Strategic Healthcare Recovery Plan

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Executive Summary

Introduction

When dawn struck on November 8, 2018, due to extraordinarily dry conditions and unusual wind patterns, a "fast fire" initiated by failed electrical transmission lines sparked a conflagration that would become one of the deadliest and most expensive fires in California history. Within just a few short hours, the bucolic Town of Paradise and surrounding communities on the Upper Ridge were consumed by a firestorm that left 85 dead and destroyed nearly 19,531 homes (90% of housing stock) and structures, which permanently changed the community.[1,2]

For many years preceding the Camp Fire, people living in the Town of Paradise and the Upper Ridge communities of Magalia and Stirling City enjoyed a peaceful, rural, and semi-rural life away from the hustle and bustle of urban areas. More affordable than many other areas of California, the ridge attracted retirees, families, and others, and eventually grew to a collective peak population of over 50,000 people.

The Feather River Hospital (FRH), founded in the 1960s, was a particular anchor to the community. It was known for excellent labor and delivery, a fully functioning emergency department (ED), cancer care, and surgical specialties. The hospital supported associated outpatient medical providers and clinics that offered a full spectrum of primary care to community members.

The economic impact of the hospital's closure is significant. The hospital has remained closed due in part to damage sustained in the fire and following rainstorms, however,

[1] https://www.nist.gov/el/fire
[2] https://www.fire.ca.gov/incidents/2018/11/8/camp-fire/

due to insufficient volume, Adventist Health had already developed plans, pre-fire, to close the hospital and potentially relocate to a smaller replacement hospital in Chico that was intended to serve growth in South Chico and the Paradise Ridge Service Area. This left nearly all hospital employees to seek employment outside the community, and many of the associated outpatient physicians, healthcare workers, and clinics have either closed, relocated to the Chico area, or even moved out of state, thus leaving the ridge and Upper Ridge with much-diminished access to healthcare as compared to before the fire.[3] Many new and returning residents now rely on healthcare in Chico and the few remaining clinics in Paradise.

Objective

In the seven years since the Camp Fire, the Town of Paradise has focused on safe rebuilding and repopulating. Now with a town population of over 11,000, and about 9,000 in Magalia and Stirling City, The Abaris Group has been contracted to assess the current state of healthcare delivery in the Paradise Ridge Service Area (herein defined as the Town of Paradise, and the surrounding communities of Magalia and Stirling City), project future demand for such services, and provide recommendations to meet the current and future healthcare needs of the community. This document is intended to serve as a plan for rebuilding the healthcare system over the next 5, 10, and 15 years.

The report is divided into four sections:

- Section 1: Investigation of past, current, and projected population demographics for the Paradise Ridge Service Area for the next 5, 10, and 15 years
- Section 2: Assess current healthcare infrastructure, ranging from clinics, EMS, EDs, hospitals, and long-term care
- Section 3: Share key findings and provide a plan for action

[3] Urseny L (2019) Adventist Health Finalizes Layoffs at Feather River Hospital

- Section 4: Provide a summary of the report and include appendices

Methodology

The information contained herein was obtained through over 40 hours of semi-structured qualitative interviews with local leadership, community members, foundations, healthcare providers, and Town and County leadership, in part, as recommended by Town officials and Abaris staff. Whenever possible, in-person interviews were conducted. The Town and surrounding areas' historical healthcare data were obtained from various governmental sources, including the California Department of Public Health, the California Department of Health Care Access and Information, the U.S. Census Bureau, and academic publications. When possible, data were obtained by local healthcare providers and organizations. In some cases, data was not available or was limited. All data sources are referenced in the footnotes where used.

Due to the extraordinary population changes that have occurred in the Paradise Ridge Service Area since the fire, coupled with the COVID pandemic, many data sources, such as U.S. Census data, may be outdated or limited in scope. Whenever possible, more contemporary or supporting data is presented.

This Paradise Ridge Service Area corresponds to the “Paradise Sphere” as designated by Butte County, with the exception of Stirling City.[4]

Findings

The population of Paradise and the entire Paradise Ridge Service Area has experienced dramatic change since the fire, with an immediate drop from over 25,000 persons in the Town of Paradise to under 5,000. The remainder of the Paradise Ridge Service area saw a similar decrease in population. Over the last seven years, the Town population has

[4] https://www.buttecounty.net/DocumentCenter/View/3304/Map-of-Paradise-Town-Sphere-of-Influence-PDF

begun to rebound at a rapid rate but remains far below pre-fire numbers. Growth in Magalia and elsewhere in the service area is also lower. While the median age has been stable, there has been a rapid growth in school-age children with high elementary school enrollment coupled with a higher proportion of persons 65 years and older as compared to Magalia and Butte County. The birth rate in Paradise is one of the highest in Butte County and is rising the fastest.

The number of employed people in Paradise showed a rapid drop following the fire, but the unemployment rate, except for 2019-2020, has been relatively steady and is similar to pre-fire levels. Median per capita income has risen slightly since the fire, but per capita poverty rates are high compared to elsewhere in Butte County. The proportion of persons relying on Medicare and Medi-Cal for health insurance is about 49% for both Paradise and Magalia. In Paradise, this has risen about 2% above pre-fire levels.

Following the closure of the Feather River Hospital in Paradise, most of the hospital care needs of the Paradise Ridge Service Area have been redirected to Enloe Medical Center in Chico, representing up to 10% of all inpatient and emergency services provided there. Similarly, most Emergency Medical Services (EMS) transports are also redirected to Enloe Medical Center. There are currently up to three ambulances that provide coverage of the Paradise Ridge Service Area during the day, with a full-time ambulance stationed in Magalia and two 12-hour ambulances stationed in Paradise. Ambulance coverage is reduced to one ambulance between the hours of midnight and 8 am.

The fire also led to a loss of primary care, dental care, specialist care, long-term skilled nursing facilities, and residential care facilities. Currently, primary care and some urgent care (or rapid care) are delivered at the Feather River Health Center on Skyway and the Paradise Medical Group. Many other practitioners have closed or moved to Chico.

Hospital Care

Given the proximity of Enloe Medical Center, the demographic and financial factors described in detail in the report, the prospect of reopening Feather River Hospital or building a new hospital in the next five years is unlikely. In 10-15 years, if there is tremendous population growth in the Paradise Ridge Service Area, it may be viable to build a hospital in Paradise. However, due to high operating costs, hospitals require high utilization of inpatient beds to sustain operations, which in turn necessitates large populations. When considering Expected Inpatient Days (EID) for California of 471 per 1000 population[5] and assuming 50% of hospitalized residents stay at a hospital on the ridge, a population of 25,000 would generate an annual average daily census (ADC) of only 16.1 patients according to the following formula:[6]

$$ADC = \frac{(EID * Population * 0.5)}{365\ days} = \frac{(471 * 25 * 0.5)}{365\ days} = 16.1$$

A low ADC would not be sufficient to operate a hospital of the size of former Feather River Hospital, and Adventist Health leadership estimates that a population of approximately 110,000 is necessary to generate a sufficient ADC. A smaller hospital that requires a smaller ADC will also face the challenge of fixed costs that are independent of size, such as 24/7 emergency department staffing, call agreements, pharmacy, and diagnostic services.

If the population were to expand substantially, the most attractive option for establishing a hospital would be a health care district governed by a local board of directors, which would require some public subsidy. Should this path be considered, we recommend that the Town leadership and the County Board of Supervisors approach the Local Agency Formation Commission and their local state representative and state senator at least several years in advance to prepare legislation that would authorize the formation of a special district. Since funding of the district will require a

[5] https://www.statista.com/statistics/1474828/hospital-inpatient-days-per-capita-in-the-us-by-state/?srsltid=AfmBOorB019zoQ6n0YDyGBLsRKZ9CpuXXVZcfVsX5u-4ymO4iGTmp6lM
[6] https://careset.com/master-average-daily-census-calculation-for-effective-market-access/

property tax assessment to subsidize operations, we also recommend that the Town conduct surveys of residents to determine the interest level.

EMS

Current EMS staffing levels are appropriate for the call volume and population; however, residents may perceive the need for enhanced coverage based on the lack of emergency care in Paradise. Current coverage of 48 hours for the Paradise Ridge Service Area is the same as pre-fire coverage, with the notable exception that an ambulance is not posted in Paradise between the hours of midnight and 8 am, however with the loss of the Feather River Hospital, transport times are much longer and the likelihood of an ambulance being out of district is higher than it was pre-fire. Current call volumes are well below pre-fire levels, and on balance, we feel coverage is appropriate.

As the population continues to grow, additional ambulance coverage will be needed to maintain compliance with response time standards. In the short term, call volume is not sufficient to support a second overnight ambulance stationed in the Town of Paradise. Supplemental funding could increase overnight staffing. A Basic Life Support (BLS) ambulance that is preferentially dispatched to lower acuity calls could be provided at slightly lower cost. Projected population growth indicates about a 50% increase in five years and a return to pre-fire population levels in the Paradise Ridge Service Area within 10 years. Ambulance service coverage will need to increase in proportion to population and call volume.

EMS services are self-sustained through patient care reimbursement and are only viable with patient volume. Should the Town wish to pursue supplemental EMS coverage that otherwise would not be justified by call volume, this could be funded through a County Service Area (CSA), as is the case in Gridley and Biggs. Since a CSA requires a property tax assessment, we recommend that the Town and the Board of Supervisors survey residents on their interest level.

Urgent Care / Rapid Care

Many low acuity conditions that would otherwise go to the emergency department could be safely handled in a properly equipped urgent care or rapid care. Fortunately, the Feather River Health Center has a well-equipped rapid care; however, due to provider shortages, the hours are limited or inconsistent. We recommend that the Town partners with Adventist Health to attract and retain providers to staff this clinic. One option is for Adventist Health to subcontract with Enloe Medical Center to staff the Rapid Care Clinic with emergency physicians who are currently contracted to provide emergency care at Enloe Health Center. The Town may consider subsidizing some of the cost of this contract.

Ideally, this clinic could be staffed on a 24/7 basis and, if staffed with emergency physicians, could potentially be capable of receiving appropriately triaged EMS patients. Once the clinic is consistently staffed, we recommend that the Town approach Butte County EMS and the Sierra Sacramento Valley EMS agency to develop alternate EMS destination policies as allowed by state law.

Primary Care and Specialty Care

Clinic services (Primary and Specialty care) are well below pre-fire levels. This is a natural consequence of the drop in population, but also due to the loss of the hospital, which served as an anchor for clinical services and referrals. Primary care physicians sometimes have hospital privileges and provide hospital and outpatient care. Specialists rely on hospital surgical suites, equipment, and procedure rooms to treat patients, and the loss of the facility makes these outpatient practices more difficult.

In addition to building capacity at the Adventist Health Feather River campus, in the next five years, we recommend that the Town approach other primary care providers, such as Ampla Health, particularly for Medi-Cal population beneficiaries, and Enloe Health to initiate or expand services in the Paradise Ridge Service Areas. Ideally,

providers who focus on providing care in the Chico area will find benefit in establishing satellite offices that more directly meet the needs of their patients.

Long-Term Care

Pre-fire, there were three skilled nursing facilities (SNFs) in the Paradise Ridge Service Aea with a total capacity of 279 beds. Butte County currently has 9 SNFs with a total capacity of 910 beds, none of which are in the Paradise Ridge Service Area. Currently, the smaller population and the shift toward a younger demographic in the Paradise Ridge Service Area are not likely to provide enough demand for rebuilding an SNF. However, as the population continues to grow and/or the demographic of the population ages, expansion of in-home care and additional residential care will likely be needed.

Recommended Action Plan and Recovery

The following recommendations are intended to provide a plan for action for healthcare recovery in the Paradise Ridge Service Area. According to the time frames and population projections, these represent our top recommendations on what we believe is practical and achievable. These recommendations should be applied in parallel whenever possible, such that while working on short-term recommendations, consideration, planning, and groundwork for recommendations in the medium and long term should also be kept in mind. Additionally, the time frames and population thresholds should serve as general guidelines for the phases of recovery. An unexpectedly rapid population growth, for example, may provide opportunities to implement elements of the plan sooner than specified below.

Short Term (0-5 Years, Population up to 15,000)

Hospital Care and Emergency Departments

- Consider zoning, planning, and Town infrastructure improvements that could pave the way for a potential future hospital.
- Begin the early planning process for the formation of a Healthcare District.

Pre-Hospital Care (EMS)

- In conjunction with Butte County EMS, the Sierra Sacramento Valley EMS Agency, and Adventist Health:
    - Establish a mutually agreeable sustainability plan that monitors EMS volumes for the need of additional ambulance coverage.
    - Encourage development of alternate destinations and assess and refer policies for low-acuity patients who can be safely cared for in the Adventist rapid care clinic or transported to a hospital via a rideshare option (see below).
- Consider allocating $330,000 for short-term supplemental funding to provide additional coverage in the Town of Paradise between midnight and 8 a.m.
- Develop rideshare options in partnership with Lyft, UBER, and public transit, for low-acuity patients who may need hospital evaluation but otherwise do not need ambulance transport.
- Initiate the process of establishing a Community Service Area that can provide sustainable supplemental funding for overnight ambulance service that exceeds what can be supported by patient volume.

Urgent Care/Rapid Care

- The Town should continue its partnership with Adventist Health to expand capacity and hours of operation at the Skyway Adventist Health Clinic and Rapid Care by addressing barriers to expansion, such as provider recruitment and a fall-off in patient demand in the evening hours.

Primary and Specialty Care

- Reach out to healthcare organizations to solicit interest in expanding services in the Paradise Ridge Service Area.
- Consider incentives such as fee reductions, streamlined permits, financial support, and others toward healthcare organizations that express interest in expanding in the Paradise Ridge Service Area.
- Evaluate public transportation options and make recommendations on routes that maximize efficiency for residents who need to travel from Paradise to the healthcare facilities in Chico.

Long Term Care

- Initiate zoning, planning, and permitting incentives to encourage operators to open skilled nursing, assisted living, adult day care, and respite care as local demand for these services grows.
- Develop relationships with existing long-term care providers in Butte County and explore opportunities for expansion in the Paradise Ridge Service Area.

Medium Term (5-10 years, Population up to 20,000)

Hospital Care and Emergency Departments

- Prioritize the Healthcare District planning process and initiate public education and discussion related to the formation of a Healthcare District.

Pre-Hospital Care (EMS)

- Work with Butte County EMS and SSVEMS to establish nurse navigation for appropriately triaged 911 callers.
- Consider establishing a standby BLS ambulance service for transporting clinic patients, as necessary.

Urgent Care/Rapid Care

- Continue to monitor rapid care utilization and consider expansion if demand dictates.
- Establish Adventist's willingness and capability to care for low-acuity EMS patients in Rapid Care who would otherwise not need to go to an emergency department.

Primary and Specialty Care

- Provide incentives to attract and retain medical providers in the area, such as housing subsidies or loan repayment.
- Continue to meet with local healthcare providers to determine other potential barriers or challenges to staff recruitment and retention.

Long Term (10-15 years, Population up to and beyond 25,000)

Hospital Care and Emergency Departments

- Initiate the process of forming a Healthcare District by working with Butte County LAFCO and retaining the services of a specialty firm that can perform the financial analysis and feasibility review needed.

Pre-Hospital Care (EMS)

- Continue monitoring EMS demand volumes and appropriate coverage.
- Continue 911 nurse navigation and alternate destination programs previously established.

Urgent Care/Rapid Care

- Consider expanding capacity to provide 24/7 coverage, with the capability to accept low acuity EMS patients.

Primary and Specialty Care

- Partner with Healthy Rural California and academic institutions to increase training opportunities in the high schools and community colleges for allied health professionals.

Conclusion

With careful and determined planning, there are tremendous opportunities to rebuild healthcare in all its forms in the Paradise Ridge Service Area. This will depend on multiple factors, including repopulation, planning, and investment. While market forces would eventually drive investment in healthcare, that approach will likely result in services that lag the present demand.

In the next five years, the Town can initiate concrete actions that can have an immediate effect and lay the groundwork for rebuilding the healthcare infrastructure that will be needed in the next 10 to 15 years. This potentially includes planning for a Healthcare District, developing a CSA for ambulance services, and creating conditions that would attract healthcare providers to live and work in Paradise, such as housing, schools, and other services.

Disclaimer

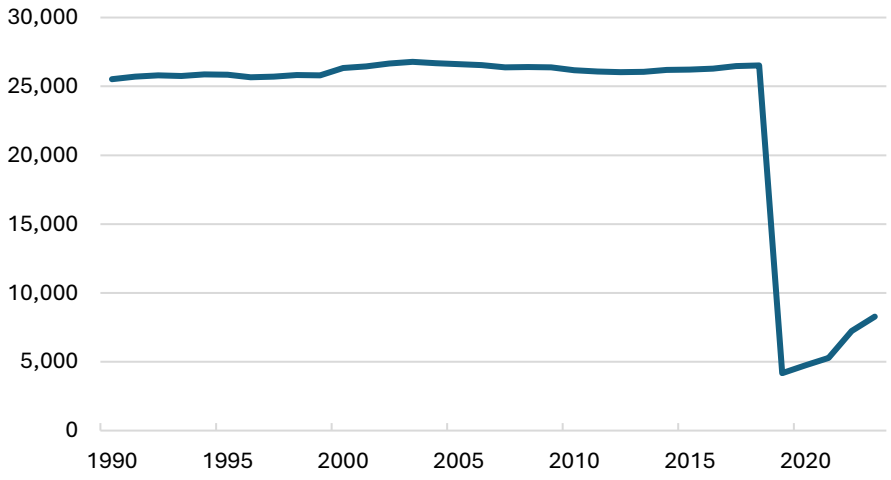
The content of this report is for general informational purposes only and is not intended to substitute for legal advice where necessary. The most accurate, publicly available information and data at the time of preparation was used for the analysis and is subject to change.

Section 1: Population Demographics and Health

Population Characteristics

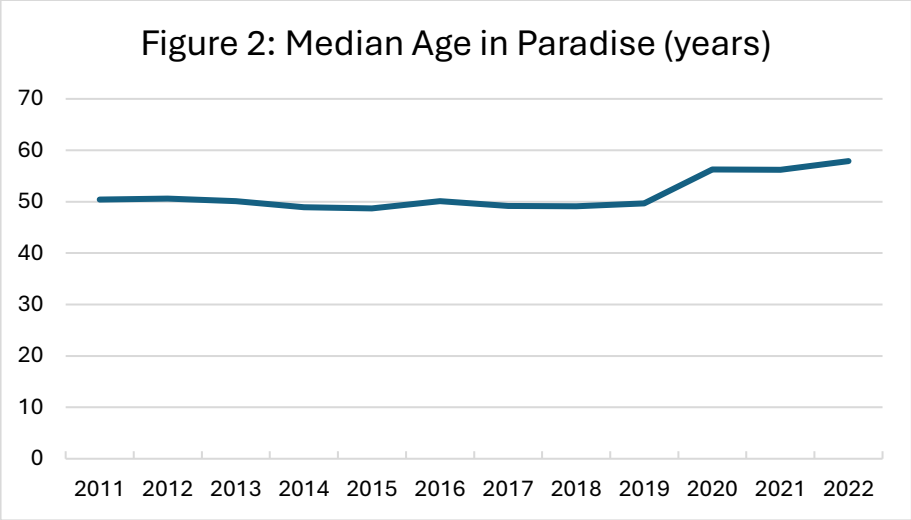
Paradise was a lumber town that grew rapidly, and by the 1950s had 5,000 residents, growing to over 20,000 by 1966. Incorporated in 1979, the town was considered an affordable place to live for moderate-income households. Marketed as a retirement community, the town had high proportions of residents with some aspects of social vulnerability: low income, poor, elderly, children, and individuals with disability and fragile health.[7] 18.4% of the population was 65 years or older, and 12.6% of those under 65 suffered from health issues or disabilities. The national percentages were 16.5% and 8.6%, respectively.[8]

Figure 1: Population in Paradise



One of the most dramatic effects of the Camp Fire was the immediate depopulation of the town and Magalia (Figure 1). The pre-fire population in Paradise was nearly 27,000 residents by 2018, Magalia was 12,671, and Stirling City was 307. The collective population of the surrounding areas in the Upper Ridge, including Magalia and Stirling City, approached over 40,000 persons. Following the Camp Fire, the Town population dropped to as low as 4,000 residents but has since gradually rebounded to around

[7] Flanagan BE, Gregory EW, Hallisey EJ, Heitgerd JL, Lewis B (2011)
[8] United States Census Bureau (2019) QuickFacts: United States; Butte County, California.

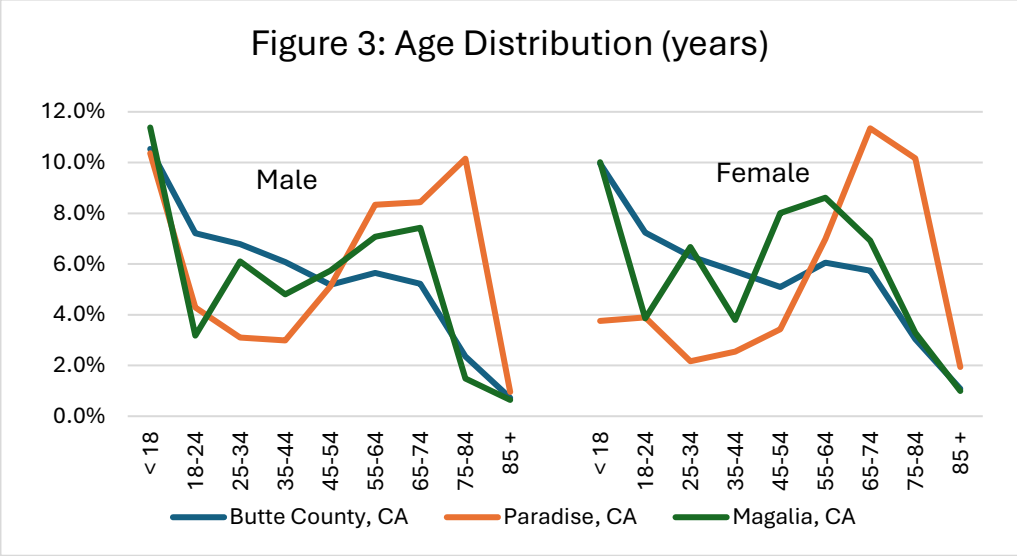


11,000, based on current estimates.[9] Magalia's population is currently estimated to be 8,901, down from its peak in 2018 and with minimal year-over-year growth.[10]

This regrowth led to a significant change in demographics. Once home to many retirees who were attracted to the area partly because of the hospital and healthcare services available, the Town is now home to an influx of newcomers and younger families from the Bay Area and Southern California seeking affordable housing. Evidence of this demographic shift can be seen in the significant growth of enrollment in primary and secondary schools and the demand for obstetric and pediatric services, as reported to us in interviews.[11] Despite this, the median age in Paradise (58) has trended slightly upward since the fire (Figure 2).[12] By comparison, the median age in Chico in 2022 was 30.4 years.

[9] https://www2.census.gov/programs-surveys/popest/tables
[10] https://worldpopulationreview.com/us-cities/california/magalia
[11] https://www.ed-data.org/district/Butte/Paradise-Unified
[12] https://www.census.gov/programs-surveys/acs/data/data-via-ftp.html

According to the U.S. Census Bureau's 2023 American Community Survey Data, the age breakdown in Butte County, Paradise, and Magalia is shown in Figure 3.[13] It should be noted that U.S. Census data is the best available published data on demographics in the area; however, due to the nature of the rapid population shifts following the fire, coupled with the challenge of conducting the Census during the pandemic, the data may either be dated or incomplete.[14] Subsequent American Community Survey Data reports are likely to provide a more reliable estimate of today's demographic picture. Whenever possible, corroborating information, such as school district and state sources, was used to validate or refute Census data.



Despite these limitations, the data shows some useful patterns for the purposes of this report. While Butte County shows progressively diminishing percentages in each successive age group, Paradise shows a bimodal curve, with similar percentages of those under 18 years of age, smaller percentages of those between 18 and 54, and much higher percentages of those 55 and older as compared to Butte County and Magalia. Magalia shows a hybrid pattern between Butte County and Paradise. The trend toward older individuals in Paradise is more pronounced in the female group than in males.

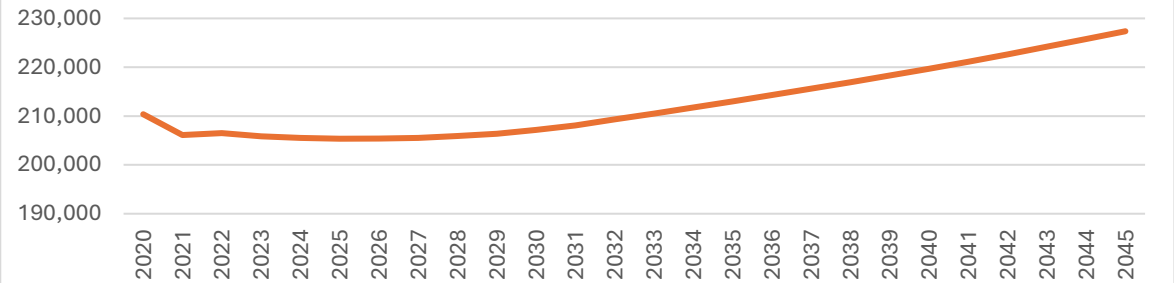
[13] https://censusreporter.org/data/table/
[14] https://www.gao.gov/products/gao-25-107160

Population Projections

Overall, the California Department of Finance projects population growth of about 20,000 persons for Butte County for the next 20 years. The rate of growth is expected to increase after 2029 (Figure 4).[15]

The California Department of Finance does not provide growth projections for individual cities, but other sources indicate that since 2020, the Town of Paradise has

Figure 4:
Butte County Growth Projections



grown at a much faster rate (13% -22%) than the county, at approximately 1,100 persons per year, and the population is expected to reach nearly 15,000 by 2029.[16] Projections beyond 2029 are unavailable for Paradise, Magalia, or Stirling City. Nevertheless, based on the current rate of growth, 10-year forecasts of an additional 11,000 people (26,000 total) in the town of Paradise are conceivable, at which point the population will likely have fully recovered from the fire. Growth beyond that will depend on housing availability, local policy, and the Town's infrastructure.

While the Town enjoys a robust domestic water system, the lack of a core sewage system may limit commercial development, expansion of public education, and specifically the building of healthcare facilities. Similarly, the lack of higher-density

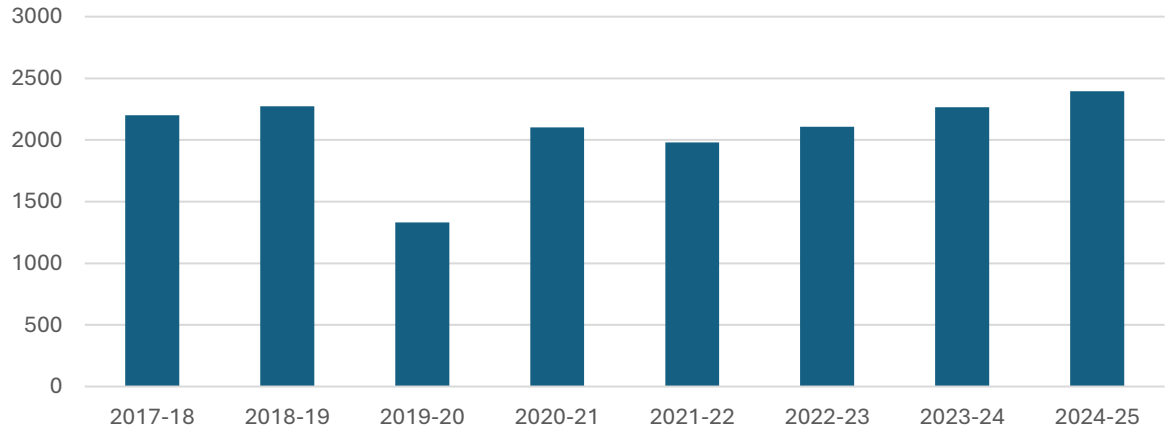
[15] https://dof.ca.gov/Forecasting/Demographics/Projections/
[16] https://worldpopulationreview.com/us-cities/california/paradise-butte-county

affordable housing, crowded schools, and anemic public transport may limit the regrowth of the Paradise Ridge Service Area.[17]

School Enrollment

Paradise Unified School District (PUSD) and charter school enrollment numbers indicate a younger population shift following the fire than is otherwise reported in the 2023 American Community Survey Data. In multiple interviews with community members and PUSD leadership, we've learned that younger families are moving back to the Paradise Ridge Service Area. According to the enrollment statistics published by the California Department of Education, total (PUSD and Charter) K-12 enrollment has surpassed 2018-2019 numbers (Figure 5).[18] Total 2024-2025 PUSD enrollment is 2,394, which includes 667 students from schools not listed on the PUSD website, such as Achieve Charter School of Paradise, Children's Community Charter, Home Tech Charter, Paradise Charter Middle, and Paradise Unified Special Education.

Figure 5: Total PUSD Enrollment (K-12)



Almost all that rebound has occurred in elementary schools, with middle and high school enrollment numbers remaining below pre-fire levels (Figures 6-8).[19] The extent

[17] https://pmc.ncbi.nlm.nih.gov/articles/PMC8500817/pdf/11069_2021_Article_5057.pdf
[18] https://dq.cde.ca.gov/dataquest/
[19] https://www.cde.ca.gov/ds/ad/fileshistenr8122.asp

to which PUSD can accommodate these K-5 students, especially as they advance to higher grades, will determine if families with school-age children will continue to move here. Measure G, which was intended to improve school capability and capacity, failed to gain approval on Nov. 5, 2024; however, previous measures, such as Measure Y in 2018, passed before the fire, which has enabled some construction.[20]

Figure 6: Elementary School Enrollment

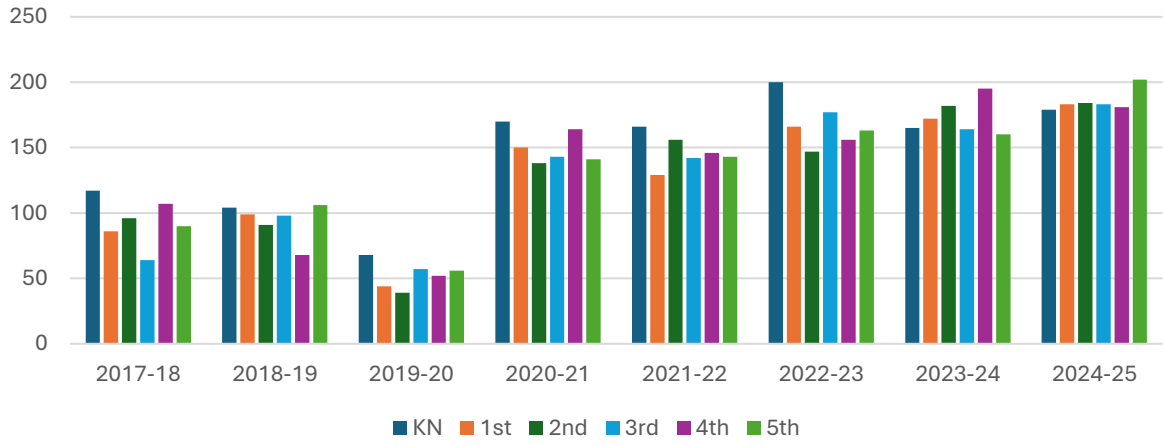
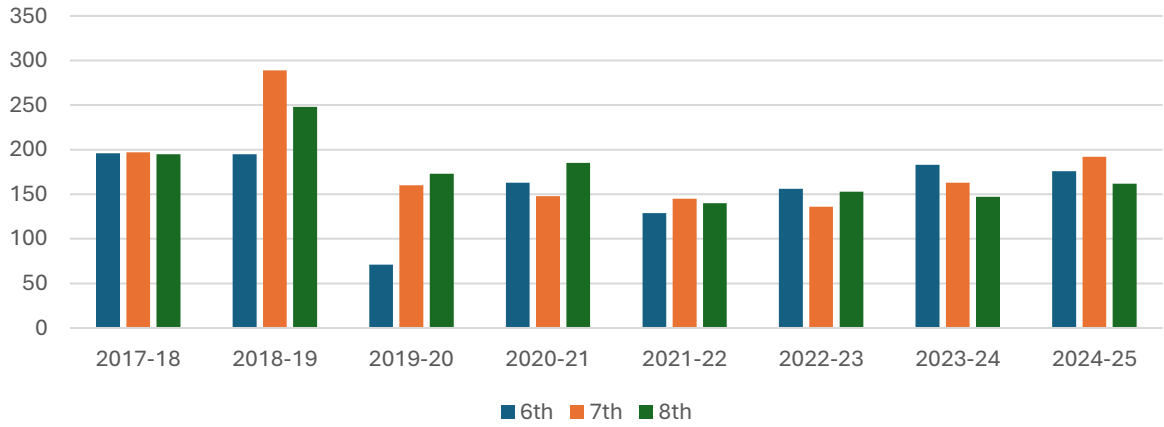
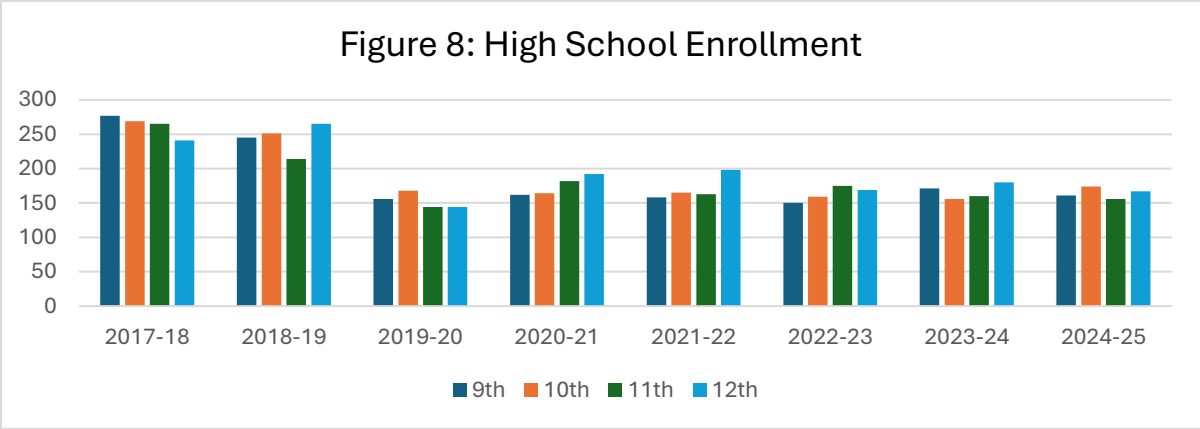


Figure 7: Middle School Enrollment

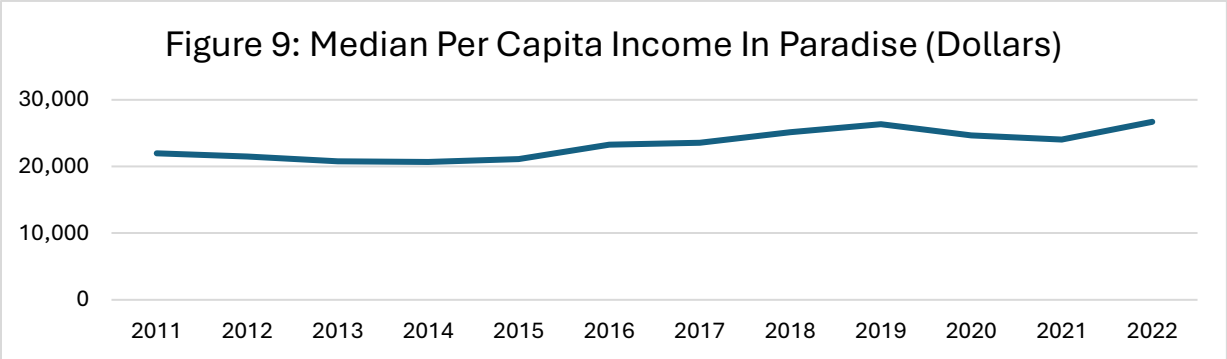


[20] https://ballotpedia.org/Paradise_Unified_School_District



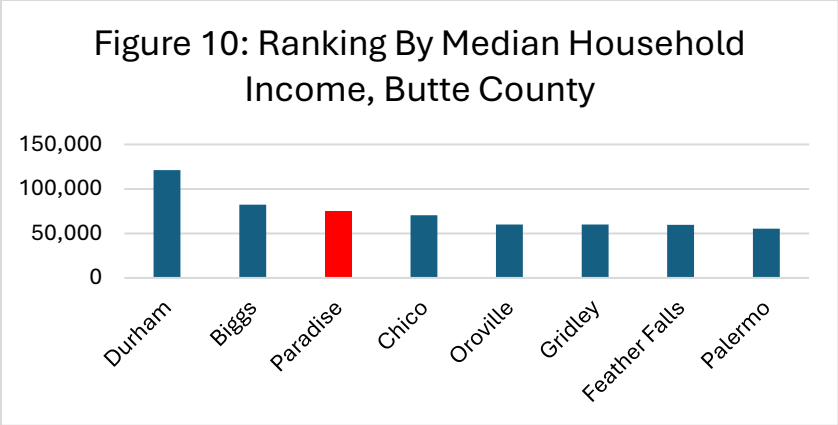
Income and Economics

When adjusted for inflation, the resident per-capita median income was relatively stable before and after the fire (Figure 9). Given the steep drop in employment following the fire and the closure of the hospital (see below), this data suggests that for those who remain employed, income has been sustained most likely through employment outside of Paradise.[21]

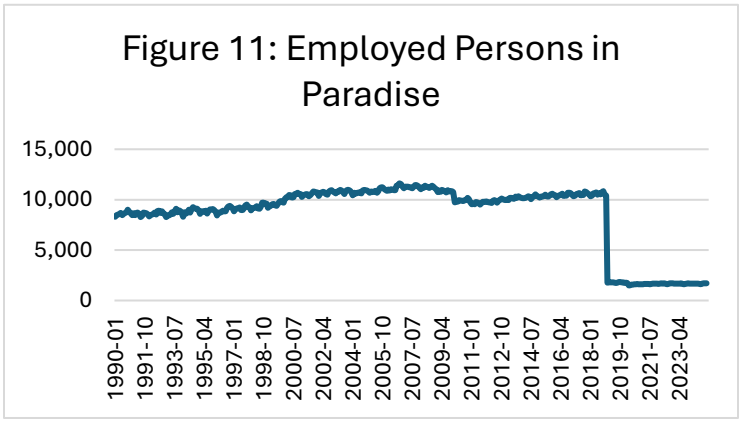


[21] https://datacommons.org

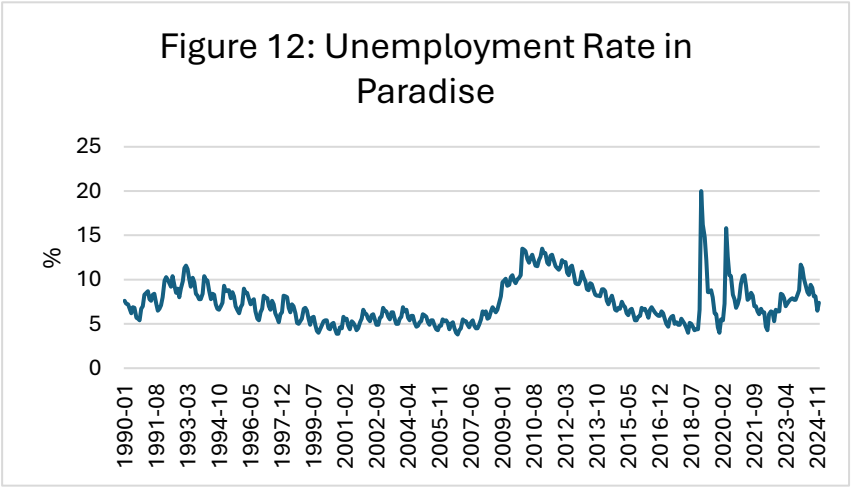
Of the eight major places in Butte County, Paradise ranks third by household median income at $74,654 (Figure 10).[22]



A significant impact of the fire on the local economy can be seen by the employment drop and fluctuating unemployment rate (Figures 11,12).[23] The unemployment rate steadily declined for eight years before the fire but spiked shortly thereafter, with large fluctuations since 2020. The pandemic was a contributing factor during this period. Unemployment rates are currently about 2% higher than in the fall of 2018.[24]

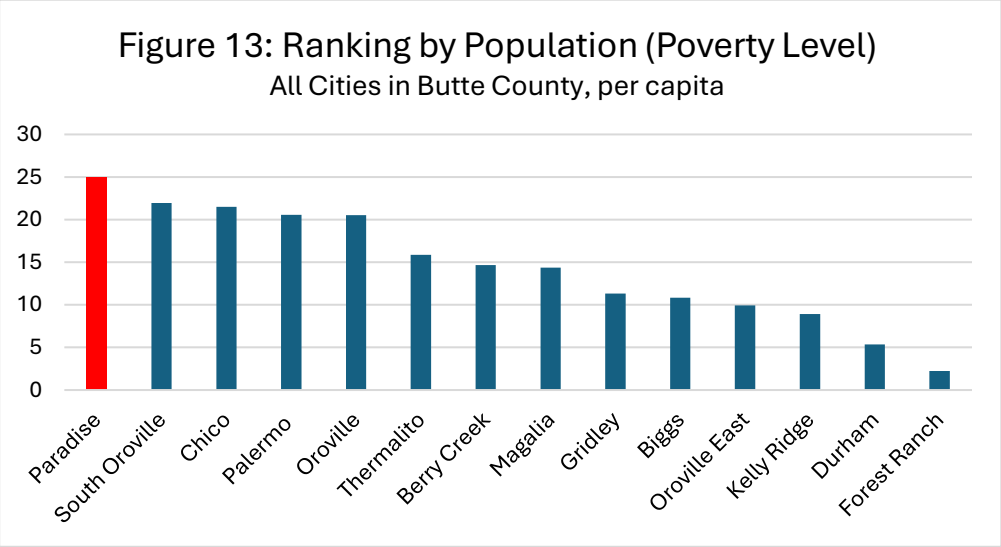


Despite the steady per capita income shown in Figure 10, Paradise has one of the highest poverty levels in Butte County (Figure 13).[25]



[22] https://datacommons.org
[23] https://www.bls.gov/lau/
[24] https://www.bls.gov/lau/
[25] https://datacommons.org

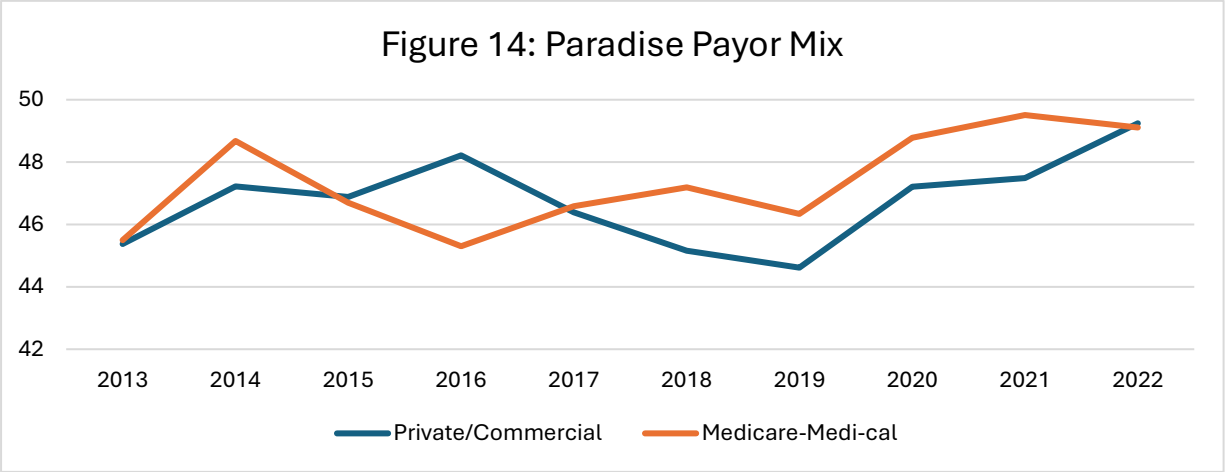
By another indicator, approximately 65% of Paradise Unified School District students qualify for free or reduced meals as opposed to 59.7% for Butte County overall.[26] [27] Low income is a required criterion to qualify for free or reduced meals. This is higher than the overall Butte County rate of 59.7%. The apparent disconnect between relatively high income shown in Figure 10 and the high poverty rate shown in Figure 13 may be explained by a division of wealth among current residents. Given the relatively small population currently on the ridge, a minority of high-income individuals could push up the median income, despite a substantial proportion who meet the criteria for the poverty level. For example, the proportion of individuals classified in higher-earning management occupations since 2017 rose from 11.3% to nearly 14% in 2022.[28]



[26] https://www.ed-data.org/district/Butte/Paradise-Unified
[27] https://www.buttecaa.com/north-state-food-bank.
[28] https://datausa.io/profile/geo/paradise-ca/

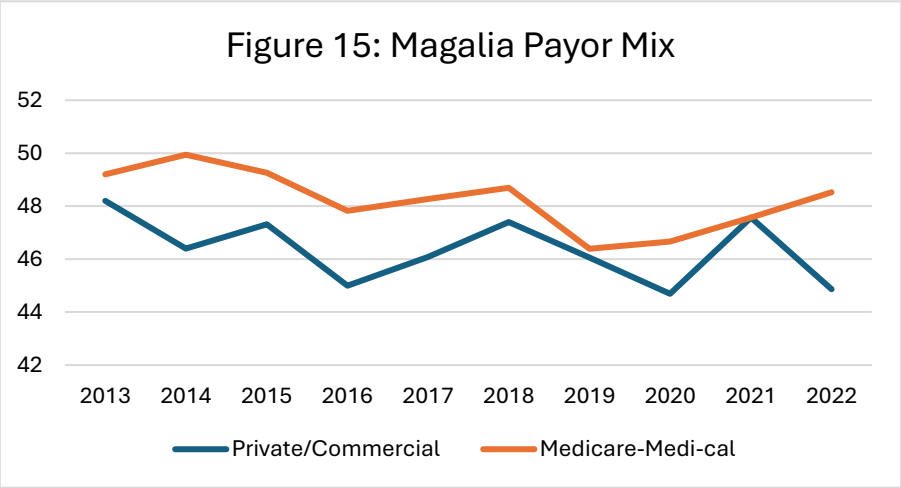
Health Insurance

The average hospital in California has a governmental payor mix of 38.2%.[29] The payor mix in Paradise (Figure 14) is 46.4% governmental payors. According to the California Department of Health Care Access and Information, third-party (commercial) payors make up a smaller proportion of the payor mix in areas designated as Primary Care Health Professional Shortage Areas.[30] Typically, areas that have a higher mix of commercial payors is more likely to have greater medical resources and higher adherence to quality standards.[31] a



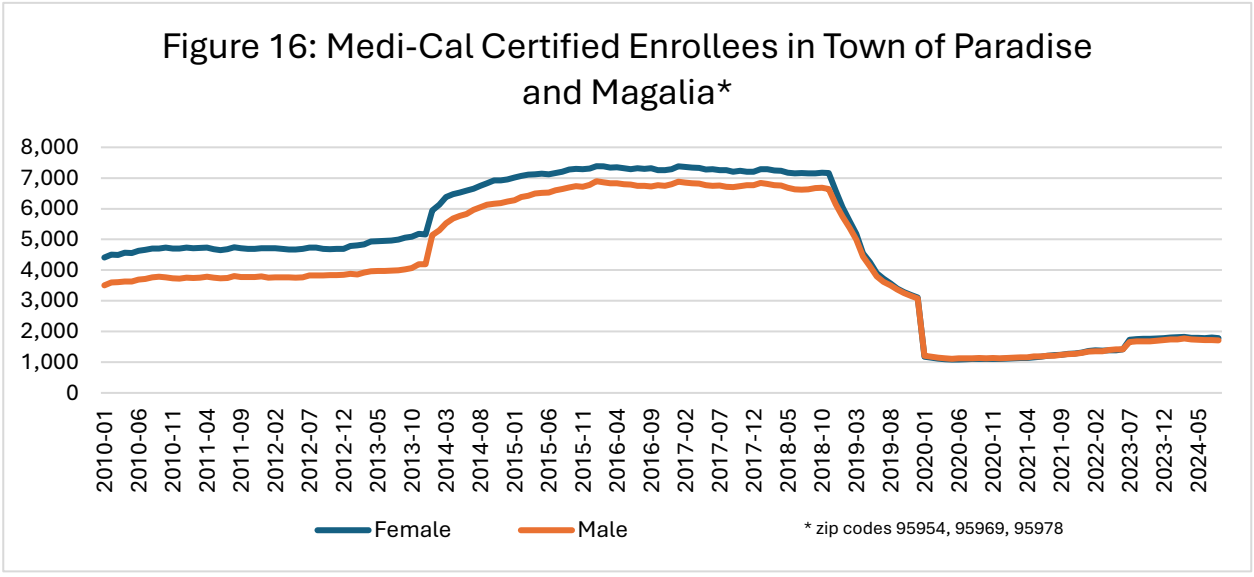
The payor mix for Paradise and Magalia is shown (Figures 14, 15). Paradise currently has an equal proportion of private/commercial insurance and Medicare/Medi-Cal, while Magalia has a higher proportion of Medicare/Medi-Cal.[32]

[29] https://www.definitivehc.com/.
[30] https://hcai.ca.gov/
[31] https://journals.sagepub.com/
[32] https://datausa.io/profile/geo/paradise



According to the California Health Care Foundation, as of April 2024, Butte County had 40.9% Medi-Cal enrollees (87,279) as opposed to 38.2% statewide. In Paradise, the Medi-Cal rate is 21.5%.[33,34] Figure 16 shows the number of persons in Paradise, equally divided by sex.

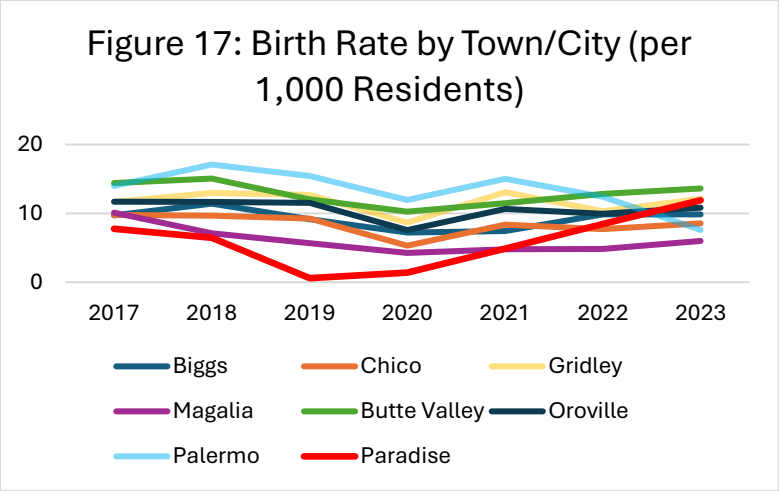
According to the California Health and Human Services Agency (CHHS), the number of Medi-Cal certified enrollees in Paradise and Magalia has steadily increased since January 2020, with a sharp uptick in 2022. It now totals nearly 8,000 persons.[35]



[33] https://www.chcf.org/
[34] https://datausa.io/
[35] https://data.chhs.ca.gov/dataset/

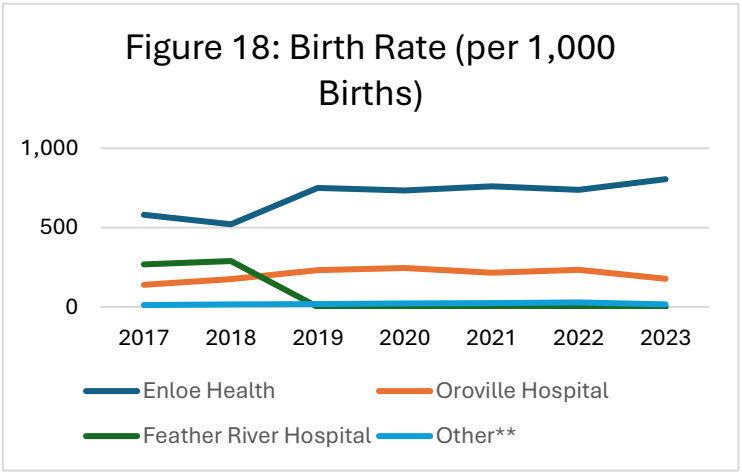
Births

Many in Butte County knew Feather River Hospital (FRH) for its excellent labor and delivery program. We have learned that it was common for parents to choose this hospital for their birth even if they lived outside of Paradise. In addition to the reputation for excellent care, some were interested in their child's birth certificate documenting that they were born in "Paradise."



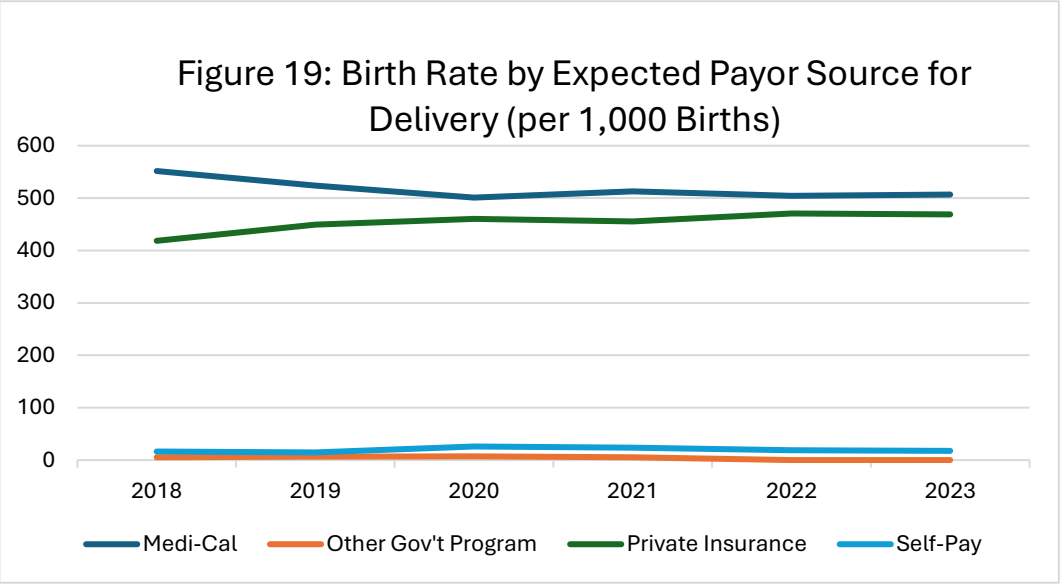
As Figure 17 shows, the birth rate for residents of the Town of Paradise had a baseline of 7.8 births per 100 residents in 2017. It dropped sharply between 2019 and 2021 before rebounding to 11.9 in 2023, the fastest growth rate in Butte County.

With the closure of FRH, most births that otherwise would have occurred there were taken up by Enloe Health. Oroville Hospital saw a mild increase in births following the fire, but this has declined since 2022. (Figure 18)



The payor mix (Figure 19) shows the bulk of births covered by Medi-Cal,

followed closely by private insurance. A small number of births are to those with self-pay and other government programs.



Population Health

One of the best sources for assessing the health status of a county's population is the local Health Department. According to the 2023 Butte County Community Health Assessment, access to care, behavioral health, and community safety remain significant issues for Butte County residents.[36]

As detailed in the report, difficulty finding primary care, the rate of primary care physicians per capita, and preventable hospitalizations (an indirect measure of access to primary preventive care), Butte County ranks more than 20% worse than California. By most measures of behavioral health, which includes alcohol related fatalities, overdose deaths, suicide rates, and many others, Butte County also ranks more than 20% worse than California as a whole. In terms of community safety, Butte County has

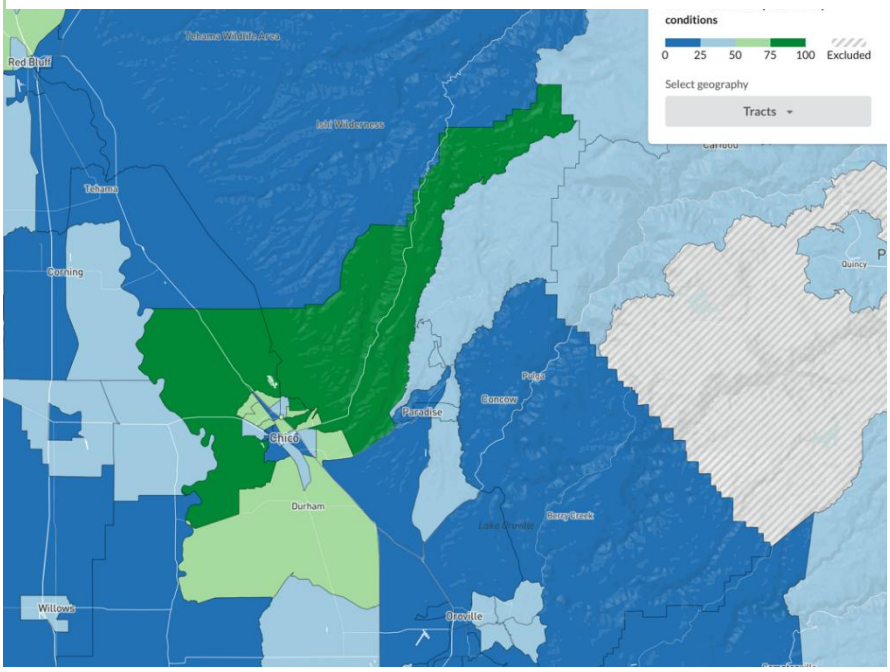
[36] https://www.buttecounty.net/CivicAlerts.aspx?AID=60&ARC=84

high rates of injury deaths, domestic violence reporting, motor vehicle crashes, and pedestrian accident deaths.[37]

California statewide data paints a similar picture for Butte County, with higher-than-average deaths from all cancers, respiratory disease, liver disease, accidental injuries, motor vehicle accidents, suicide, and drug overdoses.[38]

The Healthy Persons Index (HPI) is a recognized method for objectively evaluating the social and environmental conditions that directly affect the health outcomes of a population in geographic areas.[39] Communities are ranked in quartiles, with a lower score indicating less healthy conditions. The HPI maps data from the 2020 U.S. Census. This includes clean air and water, job opportunities, and many other factors directly linked to life expectancy.

Figure 20: Health Places Index



As illustrated by the HPI map (Figure 20) the census tracts encompassing Paradise, Magalia and the Upper Ridge scored between the less healthy first and second quartiles in terms of healthy living conditions. Areas noted in the index that contributed to these lower scores were: economic (per capita income and employment

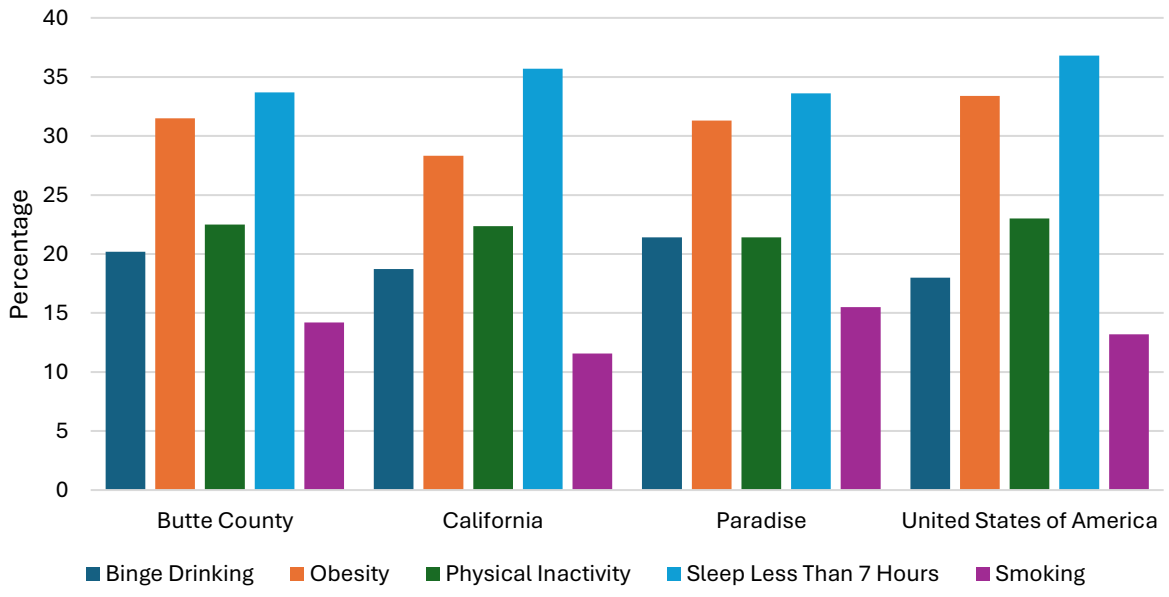
[37] https://www.buttecounty.net/CivicAlerts.aspx?AID=60&ARC=84
[38] https://www.cdph.ca.gov/Programs/CHSI/CDPH%20Document%20Library/CHSP_Profiles/CHSP-2024.pdf
[39] https://www.healthyplacesindex.org

rates), social (census response rates), transportation (active commuting, automobile access) and housing (housing habitability, low-income homeowner housing cost burden). On the other hand, Paradise scored well in the areas of clean environment, neighborhood conditions, and notably healthcare access (based on rate of insured adults).

Finally, it should be reiterated that the HPI is based in part on the data gathered during the 2020 census and may have significant limitations in assessing today's conditions. This census was conducted during a challenging period; not only was it just a little over a year after the Camp Fire, it was also the first year of the devasting COVID-19 pandemic. It is reasonable to posit that current conditions are significantly different than those measured in 2020. Nevertheless, it may serve as a useful comparison to other census tracts in Butte County, including those not directly affected by the Camp Fire.

Figure 21 summarizes select 2022 health behaviors characteristics for Paradise, Butte

Figure 21: Health Behaviors (2022)



County, California and the United States showing higher rates of smoking, obesity, and

binge drinking in Paradise, but better than average physical activity and sleep duration.[40]

[40] https://www.cdc.gov/places/index.html

Section 2: HealthCare Services and Findings

Hospitals and Emergency Departments

With the closure of the FRH, there is no longer a functioning hospital or Emergency Department (ED) in the Town of Paradise. Fortunately, there are three remaining hospitals in Butte County. Around a 20-minute drive from downtown Paradise, Enloe Medical Center in Chico is the closest hospital for most areas of Paradise and the Upper Ridge. Oroville Medical Center in Oroville is about a 30-minute drive from Paradise. Finally, Orchard Hospital in Gridley is about 40 minutes away. All three hospitals are significantly farther away for those living in the Upper Ridge areas.

Enloe Medical Center is a full-service hospital with 298 staffed beds. It provides trauma, stroke, cardiac, obstetric, pediatric, and cancer care, among other services. It has a large ED with 50 treatment stations and treated 51,963 patients in 2021. In terms of patients seen per treatment station, Enloe's ED averaged 1,039 patients, placing it in the middle of the pack amongst the three Butte County hospitals.[41]

Oroville Medical Center has 279 licensed beds and provides similar services but is not a designated trauma center. Its ED has 14 treatment stations and saw 7,811 patients in 2021, an average of 558 patients per treatment station.[42]

Orchard Hospital is a Critical Access Hospital with 24 beds. It provides essential services and only has an ED with five beds. This small ED treated 9,092 patients in 2021, with 1,818 patients per treatment station, making it the most productive ED in Butte County relative to size.[43]

[41] https://hcai.ca.gov/visualizations/emergency-department-volume-and-capacity-by-facility/
[42] https://hcai.ca.gov/visualizations/emergency-department-volume-and-capacity-by-facility/
[43] https://hcai.ca.gov/visualizations/emergency-department-volume-and-capacity-by-facility/

The closure of FRH likely has redirected demand for services from residents of the Town of Paradise, Magalia, and the entire Paradise Ridge Service Area primarily to Enloe Medical Center, representing between 4-10% of all inpatient and emergency services provided at this center. While those figures might seem modest, this may represent a significant increase in demand for services that may have already been at saturation (Table 1).

Table 1: Paradise and Magalia Residents Seen at Enloe Medical Center[44]

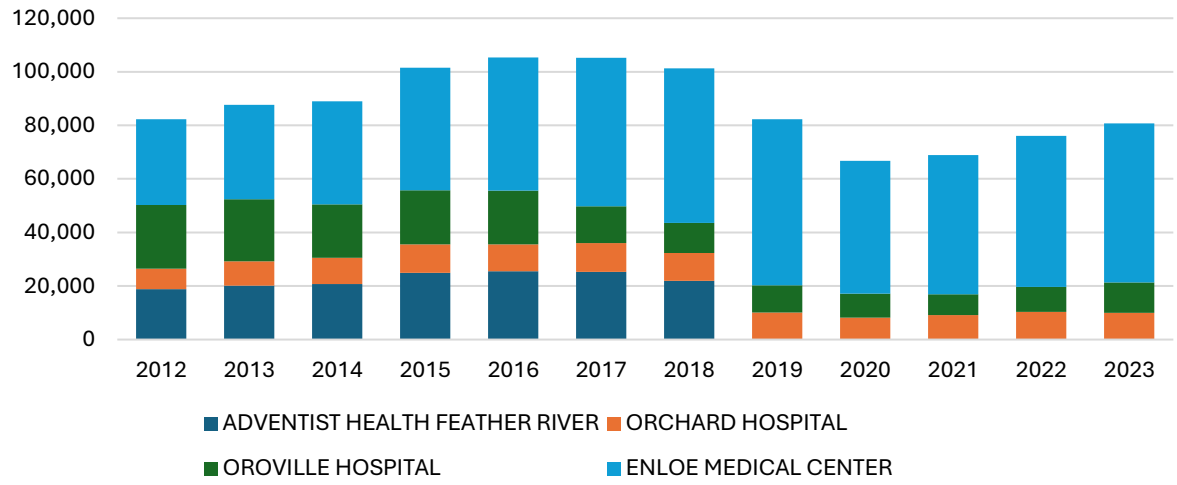
Paradise Patients 2024	Visits	Percentage of visits	Unique Patients
Primary Care	365	2.7%	140
OBGYN Outpatient	1,394	6.6%	171
OBGYN Inpatient	267	6.1%	126
ED Encounters	4,434	5.1%	2,489
Inpatient Encounters	1,558	5.6%	1,008
Magalia Patients 2024	Visits	Percentage of visits	Unique Patients
Primary Care	158	1.2%	56
OBGYN Outpatient	705	3.3%	88
OBGYN Inpatient	166	3.8%	25
ED Encounters	3,988	4.6%	2,163
Inpatient Encounters	1,323	4.8%	823
Magalia & Paradise Patients 2024	Visits	Percentage of visits	Unique Patients
Primary Care	523	3.9%	196
OBGYN Outpatient	2,099	9.9%	259
OBGYN Inpatient	433	9.8%	196
ED Encounters	8,426	9.7%	4,652
Inpatient Encounters	2,884	10.4%	1,831

Emergency Department Utilization

[44] Source: Enloe Medical Center

Emergency care is typically one of the highest-demand services for any hospital and a primary entry point for eventual admission. Figure 22 represents the ED utilization and admission rates for each of the Butte County hospitals from 2013 to 2023.[45]

Figure 22: Butte County Emergency Department Visits

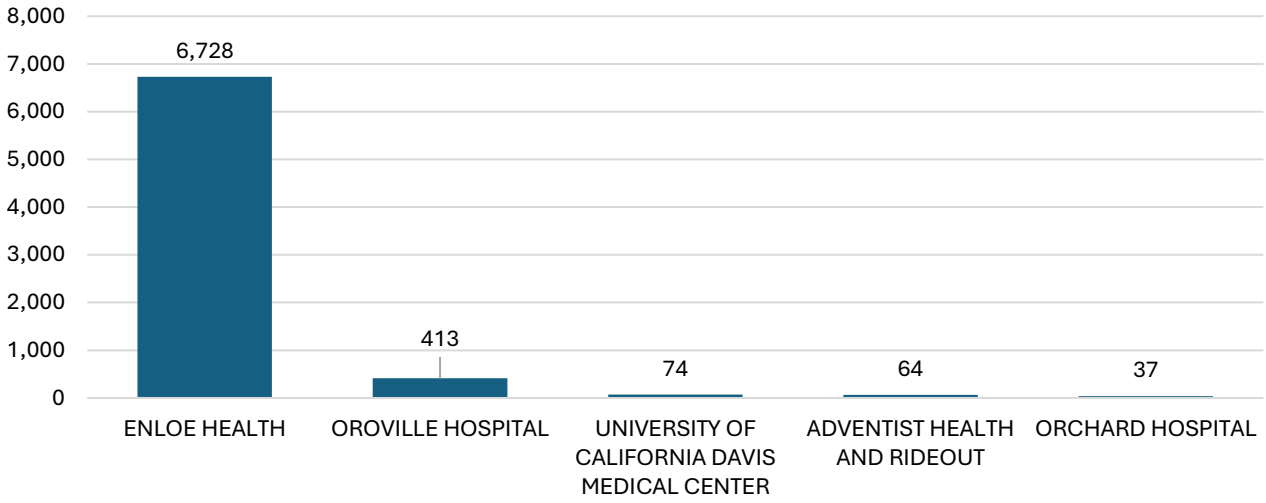


Pre-fire, Butte County hospitals showed a modest increase in ED utilization from 2012-2018. However, this increase was not evenly distributed between the hospitals, and some hospitals saw a decrease in volume during this period. Enloe Medical Center experienced the highest increase in volume, while Oroville Hospital showed the most decrease. Orchard Hospital volume was low but stable, and most notably, FRH's growth stopped in 2015 through 2017. Had the hospital been open for the entire year of 2018, it likely would have remained flat.

[45] https://data.chhs.ca.gov/dataset/hospital-emergency-department-encounters-by-facility

Following the fire, Butte County ED volume experienced a substantial decrease in 2019, reached a record low in 2020, and has grown steadily since. Post-fire volume remains below that seen pre-fire. The drop in volume seen in 2019-2020 is likely due to multiple factors, including the drop in overall countywide ED capacity due to the loss of the FRH ED, the relocation of many residents out of the county, and, most significantly, the COVID-19 pandemic, when people were much less likely to go to the ED.[46] As shown in Figure 23, Paradise and Magalia residents use Enloe Health most frequently.[47]

Figure 23: Top 5 ED locations for Paradise and Magalia Residents (2023)
Zip Codes: 95954, 95969, 95978

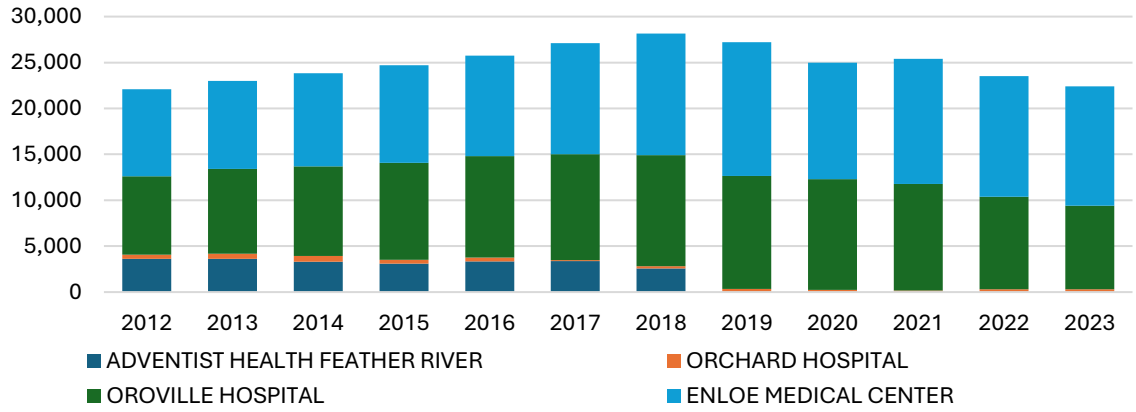


Hospital admissions from the ED are another measure of healthcare capacity. Since most hospital admissions originate in the ED, this data provides some insight into current inpatient demand and capacity both pre- and post-fire. Hospital admissions, such as labor and delivery and cancer care, often without an ED stay, are not reflected in this data.

ED admissions show a similar trend to EMS volume with notable differences (Figure

[46] https://www.sciencedirect.com/science/article/abs/pii/S0736467923005012
[47] https://data.chhs.ca.gov/dataset/

Figure 24: Emergency Department Hospital Admissions in Butte County (2012-2023)



24). Like ED volume, admissions steadily increased from 2012-2018 and gradually declined since then. Several factors could be in play, including population shifts and changing demographics, which could result in fewer ED patients meeting the admission criteria. Additionally, the criterion for admission continues to become stricter nationally, and patients who may have been admitted 10 years ago are now redirected to home care or short observation stays.[48]

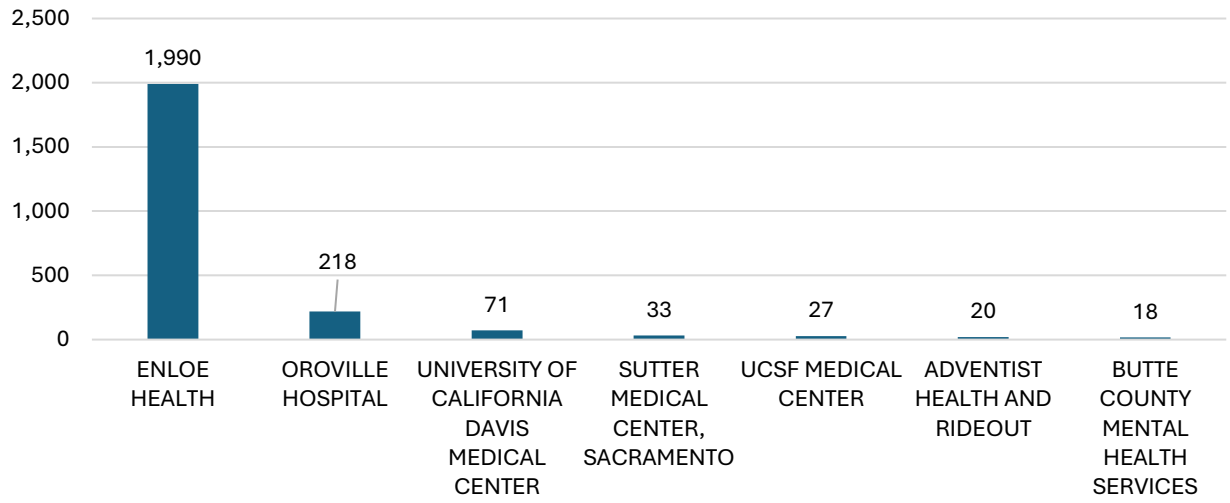
Concerning FRH, in the years preceding the Camp Fire, the hospital admission rate from the ED showed a small but steady decline between 2012 and 2018 (Figure 24). In conversations with Adventist leadership, they expressed concern, even before the fire, about long-term viability due to low inpatient volumes.[49] We have been unable to locate data that supports or refutes this assertion.

[48] JAMA: Trends by Acuity for Emergency Department Visits and Hospital Admissions in California, 2012 to 2022
[49] Interview, Adventist Leadership 11/18/2024

Understanding where Paradise and Magalia residents are ultimately admitted can help determine usage patterns. Most of these residents are admitted to Enloe Health (Figure 25).[50]

Figure 25: Hospital Admissions for Paradise and Magalia Residents (2023)

Zip Codes: 95954, 95969, 95978



One impact of the heavy reliance of Enloe Medical Center Emergency Department as a primary source of emergency care is ED wait times. ED wait times, defined here as the time between arrival and being seen by a midlevel provider or physician ("door to doc"), can vary widely between emergency departments and is dependent on multiple factors, including triage and registration processes, the patient's condition, demand and capacity of the ED, boarding of admitted or psychiatric patients in the ED, and workforce challenges. The median length of stay in a California ED is 3 hours, as compared to 2 hours 40 minutes in the US.[51]

[50] https://data.chhs.ca.gov/dataset/patient-origin-market-share-pivot-profile-inpatient-emergency-department-and-ambulatory-surgery

[51] https://data.cms.gov/provider-data/dataset/apyc-v239#data-table

ED wait times at individual hospitals are not published publicly, but several indirect indicators can provide an estimate. The first is ED volume (Figure 22). Typically, increased volumes lead to higher wait times. Secondly, the Left Without Being Seen (LWBS) rate, defined as a patient who has been registered in the ED but left before receiving evaluation or treatment from a physician. Finally, the third factor is the acuity level of patients, with higher acuity patients receiving quicker care and lower acuity patients waiting longer.

ED volume in Butte County is well below the peak in 2018 but steadily increasing. As discussed previously, Enloe Medical Center has seen the largest increase following the closure of Feather River Hospital. (Figure 22).

Hospital and Emergency Department Findings

A key question asked of this report pertains to the viability of a rural hospital in the Paradise Ridge Service Area. We believe that a new hospital is possible in the long term, and we provide specific actions in Section 3 that can be taken to prepare for one.

In the short term, however, one must consider the current fiscal environment of such hospitals in the United States to address this issue. There continues to be a nationwide crisis of financial vulnerability of rural hospitals. More than 30% of all 700 rural hospitals in the United States are at risk of closure. Over the past decade, 139 rural hospitals (20%) have closed, and others have eliminated inpatient services. Many of those that remain open have eliminated their labor and delivery programs.[52,53,54]

It was not always this way. From 1950 to 1980, patient care revenue was quite good overall, with the number of inpatient days per 1,000 population increasing by more than a third. This was driven by Medicare and Medicaid (including Medi-Cal), the spread of

[52] https://www.healthcaredive.com/news
[53] https://www.healthcaredive.com/news/
[54] https://www.kqed.org/news/

employer-based insurance, and few utilization controls by private and public payors.[55] Between 1980 and 2009, however, the number of inpatient days per 1,000 population fell by half, with both admissions and length of stay declining. For some conditions, the decline in length of stay was even more dramatic; for uncomplicated vaginal delivery, the stay dropped from one week to one day.[56] As a busy birthing center, this is a notable statistic for FRH. Under current payment models, care provided to patients beyond set limits for each condition is uncompensated to the hospital.

Over the last 60 years, the financial challenges faced by rural hospitals have continued to worsen.[57] Once self-sustaining and independent from the financial system, the healthcare system today, including not-for-profit entities, is tied to the financial sector through investments, venture capital, private equity, and consolidation.[58] Due to their relatively low volume and modest real estate valuations, rural hospitals are often not attractive candidates for investment from the financial sector and are entirely reliant on patient care revenue to cover their operating costs.

Due to the population they serve, rural hospitals are heavily dependent on patient revenue from the Centers for Medicare and Medicaid Services (CMS). Nevertheless, up to 49% of rural hospitals currently operate under negative operating margins in the United States. In the summer of 2025, HR1 was passed into law, which involved significant cuts to hospital reimbursement. While $50B has been allocated through the Rural Health Transformation Program (RHTP) to offset those losses, this represents only 37% of the projected losses.[59] Most predict that rural hospital closures will accelerate without additional intervention.

[55] https://www.nejm.org/doi/full/10.1056/NEJMp1200478
[56] https://www.nejm.org/doi/full/10.1056/NEJMp1200478
[57] https://www.healthcarevaluehub.org/
[58] https://cepr.net/wp-content/
[59] https://www.kff.org/medicaid/a-closer-look-at-the-50-billion-rural-health-fund-in-the-new-reconciliation-law/

States are required to apply for this funding by November 5th, 2025. Since air ambulances are critical for transporting the sickest patients to specialty centers, particularly from rural areas, a proposal from members of the California State Senate to the California Department of Health Care Access and Information (HCAI) requests that air ambulance funding be included as a portion of the request.

The problem of rural hospital closures is manifesting itself locally. The Glenn County Medical Center is due to close on October 21, 2025, following the loss of its designation as a Critical Access Hospital (CAH), creating a 40% loss of revenue.[60] CAHs are discussed in detail in the next section. This will likely increase demand on neighboring counties and hospitals such as Colusa Medical Center, Orchard Hospital and Enloe Medical Center.

Furthermore, On November 14, 2025, Oroville Hospital reported financial challenges that are causing it to seek a sale of the hospital, or partnership with a larger entity.

Another fundamental change in healthcare delivery occurred in the 1990s with the development of managed care. Before then, most insured patients could freely choose their physicians, care was paid as a fee-for-service, and physicians' medical decisions were not subject to frequent questions by insurers. Since the 1990s, insurers began selectively contracting with providers and hospitals, and patients began to face financial penalties for obtaining out-of-plan or out-of-network care.[61] This had significant implications for small rural hospitals. The 2022 American Hospital Association Report *Rural Hospital Closures Threaten Access* summarizes several trends affecting rural hospital financial sustainability: patient volume and health, low reimbursement, staffing shortages, rising input costs, and regulatory barriers.[62]

[60] https://calmatters.org/health/2025/09/glenn-county-hospital-medicaid-lamalfa-oz-closure/
[61] https://www.nejm.org/doi/full/10.1056/NEJMp1200478
[62] https://www.aha.org/system/files/media/file/2022/09/rural-hospital-closures-threaten-access-report.pdf

Due to low population density, rural hospitals in the United States have much lower patient volumes than their urban counterparts. These lower volumes challenge these hospitals to maintain fixed operating costs (which constitute about 60% of total expenses), impede participation in performance measurement and quality improvement activities, and often treat older, sicker, and poorer patients compared to the national average. Many of these patients are uninsured and more likely to delay seeking care due to cost, geographic isolation, and limited access to transportation.[63,64] These delays contribute to sicker patients requiring more costly care.

Most rural hospital revenue today comes from government payors (Medicare and Medicaid). Unfortunately, both programs reimburse less than the cost of providing these services, and rural hospitals cannot offset low public program reimbursement rates with revenue from patients with commercial coverage. In the commercial insurance market, many rural hospitals have limited bargaining power and are forced to accept below-average commercial rates or are left out of networks entirely.[65]

Staffing is another major challenge faced by rural hospitals. Despite around 20% nationwide rural populations, only 10% of physicians in the United States practice in rural areas. The COVID-19 pandemic worsened this situation, with nearly one-third of hospitals anticipating critical staffing shortages. Many hospitals were forced to employ contract nurses that almost doubled staffing costs.[66]

The pandemic also dramatically increased hospital input costs. In addition to labor costs as described above, drug costs are up 36.9%, and costs of other supplies increased by 15.9%.[67] Finally, regulatory costs for rural hospitals, which are the same

[63] https://ruralhospitals.chqpr.org/Costs.html
[64] https://www.aspe.hhs.gov/
[65] https://www.kff.org/health-costs/i
[66] https://www.aha.org/system/files/media/file/2022/09/rural-hospital-closures-threaten-access-report.pdf
[67] https://www.aha.org/system/files/media/file/2022/04/2022-Hospital-Expenses-Increase-Report-Final-Final.pdf

as for large urban hospitals, constitute a much higher burden on rural hospitals with lower patient volume in terms of cost per patient.[68]

In California, one in five hospitals is at risk of closure due to the financial strain of the pandemic, high inflation, staff shortages, and systemic insurer underpayment.[69] For reasons discussed here, Adventist Health leadership has told us in interviews that FRH's financial sustainability was in question even before the fire. FRH was a tremendous resource on the Ridge and is increasingly unusual for a community of this size. In today's healthcare marketplace, Feather River Hospital likely would not have been built, and if the remaining facility was fully functional, the operating costs would exceed projected revenue.

When rural hospitals shut down, patients must travel further for emergency care and routine medical services. Patients who lack transportation may forego care altogether. Several categories of hospitals have emerged to serve rural populations.

Building hospitals today is also a challenge. There are significant barriers to constructing a new hospital in California, where construction costs due to land, labor, materials, equipment, and seismic standards drive the price to more than twice that of other states.[70] Current estimates range from $8-10 million per hospital bed.

Critical Access Hospitals

Some residents have noted that other rural communities, such as Biggs and Greenville (Plumas County), continue to have sustainable hospitals despite low-density populations like the Paradise Ridge Service Area. As relevant examples, these two hospitals serve very remote areas and qualify as Critical Access Hospitals (CAHs), a designation given to eligible rural hospitals by the Centers for Medicare & Medicaid

[68] https://www.aha.org/system/files/media/file/2022/09/rural-hospital-closures-threaten-access-report.pdf
[69] https://calhospital.org
[70] https://www.scripps.org/news_items/7609-the-high-cost-of-building-california-hospitals

Services (CMS).[71] The benefits of CAH status include improved reimbursement rates and capital improvement costs from Medicare, flexible staffing and services, and Flex Program educational resources, technical assistance, and grants.

To qualify as a CAH, a hospital must meet specific conditions:

1. Have 25 or fewer acute care inpatient beds
2. Be located more than 35 miles from another hospital
3. Maintain an annual average length of stay of 96 hours or less for acute care patients
4. Provide 24/7 emergency care services

These conditions exclude many hospitals in California. Only one Butte County Hospital (Orchard Hospital) is designated as a CAH. Based primarily on location, a hospital in Paradise would not qualify as a CAH, with Enloe Hospital 14 miles from Paradise. A map of California CAHs (Figure 41) is attached.[72]

Micro-Hospitals

The micro-hospital is an industry designated concept that began in 2017 and has become popular in some areas. So far, they have opened in at least 19 states and are attractive because they can provide short-term care on a more cost-effective basis than large regional medical centers. Typically affiliated with larger regional hospital systems, most are suburban or rural areas and, in some cases, have been constructed in communities with large elderly populations or in areas attracting young people for economic reasons. They are intended to partner with and augment capacity at large urban medical centers.[73]

[71] https://www.cms.gov/medicare/health-safety-standards/certification-compliance/critical-access-hospitals
[72] https://calhospital.org/issues/rural-health-care/the-critical-access-hospital-network-ccahn/
[73] https://www.bottomlineinc.com/health/aging/micro-hospitals-a-growing-trend

There is no licensing category or legal designation for micro-hospitals in California. Nevertheless, a micro-hospital is broadly defined as a fully licensed, semi-acute inpatient facility with anywhere from 15,000 to 50,000 square feet and five to 15 inpatient beds that provides typical "core services," including an ED, inpatient pharmacy, lab, and imaging. Other additional services may include women's, dietary, primary, and surgical services. Micro-hospitals seek to provide services at a lower cost to patients than similar services performed at a larger hospital facility. Additionally, these services are provided 24 hours a day, seven days a week.

Micro-hospitals have the advantage of providing care closer to home, can treat various conditions, with lower costs than traditional hospitals, and are attractive to investors because of lower costs and higher reimbursement. On the other hand, there is concern about the safety and experience of doctors working in these small facilities, infection control challenges associated with high patient turnover, and regulatory barriers. Fundamentally, these hospitals seem to be driven by market forces rather than where medical services are needed, and they require a wealthy population that can support them. Lower income areas such as the Ridge and Upper Ridge, who would benefit from such a facility, may not have the financial means to support it.[74]

Again, while no legal designation or definition for a "micro-hospital" exists in California, Table 2 lists all small California Hospitals with 15 or fewer beds that might be considered similar to micro-hospitals as described earlier. Thirteen of these 21 hospitals are designated as CAHs. The remainder are either in urban areas or serve a select population or health plan. Since a CAH is not an option for Paradise, it is useful to look more closely at the small hospitals that are not CAH and determine if they represent viable options for the Paradise Ridge Service Area.

[74] What are micro-hospitals?

Most of the small non-CAH small hospitals are either affiliated with a nearby full-sized hospital, are located in large urban or provide limited specialized surgical, psychiatric, pediatric care, sub-acute, or rehabilitation services. (Appendix)

AHMC Seton Medical Center Coastside is an example of a non-CAH hospital serving a population similar to the Paradise Ridge Service Area. Unfortunately, the prognosis for this facility is not positive. This is a small hospital that serves the coastal communities of the City of Half Moon Bay, and the surrounding communities of Moss Beach, Montara, and El Granada for a combined population of about 22,000. It is primarily a skilled nursing facility that has a small emergency department and inpatient capacity with very limited capability. It is a satellite facility for AHMC Seton Medical Center, 14 miles away, in Daly City.

Due to its limited capability, the San Mateo EMS agency reports that ambulances are not authorized to transport high acuity patients there, in particular trauma, stroke and chest pain patients. Unfortunately, within the last 10 years, Seton Hospital and Seton Coastside have been struggling financially[75] and at times have not been able to accept ambulance patients. They are currently being sued[76] by the California Attorney General.

[75] https://www.smdailyjournal.com/
[76] https://oag.ca.gov/news/press-releases/attorney-general-bonta-ahmc-must-maintain-healthcare-services

Table 2: California Licensed Hospitals with ≤ 15 Inpatient Beds[77]

Hospital	City	County	Licensed Beds	CAH
Surprise Valley Community Hospital	Cedarville	Modoc	4	X
Southern Inyo Hospital	Lone Pine	Inyo	4	X
AHMC Seton Medical Center Coastside	Moss Beach	San Mateo	5	
Healthbridge Children's Hospital-Orange	Orange	Orange	6	
Laguna Honda Hospital And Rehabilitation Center	San Francisco	San Francisco	6	
Anaheim Community Hospital, LLC	Anaheim	Orange	6	
Modoc Medical Center	Alturas	Modoc	8	X
Catalina Island Medical Center	Avalon	Los Angeles	8	X
Jerold Phelps Community Hospital	Garberville	Humboldt	9	X
Bear Valley Community Hospital	Big Bear Lake	San Bernardino	9	X
Eastern Plumas Hospital-Portola Campus	Portola	Plumas	9	X
Patients' Hospital of Redding	Redding	Shasta	10	
Seneca District Hospital	Chester	Plumas	10	X
Santa Ynez Valley Cottage Hospital	Solvang	Santa Barbara	11	X
Adventist Health Sonora - Fairview	Sonora	Tuolumne	12	
West Covina Medical Center	West Covina	Los Angeles	13	
Mammoth Hospital	Mammoth Lakes	Mono	13	X
George L. Mee Memorial Hospital	King City	Monterey	13	X
Sutter Surgical Hospital-North Valley	Yuba City	Sutter	14	
Providence Santa Rosa Memorial Hospital-Sotoyome	Santa Rosa	Sonoma	15	
Hazel Hawkins Memorial Hospital	Hollister	San Benito	15	X

Healthcare Districts

Some communities that might otherwise not have a private or not-for-profit hospital have formed Healthcare Districts to provide a mechanism for public subsidization, typically through a parcel tax.

What is a Healthcare District?

A Healthcare District, like a fire, water, or sewer district, is a legal subdivision of the State of California, an independent public agency, created to address the healthcare needs of a specific geographic area. They exist to fill healthcare gaps, especially in

[77] https://data.chhs.ca.gov/dataset/hospital-annual-utilization-report

communities with limited access to providers, underserved populations, and high numbers of uninsured or low-income residents. They maintain a close connection to their communities by offering services tailored to local needs with a purpose to enhance public health outcomes with accountability, transparency, and local control. Unlike a private corporation, these districts, as governmental entities, must comply with all financial reporting and obey state laws governing public records, record keeping, elections, and public access to documents.[78]

Governance of Healthcare Districts

Health Care Districts are governed by an elected Board of Directors, generally consisting of five members. These directors must be registered voters residing within the district and are elected at large to represent specific geographic zones within the district. These zones are drawn to reflect population distribution and regional diversity, ensuring balanced representation across the district. Under the governance and authority of the Board, the Health Care District can impose property tax, enter contracts, purchase property, exercise the power of imminent domain, issue debt, hire staff, etc.

Services Offered by Healthcare Districts

HealthCare Districts are empowered to provide a wide array of services aimed at maintaining and improving public health. These include:

- Construct and operate hospitals and other health facilities
- In medically underserved areas, recruit physicians and support their practices
- Managing ambulance services
- Running wellness and prevention programs
- Supporting rehabilitation and aftercare services

[78] https://www.achd.org/about-healthcare-districts/

- Offering free clinics and diagnostic centers
- Promoting health education and mental health initiatives

Districts can also collaborate with community groups and healthcare providers to ensure holistic and inclusive care tailored to the needs of their residents.

Steps Toward Formation of Healthcare Districts

The formation of a new Health Care District is initiated by the community itself; residents sponsor the proposal and guide it through a structured legal and administrative process. Initial steps include consulting with the Local Agency Formation Commission (LAFCO) to define appropriate service boundaries and develop a sustainable financial plan.

Sponsors must:

- Determine the logical, financially viable boundaries for the district
- Identify the services the district will offer based on community need
- Prepare and submit a feasibility study, preliminary budget, and service plan
- Fundraise to cover application and legal costs

The Petition Process

Forming a district begins with a petition signed by at least 12% of registered voters within the proposed boundaries. This petition must include:

- A formal statement under the Local Health Care District Law and the Cortese-Knox Local Government Reorganization Act
- The proposed district's name, boundaries, services, estimated budget, and capital costs
- Designation of up to three chief petitioners with contact information

- Affirmation that the plan is consistent with the service area of existing districts or cities

The Role of the Local Agency Formation Commission (LAFCO)

LAFCO is a state-mandated local agency that oversees the creation, reorganization, or dissolution of special districts like HealthCare Districts.[79] Once the petition is verified by the County Registrar of Voters, LAFCO reviews it in collaboration with the State Office of Health Planning and local health planning agencies. A 60-day comment period follows; agencies that do not respond are considered to have "no comment."

LAFCO assesses:

- Proposed boundaries and financial feasibility
- Potential effects on existing agencies
- Environmental impacts and required assessments
- Projected tax revenues and service costs

Following public hearings, LAFCO may approve, amend, or deny the proposal. If approved, a resolution is forwarded to the County Board of Supervisors, who serve as the conducting authority. An election is then called within the proposed district:

- Without a new tax, a simple majority vote is required
- With a new tax or special assessment, approval must come from two-thirds of voters

Upon voter approval, the district is formally established, governed by a publicly elected board, and accountable to the community it serves. These districts must comply with

[79] https://www.buttelafco.org

California laws on public meetings, financial reporting, and transparency, ensuring residents maintain oversight of their local healthcare system.

Election Cost

Usually there is an estimated cost based on a dollar amount per registered voter which will increase or decrease as a result of factors such as a special election solely for the purpose of forming the health care district (highest cost), district boundaries that cross county lines (two ballots), or ballot(s) that include other elections (lowers cost).

- **Legal and Administrative Fees:** Preparing necessary documentation, such as feasibility studies and financial analyses, and navigating the approval process with the Local Agency Formation Commission (LAFCO) can incur significant costs.
- **Public Outreach**: Engaging the community through meetings, informational materials, and campaigns to garner support for the district's formation.
- **Operational Planning**: Developing strategic business plans and long-term objectives to ensure the district meets community health needs effectively.

Potential Revenue

Healthcare Districts are often allocated 1% of the Real Property Tax collected by the county and may impose a property tax. A measure to impose a property tax must be approved by 2/3 of the registered voters in the district. The tax rate is based on the assessed value from county tax rolls, not the market value of the taxable property.

PAJARO VALLEY HEALTH CARE DISTRICT EXAMPLE

This information is drawn from public sources and should be considered approximate and unverified.

Formation of the District

Pajaro Valley Health Care District (PVHCD) was formed through legislation (Senate Bill 418), passed unanimously and signed into law on February 4, 2022. It was created by a non-profit formed for this purpose: a partnership between the County, the City, the local FQHC, and the local health trust. The nonprofit purchased the hospital out of bankruptcy and established the district, then transferred the hospital to it to provide public oversight. The district boundaries span two counties and approximate the local school district boundaries. The Board of Supervisors made initial appointments to the PVCHD board, then board members were elected by the public.

Hospital Purchase 2022

The cost of the hospital purchase, PVHCD formation and transitioning hospital ownership to PVHCD was approximately $67M.

Top donors with approximate commitments:

State of California	$ 25,000,000
County of Santa Cruz	$ 5,500,000
County of Monterey	$ 3,000,000
City of Watsonville	$ 400,000
Central California Alliance for Health	$ 3,000,000
Institutional	
Community Trust of Pajaro Valley	$ 6,000,000
Driscolls	$ 1,750,000
Blue Shield of California	$ 1,000,000
Private Donations	$ 7,000,000
Pledges	$ 2,000,000
Gifts	$ 200,000
Working Capital	
Cash at Closing	$ 4,200,000
Total	**$ 66,500,000**

Bond Measure (Measure N) 2024

Bond Measure N passed with 2/3 vote authorizing the sale of **up to $116 million in general obligation bonds** to fund the acquisition and improvement of property (to acquire the hospital's land back) to be repaid through **property tax levies** on taxable property in the district for 30 years. If all bonds are issued and sold, the total estimated repayment (principal + interest) is $230.1 million. Assessment rate per parcel is an average estimated annual rate of $24 per $100,000. The approximate population is 94,349 with 40,000 household units and 43,000 registered voters in Santa Cruz County and 4,500 registered voters in Monterey County. The number of parcels in the district was not available.

SONOMA VALLEY HEALTHCARE DISTRICT EXAMPLE

The Sonoma Valley Healthcare District is another relevant example. Created in 1946, it funded the opening of their 24-bed hospital (Sonoma Valley Hospital) in 1957, which also includes a 27-bed skilled nursing facility. Measure F, recently passed, renewed and extended the parcel tax for the district at $250 per parcel for 10 years, generating about $4 million per year. The district covers a population of 42,000 persons.

SAN BENITO HEALTHCARE DISTRICT EXAMPLE

The presence of a Healthcare District, however, does not guarantee that a hospital will not experience financial difficulties. In 2023, the San Benito Healthcare District, which operates Hazel Hawkins Hospital in Hollister, filed for bankruptcy, which was ultimately denied. Unfortunately, this hospital, which serves a population of around 67,000 people, remains in financial difficulty.[80] District tax revenues for 2024 were just under $5 million, net patient service revenue was $150 million and total operating

[80] https://www.beckershospitalreview.com/finance/california-hospital-ineligible-for-bankruptcy-court-rules.html

expenses were $145 million.[81] In 2017, the hospital was designated as a CAH, increasing revenue from Medicare patients by more than $6 million annually.[82]

PALM DRIVE HEALTHCARE DISTRICT EXAMPLE

Palm Drive Hospital in Sebastopol, despite creating a Healthcare District in the 1990s, continued to struggle financially and finally closed in 2020. This district served a population of 50,000 persons, and residents are still paying off $25 million in debt with an annual parcel tax of $155.[83]

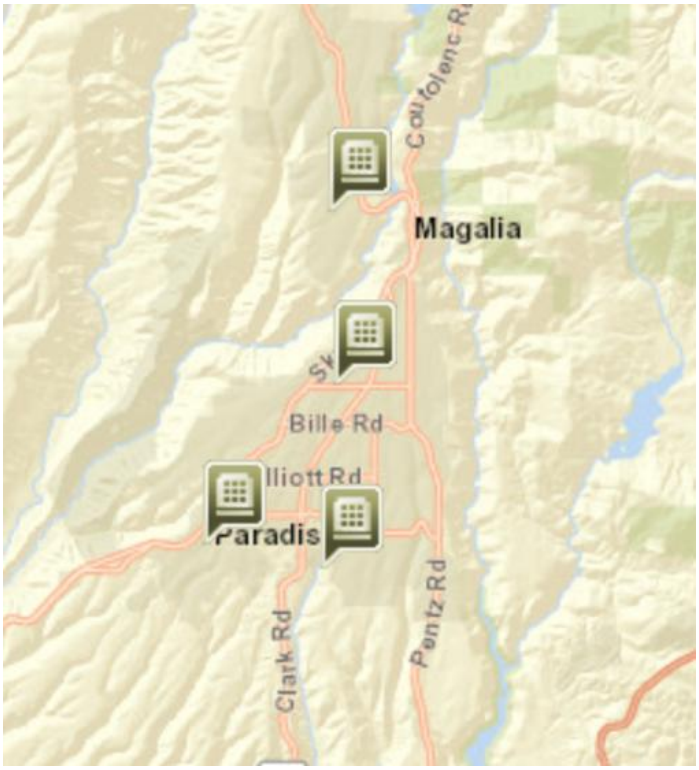
Due to the current and medium-term population projections for the Paradise Ridge Service Area and the industry trend of small rural hospital closures, a full-service hospital is not likely to be financially sustainable for at least the next 10 years. However, as the population continues to rebound, a micro-hospital that could provide emergency and short stay inpatient capacity or a Healthcare District may be a viable option for the Paradise Ridge Service Area, provided it is seen as an attractive investment by a health system or private equity firm. A more attractive option is the formation of a Healthcare District that provides the significant advantage of enabling public oversight and a steady revenue stream, but this requires intensive study and voter approval as described above.

In summary, it may be best to focus on developing and leveraging existing resources to match residents' current and medium-term needs rather than rebuilding or reopening a general acute hospital in the short term. When the services of a general acute hospital are needed, there needs to be robust methods to ensure safe and timely transportation to other local hospitals and alternate means of care when appropriate.

[81] https://www.hazelhawkins.com
[82] https://www.hazelhawkins.com/images/FYE-06-30-2020-Audited-Financial-Statements.pdf
[83] https://www.northbaybusinessjournal.com/article/article/palm-drive-health-care-district-moves-forward-with-dissolution/

Emergency Medical Services

Figure 26: CalFire Fire Stations



Emergency Medical Services are similar to what existed before the fire, but as pointed out later in this report, ambulance availability may not be as robust around the clock as it once was. In Section 3, we provide recommendations for specific actions that can be taken to optimize ambulance coverage in the Paradise Ridge Service Area.

Paradise and Magalia is served by four CalFire Stations: 33, 35, 81, and 82 (Figure 26). Station 33 serves Magalia and the upper ridge, while stations 35, 81, and 82 serve the areas in and around the Town of Paradise. Stations 33, 35, and 82 each staff one engine company year-round with a captain, engineer, and firefighter per shift. They each respond to approximately 1,500-1600calls per year.[84] During the fire season, this staffing is augmented with additional personnel. CalFire does not provide transportation services from either station.

The second response layer is from paramedic ambulances provided by Butte County EMS and operated by Enloe Health.[85] It is a high-quality service with Commission on Accreditation of Ambulance Services (CAAS) accreditation.[86] Advanced Life Support (ALS) providers are trained for more advanced medical interventions that are less

[84] https://www.buttecounty.net/Facilities/Facility/Details/Station-35-Paradise-12
[85] https://www.bcems.org
[86] https://www.caas.org

frequently utilized, such as IV medications and fluids, limited surgical procedures, and most importantly, expertise in patient evaluation and appropriate destination. Most transport services in California are at the ALS level. Typically, each ambulance covers a much broader geographic area than a fire station. Since they respond over longer distances and transport patients to the EDs, their time on task for any typical incident is much longer than that of first responders.

Butte County EMS also operates medical helicopters with Visual Flight Rules (VFR) capabilities and may be limited under adverse weather conditions. Medical helicopters provide rapid transport over long distances and, since these are staffed with specially trained nurses, bring additional medical capabilities to the scene and during transport. They are most valuable for critical patients when transport destinations are a substantial distance (e.g., > 30 minutes by ground), the patient requires specialty care (e.g., pediatrics, burn treatment), or when local ambulance resources are stretched due to a multiple casualty incident, for example.

In some situations, helicopters are not the most appropriate resource and can lead to delays in definitive care. There are multiple steps involved in transporting a patient by helicopter:

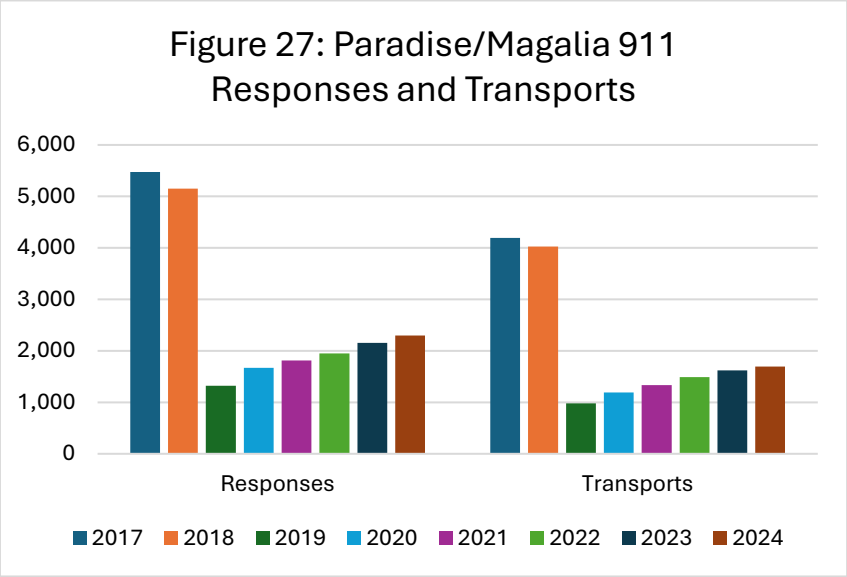
- Ground unit arrival on scene to determine need
- Request for air transport
- Identification of a landing zone
- Weather checks and liftoff time
- Loading of patient to meet at landing zone
- Travel time to the landing zone
- Transfer of patient from ground unit to helicopter
- Flight time to destination hospital helipad
- Offload of helicopter and transfer to the ED

Methods to minimize the time involved in some of these steps include auto-launching aircraft based on dispatch information, geographic location, and pre-identification of multiple suitable landing zone options that may be closer to the incident. The patient is usually best served by immediate ground transport to the appropriate hospital, provided ground travel times are 30 minutes or less. Therefore, pre-designated landing zones are most important when ground transport times are expected to be very long or when ground access is difficult. These conditions will most likely apply in the upper Paradise Ridge Service Area rather than in Paradise proper, and CalFire reports they routinely use helicopters above the dam. Enloe EMS reports that there are seven predesignated landing zones in Paradise. Their most frequently used landing zones are the Holiday Market parking lot, the old Feather River Hospital helipad and many times, directly on the Skyway roadway.

EMS Volume

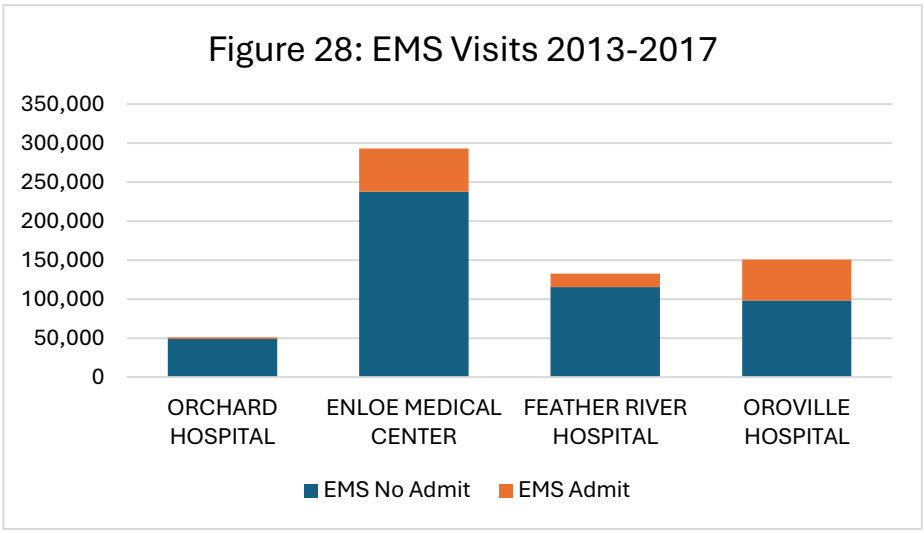
The Sierra-Sacramento Valley EMS Agency reports that the 911 EMS call volume in Paradise, Magalia, and the Paradise Ridge Service Area in 2017 was 5,472 (an average of 15 per day).[87] The volume dropped to about 1,300 calls per year in 2019 and is slightly less than half of pre-fire volumes in 2024 at 2,295. The rate of 911 calls that result in transportation to a hospital has remained steady at approximately 78% (Figure 27).

[87] https://www.ssvems.com



Before the fire, 93% of ambulance transports were taken to FRH; since the closure of FRH, most transports are now taken to Enloe Health Center.[88]

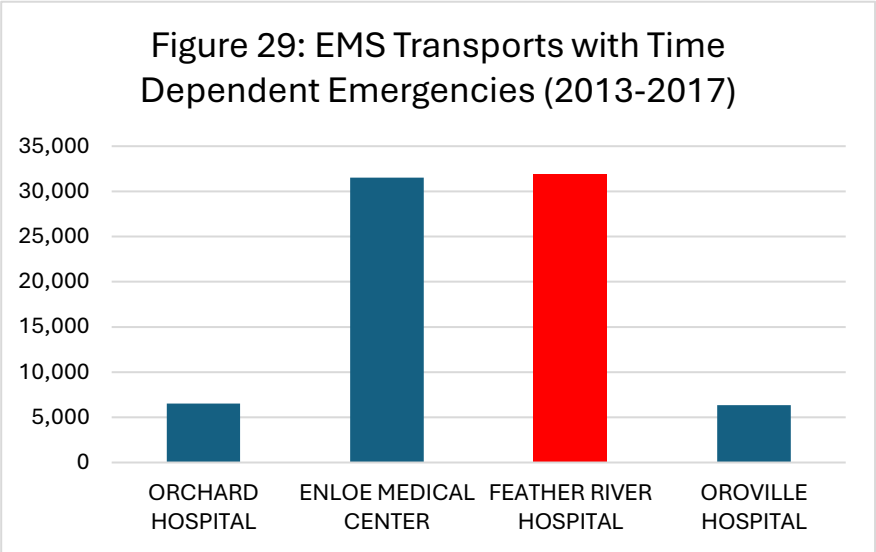
Figure 28 shows the number of EMS transports to Butte County EDs from 2013 to 2017. This data comes from the State of California and only covers these years; unfortunately, it is unavailable after 2017.[89] Nevertheless, it does provide a picture of how ambulance transports were allocated between hospitals in the county. Enloe Medical Center received the most ambulance transports and had about double the EMS volume of either FRH or Oroville Hospital (Figure 24).[90]



The volume of EMS traffic provides only part of the picture. Transported EMS patients can vary widely in terms of severity, and a significant proportion have non-urgent conditions, and travel time to the hospital is not clinically significant. The acuity level of

[88] SSVEMS data, John Poland, Administrator
[89] https://data.chhs.ca.gov/dataset/emergency-department-services-trends
[90] https://data.chhs.ca.gov/dataset/emergency-department-services-trends

patients brought to FRH was high as compared to other Butte County Hospitals (Figure 29).[91] While FRH received about half the number of EMS patients as compared to Enloe Medical Center, those patients who were much more likely to have conditions deemed severe requiring time-dependent interventions in the ED (Figure 30).



Some factors may account for the relatively high acuity taken to Feather River Hospital. While this local hospital did not have the depth and capability of Enloe Medical Center, especially with respect to trauma, cardiac, and stroke cases, EMS may have chosen FRH for their sickest patients because of patient preference and proximity. Additionally, with the pre-fire demographics of the Paradise Ridge Service Area trending to older residents, there may have been a higher prevalence of persons deemed as severe, as opposed to younger populations elsewhere in the county.

[91] https://data.chhs.ca.gov/dataset/emergency-department-services-trends

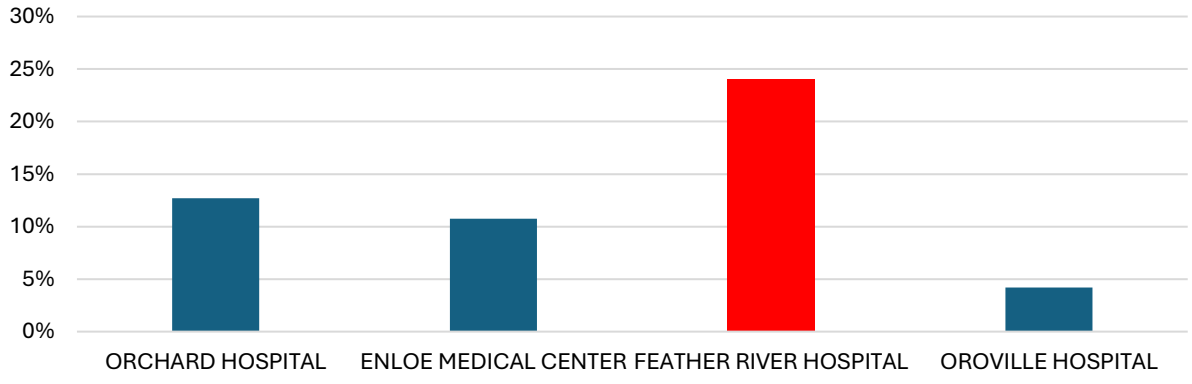
Sometimes, the closest hospital is not the most appropriate EMS destination. Standard practice in most California counties is to bypass the nearest hospital in favor of one that could provide time-dependent specialty care such as trauma, stroke, and cardiac cases. These protocols existed before the fire in the Paradise Ridge Service Area; and cardiac and trauma cases would not be brought to FRH today, even if it were open. FRH was designated as a primary stroke center.

EMS Response Times

Ambulance deployment models are tied closely to demand for services and geographic considerations. The overall objective is to meet response time standards. Before the Camp Fire, a full-time 24/7 paramedic ambulance was staffed in both the Town of Paradise and the Upper Ridge in Magalia. The smaller post-fire population in Paradise led to lower demand, and deployment was adjusted to 12 hours of daily coverage in Paradise, with a 24-hour ambulance continuing in Magalia.

Fortunately, 2025 ambulance coverage has been restored to one 24-hour unit and two

Figure 30: Allocation of EMS Time Dependent Emergencies (2013-2017)



12-hour units. Unit 11, stationed at 14182 Skyway, is staffed 24 hours, 7 days a week. Units 12 and 14 are stationed in Paradise at 1295 Billie Road, from 8am-8pm and 12pm-12am respectively, 7 days per week. Due to lower call volume between the hours of midnight and 8am, there is single ambulance coverage provided by Unit 11.

Ambulance deployment is dynamic, and any unit may be out of the area on a transport or covering another call, but Enloe EMS has a policy to backfill the gap with another unit from elsewhere in the county until the regularly assigned ambulance is able to return to its service area.

In 2017, the fractile response time standard (i.e., 90%) was 10 minutes for an ALS ambulance; this was adjusted to 15 minutes following the Camp Fire due to the change in population density. It is standard practice to have different response time zones within a county, as less densely populated areas are more difficult and expensive to serve, making short response times difficult to achieve consistently. Under the existing EOA contract with Butte County EMS, the Sierra Sacramento Valley EMS Agency (SSVEMS) reports that no specific population threshold or other criteria determines when response time standards are modified. Instead, the system is continually evaluated in partnership with BCEMS and EMS system participants to ensure appropriate and equitable coverage. SSVEMS stated they are committed to do so periodically as the area recovers.

Dispatch and arrival times are recorded in the dispatch record directly in the Butte County EMS MEDCOM dispatch center and form the basis for determining response time compliance. Adjusted 2024 response times in Paradise remain within compliance, with an ambulance response meeting the 15-minute standard an average of 93% of the time between January and December 2024 (Table 3).[92] After adjustments excluding exemptions in accordance with the EMS contract, compliance ranged from 91.9% to 99.8% countywide. According to this contract, exemptions from the response time standard are granted when call volume exceeds 150% of baseline volume as calculated by SSVEMS. Unadjusted raw data was provided to us by SSVEMS for

[92] https://www.ssvems.com/wp-content/uploads/2024/11/Ambulance-Response-Times-11-2024.pdf

independent analysis.[93] SSVEMS reports that the 2024 ambulance average response times fluctuate monthly but are between seven and 10 minutes for any given month.

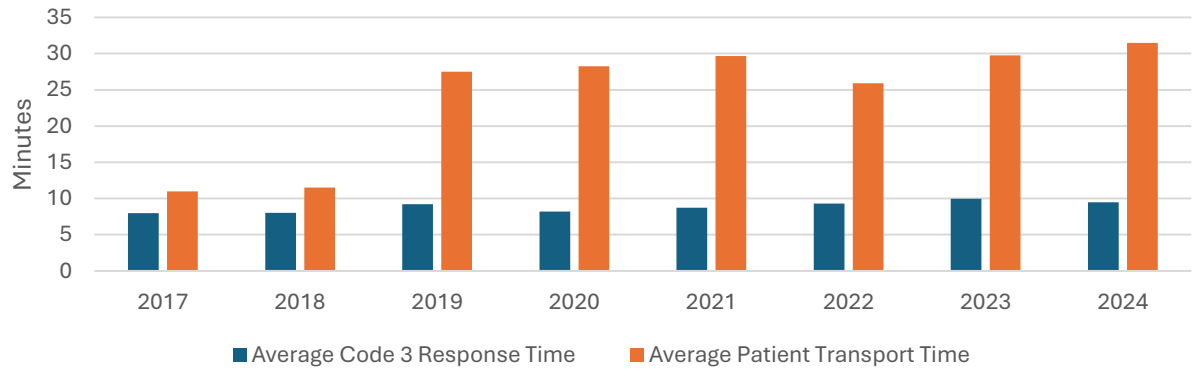
Table 3: Butte EMS Response Time Compliance

Butte EMS - Response Time Compliance - 2024

Butte EMS	Butte County 30			Chico 10			Oroville 10			Paradise 15			Gridley 10			Butte Co. ASAP	Priority 2 - High Density (15)			Priority 2 - Low Density (45)			Priority 3 - (30)			All Zones Combined			Priority 4-8	Total Calls
Month	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	#	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	Total # of Calls	# Late	On Time %	#	#
Jan-24	494	3	99%	489	50	90%	370	24	94%	149	15	90%	36	3	92%	16	454	40	91%	103	0	100%	360	10	97%	2455	145	94%	99	2570
Feb-24	455	4	99%	448	37	92%	261	19	93%	140	14	90%	40	2	95%	13	401	42	90%	70	0	100%	345	10	97%	2160	128	94%	92	2265
Mar-24	478	4	99%	537	42	92%	293	23	92%	162	13	92%	44	4	91%	20	428	42	90%	72	0	100%	338	7	98%	2352	135	94%	88	2460
Apr-24	507	3	99%	511	35	93%	264	22	92%	156	11	93%	50	5	90%	12	405	37	91%	106	0	100%	329	8	98%	2328	121	95%	107	2435
May-24	477	1	100%	523	42	92%	345	26	92%	183	19	90%	36	3	92%	16	422	44	90%	77	1	99%	319	6	98%	2382	142	94%	89	2471
Jun-24	493	0	100%	520	54	90%	349	34	90%	150	14	91%	37	3	92%	11	433	45	90%	104	0	100%	277	18	94%	2363	168	93%	83	2446
Jul-24	518	0	100%	596	19	97%	376	16	96%	174	3	98%	30	3	90%	16	495	24	95%	93	1	99%	349	10	97%	2631	76	97%	72	2703
Aug-24	482	3	99%	427	26	94%	289	22	92%	110	10	91%	35	3	91%	9	335	22	93%	91	0	100%	324	9	97%	2093	95	95%	67	2160
Sep-24	468	1	100%	478	14	97%	266	7	97%	149	6	96%	42	2	95%	14	316	17	95%	77	0	100%	310	0	100%	2106	47	98%	73	2179
Oct-24	474	3	99%	460	20	96%	302	10	97%	139	8	94%	35	1	97%	11	340	20	94%	79	0	100%	295	0	100%	2124	62	97%	79	2203
Nov-24	464	7	98%	439	23	95%	256	9	96%	147	7	95%	30	0	100%	16	359	21	94%	102	0	100%	321	9	97%	2118	76	96%	73	2191
Dec-24	484	1	100%	453	15	97%	303	15	95%	303	17	94%	29	2	93%	18	302	27	91%	98	0	100%	302	3	99%	2274	80	96%	91	2365
Total #s	5794	30	99.5%	5881	377	93.6%	3674	227	93.8%	1962	137	93.0%	444	31	93.0%	172	4690	381	91.9%	1072	2	99.8%	3869	90	97.7%	27386	1275	95.3%	1013	28448

Compared to pre-fire response times, the 2019-2024 response times average 1.5 to 2.0 minutes longer. Most notably, due to the closure of FRH, transport times have tripled (Figure 31).[94]

Figure 31: Paradise Ridge Service Area Response and Transport Times



In January 2025, Butte County EMS added 36 additional daily hours of ALS ambulance coverage to Butte County. Twelve of these hours were added to the Paradise/Magalia area to address additional call volume, restoring coverage to pre-fire levels of two 24-

[93] Meeting at SSVEMS offices, June 5, 2025
[94] SSVEMS data, John Poland, Administrator

hour ambulances serving Paradise and Magalia. Response time compliance numbers shown in Table 3 were recorded before staffing hours were increased.

Ambulance coverage is expensive and reliant on patient volume and insurance reimbursement for operating revenue. In its first-year financial report under the new SSVEMS agreement of October 2023, Butte County EMS reports an operating loss of $538,526.

It is possible to supplement EMS through other mechanisms. For example, to address the need for supplemental ambulance coverage, a Butte County Service Area (CSA 037) was established in 1969 that includes the cities of Gridley and Biggs and the unincorporated community of Richvale; it contains approximately 5,800 parcels. The CSA provides financing to augment the provision of ambulance services within the CSA boundaries, allowing an ambulance to be stationed in Gridley to reduce response times and offer enhanced services. Property taxes, intergovernmental revenues, and interest earnings are the sources of revenue for the CSA. [95] Estimated annual operating cost for a 24/7 ambulance staffed with a paramedic and Emergency Medical Technician (EMT) is $1 million.

Another nearby example of supplemental EMS funding is in nearby Glenn County. Westside Ambulance operates the equivalent of 1.5 ALS units. Its 24-hour ambulance is subsidized by the City of Orland at $17,000 per month, or $204,000 annually. The additional 12-hour ambulance is jointly subsidized by the City of Orland and the County of Glenn at approximately $35,000 per month, or $420,000 annually. In total, Westside receives an estimated $624,000 per year in subsidy.

[95] https://www.buttecounty.net/DocumentCenter/

EMS Findings

Emergency Medical Services (EMS) in Paradise and the Paradise Ridge Service Area consist of two layers of response: Basic Life Support (BLS) and Advanced Life Support (ALS). Twenty years ago, the capability gap between ALS and BLS was significant. Emergency Medical Technicians (EMTs) (i.e., BLS) were limited to basic emergency care and could not provide emergency medications, cardiac defibrillation, or advanced airways. Over the past few decades, this distinction has narrowed, as EMTs are now capable of using advanced airways, providing immediate defibrillation for cardiac arrest, giving epinephrine for severe allergic reactions, and administering naloxone for overdoses. Indeed, several of the most time-critical field interventions that used to be reserved for the paramedic (i.e., ALS) level are now provided at the BLS level in the State of California. Fire-based BLS can stabilize and initiate treatment in most situations, and ALS transport personnel can provide additional treatment as needed.

Most first responders provide BLS care, especially in suburban and rural communities. In almost every EMS system, the local fire agency provides this service and is typically the first on the scene due to the well-positioned fire stations. In Paradise and Magalia, CalFire provides this.

Before the fire, Butte County EMS staffed two full-time (24/7) ambulances in Paradise and Magalia. With the drop in call volume following the fire, staffing had been modified to 12 hours daily in Paradise and 24 hours daily in Magalia. Many community members said they would be more comfortable if 24/7 ambulance service was dedicated to Paradise around the clock. As of January 2025, 48-hours of coverage has been restored in Paradise and continues in Magalia through a combination of a 24-hour ambulance stationed in Magalia, two 12-hour ambulances stationed in Paradise between 8am and 8pm hours and 12 pm – 12 am respectively. Between the hours of 12 noon and 8 pm, a total of three ambulances are dedicated to the Paradise and Magalia area. From midnight to 8am, the Paradise Ridge Service Area is served by a single ambulance

stationed in Magalia, but additional coverage is available from other Butte County units as needed.

The response time standard (formerly at 10 minutes pre-fire) remains at 15 minutes, like other rural, low-density population areas in Butte County. The Sierra Sacramento Valley EMS Agency does not stipulate a population density threshold that would trigger a change in the response time standard but rather evaluates the response time compliance and call volume on a continual basis to determine the appropriate response time.

The closure of the FRH ED has a direct impact on ambulance availability. Though it is helpful that ambulance coverage hours have been restored, due to the need to transport to further away hospitals, the additional time that an ambulance is committed for each patient and the return to the Upper Ridge can result in less immediate ambulance coverage than was experienced pre-fire. If both units are committed to a call (or the single unit between midnight and 8am), additional units are reassigned from elsewhere in Butte County to backfill until these usual units are back in service. As is often the case, call volume is unpredictable, and multiple simultaneous calls for service can result in delays for available units to respond from greater distances.

Unlike fire and police services, which are supported through public funding, EMS is typically funded exclusively through patient billing and reimbursement, which is true for Butte County EMS. This financial model continues to strain the EMS industry significantly and likely needs national reform.[96] Nevertheless, to be financially sustainable, any EMS service needs patient transports.[97] Due to low overnight call volume, and concerns about response time, subsidization of ambulance coverage may be necessary to augment ambulance availability. There are various mechanisms that

[96] https://www.jems.com/ems-management.
[97] https://www.ems.gov/assets/NEMSAC_Final_Advisory_EMS_System_Funding_Reimbursement.pdf

have been used to fund EMS services. In November 2022, Colusa County voters approved Measure A that authorized 0.5% sales tax specifically allocated to emergency ground transport services up to $2.4 million annually.

Some rural areas have chosen to subsidize ambulance services through CSAs to partially fund enhanced coverage. The Gold Ridge Fire Protection District (GRFPD) in Sonoma County wanted to increase how quickly paramedics reached their residents, as it only has EMTs on its fire engines and the closest ambulance station was in the neighboring city. Their residents passed a parcel tax to add ALS service. Based on the low call volume, GRFPD decided to contract with the private ambulance provider to station a 24-hour ambulance in its fire district with a higher station priority (i.e., at what level of available units it is covered) than the EMS Agency contract dictated based on call volume. In exchange for roughly $700,000/year, the increased staffing and station priority have resulted in faster response times for the GRFPD community.

A similar arrangement in Butte County is the Gridley-Biggs ambulance service (provided by Butte EMS) through a community service agreement (CSA-037)[98] enacted in 1969. The revenue generated from this CSA is approximately $100,000 per year which, in addition to revenue captured through patient billing, is not sufficient to cover the cost of ambulance services there. This CSA was enacted before Proposition 13 and is based on assessed valuation. Current average fee for 5,800 parcels is approximately $18 per year. There are current conversations about raising the assessment rate as it has not been adjusted for many years.

CSAs are generally reserved for unincorporated areas, however, after describing the Paradise Ridge Service Area, which, in addition to the incorporated Town of Paradise includes the unincorporated areas of Magalia and Stirling City, Butte County LAFCO believes that a CSA would be possible.[99] Limited federal grant funding[100] for EMS

[98] https://www.buttecounty.net/
[99] Conversation with Steve Lucas, Butte County LAFCO, Executive Officer on April 23, 2025
[100] https://www.naemt.org/resources/federal-funding

services is available but none are currently designated specifically for funding ambulance coverage. Given the current cost-cutting activities at the federal level, the availability of these grants in the future is uncertain. In conversations with Butte County EMS[101], the estimated cost to provide ALS ambulance service stationed in Paradise between the hours of midnight and 8am is $330,000 annually.

There are multiple steps for forming a County Service Area, including picking the boundaries, which would need to include the unincorporated areas of the Paradise Ridge Service Area, providing a description of the service area, conducting a service analysis, providing a cost estimate, and developing a theoretical three-to-five-year budget. LAFCO suggests that instead of a fee based on assessed valuation, a fixed fee is more appropriate. At this point, the 1996 Proposition 218 process102 applies, which entails two elections: the first is to gain voter approval to form a district, the second is to approve fees on parcel owners.

Butte County EMS is investigating the utility of adding BLS-only ambulances to the system to be used for lower acuity transports that could preserve ALS ambulance availability in the system. This is an increasingly popular model used nationwide and is made possible by the high-fidelity Emergency Medical Dispatch protocols that can identify and categorize calls for service by acuity level, currently in place in Butte County. BLS units could be dispatched to the scene in addition to ALS units, dispatched for an intercept location where the ALS unit can transfer care to the BLS unit, or ideally, dispatched in lieu of an ALS ambulance when deemed appropriate.

Since transport time to Enloe hospital places a significant strain in EMS resources and alternate destination program for appropriate patients that could connect them with local sources of care would be useful, Alternate destinations are allowed under California Code of Regulations, Title 22, Division 9, Chapter 5; however, these are

[101] Conversation with Jenny Humphries, Butte County EMS, Director, on 4/14/25
[102] https://www.lao.ca.gov/1996/120196_prop_218/understanding_prop218_1296.html

limited to sobering centers and authorized mental health facilities. It is possible, through triage protocols, for EMS personnel to determine that a low acuity patient no longer needs EMS care, in which case, the urgent/rapid care would be an acceptable destination. Typically, patient billing, and therefore revenue capture, is limited to patient transportation to an emergency department, but many insurers are instituting a payment model for EMS when transporting to a lower level of care.

Adventist Health would need to agree to have their rapid care or clinics available to accept low-acuity ambulance patients. Butte County EMS and SSVEMS would need to develop protocols and procedures for EMS personnel to use to appropriately triage patients. If properly implemented, this program could shorten transport times, decrease the likelihood of delayed ambulance availability, and decrease costs and inconvenience for patients who would otherwise need to go to an emergency department for low-acuity conditions.

Many EMS systems have identified a significant proportion of 911 calls that could be safely handled without transportation. With online medical expertise using nurse navigation and a robust referral process for obtaining next-day urgent care or primary care visits, ambulance resources could be preserved for higher acuity calls. Appropriate care and follow-up could be provided at a lower cost and with higher convenience for the patient. Some Local EMS Agencies have entered contracts with Exclusive Operating Area Contractors to require the use of navigation services. The current contract with Butte County EMS does not include this provision and would need to be included in future contracts or revisions.

Urgent Care/Rapid Care Clinics

Urgent care clinics are significantly different from Emergency Departments. An urgent care clinic, also interchangeably called a rapid care or prompt care center, treats non-life-threatening medical conditions that require immediate attention, like lacerations,

minor infections, and sprains. A hospital ED is designed for serious or potentially life-threatening situations, such as severe injuries, chest pain, and loss of consciousness. For severe cases beyond the urgent care's capability, the patient will be transferred to an ED for treatment and possible hospital admission.

Typically, urgent care clinics have shorter wait times and are less expensive than EDs but may also have more limited hours of operation than the ED, which is always open. Urgent care clinics are less likely to be staffed with physicians who are specialty-trained in emergency medicine and have access to specialty care, such as cardiology, orthopedics, and many others that would be found at a hospital. The range of capabilities between urgent care clinics can vary widely, from simple medical evaluation and treatment to full-service imaging and lab services.

Paradise has a rapid care clinic, located at 5125 Skyway. While the terms "rapid" care and "urgent" care are often used interchangeably, Adventist Health is classified as a rapid care center, which typically offers same-day and walk-in primary care services. While rapid care and urgent care both address non-emergency conditions, rapid care is typically for less serious, non-immediate conditions like minor injury or illness, while urgent care typically handles a broader range of conditions, including those requiring immediate attention.

According to CDPH, if a clinic location wishes to provide urgent care services, it does not need a separate license but must file a change of service application and get approval. There are no formal standards or minimum criteria that a primary care clinic must meet to operate as an urgent care center.

Urgent care clinics exist in Chico and the surrounding area. Many of these clinics are closed during the evening or on weekends, and many Paradise patients rely on EDs (principally Enloe) for urgent care needs. Numerous residents expressed frustration that the rapid care clinic on Skyway is intermittently closed during business hours.

Adventist Health is aware and states that they have had challenges recruiting the providers necessary to keep the clinic open consistently. Nevertheless, although the rapid care clinic may be closed, they can often accommodate walk-in patients to be seen by one of their providers elsewhere in the clinic.

Urgent Care/Rapid Care Findings

Feather River Hospital not only provided labor and delivery and other inpatient care but also had a 24/7 ED. When it became clear that the hospital was unlikely to reopen after the fire, there was hope that emergency legislation that enabled FRH to function as a standalone ED would be possible. Although legislation was passed, there was never any regulation or licensing process developed, making the creation of a standalone ED impossible in California.

The option of creating a Freestanding ED was enabled by Senate Bill 156; it authorizes Adventist Health to operate an ED under specific conditions, without needing the ability to admit patients. The legislation, enacted January 1, 2020, was careful to describe this as a special permit and not to be used as a model for other freestanding EDs in California, which continue to be prohibited by state law. Adventist Health leadership reports that while the legislation allowed the formation of a freestanding ED, no mechanism was ever created, such as state regulations or a permitting process. Nevertheless, Adventist felt that the current population on the Paradise Ridge Service Area would not support such a facility. Ultimately, from its perspective, the healthcare infrastructure on the Ridge is best supported by the ambulatory (clinic) model, under which it plans to build a full-service rapid care center that would have 24/7 services, including lab and imaging.

While severe cases (heart attacks, major trauma) are best cared for in medical centers that have the depth and breadth of hospitals like Enloe, there is local demand for lower acuity emergency care, such as minor illness, fractures, or lacerations that otherwise

would need to be treated in an ED. A high-functioning urgent care or rapid care facility could handle most of these conditions, thus avoiding distant ED visits. While one does exist in Paradise, many report that the hours are limited and inconsistent. Adventist Health, which operates this facility, reports that its biggest limitation is staffing, which it has struggled to address. Adventist also reports that their usage statistics show a sharp drop in demand after 3pm each day.

Fortunately, there is a full-service hospital nearby in Chico that provides a wide spectrum of care from emergency care, labor and delivery, oncology and trauma care. Many have communicated to us that emergency room waits can be very long and were likely worsened as they absorbed additional patients due to the closure of Feather River Hospital.

Primary and Specialty Care

Physician and Medical Professional Supply

According to the Rural Health Information Hub, Butte County, like most rural and semi-rural California counties, has a shortage of primary care providers (Figures 32-34).[103]

Figure 32: Primary Care Shortage Areas

[103] https://www.ruralhealthinfo.org

The map for dental care in Butte County is similar, showing 8.1 providers for every 10,000 patients.[104]

The behavioral health outlook is even more challenging. Nationwide HRSA projections show a rapidly diverging gap between supply and demand. The continuing decline of professionals with this expertise and the rapidly increasing demand will lead to a shortage of over 100,000 providers by 2037.[105] Data shows a similar picture in Butte County and the upper third of California with shortages.

Figure 33: Dental Care Shortage Areas

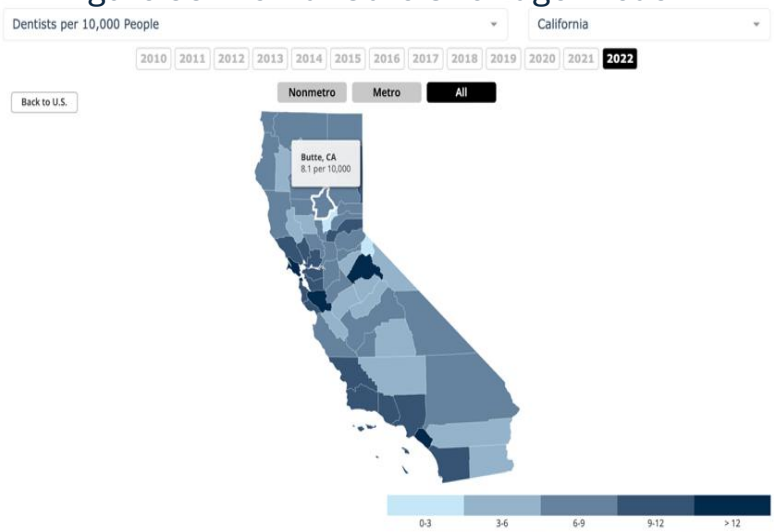
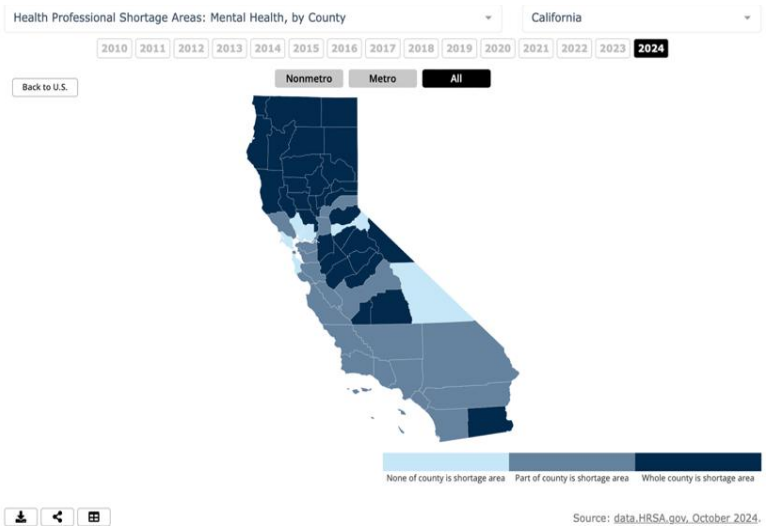


Figure 34: Behavioral Care Shortage Areas



Many causes of premature death are amenable to easy access to primary health and preventive care, cancer, risk behavior screenings, and follow-up care. The biggest obstacle to access to care is the lack of primary care physicians. The 2024 County Health Rankings Reports show that Butte County has only one physician for every 1,710 residents, compared to California, which has 1,210 residents per physician.[106] Each

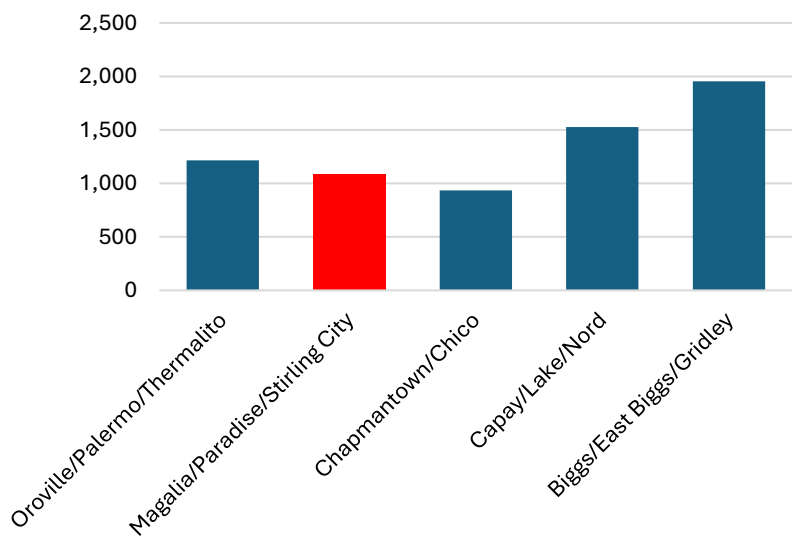
[104] https://www.ruralhealthinfo.org/data-explorer?id=199&state=CA
[105] https://data.hrsa.gov/topics/health-workforce/workforce-projections
[106] https://www.countyhealthrankings.org/health-data/california?year=2024&measure=Primary+Care+Physicians&tab=1

person living in Paradise, Magalia, and Stirling City competes with about 1,600 others for care from a single provider (Figure 35).[107,108]

To address the provider shortages in Butte County, Healthy Rural California was founded as an independent 501(c)(3) that grew from the Butte-Glenn Medical Society. After intense work, Healthy Rural California has recently become accredited for graduate medical education. This year, it launched a four-year community psychiatry program in conjunction with UC Davis and Stanford. Years Two through Four will have experiences in Chico. Starting in July 2025, it is also launching a three-year family practice residency program based at Enloe Health in Chico.

This is very promising, as residency programs have been shown to enjoy relatively high retention rates of clinicians who choose to remain in the area in which they trained. Indeed, 77.7% of all residents who train in California stay and practice medicine in California, and at least half will practice within 100 miles of their training program.[109]

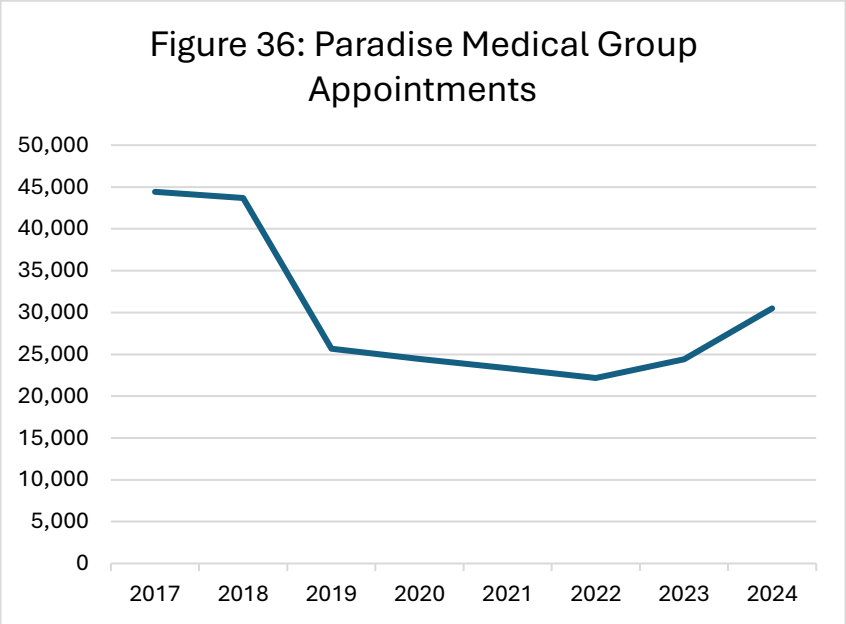
Figure 35: Patients per Primary Care Provider



The stakeholders interviewed reported that Town of Paradise residents currently receive primary care from a handful of places.

[107] https://datausa.io/profile/geo/paradise-ca/?provider-clinician_patient_ratio=provider1
[108] https://data.chhs.ca.gov/dataset/primary-care-shortage-areas-in-california

Individuals with employer-sponsored or private insurance tend to get their care from Adventist Health Feather River, Paradise Medical Group, Enloe Medical Center, and a handful of private practices in Chico. Individuals with Medi-Cal tend to go to Feather River Indian Health, Northern Valley Indian Health, and Ampla.



Stakeholders report that many providers relocated to Chico and surrounding areas or left the area entirely following the fire. They state that this has caused substantial challenges in accessing care due to the inconvenience of travel or lack of transportation. In addition, individuals voiced a lack of trust in providers who do not live in the community, which results in a hesitancy to seek care.

In 2010, the federal Affordable Care Act established network adequacy standards for Health Maintenance Organizations (HMOs) to maintain. In California, these minimum standards include full-time physician to patient ratios of 1,200:1 (and a primary care physician ratio of 2,000:1), primary care network providers within 30 minutes or 15 miles of each covered person's residence or workplace, and non-urgent appointments within 10 business days of request. For specialty care, this standard is 15 days, provided additional delay will not impact the patient's health, and geographic access to a hospital within 30 minutes or 15 miles of each person's residence or workplace.[110]

[110] https://www.chcf.org/

For purposes of network adequacy, the California Department of Health Care Services (DCHS) publishes travel time and travel distance standards for HMOs that provide primary care based on the population densities of each California county and zip code.[111] Based on population density DCHS divides California counties into four categories; Dense, Medium, Small and Rural. Butte County, with a population density of 51-200 persons per square mile, is considered a small county. The travel time and distance standard for adult primary care, pediatric care and ob-gyn is 30 minutes and 10 miles, respectively.

Stakeholders noted it is difficult to get an appointment for primary care, whether for an acute need, monitoring of a chronic issue, or a preventive checkup. Providers interviewed also confirmed this information, citing two to three-month average wait times for an appointment for existing patients and up to six months for new patients. These wait times substantially exceed the goal of non-urgent appointments being available within 10 business days of the request. The Northern Valley Indian Health and Ampla Health's website offers same-day options for urgent issues for existing patients. Stakeholders indicated that the difficulty in getting appointments dissuaded them from seeking care.

Paradise Medical Group reports that due to the partial loss of its facility in the Town of Paradise, it has relocated most adult and all pediatric services to Chico. Figure 36 shows the volume of appointments since 2017. These appointments include all appointments with physicians, nurses, medical assistants, case managers, and other staff. Enloe Medical Center reports expanding outpatient adult primary care services focused on those with private insurance. The numbers for Enloe Medical Center primary care are shown in Table 1. Ampla Health has multiple locations including a small office staffed by a single provider in Magalia that provides both adult and pediatric primary care with a focus on the Medi-Cal population. It continues to expand

[111] https://gis.dhcs.ca.gov/datasets/CADHCS::mcna-t-d-standards-by-county/explore

its offerings of primary care services with a new site about to open in Chico. Ampla Health reports that in 2024, its Chico sites saw 4,379 patients from the Paradise/Magalia/Sterling City/Foothills area, and the Magalia site saw 2,890 patients from that area. It could not be determined if these numbers have duplicates, i.e., if the same person sought care at multiple sites.

Feather River Tribal Health[112] is an accredited health care organization that serves approximately 5,000 native and non-native persons in Butte County and includes the Paradise Ridge Service Area as their assigned service area. Eric Lyon, Executive Director, estimates that they have approximately 200 clients and about 5 staff members who live in the Paradise and Magalia area. They currently have two clinics in Oroville and Chico that provide primary care, specialty care, dental, pharmacy, physical therapy, acupuncture, diabetes education, and pediatric services.

Fortunately, Feather River Tribal Health is very interested in supporting the Paradise Ridge Service Area with medical services and pharmacy services, and last year, they were investigating a piece of property in the Town of Paradise as a potential clinic site. They ultimately decided that the cost of fire insurance and a septic system was cost-prohibitive. They also expressed concern about finding medical staff for that clinic. They are currently focused on improvements in their existing clinics in Chico and Oroville.

The Adventist Health Clinics in Paradise are a significant source of Primary and Specialty Care. Annual clinic volume was significantly impacted by the fire but is showing steady rebound. Most visit growth since 2021 has been in specialty care, rapid care, dental and behavioral health (Figures 37, 38). Radiology volumes have been steady at the clinic with between 9,000 x-rays and 3,000 ultrasounds performed annually between 2021 and 2024. Mammography and MRI services were added in the fall of 2024, and to date, nearly 600 and 800 exams have been performed, respectively.

[112] https://frth.org

Laboratory volumes have also steadily increased from 8,000 tests performed in 2020 to nearly 14,000 in 2024.

Figure 37: Adventist Health Annual Clinic Volume

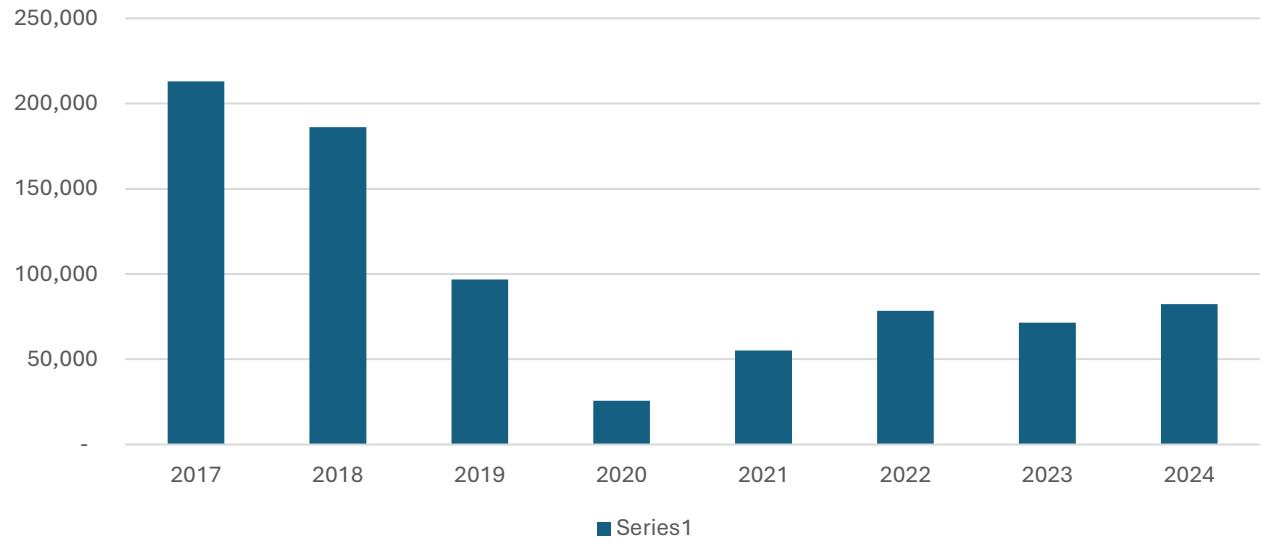
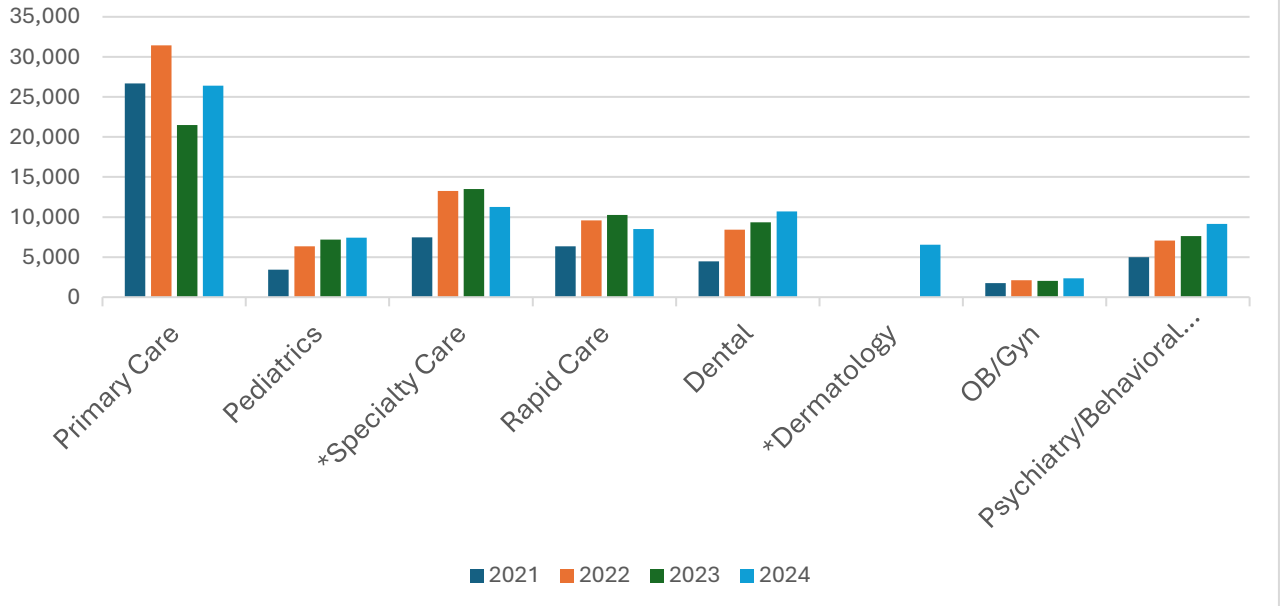
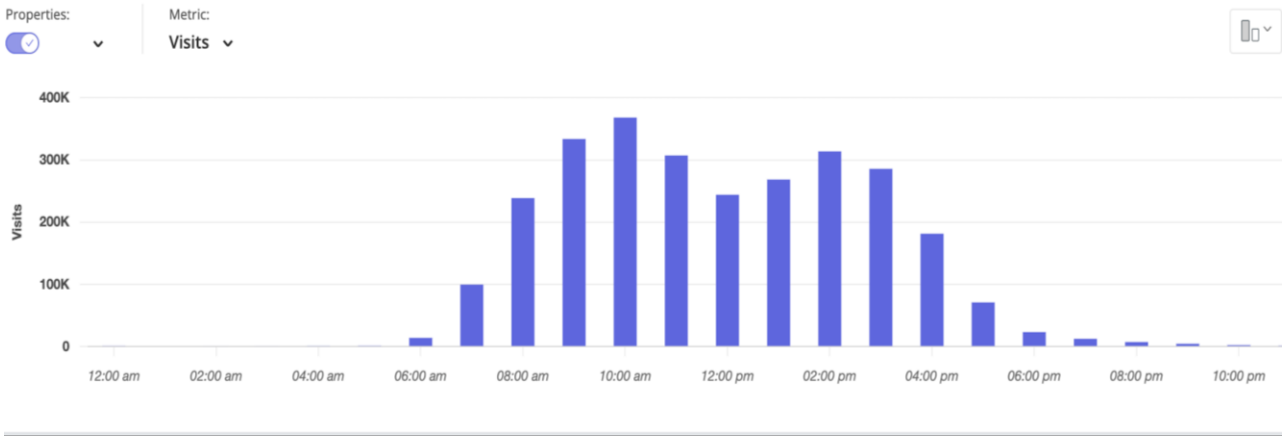


Figure 38: Adventist Health Annual Clinic Volume (2021-24)



Using both anonymous location data from consenting users via mobile application partners, and data provided by Adventist Health, Figures 39-40 provide insight into hourly clinic activity since 2017.[113] Hourly visits follow a typical pattern for outpatient clinics, with peaks in mid-morning and mid-afternoon. A tiny proportion of visits occur after 6pm. The busiest days are Tuesdays, with minimal activity on the weekends. In rapid care, one of the busiest periods is Sunday mornings but very little traffic arrives after 4pm.

Figure 39: Adventist Health Hourly Visits (2017-2024)



[113] https://www.placer.ai/

Figure 40: Adventist Health Rapid Care Visits (January-October 2024)

Appts per Day per Hour

Hours	Sun	Mon	Tue	Wed	Thu	Fri	Sat
07 AM		104	145	106	99	93	
08 AM		167	191	175	161	118	
09 AM		163	169	134	151	128	
10 AM	196	154	153	170	136	140	82
11 AM	98	155	165	157	146	124	29
12 PM	81	136	144	116	129	135	34
01 PM	60	107	141	118	88	85	30
02 PM	68	100	114	110	115	84	18
03 PM	10	80	109	111	96	53	6
04 PM		70	89	72	85	42	
05 PM		42	61	59	30	13	
06 PM			1				

Most Butte County Medi-Cal patients are enrolled under Managed Medi-Cal administered by Partnership HealthPlan of California (Partnership), which covers nearly a million people in 24 Northern California Counties. A 2024 report shows that 86,393 people in Butte County are enrolled in Partnership, about 70% (60,053) of whom have been assigned to a clinic as their medical home. Table 4, provided by Partnership, shows the number of patients assigned to various Medi-Cal clinics in Butte County as of April 2024.

Table 4: Medi-Cal Provider Panel Capacity

Provider Panel Capacity

This report shows the number of PHC members assigned to each clinic and their capacity to accept new members. Includes only clinics currently serving members.

PCP Affiliation ID		PCP Full Name	PCP County	Clinic Type	Current Enrollment Status	April 2024	
						Member Count	% of Members
Total Members Assigned to Primary Care Sites						60,053	100.0%
5773	0006	AMPLA HEALTH CHICO MEDICAL	BUTTE	FQHC/ RHC	Open	11,427	19.0%
19742	0016	ADVENTIST HEALTH	BUTTE	FQHC/ RHC	Open	7,808	13.0%
9408	0005	AMPLA HEALTH OROVILLE MED	BUTTE	FQHC/ RHC	Open	4,852	8.1%
31030	0004	NORTHERN VLY INDIAN HEALTH	BUTTE	FQHC TRIBAL APM	Open	4,080	6.8%
82299	0004	NORTHERN VLY INDIAN HEALTH	BUTTE	TRIBAL HEALTH PROG..	Open	4,183	7.0%
34187	0007	FEATHER RIVER TRIBAL HEALTH	BUTTE	INDIAN HEALTH SERVI..	Open	3,509	5.8%
5807	0008	CHUKWUEMEKA NDULUE	BUTTE	FQHC/ RHC	Open	2,900	4.8%
63295	0004	PRIMARY CARE PRACTICE	BUTTE	FQHC/ RHC	Open	3,004	5.0%
20040	0004	PEDIATRIC ASSOCIATES	BUTTE	FQHC/ RHC	Open	2,869	4.8%
83224	0004	FAMILY MED PRAC PCP ENDO	BUTTE	FQHC/ RHC	Open	2,613	4.4%
83277	0004	PEDIATRIC PRACTICE	BUTTE	FQHC/ RHC	Open	2,665	4.4%
6418	0004	AMPLA HEALTH GRIDLEY MED	BUTTE	FQHC/ RHC	Open	2,324	3.9%
83304	0001	FAMILY MEDICINE PRAC	BUTTE	FQHC/ RHC	Open	1,655	2.8%
27629	0004	ORCHARD HOSP MED SPEC CNTR	BUTTE	FQHC/ RHC	Open	1,616	2.7%
29532	0004	NORTHERN VLY INDIAN HEALTH	BUTTE	FQHC TRIBAL APM	Open	1,803	3.0%
78439	0004	ORCHARD HOSP MED SPEC CNTR	BUTTE	FQHC/ RHC	Open	796	1.3%
83135	0001	AMPLA HEALTH MAGALIA MED	BUTTE	FQHC/ RHC	Open	497	0.8%
83252	0004	PREMIER HEALTH PRACTICE	BUTTE	FQHC/ RHC	Open	511	0.9%
82781	0004	GRIDLEY CHLDRN CLINIC	BUTTE	PHYSICIAN	Open	189	0.3%
19742	0019	ADVENTIST HEALTH	BUTTE	FQHC/ RHC	Open	136	0.2%
20040	0005	PEDIATRIC ASSOCIATES	BUTTE	FQHC/ RHC	Open	126	0.2%
5807	0009	CHUKWUEMEKA NDULUE	BUTTE	FQHC/ RHC	Open	115	0.2%
83277	0005	PEDIATRIC PRACTICE	BUTTE	FQHC/ RHC	Open	106	0.2%

Ampla Health has multiple locations, including a small office in Magalia staffed by a single provider. Partnership took over Medi-Cal managed care for Butte County in 2024. They report that they have been unable to get reliable data from the previous managed care entities (Anthem Blue Cross Partnership Plan and California Health and Wellness Plan), so longitudinal data is limited.

Primary and Specialty Care Findings

Pre-fire, the Town of Paradise had a selection of specialty care providers such as oncologists, cardiologists, obstetrician/gynecologists, and gastroenterologists. These specialties, which are primarily focused on specialty diagnostic and surgical procedures that require a hospital or ambulatory surgery center, can no longer conveniently function without such facilities nearby. The hospital and specialty clinics

rely on each other to create a medical ecosystem, and neither is likely to exist without the other.

As is the case for primary care, the California Department of Health Care Services (DCHS) publishes travel time and travel distance standards for HMOs that provide specialty care based on the population densities of each California county and zip code.[114] For specialties such as cardiology, gastroenterology, oncology/hematology and many others, the time and distance standards are 75 minutes and 45 miles, respectively, which must be met for 90% of the county population. In some counties, such as Butte, there is a greater allowance for low density zip codes and low supply counties.[115]

Health plans may choose to apply other metrics to determine level of specialty care provided to a given community. In conversations with Adventist Health Care, their goal is to provide local orthopedic care to a population base of 10,000 persons or more, and cardiology and neurology for a population of 20,000 persons or more.[116] Our nation continues to struggle with a shortage of health care professionals, which include doctors and advanced practitioners, particularly in rural areas. The Health Resources & Services Administration (HRSA) estimates a nationwide shortage of 40,000 primary care professionals, and is projected to increase to 57,000 by 2037.[117] While the supply of family medicine physicians shows a modest annual increase of 3%, the demand for these services is growing 12% yearly.

Primary care is the backbone of population health. Primary care physicians not only provide acute and chronic medical care but, just as importantly, provide preventive care to avoid disease development or identify disease in early stages to mitigate progression. As the Sacramento Bee succinctly states, “Primary Care is worthy of the

[114] https://gis.dhcs.ca.gov/datasets/CADHCS::mcna-t-d-standards-by-county/explore
[115] DMHC Specialist Physician Geographic Access Standards and Methodology
[116] Chris Champlin, President, Adventist Health Rideout
[117] https://data.hrsa.gov/topics/health-workforce/workforce-projections

name–healthcare that is accessible, comprehensive, continuous and coordinated."[118] While it is not uncommon for some to exclusively seek care at an urgent care or ED, these facilities cannot provide the type of primary care continuity necessary to ensure long and healthy lives.

Unlike EMS systems and hospitals, aside from some Medi-Cal requirements, there is neither mandatory data reporting nor a centralized repository for primary care. Therefore, it is difficult to assess changes in primary care sources over time, including details regarding the number of patients seen, or visit count, without each facility providing its data. Many providers and facilities cannot pull such data from their electronic systems or, for business reasons, are hesitant to share that information. As a result, this report primarily relies on qualitative reports from stakeholder interviews and cannot quantitatively compare the current primary care to what existed pre-fire.

Few options exist for residents to receive primary care and specialty care within the Town of Paradise. Adventist Feather River appears to be the leading pediatric and adult primary care provider. This is not necessarily unreasonable given the proximity of Primary and Specialty Care services in Chico. The distance to Chico is within the most accepted healthcare standards, such as insurance determinations of network adequacy, which state that primary care networks should have providers within 30 minutes (or 45 minutes for specialty care) of a person's residence or workplace.[119] Nonetheless, stakeholders indicated this is a concern regarding seeking care and economic benefit to the Town.

While some governmental entities, including several California counties, provide direct healthcare services, it is difficult and not financially feasible without a subsidy. The Town could consider policies and programs that support existing providers in continuing to offer services within the Town boundaries, encourage agencies from

[118] https://www.sacbee.com/opinion/op-ed/article293836414.html
[119] https://www.chcf.org/wp-content/uploads/2021/12/NetworkAdequacyStandardsHowTheyWorkWhyTheyMatter.pdf

elsewhere to relocate or expand into the town, and encourage new start-ups. An economic development specialist might have more detailed suggestions, but here are some possibilities.

There is an overall shortage of healthcare professionals within the Town of Paradise and throughout Butte County. Stakeholders unanimously stated that the main barrier to expanding primary care services is recruiting and retaining qualified medical professionals. The Town of Paradise can take actions to encourage healthcare professionals to choose it over other places to live and work.

Outpatient pharmacies are also in short supply. Post fire only one pharmacy (Walgreens) currently exists in the Paradise Ridge Service Area. Most pharmacies are connected to retail chains, and the loss of these retailers also impacted the number of pharmacies. One long time independent pharmacy, Paradise Drug, was destroyed in the fire.

Multiple stakeholders indicated that the Town needs to be further along in the recovery process and have amenities that attract healthcare professionals. As the Town sets recovery policies, solicits new business growth, and develops new community programming, it should consider and prioritize the desirable characteristics specific to the healthcare professional demographic. Stakeholders voiced that most healthcare professionals who are either starting to practice or are considering relocation have families and want to live in communities that support their lifestyle. These individuals seek quality, modern housing, solid school districts, restaurants, shopping, and other amenities.

Long Term Care Facilities

Skilled Nursing Facilities

As of June 2018, there were three skilled nursing facilities (SNF) in the Town of Paradise: 1) Paradise Post Acute with 44 beds, 2) Cypress Meadows Post Acute with 136 beds,

and 3) Pine View Center with 99 beds.[120] All three facilities have been closed since the fire, and no licensed SNFs are currently located on the Paradise Ridge Service Area. Table 5 lists current SNFs in Butte County, all of which are in Chico, Oroville, and Gridley.[121,122]

Table 5: Current SNFs in Butte County

Facility Name	City	Bed Count
Arbor Post Acute	Chico	144
Autumn Creek Post Acute	Chico	184
California Park Rehabilitation Hospital	Chico	90
Chico Terrace Care Center	Chico	76
Country Crest Post-Acute	Oroville	59
Feather River Care Center	Oroville	50
Gridley Post Acute	Gridley	82
Oakwood Healthcare Center	Chico	99
Oroville Hospital Post Acute Center	Oroville	126

Board and Care and Assisted Living

Butte County has 41 adult residential care facilities, none in Paradise or the Upper Ridge. Pre-fire, there were two adult daycares (Cove and Cove II) and one residential care facility (Gerhardt Care Home) in Paradise. As reported by the California Department of Social Services, they are listed as closed as of 2020.[123]

Long Term Care Facility Findings

There is currently an undercapacity in the Paradise Ridge Service Area for long-term care facilities (SNF and Board and Care) but, in Section 3, we outline strategies that would be useful to encourage providers to return. Pre-fire, there was a total capacity of

[120] https://data.chhs.ca.gov/dataset/licensed-healthcare-facility-listing
[121] https://www.cdph.ca.gov/Programs/CHCQ/LCP/CalHealthFind/Pages/SearchResult.aspx
[122] https://www.cdph.ca.gov/Programs/CHCQ/LCP/CalHealthFind/Pages/SearchResult.aspx
[123] https://www.ccld.dss.ca.gov/carefacilitysearch/DownloadData

279 SNF beds for a population of approximately 40,000 residents (one bed per 143 residents) and currently there are zero beds for approximately 20,000 residents.

There are several factors that influence the location of SNFs including but not limited to accessibility and convenience (proximity to family, access to healthcare infrastructure, transportation, and community resources) and regional demographics (elderly population concentration, income distribution). Pre-fire, many of these conditions were present that made SNFs viable in the Paradise Ridge Service Area. There was a larger population with a high concentration of elderly, there was close access to FRH, and abundant community resources.

Post-fire, a smaller population with a demographic shift toward younger families, along with a lack of a local hospital currently makes the prospect of opening a SNF in the Paradise Ridge Service Area less likely.

Section 3: Recommended Action Plan for Recovery

This report has highlighted many of the structural challenges inherent to our healthcare system that the Paradise Ridge Service Area will face in the coming years as it recovers for this disaster. Fortunately, there are many positive steps that can be taken to facilitate and optimize the recovery. The following recommendations are ranked, in our opinion, within each time frame and population in order of priority. We prioritized items that we believe are most achievable and yield the greatest benefit in proportion to the time and effort required. Some recommendations may be implemented in a short time frame, and others will take longer or may be dependent on changing conditions. While we have attempted to rank these in order of maximal effect, we recommend that they be adopted simultaneously whenever possible, rather than serially.

Short Term (0-5 Years, Population up to 15,000)

Hospital Care and Emergency Departments

- **Responsible Party: Town**
    a. Consider zoning, planning, and Town infrastructure improvements that could pave the way for a potential future hospital.
    b. Initiate or maintain conversations with Adventist Health, Paradise Medical Group, Enloe, Indian Health and other healthcare providers focused on their present and future needs for healthcare facilities, including ideal locations for growth in the Paradise Service Area,
    c. Identify perceived needs for Town infrastructure, such as sewer and transportation.
    d. Investigate options for fire insurance that have been reported as a barrier.

e. Initiate the early planning process for the formation of a Healthcare District beginning with public conversation to inform the public of the purpose, risks, and benefits of a Healthcare District.
f. Eventually, some polling or surveys to gauge public interest are recommended.

- **Responsible Party: Partners**
  a. Analyze growth and demographic changes and healthcare demand to determine viability of expansion of healthcare facilities, including a future hospital.

Pre-Hospital Care (EMS)

- **Responsible Party: Town**
  - Work with Butte County EMS (Jenny Humphries) and SSVEMS (John Poland) to develop a sustainability plan that monitors the additional need for ambulance coverage beyond the 48 hours daily coverage at Paradise and Magalia, particularly additional ambulance coverage between midnight and 8 a.m.
  - Partner with Adventist Health, Butte County EMS, and SSVEMS to develop alternate destination policies as allowed under state law for low-acuity patients who could be safely triaged and treated at the local rapid care facility or who can get care using other transportation options.
  - Consider funding mechanisms to subsidize an ALS ambulance to cover those hours. The approximate cost is $330,000 annually. Funding could be provided directly from the Town budget, through the eventual formation of a CSA, or a county-wide sales tax.
  - Alternately, as BLS ambulances become integrated in the 911 response plan, this could be covered by a BLS ambulance at a marginally lower cost while an ALS ambulance remains available at Magalia.

  - Initiate the process of establishing a Community Service Area (CSA) that can provide sustainable supplemental funding for overnight ambulance service that exceeds what can be supported by patient volume.
  - Develop rideshare options such as public transit, Lyft, and Uber for patients who can be safely triaged and treated at a local healthcare facility. Some jurisdictions have entered contracts with these services to lock in a set rate. This will likely require some public subsidization for individuals who cannot afford these services. The process for contracting with Uber, for example, is established on their website.[124]

- **Responsible Party: Butte County EMS, SSVEMS**
  - Monitor call volume during these overnight hours, response times, and the frequency of events where no ambulance was available from the Magalia unit. Any significant change in any of these values may indicate the need for additional coverage.

Urgent Care/Rapid Care

- **Responsible Party: Town**

  - Continue partnership with Adventist Health to expand capacity and hours of operation at the Skyway Adventist Health Clinic and Rapid Care by addressing barriers to expansion, such as provider recruitment and a fall-off in patient demand in the evening hours.
  - Reach out to healthcare organizations beyond Adventist Feather River to solicit their interest and willingness to expand services into the Town of Paradise. Initial expansions would likely need to be sized appropriately for the current population, such as part-time satellite offices for primary

[124] https://www.uber.com/us/en/business/

care or specialty services that could expand as there is greater local need.

  - Consider incentives that would minimize relocation or start-up costs, such as waivers of permit fees, tax reductions, subsidized rent or facility upgrades, co-location with governmental services, joint grant applications, and financial support.
  - Consider options to support and stabilize existing providers. This could include incentives for maintaining services at a certain level. It would also mean consideration of this group when making policy decisions that could indirectly impact them. The Town could additionally require that the contractors it hires provide health coverage that includes local providers as participating providers.
  - Evaluate public transportation options and make decisions on routes that maximize efficiency for residents who need to travel from Paradise to the main healthcare facilities in Chico.

- **Responsible Party: Adventist Health**

  - Amending Adventist Health's clinic license with the California Department of Health Services would encourage it to become an urgent care center rather than a rapid care center. As an existing primary care and rapid care clinic, Adventist Health could apply to the DHS for status as an urgent care clinic.
  - Optimize the hours and capability of the Skyway rapid care facility to provide predictable services throughout the day and evening.

Primary and Specialty Care

- **Responsible Party: Town**

  - Reach out to healthcare organizations beyond Adventist Feather River to solicit their interest and willingness to expand services into the Town of Paradise. Initial expansions would likely need to be sized appropriately for the current population, such as part-time satellite offices for primary care or specialty services that could expand as there is greater local need.
  - Consider incentives that would minimize relocation or start-up costs, such as waivers of permit fees, tax reductions, subsidized rent or facility upgrades, co-location with governmental services, joint grant applications, and financial support.
  - Evaluate public transportation options and make decisions on routes that maximize efficiency for residents who need to travel from Paradise to the main healthcare facilities in Chico.

- **Responsible Party: Town and Providers**

  - Consider options to support and stabilize existing providers. This could include incentives for maintaining services at a certain level. It would also mean consideration of this group when making policy decisions that could indirectly impact them. The Town could additionally require that the contractors it hires provide health coverage that includes local providers as participating providers.

Long Term Care

- **Responsible Party: Town**
  - Initiate zoning, planning, and permitting incentives to encourage operators to open skilled nursing facilities, assisted living, adult day care, and respite care as local demand for these services grows.

- Continue to monitor the demographics of the Paradise Ridge Service Area. Any significant growth and/or a shift toward a higher concentration of elderly residents who may need long-term care, the Town should approach operators of SNFs elsewhere in Butte County to solicit interest in local expansion.
- Initiate or optimize the planning process that would enable the zoning, permitting and construction of residential continuing care facilities that could provide the spectrum of services from assisted living to respite care for residents.

Medium Term (5-10 years, Population up to 20,000)

Hospital Care and Emergency Departments

- **Responsible Party: Town**
  - Prioritize the planning process and initiate public education and discussion related to the formation of a Healthcare District.

Pre-Hospital Care (EMS)

- **Responsible Party: Town**
  - Work with Butte County EMS and SSVEMS to establish nurse navigation for appropriately triaged 911 callers.
  - Consider establishing a standby BLS ambulance service for transporting clinic patients as necessary.
- **Responsible Party: Butte County EMS/SSVEMS**
  - Consider establishing a 911 nurse navigation program with the intent of appropriately triaging patient to local sources of care.

Urgent Care/Rapid Care

- **Responsible Party: Adventist Health**
  - Continue to monitor rapid care utilization and consider expansion if demand dictates.
  - Investigate capability to care for low-acuity EMS patients in Rapid Care who would otherwise not need to go to an emergency department.
  - As the population expands, continue to monitor rapid care utilization, and consider expansion of hours if the demand is there.
  - Eventually, consider expanding services to 24/7 schedule to handle low-acuity cases around the clock, some of which may arrive by EMS if authorized by SSVEMS, relieving pressure on the Enloe ED and Butte County EMS.

Primary and Specialty Care

- **Responsible Party: Town and Healthcare Partners**
  - Provide incentives to attract and retain providers to the area, such as subsidized housing or loan repayment. Consult with local healthcare organizations to identify top barriers that providers report when considering practicing in the Paradise Ridge Service Area. For example, if providers report a lack of affordable housing, consider initiatives to attract higher density housing that would relieve pressure on the housing market.
  - Continue to meet with local healthcare providers to determine other potential barriers or challenges to staff recruitment and retention.
  - Assist in addressing residents' challenges in getting elsewhere for their needed care. Evaluate public transportation options and make decisions on routes that maximize efficiency for residents who need to travel from Paradise to the main healthcare facilities in Chico.

Long Term (10-15 years, Population up to and beyond 25,000)

Hospital Care and Emergency Departments

- **Responsible Party: Town**
  - Initiate the process of forming a Healthcare District by working with Butte County LAFCO and retaining the services of a specialty firm that can perform the financial analysis and feasibility review needed.

Pre-Hospital Care (EMS)

- **Responsible Party: Butte County EMS/SSVEMS**
  - Continue monitoring EMS demand volumes and appropriate coverage.
  - Continue 911 nurse navigation and alternate destination programs previously established.

Urgent Care/Rapid Care

- **Responsible Party: Adventist Health**
  - Consider expanding capacity to provide 24/7 coverage, with the capability to accept low acuity EMS patients.

Primary and Specialty Care

- **Responsible Party: Healthcare Partners**
  - Partner with Healthy Rural California and other academic institutions to increase training opportunities, starting with high school students through graduate education, to expand the pipeline of healthcare professionals invested in the Butte County and Town of Paradise area.

Section 4: Summary and Conclusions

The devastating Camp Fire of 2018 transformed the Town of Paradise and the Upper Ridge in many ways, creating challenges and opportunities for the future. The many challenges include rapid depopulation, loss of economic activity, increased housing costs, and, of course, the gutting of the healthcare infrastructure. Rebuilding the Ridge provides the opportunity to build a fire-safe community with higher-quality housing and supporting infrastructure that more closely matches the new population.

This report aims to identify significant healthcare system changes within the Town of Paradise since the 2018 Camp Fire and recommend strategies to improve services in the short, medium, and long term.

Before the fire, Paradise and the Paradise Ridge Service Area communities of Magalia and Stirling City had higher than average access to services with a rural hospital that included unique specialties of labor and delivery, and cancer care as well as connected outpatient services. Stakeholders also report they saw healthcare providers in individual private practices. Since the fire, the hospital has closed permanently, and stakeholders report these private practices have closed. Stakeholders feel these changes are a significant loss and are looking to the Town to help rebuild their healthcare system.

The evaluation of this loss also needs to acknowledge the changing context of the healthcare system that coincided with the fire, independent of it. In addition to the dramatic closings of small hospitals nationwide, there has been a notable shift in primary care delivery. Across the board, physicians are shifting from running independent private practices to working for hospitals, health systems, and other healthcare organizations.[125] Reasons cited for this shift include addressing

[125] https://www.ama-assn.org/

administrative burdens, economic pressures, and improving patient care due to easier coordination with other specialties. Moreover, insurance companies have shifted payment methodologies to encourage the development of patient-centered medical homes and capitation, which are also more feasible in larger systems. Consequently, even if the fire had not happened, the healthcare environment in the Town of Paradise would likely look substantially different today than in 2018.

Recovery from the fire in Paradise is ongoing, and there are encouraging signs of repopulation and rebuilding today. As recovery occurs, while many things will be rebuilt, it will inevitably need to be done differently than they were historically. Healthcare delivery is one of them.

Previous research has shown that different community sectors, such as housing, public services, education, commerce, and healthcare, are interdependent, all of which directly impact a community's well-being.[126] In many interviews there were consistent themes: that the hospital, along with churches and schools, was one of the three fundamental pillars of this community, and the new Paradise will need to focus on restoring these pillars in a way that meets the present and future needs of its residents and is consistent with the changes in the healthcare system that have occurred since the original founding of FRH. Rather than a hospital, at least in the short and medium term, that third pillar should be built as a robust outpatient care system that complements hospital care elsewhere in the county.

Though the quality of every home in Paradise starts with a solid foundation, the same applies to the rebuilding of an entire community. While this report focuses on healthcare delivery's present and future design, many other factors in the rebuilding process are interdependent. Ultimately, the healthcare system the Town wishes to create cannot exist without the population supporting it.

[126] Feng K, Wang N, Li Q, Lin P (2017)

This report provides an overview of the present and projected population and specific recommendations to improve healthcare today and tomorrow. Any strategy that focuses on repairing only one pillar is unlikely to be entirely successful.

Disclaimer

The content of this report is for general informational purposes only and is not intended to substitute for legal advice where necessary. The most accurate, publicly available information and data at the time of preparation was used for the analysis and is subject to change.

Appendix

Organizations interviewed

- **Healthcare and Insurance**
  - Adventist Health
  - Enloe Health
  - Paradise Medical Group
  - Ampla Health
  - Partnership HealthPlan
  - Northern Valley Indian Health
  - Feather River Tribal Health

- **Local Government**
  - Butte County Public Health
  - Butte County Behavioral Health
  - Paradise Unified School District
  - Paradise Town Council
  - Paradise Town Leadership and administration
  - Paradise Irrigation District
  - Paradise Recreation and Park District

- **Emergency Services**
  - CalFire
  - Paradise Police Department
  - Enloe EMS
  - Sierra Sacramento Valley EMS Agency

- **Community Organizations**
  - Paradise Ridge Chamber of Commerce
  - Moms on the Ridge
  - Paradise Citizens Alliance
  - Upper Ridge Committee
  - Camp Fire Collaborative
  - Rebuild Paradise Foundation

- Healthy Rural California

Interview Summaries

Approximately 35 hours of interviews, both in person and remote, were conducted with various community members, local leaders, healthcare systems, clinics, and business representatives. Key findings from these interviews are summarized below and include:

Healthcare

1. **Emergency Care Delays**

- Long wait times for emergency care due to dependency on Enloe Hospital.
- Travel times to Chico or Oroville are excessive, especially for Upper Ridge residents.
- The proposal for a freestanding ED or 24/7 rapid care facility on the Ridge has not been realized.
- COVID-19 exacerbated healthcare workforce shortages.
- The existing rapid care facility in Paradise is staffed intermittently.

2. **Healthcare Access**

- Limited primary care, pediatricians, specialty care, and dental services are available.
- High insurance costs and lack of local healthcare facilities deter new residents from repopulating Paradise, especially elderly residents who desire local access.
- There is a need for a comprehensive medical complex offering primary care, lab services, and specialized care.

3. **Mental Health and Substance Use Services**

- Lack of adequate private provider mental health services and substance abuse treatment.
- Integration of mental health services within primary care settings proposed.
- Extensive Narcan distribution and MAT services to combat opioid crisis.
- Butte County Behavioral Health reports sufficient services and substance use treatment resources for its clientele and currently meets State network adequacy standards.

4. Trust Issues with Healthcare Providers

- Distrust toward Adventist Health due to perceived mismanagement and lack of transparency.
- Many felt that the reimbursement to Adventist Health should have been directed to repairing and reopening the Feather River Hospital.
- Community desires reliable, professional healthcare facilities.

Infrastructure and Economic Development

1. Sewer System Limitations

- High costs and land requirements impede new business development.
- Advocacy for sewer improvements to support growth.

2. Broadband and Connectivity

- Inconsistent high-speed broadband availability.
- Explore solutions like Starlink and cellular-based internet.

3. Housing and Population Changes

- There was a significant population reduction post-fire and substantial ongoing rebuilding efforts.
- Rezoning for higher density residential projects, including affordable housing.
- Challenges in attracting new residents due to inadequate healthcare and infrastructure.
- Demographic changes trending toward younger families have led to explosive enrollment growth in the local school district.

4. **Economic Factors**

- Loss of higher-income professionals post-fire affects the local economy.
- Efforts to rebuild and promote the Ridge through campaigns like "Welcome to the Ridge."

Fire Safety and Emergency Services

1. **Wildfire Experiences and Resilience:**

- Importance of resilient building standards and defensive measures against future fires.
- Emphasis on creating defensible space and fire-safe practices.
- Need for improved emergency response times and local emergency facilities.
- Proposal for 24/7 urgent care facility to handle emergency cases.

2. **Innovative Programs**

- Nature and forest therapy guides to combat stress and improve health.
- Resiliency programs aimed at building skills within the community.

3. **Community Sentiment and Collaboration**

- High concern over healthcare availability and infrastructure as key factors influencing population growth and economic stability.
- Recognition of the interlinked nature of business, healthcare, and infrastructure in fostering a resilient community.

Action Items and Recommendations

1. Healthcare Improvements

- Develop and consistently staff an urgent care clinic or standalone emergency room within Paradise.
- Integrate mental health services within primary care settings.
- Promote local healthcare initiatives to attract professionals, especially in primary care specialties.

2. Infrastructure Development

- Address high interest rates and insurance costs to facilitate housing transactions.
- Invest in sewer system upgrades to support population growth and commercial development.

3. Community Engagement

- Foster trust between residents and healthcare providers through transparent communication and reliable services.
- Promote community-driven solutions and partnerships to rebuild effectively and sustainably.

Characteristics of Small Non-CAH Hospitals in California

Affiliated with a nearby full-sized hospital

- Sutter Surgical
- Providence Santa Rosa
- Adventist Health

No general Emergency Department

- Healthbridge Children's Hospital
- Laguna Honda Hospital and Rehabilitation
- Anaheim Community Hospital,
- Sutter Surgical Hospital-North Valley,
- Providence Santa Rosa Memorial Hospital-Sotoyome
- Patient's Hospital of Redding
- Adventist Health Sonora-Fairview

Located in large urban areas

- Healthbridge Children's-Orange County
- Laguna Honda-San Francisco,
- Patients Hospital-Redding,
- West Covina Medical-Los Angeles County
- Providence Santa Rosa-Sonoma County

Limited specialized surgical, psychiatric, pediatric care, sub-acute, or rehabilitation services

- Healthbridge Children's
- Laguna Honda
- Anaheim Community
- Patients' Hospital, West Covina

Critical Access Hospital Map