cases and hospitalizations for COPD are substantially higher in Mendocino County and Lake County than in Sonoma County or California.

Table 94. Number and Age-Adjusted Rate of Emergency Department Cases, and Hospitalizations for Chronic Obstructive Pulmonary Disease (COPD), in California, and in Sonoma, Mendocino, and Lake Counties, 2023

Geography	Emergency Department Cases	Rate per 10,000 Residents	Hospitalizations	Rate Per 10,000 residents
California	**82,868**	**26.8**	**22,058**	**6.6**
Sonoma County	1,231	27.1	266	5.3
Mendocino County	547	69.5	53	5.9
Lake County	635	97.1	102	13.8

Source: California Department of Public Health: Tracking California website: *https://data.trackingcalifornia.org/?area=ncdm_asthma&event=ASHO&type=AR10K&sex=TOTL&age=TOTL&race=TOTL&year=2023&co=*

There is published data on preventable hospitalizations for COPD or asthma in adults over 40 (PHQ #5) available by county. Sonoma and Mendocino counties' risk-adjusted rates of preventive hospitalizations are lower than the state's 144.1 hospitalizations per 100,000 adults. Lake County's 187.8 per 100,000 preventable hospitalization rate is well above the state rate.

Table 95. Preventable Hospitalizations for COPD or Asthma in Adults Over 40, Risk-Adjusted Rates per 100,000 Population, California and Sonoma, Mendocino, and Lake Counties, 2023

PQI #	Description	California	Sonoma County	Mendocino County	Lake County
PQI #5	COPD or Asthma in Older Adults	144.1	138.5	63.8	187.8

Source: 2023 data from the California Dept of Health Care Access and Information (HCAi). Note: The risk-adjusted rates are adjusted for age, sex, and poverty, and are calculated per 100,000 state or county population. PQI rates based on only a few cases should be interpreted with caution.

CORONARY HEART DISEASE

California has a higher prevalence of coronary heart disease than the United States as a whole, at 7.4 percent versus 6.4 percent nationally. However, Sonoma County (6.5 percent) and Cloverdale (6.2 percent) are closer to the national prevalence rate.

Neighboring Mendocino County (8.5 percent) and Lake County (8.9 percent) have a prevalence well above California's or the United States'.

Table 96. Prevalence of Coronary Heart Disease in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Coronary Heart Disease (Adult)	**6.4%**	**7.4%**	**6.5%**	**8.5%**	**8.9%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*

[141]California data from American Health Rankings 2025: 2024 data. *Explore Cardiovascular Diseases in California | AHR*.

Both Mendocino and Lake counties also have higher rates of emergency department usage and hospitalization for heart attacks.

Table 97. Number and Age-Adjusted Rate of Emergency Department Cases, and Hospitalizations for Heart Attacks in Sonoma, Mendocino, and Lake Counties, 2023

Geography	Emergency Department Cases	Rate per 100,000 Residents	Hospitalizations	Rate Per 100,000 residents
California	**55,409**	**22.4**	**51,882**	**20.9**
Sonoma County	807	21.9	746	20.0
Mendocino County	195	28.2	165	23.5
Lake County	142	26.3	120	22.2

Source: California Department of Public Health: Tracking California website: *https://data.trackingcalifornia.org/?area=ncdm_asthma&event=ASHO&type=AR10K&sex=TOTL&age=TOTL&race=TOTL&year=2023&co=*

DEPRESSION

Clinical depression is a medical condition that can be caused by a combination of genetic, biological, environmental, and physiological risk factors, including chronic pain, major life changes, life stressors, certain medications, or a family history of depression.

It can carry serious symptoms such as hopelessness, loss of interest, fatigue, sleeplessness, and loss of appetite. For 80 percent of adults with depression, it comes with some difficulty performing work, home, or social activities. Depression is treatable. However, untreated, it carries the risk of attempting suicide.[142,143]

California has a lower prevalence of diagnosed depression among adults (17.8 percent) than the United States as a whole (20.2 percent). **California's 17.8 percent of adults diagnosed with depression ranks fourth among 49 states reporting on this measure.**

[142] Anxiety & Depression Association of American: *https://adaa.org/understanding-anxiety/depression?gad_source=1&gad_campaignid=21784584432&gbraid=0AAAADOzZln7CwSMhWxOFkD6bx9hHTFrc&gclid=EAIaIQobChMIi8Lx5azckwMVnTOtBh3FYglqEAAYAiAAEgLmRfD_BwE*

[143] American Health Rankings: *Explore Depression in the United States | AHR*

According to CDC-PLACES, Sonoma County, Mendocino County, and Lake County all have depression prevalence above both California and the United States. Cloverdale has a 23.1 percent depression prevalence rate.

Table 98. Prevalence of Depression in the United States, California, Sonoma, Mendocino and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Depression (adults)	**20.2%**	17.8%	22.9%	23.0%	24.0%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
2024 California data from American Health Rankings: *Explore Depression in the United States | AHR*

Populations within California have varying levels of reported depression.

By gender, more adult females than adult males have been diagnosed with depression, both statewide and nationally. However, fewer adult females in California (21.9 percent) report having been diagnosed with depression than nationally (26.5 percent), and fewer adult males in California (13.7 percent) have been diagnosed with depression than nationally (15.4 percent).[144]

By age group, the percentage of persons having been diagnosed with depression varies from 19.9 percent of adults aged 18 to 44 to 13.3 percent of persons over age 65.

By race and ethnicity, multiracial adults (29.9 percent) and Whites (21.8 percent) have a higher reported diagnosis of depression than Black adults (16.8 percent), other races (16.7 percent), Hispanic (16.1 percent), or American Indian/Alaskan Native (13.2 percent). Asians had the lowest reported percentage (12.1%) of those diagnosed.

Comparing depression prevalence in California to the same ethnicity nationally, American Indian, Black, Hispanic, Multiracial, Other race, and White Californians all had lower depression rates than their peers nationally. Asians in California (12.1 percent) were above the 10.8 percent prevalence nationally.

[144] American Health Rankings: *Explore Depression in the United States | AHR*

However, among diverse ethnic groups, there may be social-cultural factors that might impact a person's willingness to seek professional help for depression symptoms and, therefore, rates may reflect under-reporting.

Table 99. Depression in California by Gender, Age Group, and Race /Ethnicity, 2024

Diagnosed with Depression (Adults)	California Percent	California's Rank	By Race/Ethnicity	California Percent	U.S.A Percent
	17.8%	**20 of 50**	**Overall**	**17.8%**	**22.0%**
By Gender			**Am. Indian/Alaskan Native**	13.2%	25.4%
Female	21.9%	5	**Asian**	12.1%	10.8%
Male	13.7%	10	**Black**	16.8%	17.1%
By Age Groups			**Hawaiian/Pacific Islander**	--	23.0%
18-44	19.9%	5	**Hispanic**	16.1%	17.4%
45-64	17.8%	8	**Multiracial**	29.9%	32.0%
65 +	13.3%	12	**Other Races**	16.7%	22.9%
			White	21.8%	23.5%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2022 data. Note: Not all states report on all measures.

California's Department of Healthcare Access and Information (HCAI) reports that in 2024, behavioral health diagnoses accounted for 29 percent of all inpatient hospitalizations and one in eight (12 percent) of all emergency department visits**. Mood disorders were the most common group of behavioral health diagnoses (504,840 encounters) in the inpatient setting**, whereas **anxiety disorders were the most common (465,778 encounters) in the emergency department.**[145]

[145] Inpatient Hospitalizations and Emergency Department Visits for Patients with a Behavioral Health Diagnosis in California: Patient Demographics - HCAI

DIABETES

The CDC estimates that there are 40.1 million diabetics over age 18 in the United States with diabetes mellitus (type 2 diabetes), 29.1 million diagnosed, and an estimated 11 million as yet undiagnosed.[146] This is 12.0 percent of the adults in the country.

There are also an estimated 2.1 million people with diagnosed type 1 diabetes in the United States, including 1.8 million adults aged 20 years or older and 314,000 children and adolescents younger than 20 years.[147]

There are also an estimated 115.2 million U.S. adults aged 45 years or older with "prediabetes," a condition where their blood sugar is elevated but not sufficiently to be diagnosed with type 2 diabetes. They are considered "at risk" of diabetes, but may be able to change their health with lifestyle changes (such as changes to diet, exercise, or sleep duration).

The prevalence of diabetes among California adults is 12.6 percent, just above the national 12.0 percent. California ranks 30th among 49 reporting states.[148] Like the nation as a whole, the prevalence of diabetes in California has risen steadily, from 5.1 percent of adults in 1996.[149]

Table 100. Prevalence of Diabetes in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Diabetes (adult)	**12.0**	**12.6**	**10.7**	**13.7**	**14.1**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California data: American Health Rankings: *https://www.americashealthrankings.org/explore/measures/Diabetes*

[146] *National Diabetes Statistics Report | Diabetes | CDC*

[147] Type 1 diabetes refers to an auto-immune condition in which the patient's body is not capable of producing insulin, sometimes because the auto-immune disease attacks the patient's pancreas, requiring them to take synthetic insulin medication in place of the insulin the body cannot produce. *Type 1 vs. Type 2 Diabetes: The Differences* , Cleveland Clinic, February 29,2024.

[148] American Health Rankings: *https://www.americashealthrankings.org/explore/measures/Diabetes*

[149] Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System.

Despite the higher reported incidence of diabetes in Sonoma County and Mendocino County, these counties score better than the state on preventable hospitalizations for diabetes, as measured by risk-adjusted rates of preventable hospitalizations for diabetes (Prevention Quality Indicator (PQI) Measures).[150]

Lake County has a higher rate of preventable hospitalizations for short- and long-term diabetes complications than the state. However, Lake County has a lower rate of preventable hospitalizations than the state for "uncontrolled diabetes" (PQI #14) and for lower extremity amputations (PQI #16). These rates suggest that local counties' primary care practices are more effectively managing diabetes cases.

Of the three local counties, Mendocino County has the best overall rate of preventable hospitalizations for diabetes (PQI #93).

Table 101. Preventable Hospitalizations for Diabetes Complications, Risk-Adjusted Rates per 100,000 Population, California and Sonoma, Mendocino, and Lake Counties, 2023

PQI#	Description	California	Sonoma County	Mendocino County	Lake County
PQI #1	Short-term complications (ketoacidosis, hyperosmolarity, or coma)	72.3	68.7	65.1	85.2
PQI #3	Long-term complications (renal, eye, neurological, circulatory, or other complications)	114.9	68.7	55.7	89.0
PQI #14	Uncontrolled diabetes (without mention of short-term or long-term complications)	29.6	19.3	10.4	13.8
PQI #16	Lower-extremity amputation (except toe)	37.8	34.6	18.6	35.5
PQI #93	Any of the above diabetes related conditions	234.4	217.1	140.9	200.2

[150] The Prevention Quality Indicators (PQIs), developed by the federal **Agency for Healthcare Research and Quality** (AHRQ), are a set of measures derived from hospital inpatient discharge data to identify "ambulatory care sensitive conditions." These are conditions that good outpatient care can potentially prevent or manage without hospitalization. High PQI scores are considered "flags" for poor primary care system performance. Low scores are considered to reflect more effective primary care. For more information, see *AHRQ Quality Indicators*

Source: 2023 data from the California Dept of Health Care Access and Information (HCAI), *Preventable Hospitalizations for Diabetes - HCAI* Note: The risk-adjusted rates are adjusted for age, sex, and poverty, and are calculated per 100,000 state or county population. Because the PQI software calculates rates regardless of the number of cases recorded, rates based on only a few cases should be interpreted with caution.

HIGH BLOOD PRESSURE/HYPERTENSION

Nationally, more than a third of adults have been diagnosed with high blood pressure/hypertension, a risk factor for further heart attacks, strokes, and kidney problems.

The percentage of adults who have been diagnosed with high blood pressure/hypertension in California (30.6 percent), Sonoma County (31.6 percent), and Cloverdale (30.5 percent) is lower than the United States as a whole (34.4 percent).

However, both Mendocino County (38.5 percent) and Lake County (39.6 percent) have a much higher percentage of adults diagnosed with hypertension than statewide or nationally.

Table 102. Prevalence of High Blood Pressure/Hypertension in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
High Blood Pressure/ Hypertension	**34.4%**	**30.6%**	**31.6%**	**38.5%**	**39.6%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California data from American Health Rankings: *Explore High Blood Pressure in the United States | AHR*

The CDC PLACES website also reports on what percentage of adults with a hypertension diagnosis are estimated to be taking medication for their high blood pressure. The City of Cloverdale, Sonoma County as a whole, Mendocino County, and Lake County all score below the reported national average of 77.0 percent.

Table 103. Percentage of Adults with Diagnosed High Blood Pressure/Hypertension Who are Taking Medication to Control Blood Pressure, United States, City of Cloverdale, Sonoma, Mendocino and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	Cloverdale	Sonoma County	Mendocino County	Lake County
High Blood Pressure/ Hypertension	**77.0%**	**72.7%**	**73.8%**	**75.4%**	**76.1%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*

HIGH CHOLESTEROL

The proportion of California's adults who have been diagnosed as having high cholesterol (37.0 percent) is virtually the same as that of adults in the United States as a whole. A lower proportion of Sonoma County's adults have high cholesterol (34.9 percent) than the state.

However, the share of adults in Mendocino County (39.0 percent) and Lake County (38.9 percent) with high cholesterol is well above that in Sonoma County, California, and the nation as a whole.

Table 104. Prevalence of Diagnosed High Cholesterol in the United States, California, Sonoma, Mendocino, and Lake Counties. 2023-2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
High Cholesterol	**37.4%**	**37.0%**	**34.9%**	**39.0%**	**38.9%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California data: American Health Rankings: *https://www.americashealthrankings.org/explore/measures/High_Chol*

HIV/AIDS

There were 143,254 people in California living with diagnosed HIV infection in 2023, a prevalence rate of 355.0 per 100,000 population (age 13 and older), an increase from 346.5 per 100,000 in 2019. Three-quarters (75.1 percent) of those with a diagnosed HIV infection were in HIV care, and 66.5 percent had achieved viral suppression.[151] This represents California's progress toward meeting the national ***Ending the HIV Epidemic in the United States (EHE)*** goals, which are to increase linkage to care and achieve viral suppression to 95% by 2025.[152]

[151] California Department of Public Health, Office of AIDS, California HIV Surveillance Report – 2023. *California HIV Surveillance Report - 2023*

[152] https://www.cdc.gov/ehe/index.html

However, the number of new diagnoses per year has continued to rise, from 4,669 in 2019 to 4,948 in 2023.[153]

The number of deaths in California among people with a diagnosed HIV infection has risen from 1,854 in 2019 to 2,252 in 2023. The crude death rate for persons diagnosed with HIV infection was 5.6 per 100,000 in 2023, a 19.1 percent increase from 2019.[154]

In 2023, the percentage of persons living with a HIV diagnosis who are in care and who are in viral suppression is higher in Sonoma, Mendocino, and Lake counties than in the state as a whole.

Table 105. Number of People Living with HIV Diagnosis, Percent in Care, Percent in Suppression, California, Sonoma County, Mendocino County, and Lake County, 2023

Geography	# New diagnosis in 2023	# Living with HIV Diagnosis	# In Care	% In Care	# Virally Suppressed	% In Sup.	2023 Deaths	Rate /100K
California	4,948	143,258	107,606	75.1%	95,199	66.5%	2,252	5.6
Sonoma County	38	1,501	1,314	87.5%	1,256	83.7%	23	4.6
Mendocino County	3	171	137	80.1%	117	68.4%	2	2.3
Lake County	7	148	127	85.8%	117	79.1	6	9.4

Source: California Department of Public Health, Office of AIDS, California HIV Surveillance Report – 2023. *California HIV Surveillance Report - 2023*

The American Health Rankings Annual Report 2025 reports a measure of the **prevalence of high-risk HIV behaviors in the United States, which flags the potential for increased HIV infection**. The measure is the percentage of adults who reported having done any of the following in the past year: injecting drugs not prescribed for them, being treated for sexually transmitted diseases, or exchanging money or drugs for sex.

Nationally, 5.6 percent of adults are estimated to have engaged in one or more of these behaviors, based on the CDC's Behavioral Risk Factor Surveillance System in 2024. **In California,**

[153] California Surveillance Report -2023.

[154] Ibid.

an estimated 6.7 percent of adults had engaged in one or more of these risk behaviors, 5.2 percent of females and 8.2 percent of males, ranking California 45th out of 49 states.[155]

By age group, 11.0 percent of adults aged 18-44, 4.0 percent of adults aged 45-64, and 1.2 percent of adults aged 65 or older were estimated to have engaged in one or more of these behaviors.

OBESITY

Obesity is a major chronic condition experienced by one in three adults in the United States. It is also a chronic condition linked to a majority of the other chronic conditions in this section.

According to the National Institutes of Health, overweight (body mass index of 25 to 29.9) and obesity (BMI 30 and above) are linked to Type 2 diabetes, high blood pressure, strokes, metabolic syndrome, fatty liver disease, breathing problems, osteoarthritis, gout, diseases of the gallbladder and pancreas, kidney disease, fertility problems, pregnancy complications, sexual functions problems, sleep apnea, and mental health problems.[156]

Excess body weight is also linked with an increased risk of developing cancer[157,158] in various sites in the body, including:

- Breast (in women past menopause)
- Colon and rectal
- Endometrium (the inside lining of the uterus)
- Esophagus

[155] American Health Rankings *Explore High-Risk HIV Behaviors in the United States | AHR*

[156] Health Risks of Overweight and Obesity, National Institutes of Health *Risks of Overweight & Obesity - NIDDK*

[157] "How Does Your State Compare on Cancer Prevention & Screening", American Cancer Society, February 03,2026. See: *https://www.cancer.org/research/acs-research-news/how-well-is-your-state-protecting-you-from-cancer.html*

[158] Shen, Sherry, MD, Brown, Kristy A. PhD., Green, Angela K, MD et al "Obesity and Cancer: A Translational Science Review JAMA, published online March 9,2026, doi.10.1001/jama.2026.1114. *Obesity and Cancer: A Translational Science Review | Obesity | JAMA | JAMA Network*

- Gallbladder
- Kidney
- Liver
- Ovarian
- Pancreas
- Stomach
- Thyroid

Excess weight also increases the risk of:

- Meningioma (a tumor in the lining of the brain and spinal cord)
- Multiple myeloma (a blood cancer that starts in bone marrow)

The prevalence of obesity among California adults (29.1 percent) is well below the national average, ranking the state a rank of the sixth out of 49 states for which data are available. Sonoma County's obesity prevalence is 26.1 percent, well below California's overall rate. Mendocino County (29.3 percent) is close to the state prevalence, while Lake County (32.7 percent) is closer to the national prevalence.

Table 106. Prevalence of Obesity in the United States, California, Sonoma, Mendocino, and Lake Counties, 2023 and 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Obesity (Adults)	**32.8%**	**29.1%**	**26.1%**	**29.3%**	**32.7%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California data from American Health Rankings: *Explore Obesity in California | AHR*

By age group, California adults are consistently below their national peers in obesity prevalence:

- Ages 18-44: 27.6 percent (rank 5 of 49)

- Ages 45-64: 34.5 percent (rank 6 of 49)
- Ages 65+: 24.5 percent (rank 3 of 49)

Unfortunately, the prevalence of overweight and obesity among California children ages 6 to 17 is 31.2 percent, ranking the state 23rd out of 50 states.[159]

Among California's adults, 33.3 percent are considered overweight (BMI 25.0-29.99), nearly as large as the percent who are obese (BMI over 30.0). **Only 36.1 percent of California adults are in the range considered "normal weight" (BMI between 18.5 and 24.99), and 2.1 percent are considered underweight (BMI of 18.49 or under).[160]**

In the three local counties covering Alexander Valley Healthcare's service area, combined, 35.5 percent are considered in the "normal range," 34.4 percent are considered overweight, 26.5 percent are considered obese, and 3.4 percent are underweight.

When looking at the **total of overweight and obese adults in combination**, 61.1 percent of adults in the three local counties are **overweight or obese**, nearly the same as the state average of 61.8 percent.[161]

- Adult men in the local three counties are somewhat more likely to be overweight or obese (64.3 percent) than are adult men statewide (66.0 percent).
- Adult women in the three local counties are more likely than adult men to be in the normal weight range (38.2 percent vs. 32.5 percent). The same is true statewide for men and women.

[159] American Health Rankings, 2024 data *Explore Overweight or Obesity - Children in California | AHR*.

[160] California Health Interview Survey, *https://healthpolicy.ucla.edu/our-work/california-health-interview-survey-chis* 2020-2024 pooled data.

[161] Ibid.

Table 107. Percent of Adults by Weight Ranges and Gender, California and Combined Three-County Area (Sonoma, Mendocino, and Lake Counties), 2020-2024

Weight Range by BMI	California Adult Males	California Adult Females	California Adult Totals	3 Counties Adult Males	3 Counties Adult Females	3 Counties Adult Totals
Underweight (BMI ≤ 18.49%)	1.7%	2.6%	2.1%	4.2%	2.5%	3.4%
Normal weight (BMI = 18.50–24.99%)	32.2%	39.7%	36.7%	32.5%	38.2%	35.5%
Overweight (BMI = 25 to 29.99%)	38.5%	28.3%	33.3%	39.2%	31.0%	34.6%
Obese (BMI ≥ 30%)	27.5%	29.5%	28.5%	24.1%	28.3%	26.5%
Overweight + Obese	**66.0%**	**57.8%**	**61.8%**	**64.3%**	**59.3%**	**61.1%**

Source: California Health Interview Survey (CHIS), UCLA Center for Health Policy Research, 2020-2024 pooled data

California's Latino adults, both locally and statewide, are more likely to be overweight or obese than the population as a whole.

According to 2020-2024 California Health Interview Survey (CHIS) data, 72.6 percent of the combined Sonoma, Mendocino, and Lake counties' adult Latino residents are overweight or obese, and 18.8 percent difference. The state average of 72.6 percent of all Latino adults who are either overweight or obese is 17 percent higher than adults statewide.

Table 108. Percent of Adults by Weight Ranges, All Adults Versus Latino Adults, California and Three Local Counties (Sonoma, Mendocino, and Lake Counties) Combined, 2020-2024 Pooled

Weight Range by BMI	California, All Adults	California, Latino Adults	Three Counties, All Adults	Three Counties, Latino Adults
Underweight (BMI ≤ 18.49%)	2.1%	1.7%	3.4%	--
Normal weight (BMI = 18.50–24.99%)	36.1%	25.7%	35.5%	21.5%
Overweight (BMI = 25–29.99%)	33.3%	35.0%	34.6%	40.7%
Obese (BMI ≥ 30%)	28.5%	37.6%	26.5%	31.9%
Total overweight or Obese	**61.8%**	**72.6%**	**61.1%**	**72.6%**

Source: California Health Interview Survey (CHIS), UCLA Center for Health Policy Research, 2020-2024 pooled data.
* CHIS did not publish data for this measure, possibly due to inadequate sample size.

There are several reported differences between Latinos in the local counties and statewide:

- A higher percentage of local Latinos is overweight (40.7 percent) than Latinos statewide (35.0 percent).

- A lower percentage of local Latinos is obese (31.9 percent) than Latinos statewide (37.6 percent).
- A lower percentage of Latinos locally is underweight, and a lower percentage are considered in the "normal range" (21.5 percent) compared to Latinos statewide (25.7 percent).

Adolescents: In CHIS reports on adolescents in the three-county AVH area, 65.3 percent of teens were in the "normal range," compared with 62.3 percent statewide.

Statewide, 62.6 percent of adolescent males and 62.1 percent of adolescent females were in the "normal range." However, in the three local counties, 71.1 percent of adolescent males were in the "normal range" compared with 64.1 percent of adolescent females, both above statewide levels.

Adolescent females, both locally and statewide, had higher percentages of being overweight than male adolescents. However, a higher percentage of adolescent males (14.5 percent) in the three local counties qualified as obese (95th percentile) than adolescent females (8.9 percent). Statewide, the proportion of adolescent females who were obese (12.5 percent) was higher than that of adolescent males (11.4 percent), although the proportions were close.

Table 109. Percent of Adolescents by Weight Ranges, California and Three Local Counties (Sonoma, Mendocino, and Lake Counties) Combined, 2020-2024 Pooled

Weight Range by BMI	California Teen Males	California Teen Females	California Teen Totals	3 Counties Teen Males	3 Counties Teen Females	3 Counties Teen Totals
Underweight (within the lowest 5th percentile)	3.5	2.3	2.9	n/a	n/a	2.4
Normal weight (5th to 85th percentile)	62.6	62.1	62.3	71.1	64.1	65.3
Overweight (85th to 95th percentile)	13.3	19.2	17.7	7.6	24.6	17.7
Obese (95th percentile)	11.4	12.5	12.0	14.5	8.9	12.5
Severely obese (BMI >=120% of the 95th percentile or a BMI of>=35km/m2)	6.2	4.0	5.1	n/a	n/a	2.1

Source: California Health Interview Survey (CHIS), UCLA Center for Health Policy Research, 2020-2024 pooled data.

Children: The California Health Interview Survey reports weight on a simpler scale for younger children: simply reporting whether they are overweight for their age.

In the three local counties (Sonoma, Mendocino, and Lake), 15.1 percent of younger children are overweight for their age, just above the statewide rate of 14.9 percent.

However, there are significant differences in the overweight proportions of local children compared with statewide children by gender.

In the local counties, 12.4 percent of male children are overweight for their age, compared to 16.8 percent of boys statewide.

Among female children, the reverse is true: 18.2 percent of local girls are reported as overweight for their age, compared to 12.9 percent statewide.

Table 110. Percent of Children Overweight for Age, California and Three Local Counties (Sonoma, Mendocino, and Lake Counties) Combined, 2020-2024 Pooled

Weight Range by BMI	California Children Males	California Children Females	California Children Totals	3 Counties Children Males	3 Counties Children Females	3 Counties Children Totals
Overweight for Age	16.8%	12.9%	14.9%	12.4%	18.2%	15.1%
Not Overweight for age	83.2%	87.1%	85.1%	87.9%	81.8%	84.9%

Source: California Health Interview Survey (CHIS), UCLA Center for Health Policy Research, 2020-2024 pooled data.

Among Latino children, 18.6 percent statewide were considered overweight for their age, which is 25 percent higher than the overall rate for children. This overweight population included 21.5 percent of Latino boys statewide and 15.6 percent of Latino girls statewide. By comparison, 10.7 percent of white children were reported as overweight for their age, with 12.0 percent of boys, and 9.4 percent of girls.

TOOTH DECAY/TOOTH LOSS

Untreated cavities and tooth decay are among the most common chronic diseases in the United States. One in six children aged 6 to 11 years and 1 in 4 adults have untreated cavities.[162] Untreated cavities can cause pain and infections that may lead to problems eating,

[162] Centers for Disease Control and Prevention. *Oral Health Surveillance Report: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016*. U.S. Dept of Health and Human Services; 2019. https://www.cdc.gov/oral-health/media/pdfs/Oral-Health-Surveillance-Report-2019-h.pdf

speaking, and learning. On average, 34 million school hours are lost each year because of emergency dental care, and almost $46 billion in productivity is lost due to dental disease.[163,164]

There are also long-term consequences to neglected dental work. **Nationally, 12.2 percent of adults age 65 and over were missing all their teeth due to past tooth decay**. Only 6.9 percent of California adults aged 65 and over were missing all their teeth, but 7.8 percent of older adults in Sonoma County, specifically the City of Cloverdale, were missing all their teeth, which was above the state prevalence but well below the national prevalence.

Neighboring Mendocino County had 12.1 percent of residents 65 and older missing all their teeth, close to the national average. A reported **15.3 percent of Lake County residents 65 and older were missing all their teeth, which was 25 percent above the national prevalence and 221 percent above the California prevalence level.**

Table 111. Prevalence of Adults 65 and Over Missing All Teeth in the United States, and Sonoma, Mendocino, and Lake Counties 2024

Health Related Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
All Teeth Missing (adults aged 65 and over)	**12.2%**	**6.9%**	**7.8%**	**12.1%**	**15.3%**

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California 2024 data: *https://www.americashealthrankings.org/explore/measures/teeth_extractions_sr*

HCAI reports that Sonoma County has fewer emergency department visits for dental caries diagnoses than the state average, but Mendocino and Lake counties are above the state average.

[163] Righolt AJ, Jevdjevic M, Marcenes W Listl S. Global-, regional- and country-level economic impacts of dental diseases. *J Dent Res*. 2018;97(5):501–507.

[164] Naavaal S, Kelekar U. Hours lost due to planned and unplanned dental visits among US adults. *Health Behavior Policy Rev*. 2018;5(2):66–73.

Table 112. Preventable Emergency Department Visits for Dental Caries Diagnoses, Non-Trauma Related, California, Sonoma, Mendocino, and Lake Counties, 2023

Geography	Emergency Department Preventable Visits for Dental Caries per 100,000 Residents	Specialty Dentists that Treat Cavities per 100,000 Residents	Total Oral Health Provider Supply per 100,000 Residents
California	**141.5**	**49.8**	**119.1**
Sonoma County	95.2	64.3	177.2
Mendocino County	194.3	45.8	153.0
Lake County	356.1	34.1	154.3

Source: California Department of Health Care Access and Information, 2023 Hospital Discharge Data: *Oral Health Professional Supply and Non-Traumatic Dental Emergency Department Visits - HCAI*

TUBERCULOSIS

Tuberculosis is a continuing health problem in the United States, with 10,388 new cases reported in 2024, an increase of 7.9 percent from the 9,626 cases reported in 2023, which itself was an increase of 15.5 percent over the 8,395 reported in 2022.[165]

Growth in the number of new tuberculosis cases slowed between 2019 and 2020 during the COVID-19 pandemic, the result of a mix of factors:

- Lower TB testing volume or missed TB diagnoses may have resulted from disrupted healthcare access during the early months of the COVID-19 pandemic.
- A decline in TB cases due to reduced transmission from COVID-19 mitigation efforts (such as social distancing and mask use), and
- Fewer new arrivals from countries with higher TB incidence than that of the United States.[166]

That period of a slower rate of growth in TB cases has clearly ended.

[165] TB incidence and Mortality: 1952-2024, National Center for Health Statistics *2024 TB Data | TB in the US, 2024 | CDC*

[166] Ibid and Masahiro Narita et al, "Delayed tuberculosis diagnoses during the coronavirus disease 2019 (COVID-19) pandemic in 2020—King County, Washington," *Clinical Infectious Diseases* 2021;73(Suppl 1): S74–S76. doi:10.1093/cid/ciab387

California's rate of new TB cases in 2024 was 5.4 per 100,000, 74.2 percent higher than the U.S. new TB case rate of 3.1 per 100,000 residents. California has accounted for more than one in five of all tuberculosis cases in the United States during this entire period.

Table 113. Number of New Tuberculosis Cases and Case Rates per 100,000 Residents in the United States and California, 2019-2024

Year	# Tuberculosis Cases in United States	Rate per 100,000 Residents	# Tuberculosis Cases in California	Rate Per 100,000 residents	% All US Cases in California
2019	8,895	2.7	2,110	5.3	**23.7%**
2020	7,173	2.2	1,706	4.3	**23.8%**
2021	7,866	2.4	1,750	4.5	**22.3%**
2022	8,335	2.5	1,846	4.7	**22.1%**
2023	9,626	2.9	2,114	5.4	**21.9%**
2024	10,388	3.1	2,109	5.4	**20.3%**

Sources: USA *TB by Reporting Areas: 2023 and 2024 | TB in the US, 2024 | CDC* California: *California Tuberculosis Dashboard*

Tuberculosis cases were reported in 45 (74 percent) of California's 61 local public health jurisdictions, but 19 of those jurisdictions had only 1-9 cases per year. One of those 19 with fewer cases is Sonoma County. Sonoma County's TB rate has fluctuated, but has consistently remained lower than California's. **Currently, Sonoma County's 2.9 cases per 100,000 residents are slightly below the national rate.**

California's Department of Public Health reports that 83 percent of TB cases were attributable to progression of latent tuberculosis infection (LTBI) to active disease and could have been prevented with testing and early treatment of the latent form.[167]

There were 572 TB deaths reported in the United States in 2023.[168] There were 258 total deaths from TB in California in 2024,[169] equal to over 45 percent of the national total.

In addition to active TB cases, more than 2 million Californians (approximately 6 percent of the state's population) are believed to have latent tuberculosis infection (LTBI).

[167] Dept. of Public Health, Tuberculosis Control Branch, *TB in California: 2024 Snapshot*, July 27, 2025. Tuberculosis in California: 2024 Snapshot

[168] *TB by Reporting Areas: 2023 and 2024 | TB in the US, 2024 | CDC* @024 deaths were not yet available.

[169] Ibid. *Tuberculosis in California: 2024 Snapshot*

Not everyone with latent tuberculosis is tested, diagnosed, or treated for it. Of the total 258 people who died of TB in California in 2024, 56 people (22 percent) died without receiving treatment for TB.[170]

The CDC and the California Department of Public Health attribute California's higher incidence of tuberculosis to the state's larger population of Asian, Black, Hispanic, and other immigrants, who have historically had higher rates of diagnosed TB.

In 2024, 84 percent of California TB cases were among persons born outside the U.S. However, 70 percent of TB cases among people born outside the U.S. occurred more than 5 years after their U.S. arrival, and nearly half occurred over 20 years after their arrival in the U.S.[171]

The highest TB rates have been recorded in people born in five counties outside the U.S.:

- The Philippines, 41.8 cases per 100,000 people
- Vietnam 34.3 cases per 100,000 people
- India 21.0 cases per 100,000 people
- China 16.5 cases per 100,000 people, and
- Mexico 12.2 cases per 100,000 people.[172]

A number of medical conditions increase the risk of tuberculosis among California TB patients: 41 percent of people with TB had diabetes, end-stage renal disease, HIV infection, or another condition that could increase the risk of progression from latent to active TB. The most common co-morbidity was diabetes mellitus, which accounted for 31 percent of all TB patients. A reported 28 percent of active TB patients were smokers or former smokers. The medical and societal costs of TB in California are estimated to have reached $288 million in 2024.[173, 174]

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[170] Ibid.

[171] Ibid.

[172] Ibid.

[173] California Department of Public Health, Tuberculosis Control Branch, Tuberculosis in California: 2024 Snapshot

[174] *Tuberculosis Facts in the U.S. 2025 | TB Stats – The Global Statistics*

Health Risk Factors

ALCOHOL/BINGE DRINKING (ADULTS)

The percentage of adults who reported **binge drinking** (four or more drinks on one occasion for females or five or more for males) in the past 30 days, **or heavy drinking** (eight or more drinks per week for females or 15 or more for males), **is higher in California (16.6 percent) than nationwide (15.2 percent**).[175]

Historically, this was also true of Sonoma County, which had a binge drinking prevalence above the statewide level**.** However, Sonoma, Mendocino, and Lake counties are now slightly below the California statewide prevalence of binge drinkers. **However, the City of Cloverdale remains above the national average at 16.1 percent of adults who binge drink, as does Mendocino County at 15.4 percent.**

Table 114. Prevalence of Adults who are Binge or Heavy Drinkers in the United States, California, and Sonoma, Mendocino, and Lake Counties, 2023–2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Binge or Heavy Alcohol Use (adults)	15.2%	16.6%	15.6%	15.4%	15.0%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California state data from *Data on Excessive Alcohol Use | Alcohol Use | CDC* 2022, American Health Rankings: 2024 data: *Explore Excessive Drinking in California | AHR*

Adolescents in Sonoma, Mendocino, and Lake counties engage in binge drinking at the same rate as their peers statewide. According to the California Health Interview Survey,

- Statewide, 3.8 percent of teens report engaging in binge drinking in the past month, 3.2 percent of males and 4.4 percent of females.[176]

[175] the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System (BRFSS) 2023. *PLACES: Local Data for Better Health | PLACES | CDC* California state data from *Data on Excessive Alcohol Use | Alcohol Use | CDC*

[176] Health Interview Survey, UCLA Center for Health Policy Research, 2020 -2024 pooled data. Retrieved from AskCHIS *https://ask.chis.ucla.edu/ask/* March 2026.

- In the Sonoma, Mendocino, and Lake counties combined area, 8.2 percent of adolescent males and 8.0 percent of adolescent females report engaging in binge drinking in the past month.[177]

These figures are troubling from a public health perspective because individuals who start drinking before age 15 are considered to be four times as likely to develop alcohol problems later in life than are people who start drinking after age 21.[178]

A 2021 study in *JAMA Pediatrics* found no statistically significant changes in alcohol use by Northern California high school students during the initial pandemic stay-at-home orders in spring 2020.[179]

CURRENT SMOKERS

California now ranks **second lowest among 49 states** in the percentage of adults who smoke cigarettes, according to American Health Rankings, 7.6 percent. Only 5.6 percent of adult females in California are smokers, but 9.6 percent of adult males are smokers.[180]

California has made a concerted multi-decade effort to reduce smoking and exposure to secondhand smoke in the state.[181] The program included a major increase in the tax on a pack of cigarettes through California ballot Proposition 56. This ballot measure, approved by voters in November 2016, raised the state's cigarette excise tax to $2.87 per pack of 20 cigarettes ($0.1435 per cigarette), in addition to a $1.01 federal excise tax per pack. Prop. 56 directed

[177] Ibid. AskCHIS.

[178] Community Prevention Initiative and the Maternal, Child & Adolescent Health Advisory Board, in collaboration with Sonoma County Dept. of Health Services, "Underage Drinking in Sonoma County 2013," based on data from, *inter alia*, the National Institute on Alcohol Abuse and Alcoholism, "Spotlight on…Underage Drinking," *News brief* Nov. 22, 2004, and Linda Patia Spear, "The adolescent brain and age-related behavioral manifestations," *Neuroscience & Biobehavioral Reviews* 2000;9(4):111-114, doi:10.1111/1467-8721.00072.

[179] Benjamin W. Chaffee et al, "Adolescents' Substance Use and Physical Activity Before and During the COVID-19 Pandemic," *JAMA Pediatrics* 2021;175(7):715–722. doi:10.1001/jamapediatrics.2021.0541

[180] *Explore Smoking in California | AHR*

[181] California Department of Public Health, California Tobacco Prevention Program, California Tobacco Facts and Figures 2025. Sacramento, CA, California Department of Public Health August 2025 *California Tobacco Facts and Figures 2025* and Kick-IT website: *Kick It California - Quit Now*

most of the revenues from those taxes to **smoking prevention programs, media campaigns, and other healthcare programs**.[182]

California's current prevalence of adults who smoke is 7.6 percent, well below the national level of 11.4 percent of adults who smoke.

Table 115. Prevalence of Adults Smoking in the United States, California, and Sonoma, Mendocino, and Lake Counties, 2023-2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Current Smoking (adults)	11.4%	7.6%	10.6%	14.3%	15.2%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California data from American Health Rankings: 2024 data: *Explore Smoking in California | AHR*

Historically, a greater proportion of Sonoma County adults smoked tobacco than did their peers statewide or nationally. However, in recent years, the county's level of tobacco smoking has come closer to parity with the state average and is actually below the national average.

Data from the California Health Interview Survey (CHIS)[183] indicates that the change is the result of a higher proportion of Sonoma County adults (29.6 percent) now reporting they are former smokers, compared with the proportion of California adults as a whole (19.0 percent) who report they are former smokers.

In households with incomes below 200 percent of the federal poverty level, a smaller proportion of adults report being **former smokers, both in Sonoma County (21.9 percent) and statewide (16.1 percent).**

Neighboring Mendocino and Lake counties have smoking rates nearly twice the statewide prevalence rate, 14.3% in Mendocino County, and 15.2 percent in Lake County.

[182] *Association of a major tobacco tax increase in California with increased smoking cessation | JNCI: Journal of the National Cancer Institute | Oxford Academic*

[183] California Health Interview Survey, UCLA Center for Health Policy Research, 2020 -2024 pooled data. Retrieved from AskCHIS *https://ask.chis.ucla.edu/ask/* March 2026.

VAPING

As tobacco smoking has declined, more adults and teens have shifted from cigarettes to "vaping", the use of **electronic nicotine delivery systems (ENDS**) such as e-cigarettes or vape pens, which vaporize a liquid containing nicotine. Because there is no combustion, ENDS are considered smokeless,[184] and they allow users to largely avoid the telltale smell, smoker's breath, and nicotine stains associated with cigarette or cigar smoking.

Manufacturers have also offered e-liquids in a variety of flavors, from bubblegum and mint to fruit flavors, which helped to make these products attractive to users who find conventional cigarettes distasteful — including young people.

Many ENDS users assume that the lack of smoke makes vaping safer than smoking regular cigarettes. However, nicotine is highly addictive and poses health risks regardless of how it is ingested, something that is particularly concerning given the high concentrations of nicotine in many current e-liquids.[185]

Additionally, the health impact of vaporizing and regularly inhaling other e-liquid ingredients, such as food-grade artificial flavorings, remains a poorly understood area of potential public health concern. For example, the CDC found strong links between a 2019–20 outbreak of vaping product use to be associated with lung injury and the presence of vitamin E acetate in vaping e-liquids.[186]

California law defines ENDS as tobacco products, subject to the same regulations and restrictions as other forms of tobacco. State and local public health officials have included **e-cigarette warning messages** as part of the state's ongoing anti-smoking campaigns, with some success, particularly among teens.

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[184] Richard J. O'Connor, "*Non-cigarette tobacco products: What have we learnt and where are we headed?" Tobacco Control* 2012;21:181–190. doi:10.1136/tobaccocontrol-2011-050281

[185] JUUL Labs popularized e-liquids with nicotine concentrations as high as 5.0 percent (5.9 percent by volume), and other manufacturers soon followed suit. See Richard K. Jackler and Divya Ramamurthi, "Nicotine arms race: JUUL and the high-nicotine market," *Tobacco Control* 2019;28:623-628. doi:10.1136/tobaccocontrol-2018-054796

[186] Centers for Disease Control and Prevention, "Outbreak of Lung Injury Associated with the use of E-Cigarette, or Vaping, Products," Feb. 25, 2020, *https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html*.

According to CHIS, between 2020 and 2024, 6.6 percent of teens in the combined Sonoma, Mendocino, and Lake counties area have used ENDs products in the past month, compared to 2.9 percent of teens statewide.[187]

The proportion of adults in this local area who use ENDs products (4.1 percent) is close to the percentage of adults statewide (4.5 percent).[188]

In recent years, the federal Food and Drug Administration (FDA) has increased its efforts to regulate ENDS products, using authority granted to it under the Family Smoking Prevention and Tobacco Control Act of 2009. However, legal battles by manufacturers to block these federal efforts have been protracted and contentious, during which time vaping flourished.[189]

Since 2022, the Supreme Court has issued key decisions clarifying the FDA's authority over e-cigarettes. It has overturned earlier Fifth Circuit decisions that were more favorable to manufacturers. **In two major rulings, the Court largely sided with the FDA, confirming its authority under the Tobacco Control Act to restrict flavored vaping products that present risks to public health, particularly for minors.**

In an April 2025 decision, the Court unanimously upheld the FDA's rejection of marketing applications for fruit- and dessert-flavored e-cigarettes, concluding that the agency acted within its statutory discretion and that such flavors pose heightened risks to youth.[190]

Later, in June 2025, the Court held that manufacturers may still challenge specific FDA denial orders in appellate circuits beyond their home jurisdictions. While this decision was a procedural win for the vaping industry's right to challenge the FDA in court**, it did not weaken the FDA's substantive regulatory authority over flavored products.[191]**

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[187] California Health Interview Survey, UCLA Center for Health Policy Research, 2020 -2024 pooled data. Retrieved from AskCHIS *https://ask.chis.ucla.edu/ask/* March 2026.

[188] Ibid.

[189] In June 2022, the FDA issued market denial orders for all current JUUL products, but temporarily suspended those orders less than two weeks later after the U.S. Court of Appeals for the D.C. Circuit granted the company's motion for an administrative stay pending court review. See the FDA press release dated June 23, 2022: *https://www.fda.gov/news-events/press-announcements/fda-denies-authorization-market-juul-products*.

[190]Reference: *Court tosses out lower-court ruling against FDA in flavored vape dispute - SCOTUSblog*
Food and Drug Administration v. Wages and White Lion Investments, LLC - SCOTUSblog, and
Docket for 23-1038 (official court documents)

[191] *Supreme Court sides with e-cigarette companies in FDA vaping lawsuit | AP News* and

The federal Department of Health and Human Services, together with the Justice Department, is continuing to enforce restrictions on the distribution of dangerous vaping products under the authority of the Tobacco Control Act, as evidenced by a seizure of 600,000 units of illegal products in Bensenville, Illinois, on September 10, 2025.[192] This raid was part of a crackdown on the distribution of **vaping products containing 7-hydrocymitriagynine**, more commonly referred to as "7-OH" or "7-hydroxy, 7-OHMG, 7-HMG, or 7", which is a concentrated form of chemicals in the plant kratom. In concentrated forms, the Federal Drug Administration reports, "7-OH" can have opioid-like effects, including potential for overdose or addiction.

MARIJUANA USE

California has permitted the medical use of marijuana since 1996. Persons over 18 may legally purchase and use marijuana or cannabis for medicinal purposes with a written recommendation from a physician and a county-issued medical marijuana identification card.

The limitation to only "medical use" of marijuana was subsequently lifted by **Proposition 64,** which made it legal for adults 21 or older to purchase, carry, use, grow, and/or process up to 1 ounce (38.5 grams) of marijuana for recreational consumption on private property, effective Jan. 1, 2018. However, most state restrictions on tobacco smoking indoors and in public places under the Clean Indoor Air Act also apply to marijuana smoking.[193]

Beginning Jan. 1, 2024, employers in California were prohibited (with certain exceptions) from penalizing or discriminating against employees or applicants who use cannabis while away from the workplace.[194,195]

In the most recent California Health Interview Survey (CHIS) data,[196] approximately 32.2 percent of California adults (34.0 percent of adult men and 30.4 percent of adult women) reported having used marijuana within the past month.

23-1187 FDA v. R. J. Reynolds Vapor Co. (06/20/2025) (official court documents)

[192] Hillyard, Vaughn and Gregorian, Dareh, *Pam Bondi and RFK Jr. travel to the Chicago suburbs for a crackdown on illicit vape sales*, NBC News, September 10,2025.

[193] *California Clean Indoor Air Laws: Frequently Asked Questions (FAQ) 2024*

[194] California Government Code § 12954, as created in by AB 2188 (2022).

[195] *DISCRIMINATION IN EMPLOYMENT: USE OF CANNABIS*

[196] California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, five years 2020-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

The figures were slightly higher in Sonoma County: 34.4 percent of all Sonoma County adults (36.7 percent of adult men and 31.2 percent of adult women) reported using marijuana in the past 30 days. Additionally, 12.1 percent of adult Sonoma County residents who did not report using marijuana within the past month reported that they had done so within the past year.

It remains illegal in California for individuals under the age of 18 to buy, possess, or consume cannabis products (even for medicinal purposes).

Nevertheless, marijuana use is common among California teenagers. In the most recent CHIS data,[197] 52.1 percent of California teens (53.2 percent of females and 50.1 percent of males) reported using marijuana at least once in the past month.

In the combined Sonoma, Mendocino, and Lake counties area, 45.9 percent of adolescent males and 39.1 percent of adolescent females had smoked marijuana in the past 30 days, somewhat below the statewide average but still a significant proportion of the local area's adolescents.[198]

OTHER, NON-MEDICINAL DRUG USE

A higher percentage of adults in California (18.8 percent) use drugs for illicit or misdirected prescription drugs for non-medical purposes than adults nationally (16.8 percent), according to CDC BRFSS data reported by the American Health Rankings.[199] California ranks 37th among 50 reporting states for drug use.

[197] Ibid.

[198] Ibid.

[199] American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data.

Table 116. Percent of Adults Engaging in Non-Medical Use of Other Drugs (Except Cannabis) in the Past Year, United States Versus California, 2024

	California Percent	California's Rank	By Race/Ethnicity	California Percent	U.S.A Percent
	18.8%	**37 of 50**	**All**	**18.8%**	**16.8%**
By Gender			**Am. Indian/Alaskan Native**	30.1%	23.9%
Female	14.2%	26	**Asian**	6.0%	7.2%
Male	23.5%	44	**Black**	21.7%	19.2%
By Age Groups			**Hawaiian/Pacific Islander**	-	23.9%
18-44			**Hispanic**	17.7%	18.7%
45-64			**Other Race**	15.7%	26.7%
65 +			**White**	24.4%	16.5%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

By gender, more adult males (23.5 percent) in California use drugs for non-medical purposes than adult females (14.2 percent).

By race or ethnicity, a higher percentage of California's American Indian, Black, and White adults engage in non-medical drug use than their ethnic national peers. California's Asian, Hispanic, and other races adults have lower use of drugs than their national peers.

The non-medical use of both prescription drugs and illegal "street" drugs is spread across a number of different categories of drugs. The highest percent of adults using drugs for non-medical purposes (excluding cannabis) in California is the non-medical use of prescription opioids.

Table 117. Percent of Adults Using Specific Categories of Drugs for Non-Medical Purposes, United States Versus California, 2024

Non-Medical Drugs Used	California	United States
	% Adults Using	% of Adults Using
Non-Medical Use of Prescription Opioids	10.0%	8.0%
Non-Medical Use of Prescription Drugs (excluding Opioids and Cannabis)	8.3%	8.4%
Illicit Opioids	1.8%	1.6%
Illicit Drugs (excluding opioids and cannabis)	8.3%	7.5%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data.

SEXUALLY TRANSMITTED INFECTIONS (STIS)

California experienced a rapid rise in cases of the three most common sexually transmitted illnesses: gonorrhea, chlamydia, and primary and secondary syphilis in the period from 2013 to 2020. Since 2020, state rates have begun to fall but remain above those from the 2013-2015 period.[200]

Over the same period, the Sonoma County case rates for these three types of STIs grew rapidly as well, sometimes at a faster rate than the statewide averages. However, the case rate is now falling in most, but not all categories.

Table 118. Chlamydia Case Rates per 100,000 Population, California and Sonoma County, 2013–2015, 2016–2018, 2018–2020, and 2021-2023

Time Period	California	Sonoma County
2013–2015	457.4	332.1
2016–2018	546.1	410.8
2018–2020	542.7	376.3
2021-2023	478.6	341.7

Source: *California Health Status Profiles 2025*, California Dept. of Public Health and California Conference of Local Health Officers, April 2025. No breakout by patient gender was available from this dataset.

[200] California Department of Public Health, Sexually Transmitted Diseases Control Branch, Sexually Transmitted Diseases Data

Statewide, California's gonorrhea case rate among females aged 15-44 fell 8.8 percent from the 2018-2020 to the 2021-2023 reporting period. The new rate was 296.8 per 100,000 population. The statewide rate among males aged 15-44 rose 8.4 percent in the same period, reaching a new high of 574.4 cases per 100,000 population.

In Sonoma County, the gonorrhea case rate among females aged 15-44 **fell 29.4 percent** in the same period, while the rate for males aged 15-44 **fell 13.7 percent** to 302.5 per 100,000.

Table 119. Gonorrhea Case Rates per 100,000 Population, California and Sonoma County, 2013–2015, 2016–2018, 2018–2020, and 2021-2023

Time Period	California, Females 15-44	California, Males 15-44	Sonoma County, Females 15-44	Sonoma County, Males 15-44
2013–2015	194.4	306.2	109.8	150.4
2016–2018	282.9	501.4	184.0	294.1
2018–2020	325.7	529.7	218.8	350.4
2021-2023	296.8	574.4	154.4	302.5

Source: *California Health Status Profiles 2025*, California Dept. of Public Health and California Conference of Local Health Officers, April 2025.

Primary and secondary syphilis case rates have also fallen since 2020. One exception is syphilis cases among adult females statewide, which rose from a rate of 16.2 cases per 100,000 population to 19.0 per 100,000.

In Sonoma County, female syphilis case rates dropped from 20.1 per 100,000 for the period 2018-2020, to 16.6 per 100,000 in the period 2021-2023.

Case rates among males statewide dropped from 31.8 per 100,000, for the period 2018-2020, to 29.2 cases per 100,000 population in the 2021-2023 period.

Table 120. Primary and Secondary Syphilis Case Rates per 100,000 Population, California and Sonoma County, 2013–2015, 2016–2018, 2018–2020, and 2021-2023

Time Period	California, Female	California, Male	Sonoma County, Female	Sonoma County, Male
2013–2015	1.7	19.6	N/A	12.8
2016–2018	4.7	29.4	4.9	25.4
2018–2020	16.2	31.8	20.1	31.2
2021-2023	19.0	29.2	16.6	18.1

Source: *California Health Status Profiles 2025*, California Dept. of Public Health and California Conference of Local Health Officers, April 2025.

Congenital syphilis also became more common statewide, with the incidence rising from 30.1 cases per 100,000 live births in 2015 to 109.2 cases per 100,000 live births in 2024, a worrying 196 percent increase since 2015.[201]

STIs Among Adolescents

Data from the California Health Interview Survey indicates fewer teens statewide and in Sonoma County are having sexual intercourse in the 2020-2024 period than in the recent past.

- Statewide, 12.3 percent of adolescents aged 15–19 reported having had sex, which is fewer than the 12.5 percent reported in the 2022 AVH needs assessment and the 18.3 percent reported in the 2019 AVH needs assessment.
- In Sonoma County, approximately 4.9 percent of 15–19-year-olds reported having had sex, a sharp drop from 38.3 percent reported in the 2022 AVH needs assessment and the 26.3 percent reported in the 2019 needs assessment. This represents a sharp shift from the previous adolescent population in the county.
- In CHIS data for the combined Mendocino and Lake counties, 20.9 percent of adolescents 15-19 report having had sex, 67.2 percent above the statewide average.[202]

[201] Data Source: California Dept. of Public Health, Division of Communicable Disease Control, *2024 STD Surveillance Executive Summary*

[202] California Health Interview Survey, UCLA Center for Health Policy Research, 2020 -2024 pooled data. Retrieved from AskCHIS *https://ask.chis.ucla.edu/ask/*, retrieved March 2026.

Teen pregnancies have also dipped substantially statewide and in local counties. In 2024, California's birth rate for mothers ages 15 and 19 was 9.1 per 1,000 females in that age range in 2024, substantially below the national rate of 13.1 births per 1,000.

The most recent county-level data published by California's Department of Public Health (2023) indicates that Sonoma County's teen birth rate has fallen to 5.8 per 1,000 females aged 15-19, while Mendocino County's rate was 15.4 per 1,000. Lake County's rate was 16.7 per 1,000, both substantially above the statewide rate.

Many sexually active adolescents are exposed to sexually transmitted diseases. The two most common sexually transmitted infections (STIs) are chlamydia and gonorrhea.[203] While both chlamydia and gonorrhea are generally treatable after detection, antibiotic-resistant strains have appeared, and having an STI can sometimes increase susceptibility to future infection or other illnesses.[204]

[203] Data source: California Dept. of Public Health, Division of Communicable Disease Control, Sexually Transmitted Illness Data; California Dept. of Finance, Race/Ethnic Population with Age and Sex Detail, 2000–2010, 2010–2060; Centers for Disease Control and Prevention, Sexually Transmitted Diseases Data & Statistics; and U.S. Census Bureau, Population Estimates Program,

[204] Committee on Adolescence and Society for Adolescent Health and Medicine, "Screening for Nonviral Sexually Transmitted Infections in Adolescents and Young Adults," *Pediatrics* 2014;134(1):e302–11. doi:10.1542/peds.2014-1024

Table 121. Sexually Transmitted Infections: Number of Cases and Incidence Rates per 100,000 Population, Total All Ages Versus Teens 15–19, California, 2024

Infection Type	Total # CA Cases All Ages	Rates, CA All Ages Female	Rates CA All Ages Males	# Cases Teens, Female	Rates, Teen, Females	# Cases Teens, Males	Rates, Teens, Males
Chlamydia	171,281	528.9	333.7	19,944	**1,388.3**	7,040	**482.9**
Gonorrhea	67,869	157.6	260.1	2,397	**166.9**	2,125	**145.8**
Primary & Secondary Syphilis	4,149	5.0	16.3	41	**2.9**	87	**6.0**

Source: California Dept. of Public Health, Sexually Transmitted Diseases Control Branch custom tabulation (2024)

The lower chlamydia and gonorrhea infection rates among male adolescents may, in part, reflect lower testing rates rather than fewer cases. Public health officials have reported that adolescent girls are significantly more likely than adolescent boys to be tested for STIs.

MPOX

Mpox has been circulating in the United States and California since 2022 and was briefly mentioned in the 2022 AVH Community Health Needs Assessment. Individual mpox cases and test results are reported to local health jurisdictions for follow-up and monitoring of the virus.

As of March 2026, California has had 7,318 documented cases of MPOX, a cumulative case rate of 18.3 cases per 100,000 population, resulting in 348 hospitalizations. Sonoma County has a cumulative case rate of 11.0 cases per 100,000. Case numbers in Mendocino and Lake counties were considered too low to compute a reliable rate.[205]

There are two types of MPOX: clade I, which is mostly experienced by people who have traveled to areas of the world where it is spreading, and clade II, which is circulating in California and other states in the general community.

[205] Data Source: California Department of Public Health, Division of Communicable Disease Control, Mpox Data

Since June 2024, the JYNNEOS vaccine has been commercially available for ordering, similar to other FDA-approved vaccines. JYNNEOS remains recommended for anyone who may be at risk of mpox exposure, including people traveling to areas of the world with a higher prevalence of the virus. Infected persons are also required to isolate themselves during the course of the disease.[206]

LACK OF PHYSICAL ACTIVITY

Regular physical activity can improve the health and quality of life of people of all ages, regardless of the presence of chronic disease or disability. Among adults, it can lower the risk of coronary artery disease, stroke, high blood pressure, type 2 diabetes, breast and colon cancer, falls, and depression. For people who sit for much of their day, some exercise is better than none.[207]

However, in 2023 nearly one in four adults nationally (24.5 percent) reportedly engaged in no physical activity outside their jobs.

In California, **one in five adults (20.7 percent) engage in no physical activity outside their jobs.** In Sonoma County, 21.2 percent of adults lacked physical activity outside of work, and in Cloverdale, a similar 21.5 percent lacked any exercise.

That percentage rises to 26.0 percent in Mendocino County and 27.8 percent in Lake County, both well above the national and statewide rates.

Table 122. Percent of Adults Who Report Having No Leisure Time Physical Activity Outside of Work, United States, California, and Sonoma, Mendocino, and Lake Counties, 2023

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
No Physical Activity (adults)	24.5%	20.7%	21.2%	26.0%	27.9%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
2024 California data from American Health Rankings: *Explore Physical Inactivity in the United States | AHR*

[206] Ibid. *Mpox Guidance*

[207] Center for Disease Control and Prevention (CDC) *Health Risk Behaviors | PLACES | CDC*

Lack of physical activity is also a concern with children in the United States, and is considered a risk factor for obesity and other chronic conditions. The Physical Activity Guidelines for Americans[208] recommend that school-aged children get one hour of moderate-to-vigorous physical activity per day.

However, only one in five (19.2 percent) got that level of physical activity in 2024, according to the National Survey of Children's Health.[209]

SHORT SLEEP DURATION

In 2022, more than a third of United States adults reported insufficient sleep duration (<7 hours on average during a 24-hour period for those aged 18 and older). Insufficient sleep duration is associated with an increased risk of a number of chronic conditions—such as obesity, type 2 diabetes, hypertension, heart disease, stroke, anxiety, and depression.

[208] *Physical Activity Guidelines for Americans | odphp.health.gov*

[209] Sappenfield O, Hirai A. Healthy Behaviors Among School-aged Children, 2024. 2025 Dec. In: National Survey of Children's Health Data Briefs [Internet]. Rockville (MD): Health Resources and Services Administration. Available from: *https://www.ncbi.nlm.nih.gov/books/NBK620283/*

NOTE: The Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB) funds and directs the National Survey of Children's Health (NSCH). The NSCH is the **largest national- and state-level survey on the health and health care needs of children ages 0-17, their families, and their communities**. Approximately 12% (n=13,957) of the 2019-2020 NSCH sample were children residing in rural locations. Rural participation percentages were not available for the 2024 data results.

Table 123. Prevalence of Adults Who Get Insufficient Sleep (Less Than Seven Hours of Sleep in 24 hours), United States, California by Gender, Age Group, and Race Ethnicity, 2022

Insufficient Sleep (adults)	California Percent	California's Rank	By Race/Ethnicity	California Percent	U.S.A Percent
	34.8%	**20 of 50**	**Overall**	**34.8%**	**35.5%**
By Gender			**Am. Indian/Alaskan Native**	36.8%	41.9%
Female	34.7%	20	**Asian**	36.9%	34.6%
Male	35.0%	27	**Black**	45.8%	45.4%
By Age Groups			**Hawaiian/Pacific Islander**	57.1%	49.0%
18-44	35.4%	9	**Hispanic**	35.9%	36.4%
45-64	37.9%	28	**Multiracial**	41.1%	45.0%
65 +	28.9%	36	**White**	30.2%	33.4%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System, 2022 data. Note: Not all states report all measures.

Maintaining a consistent sleep schedule, establishing a relaxing bedtime routine, and limiting exposure to bright light in the evenings are among the recommended ways to improve sleep.[210]

California has a similar 34.8 percent of adults who had insufficient sleep, giving it a rank of 20 out of 50 states. However, that rank varied by age groups: California ranked 36th of 50 for those aged 65 and older.

By gender: prevalence of short sleep duration in California was similar for males (35.0 percent) and females (34.7 percent).

By race/ethnicity: short sleep duration among the California population paralleled the national percentages, although the prevalence among California's **Hawaiian/Pacific Islanders** (57.1 percent) was substantially above the national level (49.0 percent), while Hispanics, American Indians, multiracial populations, and whites were below the national level.

Sonoma County had a slightly lower 32.8 percent with a reported short sleep duration.

[210] Ibid. CDC Health Risk Behaviors

The prevalence of adults with short-duration sleep in Cloverdale (33.6 percent) was the same as in neighboring Mendocino County (33.6 percent) and Lake County (33.4 percent).

Table 124. Prevalence of Adults Who Have Short Sleep Duration, United States, California, and Sonoma, Mendocino, and Lake Counties, 2022

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Short Sleep Duration (adults)	35.5%	34.8%	32.8%	33.6%	33.4%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*. California: American Health Rankings, 2022 data, *Explore Insufficient Sleep in the United States | AHR*

Sleep is also critically important for children and adolescents. According to long-standing clinical recommendations,[211] children ages 6-12 should get 9-12 hours of sleep per night, while youth ages 13-17 should get 8-10 hours of sleep. Health Resources and Services Administration's (HRSA's) **National Survey of Children's Health, two-thirds (65.3 percent) of school-aged children meet these recommendations most weekdays.[212] One in three does not.**

FALLS AGE 65 +

Falls among seniors pose major risks: serious injury, costly medical care, potential disability, and potential loss of independence.[213]

According to the U.S. Centers for Disease Control and Prevention (CDC) and other falls research:

[211] Paruthi S, Brooks LJ, D'Ambrosio C, Hall WA, Kotagal S, Lloyd RM, Malow BA, Maski K, Nichols C, Quan SF, Rosen CL, Troester MM, Wise MS. Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. J Clin Sleep Med 2016;12(6):785–786

[212] Ibid. *National Survey of Children's Health (NSCH) – Healthy Behaviors Among School-aged Children, 2024*, HRSA, December 2025.

[213] National Council on Aging (NCOA) *Get the Facts on Falls Prevention*

- In 2021, emergency departments reported 3 million visits due to older adult falls.[214] Over half of adults who fall receive care in a hospital.[215]
- Fourteen million, 27.8 percent Americans age 65+, experienced falls in 2023.[216]
- The cost of treating injuries caused by falls among older adults is over $80 billion dollars a year,[217] and is projected to exceed $101 billion by 2030.[218] Medicare pays for 67% of fall-related costs, 4% by Medicaid, and 29% by private insurance or out-of-pocket by older adults and families.[219]

Although falls frequently send seniors to an emergency department or hospital, primary care has a central role in preventing falls, assessing their causes, and providing follow-up to prevent future falls.

- Falling once doubles the risk of falling again.[220]
- **People with vision loss** have almost twice the risk of falls as adults without vision impairment.[221]

[214] CDC. About Older Adult Fall Prevention. Found on the internet at *https://www.cdc.gov/falls/about/*

[215] Reider L, Falvey J, Okoye S, et al. Cost of U.S emergency department and inpatient visits for fall injuries in older adults. Injury. February 2024. Found on the internet at *https://www.sciencedirect.com/science/article/abs/pii/S0020138323009166*

[216] CDC Centers for Disease Control and Prevention. Older Adult Falls Data, *https://www.cdc.gov/falls/data-research/index.html*

[217] Haddad YK, Miller GF, Kakara R, et al. Healthcare spending for non-fatal falls among older adults, USA Injury Prevention 2024;30:272-276.

[218] Houry D, Florence C, Baldwin G, Stevens J, McClure R. The CDC Injury Center's response to the growing public health problem of falls among older adults. Am J Lifestyle Med. 2016 Jan-Feb; Found on the internet at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4681302/

[219] Ibid. Haddad YK, Miller GF, Kakara R, et al.

[220] Ccenters for Disease Control and Prevention (CDC). Facts About Falls. *https://www.cdc.gov/falls/data-research/facts-stats/index.html*

[221] Vision Serve Alliance/Ohio State University College of Optometry. United States' Older Population and Vision Loss: A Briefing (2022). Found on the internet at https://visionservealliance.org/big-data-insights-adults-65-and-older/

- **People with hearing loss** are nearly three times as likely to fall compared to those with normal hearing,[222] but wearing a hearing aid reduces the risk of falling by 50%.[223]
- Lower body weakness and difficulties with walking and balance increase the risk for falls. Certain medications can have side effects and interactions, such as dizziness and fatigue, that increase the risk of falls.
- Chronic conditions such as diabetes and arthritis can increase the risk of falls due to neuropathy, pain, and other symptoms that can affect walking and balance.
- Hazards in the home, including clutter, poor lighting, and lack of supports such as grab bars, can increase the potential for falls**. Home modifications can address these hazards to reduce fall risk in the home**.[224]

Falls, with or without injury, also carry a heavy quality-of-life impact. Older adults can fear falling and, as a result, limit their activities and social engagements. **This can result in further physical decline, depression, social isolation, and feelings of helplessness.**[225]

California's prevalence of falls among those over age 65 is 27.5 percent, close to the national rate of 27.8 percent. California ranks 19th of 48 reporting states.

[222] NCOA *Age-Related Hearing Loss and How to Maintain Better Hearing Health*

[223] Campos L, Prochazka A, Anderson M, Kaizer A, Foster C, Hullar T. Consistent hearing aid use is associated with lower fall prevalence and risk in older adults with hearing loss. J Am Geriatr Soc. 2023 Oct. Found on the internet at *https://pubmed.ncbi.nlm.nih.gov/37314100/*

[224] Lektip C, et al. Home hazard modification programs for reducing falls in older adults: a systematic review and meta-analysis. PeerJ. July 20, 2023. *https://peerj.com/articles/15699/*

[225] Ibid. NCOA *Get the Facts on Falls Prevention*

Table 125. Percentage of Adults Age 65 and Over Who Reported Falling in the Past 12 Months, United States, and California by Gender, Age Group, and Race Ethnicity, 2023

Falls Age 65+ in the Past Year	California Percent	California's Rank	By Race/Ethnicity	California Percent	U.S.A Percent
	27.5%	**19 of 48**	**All**	**27.5%**	**27.8%**
By Gender			**Am. Indian/Alaskan Native**	34.8%	34.8%
Female	28.5%	12	**Asian**	11.5%	15.5%
Male	27.2%	26	**Black**	23.1%	24.4%
By Age Groups			**Hawaiian/Pacific Islander**	19.3%	19.3%
18-44			**Hispanic**	28.8%	26.1%
45-64			**Multiracial**	n/n	38.9%
65 +	27.5%	19	**Other Race**	n/a	30.1%
			White	30.3%	28.8%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

Use of Prevention Services

Health risk factors can be ameliorated by regular use of prevention services, including:

- Annual medical and dental check-ups;
- Childhood and adult vaccinations
- Screening tests, such as for cervical, colorectal, and breast cancer, and
- Accessing professional advice on diet and nutrition, exercise, and other lifestyle choices.

CHECK-UPS

ANNUAL MEDICAL VISITS

Routine annual medical check-ups are one opportunity primary care providers can help identify and track the development of chronic medical and behavioral health conditions. In the United

States, 77.7 percent of adults had a routine annual check-up in 2023, according to the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System (BRFSS).

California exceeded that level in comparison, with 84.5 percent of adults estimated to have had a routine annual medical visit, according to the California Health Interview data pooled for the five years 2020-2024.[226]

However, CDC data show local adults have a lower rate of annual checkups: Sonoma County, 73.2 percent; Mendocino and Lake Counties, 74.3 percent.

Table 126. Percent of Adults that Had a Routine Medical Checkup in the Past Year, United States, California, Sonoma, Mendocino, and Lake Counties, 2023

Health Risk Measure	U.S.A.	California*	Sonoma County	Mendocino County	Lake County
Routine Medical Checkup (adults)	77.7%	84.5%	73.2%	74.3%	74.3%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
*California statewide data from California Health Interview Survey, UCLA Center for Health Policy Research, 2020 - 2024 pooled data. Retrieved from AskCHIS *https://ask.chis.ucla.edu/ask/*, retrieved March 2026.

Annual well-woman visits are recommended by the American College of Obstetricians and Gynecologists for both the reproductive and general health of women of childbearing age. However, the frequency of **well-woman visits** in California is slightly lower than in the United States as a whole: 71.3 percent compared to 72.7 percent nationally among women 18-44. This ranks California 35th out of 50 states.[227]

By race and ethnicity, a higher proportion of Black and Hispanic women of childbearing age in California have had well-woman visits in the past year than their ethnic peers nationally. Conversely, a lower percentage of Asian, White, and multiracial women in California have had a well-woman visit in the past year than their peers nationally.

[226] California statewide data from California Health Interview Survey, UCLA Center for Health Policy Research, 2020 -2024 pooled data. Retrieved from AskCHIS *https://ask.chis.ucla.edu/ask/*, retrieved March 2026.

[227] America's Health Rankings analysis of U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, accessed 2026.

Table 127. Percent of Women in Childbearing Age (18-44) Who Have Had Well Women Exams, United States versus California, 2022-2023

Well Women Visits (ages 18-44)	California Percent	California's Rank	By Race/Ethnicity	California Percent	U.S.A Percent
	71.3%	**35 of 50**	**All**	**71.3%**	**72.7%**
By Gender			**Am. Indian/Alaskan Native**	n/a	75.7%
Female	71.3%	35	**Asian**	71.7%	75.3%
			Black	85.6%	82.0%
By Age Groups			**Hawaiian/Pacific Islander**	n/a	61.4%
18-24	70.4%	27	**Hispanic**	73.9%	69.9%
25-34	69.2%	41	**Multiracial**	65.4%	710%
35-44	73.6%	35	**Other Race**	n/a	72.7%
			White	67.4%	72.1%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

In California, 74.8 percent of children ages 0-17 have had a **well-child visit** in the past year, compared to 79.6 percent nationally. This ranks California 48th out of 50 states.

A larger percentage of California infants and toddlers ages 0-2 years have received well-child visits (86.4 percent) than children ages 3-17 (72.8 percent). This is also true of children in the nation as a whole. However, the percentage of children in each group nationally with a well-child visit in the past year is still higher than in California.

Table 128. Percent of Children Ages 0-17 Who Have Had a Well Child Visit in the Past Year, United States versus California, 2023-2024

Well Child Visits	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
	74.8	**48 of 50**	**79.6%**	**All**	**74.8%**	**79.6%**
By Gender				**Am. Indian/Alaskan Native**	n/a	71.8%
Female	74.2%	47	80.6%	**Asian**	73.4%	74.7
Male	75.4%	44	79.3%	**Black**	74.8%	77.4%
By Age Groups				**Hawaiian/Pacific Islander**	46.0%	64.9%
0-2	86.8%	37	88.4%	**Hispanic**	70.4%	73.8%
3-17	72.8%	48	78.1%	**Multiracial**	84.5%	84.2%
				White	83.3%	83.6%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2023-2024 data. Not all states report on all measures.

By gender, California ranks lower than the national average on well-child visits for both female and male youth. However, a slightly higher percentage of males than females have had well-child visits in California, and a slightly higher proportion of female than male youths have well-child visits nationally.

By race and ethnicity, the percentages of white and multiracial children in California who have had a well-child visit in the past year are virtually the same as for those groups nationally. However, for all other ethnic groups, the percentage of children with well-child visits in California is below that of their peers nationally. The sharpest difference is between Hawaiian and other Pacific Islander children. In California, only 46.0 percent of children of Hawaiian and Pacific Islander ethnicity have had a well-child visit in the last year, compared to 64.9 percent nationally.

ANNUAL DENTAL VISIT

A higher percentage of California adults (68.0 percent) have had a dental visit or screening in the past year than in the United States as a whole (63.9 percent). In Sonoma County, the

percent was higher: 69.5 percent. The percentage of adults with a dental visit or screening in Mendocino County (62.5 percent) or Lake County (61.5 percent) was below the national level.

Table 129. Percent of Adults that Had Dental Visit/Screening in the Past Year, United States, California, Sonoma, Mendocino, and Lake Counties, 2023-2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Dental Screening (adults)	63.9%	68.0%	69.5%	62.5%	61.5%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California state data from American Health Rankings. *Explore Dental Visit in the United States | AHR*

California has a higher percentage of children who have had a preventive dental visit in the past 12 months than the United States as a whole: 83.3% of children in the state compared to 80.2% nationally.

By gender, slightly more female children have had preventive dental visits in the past 12 months than male children, both in California and nationally. However, California's percentage is higher than the nation for both females and males.

By race and ethnicity, California's percentage of children with preventive dental visits in the past year is higher than the nation as a whole for all reported races and ethnicities except for one ethnic grouping: Hawaiian and Pacific Islanders.

Table 130. Percent of Children with Preventive Dental Visit in the Past 12 Months, United States versus California, 2023-2024

Children with Preventive Dental Visit	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
Past Year	**83.3%**	**14 of 50**	**80.2%**	**All**	**83.3%**	**80.2%**
By Gender				**Am. Indian/Alaskan Native**	n/a	76.7%
Female	83.3%	15	80.8%	**Asian**	83.9%	78.7%
Male	82.9%	16	79.6%	**Black**	76.9%	76.1%
				Hawaiian/Pacific Islander	73.0%	76.4%
				Hispanic	82.4%	78.3%
				Multiracial	87.8%	82.3%
				White	85.4%	82.3%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

Vaccinations

CHILDHOOD IMMUNIZATIONS

Early childhood immunizations are a safe and cost-effective way to protect children from potentially life-threatening preventable diseases.[228]

The recommended seven-vaccine series consist of: diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine; measles, mumps, and rubella (MMR) vaccine; poliovirus vaccine; Hemophilus influenzae type b (Hib) vaccine; hepatitis B (HepB) vaccine; varicella vaccine; and pneumococcal conjugate vaccine (PCV).

Two out of three children in the United States (66.9 percent) have received their recommended doses of this seven-vaccine series by age 24 months, according to the CDC. However, only 59.8

[228] America's Health Rankings analysis of U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases, National Immunization Survey-Child, United Health Foundation, AmericasHealthRankings.org, accessed 2026.

percent of California's 24-month-old children had completed the recommended immunizations.[229] This ranks California 48th lowest out of 50 states.[230]

California has a stronger record on immunizations of school-aged children. Under California law, parents must present proof of immunization for all new student admissions at the kindergarten through 12th grade levels. Students who are unable to receive vaccinations for medical reasons may obtain temporary or permanent exemptions, but California no longer permits religious or "personal belief" exemptions from student vaccination requirements.

In 2022, 94.0 percent of California kindergartners had all required immunizations, up from 91.3 percent in 2021.[231] Sonoma County's reported immunization rate was 92.6 percent, Mendocino County's rate was 88.8 percent, and Lake County 's rate was 93.9 percent.

HPV VACCINATION

Human papillomavirus (HPV) is one of the most common sexually transmitted infections in the United States. HPV is a recognized cause of cancer. Although most HPV infections are asymptomatic, and many clear spontaneously or with treatment, persistent infections can progress to precancer or cancer. HPV causes most cervical cancers, as well as some cancers of the vagina, vulva, penis, anus, and oropharynx.[232]

[229] Ibid.

[230] Ibid.

[231] California Department of Public Health, Immunization Branch, reporting data from kindergarten and 7th grade, Nov.2024.Kindergarten

[232] Centers for Disease Control and Prevention. Cancers Associated with Human Papillomavirus. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2025.

Table 131. Types of Cancers Associated with HPV

Gender	Cancer Type	Cases	Percentage
Female	Vagina	898	3%
Female	Vulva	4418	16%
Female	Cervix	11959	46%
Female	Anus*	5363	21%
Female	Oropharynx	3642	14%
Male	Penis	1381	6%
Male	Anus*	2491	12%
Male	Oropharynx	17832	82%

*Includes anal and rectal squamous cell carcinomas. Source: *Cancers Associated with Human Papillomavirus | U.S. Cancer Statistics | CDC*

Adolescents are the principal focus of HPV immunization efforts in the United States. HPV infections can happen quickly, and each infection can reduce the efficacy of the HPV vaccine, supporting the concept that it is essential to immunize youth 13-17, preferably before they become sexually active.

Nationally, 62.9 percent of adolescents aged 13-17 have received the HPV vaccination.[233] California has some somewhat better: 66.0 percent of 13–17-year-olds have received the vaccine. This includes 68.4 percent of California's adolescent females, compared with 64.8 percent nationally. It also includes 63.8 percent of California's adolescent males, compared with 61.6 percent nationally.

RSV VACCINATION – OVER AGE 60

Respiratory syncytial virus (RSV) is a common respiratory virus that causes cold-like symptoms in healthy individuals, but it can lead to pneumonia and worse when a person has other underlying health problems, such as:

- Chronic lung or respiratory diseases, including asthma and chronic obstructive pulmonary disease,
- Cardiovascular diseases such as coronary artery disease and congenital heart disease,

[233] Ibid. American Health Rankings 2025.

- Chronic liver disease, or
- End-stage renal disease.

An estimated 100,000 to 150,000 adults are hospitalized each year in the United States for RSV.[234] The annual economic cost of RSV among adults 60 and over in the United States is estimated at $6.6 million (in 2022 dollars).[235]

Nationally, only 33.0 percent of adults aged 60 and over have received the RSV vaccine. In California, 33.5 percent have received the RSV vaccine.[236] This ranks California 27th out of 48 states reporting data.

PNEUMONIA VACCINATION-OVER AGE 65

Pneumococcal vaccines help protect against pneumococcal infections, including invasive disease that historically has been a common cause of death among older adults. In the invasive form of pneumococcal infections, bacteria invade parts of the body, such as the blood, that are normally free from germs. Invasive disease is usually very serious and can sometimes result in death.

Pneumococcal disease is also common in young children, and the CDC recommends pneumococcal vaccines for children under age 5 or for those over 5 with other risk factors. However, older adults are at greatest risk of serious illness and death.[237]

In 2023, the Centers for Disease Control and Prevention (CDC) lowered the recommended pneumococcal vaccination age among adults from 65 to 50 years.[238] This measure was

[234] America's Health Rankings analysis of U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases, National Immunization Survey–Adult COVID Module, United Health Foundation, AmericasHealthRankings.org, accessed 2026.

[235] Carrico, Justin, Katherine A. Hicks, Eleanor Wilson, Catherine A. Panozzo, and Parinaz Ghaswalla. "The Annual Economic Burden of Respiratory Syncytial Virus in Adults in the United States." *The Journal of Infectious Diseases* 230, no. 2 (August 16, 2024): e342–52. *https://doi.org/10.1093/infdis/jiad559*

[236] Data Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases, National Immunization Survey–Adult COVID Module, 8/18/2024-1/4/2025

[237] Pneumococcal Vaccination | Pneumococcal | CDC

[238] *CDC Recommends Lowering the Age for Pneumococcal Vaccination from 65 to 50 Years Old | CDC Newsroom*

developed before that age change to ensure that older adults would be protected from the disease.[239]

California lags slightly behind the nation in pneumonia vaccination. In California, 69.1 percent of persons over age 65 have received the pneumonia vaccine, compared with 70.2 percent nationally. This is also true for adult males and females over 65.

Table 132. Percent of Adults Age 65 and Over Who Report Having Received the Pneumonia Vaccination, United States Versus California, 2023

	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
	69.1%	**34 of 48**	**70.2%**	**All**	**69.1%**	**70.2%**
By Gender				**Am. Indian/Alaskan Native**	n/a	59.2%
Female	72.9%	33	73.0%	**Asian**	68.5%	65.5%
Male	64.4%	37	66.8%	**Black**	66.1%	64.4%
				Hawaiian/Pacific Islander	n/a	65.6%
By Age Group				**Hispanic**	59.0%	55.9%
				Multiracial	n/a	66.7%
65 +	69.1%	34	70.2%	**Other Race**	n/a	66.0%
				White	73.4%	73.2%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

By race and ethnicity, the percentage of Asians, Blacks, and Hispanics in California who have received the vaccine **exceeds their national peers**, while the percentage of Whites in the state

[239] America's Health Rankings analysis of U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, accessed 2026.

already vaccinated (73.4 percent) is nearly identical to the national percentage of Whites (73.2 percent) who have received the pneumonia vaccine.

ADULTS TAKING MEDICATIONS FOR HIGH BLOOD PRESSURE

One of the most common chronic conditions diagnosed in adults in the United States is high blood pressure/hypertension (34.4 percent of adults nationally).

The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRSS) also reports on how many adults with a diagnosis of hypertension are taking medication to control their blood pressure. Nationally, 77.0 percent of adults diagnosed with hypertension are on such medication.

A statewide percentage for California is not available. However, the percentage of adults with diagnosed hypertension who are taking medication to control their blood pressure is **lower than the national level in Sonoma County (only 73.8 percent), Mendocino County (75.4 percent), and Lake County (76.1 percent). In Cloverdale, 72.7 percent of adults with a diagnosis of hypertension are taking medicine to control their blood pressure.**

Table 133. Percent of Adults Diagnosed with High Blood Pressure Who Are Taking Medication to Control Their Hypertension, United States, and Sonoma, Mendocino, and Lake Counties, 2023

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Adults Taking Medication to Control Hypertension	77.0%	n/a	73.8%	75.4%	76.1%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*

CHOLESTEROL SCREENING

Blood cholesterol is an important indicator of current or future risk of heart disease, heart attacks, or strokes. Nationally, 87.5 percent of adults have had a cholesterol test within the past five years.

A similar percentage (87.4 percent) of Sonoma County adults, and adults in neighboring Mendocino County (86.4 percent) and Lake County (86.2 percent), have also had their

cholesterol screened in the past five years. Similarly, in Cloverdale, 87.0 percent of adults have had their cholesterol screened.[240]

Table 134. Percent of Adults Who Have Had Their Cholesterol Screened in the Past Five Years, United States, and Sonoma, Mendocino, and Lake Counties, 2023

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Cholesterol Screening (adults)	87.5	n/a	87.4%	86.4%	86.2%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*

COLORECTAL CANCER SCREENING

The American Cancer Society's *Cancer Facts & Figures* report projects more than 150,000 new cases of colorectal cancer and nearly 53,000 colorectal cancer deaths in 2025.[241]

There is strong evidence that screening for colorectal cancer reduces the number of new cases and deaths by allowing the removal of precancerous growths and increasing the earlier detection of cancerous growths.[242] The U.S. Prevention Health Task Force[243] recommends screening between the ages of 45 and 75. Screening at earlier ages is recommended for people with particular risk factors such as obesity, diabetes, excessive alcohol use, and long-term smoking, or a family history of colorectal cancer.

Nationally, 71.1 percent of adults ages 45-75 report having had colorectal cancer screening, compared to 65.1 percent of California adults ages 45 to 75. Both nationally and in California, female adults are more likely to have had colorectal cancer screening than males. However, California is below the national average for both females and males.

[240] CDC Places, 2023.

[241] American Cancer Society. *Cancer Facts & Figures 2025*. Atlanta, GA: American Cancer Society, 2025. *Cancer Facts & Figures 2025*

[242] Centers for Disease Control and Prevention *https://www.cdc.gov/pcd/issues/2018/18_0029.htm* and

[243] *Final Recommendation Statement: Colorectal Cancer: Screening | United States Preventive Services Taskforce*

Table 135. Percent of Adults Ages 45-75 Who Report Having Had Colorectal Cancer Screening, United States Versus California, 2024

Colorectal Cancer Screening	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
	65.1%	**45 of 49**	**71.1%**	**All**	**65.1%**	**71.1%**
By Gender				**Am. Indian/Alaskan Native**	n/a	61.9%
Female	68.4%	44	72.0%	**Asian**	64.6%	61.4%
Male	61.4%	45	68.4%	**Black**	67.9%	72.4%
				Hawaiian/Pacific Islander	n/a	62.0%
				Hispanic	54.5%	57.9%
				Multiracial	61.9%	67.4%
				Other Race	n/a	65.4
				White	74.2%	73.9

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

By race and ethnicity, the percentage of California Black, Hispanic, multiracial, and other races adults who have been screened falls below their ethnic peers nationally. Only Asian and White California adults have a higher colorectal cancer screening percentage than their national peers.

Sonoma County and neighboring Mendocino and Lake counties all have reported lower percentages of adults aged 45-75 who have had colorectal cancer screenings than California as a whole or the United States.

However, 65.6 percent of Cloverdale adults had had a colorectal screening, according to CDC Places, above all three local counties and the state, but below the national percentage.

Table 136. Percent of Adults Aged 45-75 Who Have Had Colorectal Cancer Screening[244], United States, California, Sonoma, Mendocino, and Lake Counties, 2022 and 2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Colorectal Cancer Screening (adults 45-75)	71.1%**	65.1%**	62.8%*	61.7%*	62.6%*

Data Years: 2022*, 2024**Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* and American Health Rankings: 2024 data: *Explore Colorectal Cancer Screening in the United States | AHR*

CERVICAL CANCER SCREENING – WOMEN AGES 25-44

The percent of women in California ages 25-44 who report having received a cervical cancer screening (48.9 percent) is below the United States as a whole (51.6 percent), ranking California as the 40th out of 50 states.

By age groups, a higher percentage of women ages 35 to 44 get cervical cancer screenings than women ages 25-34, both nationally and in California.

By race and ethnicity, a higher percentage of White and multiracial women receive cervical cancer screenings nationally. In California, the percentage of White women (56.5 percent) and Black women (56.2 percent) is nearly the same. The percentage of Black women who have received cervical cancer screening in California is well above the national percentage of Black women who have received cervical cancer screenings.

The percent of Asian women in California who have received cervical cancer screening is 48.4 percent, which is also above the national rate for Asian women (39.4 percent).

[244] NOTE: There are several specific tests which are used alternately to document compliance with this measures: *"Percentage of adults ages 45-75 who reported receiving one or more of the recommended colorectal cancer screening tests within the recommended time interval: blood stool test within the past year; sigmoidoscopy within the past five years; colonoscopy within the past 10 years; stool DNA test within the past three years; virtual colonoscopy within the past five years or sigmoidoscopy within the past 10 years, and blood stool test in the past year."* Source: America's Health Rankings analysis of U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, accessed 2026.

The percentage of Hispanic women in California (43.8 percent) who have received cervical cancer screening is virtually identical to that of Hispanic women nationally (43.9 percent), **which is substantially below the percentage of women of other ethnicities, statewide and nationally**.

Table 137. Percentage of Women Ages 25-44 Who Reported Receiving Cervical Cancer Screening Consistent with USPHTF guidelines, United States Versus California, 2022

Cervical Cancer Screening	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
	48.9%	**40 of 50**	**51.6%**	**All**	**48.9%**	**51.6%**
By Gender				**Am. Indian/Alaskan Native**	n/a	44.2%
Female	68.4%	44	72.0%	**Asian**	48.4%	39.4%
				Black	56.2%	49.8%
By Age Range				**Hawaiian/Pacific Islander**	n/a	49.6%
Ages 25-34	42.1%	34	44.6%	**Hispanic**	43.8%	43.9%
Ages 35-45	50.4%	39	52.5%	**Multiracial**	n/a	53.4%
				White	56.5%	57.4%

Source: American Health Rankings 2025: based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2022 data. Note: Not all states report on all measures. *Explore Cervical Cancer Screening in the United States | AHR*

MAMMOGRAPHY-BREAST CANCER SCREENING

Breast cancer is the second leading cause of cancer deaths among women in the United States.[245] Approximately 1 in 8 women (13 percent) will develop invasive breast cancer at some point in their lives.[246]

Screening can help reduce the risk of death from breast cancer by helping to detect it earlier, when there are treatment options. Screening mammograms can pick up tiny tumors or

[245] *Cancer Facts & Figures 2023*

[246] "Breast Cancer Facts and Statistics," Breast Cancer.org March 12, 2026. *Breast Cancer Facts and Statistics 2025*

microcalcifications that may be precursors to breast cancer before there are any outward signs or symptoms of the disease.

In 2023, the United States Preventive Services Task Force (USPSTF) updated their recommendations for breast cancer screening to start at age 40, instead of age 50, and continuing through age 74. The Task Force continued to recommend that women in these age ranges receive screenings every other year.

Nationally, 76.5 percent of women in the recommended age ranges had received mammogram screening in the past two years, above the 73.8 percent of California women of the recommended age ranges.

Table 138. Percent of Women within Recommended Age Ranges Who Have Had a Breast Cancer Screening Via Mammogram, United States, California, Sonoma, Mendocino, and Lake Counties, 2023-2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Mammography (adults)	76.5%	73.8%	77.0%	74.3%	72.7%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts and annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*, 2024 California data. *Explore Breast Cancer Screening in the United States | AHR*

Among Sonoma County women in the recommended age ranges, 77.0 percent had had mammograms in the past two years, exceeding the national and California percentages. **Among Cloverdale women in the recommended age ranges, 79.0 percent had received a mammogram in the past two years.**

In neighboring Mendocino County, 74.3 percent had received mammograms, above the state level but below Sonoma County or the national level. Only 72.7 percent of women in Lake County had received mammograms in the past two years.

Avoided Care Due to Cost

Cost and insurance coverage factors in the under-utilization of preventive services. As reported in the American Health Rankings, 11.5 percent of adults in the United States and 11.6 percent of adults in California report that they have avoided health care in the past 12 months.

By age group, younger adults are more likely to have avoided care. In California, 15.5 percent of adults ages 18 to 44 have avoided care due to cost in the past year, and 17.0 percent of adults aged 18-44 nationally. Over age 65 and with Medicare coverage, only 4.0 percent of California adults and 3.8 percent of adults nationally report skipping care due to cost in the past 13 months.

By race and ethnicity, a lower percentage of California adults in most ethnic groups report that they have avoided care due to cost than their ethnic peers nationally, with the exception of multiracial adults. The lower percentage of **Black and Hispanic adults in California than nationally who have avoided care in the past 12 months due to cost is particularly noteworthy.**

Table 139. Percent of Adults Who Report They Avoided Care Due to Cost in the Past 12 Months, United States Versus California, 2024

	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
	11.6%	**27 of 49**	**11.6%**	**All**	**11.6%**	**11.5%**
By Gender				**Am. Indian/Alaskan Native**	n/a	16.7%
Female	11.6%	17	13.5%	**Asian**	8.2%	8.4%
Male	11.6%	34	11.2%	**Black**	9.2%	14.0%
By Age Group				**Hawaiian/Pacific Islander**	n/a	19.0%
18-44	15.5%	22	17.0%	**Hispanic**	16.%	20.5%
45-64	10.8%	25	12.3%	**Multiracial**	18.1%	17.3%
65 +	4.0%	34	3.8%	**Other Race**	n/a	17.6%
				White	7.4%	9.2%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2024 data. Note: Not all states report on all measures.

A Healthy Diet: Both Prevention and Treatment

Unhealthy diets are widely recognized as contributors to a number of chronic conditions, including notably: obesity & metabolic syndrome, type 2 diabetes, heart disease and strokes, rheumatoid arthritis, liver disease, and some cancers.[247]

However, just as cost has prevented many Americans from accessing other health screening and preventive services, the high cost of healthy food is now considered a barrier to a healthy diet.

A 2025 Pew Research Center study found that 90.9 percent of Americans say healthy food has gotten more expensive recently, and 69 percent say price hikes make it more difficult for them personally to eat health diets. Thirty-two percent (32 percent) said high cost had made it "a lot more difficult."[248]

Rising food costs are likely to slow the shift from diets high in over-processed foods, salt, added sugars, and refined carbohydrates, to a more natural diet of fruits and vegetables, whole grains, and healthy proteins recommended by the **Dietary Guidelines for Americans 2025-2030.**[249]

Food Insecurity

- Food insecurity and the lack of access to affordable, nutritious food are associated with poor diet quality and an increase in diet-related diseases.[250] The 2024 U.S. Department of Agriculture (USDA) Household Food Security report revealed that 47.4 million people

[247] Gumming, Jordan A., Converse, Madeline F., Gudarcei, Behzad, Lotfallah, Wanees, and Racette, Susan B., "Dietary Patterns Influence Chronic Disease Risk and Health Outcomes for Older Adults: A Narrative Review" Multidisciplinary Digital Publishing Institute (MDP)I, Basel, Switzerland, December 13, 2025. *Dietary Patterns Influence Chronic Disease Risk and Health Outcomes in Older Adults: A Narrative Review*

[248] Kikuchi, Emma, Tyson, Alec, and Yam, Eileen, "**Americans on Healthy Food and Eating:** *About half say healthiness of food is important when deciding what to eat. But taste and cost matter more", **Pew Research Center May 7, 2025.*** *https://www.pewresearch.org/science/2025/05/07/americans-on-healthy-food-and-eating/*

[249] Dietary Guidelines for Americans *Dietary Guidelines for Americans, 2025–2030*, United States Department of Agriculture in cooperation with the U.S. Department of Health and Human Services.

[250] Ibid.

lived in households experiencing food insecurity in the past year – one in seven households.[251]

- In California, a higher-than-average cost of food, as well as a higher cost of living in general, makes a healthy diet difficult to afford. **In 2023, the USDA average meal cost per person in Sonoma County was $4.56 per meal, 25.6 percent higher than the $3.63 per-meal average for California as a whole and 27.4 percent higher than the $3.58 per-meal average for the United States as a whole.** Average food cost per meal was also higher than in neighboring Mendocino County ($4.23) and Lake County ($4.16), both in the State and the nation.[252] These higher costs put many families at risk of food insecurity.

- As reported by CDC Places, **13.3 percent of adults in Cloverdale experienced food insecurity in 2023,** a higher percentage than in Sonoma County (12.5 percent) or California (11.4 percent) but less than the United States as a whole (14.7 percent). Food insecurity was even higher in neighboring Mendocino County (17.9 percent) or Lake County (16.2 percent).

Table 140. Percentage of Adults Experiencing Food Insecurity in the Past 12 Months, United States, California, and Sonoma, Mendocino, and Lake Counties, 2023-2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Experienced Food Insecurity (Adults)	14.7 %	11.4%	12.5%	17.9%	16.2%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts, annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*
California data from American Health Rankings: 2024 data.

- Families with children are even more at risk of food insecurity. The California Food Bank Association estimates 27 percent of all families with children in California were suffering from food insecurity as of September 2024.[253]

[251] *FRAC-By-The-Numbers-2024.pdf*

[252] Feeding America: *Hunger & Poverty in California | Map the Meal Gap*

[253] The California Food Bank Association *Hunger Data & Research - California Association of Food Banks*

- More than half (56.7 percent) of students in the Cloverdale Unified School District qualify for free or reduced-price school lunches.[254]

Families and low-income adults have come to rely on other forms of food assistance, such as **CalFresh, California's version of the federal Supplemental Nutrition Assistance Program (SNAP),** and the USDA's Special Supplemental Nutrition Program for **Women, Infants, and Children (WIC),**[255] as well as the school lunch program and non-profit food bank programs. Unfortunately, budget cuts and eligibility restrictions in the H.R.1 Budget Reconciliation Act of 2025 are likely to reduce the use of these programs by California residents (as discussed in PART FIVE of this Community Needs Assessment).

Table 141. Received SNAP (food stamp) Assistance in the Past 12 Months, United States, California, Sonoma, Mendocino, and Lake Counties, 2023-2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Used SNAP/Food Stamp Benefits	11.2%	11.4%*	11.1%	17.3%	19.0%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts, annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC* California data from U.S. Census Bureau, American Community Survey 2019-2023.

At the same time, adults in AVH's three local counties have also been experiencing other financial risks that have impacted their ability to afford a healthy diet or health care services. This includes the high cost of housing and utility service.

[254] California Dept. of Education, Free or Reduced-Price Meal (Student Poverty) Data; National Center for Education Statistics, Digest of Education Statistics (Jul. 2021), as cited on kidsdata.org, a program of Population Reference Bureau.

[255] *WIC: USDA's Special Supplemental Nutrition Program for Women, Infants, and Children | Food and Nutrition Service*, WIC program in California *Women, Infants & Children Program*

Table 142. Experienced Housing Insecurity or Were Threatened with Utility Shut-offs in the Past 12 Months, United States, and Sonoma, Mendocino, and Lake Counties, 2023-2024

Health Risk Measure	U.S.A.	California	Sonoma County	Mendocino County	Lake County
Experienced Housing Insecurity in the past year	11.7%	n/a	11.0%	14.1%	14.0%
Experienced a threat of utility shut-off in the past year	7.4%	n/a	5.7%	7.8%	8.3%

Source: CDC PLACES website. PLACES provides model-based estimates based on data from the Behavioral Risk Factor Surveillance System (BRFSS), Census decennial population counts, annual county population estimates, and the American Community Survey (ACS) 5-year estimates. *PLACES: Local Data for Better Health | PLACES | CDC*

In Cloverdale,12.0 percent of adults have experienced housing insecurity in the past 12 months. This is higher than the nation or Sonoma County as a whole, but lower than Mendocino or Lake counties. More residents in Mendocino and Lake Counties experienced threats of utility shutoffs than in Sonoma County.

There is limited public data available on how many Americans have changed their diets to make healthier choices.

SUGARY DRINKS – CHILDREN

According to clinical recommendations, school-age children (ages 6-17) should limit sugar-sweetened beverages ("sugary drinks") to one or fewer eight-ounce drinks per week.[256] The most recent National Survey of Children's Health[257] reported 70.3 percent of school-aged children had limited sugary drinks in the past week, to between **zero and three drinks in a week,** with **19.4 percent having no sugary drinks in the past week** and **51.1 percent having one to three drinks** in the past week.

[256] "Added Sugars and Cardiovascular Disease Risk in Children: A Scientific Statement from the American Heart Association", August 22, 2018. *Added Sugars and Cardiovascular Disease Risk in Children: A Scientific Statement From the American Heart Association | Circulation*

[257] Health Resources and Services Administration Bureau of Maternal and Child Health, "National Survey of Children's Health: Healthy Behaviors Among School-Aged Children,2024, Data Brief," December 2025. *National Survey of Children's Health (NSCH) – Healthy Behaviors Among School-aged Children, 2024.* This survey included 51,375 children, of whom 37,534 were ages 6-17.

Similarly, the California Health Interview Survey reports that a majority (57.6 percent) of California children aged 12 and under **drank no sugary drinks in the previous day.[258] In the three counties comprising AVH's service area – Sonoma, Mendocino, and Lake counties – a higher percentage of children 0 to 12 had drunk no sugary beverages than children statewide in the same age range.**

Table 143. Consumption of Sugary Drinks the Previous Day, Children 0-12, California Versus Sonoma, Mendocino, and Lake Counties Combined, 2022

# Sugary Drinks Drunk Yesterday		Drank No Sugary Drinks Yesterday	Drank Only 1 Sugary Drink Yesterday	Drank Two or More Sugary Drinks Yesterday
California	**All Ethnicities**	**57.6%**	27.6%	14.7%
California	**Latinos**	**47.3%**	32.0%	20.7%
California	**White non-Hispanic**	**72.1%**	22.3%	5.6%
Three Counties	**All Ethnicities**	**59.1%**	25.2%	15.6%
Three Counties	**Latinos**	**52.4%**	16.5%	31.1%
Three Counties	**White non-Hispanic**	**65.7%**	32.6%	1.6%

Source: California Health Interview Survey, 2022, retrieved March 2026. The question has not been repeated since. The three counties were combined for this retrieval because only one year of responses limited the sample size.

Among youths aged 13-17 statewide, 46.6 percent reportedly drank no sugary drinks the day before, and 35.0 percent drank only one sugary drink. A quarter (24.4 percent) of youths in this age range statewide drank two or more sugary drinks.

In the three-county AVH area, 54.2 percent of 13–17-year-old youth drank no sugary drinks the previous day, 16.6 percent better than youth statewide.

Similarly, 54.2 percent of non-Hispanic Whites in the three-county local area drank no sugary beverages, compared to 46.6 percent statewide.

[258] California Health Interview Survey, UCLA Center for Health Policy Research, 2022 data, retrieved March 2025 from *https://healthpolicy.ucla.edu/our-work/askchis*. The question has not been repeated since 2022.

Latinos aged 13-17 in the three-county local area are even farther ahead: 60.9 percent drank no sugary drinks compared to 34.1 percent of Latino youth aged 13-17 statewide.

Table 144. Consumption of Sugary Drinks the Previous Day, Youths Ages 13-17, California Versus Sonoma, Mendocino, and Lake Counties Combined, 2022

# Sugary Drinks Drunk Yesterday		Drank No Sugary Drinks Yesterday	Drank Only 1 Sugary Drink Yesterday	Drank Two or More Sugary Drinks Yesterday
California	**All Ethnicities**	**46.6%**	35.0%	24.4%
California	**Latinos**	**34.1%**	35.4%	30.5%
California	**White non-Hispanic**	**46.8%**	34.1%	19.2%
Three Counties	**All Ethnicities**	**54.2%**	23.1%	22.7%
Three Counties	**Latinos**	**60.9%**	unstable	unstable
Three Counties	**White non-Hispanic**	**54.2%**	7.2%	38.1%

Source: California Health Interview Survey, 2022, retrieved March 2026. The question has not been repeated since. The three counties were combined for this retrieval because only one year of responses limited the sample size.

FRUITS AND VEGETABLES – ADULTS

Adults in California are only slightly more likely than adults nationally to consume the "two or more fruits and three or more vegetables a day" recommended by the CDC: In California, 9.0 percent of adults meet this target compared to 7.4 % of adults nationally.

The percent of adults in California who have fruits and vegetables daily is higher than the nation as a whole for both males and females, and across all ethnic groups for which data is available.

Table 145. Percent of Adults Who Reported Consuming Two or More Fruits and Three or More Vegetables Daily, United States versus California, 2021

Fruits and Vegetables (Adults)	California Percent	California's Rank	U.S.A Percent	By Race/Ethnicity	California Percent	U.S.A Percent
(Adults)	**9.0%**	**9 of 49**	**7.4%**	**All**	**9.0%**	**7.4%**
By Gender				**Am. Indian/Alaskan Native**	n/a	7.9%
Female	11.0%		9.3%	**Asian**	n/a	n/a
Male	6.9%		6.7%	**Black**	11.4%	8.3%
				Hawaiian/Pacific Islander	n/a	12.6%
18-44	9.1%		8.4%	**Hispanic**	8.3%	7.5%
45-64	9.2%		8.0%	**Multiracial**	9.2%	8.8%
65+	8.7%		7.3%	**Other Race**	n/a	10.3%
				White	9.1%	7.8%

Source: American Health Rankings 2025: *Explore Health Measures | AHR*, based on Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System 2021 data. Note: Not all states report on all measures.

Food As Medicine

Modifying an unhealthy diet is a recognized part of managing chronic medical conditions.

However, what constitutes a "healthy diet" for restorative purposes varies widely, depending both on the chronic condition being addressed and the underlying health and history of the patient. **One size does not fit all.**

Community-based "Food Is Medicine" (FIM) programs have emerged to improve nutrition while also addressing family budget limitations and food insecurity.[259]

Although "Food is Medicine" is a new term, there is significant interest among adults with diet-sensitive chronic health conditions such as obesity, diabetes, high blood pressure, high cholesterol, and heart disease. **Involving patients in the design of these programs is key to**

[259] McNulty, Rose and Bonavitacola, Julia, "Awareness of Food is Medicine" programs is low, but Interest is High" American Journal of Managed Care, August 28,2025 *https://www.ajmc.com/view/awareness-of-food-is-medicine-programs-is-low-but-interest-is-high*

ensuring they effectively meet patient needs, according to a report published by the Urban Institute.[260]

Changes to improve family diets are complex and may require a wider range of nutrition education, including guidance on shopping for healthier food choices, and may need to include preteens and teens as well as adults in the family.

For patients with serious chronic conditions, **medically tailored meals (MTM)** designed by medical and nutritional professionals may be needed. Sometimes it may be necessary for those MTM meals to be supplied by specialized meal delivery programs. This is particularly true of adults living alone or who lack access to transportation.

For both individuals trying to prevent health problems and those trying to manage existing chronic conditions, changing to healthier diets is not always easy. Surveys on the difficulty of weight loss offer an example. In 2024, 65 percent of Americans said willpower alone is not enough for most people to lose weight and keep it off. Women were significantly more likely than men to say that willpower is not enough (71 percent of women versus 59 percent of men). Older adults were more likely than younger adults to say willpower was not enough.[261]

The reported difficulty of losing weight is tied to the rise in use of a newer class of ***Glucagon-like peptide-1*** **(GLP-1) weight loss medications.** GLP-1s have been part of diabetic treatment plans since 2005. In 2014, the U.S. Food and Drug Administration approved the first GLP-1 for weight loss. GLP-1 use has been shown to lead to meaningful weight loss and to greatly reduce the likelihood of conditions and complications associated with obesity.[262]

[260] Gupta P, Karpman M, Waxman E, et al. “Public perceptions of ‘Food Is Medicine’ programs and implications for policy: insights from the Well-Being and Basic Needs Survey and qualitative interviews”. Urban Institute. August 2025. Accessed August 28, 2025. *https://www.urban.org/sites/default/files/2025-08/Public%20Perceptions%20of%20%E2%80%98Food%20Is%20Medicine%E2%80%99%20Programs%20and%20Implications%20for%20Policy.pdf*

[261] Hennen, Mia, "Six Facts about Obesity and Weight Loss Drugs in the U.S”., Pew Research Center, January 23, 2024 *https://www.pewresearch.org/short-reads/2026/01/23/6-facts-about-obesity-and-weight-loss-drugs-in-the-u-s/*

[262] California Department of Healthcare Access and Information (HCAI) Data Brief May 21, 2026, *Data Brief: GLP-1 Prescriptions for Weight Loss over Time, 2018-2023 - HCAI*

In California, prescriptions for GLP-1 drugs rose from 20,585 in 2018 to 713,948 in 2023, a 34-fold increase in 6 years.[263]

However, the high cost of these medications has led to "disparities in the use of GLP-1s linked to income, race, and ethnicity, raising concerns that high costs limit access to GLP-1s for certain vulnerable populations."[264] Those disparities are likely to worsen as a result of the elimination of Medi-Cal coverage for GLP-1 medications, effective January 1, 2026, due to budget shortfalls.[265]

Social Risk Factors

There are also external risk factors that can impact the health of individuals. These societal risk factors include exposure to discrimination or hate acts in schools, workplaces, or the community, or witnessing such incidents. It can also take the form of domestic violence or long-term consequences of family member engagement with the criminal legal system.

HATE INCIDENTS

According to recent studies by the University of California, Los Angeles - Center for Health Policy Research, approximately 3.1 million Californians aged 12 and over experienced hate incidents in the past year, and 4.8 million witnessed hate acts.[266]

The research was based on a new series of questions added in 2023 and 2024 to the California Health Interview Survey (CHIS), which the Center for Health Policy Research administers. The California Civil Rights Department also supported the research.

The respondents were asked to include both criminal hate acts, such as assault and property damage, and noncriminal acts, verbal harassment and discrimination based on bias.

For many victims of these hate events, the incidents they experienced were repeated a number of times by the same perpetrators. Among those respondents experiencing hate incidents, those in CHIS's Northern/Sierra region, which includes Lake and Mendocino counties,

[263] Ibid.

[264] Ibid.

[265] Ibid.

[266] Bates, Alex J. PhD, MD, MPH, and Babey, Susan H. PhD. "Policy Brief: Experiencing Acts of Hate and Access to Support: Findings from the 2024 California Health Interview Survey", December 2025. ISSN 2691-7475 *Publications*

experienced significantly more hate acts per person on average compared to the statewide average.[267]

Fewer than half of those Californians who experienced hate incidents received resources or support of any kind following the attacks. For those who did receive support afterward, it was most often mental health support.[268] A small percentage received time off from work or school to recover, or protection from future attacks.

The Center for Health Policy Research also released a more in-depth qualitative analysis on the impact of these hate incidents, based on interviews of CHIS respondents who had experienced them, to convey the personal impact of these events on the lives of the victims.[269]

Additional analysis of the bias patterns revealed by the CHIS responses for 2023 and 2024 has also been published.[270]

The authors of these papers noted that, among adults, Native American/Alaskan natives, Native Hawaiian and other Pacific Islanders, multiracial individuals, and Black/African Americans experienced hate incidents more often statewide than adults of other races/ethnicities.

An analysis of CHIS data also shows distinct differences between the three counties that comprise AVH's service area, both among adults and teens, with white -non-Hispanic teens and Asian adults also being targeted.

Overall, teens experience bullying and hate incidents more often than adults both statewide and AV's service area counties.

[267] Ibid.

[268] Ibid.

[269] Steinmetz, Valerie, and Lordi, Nicole "Report: The Impact of Hate in California: Findings from a Qualitative Study with California Interview Survey Respondents", University of California, Los Angeles, Center for Health Policy Research, December 2025. *impacts-hate-california-report-2025.pdf*

[270] Bates, Alex J. Babey, Susan H. Hate Acts in California: Insights from the 2023-2024 California Health Interview Survey, February 2026. *Hate Acts in California: Insights from the 2023 and 2024 California Health Interview Survey*

Table 146. Respondents Who Directly Experienced Hate Incidents in the Past 12 Months, By Race/Ethnicity, California, vs Combined Sonoma, Mendocino, and Lake Counties, 2023-2024

Directly Experienced Hate Act in Past 12 Months	State of California		AVH Three County Area Combined	
	Adults	Teens	Adults	Teens
Overall	8.0%	14.1%	5.5%	29.2%
Latino/Hispanic	7.8%	12.7%	5.7%	6.3%
White, non-Hispanic	6.1%	16.4%	4.0%	49.5%
Black, non-Hispanic	13.3%	30.0%	35.8%	n/a
American Indian/Alaskan Nat.	15.8%	n/a	26.5%	n/a
Asian	9.5%	6.6%	22.5%	n/a
Native Hawaiian/Pacific Isl.	13.5%	n/a	n/a	n/a
Two or more races/ethnicities	14.2%	22.5%	7.1%	47.6%

California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

The California Health Interview Survey asked respondents who reported **directly experiencing** hate incidents what they felt was the reason for the attack.

Among adults: Race/skin color, gender, foreign language and ancestry, and sexual orientation were the four most common reasons for the hate attacks, as reported by adults statewide and locally. However, attacks related to gender, foreign ancestry, immigration status, religion, and sexual orientation made up a higher percentage of hate incidents experienced by adults in AVH's three local counties than statewide.

Among teens: Race/skin color, gender, and sexual orientation were the three most commonly cited reasons for the hate attacks reported both by teens statewide and in AVH's three local counties. Fewer hate incidents involving teens were reported to involve foreign ancestry or language or immigrant status than incidents reported by adults, either locally or statewide.

However, there were sharper differences between local teens and teens statewide:

- **Incidents regarding gender /sex were far more common locally (42.4 percent of all incidents) than statewide (17.0 percent);**

- **Only 24.3 percent of hate incidents involving local teens were reported to involve race or skin color compared to 41.0 percent of incidents involving teens statewide.**

(See table below)

Table 147. Reasons Individuals Were Targeted, by Persons Who Directly Experienced Hate Incidents in the Past 12 Months, Adults vs Teens, California versus Combined Sonoma, Mendocino, and Lake Counties, 2023-2024 pool data

Reported Reason Targeted	State of California		AVH Three County Area	Combined
	Adults	Teens	Adults	Teens
Race/Skin Color	59.8%	41.0%	42.2%	24.3%
Immigration Status	5.7%	2.9%	13.4%	4.4%
Gender/Sex	16.0%	17.0%	27.2%	42.4%
Sexual Orientation	13.7%	15.2%	20.4%	14.4%
Disability	7.3%	8.6%	7.8%	6.9%
Ancestry/foreign language	21.0%	14.9%	24.8%	5.0%
Religion	11.4%	11.9%	19.5%	4.4%
Political Beliefs	2.7%	n/a	8.0%	n/a
Economic Status	1.7%	n/a	1.3%	n/a
Percent Respondents Who Report Receiving Support	3.1 %	8.3%	3.3%	22.6%

Source: California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

The CHIS also asked respondents who reported experiencing hate incidents, yes/no questions, **whether the attack they experienced included specific types of attacks**. In this way, they could report multiple forms of attack if they experienced multiple forms.

Verbal abuse and insults were included in most incidents (82.4 percent of incidents involving adults statewide and 87.8 percent of incidents involving teens statewide). In AVH's three service area counties, 89.2 percent of attacks on adults and 89.5 percent of attacks on teens included verbal insults.

The second most common form of attack was cyberbullying, which was involved in 48.6 percent of hate incidents involving teens in AVH's three counties, and 31 percent of hate incidents involving teens statewide. In incidents involving adults in AVH's three-county area, 24.6 percent included cyberbullying, compared to 19.1 percent of incidents involving adults statewide.

On a statewide level, teens were more likely to suffer a physical attack or abuse (14.1 percent) than adults (10.2 percent). In the local three counties, adults reported physical abuse or attacks more often (18.4 percent) than teens (6.9 percent).

Table 148. Hate Incidents in the Past 12 Months by Type of Attack, California versus Combined Sonoma, Mendocino, and Lake Counties, Adults and Teens, 2023-2024 Pooled Data

Hate Incident	State of California		AVH Three County Area	Combined
	Adults	Teens	Adults	Teens
Physical abuse or attack	10.2%	14.1%	18.4%	6.9%
Cyberbullying	19.1%	31.3%	24.6%	48.6%
Property damage	14.6%	7.1%	8.1%	23.0%
Verbal abuse/insults	82.4%	87.8%	89.2%	89.5%
Emotional abuse	1.1%	0.4%	1.5%	n/a
Different/ worse treatment	3.2%	0.3%	2.9%	n/a
Threats /intimidation other than verbal	1.9%	0.8%	3.0%	n/a

California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

The impacts of these hate incidents on those who experienced them are significant:

- **22.7 percent of adults and 20 percent of teens statewide reported physical health problems** as a result of the hate incident they had personally experienced;
- **48.3 percent of adults and 13.0 percent of teens in AVH's three counties** who reported experiencing **hate incidents had physical health problems afterward;**

- **64.4 percent of adults and 62.5 percent of teens statewide** who had experienced hate incidents **reported negative mental health effects from their incident**, as did **59.8 percent of adults and 45.3 percent of teens in AVH's three local counties.**

- 27.1 percent of adults statewide and 26.9 percent of adults in AVH's three counties reported **changing jobs, schools, where they shop, use of transportation, or other aspects of their lives due to the hate incidents they experienced.**

- Those who could, reported taking time off from work or school to recover or seek counseling to deal with the traumatic effects of the attack on them.

- **More than half of Californians who experienced hate attacks (60 percent) did not receive any support or help following the incident**.[271]

WITNESSING HATE INCIDENTS

CHIS has also asked both adult and teen survey respondents if they have witnessed hate incidents in the past 12 months.[272] **More teens report having witnessed hate incidents than adults**, **both statewide and in Sonoma, Mendocino, and Lake counties**.

Among adults: 14.3 percent of respondents from AVH's three-county area reported witnessing one or more hate incidents in the past 12 months, 15.2 percent of adult males and 13.4 percent of adult females. **This is higher than 13.2 percent of adult respondents statewide** who have witnessed hate incidents, 13.5 percent of adult males, and 12.8 percent of adult females.

Among teens: 59.7 percent of teen respondents in AVH's three counties reported witnessing one or more hate incidents, 61.1 percent of teen males and 58.2 percent of teen females. This is more than twice the 29.1 percent of teen respondents statewide who reported witnessing hate incidents, 25.7 percent of teen males, and 32.9 percent of teen females.

Adult respondents in the three AVH counties who have witnessed hate incidents also reported having seen more hate incidents in the past 12 months than adults statewide. For example, **in the AVH area, 39.6 percent of adults reporting seeing hate attacks saw more than five**

[271] Ibid. Bates and Batey.

[272] California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*

incidents in the past 12 months, compared to 26.1 percent of adult respondents statewide who witnessed more than five incidents in the 12 months.

Table 149. Average Number of Hate Incidents Witnessed in the Past 12, By Gender, California versus Combined Sonoma, Mendocino, and Lake Counties, 2023-2024

	State of California			Combined 3 County AVH Area		
# Incidents in Past 12 months	**Adult Males**	**Adult Females**	**Total**	**Adult Males**	**Adult Females**	**Total**
1	25.1%	22.8%	**24.0%**	10.4%	21.7%	**17.2%**
2	18.3%	24.1%	**21.2%**	18.9%	15.3%	**16.7%**
3	14.3%	15.2%	**14.8%**	19.1%	3.6%	**10.0%**
4	5.7%	5.1%	**5.4%**	n/a	12.3%	**4.3%**
5	8.0%	8.5%	**8.3%**	3.0%	18.5%	**12.3%**
More than 5	28.6%	24.3%	**26.1%**	47.7%	34.1%	**39.6%**

Source: California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*. Note: Teen data was excluded from this table due to incomplete data.

GUN OWNERSHIP

The risks of injury or death involved in California's large and rising prevalence of hate incidents are further complicated by the availability of firearms in the state and in specific regions.

In an average year, 3,314 people die, and 9,787 are wounded by guns in California. California has the 32nd-highest rate of gun violence in the US.[273]

In California, 48 percent of gun deaths are suicides compared to 57 nationally, and 50 percent of gun deaths are homicides, including shootings by police, compared to 41 percent nationally.[274]

[273] SOURCES: Gun deaths: CDC, WONDER, five-year average: 2020–2024. *https://everystat.org/wp-content/uploads/pdfs/California.pdf* Gun violence trends: CDC, WONDER, 2015–2024. *https://everystat.org/*

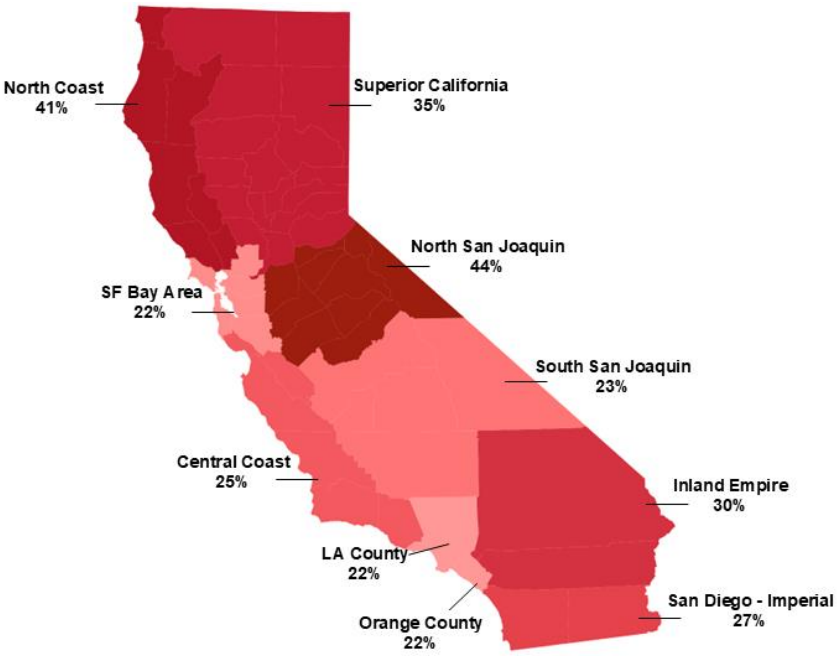
[274] Ibid. CDC Wonder 2020-2024.

The percentage of households in California that have firearms varies widely across the state's geographic regions. Sonoma, Mendocino, and Lake counties fall in a North Coast region of the state, in which 41 percent of households have firearms. This is the second-highest regional percentage of households with firearms in California.

It is also an area with a higher proportion of rural residents. A higher proportion of people in California's rural areas (47 percent) than in suburban (30 percent) or urban areas (20 percent) report owning guns.[275]

The lowest rates of gun ownership in California's regions are in the more densely populated urban and suburban San Francisco Bay Area, Los Angeles County, and Orange County.[276]

Figure 11. Household Firearm Ownership in California, 2024



Source: Data from California Safety and Wellbeing Survey (CSaWS), graphic reprinted from Bullet Points Project *https://www.bulletpointsproject.org/firearm-ownership/*.

[275] Pew Research Center. (2023). *For most U.S. gun owners, protection is the main reason they own a gun.*

[276] Ibid.

Self-defense is the primary reason given by 72% of Americans for owning firearms, up from 26% in 1999 and 48% in 2013.[277] Additionally, 64 percent of US adults overall believe that having a firearm in the home makes one safer, a percentage that has doubled since 2000.[278]

However, recent research that followed millions of Californians over several years found that living with a handgun owner doubles the risk of dying by homicide[279] and that handgun ownership more than triples the risk of suicide.[280]

In cases of intimate partner violence, victims are 11 times as likely to be killed if the abusive partner has direct access to a firearm.[281]

In 2023-2024 responses to the California Health Interview Survey, 23.5 percent of respondents in AVH's three counties reported firearms were kept in their houses, compared to 16.9 percent of CHIS respondents statewide.

Of those who kept a gun in their homes, 14.8 percent statewide reported that they kept their guns loaded and unlocked, as did 20 percent of respondents in Mendocino and Lake counties.[282]

Only 2.8 percent of teen respondents in the three-county AVH area own a gun. However, that is twice the 1.4 percent of teen respondents statewide who owned a gun. Among CHIS respondents, 18.6 percent of teens statewide and 36.9 percent of teens in AVH's three counties had fired guns for hunting or target practice. But only 1.4 percent of teens had handled firearms without adult supervision, both statewide and in the three local counties. Only 1.1 percent of teen respondents statewide had ever been threatened with a gun.

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[277] Ibid.

[278] Gallup. *Guns. Gallup Historical Trends.*

[279] Studdert, D. M., Zhang, Y., Holsinger, E. E., et al. (2022). *Homicide deaths among adult cohabitants of handgun owners in California, 2004 to 2016: A cohort study.* *Annals of Internal Medicine.*

[280] Studdert, D. M., Zhang, Y., Swanson, S. A., et al. (2020). *Handgun ownership and suicide in California.* *New England Journal of Medicine.*

[281] Spencer, C. M., & Stith, S. M. (2020). *Risk Factors for Male Perpetration and Female Victimization of Intimate Partner Homicide: A Meta-Analysis.* *Trauma Violence Abuse.*

[282] Source: California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research Retrieved from AskCHIS,2023-2024 pooled data. *https://ask.chis.ucla.edu/*

However, CHIS asked respondents ages 12-25, "Could you get a gun within two days?" if they chose to: 26.7 percent of respondents in AVH's three-county area answered "yes", compared to 23.7 percent of respondents statewide who said "yes" they could.

CHIS teen respondents were asked "if they were worried about being shot", 44.8 percent of teen respondents in the three-county AVH area said "yes", compared to 39.2 percent of teen respondents statewide who were worried about being shot.

Table 150. Percent of Adults Worried About Gun Violence Victimization, California versus Combined Sonoma, Mendocino, and Lake Counties, 2021-2022

	State	AVH Three Counties
Very worried	15.0%	6.4%
Somewhat worried	30.7%	25.9%
Not too worried	34.9%	39.4%
Not Worried at all	19.5%	28.2%

Source: California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

However, a lower percentage of adult CHIS respondents in the combined Sonoma, Mendocino, and Lake County area were worried about being shot than adult respondents statewide.

DOMESTIC VIOLENCE

California made progress in reducing domestic violence over a nearly three-decade period, progress that stalled during the COVID-19 period. State government, public health, and private health partners are collaborating to reduce domestic violence and the deaths that are part of it.

In 1993, California law enforcement agencies reported receiving nearly 239,000 domestic violence-related calls requesting law enforcement assistance. This included 2,951 domestic violence calls involving the reported use or threatened use of firearms (1.2% of all domestic violence calls for assistance that year).[283]

[283] "Data Report: Domestic Violence Involving Firearms," California, Department of Justice, Office of Gun Violence Prevention (OPVP), November 2023. Information regarding domestic violence-related calls for assistance generally refers to calls for assistance in incidents involving violence committed against a current or former intimate partner or certain adult cohabitants. See California Penal Code §§ 13700(b); 13730.

In the same year, law enforcement agencies in California also reported at least 489 domestic violence-related homicides in which a family member or current or former intimate partner of the victim was identified as a suspected offender, including 269 perpetrated with firearms.[284]

At this point, the rate of homicide deaths of women and children in California was higher than the national rate.[285]

By 2019, just before the COVID-19 pandemic, California law enforcement agencies reported receiving just over 161,000 domestic violence-related calls for assistance and 1,388 domestic violence calls involving firearms (0.86% of all domestic violence calls for assistance that year).[286]

In 2019, law enforcement agencies in California reported 288 domestic violence-related homicides in which a family member or current or former intimate partner of the victim was identified as a suspected offender, including 133 perpetrated with firearms.[287]

California's population grew from 31,274,928 in 1993 to 39,437,610 in 2019, a 26% increase.[288] When that population increase is included, the per capita rates of domestic violence cases fell even further. From 1993 to 2019, California law enforcement agencies reported:

- A 47% reduction in domestic violence-related calls for law enforcement assistance
- A 63% reduction in domestic violence-related calls for assistance involving firearms
- A 53% reduction in domestic violence-related homicides

[284] Ibid. Cites the OGVP analysis of records reported to the DOJ on Homicides in California, accessed through openjustice.doj.ca.gov/data. For the purposes of this report, OGVP classified a homicide as a domestic violence-related homicide if the reporting agency recorded that one or more of the suspected offenders was a family member or a current or former intimate partner of the victim.

[285] Ibid.

[286] Ibid. Cites the OGVP analysis of records reported to the DOJ on Domestic Violence-Related Calls for Assistance in California, accessed through openjustice.doj.ca.gov/data.

[287] Ibid. Cites: Obtained through openjustice.doj.ca.gov/data. OGVP analysis of records reported to DOJ on Homicides in California, accessed through openjustice.doj.ca.gov/data.

[288] Ibid. Population statistics used in this report were drawn from data reported by the U.S. Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, National Vital Statistics System, accessed through the CDC WONDER Online Databases at wonder.cdc.gov.

- A 61% reduction in domestic violence-related gun homicides[289]

Much of this progress is owed to the 2013 launch of the Domestic Violence and Health Care Partnerships Project (DVHCP) by Blue Shield Foundation,[290] the national Futures Without Violence network,[291] several university medical schools, domestic violence advocacy groups and shelters, and community-based health care organizations such as FQHCs. The efforts built on the Affordable Care Act's inclusion of more coverage for women's health visits, screening, referrals, and counseling. The partnership encourages more clinicians to learn to conduct domestic violence screening and create a safe and supportive counseling environment for victims.

Although California experienced increases in gun homicide rates for both female and child victims during the COVID-19 pandemic, the rest of the nation suffered much larger increases.

Data from the Centers for Disease Control and Prevention (CDC) showed that from 2019 to 2021, female-victim gun homicide rates increased by 19% in California and by 49% in the rest of the U.S.[292] Gun homicide rates for children aged 14 and under increased by 45% in California and by 68% in the rest of the U.S.[293]

California residents **averaged 163,138 domestic violence calls to law enforcement** per year over the five years 2018-2022, of which 1,876 per year involved firearms.[294]

[289] Ibid.

[290] *Home Page | Blue Shield of California Foundation*

[291] *Homepage - Futures Without Violence New*

[292] Ibid. OGVP analysis of data from CDC WONDER Online data portal. From 2019 to 2021, the age-adjusted female-victim gun homicide rate in California increased from 0.89 per 100,000 residents to 1.06, and increased in the rest of the U.S. (the other 49 states and D.C. combined) from 1.51 per 100,000 residents to 2.26. (The non-adjusted female-victim gun homicide rate increased by 16% in California, from 0.89 to 1.03 per 100,000 residents, and by 49% in the rest of the U.S., from 1.44 per 100,000 residents to 2.14).

[293] Ibid. OGVP analysis of data from CDC WONDER Online data portal. From 2019 to 2021, the gun homicide rate for children aged 14 and under increased from 0.23 per 100,000 residents to 0.33 in California

[294] Data report: Domestic Violence Involving Firearms in California, Department of Justice, Office of Gun Violence Prevention, November 2023 *Office of Gun Violence Prevention (OGVP) Report*

The total domestic abuse calls for 2022 were 162,422, suggesting that the downward trend has resumed. However, 2,132 of those calls involved firearms, compared to 1,388 calls involving firearms in 2019.

The rate of reported domestic violence varies widely by county within the state, and between AVH's three local counties.

Table 151. Domestic Violence Calls to Law Enforcement, Rate per 100,000 population, California vs Sonoma, Mendocino, and Lake Counties, 2018-2022

Law Enforcement Call	California	Sonoma County	Mendocino County	Lake County
Total Domestic Violence Calls (2018-2022)	**815,689**	**9,875**	**2,013**	**2,673**
Rate: Domestic Violence Calls per 100,000 (2018-22)	415.3	403.7	456.1	809.7
Total Domestic Violence Calls Involving Firearms	**9,378**	**73**	**7**	**35**
Percent of Domestic Violence Calls Involving Firearms	**1.15%**	**0.74%**	**0.35%**	**1.31%**
Rate of DV Calls involving firearms per 100,000	4.8	3.0	1.6	10.6

Source: "Data Report: Domestic Violence Involving Firearms," California, Department of Justice, Office of Gun Violence Prevention, November 2023 *Office of Gun Violence Prevention (OGVP) Report*

The number of **domestic violence restraining orders (DVROs)** issued by California's superior courts also varies widely by county. Sonoma County has a rate of 111.3 DVROs per 100,000 population, which is far lower than the statewide rate of 191.7 per 100,000. Mendocino County's rate of 271.7 per 100,000 is 41.7 percent above the state rate, and Lake County's rate of 396.8 orders per 100,000 population is more than twice the state rate.

Table 152. Domestic Violence Restraining Orders Filings in California Superior Courts, Rate per 100,000 population, California vs Sonoma, Mendocino, and Lake Counties, 2018-2022

Domestic Violence Restraining Orders	California	Sonoma County	Mendocino County	Lake County
# 2018 DVRO Filings	83,982	562	278	287
# 2019 DVRO Filings	83,186	565	233	257
# 2020 DVRO Filings	71,934	541	255	251
# 2021 DVRO Filings	66,285	513	183	265
# 2022 DVRO Filings	74,223	542	250	250
Rate per 100,000 population 2018-2022 Combined	**191.7**	**111.3**	**271.7**	**396.8**

Source: "Data Report: Domestic Violence Involving Firearms," California, Department of Justice, Office of Gun Violence Prevention, November 2023 *Office of Gun Violence Prevention (OGVP) Report*

Advocates for domestic violence victims point out that typical measures, such as calls to police departments, woefully undercount the prevalence of domestic violence, at least in part because many survivors decline to report the abuse.[295] Recent surveys funded by Blue Shield Foundation found that 30 percent of Californians identify as domestic abuse survivors, and 63 percent report that they have personal connections to domestic violence either directly or through friends or family.[296]

"Domestic violence is far more than physical, emotional, and psychological abuse confined to individual households. This problem tears apart families and damages the livelihoods, productivity and health and personal development of countless Californians. Its effects ripple across entire communities, exacerbating urgent societal problems, including homelessness, economic insecurity, and substance use disorders, which also contribute to domestic violence," writes Blue Shield Foundation Ceo Debbie I. Chang.[297]

[295] Chang, Debbie I., CEO Blue Shield Foundation, "Domestic Violence Is Not Inevitable. How Can CA Help Prevent It?", Special Opinion to Sacramento Bee, November 3, 2025, Reprinted Fresno Bee *California must fund prevention to stop domestic violence | Fresno Bee*

[296] Ibid.

[297] Ibid.

ENCOUNTERS WITH LAW ENFORCEMENT

Another kind of risk that affects area families is encounters with law enforcement.

CHIS data available indicate that 23.3 percent of adult respondents from AVH's three service-area counties have been stopped by law enforcement in the past three years, compared to 19.1 percent of adult respondents statewide.[298]

Table 153. Average Number of Times Respondent Was Stopped by Law Enforcement in the Past Three Years, By Gender, California versus Combined Sonoma, Mendocino, and Lake Counties, 2021-2024

	State of California			Combined 3 County AVH Area		
# Times Stopped in Past 36 months	**Adult Males**	**Adut Females**	**Total**	**Adult Males**	**Adult Females**	**Total**
0	76.8%	85.0%	**81.0%**	72.5%	80.5%	**76.7%**
1	13.9%	10.4%	**12.1%**	18.7%	16.3%	**16.3%**
2	5.0%	3.0%	**4.0%**	3.5%	3.5%	**3.5%**
3	2.1%	0.9%	**1.5%**	2.3%	1.4%	**1.9%**
4	0.8%	0.3%	**0.5%**	1.1%	0.2%	**0.6%**
5 or More	1.4%	0.4%	**0.9%**	1.8%	0.2%	**1.0%**
TOTAL % STOPPED	**23.2%**	**15.0%**	**19.1%**	**27.5%**	**19.5%**	**23.3%**

Source: California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2021-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

CHIS data also indicates that **14.4 percent of adult respondents from AVH's three counties have been arrested and booked** by law enforcement officers. This includes 17.5 percent of adult male respondents and 10.9 percent of adult female respondents in Sonoma, Mendocino, and Lake counties.

[298] California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2021-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*

This is substantially higher than the **10.8 percent of adult respondents statewide who report they have been arrested and booked** by law enforcement officers. The total includes 15.5 percent of adult male respondents and 6.3 percent of adult female respondents statewide.[299]

A recent cross-sectional study of 76 million children in the United States, published in JAMA in May of 2026, found that approximately 15 percent had a family member criminally charged within the past five years, with rates tripling from 6.9 percent (2000 to 2002) to 19.6 percent (2018 to 2019). An estimated 11.6 percent of children experienced a family member's conviction, 3.6 percent a felony conviction, and 1.4 percent a family member's incarceration.

Although the study looked at all of the children's family members who could be linked to a criminal legal contact, parent contacts constituted a substantial portion (73.0 to 78.7 percent) of those criminal legal contacts linked to children across the five-year study period.[300]

The authors noted that few studies have examined how arrests and convictions affect children within families, including the emotional impacts—such as social ostracism, stigma, and mental health challenges—and the economic impacts, such as loss of income, housing, or public benefits, all of which may place direct strain on children.[301]

In the view of the paper's authors: "These rates have direct implications for clinicians and programs working with children. Given these prevalence rates, a sports team or elementary school classroom may include a couple of children with recent parental conviction and multiple children with family [criminal legal contacts], while an elementary school or a pediatric practice may have dozens of children with family [criminal legal contacts], including multiple children who have experienced recent parental incarceration. As such, incorporating trauma-informed service models and seeking to explore and address the unique needs of children exposed to family criminal legal contacts are important."

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[299] Source: California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2021-2022 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*. Note: Teen data was excluded from this table due to incomplete data.

[300] Carey, Naoka, JD, PhD, Coley, Rebekah Levine, PhD. "Children's Exposure to Recent Family Member Criminal Legal System Involvement", JAMA Network Open, published online May 12, 2024, 2026;9;(5): e2612183. doi:10.1001/jamanetworkopen.2026.12183 *Children's Exposure to Recent Family Member Criminal Legal System Involvement | Public Health | JAMA Network Open | JAMA Network*

[301] Ibid.

Environmental Risk Factors

OVERVIEW

The Alexander Valley Healthcare (AVH) service area and its residents continue to be threatened by a variety of natural and manmade disasters and emergencies, including:

- Periodic droughts and water shortages
- Frequent, dangerous wildfires'
- Exposure to wildfire smoke;
- Record high temperatures;
- Disruptions of the electrical grid;
- Seasonal flooding and landslides in some communities; and
- Geological instability, earthquakes, and areas susceptible to liquefaction.[302]

DROUGHTS

California has a naturally dry climate that alternates between multi-year droughts and wetter periods. These cyclical shifts are described as being "La Niña" or "El Niño" years, depending on weather patterns over the Pacific Ocean:

- "El Niño" is a pattern that occurs when the ocean's surface temperature is warmer at the equator; air shifts southward and picks up more moisture, which falls as rain or snow over the western United States.

[302]NOTE: As a federally qualified health center and the service area's sole medical provider, AVH has had to plan for and respond to these and other potential community emergencies, including data service interruptions, serving the needs of persons evacuating from areas affected by disasters, pandemics, and other public health emergencies.

- "La Niña" is a pattern that occurs when the ocean surface temperature at the equator is cooler for several months, coupled with larger-scale changes in wind and air pressure. This can shift air northward, where it picks up less moisture, resulting in drought years in the western U.S.

These patterns are subject to influences such as the temperature and salinity of Pacific Ocean surface water at the equator,[303] as well as other global climate shifts.[304]

Recent studies have identified historical evidence of "megadroughts" lasting two to three decades. There have been eight of these megadroughts in California in the past 1,200 years. This research indicates that the recent drought period, beginning in 2000 and running through at least 2022, is the driest megadrought since 800 C.E.[305]

The state experienced lower-than-average rainfall from 2011 through 2017, then seemingly returned to normal-range rainfall. However, the period from April 2019 to March 2021 turned dry again — the fourth-driest two-year period on record. The combination of low precipitation and high temperatures has made this drought particularly intense.[306] When 2022 also turned into a La Niña drought year, scientists began to see the entire last 20 years as a megadrought,[307] as well as the first triple-year La Niña.[308]

Past droughts have had a particularly serious impact on the Russian River, the central waterway which runs from Potter Valley and the Lake Mendocino reservoir through Ukiah and Hopland into Sonoma County, where it passes through Cloverdale, parallel to Highway 101, and on to

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[303] Paul J. Durack et al, "Ocean Salinities Reveal Strong Global Water Cycle Intensification During 1950–2000," *Science* 2012;36(6080): 455–458. doi:10.1126/science.1212222

[304] Margaret Osbourne, "The Western U.S. is Experiencing the Worst Drought in More Than 1,200 years," *Smithsonian Magazine*, Feb. 17, 2022, *https://www.smithsonianmag.com/smart-news/the-western-us-is-experiencing-the-worst-megadrought-in-more-than-1200-years-180979590/*.

[305] Ibid.

[306] Public Policy Institute of California, "California's Latest Drought in 4 Charts," May 3, 2021, *https://www.ppic.org/blog/californias-latest-drought-in-4-charts/*.

[307] Ibid.

[308] For an analysis of the current La Niña cycle, see the World Meteorological Organization press release "WMO predicts first 'triple-dip' La Niña of the century," Aug. 31, 2022, *https://public.wmo.int/en/media/press-release/wmo-predicts-first-%E2%80%9Ctriple-dip%E2%80%9D-la-ni%C3%B1a-of-century*.

Healdsburg and Windsor before turning west to join the Pacific Ocean in the coastal town of Jenner.

Together, the river and its tributaries — Laguna de Santa Rosa, Santa Rosa Creek, Brush Creek, Dry Creek, Mark West Creek, Matanzas Creek, Spring Creek, and Piner Creek — are the largest water source for the northern and western parts of Sonoma County.

RECORD HEATWAVES

Many of California's historical droughts have been accompanied by record heatwaves, which threaten not only people, animals, and agriculture, but also the electrical grid that powers the community's homes, workplaces, schools, and healthcare facilities.

Such high temperatures carry substantial health risks, particularly for homeless individuals, people who usually work outdoors or in poorly ventilated areas, and people on multiple medications or with high blood pressure, cardiac disease, or other chronic conditions.[309]

According to the California Health Interview Survey, 76.5 percent of respondents in the three counties comprising AVH's service area have experienced extreme heat waves in the past two years, compared to 55.5 percent of California adults.[310]

Twice as many respondents from AVH's three counties (31.5 percent) report having suffered physical health problems from extreme heat events as statewide (15.0 percent). A reported 19.1 percent of AVH area respondents reported mental health harm from extreme heat events, compared to 15.4 percent of adults statewide.[311]

Given the large number of vulnerable people in the AVH service area, including seniors and very low-income families, it has become necessary for AVH clinicians and support staff to ask patients whether they have sufficient safe water supplies and a means of staying cool.

[309] Ibid.

[310] California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research,2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

[311] Ibid.

WILDFIRES

Extreme temperatures and a landscape already "baked dry" by droughts increase the risk of dry lightning, resulting in historical numbers of **dangerous, rapidly moving wildfires** recorded in California since 2015.[312]

In 2020, California hit a record with **4,304,379 acres burned** in 8,648 wildfires, which also killed 33 people and damaged or destroyed 11,116 structures.[313]

Wildfire activity abated in 2022 and 2023 as the percentage of California still in drought declined. Improved fire warning systems and better fire-fighting response times have dramatically decreased the acreage burned, as illustrated in the table below. Damage to buildings and loss of human life rose again in 2024 and 2025 in some regions of the state, following an increase in fires within urban areas of southern California.

Table 154. California Wildfires, Number of Incidents, Acreage Burned, Structures Damaged or Destroyed, and Fatalities, 2015–2025

Year	Incidents	Acreage Burned	Structures Damaged or Destroyed	Fatalities
2015	8,283	880,899	3,159	7
2016	6,954	669,534	1,274	6
2017	9,270	1,548,429	10,280	47
2018	7,948	1,975,096	24,226	100
2019	7,860	259,823	732	3
2020	8,648	4,304,379	11,116	33
2021	8,835	2,568,948	3,629	3
2022	7,477	331,358	1,279	9
2023	7,386	332822	179	4
2024	8,110	1,077,711	7,837	1
2025	8,232	507,817	16,627	31

Source: California Dept. of Forestry and Fire Protection (CAL FIRE), archives: *https://www.fire.ca.gov/incidents/*

[312] Martin Espinoza, Alana Minkler, Mary Callahan, and Colin Atagi, "City Hits New Record of 115 Degrees as County Sizzles Amid Heat Wave," *The Press Democrat* [Santa Rosa, Calif.], Sep. 7, 2022. *https://www.pressdemocrat.com/article/news/santa-rosa-sets-new-heat-record-at-115-degrees-as-sonoma-county-sizzles-i/*.

[313] California Dept. of Forestry and Fire Protection (CAL FIRE), "2020 Incident Archive," *https://www.fire.ca.gov/incidents/2020/*.

However, by January 1, 2026, no regions of the state were in drought conditions.[314]

Many of California's wildfires have had direct consequences for the local economy. For example, the Hopland Sho-Ka-Wah Casino, operated by the Hopland Band of Pomo Indians and long a major source of employment in the Hopland area, closed permanently in 2019 after shutting down during the previous year's severe wildfires. Sonoma County lost 2.6 percent of its total housing units because of the 2017 Tubbs Fire, which burned 36,807 acres of southern Alexander Valley, the Cities of Healdsburg and Santa Rosa, and the surrounding countryside.

Most of the major fires within or near the AVH service area are driven by winds of 20 to 40 miles per hour or more. Thus, a fire can spread very rapidly, forcing residents in their path to make quick decisions regarding whether and when to evacuate; the timing of an evacuation can mean the difference between life and death. Worse, the area has sometimes suffered multiple simultaneous fires (some of which later combined), creating the risk that fleeing one fire could carry evacuees into the path of another.

Evacuations are made all the more difficult by heavy traffic on major transportation corridors such as Highway 101. Evacuations along the two-lane backroads that wind through the service area's hill country, many of which have no alternate routes, are even more dangerous.

Residents of communities not directly threatened by fires may still be severely affected by smoke from distant fires. The smoke from some large wildfires has spread across half the state, causing property damage and an elevated risk of respiratory illness due to poor air quality. For example, smoke from the 963,309-acre Dixie Fire in 2021, the second-largest wildfire in the state's history, darkened skies and kept people in coastal California indoors for days, even though the fire occurred in Butte, Plumas, Lassen, Shasta, and Tehama Counties, in the eastern part of California.

AVH service area residents have been ordered to shelter in place for a week or more because of toxic smoke from wildfires and the structures and vehicles they have consumed.

Even when the smoke is not visible, microscopic particles carried by "drift smoke" can penetrate deep into lung tissue and enter the bloodstream. One study linked wildfire smoke exposure to a twofold increase in the rate of asthma and a 40 percent rise in strokes and heart

[314] Chow, Denise, "California is Completely Free of Drought for the First Time in 25 Years", NBC News, January 9,2026.

attacks.[315] Other research has tied fire smoke to increases in hospital admissions, emergency room visits, and premature deaths.[316] In this way, smaller wildfires can have a deleterious impact on public health even if they do not directly cause structure losses or deaths.[317]

Wildfires also cause substantial psychological stress for residents. The threat posed by multiple concurrent fires can be overwhelming, especially given the danger of separate fires merging into huge, extremely risky "complex fire" events, which have become more common over the past five years. Making evacuation preparations, deciding what to take and what to leave (sometimes with little notice), and dealing with the possibility of being separated from family members all add to the mental and emotional strain.

Evacuations also drain the resources of healthcare providers and county emergency response teams, who need to organize sites where evacuees can gather; provide triage for physical injuries, including smoke inhalation; and arrange for food, shelter, sanitary facilities, and access to communications. In Cloverdale, the Citrus Fair fairground has recently been designated as such a site. AVH's new facility will be built on a site next to the fairground.

EXPOSURE TO WILDFIRE SMOKE

The California Health Interview Survey has asked respondents if they have experienced wildfire events in the past two years, and **36.8 percent of adults in the AVH's three counties have experienced wildfire events, compared to 11.1 percent of adults statewide**.[318]

However, a larger percentage, 69.0 percent of respondents in the three AVH counties, reported that they had experienced smoke from wildfires in the past two years. This is compared to 39.2 percent of adults statewide.[319]

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[315] Devon Ryan, "Health Impacts of Wildfire Smoke," Stanford Woods Institute for the Environment, Oct. 15, 2020, *https://woods.stanford.edu/stanford-wildfire-research/news/health-impacts-wildfire-smoke*.

[316] Bernard J. Wolfson, "Wildfire smoke poses serious health hazard. But your indoor air can be kept clean," The Washington Post, Oct. 9, 2021, *https://www.washingtonpost.com/health/wildfire-smoke-health-hazards/2021/10/08/1ed50eac-2156-11ec-9309-b743b79abc59_story.html*.

[317] Fay H. Johnston, et al, "Unprecedented Health Costs of Smoke-Related PM-2.5 from the 2019–2020 Australian Megafires," *Nature Sustainability* 2021;4: 42–47. doi:10.1038/s41893-020-00610-5

[318] California Health Interview Survey (CHIS), UCLA Institute for Health Policy Research, 2023-2024 pooled data. Retrieved from AskCHIS, *https://ask.chis.ucla.edu/*.

[319] Ibid.

More than **one in three (36.6 percent)** of respondents from AVH's three counties, and **one in four California adults (26.7 percent),** report wildfires having harmed their physical health in the past two years.[320]

The lingering toxic effects of wildfire smoke have been documented in a series of recent research studies.

A paper, published in the journal Science Advances, found that from 2006 to 2020, long-term exposure to tiny particulates from wildfire smoke contributed to an average of 24,100 deaths a year in the lower 48 states. The paper's researchers focused on deaths linked to chronic exposure to fine particulate matter, or *PM2.5* — the main concern from wildfire smoke.[321]

These particles can lodge deep in the lungs and enter the bloodstream. Short-term exposure can trigger coughing and itchy eyes, but longer term, they can make existing health problems worse and lead to a range of chronic and deadly health issues, including respiratory illness, cardiovascular and neurological diseases, and premature death.

"Our message is: Wildfire smoke is very dangerous. It is an increasing threat to human health," said Yaguang Wei, a study author and assistant professor in the department of environmental medicine at Icahn School of Medicine at Mount Sinai.[322]

In addition to $PM_{2.5}$ particles, researchers have documented that fire activity and the smoke they **generate ground-level ozone (O_3),** which can accumulate to levels that have increased hospitalizations and have generated an estimated 2,045 deaths from wildfires nationally in the period 2006-2023.[323]

Additionally, wildfires have contributed to more mental health problems in California.

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[320] Ibid.

[321]Min Zhang, Edgar Castro, and Yaguang Wei, "Wildfire smoke $PM_{2.5}$ and Mortality Rate in the Contiguous United States: A causal modeling study" Science Advances, February 4, 2026 *https://www.science.org/doi/10.1126/sciadv.adw5890*

[322] *New study reveals deadly impact of wildfire smoke pollution in the US | AP News*

[323]Yangmingkai Li, Xiaomeng Jin, Haitong Z. Sun, Minghao Oin, "Growing Impacts of Fire Smoke on Ozone Pollution and Associated Mortality Burden in the United States" Science Advances April 29,2026, Volume 12, Issue 18 *https://www.science.org/doi/10.1126/sciadv.aec2903*

The CHIS found that 27.9 percent of local county respondents report that their mental health was harmed by exposure to wildfire smoke, compared to 16.6 percent of adult respondents statewide in the past two years.[324]

Researchers analyzing a cross-section of 86,668 emergency department visits for mental health conditions during the severe 2020 California wildfires found that exposure to wildfire-specific $PM_{2.5}$ was associated with a significant increase in mental health-related outcomes and need for emergency department mental health visits, particularly for young children, women, and minority racial and ethnic groups.[325]

ELECTRICAL GRID DISRUPTIONS

The electrical drain from air conditioning in private homes and offices, as well as in retail stores, restaurants, movie theaters, and public buildings to which people gravitate to cool down, puts intense strain on the state's electrical grid during the hottest parts of the year.

The California Independent System Operator (ISO), the nonprofit organization that manages 80 percent of the state's electrical grid, issues frequent "Flex Alerts": requests for customers to voluntarily reduce their consumption of electricity during peak hours (4 p.m. to 9 p.m.), which is also the period when the system's solar sources lose much or all of their effectiveness. If Flex Alerts fail to reduce power demand sufficiently, ISO grid operators may call for "rotating power outages" (also known as "controlled load sheds"): controlled shutdowns of parts of local electrical grids to prevent larger areas of the grid from collapsing.

- The heatwave in the first week of September 2022 brought seven days of Flex Alerts, as projections showed the state might fall at least 2,000 to 5,000 megawatts short of the power supply needed to meet peak demand at 4:45 p.m. For example, on September 6, 2022, emergency text messages were sent to 27 million California residents in high-electrical-usage areas, requesting voluntary cutbacks to produce a 2,000-megawatt drop in total demand within minutes. Although the ISO did not ultimately initiate rotating power outages, grid operators in six cities, including Healdsburg and Ukiah, shut down

[324] Ibid./ASKCHIS

[325] Jun, Youn Soo, PhD, Johnson, Mary M MD PhD, Burke, Marshall, PhD, et al "Fine Particulate Matter From 2020 California Wildfires and Mental Health-Related Emergency Department Visits", Jama Network Open, April 4, 2025. 2025;8(4): e253326. Doi:10.1001/jamanetworkopen.2025.3326

power anyway after misunderstanding the initial ISO order.[326] The state's total usage for the day topped 52,061 megawatts, exceeding the previous daily peak of 50,270 megawatts set 16 years earlier.[327]

Even if power demand does not exceed capacity, local utility companies throughout California may proactively shut off power in certain areas to prevent their equipment from starting fires, for example, if high winds knock down power lines. Depending on weather conditions, such a "Public Safety Power Shutoff" (PSPS) can last for days, causing considerable problems for residents, businesses, and public services. Warning of the potential for such PSPS events in the summer of 2026 has already been announced by the Pacific Gas and Electric Company.[328]

AVH's backup generator has enabled AVH to keep its medical facilities open, maintain access to its patients' electronic health records, and provide lighting and cooling during outages. AVH also maintains an out-of-area set of computer backup servers with secure backup of patient and financial records if power outages or hackers damage its main servers. AVH regularly tests its ability to transfer operations to these back-up servers within a matter of minutes.

GEOLOGICAL INSTABILITY AND EARTHQUAKES

The geography of Sonoma County has historically provided a Mediterranean-like climate favorable to agriculture, tourism, and year-round leisure activities. However, underlying this diverse geography is a tectonic base that results in periodic seismic activity.

Three major fault lines run through Sonoma County:

(1) **The San Andreas Fault** runs along the coast of Sonoma and Mendocino Counties until it enters the Pacific Ocean. Sonoma County was affected by the 1906 San Francisco Earthquake, which caused portions of the Pacific and North American tectonic plates to shift by as much as 15 feet in opposite directions along the San Andreas Fault.

[326] Michelle Bandur, "Rolling blackouts for several Northern California communities called 'mistake,' said Cal ISO," KCRA News 3 [Sacramento, Calif.], Sep. 7, 2022, *https://www.kcra.com/article/rolling-blackouts-lodi-called-mistake-said-cal-iso/41110839*.

[327] Ivan Penn, "Dodging Blackouts, California faces New Questions About Its Power Supply," *New York Times*, Sep. 25, 2022, *https://www.nytimes.com/2022/09/25/business/energy-environment/california-energy-grid-heat.html*.

[328]USA Today *PG&E may cut power in some NorCal counties due to fire concerns*

(2) **The Rogers Creek-Hayward Fault** runs through the center of Sonoma County, paralleling Highway 101. It connects the Hayward Fault, which runs east of San Francisco Bay, and the Healdsburg Fault, to the north. This fault line and its spurs periodically produce smaller tremors and/or quakes measuring between 2.5 and 5.0 on the Richter scale, and occasionally higher.

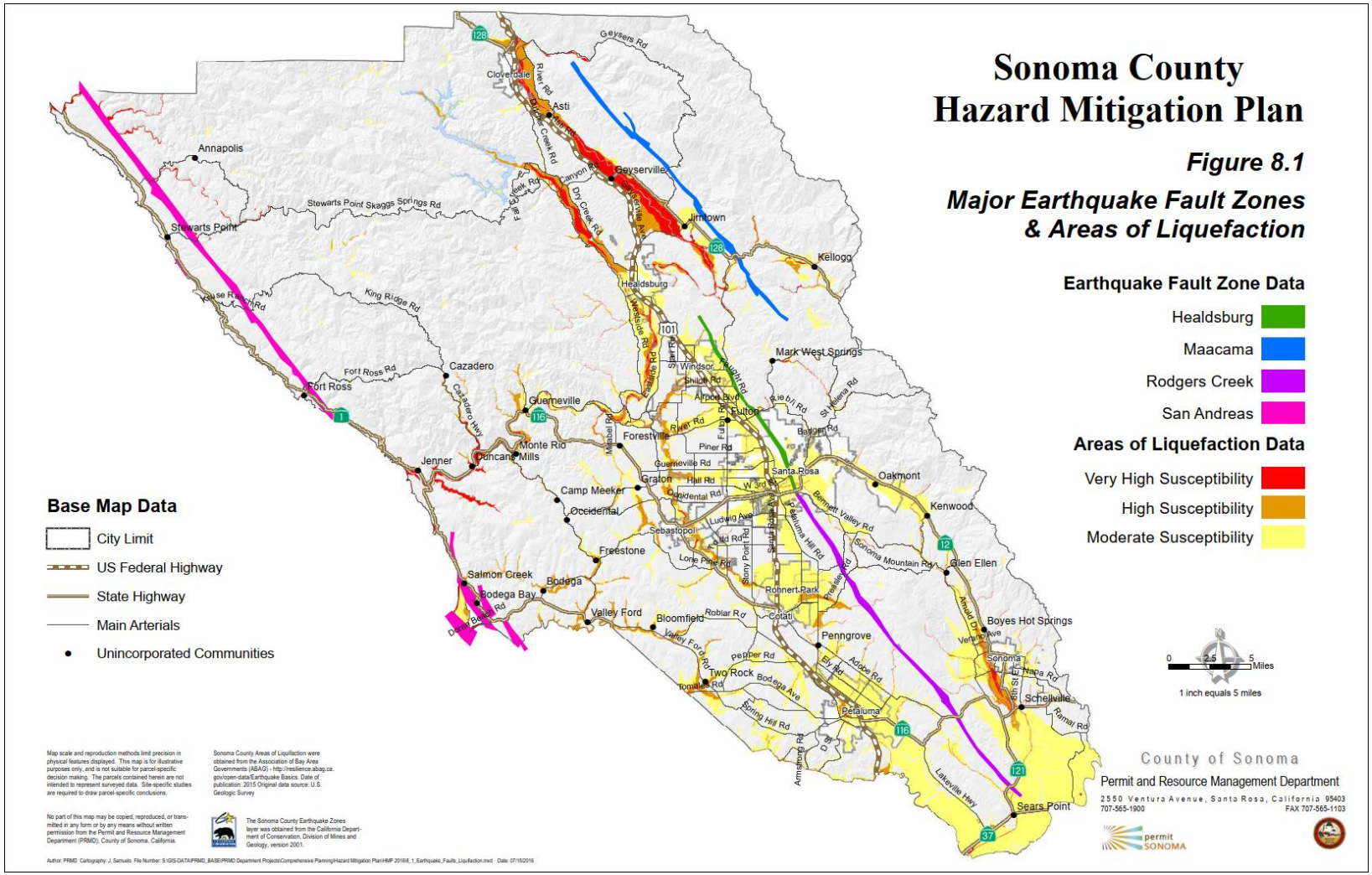
(3) **The Maacama Fault** runs along the eastern edge of Sonoma County and the western edge of Napa County. This fault also generates a number of small and moderate-sized quakes and is affected by the hot springs in Calistoga, in neighboring Napa County.

Connected to these major fault lines is a grid of smaller offshoot faults, which run like a latticework across the county's valley floors. All of these faults are affected by the movement of the Pacific and North American continental plates, and also by their interaction with the Clear Lake Volcanic Shield (located in Lake County, north of Cloverdale), a volcano that last erupted approximately 11,000 years ago, depositing magma, ash, and rock across the North Bay region.

Figure 12. Photo of Mount Konocti, the Largest Volcanic Feature of the Clear Lake Volcanic Area

Photo: "Mount Konocti on the western shore of Clear Lake, California" by Julie M. Donnelly-Nolan, retrieved from *https://www.usgs.gov/media/images/mount-konocti-western-shore-clear-lake-california* (U.S. Geological Survey public domain photo / cropped from original).

Figure 13. Map of Earthquake Fault Lines and Liquefication Areas in Sonoma County



Source: County of Sonoma Permit and Resource Management Department (used with the permission of Permit Sonoma)

Areas between the Rogers Creek Fault and Maacama Fault, along the Healdsburg Fault line, are subject to liquefaction during major earthquakes. The largest of these areas encompasses most of southern Alexander Valley, including Healdsburg and Geyserville.

The risk for county residents is that major quakes along these fault lines could damage or disrupt power grids, water service, transportation, and food supply lines, cutting residents off from essential services. Such potential disruptions underline the importance of service area residents having access to locally available healthcare. In the wake of a major earthquake, leaving the area to seek care elsewhere might be difficult or impossible.

AVH has ensured its ability to maintain continuity of service through the installation of a 7,500-watt generator to supply electricity in the event of a power outage, maintaining multiple off-site backups of electronic patient data and financial records, and maintaining on-site drinking water supplies for emergencies. The health center also maintains communications backup systems in coordination with local emergency management and first responders.

Additionally, AVH distributes information to patients on how to maintain emergency supplies of food and water, and works with community outreach groups such as **Resilient Cloverdale**[329] and **CloveReady** [330] to encourage families to prepare for potential disasters through public education.

Health Outcomes

COVID-19

The COVID-19 pandemic reached California in January 2020 and ran through 2023. **The 11.3 million reported COVID-19 cases in California resulted in 102,400 deaths** from the SARS-CoV-2

[329] *Resilient Cloverdale | Facebook*

[330] *CloveReady*

virus through July 2023.[331] Only 4,891 of those deaths occurred in 2023,[332] the year the COVID-19 official public health emergency ended.[333]

Only 580 of these California COVID-19 deaths occurred in Sonoma County. This relatively low level of deaths in the county is attributed to a combination of public health information efforts, timely hospitalizations, and large-scale efforts by FQHCs, managed care organizations, pharmacies, and public health departments to administer COVID-19 vaccinations when they became available. Fewer people died because of these efforts. (For a further explanation of local COVID-19 efforts, see PART FIVE: Emergency Preparedness, the 2022 AVH Community Health Needs Assessment).

Another characteristic of Sonoma County's response to COVID-19 is that these deaths were not as over-weighted toward minority residents as California as a whole.

For example, statewide, 44.3 percent of COVID-19 cases and 41.9 percent of deaths were of Latinos, who only make up 38.9 percent of the population. In Sonoma County, Latinos accounted for 27.8 percent of total deaths and 27.9 percent of the total population. Non-Hispanic Whites accounted for 62.3 percent of deaths and 62.7 percent of the population. Asians accounted for 4.5 percent of deaths and 4.1 percent of the total population.

There are two exceptions to this: Black/African Americans experienced 2.4 percent of the COVID-19 deaths, despite being only 1.3 percent of the population, and American Indian/Alaskan Natives experienced 1.6 percent of the COVID-19 deaths, while being only 0.5 percent of the population.

[331] USAFACTS, *How did COVID-19 affect people in the US? | USAFacts* Based on data from the Centers for Disease Control and Prevention (CDC).

[332] CDC *COVID-19 Mortality | Stats of the States | CDC*

[333] The California COVID-19 State of Emergency ended February 28, 2023, and the federal Public Health Emergency on COVID-19 ended May 11, 2023. *End of California's COVID-19 State of Emergency and the Federal Public Health Emergency for COVID-19 - California Health & Human Services*

Table 155. COVID-19 Hospitalizations and Deaths by Race/Ethnicity, Sonoma County 2020-2023

100% Race/Ethnicity	Hospitalizations	Percent of Hosp	Deaths #	Deaths %	Percent of Population
Hispanic/Latino	1,244	26.8%	161	27.8%	27.9%
White, non-Hispanic	2,972	64.1%	361	62.3%	62.7%
Asian, non-Hispanic	165	3.6%	26	4.5%	4.1%
Black/African American, non-Hispanic	120	2.6%	14	2.4%	1.3%
Multi-racial, non-Hispanic	44	0.9%	4	0.7%	3.6%
American Indian/Alaska Native, non-Hispanic	0	0%	9	1.6%	0.5%
Native Hawaiian and other Pacific Islander, non-Hispanic	36	0.8%	4	0.7%	0.4%
Other, non-Hispanic	136	-	0	-	
Unknown	158	-	1	-	
	4,875	100%	580	100%	100%

Source: *Hospitalizations and Deaths | COVID-19 Application - County of Sonoma*

There are no real data on how many people lost work and income due to COVID-19 illness and pandemic closures, and these may have fallen more heavily on lower-income residents whose jobs did not come with sick leave benefits.

COVID-19 pandemic stay-at-home/work-at-home orders also resulted in more isolation and substance abuse. Increases in suicide, drug-overdose deaths, and homicides, as well as decreases in life expectancy, were evidenced statewide and locally.

LIFE EXPECTANCY

Before the COVID-19 Pandemic, a Sonoma County Department of Health report, "*Summary Measures of Health,"* [334] found that, overall, Sonoma County had a slightly higher life expectancy at birth (81.6 years) than California as a whole (81.5 years). Both life expectancy figures were higher than the U.S. average of 78.4 years.

[334] Jenny Mercado, Sonoma County Dept. of Health Services, Health, Policy, Planning and Evaluation Unit, *Sonoma County Summary Measures of Health, A Review of Life Expectancy and Premature Death, 2015–2017*, Dec. 2019, *https://sonomacounty.ca.gov/Health/Public-Reports/Summary-Measures-2015-17/*.

Life expectancy at birth was four years higher for female Sonoma County residents (83.9 years) than for male residents (79.6 years). However, this gap in life expectancy narrowed past age 65. Average life expectancy at age 65 was 22.1 years for women and 19.8 years for men.[335]

Deaths from the SARS-CoV-2 virus during the COVID -19 pandemic lowered the overall life expectancy in the United States, in California, and in local counties. Life expectancy drop was largest among lower income populations and ethnic minorities, with a reported drop of -5.7 years for Hispanics, -3.9 years for non-Hispanic Blacks, -3.0 years for non-Hispanic Asians, and -1.9 years for non-Hispanic Whites.[336]

As the pandemic tapered off in 2021 and 2022, life expectancy began to rise again in 48 of the 50 U.S. states,[337] although as of this report, it has not reached the pre-pandemic level.

California's overall life expectancy is now reported as 79.7, based on an average of deaths in the years 2021-2023, putting it ahead of the U.S. life expectancy of 79.3 years.

Sonoma County's life expectancy is now reported as 80.6 years, nine-tenths of a year ahead of the state overall. The County's current reported life expectancy varied by race/ethnicity. Asians had the highest life expectancy in Sonoma County (86.7 years), followed by Hispanic/Latino residents (84.3 years), American Indians/Alaska natives (82.7 years), and White non-Hispanics (80.2 years). Black/non-Hispanics had the lowest life expectancy, 76.7 years.

Both Mendocino and Lake counties had lower overall life expectancy than the state or Sonoma County: 77.6 years in Mendocino County and 74.1 years in Lake County.

[335] Ibid.

[336] Hannes, Schwandt, et al, "Changes in the Relationship Between Income and Life Expectancy Before and During the COVID-19 Pandemic in California 2015-2021", JAMA 328, no.4 (2022), 360-66, doi:10.2002/ JAMA 2022.10952.

[337] U.S. State Life Tables, 2022, National Vital Statistics Reports (NVSS) Volume 74, Number 12, U.S. Centers for Disease Control and Prevention, December 4, 2025 *National Vital Statistics Reports Volume 74, Number 12 December 4, 2025*

Table 156. Life Expectancy by Selected Regions and Demographic Groups, Years, 2021-2023

Geography/Characteristics	Life Expectancy, Years
United States	79.3
California	79.7
Gender	
Male	76.7
Female	82.1
Sonoma County	80.6
Race/Ethnicity	
Hispanic (all races)	84.3
White, non-Hispanic	80.2
Black, non-Hispanic	76.7
Asian, non-Hispanic	86.7
American Indian/Alaska Native, non-Hispanic	82.7
Mendocino County	77.6
Lake County	74.1

Source: *Life Expectancy* | County Health Rankings & Roadmaps*, based on 2021-2023 mortality data, published 03/19/2025, and updated 11/04/2025

PREMATURE MORTALITY

Another way to measure the health of a given population is through premature mortality rates, measured in **years of potential life lost due to death before a specified age (typically 75).** This metric quantifies the impact of premature deaths from illness or injury. For example, if a cancer patient dies at age 43, their years of potential life lost due to death before age 75 (abbreviated YPLL-75) would be 32. YPLL can be calculated for specific causes of death or for all-cause mortality,[338] and is typically measured in terms of years lost per 100,000 population.

In the 2021-2023 period, the county's age-adjusted premature years of life lost was 4,473.7 years of potential life lost before age 75 per 100,000 population. That was lower than California

[338] For a discussion of the history of this methodology and some issues involved in its application, see the Centers for Disease Control and Prevention, "Premature Mortality in the United States: Public Health Issues in the Use of Years of Potential Life Lost," *Morbidity and Mortality Weekly Report* 1986;35(Suppl 2S);1S–11S, *https://www.cdc.gov/mmwr/preview/mmwrhtml/00001773.htm*.

(5,137.8 YPLL-75 per 100,000 population) and the United States (6,728.1 YPLL-75 per 100,000 population) for the same period.[339]

Overall (all-causes) YPLL-75 figures for a particular region are strongly affected by maternal and child health outcomes; for obvious reasons, infant mortality results in more years of life lost than does any other premature death. Generally, Sonoma County has good maternal, newborn, and child health outcomes, which contribute to its lower overall years of potential life lost.

Table 157. Age-Adjusted Years of Potential Life Lost Under Age 75 (YPLL-75) by Selected Regions and Demographic Groups, 2021-2023

Region	YPLL-75 per 100,000 Population
United States	8,100
California	6,600
Sonoma County, all areas and demographics	5,997
Race/Ethnicity	
Hispanic (all races)	5,409
White, non-Hispanic	6,166
Black, non-Hispanic	9,355
Asian, non-Hispanic	2,965
American Indian/Alaska Native, non-Hispanic	9,682
Mendocino County	9,600
Lake County	12,237

Source: *Life Expectancy* | County Health Rankings & Roadmaps*, based on 2021-2023 mortality data, published 03/19/2025, and updated 11/04/2025

MATERNITY OUTCOMES & INFANT MORTALITY

California has met the Healthy People 2030 (HP2030) target of no more than 5.0 infant deaths per 1,000 live births. The state's average infant mortality rate for 2017–2019 was 3.9 deaths per 1000 live births. For the three years 2020-2022, California's infant mortality rate dropped further to 3.7 infant deaths per 1000 live births. This is a remarkable accomplishment for such a large maternal population — over 400,000 births a year — with such a diverse population.

Overall, Sonoma County also has a recent history of excellent birth outcomes. Sonoma County's 2017–2019 infant mortality rate was 3.9 deaths per 1,000 live births. In the 2020-2022 period,

[339] Source: *Life Expectancy* | County Health Rankings & Roadmaps*, based on 2021-2023 mortality data, published 03/19/2025, and updated 11/04/2025

Sonoma County's rate fell further to 3.1 infant deaths per 1000 live births, better than California's rate for the same period.

The most recent data available indicates that non-Hispanic Asian/Pacific Islander residents have the lowest infant mortality rates in Sonoma County. In contrast, Hispanic/Latino residents' infant mortality rate is similar to the state average.

As a privacy measure, the California Department of Public Health withholds county-specific data when the number of events falls below certain thresholds, so current infant mortality rates are not available for all race/ethnicities for Sonoma County.

However, statewide, Black/African-American residents had over twice the infant mortality rate— **7.7 infant deaths per 1,000 live births** — of all races/ethnicities combined and **remain the only racial group whose infant mortality is still above the HP 2030 target.**

Table 158. Infant Mortality (Deaths per 1,000 Live Births) by Race/Ethnicity, California (CA) and Sonoma County (SM, 2010–2012, 2014–2016, 2017–2019, and 2020-2022)

Race/Ethnicity	California, 2010–2012*	California, 2014–2016**	California, 2017–2019***	California, 2020-2022****
All races/ethnicities	4.8	4.4	3.9	3.7
White, non-Hispanic	3.9	3.6	3.0	2.7
Hispanic	4.7	4.4	4.0	3.8
Black/African-American	9.8	9.8	7.6	7.7
Asian/Pacific Islander	3.9	3.6	2.6	2.6
Race/Ethnicity	**Sonoma County, 2010–2012***	**Sonoma County, 2014–2016****	**Sonoma County, 2017–2019*****	**Sonoma County, 2020-2022******
All races/ethnicities	4.7	3.0	3.9	3.1
White, non-Hispanic	3.8	N/A	2.3^	2.0
Hispanic	4.8	N/A	3.2^	3.4
Black/African-American	10.2	N/A	N/A	N/A
Asian/Pacific Islander	5.8	N/A	N/A	N/A

^ Rate may be unreliable because of a small cohort. *Sources: California Dept. of Public Health, "2010–2012 Birth Cohort-Perinatal Outcome Files," as published in *California County Health Status Profiles 2015*, by California Dept. of Public Health and California Conference on Local Health Officers, April 2015. **Source: California Dept. of Public Health, "2014–2016 Birth Cohort-Perinatal Outcome Files," as published in *California County Health Status Profiles 2019*, by California Dept. of Public Health and California Conference on Local Health Officers, April 2019. ***California Dept. of Public Health, Center for Health Statistics and Informatics, Birth Cohort-Perinatal Outcomes Files (static), compiled Nov. 2021, as published in *California County Health Status Profiles 2022*, published by California Dept. of Public Health and California Conference on Local Health Officers, April 4–11, 2022. **** California Dept. of Public Health, Center for Health Statistics and Informatics, Birth Cohort-Perinatal Outcomes Files (static), compiled Feb. 2025, as published in *California County Health Status Profiles 2025*, published by California

Dept. of Public Health and California Conference on Local Health Officers, September 9, 2025. *https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx*. "N/A" means that data was withheld pursuant to the department's Data De-Identification Guidelines.

Only 5.9 percent of Sonoma County's births in the 2021-2023 period were low birthweight infants (under 2,500 grams). This was better than California's 7.4 percent low birthweight rate, which is below the current national average of 8.58 percent of babies born weighing less than 2500 grams.[340] Sonoma County ranks 5th among California's 58 counties. Neighboring Mendocino County had a 6.5 percent low birthweight rate, ranking it 10th among the state's 58 counties. Lake County had 7.5 percent low birthweight infants during the 2021-2023 period, ranking it 38th among California's 58 counties.

In 2024, only 9.1 percent of California births were preterm deliveries, compared to 10.4 percent nationally. This ranks the state 7th out of 52 states, Puerto Rico, and the District of Columbia, according to the March of Dimes.[341] County-level data on preterm births were not available. However, the percentage of preterm deliveries varied by race/ethnicity, with White mothers having the lowest rate, 7.8 percent, and Black mothers the highest at 12.7 percent.[342]

Statewide, births to teen mothers (aged 15–19) have fallen from 15.9 per 1,000 live births in 2015–2017 to 11.4 per 1,000 in 2018–2020, to only 3.0 percent in 2021-2023. Sonoma County teen birth rate fell from an already low 9.3 teen births per 1,000 live births to 7.8 per 1,000 in 2018–2020, and 2.4 percent in 2021-2023.

[340] Centers for Disease Control and Prevention, National Center for Health Statistics, "Birthweight and Gestation," *https://www.cdc.gov/nchs/fastats/birthweight.htm*.

[341] *2025 March Of Dimes Report Card For California | PeriStats | March of Dimes*

[342] Ibid.

HIGH-RISK MATERNAL POPULATION

Despite these encouraging figures, data from the state's Maternal and Infant Health Assessment (MIHA) Surveys[343] demonstrates that Sonoma County's maternal population remains at high risk. In the most recent survey period for which data is available (2020-2022):[344]

- 16.3 percent of the county's pregnant residents had a diagnosis of asthma before pregnancy, compared to 9.5 percent of pregnant Californians statewide during the same period;
- 15.2 percent reported that they had depression prior to pregnancy, compared to 10.5 percent of mothers statewide;
- 14.9 percent had postpartum depression, compared to 14.1 percent of mothers statewide
- 24.9 percent had prenatal anxiety symptoms, compared to 20.9 percent of mothers statewide; and 24.9 percent had postpartum anxiety symptoms compared to 18.1 percent of mothers statewide;
- 28.8 percent were aged 35 or older at the time of delivery, compared to 25.9 percent statewide, a key risk factor for maternal mortality.[345]
- 3.1 percent of mothers in Sonoma County and statewide had a diagnosis of diabetes prior to the pregnancy;

[343] California Dept. of Public Health, Maternal and Infant Health Assessment (MIHA) Data and Reports, *https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Data-and-Reports.aspx*.

[344] *MIHA Data Snapshots, California: Health Indicators from the 2016–2018 Maternal and Infant Health Assessment (MIHA) Survey* (Sacramento, Calif.: California Dept. of Public Health, Maternal, Child, and Adolescent Health (MCAH) Division, 2022).

[345] Source: California Dept. of Public Health, Center for Health Statistics and Informatics, California Comprehensive Master Death Files (static), as reported in California County Health Status Profiles 2025, published by California Dept. of Public Health and California Conference on Local Health Officers, September 9, 2025, retrieved from *https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx*

- 3.7 percent of Sonoma County mothers and 3.8 percent of mothers statewide had hypertension prior to their pregnancy;
- 5.0 percent were homeless or did not have a regular place to sleep, compared to 3.4 percent of pregnant women statewide; and
- 3.3 percent of Sonoma County mothers and 3.3 percent of mothers statewide experienced intimate partner violence – physical, psychological, or sexual – during their pregnancy

Maternal Use of Alcohol and Smoking

Pregnant Sonoma County residents have higher levels of alcohol use than the state average. During the 2020-2022 MIHA survey period:

- 20.1 percent of pregnant Sonoma County residents reported **binge drinking** during the three months before their pregnancies, compared to 15.6 percent statewide.
- 10.3 percent continued alcohol use during the third trimesters of their pregnancies, compared to 7.3 percent statewide.

MIHA data reveals that Sonoma County residents are more likely than pregnant Californians statewide to smoke cigarettes or use cannabis prior to and during, and after pregnancy:

- 6.0 percent of pregnant county residents who reported smoking during the three months before becoming pregnant, and 5.7 percent of mothers statewide;
- 3.1 percent of Sonoma County pregnant women continued to smoke postpartum compared to 1.7 percent of mothers statewide;
- 9.1 percent of the county's new mothers and 7.0 percent of new mothers statewide used cannabis during their pregnancies.
- 9.4 percent of Sonoma County's new mothers continued using cannabis, as did 5.2 percent of new mothers statewide in 2021-2023.

Economic And Family Instability

A large portion of Sonoma County's maternal population is at economic risk. During the 2020-2022 MIHA study period:[346]

- 24.0 percent of pregnant Sonoma County residents had incomes below the federal poverty level (FPL), and 40.9 percent were below 200 percent of FPL;
- 22.5 percent experienced food insecurity during their pregnancy and 14.7 percent postpartum;
- 10.6 percent had not completed high school or a GED;
- 16.6 percent of pregnant Sonoma County residents or their partners lost jobs during the pregnancy, and 12.9 percent lost jobs postpartum.
- 18.2 percent had hours or pay, or that of a partner, cut postpartum.
- 28.3 percent of the mothers or their partners had to quit or change jobs due to childcare costs.
- 6.7 percent had to move during their pregnancy because of problems paying rent or mortgage.
- 40.5 percent qualified for Medi-Cal (California's Medicaid program) during pregnancy, and 38.0 percent postpartum.

California's Birth Outcomes a Reflection of Good Maternal and Prenatal Care

Given the high-risk nature and ethnic diversity of California and Sonoma County's maternal population, the good outcomes achieved most likely reflect the maternal, pre- and post-natal care mothers receive. Positive markers of prenatal and postnatal care in California include:

- 91.4 percent of California expectant mothers in this period started prenatal care in their first trimester.

[346] MIHA Data Snapshots, California: Health Indicators from the 2016–2018 Maternal and Infant Health Assessment (MIHA) Survey.

- 72.3 percent completed an “adequate” or “adequate plus” amount of prenatal care.[347]
- Additionally, 93.8 percent of mothers began breastfeeding at the start of their postpartum period.
- 67.2 percent of expectant mothers were screened for mental health conditions prenatally, and 68.3 percent were screened postpartum.
- 53.9 percent of those who needed mental health care received it when needed.
- 41.9 percent received dental care during pregnancy.
- 65.8 percent received tetanus, diphtheria, and pertussis (tdap) vaccine during pregnancy, as recommended by CDC. [348]
- 62.1 percent received flu shots during pregnancy
- 88.2 percent of new mothers had a postpartum medical visit.

In Sonoma County:

- 93.6 percent of Sonoma County expectant mothers initiated prenatal care in the first trimester of their pregnancy during the 2021-2023 period.
- 65.9 percent had “adequate” or “adequate plus” prenatal care, down from 71.9 percent in 2018–2020.
- 97.1 percent began breastfeeding during the postpartum period.
- 80.8 percent of expectant mothers were screened for mental health conditions prenatally, and 76.7 percent were screened postpartum.
- 69.9 percent of those who needed mental health care received it when needed.

[347] The California Department of Public Health uses the Adequacy of Prenatal Care Utilization Index developed by Harvard Medical School pediatrics professor Milton Kotelchuck, Ph.D., MPH, which attempts to characterize prenatal care utilization in two independent dimensions: adequacy of prenatal care initiation and the services received once prenatal care has begun. This includes the number of prenatal care visits and type of services received, based on the recommendations of the American College of Obstetricians and Gynecologists.

[348] *Tdap (Tetanus, Diphtheria, Pertussis) Vaccine VIS | Vaccines & Immunizations | CDC*

- 58.8 percent received dental care during pregnancy.
- 80.2 percent received tetanus, diphtheria, and pertussis (tdap) vaccine during pregnancy, as recommended by CDC. [349]
- 74.3 percent received flu shots during pregnancy
- 91.7 percent of new mothers had a postpartum medical visit.

Maternal Mortality

The United States has long had the worst maternal mortality rate of any wealthy nation, but that rate soared still higher during the COVID-19 pandemic. This mortality rise was both from COVID-19 infections and from the substantial rise in behavioral health issues, including a rise in alcohol and drug use during the pandemic. [350]

Post-pandemic, maternal mortality began to fall nationally, from 32.9 maternal deaths per 100,000 live births in 2021, to 23.8 maternal deaths per 100,000 live births in 2022, to 18.6 deaths per 100,000 births in 2023.

By comparison, California ‘s overall maternal mortality rate was 15.0 deaths per 100,000 live births in 2018, and had fallen to 10.1 per 100,000 live births by 2023.[351] [352]

California's rate remains, however, worse than many of the other affluent countries cited below, and is higher for some minority mothers.

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[349] *Tdap (Tetanus, Diphtheria, Pertussis) Vaccine VIS | Vaccines & Immunizations | CDC*

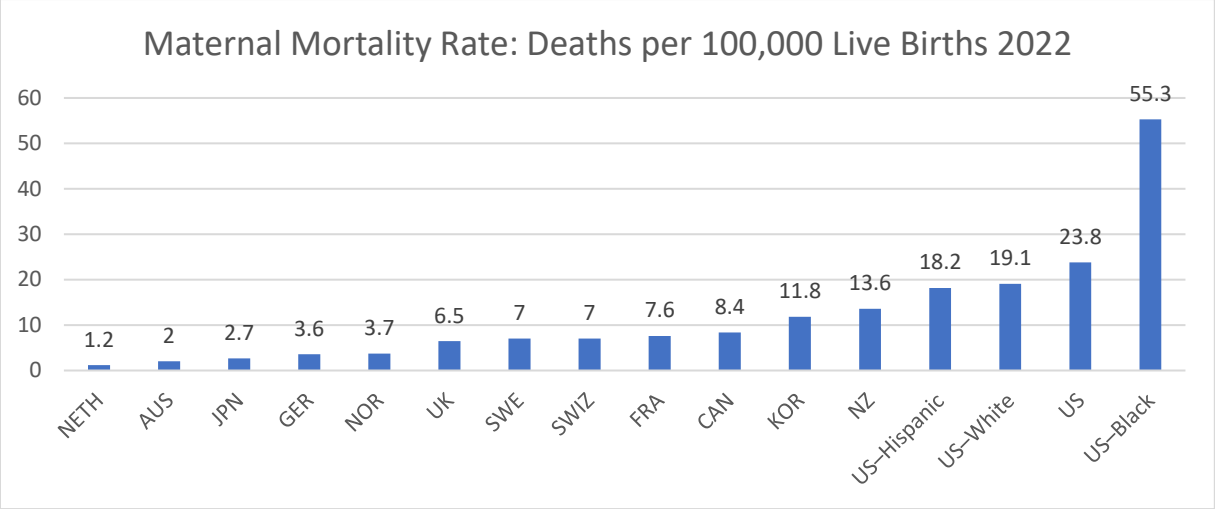
[350] Eugene Declerq and Laurie C. Zephyrin, Maternal Mortality in the United States ,2025, Commonwealth Fund, (July 29,2025), *https://doi.org/26099/kdfd-fc19*

[351] Reported by USA Facts, *https://usafacts.org/health/*, based on CDC data, and America’s Health Rankings:

https://www.americashealthrankings.org/explore/measures/maternal_mortality_c/CA

[352] America's Health Rankings analysis of U.S. DHHS, CDC, National Center for Health Statistics, National Vital Statistics System via Health Resources and Services Administration, Maternal and Child Health Bureau, Federally Available Data (FAD) Resource Document, United Health Foundation, AmericasHealthRankings.org, accessed 2026. *Explore Maternal Mortality in California | AHR*

Figure 14. Maternal Mortality Rate: Deaths per 100,000 Live Births 2022[353]



Source: Munira Z. Gunja, Evan D. Gumas, and Reginald D. Williams II, "The U.S. Maternal Mortality Crisis Continues to Worsen: An International Comparison," To the Point (blog), Commonwealth Fund, Dec. 1, 2022. *https://doi.org/10.26099/8vem-fc65*

Black mothers in California still suffer higher rates of maternal mortality, 34.8 per 100,000 live births, four times the rate for White, non-Hispanic mothers. However, this is lower than 53.7 deaths per 100,000 live births reported for Black mothers nationally.

The maternal mortality rate for Hispanic mothers in California is 9.1 deaths per 100,000 live births, compared to 17.5 deaths per 100,000 births for Hispanic mothers nationally.

The California maternal mortality rate for Asians/Hawaiian and Pacific Islanders is 8.8 deaths per 100,000 live births, compared to 40.7 deaths per 100,000 live births.

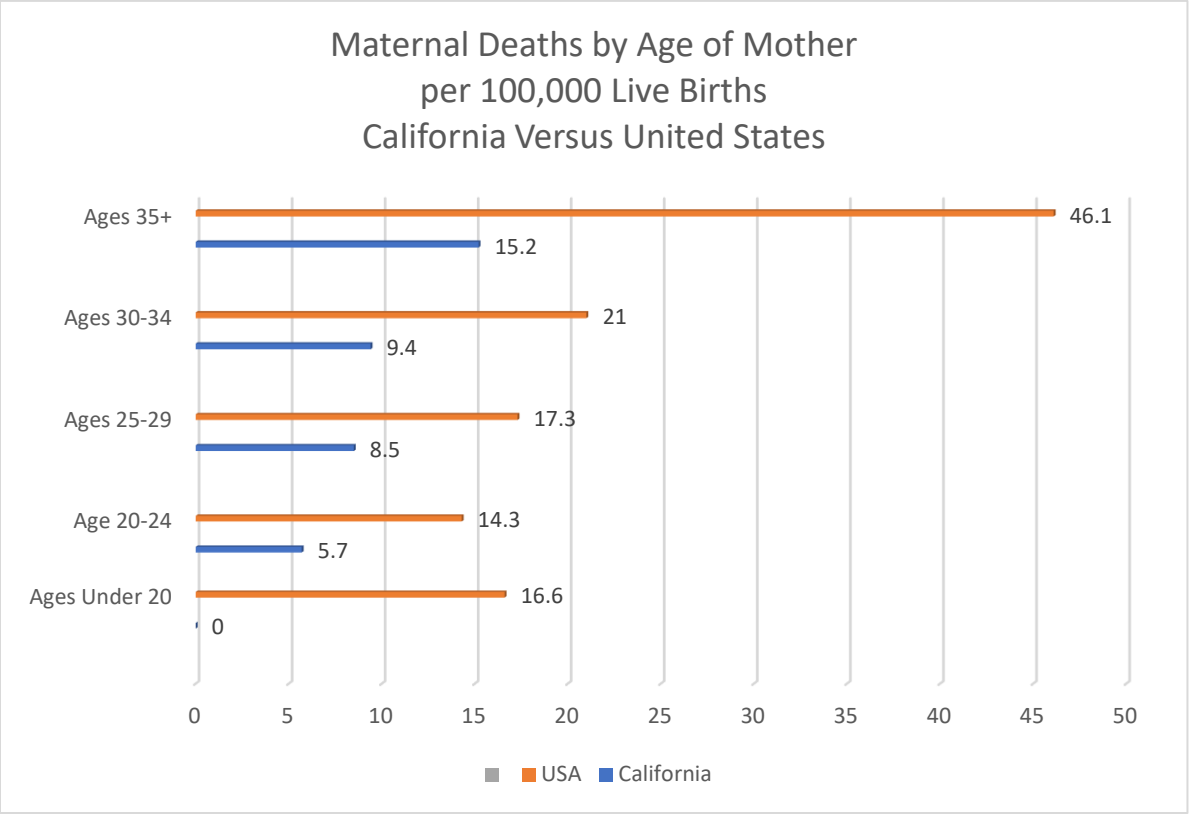
The mortality rate for non-Hispanic White mothers in California is 8.3 per 100,000 live births, compared to 19.5 deaths per 100,000 births nationally among non-Hispanic White mothers. [354]

[353] Data for all countries except US from *OECD Health Statistics 2022*. Data for US from Donna L. Hoyert, Maternal Mortality Rates in the United States, 2020 (National Center for Health Statistics, Feb. 2022).

[354] United States maternal mortality figures are from CDC 2019-2023 averages.

Maternal mortality rates vary by age of mother, nationally as well as in the state. However, California's maternal mortality rate is lower than that of the United States as a whole for each age group.

Figure 15. Maternal Deaths by Age of Mother per 100,00 Live Births California vs. United States



Source: America's Health Rankings: *Explore Maternal Mortality in California | AHR* based on data from U.S. DHHS, CDC, National Center for Health Statistics, National Vital Statistics System via Health Resources and Services Administration, Maternal and Child Health Bureau, Federally Available Data (FAD) Resource Document, 2019-2023.

California's lower maternal mortality rates are in part the result of a number of policy decisions that the state has made over time.

- California is one of the states that implemented the Affordable Care Act's **expanded Medicaid coverage.** In California, 46.8 percent of expectant mothers are covered by Medi-Cal for prenatal health care, and 44.1 percent for postpartum care. In Sonoma County, 40.5 percent of expectant mothers are covered by Medi-Cal for prenatal health

care, and 38.0 percent for postpartum care.[355] **In 2023, States that had not expanded Medicaid under the ACA had 27.8 percent higher maternal mortality than those states that had expanded Medicaid**.[356]

- **California was one of the early states to extend Medicaid postpartum coverage to one full year**. Historically, federal law required states to provide *pregnancy-related Medicaid coverage* through 60 days postpartum. After that period, some postpartum individuals may qualify for Medicaid through another pathway, but others may lose coverage, particularly in non-expansion states. To help improve maternal health and coverage stability and to help address *racial disparities* in maternal health, a provision in the *American Rescue Plan Act* of 2021 gave states a *new option* to extend Medicaid postpartum coverage to 12 months via a state plan amendment (SPA). This option took effect on April 1, 2022, and was originally available for five years (as a section 1115 waiver demonstration project). However, the option was made permanent by the *Consolidated Appropriations Act 2023*. CMS approved California's State Plan Amendment to extend coverage 12 months postpartum on May 25, 2022.

- During the pandemic, California began reimbursing for **telehealth visits for Medi-Cal patients** to ensure more timely access to care. The state has continued reimbursing telehealth visits to date. This has also improved access to care for prenatal and postpartum women in distress.

- By 2021-2022, California was one of 13 states that reimbursed for ***doula* services**[357] under the Medi-Cal program during prenatal care, delivery, and postpartum. This

[355] Maternal and Infant Health Assessment (MIHA) Data Snapshots Dashboard, California Department of Public Health *MIHA Data and Reports*

[356] Eugene Declerq and Laurie C. Zephyrin, Maternal Mortality in the United States ,2025, Commonwealth Fund, (July 29,2025), *https://doi.org/26099/kdfd-fc19* . Based on data from CDC WONDER Mortality File. The states which had not expanded Medicaid were Alabama, Florida, Geogia, Mississippi, South Carolina, Tennessee, Texas, Wisconsin, and Wyoming.

[357] Doula: Birth workers who provide health education, advocacy, and physical, emotional and nonmedical support for pregnant and postpartum persons before, during and after childbirth (perinatal period) including support during miscarriage, stillbirth and abortion. Doulas are not licensed or clinical providers. Doula services encompass health education, advocacy, and physical, emotional and nonmedical support provided before, during and after childbirth or end of a pregnancy, including throughout the postpartum period.: Prenatal and postpartum doula care, presence during labor and delivery and doula support for miscarriage, stillbirth and abortion. Postpartum period: Doulas may provide services for up to 12 months from the end of pregnancy. Members are eligible to receive full-scope Medi-Cal coverage for at least 12 months after pregnancy. Also see: *Incorporating Community-*

number has grown to 23 states and the District of Columbia by 2025. Doula services for low- income women are a measure strongly supported by the March of Dimes and other health advocates.[358] As described in state statute: "Doulas serving Medi-Cal members provide person-centered, culturally competent care that supports the racial, ethnic, linguistic, and cultural diversity of members while adhering to evidence-based best practices. Doula services are aimed at preventing perinatal complications and improving health outcomes for birthing parents and infants," thereby helping to bridge linguistic, cultural, educational, and support differences among different maternal populations.[359]

- California is one of nine states that have included in their managed care contracts stipulations that managed care plans require **"implicit bias training"** for their in-network hospitals, medical providers, and managed care organization staff to help reduce racial disparities.[360] However, there is lingering concern that not enough hospitals have taken the requirement for bias training seriously.[361]

- California is one of five states to **mandate managed care organization contracts that require postpartum care align with the American College of Obstetrics and Gynecology (ACOG) guideline or other evidence-based nationally recognized standards.[362]**

Based Doulas into Medicaid: State and Plan Considerations to Encourage Doula Participation," fact sheet, Dec. 2022; and National Health Law Program, "*Current State Doula Medicaid Efforts*," 2025.

[358] 2025 March of Dimes Report Card: The State of Maternal and Infant Health for American Families. March of Dimes. 2025. *https://www.marchofdimes.org/reportcard*

[359] Medi-Cal covers doula services, pursuant to Title 42 of the Code of Federal Regulations, Section 440.130(c), as preventive services and on the written recommendation of a physician or other licensed practitioner of the healing arts acting within their scope of practice under state law. See: *https://mcweb.apps.prd.cammis.medi-cal.ca.gov/assets/0075B242-F893-41DB-A418-4129A274E46C/doula.pdf?access_token=6UyVkRRfByXTZEWIh8j8QaYylPyP5ULO#:~:text=Doula:%20Birth%20workers%20who%20provide,from%20the%20end%20of%20pregnancy*

[360] Anne Rossler Markus et.al.," Fortifying Medicaid Managed Care for Postpartum Enrollees: The Clearest Path to Improving Maternal Health ", Commonwealth Fund January 27 2026. *https://doi.org/10.26099/zmvh.q081*

[361] Hwang, Kirsten," Despite High Black Maternal Death Rate, California Hospitals Ignored Training about Bias in Care , " Cal Matters, October 22,2023 *https://calmatters.org/health/2023/10/despite-high-black-maternal-death-rate-california-hospitals-ignored-training-about-bias-in-care/?series=no-deliveries-maternity-care*

[362] Ibid. Anne Rossler Markus et al.

Despite California's already strong existing efforts, on September 17, 2024, California's Surgeon General, Dr. Diana E Ramos, MD, MPH, an Obstetrician/Gynecologist, launched a new **"Strong Start & Beyond"** initiative to reduce maternal mortality by an additional 50 percent by the end of 2026.[363] The initiative is based on a report, the **California Maternal Health Blueprint** [364] issued at the same time.

In launching the program, Dr. Ramos and other presenters reiterated that **eighty percent (80%) of maternal mortality in the United States is considered preventable.** The vast majority of maternal deaths in California are caused by heart disease, hemorrhage, sepsis, or other infections. The approach taken by the **Strong Start and Beyond** initiative is an educational campaign targeting patients and providers to become better informed on factors that contribute to maternal deaths, and how to spot risks (such as warnings of pre-eclampsia, pre-term delivery, sepsis, pulmonary embolisms) as they develop. Among the tools used are the **Obstetrical Co-Morbidity Index.**[365]

Making progress on reducing maternal deaths may be hindered by a rising number of closures of hospital labor and delivery units in California, which is creating "delivery deserts" in many parts of the state.[366] At-risk mothers need prompt hospital care in an emergency, and these closures are lengthening travel time to the nearest obstetrical care. **Reasons cited for the hospital closures include: falling birth rates,**[367] **labor shortages, state regulations, and low reimbursement rates for Medi-Cal, which covers approximately half of all deliveries in the state.**[368]

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[363] See announcement of effort at: *California Launches Strong Start & Beyond, a Movement to Reduce Maternal Mortality Rate by 50% | OSG*

[364] *California's Maternal Health Blueprint*

[365] See National Institutes of Health website: *The obstetrics comorbidity index as a predictive tool for risk-appropriate maternal care - PMC*

[366] Hwang, Kirsten, Yee, Erica, Ibarra, Ana B. "California's Maternity Care Crisis is Worsening as Newsom Decides on Bills to Slow Closures," Cal Matters, September 26, 2024, *CA hospitals close maternity wards faster than U.S. rate - CalMatters* Part of a California Health Care Foundation funded Series. Also see: Ibarra, Ana B. "Most Maternal Deaths Can Be Prevented: Here's How California Aims to Cut Them in Half" Cal Matters. September 17, 2024 Maternal deaths: New CA plan centers on moms' overall health - CalMatters

[367] Johnson, Hans "California's Plunging Birth Rates" January 26, 2023, Polic Policy Institute of California *California's Plunging Birth Rates - Public Policy Institute of California*

[368] Simon, Melora, "Medi-Cal Explained: Paying for Maternity Services" Fact Sheet September 2020, from California Health Care Foundation *Medi-Cal Explained: Paying for Maternity Services*

Four of the more than 50 hospitals closing their labor and delivery units in the past five years are in the North Bay counties from which AVH draws patients:

- **Petaluma Valley Hospital,** in the City of Petaluma, **southern Sonoma County**
- **Sonoma Valley Hospital,** in the City of Sonoma, **southern Sonoma County**
- **Adventist Health Mendocino Coast,** in the City of Fort Bragg, **northern Mendocino County, and**
- **Adventist Health St Helena,** in the City of St. Helena, **Napa County**[369]

Mortality Rates by Cause of Death

In the most recent three-year data analysis period (2021-2023), California had a crude death rate for "all causes" of 781.7 deaths per 100,000 residents, an average of 313,826 deaths per year.

Among counties with enough population and deaths to compute a reliable rate, the crude rate ranged from a high of 1,556 deaths in Siskiyou County to a low of 508.5 in Mono County, a ratio of 3.1 to 1.

The statewide age-adjusted rate from all causes was 634.1 deaths per 100,000 residents. **This was a 1.3 percent increase** over the age-adjusted rate during the 2018-2020 period: 626.0 deaths per 100,000.

The range of reliable "all cause" age-adjusted death rates for individual counties ranged from a high of 1,030.4 for Del Norte County to a low of 440.9 in Santa Clara County.

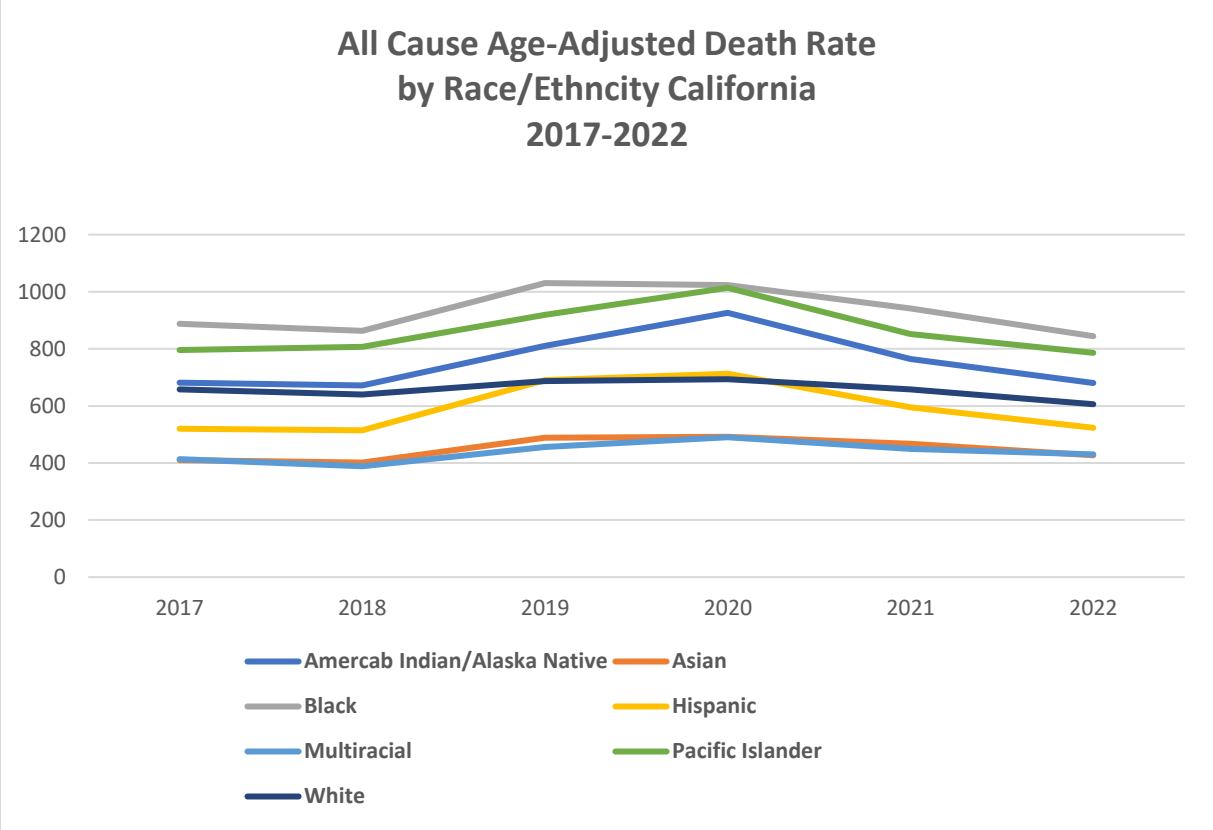
- **Sonoma County** had an age-adjusted "all causes" death rate of **581.3 deaths per 100,000 residents, 8.3 percent lower than the state** overall. Sonoma County's all-causes death rate ranked 11th among California's 58 counties.

[369] Ibid.

- Neighboring **Mendocino County** had an age-adjusted "all causes" death rate of **784.3 deaths per 100,000, 23.7 percent higher than the state overall.** It's all-causes death rate ranked 36th among California's 58 counties.

- **Lake County** had an age-adjusted "all causes" death rate of **991.7 deaths per 100,000 residents**. 38.3 percent higher than the state overall, **ranking Lake County 56th of California's 58 counties**.

Figure 16. All Cause Age-Adjusted Death Rate by Race/Ethnicity California 2017-2022



CANCER

Overall cancer mortality rates have fallen in the United States and in California,[370] but cancer remains the state's second leading cause of death.

[370] National Cancer Institute and CDC, "Quick Profiles: California," *State Cancer Profiles*, June 2021, https://statecancerprofiles.cancer.gov/quick-profiles/index.php?statename=california. This data reveals that over

The national **Healthy People 2030** target is to achieve an age-adjusted rate of under 122.7 deaths per 100,000 for all cancers. As of the 2021-2023 reporting period, California has met this goal, having dropped from an age-adjusted rate of 128.3 per 100,000 in the 2018-2020 period to 118.7 per 100,000 in the 2021-2023 period.

Sonoma County's **crude death rate for all cancers rose** from 194.3 per 100,000 in 2018-2020 to 205.0 in 2021-2023. However, **Sonoma County's age -adjusted rate fell** from 129.8 per 100,000 to 125.2 per 100,000 in 2021-2023. Sonoma County is now closer to, but **still above, California's rate and above the Healthy People 2030 target**. Sonoma County's all-cancer death rate ranked it 29th of California's 58 counties.

Table 159. All-Cancers Mortality per 100,000 Population, California and Sonoma County, 2018–2020 and 2021-2023

Cancer Type	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
All cancers 2018-2020	150.3	128.3	194.3	129.8
All cancers 2021-2023	149.6	118.7	205.0	125.2

Source: California Dept. of Public Health, Center for Health Statistics and Informatics, California Comprehensive Master Death Files (static), as reported in *California County Health Status Profiles 2025*, published by California Dept. of Public Health and California Conference on Local Health Officers, September 9, 2025, retrieved from *https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx*

California cancer mortality rates remain above the Healthy People 2030 targets for three out of the four leading causes of cancer deaths: colorectal cancer, female breast cancer, and prostate cancer.

Sonoma County's crude cancer death rate and age-adjusted mortality rates have also remained above the state rates for all four leading types of cancer. The County meets none of the Healthy People 2030 cancer targets for the four leading cancer types.

the period 2013–2017, the incidences of 15 types of cancer fell in California, while the incidences of four other types of cancer rose.

Table 160. Four Leading Causes of Cancer, Comparison of Age-Adjusted Death Rates per 100,000, California and Sonoma County with Healthy People 2030 Targets, 2021-2023

Cancer Type	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted	Healthy People 2030 Targets
Colorectal cancer					8.9
2018-2020	13.9	11.9	17.7	12.4	
2021-2023	14.0	11.2	17.1	11.0	
Lung cancer		**Meets Target**			25.1
2018-2020	27.0	22.9	37.5	24.2	
2021-2023	25.2	19.7	34.3	20.1	
Female breast cancer					15.3
2018-2020	22.8	18.2	26.5	16.2	
2021-2023	22.6	17.1	32.4	19.0	
Prostate cancer					16.9
2018-2020	18.8	19.1	23.1	19.9	
2021-2023	19.4	17.6	28.9	19.9	

Source: California Dept. of Public Health, Center for Health Statistics and Informatics, California Comprehensive Master Death Files (static), as reported in *California County Health Status Profiles 2022, and 2025*, published by California Dept. of Public Health and California Conference on Local Health Officers, September 9, 2025, retrieved from *RAB - County Health Status Profiles*

Neighboring Mendocino and Lake counties have higher overall rates of cancer for all cancers than Sonoma County or California as a whole. Furthermore, both the crude death rates for – all cancers and the **age-adjusted rates for all cancers rose in these two counties** in the 2021-2023 period compared to the previous 2017-2020 period.

Table 161. All-Cancers Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021-2023

Cancer Type	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
All cancers				
2018-2020	227.7	150.7	285.1	178.4
2021-2023	246.7	155.1	309.2	185.9

Source: *RAB - County Health Status Profiles*

The rates of lung cancer for these counties are particularly elevated compared to the state rate. The age-adjusted rates for both counties fell for colorectal cancer and prostate cancer, but rose

for female breast cancer. The age-adjusted rate for lung cancer rose in Mendocino County and fell in Lake County. Neither county met any of the Healthy People 2030 cancer targets.

Table 162. Cancer Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021-2023

Cancer Type	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted	Healthy People 2030 Targets
Colorectal cancer					8.9
2018-2020	23.1	16.2	25.0	16.3	
2021-2023	20.8	14.3	27.5	15.5	
Lung cancer					25.1
2018-2020	43.9	27.9	70.7	42.0	
2021-2023	49.4	30.0	67.0	36.6	
Female breast cancer					15.3
2018-2020	25.1	15.6	34.4	19.9	
2021-2023	32.5	18.4	44.7	29.4	
Prostate cancer					16.9
2018-2020	33.1	25.0	32.2	21.5	
2021-2023	30.1	21.5	32.2	19.7	

Source: California Dept. of Public Health, Center for Health Statistics and Informatics, California Comprehensive Master Death Files (static), as reported in *California County Health Status Profiles 2022, and 2025*, published by California Dept. of Public Health and California Conference on Local Health Officers, September 9, 2025, retrieved from *RAB - County Health Status Profiles*

CARDIOVASCULAR & CEREBROVASCULAR DISEASE (STROKE)

Sonoma County's crude mortality rates for both cardiovascular and cerebrovascular disease have historically been significantly higher than the state's, reflecting the higher median age of county residents. When adjusted for age, this difference largely disappeared. That remains true in the most recent mortality data.

In recent years, both the State and Sonoma County's crude and age-adjusted coronary heart disease mortality rates have fallen. Sonoma County's current age-adjusted rate of 54.8 deaths per 100,000 is now below California's age-adjusted rate of 72.2 deaths per 100,000 population.

Both California as a whole and Sonoma County meet the Healthy People 2030 goal of fewer than 71.1 age-adjusted coronary heart disease deaths per 100,000 population. Sonoma County ranks 13th among California's 58 counties in deaths from coronary heart disease.

Table 163. Coronary Heart Disease Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	104.3	103.8	113.0	88.7
2015–2017	97.1	88.6	102.8	73.9
2018–2020	95.0	80.7	94.9	63.0
2021-2023	92.7	72.2	90.7	54.8

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020" and as reported in *California County Health Status Profiles 2015, 2019, 2022*, and 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Mendocino and Lake Counties have significantly higher crude and age-adjusted rates of deaths from coronary heart disease than do either the state or Sonoma County. **Neither county meets the Healthy People 2030 target for coronary heart disease deaths of 71.1 age-adjusted deaths per 100,000 residents. Mendocino County ranks 45th of California's 58 counties on coronary heart disease deaths, and Lake County last: 58th out of 58 counties.**

Table 164. Coronary Heart Disease Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021-2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	130.5	90.4	172.7	109.0
2021-2023	144.5	91.3	206.8	119.5

Source: *RAB - County Health Status Profiles*

Sonoma County's **age-adjusted cerebrovascular (stroke) mortality rate** had exceeded the statewide rate in 2011-2013, but fell below the state's age adjusted rates in the 2015–2017 periods. The county's rate rose again in the 2018–2020 period, but so did the state's rates, and the state's rate rose higher. Sonoma County's crude and age-adjusted rates have remained below the state's rates since then. **Neither California nor Sonoma County met the Healthy People 2030 age-adjusted target of no more than 33.4 deaths per 100,000.**

Table 165. Cerebrovascular Disease Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, and 2018–2020

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	35.7	35.9	45.9	36.2
2015–2017	39.9	36.9	46.4	33.9
2018–2020	42.9	37.0	51.9	35.3
2021-2023	45.4	35.7	55.2	33.8

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," and as reported in *California County Health Status Profiles 2015, 2019, 2022, and2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

The crude death rates due to strokes and the age-adjusted death rate in both Mendocino and Lake Counties also fell during the 2021-2023 period compared to the 2018-2020 period. Both **are now below the statewide age-adjusted stroke death rate of 35.7 per 100,000 residents.**

Lake County's age-adjusted cerebrovascular mortality rate now meets the Healthy People 2030 target. Lake County ranks 15th among California's 58 counties. Sonoma County ranks 25th out of California's 58 counties, and Mendocino County ranks 27th out of California's 58 counties.

Table 166. Cerebrovascular Disease Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021-2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	51.8	37.1	53.6	33.8
2021-2023	54.3	35.1	49.9	29.2

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles, 2022, and 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

DIABETES

California crude diabetes mortality rate has risen substantially in recent years, from 20.7 deaths per 100,000 population in the 2011–2013 period to 28.5 per 100,000 in 2021-2023. In the same period, Sonoma County's crude diabetes-related mortality rate also rose, albeit not as much: from 21.9 deaths per 100,000 population in 2011–2013 to 24.2 per 100,000 in 2018–2020, and has now dropped back to 22.9 per 100,000.

California's age-adjusted rate rose from 20.9 deaths per 100,000 population between the 2011–2013 to 22.7 per 100,000 in the 2021–2023 period. However, Sonoma County's age-adjusted rate declined steadily, from 18.2 per 100,000 in 2011–2013 to 14.3 per 100,000 in 2021-2023, again suggesting that healthcare interventions by local providers have improved outcomes.

Table 167. Diabetes Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	20.7	20.9	21.9	18.2
2015–2017	23.3	21.4	24.4	18.0
2018–2020	26.0	22.3	24.2	16.8
2021-2023	28.5	22.7	22.9	14.3

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2015, 2019, 2022, and 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Compared to the state as a whole, Mendocino and Lake Counties have higher crude diabetes death rates but lower age-adjusted diabetes death rates.

Mendocino County's age-adjusted diabetes mortality rate is only slightly higher than Sonoma County's. Lake County's age-adjusted rate is still higher than Sonoma County's. Sonoma County ranks 13th out of 58 California counties for deaths due to diabetes; Mendocino ranks 17th out of 58, and Lake County 25th out of 58 counties.

Table 168. Diabetes Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021-2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	26.9	19.4	22.9	14.6
2021-2023	23.8	15.0	27.0	18.6

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2022*, April 4, 2022. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

CHRONIC LOWER RESPIRATORY DISEASE

During the period 2011–2013, Sonoma County's crude and age-adjusted death rates due to chronic lower respiratory disease were both higher than the state. Sonoma County's crude rate of 46.1 deaths per 100,000 population was 31.7 percent higher than California's, which had a crude mortality rate of 35.0 deaths per 100,000 population. The county's age-adjusted rate of 38.2 per 100,000 was closer to the state's rate of 35.4 per 100,000, but still 7.8 percent (2.8 percentage points) higher than that of the state as a whole.

In the years since, both the state and Sonoma County mortality rates for lower respiratory disease have fallen, but at different rates. In the most recent period, Sonoma County's crude death rates for lower respiratory disease remained higher than the state. Still, the county's age-adjusted rate was 22.2 per 100,000 now, lower than the state's 23.0 per 100,000 age-adjusted rate. Sonoma County now ranks 18th among California's 58th counties.

Table 169. Chronic Lower Respiratory Disease Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	35.0	35.4	46.1	38.2
2015–2017	34.4	32.0	41.4	30.1
2018–2020	33.2	28.5	36.2	23.9
2021-2023	29.5	23.0	37.9	22.2

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Both Mendocino and Lake counties have also seen their crude and age-adjusted rates for chronic lower respiratory decline. However, each of those neighboring counties has much higher crude and age-adjusted rates than do Sonoma County or the state as a whole. Mendocino ranked 27th, and Lake County ranked 51st among California's 58 counties. Lake County's age-adjusted mortality rate was twice Sonoma County's age-adjusted rate.

Table 170. Chronic Lower Respiratory Disease Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	55.2	36.9	95.2	56.5
2021-2023	43.0	25.8	81.1	44.8

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

ALZHEIMER'S DISEASE

With the high median age of county residents, Sonoma County's crude Alzheimer's disease mortality rates have remained consistently higher than California's. The county's crude mortality rate rose from 53.1 deaths per 100,000 population in 2011–2013 to 56.6 per 100,000 in the 2015–2017 period before leveling off at 54.5 per 100,000 in the 2018–2020 period. The California crude rate started lower and has risen faster: from 30.9 deaths per 100,000 population in 2011–2013 and 43.8 per 100,000 in 2018–2020.

Sonoma County's age-adjusted Alzheimer's mortality rates have remained stable, declining slightly from 40.2 per 100,000 in 2011–2013 to 40.0 per 100,000 in 2015–2017 and then dropping to 36.6 per 100,000 in the 2018–2020 period. Meanwhile, California's age-adjusted rate rose from 30.8 per 100,000 in 2011–2013 to 35.7 per 100,000 in 2015–2017 and 37.7 per 100,000 in 2018–2020, actually above Sonoma County's age-adjusted rate.

The increases in Alzheimer's disease mortality probably reflect, at least in part, the "graying" of the population. However, assessing these trends is complicated by the inconsistency in physicians' distinguishing between Alzheimer's disease and other forms of dementia on death certificates.

Table 171. Alzheimer's Disease Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	30.9	30.8	53.1	40.2
2015–2017	39.7	36.6	56.6	40.0
2018–2020	43.8	37.7	54.5	36.6
2021-2023	41.7	32.3	39.2	23.4

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Both the crude and age-adjusted rates of death from Alzheimer's Disease have been far lower in Mendocino and Lake Counties than in Sonoma County or statewide. But the two counties' rates have been moving in opposite directions.

In the most recent 2021-2023 data period, Mendocino County's crude rate fell from 19.3 deaths per 100,000 to 16.6 per 100,000, and the age-adjusted rate fell from 14.1 to 10.8 per 100,000; the county moved from 7th out of 58 counties to 6th.

Lake County saw its crude rate rise from 21.3 per 10,000 residents to 25.5, and its age-adjusted rate from 13.0 to 13.9 per 100,000 deaths. Its ranking moved from 5th out of 58 counties to 11th out of California's 58 counties.

Table 172. Alzheimer's Disease Mortality per 100,000 Population, California and Sonoma County, 2018–2020 and 2021-2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	19.3	14.1	21.3	13.0
2021-2023	16.6	10.8	25.5	13.9

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

LIVER DISEASE AND CIRRHOSIS

California is substantially above the Healthy People 2030 target of 10.9 age-adjusted liver disease and cirrhosis deaths per 100,000 population: The state's most current (2021-2023) age-adjusted liver disease mortality rate is 14.4 deaths per 100,000 population, an increase from 12.6 per 100,000 in the 2018-2020 period. Sonoma County's 2021-2023 age-adjusted death rate for chronic liver disease is 14.3 per 100,000, nearly the same as the state. It is the third successive rate increase in a row for the state and Sonoma County.

Sonoma County's 2021-2023 rate is a 38.8 percent increase over the county's 2018-2020 rate, whereas California's overall rate increased 14.3 percent over the 2018-2020 rate.

Sonoma, Mendocino, and Lake counties all have age-adjusted mortality rates for liver disease and cirrhosis well above the Healthy People 2030 goal. The 2021-2023 period saw increases in all three counties.

Table 173. Chronic Liver Disease and Cirrhosis Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	12.3	11.7	14.3	11.9
2015–2017	13.6	12.3	12.5	9.5
2018–2020	14.4	12.6	13.7	10.3
2021-2023	16.7	14.4	19.2	14.3

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

The chronic liver disease mortality rates in Mendocino and Lake Counties remain much higher than either Sonoma County or California as a whole. Mendocino County's crude rate was 29.2 deaths per 100,000 population in the 2021-2023 period, an increase from 24.2 per 100,000 residents. Mendocino ranked 42nd of California's 58 counties. In the 2021-2023 period, Lake County had the highest age-adjusted rate, 47.2 per 100,000, ranking it 58th among California's 58 counties.

Table 174. Chronic Liver Disease and Cirrhosis Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021–2024

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	24.2	19.3	59.8	47.2
2021-2023	29.4	23.2	59.8	48.4

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

MOTOR VEHICLE TRAFFIC ACCIDENT DEATHS

Deaths from motor vehicle traffic accidents have risen in California over the past decade, from an age-adjusted death rate of 7.7 deaths per 100,000 residents in the 2012-2013 period to an

age-adjusted rate of 11.6 per 100,000 in the most recent reporting period, three successive rate increases. **California no longer meets the Healthy People 2030 target of 10.1 age-adjusted deaths per 100,000 population**, as it did during the 2018-2020 period.

Over the same period, the Sonoma County age-adjusted motor vehicle traffic accident mortality rate rose from 4.7 deaths per 100,000 population to 8.6 per 100,000 in the 2018-2020 period, but leveled off during the 2021-2023 period. Sonoma County **met the Healthy People 2030 goal and** was below the statewide rate throughout the decade. Sonoma County currently ranks 10th of California's 58 counties.

Table 175. Motor Vehicle Traffic Accident Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, and 2018–2020

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	7.8	7.7	5.2	4.7
2015–2017	9.8	9.6	8.6	8.2
2018–2020	10.3	10.0	9.2	8.6
2021-2023	11.8	11.6	8.9	8.6

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Motor vehicle traffic death rates in Mendocino and Lake Counties are far higher than those of the state or Sonoma County.

In Mendocino County, both crude death rate and age-adjusted death rate from traffic accidents fell in the current 2021-2023 data period. The current crude death rate in Mendocino County is 18.9 per 100,000 residents, down from 28.0 per 100,000 in 2018-2020. The age-adjusted rate is 20.5 per 100,000, down 30 percent from 29.3 per 100,000 in the previous three-year period. It is, however, still well above the state level and the Healthy People 2030 target. Mendocino ranks 44th of the state's 58 counties.

Lake County's current (2021-2023) age-adjusted rate of deaths from Motor Vehicle/Traffic Accidents is 34.4 per 100,000, a 54 percent increase over the 22.3 per 100,000 age-adjusted rate in 2018-2020. Lake County now ranks 56th of California's 58 counties.

Table 176. Motor Vehicle Traffic Accident Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	28.0	29.3	25.0	22.3
2021-2023	18.9	20.5	33.3	34.4

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2022*, April 4, 2022. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

According to County Health Rankings,[371] alcohol use was involved in:

- 34 percent of Mendocino County motor vehicle fatalities
- 33 percent of Sonoma County motor vehicle fatalities
- 30 percent of Lake County motor vehicle fatalities
- 28 percent of fatal traffic accidents in California and 27 percent of fatal accidents nationwide.

ACCIDENTAL/UNINTENTIONAL INJURY DEATHS

Neither California nor Sonoma County meets the Healthy People 2030 target of 43.2 age-adjusted accidental deaths per 100,000 population, although Sonoma County is close to the Healthy People 2030 target at 44.8 age-adjusted deaths per 100,000.

The 2030 Healthy People target itself has been raised from the Healthy People 2020 target of 36.4 age-adjusted deaths per 100,000, a reflection of the difficulty of reducing this cause of death.

[371] County Health Rankings, "California 2021: Sonoma (SM)."

Table 177. Unintentional Injury (Accident) Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	28.4	27.9	27.4	24.7
2015–2017	33.7	32.3	39.9	34.9
2018–2020	40.0	37.9	45.1	41.5
2021-2023	52.4	49.8	48.0	44.8

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Neighboring Mendocino County's age-adjusted rate of 89.6 deaths per 100,000 population for the 2018–2020 period. By the 2021-2023 period, Mendocino County's age-adjusted rate had risen to 110.1 per 100,000, **a 23 percent increase.**

Lake County's age-adjusted rate of 109.1 age-adjusted deaths per 100,000 population in 2018-2020 had risen to 151.7 age-adjusted deaths per 100,000 for the 2021-2023 period, **a 39 percent increase.**

Sonoma County ranked 12th out of California's 58 counties in 2021-2023, Mendocino ranked 54th out of 58 counties, and Lake County ranked last at 58th out of the 58 counties.

Table 178. Unintentional Injury (Accident) Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020 and 2021–2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	67.7	89.6	90.3	109.1
2021-2023	117.3	110.1	172.5	151.7

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

SUICIDE DEATHS

Sonoma County has had consistently higher crude and age-adjusted suicide mortality rates than those of California as a whole over the past decade. The Sonoma County suicide rates have also risen more than the statewide rates in recent years.

Table 179. Suicide Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021–2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	10.4	10.2	12.8	11.2
2015–2017	10.8	10.5	13.7	12.4
2018–2020	11.0	10.5	15.4	14.1
2021-2023	10.5	10.0	15.0	13.7

Source: California Dept. of Public Health, "California Comprehensive Master Death Files, 2016–2020," as reported in *California County Health Status Profiles 2025*, September 9, 2025. All population data from The California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

California meets the Healthy People 2030 target of not more than 12.8 age-adjusted suicides per 100,000 residents. Sonoma County falls short of that goal, and ranks 36th of California's 58 counties in suicides.

Mendocino County's age-adjusted rate of 20.8 deaths per 100,000 is nearly twice the state's age-adjusted rate of 10.5 deaths per 100,000, one and a half times Sonoma County's rate. Mendocino County ranks 44th among the state's 58 counties.

Lake County's age-adjusted rate of 25.4 deaths per 100,000 population is 242 percent of the state rate, and 190.5 percent of Sonoma County's age-adjusted suicide rate. Lake County's suicide rate ranks it 50th among California's 58 counties.

Table 180. Suicide Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	22.7	20.9	25.5	25.4
2021-2023	24.1	20.7	26.5	26.1

Source: *RAB - County Health Status Profiles*

There is increasing concern about gun suicides in rural northern California, particularly among isolated elderly persons. Gun suicide rates per 100,000 residents aged 70 or older are higher

in **rural California counties**. These areas have higher gun ownership rates and more limited access to medical and mental health services.[372]

HOMICIDE DEATHS

California's homicide rate overall has remained relatively stable over the past decade. The crude homicide mortality rate fell slightly from 2011–2013 to 2018-2020, but rose somewhat in 2021-2023. The age-adjusted rate also rose, from 5.1 to 5.8 deaths per 100,000 population, **just above the Healthy People 2030 target of 5.5 per 100,000.**

Sonoma County has also seen its homicide rate rise in the most recent period. Its crude rate rose from only 2.2 homicide deaths per 100,000 population in 2018-2020 to 2.9 per 100,000 in 2021-2023. Its age-adjusted homicide rate rose from 2.2 to 3.1 per 100,000 residents. **However, Sonoma County continues to have a lower age-adjusted homicide mortality rate than does California overall, and meets the Healthy People 2030 target.**

Table 181. Homicide Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, and 2018–2020

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	5.2	5.1	2.2	2.3
2015–2017	5.2	5.2	2.8	2.8
2018–2020	5.1	5.2	2.2	2.2
2021-2023	5.6	5.8	2.9	3.1

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles* 2025, September 9, 2022. All population data from California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Neighboring Mendocino and Lake counties have age-adjusted homicide mortality rates above the Healthy People 2030 target. Mendocino County had an age-adjusted rate of 8.0 deaths per 100,000 population, and Lake County had an age-adjusted rate of 6.2 deaths per 100,000 population in the 2021-2023 data reporting period. However, both counties' rates were below their 2018-2020 age-adjusted rates, showing a positive downward trend.

[372] Ibarra, Ana B., "Remembering Papa: Northern California's elderly face hidden epidemic of gun suicides" Cal Matters, December 22, 2025. *Gun suicides among older adults rising in California's rural counties*

Table 182. Homicide Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	7.6	8.4	7.8	8.9
2021-2023	7.2	8.0	5.7	6.2

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles* 2025, September 9, 2022. All population data from California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

FIREARM DEATHS

California's statewide age-adjusted rate of firearm-related deaths remained consistently in the 7.8 to 7.9 deaths per 100,000 population range from 2011–2013 to 2018–2020, but rose in the 2021-2023 period.

Sonoma County's age-adjusted firearm-related mortality rate has risen steadily from a low of 5.0 age-adjusted deaths per 100,000 residents in 2015-2017 to 7.7 in 2021-2023, a disturbing trend. However, Sonoma County continues to have a lower rate of firearm-related deaths than does the state.

Nevertheless, the current California and Sonoma County firearm age-adjusted death rates meet the Healthy People 2030 target of no more than 10.7 age-adjusted deaths per 100,000.

Table 183. Firearm-Related Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	7.9	7.8	6.5	5.9
2015–2017	8.0	7.9	5.7	5.0
2018–2020	7.9	7.8	7.1	6.2
2021-2023	8.9	8.4	8.2	7.7

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles* 2025, September 9, 2022. All population data from California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Firearm-related mortality rates in Mendocino and Lake Counties are well above the rates in California as a whole and in Sonoma County and miss the Healthy People 2030 targets.

Mendocino County's 2021-2023 age-adjusted rate of 14.8 deaths per 100,000 residents is up from its 2018–2020 rate.

Lake County's firearm-related mortality rate of 17.4 age-adjusted deaths per 100,000 residents in 2018–2020 fell to 15.0 age-adjusted deaths per 100,000 in 2021-2023.

Table 184. Firearm-Related Mortality per 100,000 Population, Mendocino and Lake Counties, 2018–2020, 2021-2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	13.6	12.9	17.2	17.4
2021-2023	17.0	14.8	17.2	15.0

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in California County Health Status Profiles 2025, September 9, 2022. All population data from California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

DRUG OVERDOSE DEATHS

Drug overdose deaths have risen substantially both in Sonoma County and statewide in the decade between 2011-2013 and 2021-2023.

The statewide age-adjusted rate grew from 11.1 in 2011-2013 to 27.3 per 100,000 in 2021-2023, **an increase of 145.9 percent.**

The current Sonoma County age-adjusted mortality rate of 27.9 deaths per 100,000 residents represents a **190.6 percent increase in overdose mortality over** the 2011–2013 rate of only 9.6 per 100,000.

Both California and Sonoma County are below the current national level of 31.3 age-adjusted deaths per 100,000 residents, from drug overdoses,[373] but both are still above the Healthy People 2030 target of 20.7 age-adjusted deaths per 100,000 drug overdoses.

[373] Source: Healthy People 2030 website: *Reduce drug overdose deaths — SU-03 - Healthy People 2030 | odphp.health.gov*

Table 185. Drug Overdose Mortality per 100,000 Population, California and Sonoma County, 2011–2013, 2015–2017, 2018–2020, and 2021-2023

Time Period	California, Crude	California, Age-Adjusted	Sonoma County, Crude	Sonoma County, Age-Adjusted
2011–2013	11.5	11.1	10.3	9.6
2015–2017	13.3	12.7	15.5	14.4
2018–2020	18.4	17.8	23.3	23.5
2021-2023	27.6	27.3	27.3	27.9

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles* 2025, September 9, 2022. All population data from California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Neighboring Mendocino and Lake counties have overdose death rates far above Sonoma County or the State as a whole. With an age-adjusted rate of drug overdose deaths of 69.6 per 100,000, Mendocino ranks 56th among California's 58 counties. Lake County, with an age-adjusted rate of 87.3 deaths per 100,000, ranks 58th out of 58 counties.

Table 186. Drug Overdose Mortality per 100,000 Population Mendocino and Lake Counties, 2018–2020 and 2021-2023

Time Period	Mendocino County, Crude	Mendocino County, Age-Adjusted	Lake County, Crude	Lake County, Age-Adjusted
2018–2020	44.3	42.0	74.9	66.1
2021-2023	71.3	69.6	90.9	87.3

Source: California Dept. of Public Health, "California Comprehensive Master Death Files," as reported in *California County Health Status Profiles* 2025, September 9, 2022. All population data from California Dept of Finance, Demographic Research Unit. *RAB - County Health Status Profiles*

Local prevalence of alcohol use may be an additional factor in these higher mortality rates. Research published in the *American Journal of Preventive Medicine* in 2019 found **that binge drinkers are nearly twice as likely to misuse prescription opioids as are nondrinkers.**[374] Sonoma, Lake, and Mendocino Counties all have high percentages of binge drinkers — about 17 percent of adults in each of the three counties.[375]

[374] Marissa B. Esser et al, "Binge Drinking and Opioid Misuse in the U.S., 2012–2014," *American Journal of Preventive Medicine* 2019;57(2):197–208. doi:10.1016/j.amepre.2019.02.025

[375] Based on 2019 UDS data from the UDS Mapper, *https://www.udsmapper.org*.

Prescription Opioids

A key driver of drug overdose deaths in this period has been the widespread use of opioids and a resultant prevalence of opioid overdose deaths.

In 2017, 70 percent of California's 2,194 opioid overdose deaths involved prescription medications. The total number of opioid prescriptions filled in California that year (excluding buprenorphine, used in medically assisted treatment (MAT) for opioid abuse) was 21,787,042, representing an annual prescribing rate of 517.3 prescriptions per 1,000 population.[376]

Sonoma County and neighboring Mendocino and Lake counties all had opioid prescribing rates per 1,000 residents well above the statewide rate.

Table 187. Opioid Prescriptions Filled, California and Selected Counties, Events and Rates per 1,000 Residents, 2017

Area	Opioid Prescriptions Filled	Prescriptions per 1,000 Residents
California	21,787,042	517.3
Sonoma County	399,240	642.9
Mendocino County	88,033	806.4
Lake County	77,437	949.5

Source: California Opioid Overdose Surveillance Dashboard, https://skylab.cdph.ca.gov/ODdash/

Due to extensive public health efforts, the number of opioid prescriptions written in California has fallen.

AVH's 2022 Community Health Needs Assessment reported than in 2021, a reported 17,576,579 opioid prescriptions had been written statewide, a rate of 374.9 prescriptions per 1,000 population.[377] The opioid prescribing rates in Sonoma, Mendocino, and Lake Counties had also fallen significantly from 2017, **although each county remained above the statewide rate.**

By 2024 statewide opioid prescriptions had fallen further, to 13,275,669 total prescriptions statewide, 295.8 prescriptions per 1,000 residents. **Prescriptions rates per 1,000 residents had**

[376] California Dept. of Justice, Office of the Attorney General, data from the Controlled Substance Utilization Review and Evaluation System (CURES), prepared by the California Dept. of Public Health, Substance and Addiction Prevention Branch.

[377] Ibid.

also fallen in Sonoma and Mendocino counties, although both counties still have opioid prescription rates per 1,000 well above California as a whole.

However, in Lake County, 2024 data show total prescriptions and the number of opioid prescriptions per 1,000 residents had risen compared to 2021.

Table 188. Opioid Prescriptions Filled, California and Selected Counties, Events and Rates per 1,000 Residents, 2021 versus 2024

Area	Opioid RX filled 2021	RX per 1,000 Residents 2021	Opioid RX filled 2024	RX per 1,000 Residents 2024
California	14,777,578	326.7	13,475,779	295.8
Sonoma County	280,429	428.6	241,555	378.7
Mendocino County	58,724	498.9	53,4459	451.7
Lake County	44,651	520.5	50.534	535.6

California Overdose Surveillance Dashboard. Prepared by California Department of Public Health (CDPH) - Substance and Addiction Prevention Branch (SAPB). Data last updated on 12/19/2025. Accessed on 01/23/26. *https://skylab.cdph.ca.gov/ODdash/*.

Comparing 2021 to 2024, the age adjusted rate of deaths, emergency department visits, and hospitalizations specifically for opioid overdoses have all retreated substantially.

Table 189. Changes in Opioid Overdose Deaths, Emergency Department Visits, and Hospitalizations, California (CA), Sonoma County (SM), Mendocino County (ME), and Lake County (LK), Age-Adjusted Events and Rates Per 100,000 Population, 2021 versus 2024

2021	CA, Events	CA, Rate	SM, Events	SM, Rate	ME, Events	ME, Rate	LK, Events	LK, Rate
Opioid overdose deaths	6,843	16.8	122	25.8	47	55.9	31	49.3
Opioid overdose ED visits	21,016	52.1	276	60.9	89	125.4	69	115.6
Opioid overdose hospitalizations	5,187	12.2	61	9.4	21	26.4	9	15.0
2024	**CA, Events**	**CA, Rate**	**SM, Events**	**SM, Rate**	**ME, Events**	**ME, Rate**	**LK, Events**	**LK, Rate**
Opioid overdose deaths	5,462	14.48	74	16.5	25	28.5	21	27.8
Opioid overdose ED visits	17,083	46.2	200	45.1	66	77.6	41	65.7
Opioid overdose hospitalizations	4,609	11.46	46	7.1	12	14.4	9	13.3

Source: California Opioid Overdose Surveillance Dashboard, *https://skylab.cdph.ca.gov/ODdash/*.

On a statewide basis:[378]

- Older age groups have higher rates of prescription opioid overdose deaths. The prescription opioid mortality rate is highest among persons aged 55–59 years.

- Younger age groups have higher rates of overdose deaths due to illicit opioids such as heroin, with the highest mortality rates among persons aged 25–29 years.

Fentanyl and Synthetic Opioids

> The CDC believes that overdose deaths are driven at least partly by co-use of fentanyl or other synthetic opioids,[379] which are found mixed with increasing frequency in stimulants such as cocaine and methamphetamine.

Fentanyl merits special attention because of the unique challenges it poses for first responders, substance abuse treatment, and harm reduction efforts:

- Suppliers of illicit drugs now routinely substitute fentanyl, which is cheap and easy to manufacture, for other, more expensive narcotics such as heroin. Unlike other substances used to "cut" narcotics, fentanyl may be more potent than the drugs for which it is substituted.

- Users and their individual dealers generally cannot control and often don't know whether a given drug contains fentanyl, or in what concentration.[380]

- Fentanyl's high potency (at least 50 times that of morphine)[381] carries a high inherent risk of overdose, particularly for users with low opioid tolerance (such as new users and habitual users who relapse after treatment). Even where naloxone is available for

[378] Ibid.

[379] CDC Health Alert Network, Dec. 17, 2020, *https://emergency.cdc.gov/han/2020/han00438.asp*.

[380] See Sarah G. Mars et al, "Illicit fentanyl in the opioid street market: desired or imposed?" *Addiction* 2021;114(5):774–780. doi:10.1111/add.14474. The authors discuss some of this study's key findings in Laura Kurtzman, "Drug Wholesalers Drove Fentanyl's Deadly Rise, Report Concludes," UCSF News, Dec. 4, 2018, *https://www.ucsf.edu/news/2018/12/412466/drug-wholesalers-drove-fentanyls-deadly-rise-report-concludes*.

[381] Per the Centers for Disease Control and Prevention's "Opioid Overdose: Fentanyl" fact sheet, located at *https://www.cdc.gov/drugoverdose/opioids/fentanyl.html*.

emergency treatment, multiple doses may be required to reverse a fentanyl overdose.[382]

- Fentanyl is now sometimes found in psychostimulants such as cocaine and methamphetamine, whose users may have lower opioid tolerance (and thus higher overdose risk) than habitual opioid users.[383]

According to California Department of Public Health (CDPH) data, the state's 5,502 opioid-related drug overdose deaths in 2020 included 3,946 fentanyl-related deaths (71.2 percent).

In 2021, the number of fentanyl-related deaths soared to 5,722 total deaths, 83.6 percent of 6,843 opioid deaths, and 54.9 percent of all 10,416 drug overdose deaths for the year.

By 2024, the state's total drug overdose deaths had fallen to 8,939 deaths, opioid-related drug deaths had fallen to 5,462 opioid deaths, but 4,852 of these opioid deaths (88.8 percent) were still related to fentanyl overdoses.

In Sonoma County, the number of fentanyl-related overdose deaths recorded in 2021 (122) exceeded the total number of all drug overdose deaths in the county in 2021 (105). The number of fentanyl deaths in Sonoma County had fallen to 63 deaths in 2024.

In part this drop is the result of a California Department of Health Care Services' Naloxone Distribution Project, which **expands access to naloxone for organizations serving people at risk of opioid overdose**.[384] Alexander Valley Healthcare (AVH) is participating in the California Naloxone Distribution Project as part of a multi-pronged, community-centered approach to addressing the fentanyl crisis.

AVH's lead substance use disorder (SUD) counselor is providing education to the community, and AVH maintains an on-hand supply of generic naloxone nasal spray and fentanyl test strips.

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[382] An issue noted in, *inter alia*, the National Institute on Drug Abuse (NIDA) policy brief "Naloxone for Opioid Overdose: Life-Saving Science," June 2021, *https://www.drugabuse.gov/publications/naloxone-opioid-overdose-life-saving-science*.

[383] NIDA Director Nora Volkow, M.D., raised this point at a national addiction conference in April 2021, quoted by Abby Goodnough, "Overdose Deaths Have Surged During the Pandemic, C.D.C. Data Shows," *New York Times*, April 14, 2021,*https://www.nytimes.com/2021/04/14/health/overdose-deaths-fentanyl-opiods-coronaviurs-pandemic.html* [sic].

[384] California Department of Health Care Services – Naloxone Distribution Project: *https://www.dhcs.ca.gov/individuals/Pages/Naloxone_Distribution_Project.aspx*

These supplies are distributed to community members and local businesses, along with community education to promote safer practices, and ensure that life-saving tools are readily available.

In addition, Sonoma County has launched a "Health to Go" public health vending machine initiative, allowing residents to access free, life-saving and health-protecting supplies such as Narcan, COVID tests, and more, whenever they need them.[385] One of these vending machines is located at the offices of La Familia Sana, a key community partner of AVH, and is stocked with Narcan, condoms, fentanyl test strips, hygiene kits, dental hygiene kits, feminine hygiene products, pregnancy tests, COVID tests, socks, and cable gun locks—further extending harm-reduction resources into the Cloverdale community.

[385] Sonoma County – "New 'Health to Go' public health vending machines provide free essential resources when they're needed": *New Health To Go public health vending machines provide free essential resources when they're needed*

Health Access

HEALTH STATUS-SELF ASSESSMENTS

Statewide respondents to the California Health Interview Survey have tended to rate their own health positively: a quarter say it's “excellent”, a third say it's “very good”, and another quarter say it's “good”. Only 14 percent rated their health “fair” (11.8 percent) or “poor” (2.2 percent).[386]

However, the ratings shift downward quickly for responders with household incomes below 200 percent of the federal poverty level. The percentage rating their health “excellent” falls to 18.6 percent, “very good” falls to 25.8 percent, **and the total proportion rating their health “fair” or “poor” rises to 23.6 percent.**

In the three counties that include AVH’s primary and secondary catchment areas (Sonoma, Mendocino, and Lake counties), the percentages are close to the statewide numbers for respondents of all incomes. However, among those in the three counties with household incomes below 200 percent of poverty, **26.7 percent of respondents rate their health as only “fair or poor”.** Even in more affluent Sonoma County, **32.2 percent of low-income respondents ranked their health only fair (26.9 percent) or poor (6.3 percent).**

[386] California Health Interview Survey (CHIS), UCLA Center for Healthcare Policy Research, five-year pooled data from 2020, 2021,2022,2023, 2024 pooled. Retrieved from, *AskCHIS™*

Table 190. Health Status Self-Assessments by Income Levels, California, and Lake, Mendocino, and Sonoma Counties Combined

	All Incomes	Under 200% FPL	Over 200% FPL
CALIFORNIA			
Excellent	25.0%	18.6%	27.7%
Very Good	33.2%	25.8%	36.3%
Good	27.8%	31.9%	26.0%
Fair	11.8%	19.5%	8.6%
Poor	2.2%	4.1%	1.4%
MENDOCINO, LAKE & SONOMA COUNTIES			
Excellent	22.2%	14.9%	25.6%
Very Good	36.6%	28.8%	38.3%
Good	26.3%	29.6%	25.4%
Fair	12.4%	21.3%	8.7%
Poor	2.6%	5.4%	1.9%

Source: California Health Interview Survey, 5 years of pooled data: 2020, 2021, 2022,2023,2024. *AskCHIS™*

Characteristics of how the state's health care system affects low-income persons, such as insurance status, race/ethnicity, languages spoken, and the maldistribution of providers, are examined below.

USUAL SOURCE OF CARE

Statewide, 54.5 percent of uninsured adults and 15.0 percent of insured adults are without a usual source of care, according to the California Health Interview Survey (CHIS).[387]

[387] Ibid.

In the three counties (Sonoma, Mendocino, and Lake), AVH's primary and secondary catchment areas, 60.9 percent of uninsured adults and 8.5 percent of insured adults are without a regular source of healthcare.[388]

The percentage of children and teens who are without a usual source of care is lower than that of adults, both statewide and in local counties. Contributing to this was the State's converting 94 percent of Medi-Cal enrollment to managed care plans, most of which assign patients to primary care providers.

Statewide, 26.2 percent of children 0-12, who were uninsured, were without a usual source of care, and only 6 percent of insured children. However, the percentage of children who were uninsured was low during this period, and therefore, only a net 6.3 percent of children overall were without a usual source of care.

In the three counties encompassing the AVH service area, **20.0 percent of uninsured children** and **9.8 percent of insured children** had no usual source of care.

Statewide, 32.7 percent of uninsured teens ages 13 through 17, and 22.7 percent of insured teens were without a usual source of care.

In the three counties encompassing the AVH service area, a net 18.1 percent of teens had no usual source of care.

As reported in **PART ONE: Service Area** and **PART TWO: Population Served** of this report, California has made substantial progress over the past decade in getting more patients covered by insurance.

However, this data reinforces that having insurance alone does not guarantee access to timely medical care. Other barriers may be blocking care.

ACCESS TO MEDICAL CARE

Respondents to the California Health Interview Survey have reported a number of barriers to seeking medical care, both statewide and in local counties served by AVH:

[388] Ibid.

- **Statewide, 6.0 percent of adults report that a general or primary care physician did not accept their insurance, and 6.5 percent in AVH's three counties.**

- **Statewide, 9.4 percent of low-income persons** (with incomes below 200 percent of poverty) report that primary care doctors would not accept their insurance, and **13.3 percent of respondents in AVH's counties.**

- **6.4 percent of Latinos statewide** encountered primary care physicians not accepting their insurance, **but 9.5 percent of Latinos in AVH's three counties.**

There were also difficulties finding medical specialists accepting the respondents' insurance:

- **Statewide, 10.9 percent could not find a medical specialist who accepted their insurance, 12.5 percent in AVH's three counties.**

- Among low-income persons, **15.8 percent of adult respondents statewide, and 28.0 percent of AVH county low-income respondents, could not find a medical specialist** who accepted their insurance.

- Among Latinos, regardless of income, 13.0 percent statewide, and 24.2 percent in AVH's three counties reported that they could not find a medical specialist who accepted their insurance.

Finding a medical specialist at all is a barrier to care for even more respondents:

- **19.0 percent of all statewide adults said that they had had difficulty finding a specialist, 22.6 percent of adults in AVH's three counties.**

- Among low-income respondents, **25.2 percent of adults reported difficulty finding a medical specialist, and 39.0 percent of AVH respondents are low-income.**

- **Among Latino respondents, 22.8 percent statewide had difficulty finding a medical specialist, and 33.8 percent in AVH's three counties reported difficulty.**

Medical debt is a significant issue among California residents and residents of AVH's service area.

Over one-third (36.0 percent) of CHIS respondents statewide reported having ever been unable to pay for basic necessities due to medical debt. Among respondents with household incomes

under 200 percent of poverty, this rose to 44.1 percent, and among uninsured low-income respondents, to 46.5 percent.

In AVH's three counties, the proportions were similar: 33.7 percent of all respondents, regardless of income, and 47.2 percent of low-income respondents reported ever being unable to pay for necessities due to medical debt.

ACCESS TO ORAL HEALTH CARE

There are differences in how often people can seek dental care by income level, both statewide in California as a whole and in AVH's local counties.

Overall, 17.0 percent of all CHIS respondents statewide had not been to a dentist's office in more than two years.

However, 24.6 percent of respondents below 200 percent of the federal poverty level have not received dental care in more than 2 years, compared to 13.7 percent of respondents over 200 percent of the poverty level.

In the three counties of AVH's catchment area, 25.4 percent of low-income respondents had not been to a dentist in over 2 years, compared to only 11.2 percent of respondents with incomes over 200 percent of poverty.

- Only 2.5 percent of statewide respondents had **never been to a dentist** compared to 6.4 percent of respondents from AVH's three counties.
- **Children were the group most likely not to have started dental care, 14.9 percent statewide and 14.0 percent in AVH's counties. However, this includes children who are too young for a dental appointment.**
- **Adults are most likely to have gone over two years or over 5 years without a dental visit.**

Table 191. Time Since Last Dental Appointment, by age Group, California and Local Counties

	ADULTS	TEENS	CHILDREN
CALIFORNIA			
Never	2.5%	0.7	14.9
Last 6 months or less	53.1%	73.3	68.3
6 months to 1 year	14.8%	15.5	11.8
1 year to 2 years	12.7%	6.4	3.8
Over 2 Years, but Under 5 years	9.9%	3.0	1.1
Over 5 years	7.1%	1.2	0.2
LAKE, MENDOCINO, & SONOMA COUNTIES			
Never	6.4%	--	14.0
Last 6 months or less	58.4%	74.2	68.0
6 months to 1 year	13.6%	15.4	9.4
1 year to 2 years	12.4%	6.2	5.1
Over 2 Years, but Under 5 years	9.5%	--	3.5
Over 5 years	5.7%	--	--

Source: California Health Interview Survey, 5 years of pooled data: 2020, 2021, 2022,2023,2024. *AskCHIS™*

Table 192. Time Since Last Dental Appointment, by Income Level, California and Local Counties

	All Incomes	Under 200% FPL	Over 200% FPL
CALIFORNIA			
Never	2.5%	4.9%	1.3%
Last 6 months or less	53.1%	38.1%	59.5%
6 months to 1 year	14.8%	16.3%	14.1%
1 year to 2 years	12.7%	16.1%	11.3%
Over 2 Years, but Under 5 years	9.9%	13.4%	8.3%
Over 5 years	7.1%	11.2%	13.7%
LAKE, MENDOCINO, & SONOMA COUNTIES			
Never	6.4%	1.1%	n/a
Last 6 months or less	58.4%	39.6%	64.2%
6 months to 1 year	13.6%	14.6%	13.2%
1 year to 2 years	12.4%	19.3%	10.5%
Over 2 Years, but Under 5 years	9.5%	17.8%	6.9%
Over 5 years	5.7%	7.6%	5.1%

Source: California Health Interview Survey, 5 years of pooled data: 2020, 2021, 2022,2023,2024. *AskCHIS™*

The California Health Interview Survey asks respondents to self-report the current condition of their teeth. The tables below report their responses by race/ethnicity and income level for the state and the combined Lake, Mendocino, and Sonoma counties area served by AVH.

Residents from the local three-county area were more likely to report their teeth as “excellent” (13.3 percent) or “very good” (30.8 percent) than respondents statewide (11.8 percent) “excellent”, and (28.6 percent) “very good”.

The local-area respondents were nearly the same as statewide respondents in reporting “fair” or “poor” condition: 24.6 percent compared to 25.8 percent statewide across all races and income groups.

However, in both the three local counties and statewide, minority populations were more likely to rate the condition of their teeth “fair” or “poor”:

- Latinos - 31.3 percent compared to 19.0 percent among White - not-Latino
- Black/African American - 30.2 percent
- American Indian/Alaskan Native - 31.4 percent
- Asian - 28.8 percent
- Native Hawaiian/Pacific Islander - 30.1 percent
- Persons of 2 or more races not Latino - 20.3 percent reported their teeth to be in “fair” or “poor” condition,

By income, low-income respondents in both the three-county area and statewide were twice as likely to rate the condition of their teeth as “fair” or “poor”.

- Among those with incomes below 200 percent of the federal poverty level: 38.0 percent in the three local counties, and 42.2 percent statewide, rates their teeth as “fair” or “poor”.
- Among those with incomes over 200 percent of the poverty level: only 21.8 percent locally and 19.3 percent statewide rated their teeth as “fair” or “poor”.

Table 193. Self-Reported Condition of Teeth, California Adults, by Race/Ethnicity, and Income

STATEWIDE	Excellent	Very Good	Good	Fair	Poor	No Natural Teeth
By Ethnicity						
All Races/Ethnicities	11.8	28.6	31.6	18.3	7.5	2.2
Latino - all races	9.5%	24.1%	33.6%	22.2%	9.1%	1.4%
White – not Hispanic	14.3%	33.7%	30.2%	13.4%	5.6%	2.8%
Black – not Hispanic	12.3%	23.9%	29.5%	20.6%	9.6%	4.1%
American Indian, Alaskan Native	6.3%	27.4%	28.3%	20.7%	10.7%	6.6%
Asian- not Hispanic	10.1%	27.6%	31.6%	21.5%	7.3%	1.9%
Native Hawaiian Pacific Islander	14.2%	25.1%	27.2%	25.2%	4.9%	n/a
Two or More	15.8%	30.1%	31.1%	12.9%	7.4%	2.6%
By Income Level						
All Incomes	11.8%	28.6%	31.6%	18.3%	7.5%	2.2%
Under 200% of Federal Poverty Level	7.7%	18.0%	29.9%	28.2%	14.0%	4.2%
Over 200% of Federal Poverty Level	13.6%	33.3%	32.4%	14.8%	4.5%	1.3%

Source: California Health Interview Survey, 5 years of pooled data: 2018, 2019, 2020, 2021,2022. *AskCHIS™*

Table 194. Self-Reported Condition of Teeth, Adults, by Race/Ethnicity, and By Income in Lake, Mendocino, and Sonoma Counties Combined

LAKE, MENDOCINO & SONOM COUNTIES	Excellent	Very Good	Good	Fair	Poor	No Natural Teeth
By Ethnicity						
All Races/Ethnicities	13.3%	30.8%	28.7%	16.3%	8.3%	2.6%
Latino – all races	15.9	24.9	26.9	22.7	8.7	1.0
White – not Hispanic	12.1	32.7	32.1	13.6	6.5	3.9
Black – not Hispanic	--	22.3	28.9	--	--	--
American Indian, Alaskan Native	--	33.0	--	--	22.0	--
Asian- not Hispanic	6.7	25.6	35.3	25.4	7.6	--
Native Hawaiian Pacific Islander	n/a	n/a	n/a	n/a	n/a	n/a
Two or More -not Hispanic	27.7	29.0	16.8	8.9	4.6	--
By Income Level						
All Incomes	11.8%	28.6%	31.6%	18.3%	7.5%	2.2%
Under 200% of Federal Poverty Level	7.9%	21.5%	26.6%	21.6%	16.4%	6.1%
Over 200% Federal Poverty Level	15.4%	34.0%	29.4%	16.7%	5.1%	1.4%

Source: California Health Interview Survey, 5 years of pooled data: 2018, 2019, 2020, 2021,2022. *AskCHIS™*

According to respondents, Statewide, 4.9 percent of children of all incomes missed school at least once in the past year due to a dental problem, but 7.0 percent of children from families below 200 percent of the federal poverty level had missed school because of a dental problem. Ten percent of teens statewide also missed school in the past year due to a dental problem.

ACCESS TO BEHAVIORAL HEALTH CARE

CHIS respondents were asked whether they had experienced severe psychological distress in the past year. **Statewide, a total of 14.6 percent of adults and 31.2 percent of teens said they had.**

In the three counties in AVH's catchment area, 17.0 percent of adults and 39.2 percent of teens reported that they had likely had severe psychological distress in the past year.

Female respondents were more likely to report psychological distress than male respondents. This was reported among both teens and adults.

- **Among adult respondents statewide, 16.8 percent of females reported serious distress in the past year, compared to 12.3 percent of male respondents.**

- **In the three local counties, 20.6 percent of female respondents reported severe distress compared to 12.4 percent of males.**

Teens were nearly twice as likely to report severe psychological distress as **adults** on the CHIS, **with an even wider gap between** male and female teens. This was true both locally and statewide:

- **24.3 percent of male teens reported distress in the past year statewide, and in the three local counties.**

- **38.5 percent of female teens reported distress in the past year statewide, and 52.1 percent of female teens in the combined Lake, Mendocino, and Sonoma counties.**

There were also some differences by race/ethnicity in the responses. Latinos of all races and persons of two or more races (not Latino) were more likely than White non-Hispanic respondents to report having psychological distress in the past year. This was true among both adults and teens.

Table 195. Likely Had Severe Psychological Distress in Past Year, By Race Ethnicity, Teens, Adults, and By Gender

	California		3 Counties	
	Adults	Teens	Adults	Teens
All Races & Ethnicities	**14.6%**	**31.2%**	**17.0%**	**39.2%**
Latino -All Races	16.2%	29.8%	22.0%	37.6%
White – not Hispanic	13.1%	35.8%	14.4%	47.8$
Black – not Hispanic	12.2%	20.7%	33.6%	--
American Indian, Alaskan Native	10.2%	13.4%	15.0%	--
Asian- not Hispanic	12.5%	28.2%	20.5%	14.3%
Native Hawaiian Pacific Islander	19.0%	--	--	--
Two or More Races	21.6%	39.6%	19.7%	40.8%
By Gender				
Males	**12.3%**	**24.3%**	**12.4%**	**24.3%**
Females	**16.8%**	**38.5%**	**20.6%**	**52.1%**

Source: California Health Interview Survey, 5 years of pooled data: 2020, 2021, 2022,2023,2024. *AskCHIS™*

Asked whether they had seriously considered suicide, 17.7 percent of adult respondents statewide said they had: 16.3 percent of males and 19.1 percent of females.

The percentage of respondents in Sonoma, Mendocino, and Lake counties who had considered suicide was higher: 24.3 percent of adults, 20.2 percent of adult males, and 27.3 percent of adult females.

A remarkably high proportion of CHIS respondents who sought professional help – either for serious mental-emotional problems or alcohol and drug problems **– reported that they did not receive the help.** This included both insured and uninsured respondents.

Of respondents statewide:

- **65.0 percent of uninsured** adults who said they had sought help with mental-emotional or alcohol or drug problems **did not receive help,** and
- **42.7 percent of insured adults who sought professional services for mental-emotional or alcohol and /or drug problems did not receive help.**

In AVH's three local counties:

- **64.1 percent of uninsured adults who sought professional services for mental-emotional or alcohol-drug problems did not receive help,** and
- **35.6 percent of insured adults** who sought professional help **did not receive it.**

An even higher percentage of Latinos statewide who sought professional care for mental-emotional problems or alcohol-drug problems **did not receive it**:

- **69.5 percent of uninsured Latinos who sought professional services did not receive help, compared to 58.3 percent of White non-Latinos;**
- **46.3 percent of insured Latinos who sought professional services did not receive help, compared to 38.0 percent of insured Whites.**

But the CHIS data shows that no race or ethnicity avoided these access problems.

SOURCE OF ACCESS PROBLEMS

These access problems suggest a number of underlying issues.

First, given that the data is being reported from a period when the highest proportion of Californians has health insurance, insurance cannot be the only cause.

Second, some of the service gaps reported may stem from a general under-investment in primary care, with less than five percent of public and private insurance dollars going to the first line of medical, dental, and behavioral care.[389] Low reimbursement levels are likely a major reason providers do not accept some insurance carriers, as they are rejected by primary care and specialty care providers.

Third, as discussed in the Milbank paper, underinvestment includes inadequate reimbursement for primary care services and underinvestment in the training of primary care providers. There are too few primary care residency programs with too few resident slots.[390]

Fourth, inadequate attention to the high proportion of community providers who are approaching retirement age, whether primary care or specialty care, may be undermining the supply of health care services' ability to keep up with demand.[391]

Fifth, California's healthcare workforce is poorly distributed to serve the State's geographically dispersed population, resulting in primary medical care, dental care, and mental health federally designated Health Professional shortage areas (HPSHs).[392]

Sixth, California's healthcare workforce does not reflect the State's very diverse population: linguistically or culturally.[393]

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[389] Jabborpour, Yalda MD, Jetty, Anuradha, PhD., Bryun, Hoon, DrPH, Siddon, Anam, MPH, and Park, Jeongyoung, Robert Graham Center: "The Cost of Neglect, How Chronic Underinvestment in Primary Care is Failing US Patients, Milbank Memorial Fund and The Physicians Foundation" *The Health of US Primary Care: 2025 Scorecard Report — The Cost of Neglect | Milbank Memorial Fund*

[390] Ibid.

[391] California Health Care Almanac – California Physicians, 2025 Edition, July 2025 *https://www.chcf.org/wp-content/uploads/2025/02/PhysiciansAlmanac2025.pdf*

[391] Based on data from the Medical Board of California: *Annual-Report-2023-2024*.

[392] Designated Health Professional Shortage Areas Statistics, Fourth Quarter of Fiscal Year 2025, Designated HPSA Quarterly Summary, HRSA released October 1, 2025. *https://data.hrsa.gov/*

[393] Annual Report to the Legislature, April 2025, Health Workforce Research Data Center, Department of Health Care Access and Information (HCAI) *Health Workforce Research Data Center Annual Report to the Legislature - April 2025*.

These issues are further explored in the Healthcare Workforce section, which follows.

Healthcare Workforce

PHYSICIAN SUPPLY

Currently, there are 8,207 primary care health professional shortage area (HPSA) designations nationally, involving 86.9 million residents.[394]

California accounted for 650 of these primary care HPSA designations, impacting 6.7 million people.

Physician shortages, specifically primary care shortages, have persisted despite increases in the number of residency training programs and in the number of physicians licensed in the state.

The number of active physicians licensed in California grew by 33% between 2006 and 2022, compared to an 8% growth in population in the same period, according to the California Healthcare Foundation (CHCF) **California Health Care Almanac -California Physicians 2025**.[395] The almanac report is based on an analysis of responses to the Medical Board of California's **mandatory license renewal questionnaire** for 2023.[396]

The Almanac reported that the total number of active physicians and surgeons licensed in California reached **147,105, including 135,963 medical doctors (MDs) and 11,142 Doctors of Osteopathic Medicine (DOs).**

However, CHCF researchers found that this official total overstates the total of physicians engaged in active patient care in the state:

- **Over 15.7 percent of all physicians who were counted as licensed in California reported that they practiced outside of California**.

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[394] Designated Health Professional Shortage Areas Statistics, Fourth Quarter of Fiscal Year 2025, Designated HPSA Quarterly Summary, HRSA released October 1, 2025. *https://data.hrsa.gov/*

[395] California Health Care Almanac – California Physicians, 2025 Edition, July 2025 *https://www.chcf.org/wp-content/uploads/2025/02/PhysiciansAlmanac2025.pdf*

[396] Based on data from Medical Board of California: Annual-Report-2023-2024.

- **25 percent of California's physicians are age 65 and over**, a time when they may be cutting back hours.
- **An additional five percent reported that they were in residency or fellowship programs.**
- **Only 40 percent of California's licensed physicians are actually available for patient care 40 hours a week or more;**
    - **15,353 practice patient care less than 20 hours a week,**
    - **10,228 were not actively providing patient care,**
    - Another 3,756 did not answer the patient care questions on the survey.

This left 78,704 (53 percent) of available physicians actively providing patient care.[397]

Of those physicians providing active patient care, CHCF researchers found:

- **Only 23,648 (30.0 percent) of the available physicians were providing primary care,** and
- **54,930 (70.0 percent) were providing non-primary care** (e.g., sub-specialty care, hospital care, etc.). The work of 126 was unknown.

California's primary care physicians averaged 61 primary care physicians per 100,000 population, which appears to meet the **minimum ratio of 60 to 80 primary care physicians per 100,000 population** recommended by the Council on Graduate Medical Education (COGME).

However, two of California's nine regions have supply well above this level, the Sacramento area and the Greater Bay area, leaving other regions below the recommended minimum.

The CHCF Almanac also breaks out physician totals by counties, and physicians per 100,000 population for better comparison between counties. According to this data, **Sonoma County has 1,004 physicians,** and a ratio of 136 physicians per 100,000 population, below the state's rate of 141 total physicians per 100,000 population.

[397]Ibid. CHCF Almanac page 6. In addition, CHCF researchers reported that 20,366 of the 159.012 physicians in the licensure system had not renewed their licenses in the last two years.

Sonoma County is the northern most county of the Greater Bay Area Region, one of nine regions of California used by the California Department of **Health Care Access and Information (HCAI)**, University of California -Los Angeles (UCLA) **Health Policy Research Center** and the California Health Interview Survey managed by the Center, by the University of California San Francisco (UCSF) **Healthforce Center**, and as well as some private foundations in the state to report on provider supply as well as other health data.

Table 196. California Regions

Nine Regions of California
Central Coast: Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura
Greater Bay Area: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, **Sonoma**
Inland Empire: Riverside, San Bernardino
Los Angeles County: Los Angeles
Northern & Sierra: Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, **Lake,** Lassen, Mariposa, **Mendocino,** Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba
Orange: County Orange
Sacramento Area: El Dorado, Placer, Sacramento, Yolo
San Diego Area: Imperial, San Diego
San Joaquin Valley: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare

The Greater Bay Area has the highest proportion of active physicians in the state (25.96 percent). However, Sonoma County, together with Solano and Napa counties, has among the lowest physician supply in this region.

Table 197. Primary Care and Non-Primary Care Physicians, by County, Greater Bay Area Region

Greater Bay Area Counties	Total Non-Primary Care Physicians	Total Primary Care Physicians	Total Physicians	Non-primary care Physicians per 100,000,	Primary Care Physicians per 100,000	Physicians per 100,000 Population
Alameda County	2,456	1,255	3,711	151	77	229
Contra Costa	1,515	835	2,350	131	72	203
Marin	556	230	786	219	90	309
Napa	209	96	305	157	72	229
San Francisco	2,855	1,004	3,859	353	123	477
San Mateo	1,282	564	1,846	176	78	254
Santa Clara	4,108	1,577	5,685	219	83	303
Solano	599	292	891	133	65	198
Sonoma	656	347	1,004	136	72	208
Total Bay Greater Area	**14,236**	**6,200**	**20,437**			
	69.66%	30.34%	100.0%			
Statewide Totals	**54,930**	**23,774**	**78,704**			

Source: California Health Care Foundation Health Care Almanac- California Physicians- 2025 Edition, July 2025

Of Sonoma County's active physicians, 34.6 percent report being engaged in primary care, compared to 30.0 percent of the state's physicians and 30.34 percent of physicians in the Greater Bay Area. This gives Sonoma County a rate of 72 primary care physicians per 100,000 population, modestly above the 61 recorded for California as a whole.

Table 198. Primary Care and Non-Primary Care Physicians, and Physicians per 100,000 Population, California, and in Sonoma, Mendocino, and Lake Counties

Total Active Physicians	California	Sonoma County	Mendocino County	Lake County
Non-Primary Care physicians	54,930	656	66	44
Primary Care Physicians	23,648	347	43	21
Unknown	126	7	0	1
Total Physicians	78,704	1,004	109	66
Percent Primary Care	30.0%	34.6%	39.4%	31.8%
Average Physicians per 100,000 population	**California**	**Sonoma County**	**Mendocino County**	**Lake County**
Non-Primary Care physicians	141	136	74	65
Primary Care Physicians	61	72	48	31
Unknown	0	0	0	1
Physicians per 100,000 Pop.	**202**	**208**	**122**	**97**

Source: California Health Care Foundation (CHCF) California Physician Almanac 2025

Portions of Mendocino and Lake counties, part of Alexander Valley Healthcare's primary and secondary service area, form the southern boundary of the more rural **Northern and Sierra Region** abutting Sonoma County. The two counties have far lower ratios of both total physicians and primary care physicians per 100,000 population:

- **Mendocino County had 122 total physicians per 100,000 population and only 48 physicians per 100,000 engaged in primary care**.
- **Lake County had 97 total physicians per 100,000 population, only 31 per 100,000 reported as engaged in primary care.**

The lower provider supply in the two counties may well be one reason patients in those counties seek out AVH's care.

The Northern and Sierra Region illustrates another complication of inadequate physician supply.

- **A lower ratio of non-primary care specialists puts a greater burden on primary care physicians in the county to manage patients with complex conditions,** patients who might be referred to sub-specialists for treatment and management in other counties.

- **Conversely, a lower ratio of primary care physicians puts a greater burden on the emergency department because patients** can't get in to see a primary care physician, or cannot be seen on a timely basis.

CHCF's California Health Care Almanac -California Emergency Departments 2025 Edition[398] provides an example of the latter. **The Northern and Sierra regions, including Mendocino and Lake counties, had the highest annual emergency department visit rate per 1,000 population among the nine regions in California, at 485 visits per 1,000 population**. This was 27 percent higher than the **statewide rate of 382 per 1,000**.

This higher rate of emergency room visits does not appear to be due to the level of emergency care needed. **The Northern and Sierra regions had only a 10 percent admission rate from the emergency department, compared to 14 percent statewide.[399]**

Shortages of non-primary care physicians are also impacting health care delivery systems, particularly in more remote areas. In several recent articles, CHCF has also raised concerns about the **aging out of non-primary care specialists in areas of the state that already had a low supply of specialty care providers.** This includes the Northern and Sierra Region.[400,401]

The issue of California physicians not reflecting the state's diverse population's languages and cultures continues. As illustrated by recent HCAI data reports, far fewer of California's physicians speak Spanish, the state's second language. This is true even of physician assistants, who are more likely to speak Spanish than physicians.

[398] California Health Care Almanac – California Emergency Departments, 2025 Edition, August 2025 *California Emergency Departments Almanac — 2025 Edition*

[399] Ibid.

[400] Springer, Heather, Walker, Shaun" New Survey Highlights Worsening Shortage of Physicians in Rural Northern California", California Health Care Foundation, June 26, 2025, *Survey Highlights Worsening Shortage of Rural Physicians - California Health Care Foundation*

[401]Wolfson, Bernard J. "Health Care Cuts Threaten Homegrown Solutions to Rural Doctor Shortages" California Health Care Foundation September 30, 2025, *Cuts Threaten Homegrown Solutions to Rural Doctor Shortages - California Health Care Foundation*

Table 199. Languages Spoken by California's Physicians and Physician Assistants Compared to California's Population

Languages Spoken	English Only	Spanish	Asian and Pacific Isl.	Other Indo-European	Other	Multiple Language Groups
Physicians & Surgeons	53.6%	14.9%	9.5%	11.1%	3.2%	7.6%
Osteopathic Physicians & Surgeons	58.8%	12.0%	11.4%	8.9%	2.2%	6.8%
Naturopathic Doctor	73.2%	8.1%	4.8%	8.5%	2.1%	3.3%
Physician Assistants	60.5%	21.1%	6.8%	4.8%	2.0%	4.8%
Languages of California's Population	55.9%	28.2%	10%	4.8	1.1	n/a

Source: California Department of Health Care Access and Information (HCAI) April 2025 Report to the Legislature.

According to the California Department of Health Care Access and Information (HCAI), 30.4 percent of Medical Doctors (MDs) in the state are age 60 and over, compared to 10.8 percent of osteopathic physicians and surgeons (DOs), and only 10.1 percent of Naturopathic Doctors. Each has a different likelihood of retirement impacting the total supply of physicians in the near future.

NURSE PRACTITIONERS

Nurse practitioners (NPs) are a newly recognized role in health care in the United States, beginning with the creation of the first pediatric nurse practitioner master's level training program at the University of Colorado in 1965402 by Dr Loretta C. Ford, EdD, RN, PNP, NP-C, CRNP, FAAN, FAANP,403 and Dr Henry Silver, MD.404 In 1971, the first family nurse practitioner program began at the University of Washington. By 1973, an estimated 65 nurse practitioner programs had been established in the United States. In 1985, the American Association of

[402] *Nurse Practitioner and AANP History*

[403] Loretta C. Ford, Co-founder of Nurse Practitioner (NP) Profession, Receives U.S. Surgeon General's Medallion for…

[404] Henry K. Silver, MD - Physician Assistant History Society®

Nurse Practitioners was created, which formed the American Academy of Nurse Practitioners Certification Program.[405]

As with all health care providers, licensure of nurse practitioners falls under each state, many of which were slow to recognize NPs as a distinct provider type from nurses. Initially, nurse practitioners were expected to act under the close supervision of a physician supervisor, and usually operated under specific protocols.

These limitations became an issue as advocates pushed for NPs to be given more latitude to "work to the level of their training, experience and licensure" so they could help fill the gap caused by too few primary care physicians. This required states to pass laws allowing nurse practitioners to expand their scope of practice, and lessen the legal requirements of physician oversight.

Greater recognition of nurse practitioners by each state evolved gradually, often with opposition from physician organizations. However, by 2023, 28 states and the District of Columbia had passed laws allowing NPs to practice to the full extent of their license and training, following an example set by the U.S. Veterans Administration, which recognized nurse practitioners as being able to practice more independently in 2016.

Although still not universal across all states, licensure rules have changed, and the number of nurse practitioners nationally **quadrupled from 91,000 in 2007 to 431,000 in 2024.**[406]

California's Legislature passed A.B. 890 in 2020, granting two levels of independence. The legislation created two tiers of nurse practitioners:

- **Section 103** nurse practitioners are master's level nurses, who have passed national nurse practitioner board certification examination, holds a certification as a nurse practitioner from a national certifying body accredited by the National Commission for Certifying Agencies, and who practice with a team including physicians and have completed a "transition to practice" of three years/4,600 hours as a nurse practitioner. These Section 103 nurses usually practice in a group setting that includes physicians.

[405] *Historical Timeline*

[406] O: Reilly-Jacob, Monica, Featherston, Kyle, Poghosyan, Lusine, "Harnessing the Capacity of Nurse Practitioners to Increase Access to Primary Care in Disadvantages Communities", Milbank Memorial Fund, August 5,2025

- **Section 104** nurse practitioners who have completed the Section 103 criteria for three years can apply to be recognized as being able to practice more independently, including in a solo practice setting that they own, provided that they have referral back-up plans for complex cases. This section takes effect in January 2026. The Nursing Board may, however, lower the time required if the practitioner has completed a three-year Doctorate of Nursing Practice (DNP) degree, or has had other advanced training.

There were a number of separate provisions in the statutes that needed to be amended to clarify these authorities.[407] A follow-up bill, SB 1451, which clarifies and further expands nurse practitioner authority, was passed by the Legislature and signed into law on September 22, 2024. It further expands the authority of both Section 103 and Section 104 nurse practitioners in their independent ability to prescribe medications, therapies, or other services.[408]

Not all of the additional nurse practitioners in California or nationally, however, are working in primary care. Some nurse practitioners, like some physician assistants, are participating in specialty care or administrative roles.

To determine the impact on rural or other underserved areas, Milbank Memorial Fund researchers[409] conducted a study correlating census tract data with primary care practices in those areas, without nurse practitioners, using a national 2023 provider dataset managed by IQVIA One Key.[410]

This study found that nurse practitioners were more likely to practice in rural and economically disadvantaged areas.

Furthermore, they found that areas with more severe economic disadvantages had higher percentages of practices employing nurse practitioners.

California has also seen a rise in the number of nurse practitioners, physician assistants, and registered nurse midwives between 2020 and 2023, according to the CHCF Physician Almanac.

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[407] Chan, Garrett K, PhD, RN, NP, Duderstadt, Karen G. PhD, RN, Aligning Nurse Practitioner Statutes in California", California Health Care Foundation (CHCF), July 2021. July 2021

[408] *Bill Text - SB-1451 Professions and vocations.*

[409] Ibid. O'Neille-Jacob, Monica et al.

[410] IQVIA One Key *IQVIA - Wikipedia*

Table 200. Increase in California of Midlevel Providers, 2020 to 2023

	2020	2023	% Change
Nurse Practitioners	24,256	33,074	+36.4%
Physician Assistants	12,033	13,995	+16.3%
Clinical Nurse Specialists	3,047	2,832	-7.1%
Nurse Midwives	1,198	1,273	+6.3%

Source: California Health Care Foundation Health Care Almanac- California Physicians- 2025 Edition, July 2025

Expanded use of nurse practitioners, physician assistants, and certified nurse midwives is one method that FQHCs, nationally and in California, are using to increase access to primary care despite the shortage of primary care physicians.

Over the last five years, from 2020 to 2024, the number of nurse practitioners employed by FQHC grantees nationally grew by 21.2 percent, physician assistants by 21.4 percent, and certified nurse midwives by 4.3 percent, as illustrated in the table below.

Table 201. FQHC Medical Provider FTEs and Visits Nationally, 2020 versus 2024, by Clinician Type: Physicians, Nurse Practitioners, Physician Assistants, and Certified Nurse Midwives

National FQHC Grantees	2020		2024		2020 to 2024 % Change	
MEDICAL PROVIDERS	**# FTEs**	**# Visits**	**# FTEs**	**# Visits**	**% FTEs**	**% Visits**
Family Physician	6,610.22	17,910,579	7,225.82	18,456,639	+9.3%	+3.0%
General Practitioner	514.88	1,398,947	528.18	1,548,687	+2.6%	+20.7%
Internists	2,124.73	5,823,863	2,170.37	5,711,863	+2.1%	-1.9%
Obstetrician/Gynecologists	1,317.27	3,435,288	1,400.44	3,601,966	+6.3%	+4.9%
Pediatricians	3,125.06	8,362,429	3,304.11	9,758,584	+5.7%	+16.7%
Other Specialty Physicians	625.11	1,866,109	1,126.81	3,865,130	+80.3%	+107.1%
Total Physicians, Visits	**14,317.27**	**38,788,115**	**15,755.73**	**42,942,869**	+10.2%	+10.7%
% Physicians	**48.9%**	**49.5%**	**46.1%**	**48.2%**		
Nurse Practitioners	11,0 88.06	26,348,052	13,434.71	33,014,578	+21.2%	+25.3%
Physician Assistants	3,478.74	9,394,940	4,223.70	11,625,147	+21.4%	+23.7%
Certified Nurse Midwives	704.57	1,423,675	734.71	1,511,058	+4.3%	+6.1%
Total Midlevel Providers	**15,269.37**	**37,166,667**	**18,393.12**	**46,150,783**	+20.5%	+24.2$
% Midlevel Providers	**52.1%**	**49.0%**	**53.5%**	**51.8%**		
TOTAL MEDICAL VISITS	**29,286.64**	**75,954,782**	**34,148.86**	**89,093,652**	**+16.6%**	**+17.3%**

Source: Uniform Data System (UDS) reports, Health Resources and Services Administration (HRSA) *Health Center Program Uniform Data System (UDS) Data Overview*

The proportion of primary medical visits delivered by midlevel providers reached 51.8 percent of all primary medical visits delivered by FQHC grantees in calendar 2024.

In the same five-year period, **the number of physicians FTEs reported by FQHC grantees also rose**, **but only by 10.2 percent,** from 14,317.3 FTEs to 15,755.7 FTEs. Some of this reported increase in physician FTEs included a rise in "other specialty physicians" reported by grantees, which grew from 625.1 FTEs in 2020 to 1,126.8 FTEs in 2024, an 80.3 percent increase.

Nationally, this rapid addition of other specialty physicians suggests that FQHCs have responded to shortages of other specialty care in their communities by hiring or contracting more subspecialists directly to serve their more complex patients.

Among **California FQHC grantees**, midlevel providers accounted for **41.4 percent of total medical provider FTEs in 2024**, compared to 53.5 percent of medical provider FTEs nationally, and **41.2 percent of all medical provider visits,** compared to 51.8 percent nationally.

Table 202. Medical Visits by Provider Type, Comparison United States versus California, 2024

	USA 2024			CA 2024		
MEDICAL	**# FTEs**	**# Visits**	**% Visits**	**# FTEs**	**# Visits**	**% Visits**
Family Physician	7,225.82	18,456,639		1,501.24	4,757,332	
General Practitioner	7,225.82	1,548,687		63.09	184,453	
Internists	2,170.37	5,711,863		486.80	1,528,526	
Obstetrician/Gynecologists	1,400.44	3,601,966		290.39	836,026	
Pediatricians	3,304.11	9,758,584		756.01	2,431,978	
Other Specialty Physicians	1,126.81	3,865,130		779.47	2,977,491	
Total Physicians	**15,755.73**	**42,942,869**	**48.2%**	**3,877.00**	**12,715,806**	**58.8%**
% Physicians	**46.1%**	**48.2%**		**58.5%**		
Nurse Practitioners	13,434.71	33,014,578		1,749.12	5,409,431	
Physician Assistants	4,223.70	11,625,147		948.18	3,302,440	
Certified Nurse Midwives	734.71	1,511,058		46.99	195,987	
Total Midlevel Providers	**18,393.12**	**46,150,783**	**51.8%**	**2,749.12**	**8,907,858**	**41.2%**
% Midlevel Providers	**53.5%**	**51.8%**		**41.4%**		
TOTAL MEDICAL	**34,148.86**	**89,093,652**		**6626.12**	**21,623,664**	

Source: Uniform Data System (UDS) reports, Health Resources and Services Administration (HRSA) *Health Center Program Uniform Data System (UDS) Data Overview*

Expanded use of nurse practitioners by Rural Health Clinics (RHCs) and FQHCs has been important in encouraging growth in the number of nurse practitioners. Historically, Medicare and private insurers have paid nurse practitioners only 85 percent of usual rates, and Medicaid agencies sometimes paid only 75 percent or reimbursed their services only if billed under a supervising physician. But the Rural Health Center and FQHC statutes provided for 100 percent reimbursement for nurse practitioners, physician assistants, and other non-physicians.[411]

[411] McCann, Jessica, MPH, CPH, and Flinter, Margret, APHN, PhD, c-FNP "Investing in Primary Care" The Nurse Practitioner Will See You Now", Milbank Memorial Fund, October 2025 *https://www.milbank.org/publications/investing-in-primary-care-the-nurse-practitioner-will-see-you-now/*

When FQHCs began adopting team-based care to better manage chronic conditions, nurse practitioners and physician assistants fit neatly into that model and have excelled at chronic disease management. As reported by the Milbank Memorial Fund,[412] there is substantial evidence of the effectiveness and quality of care delivered by nurse practitioners.

- A global systemic review of NP care found 29 indicators in which NP and advanced practice were comparable or superior to physician-led care, five indicators with mixed results, and no indicators in which physician care outperformed NP care.[413]
- A systematic review of NP-delivered primary care for patients with multiple chronic conditions found reduced spending and comparable or higher quality care with fewer hospitalizations or emergency department visits compared to care delivered without NPs.[414]
- A systematic review of randomized controlled trials (RCTs) found NPs enhanced patient, service cost-effectiveness, and greater patient satisfaction.[415]
- Multiple studies suggest that patients with chronic conditions have better outcomes, including fewer hospitalizations and emergency department visits, when cared for by primary care teams that include NPs, compared with teams without NP involvement.[416]

[412] McCann, Jessica, MPH, CPH, and Flinter, Margret, APHN, PhD, c-FNP "Investing in Primary Care" The Nurse Practitioner Will See You Now", Milbank Memorial Fund, October 2025 *https://www.milbank.org/publications/investing-in-primary-care-the-nurse-practitioner-will-see-you-now/*

[413] Kilpatrick K, Savard I, Audet LA, et al. A global perspective of advanced practice nursing research: a review of systematic reviews. PLoS One. 2024;19(7): e0305008. doi:10.1371/ journalpone.0305008

[414] . McMenamin A, Turi E, Schlak A, Poghosyan L. A systematic review of outcomes related to nurse practitioner-delivered primary care for multiple chronic conditions. Med Care Res Rev. 2023;80(6):563-581. doi:10.1177/10775587231186720

[415] Htay M, Whitehead D. The effectiveness of the role of advanced nurse practitioners compared to physician-led or usual care: a systematic review. Int J Nurs Stud Adv. 2021; 3:100034. doi:10.1016/j.ijnsa.2021.100034

[416] McMenamin A, Turi E, Schlak A, Poghosyan L. A systematic review of outcomes related to nurse practitioner-delivered primary care for multiple chronic conditions. Med Care Res Rev. 2023;80(6):563-581. doi:10.1177/10775587231186720

- Team-based care, with NP and PA part of the team, has demonstrated effectiveness in managing chronic conditions.[417,418]

The increasing supply of nurse practitioners and physician assistants also comes at an important time for FQHCs, increasing their ability to manage a growing population of patients age 65 and over, who often have multiple chronic conditions.

Between 2020 and 2024, the number of patients age 65 and over served by FQHCs nationally increased by more than a million patients, from 2,931,963 to 3,964,070, an increase of 35.2 percent.

FQHCs absorbed this increase in seniors while increasing total patients served from 28,590,897 to 32,387,774, 3,796,877 more patients seen in a year. This was a 13.2 percent increase in unduplicated patients across all age ranges.

During the same period, **California's grantee patients increased by 12.1 percent overall. However, the number of patients age 65 and older grew 41.5 percent, from 458,467 to 648,664, an increase of 190,197 seniors**.

In those five years**,**

- **The number of patients with diabetes treated by California FQHC grantees rose 30.6 percent, from 467,953 patients** in 2020 to 876,547 patients in 2024.
- **The number of patients with hypertension rose 12.3 percent from 773,897 to 876,549.[419]**

Nurse practitioners in California are more ethnically and racially diverse than physicians: 15.6 percent of nurse practitioners in California are Hispanic, any race, more than the percentage of physicians, **but less than the 39.8 percent of California residents who are Hispanic**.

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[417] Ibid and

[418] Thies K, Angers M, Flinter M, Schiessl A. Team-Based Primary Care in Health Centers. National Training and Technical Assistance Partners (NTTAP) on Clinical Workforce Development, at Community Health Center, Inc., 2024. https://www.weitzmaninstitute.org/ wp-content/uploads/2024/09/Team-BasedPrimaryCareinHealthCenters.pdf

[419] Source: Uniform Data System (UDS) reports, Health Resources and Services Administration (HRSA) *Health Center Program Uniform Data System (UDS) Data Overview*

Other ethnic groups are also more represented among the state's nurse practitioners:

- 34.6 percent of Californians are white, but 43.9 percent of nurse practitioners,
- 15.1 percent of Californians are Asian, but 27.6 percent of nurse practitioners,
- 5.3 percent of Californians are Black, and 7.7 percent of nurse practitioners.

California's nurse practitioners are also more likely than physicians to speak the languages of the diverse population of the state.

Fewer nurse practitioners in California are approaching retirement age than physicians: only 16.5 percent of nurse practitioners are age 60 and over.

Table 203. Languages Spoken by California's Nurse Practitioners and Certified Nurse-Midwives Compared to California Population, 2024

Languages Spoken	English Only	Spanish	Asian and Pacific Isl.	Other Indo-European	Other	Multiple Language Groups
Nurse Practitioners	56.5%	15.8%	14.0%	6.6%	3.1%	4.0%
Certified Nurse Midwives	59.0%	30.1%	2.4%	2.7%	1.6%	4.2%
Languages of California's Population	55.9%	28.2%	10%	4.8%	1.1%	n/a

Source: California Department of Health Care Access and Information (HCAI) April 2025 Report to the Legislature.

BEHAVIORAL HEALTH SHORTAGES

In 2023, approximately 59 million U.S. adults (23% of all U.S. adults) had a mental illness, and **nearly half of them did not receive treatment (46%).**[420]

Behavioral health services can be challenging to access due to behavioral health provider shortages, high out-of-pocket costs, insurance coverage gaps, and other factors.[421] For

[420] Substance Abuse and Mental Health Services Administration. (2024). "Key Substance Use and Mental Health Indicators in the United States: Results from the 2022 National Survey on Drug Use and Health". U.S. Department of Health and Human Services. *https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report*

[421] United States Government Accountability Office. (2022). Mental health care: Access challenges for covered consumers and relevant federal efforts. *https://www.gao.gov/assets/gao-22-104597.pdf*

example, 6 in 10 psychologists do not accept new patients, and the national average wait time for behavioral health services is 48 days.[422]

According to HRSA's September 30, 2025, data, there are 6,604 Mental Health Professional Shortage Areas (HPSAs) across the U.S., impacting approximately 127.3 million people, well over one-third of the population of the United States.[423]

As of that report, **California** had **620 mental health HPSAs, affecting 11.4 million people**. Mental health HPSAs are usually designated based on the supply of psychiatrists serving an area or population. The Bureau estimates it would require an additional 588 psychiatrists to resolve California's psychiatric shortages alone.[424]

California's Department of HCAI projects state supply and demand for behavioral health providers in three groupings:

- **Psychiatrists**
- **Non-prescribing licensed providers:** (Licensed Clinical Social Worker, Licensed Marriage and Family Therapist, Licensed Professional Clinical Counselor, and Licensed Psychologist),
- **Associate Level Clinicians:** Associate Clinical Social Worker, Associate Marriage and Family Therapist, Associate Professional Clinical Counselor, and Registered Psychologist Associate)

In 2025, HCAI has projected that all 58 California counties will have a shortage of behavioral health clinicians across all behavioral health roles examined.

[422] American Psychological Association. (2022). Psychologists struggle to meet demand amid mental health crisis. *https://www.apa.org/pubs/reports/practitioner/2022-covid-psychologist-workload.pdf*

[423] Designated Health Professional Shortage Areas Statistics, Fourth Quarter of Fiscal Year 2025, Designated HPSA Quarterly Summary, October 1, 2025. *https://data.hrsa.gov/*

[424] Ibid.

However, the **most severe shortages are in the three regions** with the highest proportions of low-income residents: **Northern & Sierra, Inland Empire, and San Joaquin Valley**.[425]

As analyzed by HCAI, Sonoma County's shortage of behavioral health providers is a gap of -14.9 percent of total behavioral health providers, lower than the statewide projection of -37 percent. However, counties to the north of Cloverdale have more severe gaps: -50 percent in Mendocino County and -70 percent in Lake County, among the most severe in the state.[426]

Table 204. HCAI Total Behavioral Health Workforce Supply and Demand Projections

	California	Sonoma County	Mendocino County	Lake County
Projections	**In FTEs**	**In FTEs**	**In FTEs**	**In FTEs**
Estimated Supply	103,960.0	1866.0	247.0	82.0
Estimated Demand	165,010.8	2192.3	493.7	275.5
Supply -Demand Gap	-61,150.8	-326.3	-246.7	-193.5
Gap FTEs per 100,000 Pop.	-156.3	-68.0	-273.4	-286.2
Gap Percentage	**-37.1%**	**-14.9%**	**-50.0%**	**-70.7%**

Source: California Department of Health Care Access and Information (HCAI) April 2025 Report to the Legislature. For Methodology see: *Supply and Demand Modeling for California's Behavioral Health Workforce - HCAI*.

As the largest group of behavioral health providers, the gaps HCAI found in the supply of non-prescribing licensed behavioral clinicians are particularly concerning. This is one category, however, where Sonoma County's gap is lower than that of statewide or surrounding counties.

Table 205. Non-Prescribing Licensed Clinicians, HCAI Supply and Demand Projections

	California	Sonoma County	Mendocino County	Lake County
Projections	**In FTEs**	**In FTEs**	**In FTEs**	**In FTEs**
Estimated Supply	74,112.0	1,536.0	203.0	57.0
Estimated Demand	117,428.6	1,634.9	354.0	198.8
Supply -Demand Gap	-43,316.6	-98.9	-151.0	-141.8
Gap FTEs per 100,000 Pop.	-110.7	-20.6	-167.3	-209.7
Gap Percentage	**-36.9**	**-6.1%**	**-47.7%**	**-71.3%**

Source: California Department of Health Care Access and Information (HCAI) April 2025 Report to the Legislature.

[425] Annual Report to the Legislature, April 2025, Health Workforce Research Data Center, Department of Health Care Access and Information (HCAI) *Health Workforce Research Data Center Annual Report to the Legislature - April 2025*.

[426] Ibid.

The gap in the supply of associate-level providers is somewhat larger statewide than the gap in the supply of non-prescribing providers: -38.0 percent versus 36.9 percent.

However, Sonoma County's gap in associate-level behavioral providers, -45.5 percent of current supply, is much higher than the modest -6.1 percent for non-prescribing behavioral providers.

Mendocino County's associate-level provider gap is - 65.5 percent of current supply, also a considerably higher than the high -47.7 percent gap in the supply of non-prescribing providers.

Lake County's gap of - 67.6 percent of current supply for associate-level providers is marginally lower than the -71.3 percent gap for non-prescribing behavioral providers. Still, it is proportionally far worse than the statewide level.

Table 206. Associate Level Behavioral Health Clinicians, HCAI Supply and Demand Projections

	California	Sonoma County	Mendocino County	Lake County
Projections	**In FTEs**	**In FTEs**	**In FTEs**	**In FTEs**
Estimated Supply	5,052.0	261.0	41.0	21.0
Estimated Demand	8,153.4	462.0	118.8	64.8
Supply -Demand Gap	-3,101.4	-201.0	-77.8	-43.8
Gap FTEs per 100,000 Pop.	-7.9	-41.9	-86.2	-64.8
Gap Percentage	**-38.0%**	**-45.5%**	**-65.5%**	**-67.6%**

Source: California Department of Health Care Access and Information (HCAI), April 2025 Report to the Legislature.

This gap in associate-level clinicians is particularly concerning, as the percentage of clinicians in this group who speak Spanish is higher than the percentage of other behavioral health clinicians.

Table 207. Languages Spoken by Behavioral Health Providers by Type of Provider, California, 2025

Languages Spoken License Type	English Only	Spanish	Asian and Pacific Isl.	Other Indo-European	Other	Multiple Census Language Groups
Associate Clinical Social Worker	52.0%	30.1%	4.0%	2.2%	1.7%	1.2%
Associate Marriage and Family Therapist	63.8%	24.2%	4.2%	4.3%	1.9%	1.6%
Associate Prof. Clinical Counselor	66.0%	22.2%	4.3%	3.6%	2.4%	1.5%
Licensed Clinical Social Worker	66.8%	24.8%	3.8%	2.4%	1.2%	1.0%
Licensed Educational Psychologist	76.5%	15.6%	2.5%	2.7%	1.4%	1.4%
Licensed Marriage and Family Therapist	75.3%	14.4%	2.8%	4.3%	1.8%	1.5%
Licensed Prof. Clinical Counselor	76.0%	13.7%	3.6%	3.5%	1.9%	1.2%
Psychiatric Mental Health Nurse	87.9%	3.7%	3.4%	2.6%	1.8%	0.6%
Psychologist	78.8%	8.8%	3.2%	5.5%	2.0%	1.7%
Registered Psychological Associate	64.4%	16.6%	4.7%	6.6%	3.4%	2.1%
Languages of California's Population	55.9%	28.2%	10%	4.8%	1.1%	n/a

Source: California Department of Health Care Access and Information (HCAI), April 2025 Report to the Legislature.

As a part of Governor Gavin Newsom's **Master Plan for Kids Mental Health** and the state's Children and Youth Behavioral Health Initiative (CYBHI), the Legislature authorized, and HCAI implemented a new **Certified Wellness Coach** program to provide support for the growing behavioral health needs of the state's youth. These new Wellness Coaches provide nonclinical support, including wellness promotion and education, screening, care coordination, individual and group support, and crisis referrals. Wellness Coaches are intended to work as part of a larger care team and under the direction of qualified school professionals or clinicians. **So far, 3,500 coaches have been certified, and an additional 613 scholarships were awarded to students to train as wellness coaches.**

The Uniform Data System (UDS) reports filed by FQHCs do not itemize as many categories of behavioral health providers as the HCAI projections. However, there are a number of observations that can be drawn from the UDS data for 2024.

Table 208. Behavioral Health FTES and Visits, by Provider Type, Comparison FQHC Grantee United States versus California, 2024 Calendar Year Reports

	USA 2024			CA 2024		
BEHAVIORAL HEALTH	**# FTEs**	**# Visits**	**% Visits**	**# FTEs**	**# Visits**	**% Visits**
Psychiatrists	913.22	1,973,202	**10.2%**	180.2	355,657	**13.3%**
Licensed Clinical Psychologists	972.15	933,317	**4.8%**	171.48	232,166	**8.7%**
Licensed Clinical Social Workers	4,944.73	5,430,192	**28.2%**	768.65	828,271	**30.9%**
Other Licensed Mental Health Providers	4,495.65	7,116,051	**36.9%**	538.15	617,926	**23.1%**
Other Mental Health Staff	3,160.20	1,990,319	**10.3%**	747.17	351,890	**13.1%**
Substance Use Disorder Services	2,759.30	1,819,283	**9.4%**	331.82	290,572	**10.9%**
TOTAL BEHAVIORAL HEALTH	**17,245.25**	**19,262,364**	**100.0%**	**2,738.47**	**2,676,482**	**100.0%**

Source: Uniform Data System (UDS) reports, Health Resources and Services Administration (HRSA) *Health Center Program Uniform Data System (UDS) Data Overview*

First, 13.3 percent of behavioral health visits reported by California FQHC grantees were to psychiatrists, compared to 10.2 percent nationally. California grantees also had more visits to licensed clinical psychologists: 8.7 percent compared to 4.8 percent nationally.

Both in California and nationally, licensed clinical social workers (LCSWs) were the backbone of mental health services, with California again having a slightly higher percent of LCSW visits (30.9 percent) compared to the U.S. (28.2 percent). However, "other licensed mental health providers" provide a greater proportion of total behavioral health visits nationally than in California.

However, both FQHCs in California and FQHCs nationally are likely to say the volume of services their patients need is greater than the supply of behavioral health providers they employ, regardless of category.

FEDERAL SUPPORT FOR CALIFORNIA HEALTHCARE WORKFORCE

The federal government has been a major source of funding for the expansion of California's healthcare workforce.[427] Future budget cuts, such as those to other areas of health funding approved in the H.R.1 Budget Reconciliation Act, could have an impact on the growth of that workforce.

In 2022, the federal government provided an estimated $2.1 billion to educate, train, and retain the health workforce in California, distributed by nine federal departments and agencies[428] including:

- $1.755 billion from the **Centers for Medicare and Medicaid (CMS)** to pay a portion of **graduate medical education (GME)** programs, such as physician residencies,
- $143.8 million through the **Health Resources and Services Administration (HRSA)** for National Health Service Corps scholarships, loan forgiveness, and planning,
- $36.7 million through the **National Institutes for Health (NIH)** for health research and grants to train health researchers,

[427] Schumacher, Kristen, PhD. M.S.W. "Federal Funds Expand and Support California's Health Workforce", California Health Care Foundation, September 2025. *Federal Funds Expand and Support California's Health Workforce*

[428] Ibid.

- $8.4 million through the **U.S. Centers for Disease Control and Prevention (CDC)**
- $2.6 million through the **Agency for Healthcare Research and Quality (AHRQ)**
- $1.6 million through grants from the **Substance Abuse and Mental Health Services Administration (SAMHSA)**
- $1.4 million from **Indian Health Services,**
- $4 million for **Public Health AmeriCorps programs** in California, and
- $158.1 million from the **U.S. Department of Veterans Affairs (VA)** to educate and train students and professionals at Veterans Health Administration facilities in the state.

The State of California has also invested $4.3 billion over a five-year period (2019-2023) in various health workforce initiatives and programs.[429] Funding, which came from redirected budget surpluses, is at risk in the state's current fiscally tight times.

The state has also allocated over $1 billion to train and recruit behavioral health providers, including expanding training slots and roles for psychiatrists, psychiatric mental health nurse practitioners, nurse practitioners, and peer counselors.[430]

AVH RECRUITMENT ISSUES

These health professional workforce supply issues impact AVH harder for several reasons:

1. The health center's small size, which can add to workload, or "call coverage" time, possibly reduces the perceived attractiveness of the opportunity. This problem will be addressed by the new facility and the planned expansion of clinical staff.
2. The high cost and limited availability of local housing discourage relocation to the area.

[429] Health Workforce Research Data Center Annual Report to the Legislature, California Department of Health Care Access and Information, April 2025; and Kristin Schumacher, How California is Strengthening Its Health Workforce: An Explainer, CHCF, May 2024.

[430] *CA Behavioral Health's Workforce Shortage Remains a Growing Concern | HCI Innovation Group*

3. The distance and travel time from larger communities discourage providers from commuting to Cloverdale, although some have done so successfully. Enabling medical and mental health providers to e-visit patients via telehealth has eased this problem.

4. AVH has limited resources for professional recruiters, although it does use them at times.

5. AVH has limited resources for signing bonuses, moving expenses, or other incentives, although AVH has used all of these tools at one time or another. However, Partnership HealthPlan of California has stepped forward to support signing bonuses.

PART FIVE: Future Vision

Overview

This chapter reviews the considerable progress Alexander Valley Healthcare has made toward its overall goal of creating a **full scope system of primary care** for its high-need service area.

Unfortunately, a series of challenges, including health workforce shortages, proposed cuts to the federal Medicaid budget, Affordable Care Act (ACA) premium subsidy cuts, and other federal policy changes, pose risks to FQHCs and their patients. This section discusses the options AVH can use to meet those challenges, and the organizational partners likely to help.

The chapter also lays out a series of aspirational goals AVH has set for itself for the next decade, including constructing a new Health and Wellness Center that will act as a service hub for a wider geographic pool of patients already seeking services from AVH, and raising the total number of patients seen annually to 8,000 people. AVH goals also include expanding support for family caregivers, adding chronic pain management programs, fostering new transportation options, and increasing AVH's capacity for trauma-informed care.

Full Scope Primary Care

In a nation that is underspending on primary health care, federally funded health care centers (FQHCs) have been a bright spot. By targeting National Health Service Corps (NHSC) providers to health professional shortage areas, and federal grant funds to underserved populations, these resources have been **concentrated in communities where local people need them most.**

The scope of an FQHC's activities is based on community health needs assessments like this one. Following up on the needs identified through ongoing community development efforts, FQHCs attract the resources and providers to add the services their patients and communities need. As a result, most FQHCs have grown beyond providing access to only medical care.

FQHCs like AVH have emerged as comprehensive service providers offering a full scope of primary health care: **primary medical care**, **dental care**, **mental health care**, **substance use disorder counseling**, **public health education**, and **enabling services** such as case management, referral navigator services, and financial application assistance.

Barriers to Full Scope Primary Care in an Isolated Area

As a sole medical provider in a rural area at the edge of a large county, AVH faces the issue that its area lacks the other resources needed to make a "whole delivery system".

There are no sub-specialists in the service area, no urgent care, no emergency room, no hospitals, no radiology unit, limited lab services, no physical therapy, no occupational therapy. No sports medicine, no dietitians or nutritionists, few social services, and only one skilled nursing facility.

As a result, patients often need to travel out of the area, which for many is difficult and costly to do because of limited transportation options. Patients who may not have access to the needed transportation to out-of-area services may not get the consultations, radiology, treatment, or follow-up care they need.

Given its geographic location, aging, low-income, and minority populations, AVH aspires to provide as comprehensive a range of care as it can locally.

FQHCs – A Blended Model

The FQHC model combines elements of **private practice** and **public health:**

1. **Like a private practice**, FQHCs' providers address the presenting problems of each individual patient, arriving at a diagnosis and treating the patient.

2. **Like public health agencies**, FQHCs address community health problems such as conducting community-wide health promotion efforts or blocking contagious outbreaks.

AVH in Its Dual Role

AVH currently offers a broad range of primary care services to individuals:

Health Promotion Services

- Well-person exams for infants, children, adults
- Medicare Annual Wellness check-ups
- Family planning, pregnancy testing, pre- and post-natal care

- Public awareness and health education programs, including STI prevention, drug and alcohol use cessation
- School and sports physicals, employment physicals

Disease Prevention Services

- Immunization/vaccination of children, adults, and seniors;
- Oral hygiene instruction, oral health screenings, fluoride treatments, and dental prophylaxis;

Early Detection

- Providing evidence-based screening programs, including
    - Blood pressure screening
    - Dental X-rays
    - Breast cancer, cervical cancer, and colorectal cancer screenings
    - Hepatitis C screening and treatment
    - Sexually Transmitted Infection (STI) screening and treatment
    - Oral health screening
    - Depression screenings
    - Substance use screening

Diagnosis and Treatment of Acute Care Problems

- Family practice diagnosis and treatment
- Subspecialty referrals to diagnostic consultants when needed
- General dentistry and Emergency dental care
- Dental restorations, dentures, and partials

- Diabetes management
- Chronic disease management
- Medication management
- Individual and group counseling
- Cognitive Behavioral Therapy
- Medical Assisted Treatment for Opioid Addiction
- Attention Deficit/Hyperactivity Disorder treatment
- Smoking cessation
- Depression treatment
- Anxiety and Stress management

Enhanced Care Management of chronic medical and behavioral health conditions

- Tracking and recall to monitor chronic conditions
- Follow-up on emergency department use
- Follow-up on hospital admissions and re-admissions

Enabling Services

- Referral to social services or housing programs
- Assistance in applying for health insurance coverage or food programs.

There are also many examples of **AVH in its public health role**. In recent years, AVH has:

- Conducted community-wide COVID-19 **vaccinations**,
- Provided **disaster preparation** trainings in the community,
- Offered **health education programs** at local schools and other community locations;

- Provided oral evaluations, dental hygiene instruction, and fluoride treatment at local schools;
- Organized a **mobile mammogram** unit to come to Cloverdale for patients and community members; and
- Provided community education on use of **NARCAN/NALOXONE** to treat opioid use emergencies.

In these ways, AVH has demonstrated its commitment to providing a full range of primary health services to its patients and its communities

FQHC Financial Model and Continuity of Care

As a safety-net health care provider, AVH has long recognized the difficulty low-income patients have in seeking health care when their slim resources must also prioritize food, shelter, and utilities, all of which are equally necessary for the health of their families. This creates patterns of episodic care – care only sought when a health problem has already progressed.

AVH, like other FQHCs, accepts both **public insurance** such as Medicare and Medicaid, **and private insurance** such as employer insurance or privately purchased insurance. But FQHCs also offer sliding-scale discounts based on income, family size, and housing costs to patients who are uninsured or between coverage.

In recent years, this **sliding scale also applies to underinsurance** – covering services that are not reimbursed by insurance until large deductibles have been met. Those are payments that low-income patients cannot usually afford.

This FQHC approach was designed to address the financial instability that low-income patients experience due to more frequent changes in employment (e.g., “last hired, first fired,” etc.) than higher-trained or higher-paid employees. Each change of employment creates uncertainty about whether the next employer will offer health insurance coverage and, if so, what type. Too often that means periods without insurance, periods when patients avoid seeking care.

In the FQHC model, patients can continue to be seen by a health center’s providers despite changes in coverage. When they lose coverage, they shift to sliding-scale status. It is a financial model that improves continuity of clinical care for patients.

AVH Care Model

AVH has built its own clinical care model on top of this FQHC financial framework, with the same goal of continuity of care but adding **continuity of provider**. AVH encourages patients to establish "patient-centered health homes" with a provider of their choice. Those providers usually have regularly assigned support staff. If a patient has lab results or has fallen behind on screenings, lab work, or rechecks (e.g., blood pressure rechecks), a familiar support staff member or provider from the patient's own team contacts the patient to follow up.

- AVH's medical care is organized around physician-led teams which include nurse practitioners, nurses, case managers, referral coordinators, and medical assistants. These teams focus on health promotion, managing chronic conditions, and treating acute health problems.

Dental care and behavioral health care are also organized around a similar team approach:

- Dentists, registered dental hygienists, and dental assistants work as teams with dental support staff to better serve dental patients and to make referrals to other health services they may need;

- Licensed clinical psychologist, licensed clinical social worker (LCSW), marriage and family therapist (MFT), psychiatric mental health nurse practitioner, substance use disorder counselor, and mental health case manager work together as a team.

Medical, dental, and behavioral health care teams work in tandem to achieve "whole person" care by encouraging integration of services across disciplines.

This model helps establish relationships between patients, providers, and their support teams. The goal is for staff to get to know patients and better understand their needs, and for patients to develop trust in their care team members.

This approach has been found to be more effective at encouraging patients to follow through on their individual health plans, including recommended changes to diet, exercise, oral hygiene, substance use cessation, and other self-care.

Information Technology Support

Care teams are supported by AVH's **electronic health record system**. This system is one of AVH's strengths and is used to report health outcomes and measure the quality and timeliness of care provided.

This system is also used to flag when a patient is due for a well-person visit, a recheck, screening, lab test, or follow-up, and allows team members to communicate with each other. This EHR system also facilitates referrals between departments as part of AVH's integrated care approach. Information from case management calls or home visits can be related to the provider and other team members.

Since March of 2020, AVH medical and mental health providers have also been able to schedule online telehealth visits with patients, reducing travel time and adding another layer of privacy. The results of these telehealth visits or after-hours calls are also recorded in the patient's electronic medical record via an encrypted data link, even if the provider is working from home.

Prescriptions are ordered through the e-prescribing section of the system, while lab tests are ordered and lab results received electronically and directed to the patient's record, with a notification automatically sent to their provider and patient.

Patients can contact their provider or care team members via AVH's secure online patient portal and by phone. Their provider can also send patients secure messages about their health problems or to report radiology or lab test results. Patients can make requests online for appointments at times that best fit their schedules. In these ways, AVH patients and staff experience the IT system as they would in a staff-model HMO.

Overcoming Social and Financial Barriers to Health

Care teams also address economic or social barriers to health through financial assistance staff in their Enabling Services unit. These financial assistance staff can help patients enroll in Medicare; Medi-Cal; Covered California ACA insurance programs; CalFresh (California's SNAP /food stamp program); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); housing assistance programs; California's Family P.A.C.T. program, or other social service programs as needed.

Special Focus on High-Risk Patients

Using a one-year state grant from the California Department of Health Services (DHCS) under the CalAIM PATH program[431] AVH has added enhanced care management (ECM) staffing to assist complex patients at risk of repeated emergency department use, hospital admission, or readmission and has contracted with Partnership Health Plan of California, its Medi-Cal managed care plan, to provide ECM services on an ongoing basis.

This high-risk population includes patients experiencing homelessness, or those who have cognitive as well as physical disabilities, or both chronic medical and behavioral health diagnoses, which are often particularly costly to the Medi-Cal and Medicare programs.

Challenges and Threats

HEALTHCARE WORKFORCE SHORTAGES

Like many healthcare providers, Alexander Valley Healthcare has experienced turnover in its medical, dental, and behavioral health staff in the wake of the COVID-19 pandemic. Refilling vacancies has taken months, creating stress and overwork on remaining providers.

STRATEGIC OPTIONS:

The supply of nurse practitioners has been rising faster in California than the supply of primary care physicians. AVH has already shifted its provider mix to include more nurse practitioners.

PARTNERS:

- AVH has partnered with the **Doctor of Nursing Practice (DNP)-Family Nurse Practitioner (FNP) Degree Program** at the **University of California Davis**. Of the recent cohort, two FNP's have accepted full-time employment offers from AVH.
- AVH is collaborating through Aliados Health with other FQHC's to seek additional physician residencies as space and funding allow.

[431] The Providing Access and Transforming Health (PATH) grant program is described at the DHSC CalAIM website: *Medi-Cal Transformation*

NATIONAL MEDICAID FUNDING CUTS

Under the recently passed H.R.1 Budget Reconciliation (OBBBA),[432] over $1.1 trillion dollars was cut from the federal Medicaid Budget over the next ten years. To achieve this reduction in spending, Congress imposed rules that all "able-bodied" adults ages 19-64 on the Medicaid program must meet new work requirements to continue their enrollment.

This measure threatens both AVH's 2,200 Medi-Cal patients with loss of the only insurance coverage they can afford, and threatens the loss of AVH's most common payer.

The possible loss of Medi-Cal is not an equal threat to all AVH Medi-Cal patients. Congress has exempted seniors, caregivers of younger children, and disabled adults from work requirements, as well as people in education or work experience programs. Those who are not working must document 80 hours a month of volunteer community service to remain on the program.

However, all Medi-Cal patients will now need to go through eligibility redetermination twice a year and document that they meet the work requirements or qualify for an exemption. Failure to complete re-determinations will end a patient's enrollment, even if the patient would have met the work requirements or exemptions.

It is estimated that between 900 and 1,100 AVH Medi-Cal patients are working-age adults who are not disabled. **How many may be working already is unknown**.

The new twice-a-year eligibility redeterminations impose a huge cost on all states, but also may prove technically difficult to achieve in states with very large Medi-Cal enrollment.

At this point, government liaison staff members from California Primary Care Association and Aliados Health[433] regional coalition are reporting that there is doubt within state government that California can recertify 14.5 million[434] Medi-Cal enrollees twice a year, particularly with

[432] Also known as Public Law 119-21.

[433] Redwood Community Health Coalition (dba) Aliados Health is a regional coalition of 17 community health center organizations in Marin, Napa, Sonoma, Contra Costs, Solano, and Yolo counties *https://aliadoshealth.org/*

[434] As of May 2025, California had a total of 14.5 million Medi-Cal enrollees. Sonoma County had 140,557 Medi-Cal enrollees, 38.9 percent of Sonoma County's estimated population. Mendocino County had 44,749, 46.0 percent of the county's population. Lake County had 34,576 Medi-Cal enrollees, 50.7 percent of total county population. (Based on State population estimates). Source: ***Updated Medi-Cal Enrollment Data***, a portal of official state Medi-Cal enrollment data maintained by the California Health Care Foundation, retrieved August 4,2025..

only 18 months' notice. The twice-yearly recertifications and work verifications take effect in January 2027. The state is still developing a plan to meet these new requirements.

STRATEGIC OPTIONS:

Alexander Valley Healthcare can assist in informing Medi-Cal enrollees to understand the changes. AVH can also **add financial assistance staff to its enabling services unit** to help its Medi-Cal patients through the determination process.

POTENTIAL PARTNERS: There are potential partners in this strategy:

- **Aliados Health,** the regional Health Center Controlled Network that has a long history of training health center staff to provide enrollment assistance to patients, and will expand those efforts.
- California estimates that 94 percent of Medi-Cal patients are now enrolled through a managed care plan, and those managed care plans – such as **Partnership HealthPlan of California**, the Medi-Cal plan with which AVH contracts – can assist patients in maintaining enrollment.
- These managed care organizations can help by (1) informing Medi-Cal patients of their risk of disenrollment, (2) assisting their enrollees in documenting that they meet the exemptions, and potentially (3) supporting the state in carrying out its plan for redeterminations. Partnership HealthPlan is likely to call on its FQHC partners, such as AVH, to assist it in this process.
- **AVH** could also work with local volunteer organizations, such as **La Familia Sana, or the Cloverdale Senior Multi-purpose Center to** help organize local opportunities for patients to perform community service work that would qualify them for continued Medi-Cal.

ACA MARKETPLACE INSURANCE COVERAGE

Covered California, the state's Affordable Care Act (ACA) marketplace exchange, is also facing cutbacks imposed by H.R.1 and several administrative decisions. The premium tax credit, which

provided subsidies, has not been renewed, raising the cost of insurance coverage for most enrollees. Annual enrollment periods have been shortened.

The Congressional Budget Office estimates that 4.2 million persons will lose marketplace coverage between 2026 and 2034.[435] AVH patients on ACA insurance will need to be told about changes in subsidy level made by H.R.1 and helped to find other coverage if necessary.

STRATEGIC OPTIONS:

AVH patients currently enrolled in Covered California could also be helped by **expanded AVH financial assistance staffing,** who could help them to understand some of the changes that they need to be aware of, such as (1) shorter enrollment periods, (2) substantial loss of premium subsidies due to cuts in H.R. 1, affecting the price of insurance coverage, and (3) the importance of seeking out information on insurance plan options though the Covered California information internet sites well before re-enrollment.

POTENTIAL PARTNERS:

- **Covered California** itself maintains a strong online set of resources and help lines that patients can be referred to.
- **Aliados Health** can be a resource for training AVH staff on the changes so they are giving clear and correct information to patients.

POSSIBLE MEDICARE CUTS

The 2025 federal budget process set out new revenue, expense, and deficit targets. The non-partisan Congressional Budget Office has warned that many of these targets are unlikely to be met. Failure to meet those targets will likely trigger further automatic budget cuts under the **Statutory Pay-As-You-Go Act** of 2010 **(S-PAYGO**). Those cuts would be implemented if a projected shortfall is computed by the Office of Management and Budget.

[435] The Center for Budget and Policy Priorities. *https://www.cbpp.org/research/health/by-the-numbers-harmful-republican-megabill-will-take-health-coverage-away-from*

When a new budget passes, Congress sometimes includes an amendment exempting some of the budget from triggering the Pay-As-You-Go Act automatic cuts. This was not done in this budget reconciliation act with respect to domestic spending provisions.

The automatic Medicare cuts projected by the Congressional Budget Office are 4 percent of the Medicare budget, totaling $45 billion in fiscal 2026 and rising to $75 billion in fiscal 2034.[436]

STRATEGIC OPTIONS:

Medicare beneficiaries facing rising out-of-pocket costs due to federal cuts to Medicare fee-for-service reimbursements may choose to enroll in a Medicare Advantage HMO plan that covers more services and has lower co-pays.

POTENTIAL PARTNERS:

Alexander Valley Healthcare has expanded its contracts with many such plans:

- **Blue Cross**
- **St. Joseph Heritage**
- **United Healthcare**
- **Medicare Aetna**
- **Alignment HMO**
- **Meritage**
- **Sutter**
- **Medicare Noridian**.

[436] Phillip L. Sagel, Director Congressional Budget Office letter to the Ranking Members of the U.S Senate Committees on Environment and Public Works, Finance, and Budget, and the Ranking Member of the Committee on the Budget of the U.S. House of Representatives. Letter available at: *https://www.cbo.gov/system/files/2025-08/61659-SPAYGO.pdf*

CALFRESH/SNAP (FORMERLY CALLED FOOD STAMPS) WERE ALSO CUT

The H.R.1 budget reconciliation bill also cuts the Supplemental Nutrition Assistance Program (CalFresh in California) benefits by an estimated $186 billion over 10 years. The Congressional Budget Office estimates that 3 million of the current 42 million enrollees will fall off the program as a result.[437]

These cuts are achieved through several provisions, including: expanded work requirements, removal of people 55 to 64 with only children over age 14, limiting previous waivers for areas of high unemployment, changing the "Thrifty Food Plan" on which benefits are calculated, and by shifting a substantial portion of benefit costs to states, which may lead to some states further restricting benefits or even exiting the program altogether.

According to the 2019-2023 American Community Survey (ACS), an estimated 5.7 percent of households in AVH's service area use SNAP. That is a small but vulnerable low-income population of both families with children and low-income seniors. With inflation, particularly in food prices, still rising, their need for the program is also rising. These cuts will have a serious impact.

Furthermore, CalFresh/SNAP, along with Medi-Cal, are considered counter-cyclical programs – **their use rises when unemployment or other economic hardships hit**. More households would need assistance if the economy nationally or in California goes into a recession.

STRATEGIC OPTIONS:

- California's Legislature has already begun developing budget trailer bills that will help supply more state dollars to CalFresh. AVH can advocate for continuation of CalFresh benefits by the State.
- AVH can work with local organizations to expand support for food pantry, community gardens, and farmer's market opportunities.

POTENTIAL PARTNERS:
Advocacy partners include:

[437] *Estimated Budgetary Effects of an Amendment in the Nature of a Substitute to H.R. 1, the One Big Beautiful Bill Act, Relative to the Budget Enforcement Baseline for Consideration in the Senate | Congressional Budget Office*

- **California Primary Care Association, and**
- **Aliados Health**

Locally, food bank efforts are offered by:

- **Cloverdale Food Pantry and**
- **Cloverdale Senior Center**
- **Healdsburg Food Pantry**
- **Familia Sana**
- **Redwood Empire Food Bank and local affiliates**

ICE RAIDS HAVE CREATED AN ATMOSPHERE OF FEAR IN THE COMMUNITY

The immigrant expulsion being carried out by the United States Immigration and Customs Enforcement (ICE) agency began in full in January of 2025. Officially, this effort was described as targeted primarily at persons in this country illegally, or who have broken laws. However, news agencies have also reported the apprehension of long-time legal residents, naturalized and even native-born citizens across the country.

In California, where the population is 40% Latino/x, two-thirds of whom are US-born (California Latino Health Almanac, September 2025), these activities have created a sense of threat among people of Hispanic, Asian, Pacific Islander, African American, or mixed race to be in public regardless of their legal status.

STRATEGIC OPTIONS:

AVH has joined a collaborative of Health Centers and Immigrant Service organizations (SRCH, Petaluma Health, Alliance Health, Sonoma Immigrant Services, Secure Families, and others) to ensure that Health Centers have developed policies and procedures governing federal agencies' access to the clinics. Additionally, they are creating webinars and communications to ensure that clinic staff, providers, and patients are aware of their legal rights and feel supported and safe.

- After seeking legal advice, AVH can train its staff on how to respond to either requests for information made by authorities, or how to handle intrusions by authorities on-site (e.g., who to notify, what to say or not say, etc.).

- AVH can make referrals of its patients to legal aid organizations if patients ask for that information.

Aspirational Goals

COMPLETE AVH'S NEW HEALTH AND WELLNESS CENTER FACILITY

As documented in AVH's 2022 Community Health Needs Assessment, AVH's small medical and dental clinic buildings have been a barrier to adding sufficient staff to serve the needs of its current patients and potential patients in its catchment area.

AVH has used the data from that assessment to plan a new Health and Wellness Center to act as a "hub" for an expanded range of healthcare services in the mostly rural areas of northern Sonoma, southern Mendocino, and southern Lake counties. The planned 27,000 square foot facility would be large enough to:

- Provide medical, dental, mental, and behavioral health services to 8,000 or more patients annually, in one location to improve integration of services and providers' ability to cross-refer patients;

- Bring other health services such as the Women Infant and Children (WIC) Supplemental Food Program, a medical lab draw station, Sonoma County mental health services, and a pharmacy to the site either through direct service expansion or agreements with other agencies;

- House new services not currently present in the community, either provided directly by AVH or by other service organizations/providers sharing the facility.

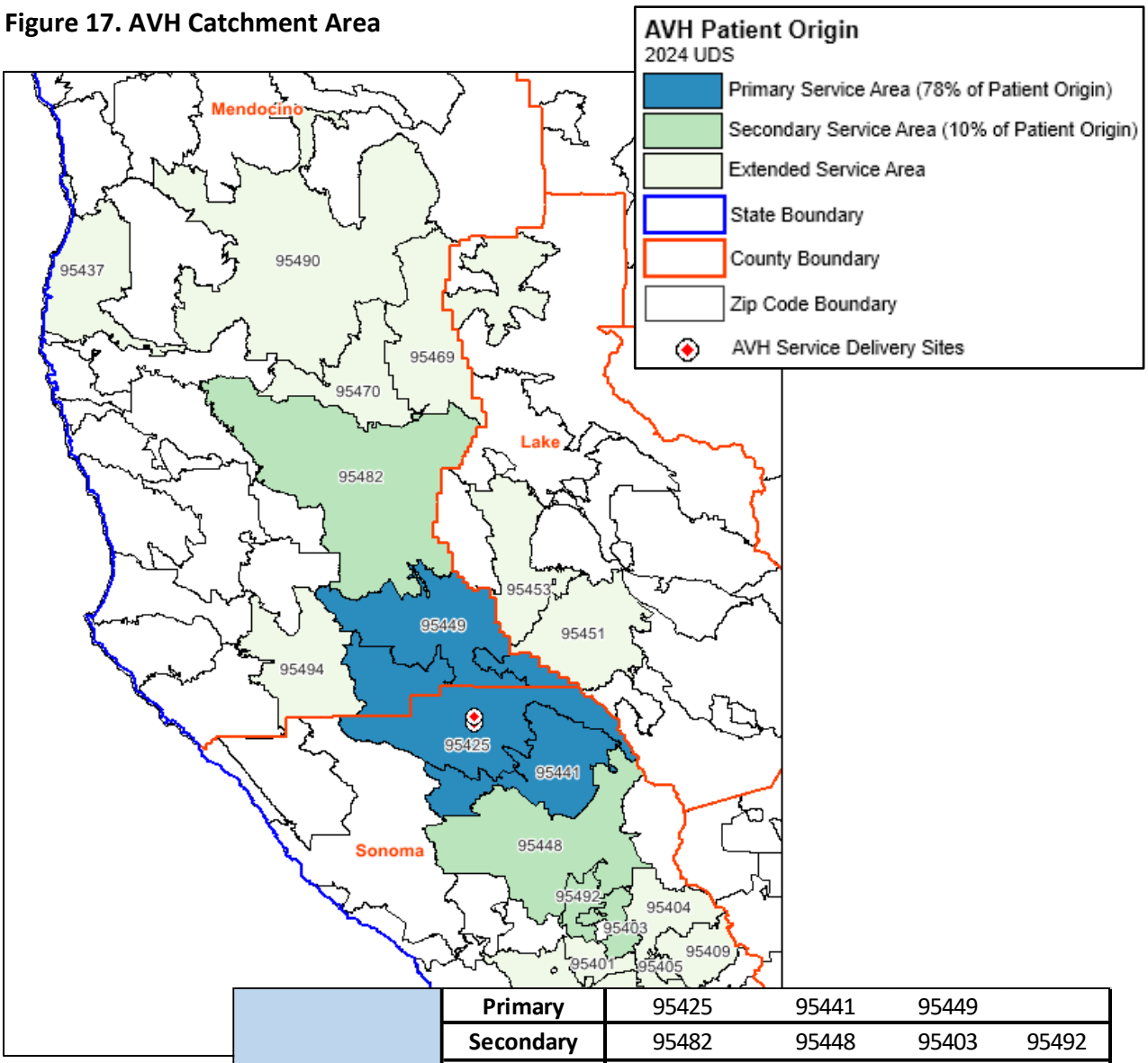
- The financial feasibility of this project has been tested in two studies by Capital Link, a national, non-profit organization that has, for the past 25 years, assisted hundreds of

community health centers in planning and evaluating capital projects and improving financial performance.[438]

Capital Link's most recent analysis reported that there were 8,500 uninsured individuals plus 9,000 Medi-Cal enrollees that were not served by any FQHC in 2024 living in the primary, secondary, and extended service areas from which AVH already draws some patients. These unserved patients present an opportunity for growth.

[438] August 2024, and August 2025, Capital Link: *www.caplink.org*

Figure 17. AVH Catchment Area



Service Area Zip Codes	**Primary**	95425	95441	95449	
	Secondary	95482	95448	95403	95492
	Extended	95401	95407	95490	95404
		95453	95470	95451	95405
		95409	95472	95494	94928
		95437	95469		

Source: Capital Link

AVH has made progress on the new facility project. AVH has purchased a site from the City of Cloverdale in central Cloverdale, on a bus route, near Highway 101 freeway ramps, accessible to new affordable housing units being built, and next to the fairground, which the county uses

as a staging and emergency shelter area during a natural disaster. Detailed architectural plans have been developed and are now being reviewed by the City of Cloverdale.

A capital campaign has been launched, attracting over $7 million in grants and donations already, demonstrating the strength of community support. This includes over $920,000 in individual donations, $392,500 in foundation support, $250,000 from Sutter Health, $250,000 from Delta Dental, $1,000,000 from Sonoma County Health & Human Services, and $4,400,000 from the California Department of Health Care Services through Proposition 1 Behavioral Health Continuum Infrastructure Program (BHCIP).

Tentative co-location agreements are being discussed with many of the key partner agencies, including Sonoma County.

Seven service expansion goals are tied directly to the completion of the Health and Wellness Center. These goals cannot be completed without the expanded space:

A. Expand AVH's Medical, Dental, Mental and Behavioral Health and Enabling Staffing

The goal of reaching 8,000 unduplicated patients is ambitious and will be achieved gradually. The new facility will increase AVH's number of exam rooms, dental operatories, and individual and group counseling rooms, but AVH will also need to add physicians, nurse practitioners, dentists, registered dental hygienists, licensed clinical social workers, substance use counselors, and support staff gradually as patient volume and revenues grow. Based on new patient data from prior years, unduplicated patients are expected to grow by at least 700-800 per year.

B. Bring WIC, medical lab services, pharmacy, vaccination services, and social services on-site for both AVH patients and community members

Central to the concept of the new Health and Wellness Center as a "service hub" is the idea of bringing more services to one location and reducing the need to leave the area for them. AVH envisions doing this either by inviting other service providers to co-locate in the new facility or by adding the services to its own scope. By adding the space for those services, both options are open to AVH in the future.

C. Bring Sonoma County Behavioral Health Services On-Site

Initial discussions have already been held with Sonoma County officials, and out-stationing County personnel is likely when the new facility opens, depending on the schedule and County staffing budgets.

D. Add Urgent Care

Cloverdale has an ambulance service to transport patients to the emergency departments at hospitals in Healdsburg and Santa Rosa. However, not all urgent medical needs require an emergency department. Access to medical providers for urgent, non-emergency medical conditions during extended hours when AVH clinics are closed is planned into the layout of the new facility. This includes entrances that do not require the entire building to be open for patients to enter an urgent care office. Those spaces are, however, accessible for ambulance transport if the patient does need emergency department services.

E. Expand Nutrition and Health Education Programs

Patients today have easy access to a large amount of information about nutrition and what foods can help people with specific health conditions via the internet. However, that information is sometimes difficult to understand or contradictory, and it cannot always be trusted. Patients may need help **evaluating sources critically** and should **consult a healthcare professional** before making health decisions.

Expanded nutrition education opportunities could help patients make healthy choices. AVH's new facility will provide classroom space to conduct more patient nutrition education programs.

Many AVH patients could also benefit from dietitian-designed **meals tailored to their medical conditions and personal health problems**, including the 653 patients who were identified as overweight and obese, the 429 patients with diabetes mellitus, the 880 patients with hypertension, the 305 patients with heart disease, and other patients with multiple chronic conditions. Many would benefit from ongoing **programs that prepare and distribute medically tailored meal programs.** Developing such programs on a **sustainable basis** is difficult without sufficient volume,[439] which AVH and other FQHCs can provide.

There are also organizations in AVH's local area that have specialized cooking spaces to conduct food preparation classes for the community. Expanding AVH's linkages to these programs would be particularly valuable for adults with chronic conditions and their caregivers, and for young people interested in improving their wellness through healthy eating or in entering food preparation as a career. One such organization is La Familia Sana, a Cloverdale-based non-profit

[439] The Medically Tailored Meal Sustainability Blueprint", Food is Medicine Coalition and Center for Health Law and Policy Innovation, Harvard Law School, Spring 2026. *Home - Food is Medicine Coalition | Food is Medicine Coalition*

and AVH partner that has recently installed a commercial kitchen in their Family Resource and Resiliency Center.

AVH's community has many elderly patients who live alone, lack their own transportation, or have physical impairment that makes shopping difficult. To better support these patients, there is a need for AVH to continue building referral linkages with organizations that provide home delivery of groceries or prepared meals.

OTHER NEW PROGRAMS

Four other aspirational service goals can begin development even before the new facility opens, but will be enhanced by the center's completion.

A. Improved Support for Family & Informal Caregivers

Growing numbers of seniors, particularly those living alone, are dependent, in part, on the care and support provided by family and informal caregivers. Yet research, cited in **PART TWO: Population Served,** shows that such caregivers are sorely stretched in time, finances, and expectations when carrying out these services. Many express concern that they are being asked to act in their caregiver roles well beyond their training. Cloverdale's Senior Center has a volunteer support program to help caregivers with their stress. **AVH has the opportunity to help expand this support**:

- AVH has resources that could be mustered to assist this invaluable group, such as medical personnel who can advise and assist caregivers and patients in making health care decisions, but **needs to make those personnel more accessible to caregivers or high-risk patients.**

- AVH has patient portals that can make it easier to track lab results, appointments, or seek advice. But **protocols need to be put in place to allow patients to authorize their caregivers to access these resources on their behalf, with the authorization documented in their electronic medical record.**

- AVH has **behavioral health and substance use counselors** who can help provide support and counseling to caregivers, and to patients who are new to the experience of relying on others.

B. Chronic Pain Management Program

The number of AVH patients with chronic pain has risen from 360 in the 2013–2014 period to 586 in 2022-2023. EHR data shows that many of those patients also have other chronic conditions, including mental and behavioral health conditions such as depression, anxiety disorders, and alcohol or other substance abuse.

Growing concerns over the health impact of opioid painkillers have increased demand for other forms of pain relief. Health centers in various parts of the country have reported progress using alternative approaches to pain management, including:

- **Alternative therapies** such as osteopathic manipulation therapy, acupuncture, Feldenkrais Functional Integration (FI),[440] or craniosacral therapy;[441]

- **Safe movement programs** to help pain patients regain range of movement through practices such as Tai Chi, Yoga, Feldenkrais Awareness Through Movement (ATM), or Qigong.

- AVH has enough chronic pain patients to develop such alternative pain management programs. Additional patients with other chronic conditions would also benefit from physical movement programs like Tai Chi, Qigong, calisthenics, etc., as would many of AVH's 652 patients with depression and substance use disorders. **However, some modalities would require the larger spaces available in the new Health and Wellness Center when completed.**

[440] Originated by Moshe Feldenkrais and continued by Feldenkrais Practitioner Guilds, the Feldenkrais Method is a movement-based practice with two variations: Functional Integration, conducted in hands-on individual sessions with a Feldenkrais practitioner, and Awareness Through Movement, a floor-based program of exercises intended to improve range of movement, which can be performed individually or in group/class settings. See *https://feldenkrais.com* for more information. (Feldenkrais, Feldenkrais Guild, Awareness Through Movement, and Functional Integration are registered trademarks of the Feldenkrais Guild of North America in the United States.)

[441] Craniosacral therapy (CST) is another hands-on technique intended to reduce pain and improve health by relieving central nervous system tension. A CST session is similar to massage therapy, except that a gentler touch is used and the patient remains fully clothed. For more information, see the Cleveland Clinic information page: *https://my.clevelandclinic.org/health/treatments/17677-craniosacral-therapy*.

C. Foster Additional Transportation Options

AVH patients are often handicapped in seeking the health care they need by the lack of public transportation in the area.

As the number of patients coming from Mendocino and Lake counties increases, this problem will continue to grow, as they will be coming to Cloverdale from areas with no transportation other than private automobiles.

Most service-area households have fewer cars than their working family members, and some households have no vehicle, creating a serious barrier to seeking care. The volume of AVH's out-of-area referrals has also continued to rise (over 2,500 in 2024).

With AVH's current volume of patients needing transportation and the increased patient volume coming to its new facility, both for medical, dental, and mental health services, as well as an on-site pharmacy and lab services, WIC, etc.) there is an opportunity for AVH to use this volume to stimulate the development of new transportation options for the area, such as on-demand or ride-share services.

D. Increase Capacity in AVH for Trauma Informed Care

AVH's mental health department currently provides trauma-informed care to patients. That understanding of how to best serve patients who are experiencing the consequences of trauma needs to **become agency-wide.**

AVH does not have specific reports aggregating data on patients who have experienced trauma. However, national survey data report that the percent of individuals who have suffered trauma either in childhood or as adults is high.

In a 2023 study, at least 64 percent of adults in the United States report that they had at least one trauma before age 18, and 17.3 percent report they experienced four or more types of adverse childhood experiences (ACEs).[442]

In another study, three out of four high school students reported having at least one ACE, and one in five reported having experienced four or more. The most common ACEs among high

[442] Swedo EA, Aslam MV, Dahlberg LL, et al. Prevalence of Adverse Childhood Experiences Among U.S. Adults — Behavioral Risk Factor Surveillance System, 2011–2020. MMWR Morbidity Mortality Weekly Rep 2023; 72:707–715. DOI: *http://dx.doi.org/10.15585/mmwr.mm7226a2*., reported by Centers for Disease Control *https://www.cdc.gov/aces/about/index.html*

school students were emotional abuse, physical abuse, and living in a household affected by poor mental health or substance abuse.[443]

AVH has 921 patients with anxiety disorder, including post-traumatic stress disorder (PTSD), 586 patients who are currently suffering from chronic pain, and other patients whose diagnosed conditions suggest possible underlying trauma. AVH leadership has recognized that past trauma is a factor affecting enough of AVH patients that all staff should be trained to be able to:

- **Recognize the signs and symptoms of trauma** in patients, families, and staff;
- Integrate knowledge about trauma into **policies, procedures, and practices**; and
- **Develop trust-building communication skills** and approaches sensitive to the needs of people who have suffered trauma, and
- **Become knowledgeable in services available to AVH patients to help treat the consequences of their trauma.**

SUMMARY

These goals reflect service needs documented in this, and prior community health needs assessments demonstrating how AVH could fill those gaps.

The goals are designed to address identified **weaknesses**, including AVH's largest weakness – its fragmented and undersized facilities. And the goals build on **the identified opportunities, such as the large,** underserved population in the ZIP codes surrounding the primary service areas.

Despite the enormous **challenges and threats** posed by the current political environment, AVH Staff and Board remain dedicated to serving the broad range of needs evident in their patients and the community.

The plan also builds on the dedication of the staff and providers to their mission of service and patient-centered healthcare, and on the oversight of a patient-centered board, **AVH's greatest strengths.**

[443] Swedo EA, Pampati S, Anderson KN, et al. Adverse Childhood Experiences and Health Conditions and Risk Behaviors Among High School Students — Youth Risk Behavior Survey, United States, 2023. MMWR Suppl 2024;73(Suppl-4):39–49. DOI: http://dx.doi.org/10.15585/mmwr.su7304a5,.

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