



Community
Health Needs
Assessment

2019

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Executive Summary

Marshall Medical Center is a nonprofit community health care provider located in the heart of the Sierra Foothills in El Dorado County, California. As required by state and federal law, Marshall Medical Center (Marshall) has undertaken a Community Health Needs Assessment (CHNA). California's Senate Bill 697 and the Patient Protection and Affordable Care Act through the IRS section 501(r)(3) regulations direct nonprofit hospitals to conduct a Community Health Needs Assessment and develop an Implementation Strategy every three years.

The purpose of this Community Health Needs Assessment (CHNA) is to identify and prioritize significant health needs of the community served by Marshall. The health needs identified in this report help to guide the hospital's community benefit activities.

Community Definition

Marshall Medical Center is located at 1100 Marshall Way, Placerville, California, 95667. The service area includes 17 ZIP Codes, representing cities or communities in El Dorado County and Amador County (River Pines). The hospital service area was determined from the ZIP Codes that reflect a majority of patient admissions.

Assessment Process and Methods

Secondary and primary data were collected to complete the CHNA. Secondary data were collected from a variety of local, county and state sources to present community demographics, social determinants of health, health care access, birth characteristics, leading causes of death, acute and chronic disease, health behaviors, mental health, substance use and misuse, and preventive practices. The analysis of secondary data yielded a preliminary list of significant health needs, which then informed primary data collection. The following criteria were used to identify significant health needs:

1. The size of the problem (relative portion of population afflicted by the problem)
2. The seriousness of the problem (impact at individual, family, and community levels)

Primary data were obtained through interviews with 16 community stakeholders, public health, and service providers, members of medically underserved, low-income, and minority populations in the community, and individuals or organizations serving or representing the interests of such populations. The primary data collection process was designed to validate secondary data findings, identify additional community issues, solicit information on disparities among subpopulations, ascertain community assets potentially available to address needs and discover gaps in resources.

Priority Health Needs

The community stakeholders were asked to prioritize the significant health needs according to highest level of importance in the community. A brief description of the significant health needs listed in priority order follows:

1. Substance use and misuse – The Healthy People 2020 objective for cigarette smoking among adults is 12%. In El Dorado County, 14% of adults smoke cigarettes. 13.2% of county teens have tried an e-cigarette. The rate of hospitalizations and Emergency Room visits for opioid use in El Dorado County exceed state rates.
2. Mental health – Among adults in El Dorado County, 7.9% were determined to have likely experienced serious psychological distress in the past year. Serious psychological distress was experienced in the past year by 17.4% of area teens, which was higher than the state level (10%). The suicide rate in the service area is 13.4 deaths per 100,000 persons. This rate is higher than the Healthy People 2020 objective for suicide death of 10.2 per 100,000 persons. Community stakeholders noted there are not enough mental health resources in the community to address the need.
3. Access to health care – Health insurance coverage is a key component to access health care. The Healthy People 2020 objective is 100% health insurance coverage for all population groups. In the service area, 94.9% of the population has health insurance coverage. 20.5% of county residents have Medi-Cal coverage and 44.4% of county residents have employment-based insurance. 7.3% of El Dorado County adults had difficulty finding a primary care doctor who would see them or take them as a new patient in the past year and 13.4% of adults reported difficulty accessing specialty care.
4. Chronic diseases – Among adults in El Dorado County, 8.9% have been diagnosed as pre-diabetic and 6.3% have been diagnosed with diabetes. 10.2% of El Dorado County adults have been diagnosed with heart disease, which is higher than the state rate of 6.2%. In El Dorado County, 19% of the population has been diagnosed with asthma. 18.3% of children have been diagnosed with asthma. In El Dorado County, cancer rates are higher overall than at the state level.
5. Community safety – The crime rates for Placerville are higher than for the county. 9.7% of domestic violence calls in El Dorado County involved a weapon. In El Dorado County, the rate of children under 18 years of age, who experienced abuse or neglect, was 8.4 per 1,000 children. This is higher than the state rate of 7.5 per 1,000 children. Community stakeholders noted safety is related to mental health and substance use issues that can impact violence and criminal behaviors.

6. Overweight and obesity – In El Dorado County, 36.2% of adults, 10.3% of teens, and 14.4% of children are overweight. Rates of overweight adults in El Dorado County exceed state rates. In El Dorado County, 72.9% of Latino adults are overweight or obese. 46.8% of Whites and 37.4% of Asians in the county are overweight or obese. Stakeholders commented that people who cannot afford healthy foods tend to eat fast food.
7. Unintentional injuries – The age-adjusted death rate from unintentional injuries in the service area is 44.0 deaths per 100,000 persons. This rate is higher than the Healthy People 2020 objective of 36.4 unintentional injury deaths per 100,000 persons. Community stakeholders noted the high number of motor vehicle accidents in the county and that substance use contributes to accidents.
8. Environmental pollution – In 2016, El Dorado County had 41 days when ground-level ozone concentrations were above the U.S. standard of 0.070 parts per million. The state average in 2016 was 22 days when readings were above the U.S. standard. The stakeholders commented on poor air quality as a result of air pollution and wildfires.
9. Preventive practices – The Healthy People 2020 objective is for 70% of the population to receive a flu shot. 38.6% of El Dorado County adults received a flu shot. Among area seniors, 60.4% had received a flu shot. Among children, 6 months to 17 years, 34.1% in El Dorado County received the flu shot. The Healthy People 2020 objective for mammograms is for 81% of women, 50 to 74 years old, to have a mammogram within the past two years. In El Dorado County, 83.7% of women obtained mammograms. Stakeholders noted because of cost and a lack of transportation, people do not have the ability to fully access preventive health care.
10. Food insecurity – In El Dorado County, 11.7% of the population experienced food insecurity at some point in the past year. Among children in El Dorado County, 17% lived in households that experienced food insecurity at some point in the year. Community stakeholders noted some people are proud and do not want to go to a food bank or ask for a handout.

Report Adoption, Availability and Comments

This CHNA report was adopted by the Marshall Medical Center Board of Directors on May 23, 2019.

This report is widely available to the public on the hospital's web site, <https://www.marshallmedical.org/About-Us/Community-Benefit.aspx>. Written comments on this report can be submitted to Lourdes Edralin at ledralin@marshallmedical.org.

Introduction

Background and Purpose

Marshall Medical Center (Marshall) includes Marshall Hospital, a fully accredited acute care facility with 125 beds located in Placerville; several outpatient facilities in Cameron Park, Placerville, El Dorado Hills, and Georgetown; primary and specialty care clinics and a team of more than 1,600 employees providing quality health care services to residents of El Dorado County.

Marshall is a nonprofit community hospital that opened in 1959. The hospital's mission is to improve the health of the community and offer health services of superior value and quality, centered on the goals and needs of patients. Marshall is routinely recognized in the top tier of hospitals in California by independent consumer health care groups. Marshall's Emergency Department is a verified Level III Trauma Center and the Stroke Program is distinguished as a Primary Stroke Center by the Joint Commission and earned a Gold-Plus designation from the American Heart/American Stroke Association. Marshall's Birth Center was designated by the World Health Organization and UNICEF as a Baby Friendly® certified facility for breastfeeding advocacy.

The passage of the Patient Protection and Affordable Care Act and California SB 697 require tax-exempt hospitals to conduct Community Health Needs Assessments (CHNA) every three years and adopt Implementation Strategies to meet the priority health needs identified through the assessment. A CHNA identifies unmet health needs in the service area, provides information to select priorities for action and target geographical areas, and serves as the basis for community benefit programs. This assessment incorporates components of primary data collection and secondary data analysis that focus on the health and social needs of the service area.

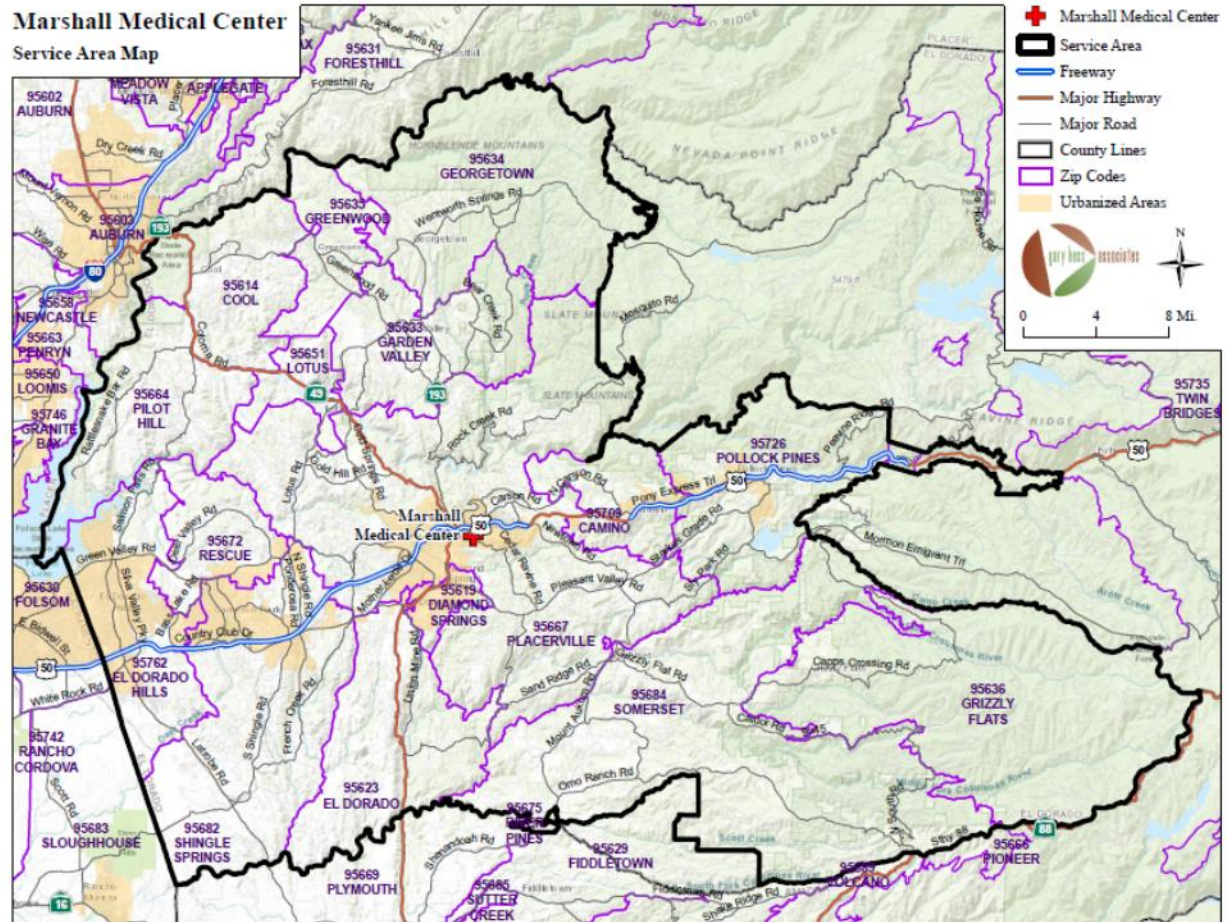
Service Area

Marshall Medical Center is located at 1100 Marshall Way, Placerville, California, 95667. The service area includes 17 ZIP Codes, representing cities or communities in El Dorado County and Amador County (River Pines). The Marshall Medical Center service area is presented below by community and ZIP Code and was determined from the ZIP Codes that reflect a majority of patient admissions from the local geographic area.

Marshall Medical Center Service Area

Geographic Area	ZIP Code
Cool	95614
Diamond Springs	95619
Kingsville/Nashville	95623

Geographic Area	ZIP Code
Garden Valley	95633
Georgetown	95634
Greenwood	95635
Grizzly Flats	95636
Lotus	95651
Pilot Hill	95664
Placerville	95667
Rescue	95672
River Pines	95675
Shingle Springs/Cameron Park	95682
Somerset	95684
Camino/Apple Hill	95709
Pollock Pines	95726
El Dorado Hills	95762



Project Oversight

The Community Health Needs Assessment process was overseen by:
Lourdes Edralin, APR
Director, Marketing & Community Relations
Marshall Medical Center

Consultant

Biel Consulting, Inc. conducted the CHNA. Biel Consulting, Inc. is a specialist in the field of community benefit for nonprofit hospitals. Dr. Melissa Biel has over 24 years of experience conducting hospital Community Health Needs Assessments. For this CHNA, she was assisted by Sevanne Sarkis, JD, MHA, MEd and Denise Flanagan, BA.

www.bielconsulting.org

Data Collection Methodology

Secondary Data Collection

Secondary data were collected from a variety of local, county and state sources to present community demographics, social determinants of health, health care access, birth characteristics, leading causes of death, acute and chronic disease, health behaviors, mental health, substance use and misuse, and preventive practices. When available, data sets are presented in the context of El Dorado County and California to help frame the scope of an issue as it relates to the broader community.

Sources of data include: the U.S. Census American Community Survey, California Department of Public Health, California Health Interview Survey, California Environmental Protection Agency, the Centers for Disease Control, County Health Rankings, California Department of Education, California Office of Statewide Health Planning and Development and California Department of Justice, among others.

Secondary data for the service area were collected and documented in data tables with narrative explanation. The tables present the data indicator, the geographic area represented, the data measurement (e.g. rate, number, or percent), county and state comparisons (when available), the data source, data year and an electronic link to the data source. Analysis of secondary data includes an examination and reporting of health disparities for some health indicators. The report includes benchmark comparison data that measure the data findings as compared to Healthy People 2020 objectives, where appropriate. Healthy People 2020 objectives are a national initiative to improve the public's health by providing measurable objectives and goals that are applicable at national, state, and local levels. Attachment 1 compares Healthy People 2020 objectives with service area data.

Primary Data Collection

Marshall conducted targeted interviews to gather information and opinions from persons who represent the broad interests of the community served by the medical center. Sixteen (16) interviews were completed from March to April 2019. Community stakeholders identified by the hospital were contacted and asked to participate in the needs assessment. Interviewees included individuals who are leaders and/or representatives of medically underserved, low-income, and minority populations, local health or other departments or agencies that have current data or other information relevant to the health needs of the community. Input was obtained from El Dorado County Public Health.

The identified stakeholders were invited by email to participate in a phone interview.

Appointments for the interviews were made on dates and times convenient to the stakeholders. At the beginning of each interview, the purpose of the interview in the context of the needs assessment was explained, the stakeholders were assured their responses would remain confidential, and consent to proceed was given.

Interview questions focused on the following topics:

- Health issues in the community
- Challenges and barriers people face in addressing these issues
- Socioeconomic, behavioral, or environmental factors contributing to poor health in the community
- Potential resources to address the identified health needs, such as services, programs and/or community efforts
- Additional comments and concerns

A list of the stakeholder interview respondents, their titles and organizations can be found in Attachment 2.

Public Comment

In compliance with IRS regulations 501(r) for charitable hospitals, a hospital Community Health Needs Assessment (CHNA) and Implementation Strategy are to be made widely available to the public and public comment is to be solicited. The previous Community Health Needs Assessment and Implementation Strategy were made widely available to the public on the website <https://www.marshallmedical.org/About-Us/Community-Benefit.aspx>. To date, no comments have been received.

Identification and Prioritization of Significant Health Needs

Review of Primary and Secondary Data

Significant health needs were identified from secondary data using the size of the problem (relative portion of population experiencing the problem) and the seriousness of the problem (impact at individual, family, and community levels). To determine size or seriousness of the problem, the health need indicators that were identified in the secondary data were measured against benchmark data; specifically, county rates, state rates and/or Healthy People 2020 objectives. Indicators related to the health needs, which performed poorly against one or more of these benchmarks met this criterion to be considered a health need.

The following significant health needs were determined:

- Access to health care
- Chronic diseases (asthma, lung disease, heart disease, liver disease, cancer)
- Community safety
- Environmental pollution
- Food insecurity
- Mental health
- Overweight and obesity
- Preventive practices (screenings and vaccines)
- Substance use and misuse
- Unintentional injuries

Priority Health Needs

The list of significant health needs informed primary data collection. The primary data collection process was designed to validate secondary data findings, identify additional community issues, solicit information on disparities among subpopulations, ascertain community assets to address needs and discover gaps in resources. Community stakeholder interviews were used to gather input and prioritize the significant health needs. The following criteria were used to prioritize the health needs:

- The perceived severity of a health issue or health factor/driver as it affects the health and lives of those in the community;
- The level of importance the hospital should place on addressing the issue.

The stakeholders were asked to rank each identified health need. The percentage of responses were presented for those needs with severe or significant impact on the community, had worsened over time, and had a shortage or absence of resources available in the community.

Not all respondents answered every question; therefore, the response percentages were calculated based on respondents only and not on the entire sample. Among the interviewees, mental health, substance use and misuse, and chronic diseases received the highest rankings for severe and significant impact on the community. Environmental pollution, substance use and misuse, and mental health the highest scores for worsened over time. Environmental pollution, mental health and substance use and misuse received a ranking of 100% for insufficient resources available.

Significant Health Need	Severe and Significant Impact on the Community	Worsened over Time	Insufficient or Absent Resources
Access to health care	60.0%	33.3%	88.9%
Chronic diseases	87.5%	14.3%	42.9%
Community safety	70.0%	22.2%	75.0%
Environmental pollution	62.5%	100%	100%
Food insecurity	62.5%	28.6%	85.7%
Mental health	100%	88.9%	100%
Overweight and obesity	55.6%	37.5%	87.5%
Preventive practices	22.2%	25.0%	50.0%
Substance use and misuse	100%	90.0%	100%
Unintentional injuries	50.0%	50.0%	66.7%

The stakeholders were also asked to rank order (possible score of 4) the health needs according to highest level of importance in the community. The total score for each significant health need was divided by the total number of responses for which data were provided, resulting in an overall average for each health need. Among the interviewees, substance use and misuse, mental health and access to health care were ranked as the top three priority needs in the service area. Calculations from community stakeholders resulted in the following prioritization of the significant health needs.

Significant Health Need	Rank Order Score (Total Possible Score of 4)
Substance use and misuse	3.92
Mental health	3.80
Access to health care	3.73
Chronic diseases	3.70
Community safety	3.64
Overweight and obesity	3.36
Unintentional injuries	3.30
Environmental pollution	3.27
Preventive practices	3.27
Food insecurity	3.20

Comparison of Health Needs 2016 to 2019

Community health needs from the 2016 Community Health Needs Assessment were compared to the 2019 CHNA community needs. Most of the community needs

remained the same with some minor changes from 2016 to 2019. In 2019, unintentional injuries and preventive practices were added to the list of community health needs. Transportation, housing, education and the economy were noted in 2016 but not in 2019. When the community needs were listed in priority order, mental health and substance use (behavioral health) continued to be the top needs from 2016 to 2019. Access to health care was a higher priority in 2019 than in 2016. Active living/healthy eating (overweight and obesity) declined in priority from 2016 to 2019.

Community Health Needs in Priority Order, 2016 and 2019 Comparison

2016 Prioritized Health Needs	2019 Prioritized Health Needs
Behavioral health access	Substance use and misuse
Community safety	Mental health
Active living and healthy eating	Access to health care
Disease prevention, management and treatment	Chronic diseases
Transportation	Community safety
Access to health care	Overweight and obesity
Basic needs (food, housing, economic security, education)	Unintentional injuries
Pollution-free living and working environments	Environmental pollution
	Preventive practices
	Food insecurity

Resources to Address Significant Health Needs

Through the interview process, stakeholders identified community resources potentially available to address the significant health needs. The identified community resources are presented in Attachment 3.

Review of Progress

In 2016, Marshall Medical Center conducted the previous Community Health Needs Assessment. Significant health needs were identified from issues supported by primary and secondary data sources gathered for the CHNA. The hospital's Implementation Strategy associated with the 2016 CHNA addressed access to behavioral health services, disease prevention, management, and treatment, and access to high quality health care and services through a commitment of community benefit programs and resources. The impact of the actions that Marshall used to address these significant health needs can be found in Attachment 4.

Community Demographics

Population

The population of the Marshall Medical Center (Marshall) service area is 155,641.

Population and Population Density

	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Marshall Service Area	155,641	962.71	161.67
El Dorado County	185,015	1,707.86	108.33
California	38,982,847	155,792.65	250.22

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP05. <http://factfinder.census.gov>.

Source geography: Tract. Accessed from CARES Engagement Network. <http://www.engagementnetwork.org/assessment>

From 2012 to 2017, the population of the service area increased by 2.9%, which is higher than the 2.5% increase in population countywide.

Total Population and Change in Population, 2012-2017

	Marshall Service Area	El Dorado County	California
Total population	155,641	185,015	38,982,847
Change in population, 2012-2017	2.9%	2.5%	4.4%

Source: U.S. Census Bureau, American Community Survey, 2007-2011 & 2013-2017, DP05. <http://factfinder.census.gov>

Of the area population, 49.6% are male and 50.4% are female.

Population by Gender

	Marshall Service Area	El Dorado County	California
Male	49.6%	49.9%	49.7%
Female	50.4%	50.1%	50.3%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP05. <http://factfinder.census.gov>

Children and youth, ages 0-17, are 21.1% of the service area population. 59.3% are adults, ages 18-64; and 19.6% of the population is seniors, 65 and over. The service area has a higher percentage of every age group, 45 years and older, than the state. Of particular note is the high rate of seniors, ages 65 and over, in the hospital service area (19.6%) compared to the county (18.9%) and the state (13.2%).

Population by Age

	Marshall Service Area	El Dorado County	California
0 – 4	4.5%	4.6%	6.4%
5 – 9	5.8%	5.7%	6.5%
10 – 14	6.6%	6.3%	6.5%
15 – 17	4.2%	4.1%	4.0%

	Marshall Service Area	El Dorado County	California
18 – 20	3.5%	3.5%	4.2%
21 – 24	4.0%	4.2%	5.8%
25 – 34	8.7%	9.9%	14.9%
35 – 44	10.6%	11.1%	13.3%
45 – 54	15.7%	14.9%	13.3%
55 – 64	16.8%	17.0%	11.8%
65 – 74	11.9%	11.6%	7.6%
75 – 84	5.6%	5.3%	3.9%
85+	2.1%	2.0%	1.8%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP05. <http://factfinder.census.gov>

In the service area, El Dorado Hills has the largest percentage of youth, ages 0-17 (27.1%). River Pines has the highest percentage of seniors, ages 65 and older (30.8%).

Population by Youth, Ages 0-17, and Seniors, Ages 65+

	ZIP Code	Total Population	Youth Ages 0 – 17	Seniors Ages 65+
Camino/Apple Hill	95709	5,001	15.8%	28.6%
Cool	95614	4,360	20.7%	19.1%
Diamond Springs	95619	4,966	15.0%	23.6%
El Dorado Hills	95762	41,709	27.1%	14.5%
Garden Valley	95633	3,760	22.4%	15.1%
Georgetown	95634	3,027	21.8%	20.7%
Greenwood	95635	870	2.0%	29.2%
Grizzly Flats	95636	954	21.5%	26.0%
Kingsville/Nashville	95623	3,734	18.1%	21.1%
Lotus	95651	778	17.9%	3.9%
Pilot Hill	95664	1,372	21.7%	24.3%
Placerville	95667	36,717	17.8%	24.1%
Pollock Pines	95726	9,152	22.5%	16.4%
Rescue	95672	5,225	20.3%	18.2%
River Pines	95675	452	5.5%	30.8%
Shingle Springs/Cameron Park	95682	30,304	20.7%	19.9%
Somerset	95684	3,260	12.0%	21.5%
Marshall Service Area		155,641	21.1%	19.6%
El Dorado County		185,015	20.6%	18.9%
California		38,982,847	23.4%	13.2%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP05. <http://factfinder.census.gov>

Seniors living alone may be isolated and lack adequate support systems. In the service area, seniors living alone ranged from 7.3% in Garden Valley to 51.6% in Grizzly Flats.

Seniors Living Alone

	ZIP Code	Percent
Camino/Apple Hill	95709	12.2%

	ZIP Code	Percent
Cool	95614	8.7%
Diamond Springs	95619	37.1%
El Dorado Hills	95762	12.7%
Garden Valley	95633	7.3%
Georgetown	95634	23.3%
Greenwood	95635	37.3%
Grizzly Flats	95636	51.6%
Kingsville/Nashville	95623	22.9%
Lotus	95651	31.0%
Pilot Hill	95664	43.1%
Placerville	95667	24.9%
Pollock Pines	95726	28.2%
Rescue	95672	11.2%
Shingle Springs/Cameron Park	95682	22.1%
Somerset	95684	14.8%
El Dorado County		21.7%
California		23.1%

Source: U.S. Census Bureau, American Community Survey, 2012-2016. Accessed from wELI Dorado County. <http://www.welldorado.org/>.

Race/Ethnicity

In the service area, 80% of the population is White, 10.7% is Hispanic/Latino, 4.4% is Asian, 0.8% is Black/African American, and the remaining 4.1% are American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, some other race, or multiple races. When compared to the state, the service area has a higher percentage of Whites and a lower percentage of Hispanics/Latinos, Asians, and Blacks/African-Americans.

Race/Ethnicity

	Marshall Service Area	El Dorado County	California
White	80.0%	78.5%	37.9%
Hispanic/Latino	10.7%	12.6%	38.8%
Asian	4.4%	4.2%	13.9%
Other/Multiple	3.3%	3.1%	3.2%
Black/African American	0.8%	0.9%	5.5%
American Indian/Alaska Native	0.6%	0.6%	0.4%
Native Hawaiian/Pacific Islander	0.2%	0.2%	0.4%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP05. <http://factfinder.census.gov>

In the service area, Cool has the highest percentage of Whites (97.2%). The highest percentage of Hispanics/Latinos is found in Georgetown (19.9%). El Dorado Hills has the highest percentage of Asians (11.7%) and Blacks/African-Americans (2.0%).

Race/Ethnicity by ZIP Code

	ZIP Code	White	Hispanic Latino	Asian	Black/African American
Camino/Apple Hill	95709	88.3%	6.7%	0.8%	0.0%
Cool	95614	97.2%	0.3%	0.3%	0.0%
Diamond Springs	95619	86.5%	10.3%	1.7%	0.0%
El Dorado Hills	95762	70.6%	10.6%	11.7%	2.0%
Garden Valley	95633	89.6%	6.0%	1.1%	1.0%
Georgetown	95634	77.2%	19.9%	0.6%	0.5%
Greenwood	95635	84.3%	13.4%	0.5%	1.8%
Grizzly Flats	95636	72.5%	15.2%	0.0%	0.0%
Kingsville/Nashville	95623	93.1%	4.0%	1.5%	0.3%
Lotus	95651	82.3%	4.8%	0.9%	0.1%
Pilot Hill	95664	79.7%	9.8%	1.7%	0.0%
Placerville	95667	82.7%	11.5%	1.6%	0.4%
Pollock Pines	95726	81.9%	11.7%	1.9%	0.1%
Rescue	95672	77.4%	10.7%	5.2%	0.1%
River Pines	95675	85.2%	5.8%	0.0%	0.0%
Shingle Springs/Cameron Park	95682	81.5%	12.6%	2.1%	0.6%
Somerset	95684	86.5%	9.0%	1.2%	0.6%
Marshall Service Area		80.0%	10.7%	4.4%	0.8%
El Dorado County		78.5%	12.6%	4.2%	0.9%
California		37.9%	38.8%	13.9%	5.5%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP05. <http://factfinder.census.gov>

Language

English is spoken in the home among 89.2% of the service area population. Spanish is spoken in the home among 4.9% of the population, 3.4% of the population speaks an Indo-European language, and 2.2% of the population speaks an Asian language in the home.

Language Spoken at Home, Population 5 Years and Older

	Marshall Service Area	El Dorado County	California
Speaks only English	89.2%	87.6%	56.0%
Speaks Spanish	4.9%	6.6%	28.7%
Speak Indo-European language	3.4%	3.1%	4.4%
Speaks Asian/Pacific Islander language	2.2%	2.2%	9.9%
Speaks other language	0.4%	0.4%	1.0%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP02. <http://factfinder.census.gov>

River Pines (9.6%) and Diamond Springs (7.3%) have the highest percentage of Spanish speakers in the service area. El Dorado Hills (7.7%) and Rescue (5.6%) have the highest percentage of Indo-European language speakers. El Dorado Hills (5.8%) has the highest percentage of Asian/Pacific Island languages spoken at home.

Language Spoken at Home by ZIP Code

	ZIP Code	English	Spanish	Indo European	Asian/Pacific Islander
Camino/Apple Hill	95709	95.9%	2.4%	1.1%	0.6%
Cool	95614	97.5%	0.4%	2.1%	0.0%
Diamond Springs	95619	92.0%	7.3%	0.0%	0.3%
El Dorado Hills	95762	81.6%	4.2%	7.7%	5.8%
Garden Valley	95633	95.1%	3.0%	1.8%	0.0%
Georgetown	95634	91.9%	3.4%	3.6%	1.1%
Greenwood	95635	99.5%	0.0%	0.0%	0.5%
Grizzly Flats	95636	98.5%	1.5%	0.0%	0.0%
Kingsville/Nashville	95623	95.9%	3.2%	0.3%	0.6%
Lotus	95651	91.9%	0.9%	1.4%	1.4%
Pilot Hill	95664	91.1%	6.1%	1.1%	1.8%
Placerville	95667	91.3%	6.0%	1.5%	0.7%
Pollock Pines	95726	96.6%	1.9%	1.1%	0.3%
Rescue	95672	88.6%	5.2%	5.6%	0.6%
River Pines	95675	90.4%	9.6%	0.0%	0.0%
Shingle Springs/Cameron Park	95682	89.0%	6.5%	2.5%	1.6%
Somerset	95684	93.4%	6.1%	0.1%	0.4%
Marshall Service Area		89.2%	4.9%	3.4%	2.0%
El Dorado County		87.6%	6.6%	3.1%	2.2%
California		56.0%	28.7%	4.4%	9.9%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP02. <http://factfinder.census.gov>

The California Department of Education publishes rates of “English Learners,” defined as the percentage of students whose primary language is not English and who lack sufficient English-language skills necessary for academic success. In El Dorado County school districts, the percentage of students who were classified English Learners was 7.1%, while among area school districts it ranged from 0% in Pioneer Union Elementary School District to 20% of students being English Learners in Camino Union Elementary School District.

English Learners (EL)

	Number	Percent
Black Oak Mine Unified School District	10	0.8%
Buckeye Union Elementary School District	233	3.9%
Camino Union Elementary School District	93	20.0%
El Dorado Union High School District	91	1.4%
Gold Oak Union Elementary School District	9	1.8%
Gold Trail Union Elementary School District	23	3.2%
Latrobe School District	1	0.7%
Mother Lode Union Elementary School District	160	15.0%
Pioneer Union Elementary School District	0	0.0%
Placerville Union Elementary School District	170	13.3%

	Number	Percent
Pollock Pines Elementary School District	14	2.0%
Rescue Union Elementary School District	181	5.0%
El Dorado County	1,978	7.1%
California	1,271,150	20.5%

Source: California Department of Education DataQuest, 2017-2018. <http://dq.cde.ca.gov/dataquest/>

Veterans

In the service area, 10.2% of the civilian population, 18 years and older, are veterans. This is higher than county (9.8%) and state (5.6%) rates.

Veteran Status

	Marshall Service area	El Dorado County	California
Veterans	10.2%	9.8%	5.6%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP02. <http://factfinder.census.gov>

Citizenship

In the Marshall service area, 8.4% of the population is foreign-born, which is a lower rate than in the county (9.2%) or state (27%). Of the foreign-born, 39.7% are not citizens.

Foreign-Born Residents and Citizenship

	Marshall Service Area	El Dorado County	California
Foreign born	8.4%	9.2%	27.0%
Of foreign born, not a U.S. citizen	39.7%	45.4%	49.9%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP02. <http://factfinder.census.gov>

Social Determinants of Health

Social and Economic Factors Ranking

The County Health Rankings examine social and economic indicators contributors to the health of a county's residents. California's counties are ranked according to social and economic factors with a 1 to 57 ranking system (excluding Alpine County) for the best (1) to the poorest (57) ranked counties. This ranking examines high school graduation rates, unemployment, children in poverty, social support, and other factors. El Dorado County is ranked as 7, in the top of California counties.

Social and Economic Factors Ranking

	County Ranking (out of 57)
El Dorado County	7

Source: County Health Rankings, 2018. www.countyhealthrankings.org

The 2018 SocioNeeds Index is a measure of socioeconomic need that is correlated with poor health outcomes. All ZIP Codes, counties, and county equivalents in the United States are given an Index Value from 0 (low need) to 100 (high need). To find the areas of highest need, the selected locations are ranked from 1 (low need) to 5 (high need) based on their Index Value as compared to all El Dorado County ZIP Codes. The service area communities with the highest Index Value (highest socioeconomic need) were Grizzly Flats, Somerset and Diamond Springs. The communities with the lowest socioeconomic need were Cool, Rescue and El Dorado Hills.

SocioNeeds Index Value and Ranking

	ZIP Code	Index Value (0-100)	Ranking (1-5)
Grizzly Flats	95636	71.9	5
Somerset	95684	66.6	5
Diamond Springs	95619	62.3	5
Georgetown	95634	44.5	4
Kingsville/Nashville	95623	42.0	4
Camino/Apple Hill	95709	39.2	4
Placerville	95667	35.7	3
Pollock Pines	95726	32.4	3
Greenwood	95635	31.2	3
Garden Valley	95633	27.0	3
Lotus	95651	18.2	2
Shingle Springs/Cameron Park	95682	17.3	2
Pilot Hill	95664	12.8	2
Cool	95614	9.5	1
Rescue	95672	3.4	1
El Dorado Hills	95762	2.2	1

Source: 2018 SocioNeeds Index, <https://www.conduent.com/community-population-health/> River Pines is located in Amador County, which does not have SocioNeeds Index values.

Poverty

The Census Bureau annually updates official poverty population statistics. For 2017, the Federal Poverty Level (FPL) was set at an annual income of \$12,488 for one person and \$24,858 for a family of four. Among the residents represented in the hospital service area, 9.1% have incomes <100% of the Federal Poverty Level, compared to 9.8% at the county and 15.1% at the state level.

When examined by ZIP Code, poverty rates are highest among residents of Garden Valley (18.5%) and Pollock Pines (18.2%). 21.1% of residents in the service area are low-income (defined as earning less than 200% of the FPL). The low-income population is highest in Greenwood (41.6%).

Ratio of Income to Poverty Level, by ZIP Code (<100% FPL and <200% FPL)

	ZIP Code	<100% FPL	<200% FPL
Camino/Apple Hill	95709	7.9%	15.9%
Cool	95614	4.2%	10.0%
Diamond Springs	95619	10.4%	30.7%
El Dorado Hills	95762	4.3%	10.2%
Garden Valley	95633	18.5%	32.6%
Georgetown	95634	8.6%	34.3%
Greenwood	95635	13.3%	41.6%
Grizzly Flats	95636	13.6%	21.0%
Kingsville/Nashville	95623	8.9%	28.0%
Lotus	95651	3.2%	11.1%
Pilot Hill	95664	2.0%	25.2%
Placerville	95667	12.5%	27.3%
Pollock Pines	95726	18.2%	29.5%
Rescue	95672	4.0%	15.5%
River Pines	95675	0.0%	32.1%
Shingle Springs/Cameron Park	95682	9.1%	22.4%
Somerset	95684	17.1%	34.6%
Marshall Service Area		9.1%	21.1%
El Dorado County		9.8%	23.2%
California		15.1%	33.9%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, S1701. <http://factfinder.census.gov>

10.9% of service area children, under age 18, are living in poverty. In Somerset, 41% of children live in poverty and in Garden Valley, 39% of children live in poverty. Among service area seniors, 5.5% are living in poverty. In Greenwood, 12.6% of seniors live in poverty. Among Females who are Head of Household (HoH), with children under age 18, 31.3% in the service area are in poverty. 100% of families in Grizzly Flats with female HoH live in poverty.

Poverty Levels of Children, Seniors, and Female Head of Household with Children

	ZIP Code	Children Under 18 Years Old	Seniors	Female HoH with Children *
Camino/Apple Hill	95709	3.7%	5.5%	11.3%
Cool	95614	1.7%	0.0%	23.3%
Diamond Springs	95619	2.6%	7.4%	0.0%
El Dorado Hills	95762	4.5%	3.1%	20.2%
Garden Valley	95633	39.0%	8.8%	45.5%
Georgetown	95634	11.4%	1.3%	0.0%
Greenwood	95635	0.0%	12.6%	N/A
Grizzly Flats	95636	14.3%	5.6%	100.0%
Kingsville/Nashville	95623	13.3%	4.6%	75.0%
Lotus	95651	0.0%	10.0%	N/A
Pilot Hill	95664	0.0%	0.0%	0.0%
Placerville	95667	17.9%	7.5%	28.7%
Pollock Pines	95726	20.4%	5.7%	57.4%
Rescue	95672	4.9%	1.1%	12.5%
River Pines	95675	0.0%	0.0%	N/A
Shingle Springs/Cameron Park	95682	11.3%	6.2%	30.7%
Somerset	95684	41.0%	5.7%	54.1%
Marshall Service Area		10.9%	5.5%	31.3%
El Dorado County		11.6%	5.8%	32.3%
California		20.8%	10.2%	36.2%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, S1701 & *S1702. <http://factfinder.census.gov>
Care should be taken when interpreting rates for a ZIP Code with a small population. N/A = No person(s) meeting that demographic, or none for whom poverty status can be determined.

Unemployment

The unemployment rate in El Dorado County is 4.4%, which is lower than the state rate (4.8%). The service area city with the highest unemployment rate is Georgetown (6.6%) and the lowest unemployment rate can be found in Shingle Springs (2.8%).

Unemployment Rate, 2017 Average

	Percent
Cameron Park	4.5%
Diamond Springs	5.0%
El Dorado Hills	3.3%
Georgetown	6.6%
Placerville	4.9%
Pollock Pines	3.4%
Shingle Springs	2.8%
Cameron Park	4.5%
El Dorado County	4.4%
California	4.8%

Source: California Employment Development Department, Labor Market Information. <http://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html>

Households

In the hospital service area, there are 56,219 households and 61,622 housing units. Over the last five years, the population grew by 2.9%, the number of households decreased by 0.1%, the number of housing units decreased by 2.2%, and vacant units decreased by 20.1%. Owner-occupied housing in the service area increased (+1%) while renter occupied housing decreased (-4.3%).

Households and Housing Units, Percent Change, 2012-2017

	Marshall Service Area			El Dorado County			California		
	2012	2017	Percent Change	2012	2017	Percent Change	2012	2017	Percent Change
Households	56,249	56,219	(-0.1%)	67,846	68,084	0.4%	12,466,331	12,888,128	3.4%
Housing units	63,008	61,622	(-2.2%)	87,828	89,286	1.7%	13,667,226	13,996,299	2.4%
Owner occ.	44,983	45,442	1.0%	50,953	51,948	2.0%	6,978,397	7,024,315	0.7%
Renter occ.	11,266	10,777	(-4.3%)	16,893	16,136	(-4.5%)	5,487,934	5,863,813	6.8%
Vacant	6,759	5,403	(-20.1%)	19,982	21,202	6.1%	1,200,895	1,108,171	(-7.7%)

Source: U.S. Census Bureau, American Community Survey, 2008-2012 & 2013-2017, DP04. <http://factfinder.census.gov>

In the service area there are 56,219 households. 40.4% are two-person households.

Household Size

	Marshall Service Area	El Dorado County	California
1 person households	21.7%	23.6%	23.9%
2 person households	40.4%	39.9%	30.2%
3 person households	15.6%	15.3%	16.7%
4+ person households	22.4%	21.2%	29.3%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, S2501. <http://factfinder.census.gov>

According to the US Department of Housing and Urban Development, those who spend more than 30% of their income on housing are said to be “cost burdened.” Those who spend 50% or more are considered “severely cost burdened.” 36.4% of owner and renter-occupied households in the service area spend 30% or more of their income on housing. The service area city with the highest percentage of households that spend 30% or more of their income on housing is Pilot Hill (55.4%). The community with the lowest percentage of households spending 30% or more of their income on housing is Lotus (10.5%).

Households that Spend 30% or More of Income on Housing

	ZIP Code	Percent
Camino/Apple Hill	95709	31.5%
Cool	95614	23.9%
Diamond Springs	95619	36.0%
El Dorado Hills	95762	33.0%
Garden Valley	95633	32.5%

	ZIP Code	Percent
Georgetown	95634	38.6%
Greenwood	95635	47.5%
Grizzly Flats	95636	42.2%
Kingsville/Nashville	95623	31.9%
Lotus	95651	10.5%
Pilot Hill	95664	55.4%
Placerville	95667	40.4%
Pollock Pines	95726	46.8%
Rescue	95672	31.6%
River Pines	95675	22.8%
Shingle Springs/Cameron Park	95682	35.1%
Somerset	95684	42.5%
Marshall Service Area		36.4%
El Dorado County		37.7%
California		43.1%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP04. <http://factfinder.census.gov>

Median Household Income

Household income is defined as the sum of money received over a calendar year by all household members, 15 years and older. Median household income reflects the relative affluence and prosperity of an area. The weighted mean of the median household income in the service area is \$83,922, which is higher than the county (\$74,885) and state (\$67,269). Median household income in the service area ranges from \$39,554 in Greenwood to \$127,862 in El Dorado Hills. River Pines has a total of 180 households, and due to the margin of error, no median household income was available.

Median Household Income

	ZIP Code	Median Household Income
Camino/Apple Hill	95709	\$74,213
Cool	95614	\$102,035
Diamond Springs	95619	\$60,496
El Dorado Hills	95762	\$127,862
Garden Valley	95633	\$73,393
Georgetown	95634	\$50,673
Greenwood	95635	\$39,554
Grizzly Flats	95636	\$47,889
Kingsville/Nashville	95623	\$62,026
Lotus	95651	\$77,759
Pilot Hill	95664	\$52,788
Placerville	95667	\$61,623
Pollock Pines	95726	\$58,806
Rescue	95672	\$95,524
River Pines	95675	N/A
Shingle Springs/Cameron Park	95682	\$81,835

	ZIP Code	Median Household Income
Somerset	95684	\$56,063
Marshall Service Area		*\$83,922
El Dorado County		\$74,885
California		\$67,269

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP03. <http://factfinder.census.gov>

*Weighted mean of the medians, excepting River. No median income level is available for River, the mean (average) income in River is \$39,944.

Homelessness

El Dorado County's Opportunity Knocks conducts a biannual 'point-in-time' count of homelessness in El Dorado County. In 2017, there were 598 homeless people counted in the county. More than three-quarters (82.8%) of the homeless were unsheltered. In California, 69% of the homeless were unsheltered (Source: Public Policy Institute of California, *A Snapshot of Homelessness in California, 2019*, <https://www.ppic.org/blog/a-snapshot-of-homelessness-in-california/>)

Among children, 3.2% of public school enrollees in El Dorado County were recorded as being homeless at some point during the 2015-2016 school year (Source: kidsdata.org, October 2018).

Homeless Annual Count, El Dorado County

Year of Count	Total Homeless	Sheltered	Unsheltered
2017	598	103 (17.2%)	495 (82.8%)

Source: County of El Dorado, Opportunity Knocks, 2017. <https://www.edokcoc.org/data>

Among the unsheltered homeless, 5.7% were youth, 16.7% were veterans, and 17.8% were chronically homeless. 21.6% of the unsheltered homeless in El Dorado County were survivors of domestic violence.

Unsheltered Homeless Subpopulations, 2017

	Count	Percent
Youth, 18 to 24	28	5.7%
Veterans	82	16.7%
Chronically homeless	87	17.8%
Domestic violence	107	21.6%

Source: County of El Dorado Department of Public Social Services, Homeless Program Unit, 2018. <http://dpss.co.ElDorado.ca.us/homeless-programs>

Public Program Participation

In El Dorado County, 55.7% of low-income residents (those making less than 200% of the FPL) are not able to afford enough to eat. 18.6% of those making less than 300% of the FPL utilize food stamps. WIC benefits are more readily accessed. 28.8% of county children, 6 years and younger, access WIC benefits. 10.6% of county residents are TANF/CalWorks recipients, compared to 8.5% for the state.

Public Program Participation

	El Dorado County	California
Not able to afford food (<200%FPL)	55.7%	42.8%
Food stamp recipients (<300% FPL)**	18.6%	20.9%
WIC usage among children, 6 years and under	28.8%*	44.7%
TANF/CalWorks recipients	10.6%*	8.5%

Source: California Health Interview Survey, 2015-2017; **2013-2016. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

In the service area, 5.3% of residents receive SSI benefits, 2.4% receive cash public assistance income, and 6% of residents receive food stamp benefits. These rates are lower than county and state rates.

Household Supportive Benefits

	Marshall Service Area	El Dorado County	California
Total households	56,219	68,084	12,888,128
Supplemental Security Income (SSI)	5.3%	5.5%	6.2%
Public Assistance	2.4%	2.5%	3.6%
Food Stamps/SNAP	6.0%	6.3%	9.3%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP03. <http://factfinder.census.gov>

CalFresh Eligibility and Participation

CalFresh is California's food stamp program. According to the California Department of Social Services, 19,417 individuals in El Dorado County are eligible to receive food stamps (CalFresh). However, only 12,773 (65.8%) of eligible residents receive food stamps.

CalFresh Eligibility and Participation

	Number Eligible	Participation Rate
El Dorado County	19,417	65.8%
California	6,034,578	71.8%

Source: California Department of Social Services' CalFresh Data Dashboard, 2016. <http://www.cdss.ca.gov/inforesources/Data-Portal/Research-and-Data/CalFresh-Data-Dashboard>

Access to Food

The US Department of Agriculture (USDA) defines food insecurity as limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire foods in socially-acceptable ways. In El Dorado County, 11.7% of the population experienced food insecurity at some point in the past year. Among children in El Dorado County, 17% lived in households that experienced food insecurity at some point in the year.

Food Insecurity

	El Dorado County	California
Total population experienced food insecurity during the year	11.7%	11.7%
Children under 18 experienced food insecurity during the year	17.0%	19.0%

Source: Feeding America, 2016, accessed at w/El Dorado County, <http://www.welldorado.org/>

Community Input – Food Insecurity

Stakeholder interviews identified the following issues, challenges and barriers related to food insecurity. Following are their comments, quotes and opinions edited for clarity:

- The county is working to make sure people have food. There is food available with the El Dorado food bank, the Upper Room in Placerville, and there is a fairly robust system with churches involved with food and shelter.
- Some people are proud and do not want to go to the food bank to get food.
- We have a very active and well supported food bank. There is a need, and they serve that need.
- There is a mobile pantry that travels around, but there is a stigma associated with having to ask for food and people do not want to have a handout.
- There are people running out of money every month and they do not have the food resources they need. I think a challenge is perhaps people not recognizing what resources are available in the community with churches, nonprofits or foodbanks that fill that food gap at the end of the month.
- Some of our population is definitely food insecure, or they are barely making it and have difficulty getting healthy foods. The cost of unhealthy food is typically cheaper than buying healthy food. We do have issues with homebound seniors, and we do have issues with transportation.
- If you do not have transportation, it is hard to get to grocery stores that focus on healthy food choices.
- It is sad but we do see it in our Sweet Success population. A variety of moms come in with food security issues. The community does provide a variety of food sources and food banks, but I think it is still a challenging issue. We have WIC, but there is still a population who is not able to access it for a number of reasons: transportation, being at home with kids, or being homeless with kids.
- We do have areas within the community that suffer from food insecurity and they tend to be pocketed within certain communities like Polley Pines.

Educational Attainment

In the service area, 6.5% of the adult population has less than a high school education. This rate is lower than the county rate (7.1%). Almost half of service area residents

(48.9%) are high school graduates and 44.6% have a college degree. This level of education is higher than the state rate.

Educational Attainment of Adults, 25 Years and Older

	Marshall Service Area	El Dorado County	California
Population age 25 and over	111,139	132,744	25,950,818
Less than 9 th grade	1.7%	2.3%	9.7%
Some high school, no diploma	4.8%	4.8%	7.8%
High school graduate	21.7%	21.5%	20.6%
Some college, no degree	27.2%	27.3%	21.5%
Associate degree	10.8%	10.8%	7.8%
Bachelor degree	21.5%	21.4%	20.4%
Graduate or professional degree	12.3%	12.0%	12.2%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, DP02. <http://factfinder.census.gov>

High school graduation rates are determined by dividing the number of graduates for the school year by the number of freshman enrolled four years earlier. The high school graduation rate for the Black Oak Mine Unified School District (93.3%) and El Dorado Union High School District (94.2%) are higher than county (92.1%), and state (87.3%) rates. Local high school districts meet the Healthy People 2020 objective of an 87% high school graduation rate.

High School Graduation Rates, 2017-2018

	High School Graduation Rate
Black Oak Mine Unified School District	93.3%
El Dorado Union High School District	94.2%
El Dorado County	92.1%
California	87.3%

Source: California Department of Education, 2018. <https://data1.cde.ca.gov/dataquest/>

Preschool Enrollment

The percent of 3 and 4 year olds enrolled in preschool in the Marshall service area (55%) is higher than found in the county (51.3%) or state (48.7%). However, no 3 and 4 year olds in Georgetown and Somerset were reported to be enrolled in preschool.

Children, 3 and 4 Years Old, Enrolled in Preschool

	ZIP Code	Number	Percent
Camino/Apple Hill	95709	13	100.0%
Cool	95614	92	22.8%
Diamond Springs	95619	44	75.0%
El Dorado Hills	95762	999	66.5%
Garden Valley	95633	23	100.0%

	ZIP Code	Number	Percent
Georgetown	95634	131	0.0%
Greenwood	95635	17	100.0%
Grizzly Flats	95636	0	N/A
Kingsville/Nashville	95623	138	68.1%
Lotus	95651	0	N/A
Pilot Hill	95664	17	100.0%
Placerville	95667	640	56.4%
Pollock Pines	95726	192	19.8%
Rescue	95672	50	72.0%
River Pines	95675	0	N/A
Shingle Springs/Cameron Park	95682	442	52.9%
Somerset	95684	21	0.0%
Marshall Service Area		2,819	55.0%
El Dorado County		3,412	51.3%
California		1,035,277	48.7%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, S1401. <http://factfinder.census.gov>

Reading to Children

Adults with children, ages 0 to 5, in their care were asked whether the children were read to daily by family members in a typical week. 82.2% of adults interviewed in El Dorado County responded “yes” to this question.

Children, Ages 0 to 5, Who Were Read to Daily by a Parent or Family Member

	El Dorado County	California
Children read to daily	82.2%*	63.4%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Parks, Playgrounds and Open Spaces

81.8% of county children, ages 1-17, were reported to live within walking distance of a park, playground or open space. 91.1% had visited one within the past month.

Access to and Utilization of Parks, Playgrounds and Open Space

	El Dorado County	California
Walking distance to park, playground or open space, ages 1 to 17	81.8% *	89.7%
Visited park, playground or open space in past month, ages 1 to 17	91.1% *	85.6%

Source: California Health Interview Survey, 2013-2017; <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Crime and Violence

Violent crimes include homicide, rape, robbery and assault. Property crimes include burglary, larceny and motor vehicle theft. The violent crime and property crime rates are lower in El Dorado County than in the state. The crime rates for Placerville are higher

than for the county.

Violent Crime and Property Crime, Rates per 100,000 Persons, 2014 and 2017

	Property Crimes				Violent Crimes			
	Number		Rate		Number		Rate	
	2014	2017	2014	2017*	2014	2017	2014	2017*
Placerville	273	279	2,603.5	2,660.7	57	29	543.6	276.6
El Dorado County*	3,138	2,934	1,697.0	1,557.3	409	294	221.2	156.1
California	946,682	1,001,380	2,459.0	2,544.5	151,425	174,701	393.3	443.9

Source: CA Department of Justice, Office of the Attorney General, 2017. <https://oag.ca.gov/crime>
 Source for 2014 city data (number and rate), US Bureau of Justice Statistics <https://www.bjs.gov/ucrdata/Search/Crime/Crime.cfm>
 *State rates were provided by CA DOJ; the county rate was calculated based on population totals provided by CA Department of Finance and the 2017 rates for Placerville were calculated based on 2014 populations extrapolated from bjs.gov data and are, therefore, only estimates.

Calls for domestic violence are categorized as with or without a weapon. 9.7% of domestic violence calls in El Dorado County involved a weapon.

Domestic Violence Calls, Rate per 1,000 Persons

	Total	Rate*	Without Weapon	With Weapon
Placerville	72	1.96	81.9%	18.1%
El Dorado County	1,294	6.99	90.3%	9.7%
California	169,362	4.38	55.7%	44.3%

Source: California Department of Justice, Office of the Attorney General, 2017. <https://oag.ca.gov/crime> *Rate calculated using 2013-2017, ACS Population Estimates.

Teens in El Dorado County were asked about neighborhood cohesion. 83.6% of teens felt adults in their neighborhood could be counted on to watch that children were safe and didn't get into trouble. 93.8% of teens felt people in their neighborhood were willing to help. 88.6% of teens felt their neighbors could be trusted.

Neighborhood Cohesion, Teens Who Agree or Strongly Agree

	El Dorado County	California
Adults in neighborhood look out for children	83.6%*	87.8%
People in neighborhood are willing to help	93.8%	86.4%
People in neighborhood can be trusted	88.6%*	82.7%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size

In El Dorado County, the rate of children under 18 years of age, who experienced abuse or neglect, was 8.4 per 1,000 children. This is higher than the state rate of 7.5 per 1,000 children. These rates are based on children with a substantiated maltreatment allegation.

Substantiated Child Abuse Rates, per 1,000 Children

	El Dorado County	California
Child abuse rates	8.4	7.5

Source: Child Welfare Dynamic Report System, 2017. Accessed from wELI Dorado County at <http://www.welldorado.org/>.

Community Input – Community Safety

Stakeholder interviews identified the following issues, challenges and barriers related to community safety. Following are their comments, quotes and opinions edited for clarity:

- We have a significant wildland fire problem which can create health concerns with burns and injuries, displacement, lack of medicine and need for sheltering.
- High rates of domestic violence and mental health disturbances impact safety.
- Domestic violence is certainly one of those issues that has a relationship to the environment as well as mental health and substance use.
- Homeless camps create large community safety issues.
- With domestic violence, the health care system has a responsibility and role to be on the front lines of identifying vulnerable populations. We have a responsibility to treat them with great care, but also to be a safe haven for identifying those who are impacted, to be able to look below the surface and keep them safe and link them with resources to keep them safe.
- Trauma impacts families and prevents them from taking care of their kids.
- There are safety concerns around vehicles driving on windy roads and in poor weather. We have high rates of vehicle accidents, and we have safety concerns for pedestrians and bikers, there are very few areas for them to walk and ride safely.
- Community safety is related to mental health and substance use issues that can impact violence and criminal behaviors.
- Domestic violence tends to be generational in family units in our county, so there is a cycle of poverty and domestic violence. It doesn't form according to economic lines, it crosses all spectrums. There is an explosive situation that can occur, at any time, because the family itself is in a continuous crisis mode.
- If seniors are single and alone, do they have an alert button to call for an emergency? Do they have grab bars? Is there someone who checks on them? Is there someone that comes and looks at their medications and makes sure they are adhering to the right protocols?

Air and Water Quality

Days with Ozone Levels above Regulatory Standard

In 2016, El Dorado County had 41 days when ground-level ozone concentrations were above the U.S. standard of 0.070 parts per million. The state average in 2016 was 22 days when readings were above the U.S. standard.

Days with Ozone Levels above Regulatory Standard

	El Dorado County	California
Ozone levels above standards, in days	41	22

Source: California Environmental Protection Agency, Air Resources Board, Air Quality Data Statistics, Aug. 2017 via <http://www.kidsdata.org>

Water Quality Violations

Maximum Contaminant Level (MCL) violations occur when contaminant levels in drinking water supplies exceed limits set by the California Department of Public Health. Monitoring and reporting violations occur when a public water system fails to have its water tested as required or fails to report test results correctly. In 2015, 0.7% of California's MCL violations and 1.5% of monitoring and reporting violations originated in El Dorado County.

Water Quality Violations

	El Dorado County		California
	Number	Percentage	Number
Maximum Contaminant Level violations	10	0.7%	1,533
Monitoring and reporting violations	25	1.5%	1,711

Source: California Environmental Protection Agency, Air Resources Board, Air Quality Data Statistics, U.S. EPA Particulate Matter Trends, July 2017 via <http://www.kidsdata.org>

Community Input – Environmental Pollution

Stakeholder interviews identified the following issues, challenges and barriers related to environmental pollution. Following are their comments, quotes and opinions edited for clarity:

- The state has mandates so we are more aware of pollution, air quality and climate change. We have to take it seriously and consistently strive to do better.
- We have a lot of illegal cannabis growers who are creating chemical residue, which ends up in our water.
- Some people are sensitive to air quality, which is made worse by our prescribed burns that we use for forest health safety.
- There was a lime plant here, years ago, that was torn down and covered over and structures built on it. Ground water leaches through limestone and it makes the groundwater very alkaline.
- Pollution is especially an issue up in Camino, with all the ranches, they use chemicals.
- With the homeless, we've cleaned up numerous sites, they camp along the streams and are harming the environment.
- We are pretty lucky around here. If you go downhill a little more, the pollution is more noticeable, but that is why people live here, to get out of the valley.

- The biggest challenge we face is catastrophic fires that can start and impact the quality of air and the health of our community.
- Air pollution can, at times, be very bad in the foothills, leading to asthma.

Health Care Access

Health Insurance Coverage

Health insurance coverage is a key component to access health care. The Healthy People 2020 objective is 100% health insurance coverage for all population groups. In the service area, 94.9% of the population has health insurance coverage. Health care coverage is higher among children, 0 to 18, with 97.1% of children in the service area insured. 92.4% of service area adults have health insurance coverage.

Health Insurance Coverage

	ZIP Codes	All Ages	Ages 0 to 18	Ages 19 to 64
Camino/Apple Hill	95709	95.7%	100.0%	91.9%
Cool	95614	95.5%	92.7%	95.1%
Diamond Springs	95619	94.5%	97.3%	91.5%
El Dorado Hills	95762	97.7%	99.4%	96.6%
Garden Valley	95633	89.8%	94.8%	85.4%
Georgetown	95634	93.4%	96.4%	89.7%
Greenwood	95635	94.6%	100.0%	91.6%
Grizzly Flats	95636	85.4%	100.0%	72.3%
Kingsville/Nashville	95623	97.5%	98.2%	96.5%
Lotus	95651	99.0%	100.0%	98.7%
Pilot Hill	95664	92.9%	93.6%	89.2%
Placerville	95667	91.9%	92.4%	88.3%
Pollock Pines	95726	96.1%	97.7%	94.5%
Rescue	95672	97.2%	98.9%	95.8%
River Pines	95675	87.2%	100.0%	79.9%
Shingle Springs/Cameron Park	95682	95.4%	97.8%	92.8%
Somerset	95684	89.0%	100.0%	83.1%
Marshall Service Area		94.9%	97.1%	92.4%
El Dorado County		94.0%	97.2%	91.0%
California		89.5%	95.3%	85.2%

Source: U.S. Census Bureau, American Community Survey, 2013-2017, S2701. <http://factfinder.census.gov>

When insurance coverage was examined for the county, 20.5% of county residents had Medi-Cal coverage and 44.4% of county residents had employment-based insurance.

Insurance Coverage by Type

	El Dorado County	California
Medi-Cal	20.5%	24.0%
Medicare only	1.6%	1.3%
Medi-Cal/Medicare	3.4%	3.7%
Medicare and others	12.1%	8.9%
Other public	1.8% *	1.6%
Employment based	44.4%	44.4%

	El Dorado County	California
Private purchase	7.4%	6.1%
No insurance	8.6%*	9.8%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

Sources of Care

Access to a medical home and a primary care provider improve continuity of care and decrease unnecessary emergency room visits. Seniors in El Dorado County are the most likely to have a usual source of care (98.4%). 91.3% of children and 84.3% of adults, ages 18 to 64, have a usual source of care.

Usual Source of Care

	Ages 0-17	Ages 18-64	Ages 65+
El Dorado County	91.3%*	84.3%	98.4%*
California	91.4%	82.6%	94.5%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size

When access to care through a usual source of care is examined by race/ethnicity, Asians were the least likely to have a usual source of care (44.7%).

Usual Source of Care by Race/Ethnicity

	El Dorado County	California
African American	100.0%*	88.4%
Asian	44.7%*	84.5%
Latino	77.0%*	81.6%
White	92.3%	91.1%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

In El Dorado County, 67.9% of residents accessed care at a doctor's office, HMO or Kaiser and 17% accessed care at a clinic or community hospital. 11.9% had no usual source of care.

Sources of Care

	El Dorado County	California
Dr. Office/HMO/Kaiser Permanente	67.9%	59.5%
Community clinic/government clinic/community hospital	17.0%	24.4%
ER/Urgent care	2.2%*	1.6%
Other place/no one place	1.0%*	0.8%
No usual source of care	11.9%	13.7%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

Accessing health care can be affected by the number of providers in a community. El Dorado County ranks 12 out of 57 ranked California counties (Alpine County excluded)

for clinical care, which includes ratios of population-to-care providers and preventive screening practices, among other factors. There are fewer primary care physicians for the population in the county when compared to the state.

Ratio of Population to Health Care Providers

	El Dorado County	California
Primary care physicians, 2015	1,340:1	1,280:1
Dentists, 2016	1,260:1	1,210:1
Mental health providers, 2017	340:1	320:1

Source: County Health Rankings, 2018. <http://www.countyhealthrankings.org/app/california/2018/measure/factors/62/data>

An examination of Emergency Room (ER) use can lead to improvements in providing community-based primary care. 24.6% of county residents visited an ER in the past year. Adults, 18 to 64, visited the ER at the highest rates (25.9%). Poverty level and low-income residents visited the ER at higher rates than the general population.

Use of Emergency Room

	El Dorado County	California
Visited ER in last 12 months	24.6%	20.4%
0-17 years old	22.9%	19.1%
18-64 years old	25.9%	20.3%
65 and older	23.6%	23.1%
<100% of poverty level	34.1%*	25.2%
<200% of poverty level	40.2%	23.4%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Difficulty Accessing Care

7.3% of El Dorado County adults had difficulty finding a primary care doctor who would see them or take them as a new patient in the past year. 13.4% of adults reported difficulty accessing specialty care. 3.3% of adults had been told by a primary care physician's office that their insurance would not be accepted. 12.1% of adults were told their insurance was not accepted at a specialist's office.

Difficulty Accessing Care in the Past Year, Adults

	El Dorado County	California
Reported difficulty finding primary care	7.3%	5.5%
Reported difficulty finding specialist care	13.4%*	12.2%
Primary care doctor not accepting their insurance	3.3%	4.9%
Specialist not accepting their insurance	12.1%*	10.0%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Access to Primary Care Community Health Centers

Community Health Centers provide primary care (including medical, dental and mental

health services) for uninsured and medically-underserved populations. Using ZCTA (ZIP Code Tabulation Area) data for El Dorado County and information from the Uniform Data System (UDS)¹, 22.1% of the population in the county is categorized as low-income ($\leq 200\%$ of Federal Poverty Level) and 9.0% of the population are living in poverty.

There are five Section-330-funded grantees (Federally Qualified Health Centers – FQHCs and FQHC Look-Alikes) serving the service area, including: Center for AIDS Research, Education & Services, Inc., El Dorado County Community Health Center, Elica Health Centers, Omni Family Health, and Wellspace Health.

Even with Community Health Centers serving the area, there are many low-income residents who are not served by one of these clinic providers. The FQHCs and Look-Alikes serve a total of 10,722 patients in the Marshall service area, which equates to 31.8% coverage among low-income patients and 7.0% coverage among the total population. From 2015-2017, clinic providers added 1,863 patients for a 21% increase in patients served by Community Health Centers. However, there remain 22,954 low-income residents, approximately 68.2% of the population at or below 200% FPL, that are not served by a Community Health Center.

Low-Income Patients Served and Not Served by FQHCs and Look-Alikes

Low-Income Population	Patients Served by Section 330 Grantees In Service Area	Coverage Among Low-Income Patients	Coverage of Total Population	Low-Income Not Served	
				Number	Percent
33,676	10,722	31.8%	7.0%	22,954	68.2%

Source: UDS Mapper, 2017. <http://www.udsmapper.org>

Delayed or Forgone Care

12.7% of El Dorado County residents delayed or did not get medical care when needed. Of these residents, 8.9% ultimately went without needed medical care. This is more than twice the Healthy People 2020 objective of 4.2% of the population who forgo care.

Reasons for a delay in care or going without care included the cost of care/insurance issues, personal reasons, or system/provider issues. 51% of county residents who delayed or went without care listed ‘cost/insurance issues’ as a barrier. County

¹ The UDS is an annual reporting requirement for grantees of HRSA primary care programs:

- Community Health Center, Section 330 (e)
- Migrant Health Center, Section 330 (g)
- Health Care for the Homeless, Section 330 (h)
- Public Housing Primary Care, Section 330 (i)

residents showed a lower rate of delayed and unfilled prescriptions (8.6%) compared to the state (9.2%).

Delayed Care in Past 12 Months, All Ages

	El Dorado County	California
Delayed or did not get medical care	12.7%	11.2%
Had to forgo needed medical care	8.9%	6.6%
Delayed or did not get medical care due to cost, lack of insurance or other insurance issue	51.0%	48.7%
Delayed or did not get prescription meds	8.6%	9.2%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/>

Lack of Care Due to Cost, for Children

5.8% of children, 0 to 17, in El Dorado County had care missed or delayed within the prior 12 months due to cost or lack of insurance. 1.2% of county children ultimately did not receive care. 6% of county children had delayed or unfilled prescription medications in the past 12 months.

Cost as a Barrier to Accessing Health Care in the Past Year for Children, 0 to 17

	El Dorado County	California
Child's care delayed or foregone due to cost or lack of insurance	5.8%*	4.2%
Child missed care	1.2%*	1.4%
Child's prescription medication delayed or unfilled	6.0%*	4.6%

Source: California Health Interview Survey, 2013-2017. http://ask.chis.ucla.edu *Statistically unstable due to sample size.

Community Input – Access to Health Care

Stakeholder interviews identified the following issues, challenges and barriers related to access to health care. Following are their comments, quotes and opinions edited for clarity:

- We do have a challenge, our county has some very remote areas and we do not have a lot of satellite offices. And transportation is a barrier. We do not have a good transit system here.
- In our county, there is cultural resistance from some people living in the remote areas who do not want to have access to health care or even believe it is a good thing. When they call 911, they are very, very ill and they leave basic health care problems until the last minute. They become very seriously ill rather than looking into preventive medicine. They distrust the system, as a whole, and that includes the health care system.
- We have an aging population. Medicare reimbursement rates are not enough to cover the costs of care. And Medicare does not cover the costs of transportation for services.

- We have a significant proportion of our population that either are isolated by choice or isolated just because, so that can impede access to care.
- Some people lack health insurance. There are some clients who do not qualify for Medi-Cal, and to get insurance on their own is not possible. They are referred to the community center and we enroll them in the sliding scale program.
- A large group of people go to the ED for their regular health care needs and they do not have a regular provider.
- It can be a barrier to go to work and not have time to take your kids to their annual checkups. People have to make a choice of how spend cash and it goes to rent versus paying a health insurance premium or a copay.
- Access to care is another challenge. We continue to struggle with not having enough providers in our community. It is tough to recruit the right kind of providers to our rural community.
- There are middle income working families who have insurance but a high deductible. This is a tremendous challenge as they might not use the system like they need to because of the extreme cost of their coverage.
- We have a portion of the population who do not want help, although they are eligible to participate in Covered California and Medi-Cal. They do not want anything that comes from the government.
- Primary care practitioner care facilities have nowhere to refer people and patients have to figure out how to get to Sacramento and the Bay area for care.
- There is a perception that seniors in a rural area have a hard time getting care. They may not be getting as much care as they should.
- The Affordable Care Act improved health insurance coverage. But certain populations don't get access to insurance. Primarily the Latino population is limited in their ability to qualify for public health insurance or Covered California. They are limited due to language, fear of exposing themselves as immigrants, or for financial reasons. They use the ED and the community health center that has a sliding scale.
- Barriers to access health care are transportation, having insurance and fear. Fear of interacting with the system where they have to provide personal information. There are a lot of individuals in the community who want to fly under the radar. They don't see health care as a separate entity to provide a human service; they see it as another component of the government. If health care is not an immediate need, then it is not a priority. Everything is crisis oriented. If there is no crisis, there is no response. People come to the ED because they reached a crisis situation. They do not come in for the preventive component. Just the crisis component.

Dental Care

11.3% of children, ages 3 to 11, in El Dorado County have never been to a dentist. In

the past year, 4.2% of area children needed dental care and did not receive it. 1% had been to the ER or Urgent Care for a dental issue, compared to 1.2% statewide. Teens obtain dental care are at higher rate than children. 100% of county teens had been to the dentist in the past two years.

Delay of Dental Care among Children and Teens

	El Dorado County	California
Child, 3 to 11, never been to the dentist	11.3%*	15.5%
Child, 3 to 11, been to dentist < 6 months to 2 years	87.0%	83.7%
Child, 3 to 11, needed but didn't get dental care in past year**	4.2%*	4.2%
Child visited ER or Urgent Care due to dental issue in past year**	1.0%*	1.2%
Teens never been to the dentist	0.0%*	1.8%
Teens been to dentist less than 6 months to 2 years	100.0%*	95.8%

Source: California Health Interview Survey, Children 2013-2017 or **2015-2017, Teens 2011-2014 & 2017. <http://ask.chis.ucla.edu>
*Statistically unstable due to sample size.

77.9% of county adults described the condition of their teeth as 'good', 'very good', or 'excellent.' 1% of county residents had never been to a dentist.

Adult Dental Care

	El Dorado County	California
Condition of teeth: good to excellent	77.9%*	72.3%
Condition of teeth: fair to poor	16.6%*	25.7%
Condition of teeth: has no natural teeth	5.3%*	1.9%
Never been to a dentist **	1.0%*	2.2%
Visited dentist < 6 months to two years**	82.2%	80.4%
Visited dentist more than 5 years ago**	4.6%*	8.0%

Source: California Health Interview Survey, 2016-2017 or **2013-2014 and 2016-2017 pooled. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Birth Characteristics

Births

From 2014 to 2015, there was an average of 1,280 births per year in the service area.

Teen Birth Rate

Teen births in the service area occurred at an average annual rate of 2.9% of total births (28.9 per 1,000 live births).

Births to Teen Mothers (Age Under 20), Rate per 1,000 Live Births

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Births to teen mothers	37	28.9	43.7	52.1

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001.

Prenatal Care

Pregnant women in the service area entered prenatal care after the first trimester at a rate of 168.0 per 1,000 live births. This rate of late entry into prenatal care translates to 16.8% of women entering prenatal care late or not at all, while 83.2% of women entered prenatal care on time. This exceeds the Healthy People 2020 objective of 78% of women entering prenatal care in the first trimester.

Late Entry to Prenatal Care (After 1st Trimester), Rate per 1,000 Live Births

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Late entry to prenatal care	215	168.0	171.3	165.7

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2014-2015, and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001

Low Birth Weight

Low birth weight is a negative birth indicator. Babies born at a low birth weight are at higher risk for disease, disability and possibly death. For this measurement, a lower rate is a better indicator. The rate of low-birth-weight babies is 6.2% (62.1 per 1,000 live births). This meets the Healthy People 2020 objective of 7.8% of births being low birth weight.

Low Birth Weight (Under 2,500g), Rate per 1,000 Live Births

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Low birth weight	80	62.1	66.4	67.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2014-2015, and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001

Delivery Paid by Public Insurance or Self-Pay

In the hospital service area, the rate of births paid by public insurance or self-pay was 342.2 births per 1,000 live births, which is lower than the Sacramento Metro area (439.8 per 1,000 live births) or state rate (502.6 per 1,000 live births) of births paid by public insurance or self-pay.

Delivery Paid by Public Insurance or Self-Pay, Rate per 1,000 Live Births

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Public insurance or self-pay	438	342.2	439.8	502.6

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2014-2015, and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001

Premature Birth

The rate of premature birth, occurring before the start of the 38th week of gestation, in the service area is 7.5% (75.0 per 1,000 live births). This rate of premature birth is lower than the Sacramento Metro area (8.2%) and the state rate of premature births (8.4%).

Premature Births before Start of 38th Week or Unknown, Rate per 1,000 Live Births

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Premature births	96	75.0	81.7	83.6

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2009-2013, Table B01001

Mothers Who Smoked Regularly During Pregnancy

The rate of mothers who smoked regularly during pregnancy in the service area was 7% (70.3 per 1,000 live births), which higher than the Sacramento Metro area (3.8%) and the state rate (1.8%).

Mothers Who Smoked Regularly During Pregnancy, Rate per 1,000 Live Births

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Mothers who smoked	90	70.3	38.1	17.7

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2009-2013, Table B01001

Infant Mortality

The infant (less than one year of age) mortality rate in El Dorado County is 2.3 deaths per 1,000 live births, which is half of the state rate (4.6 deaths per 1,000 live births), and below and the Healthy People 2020 objective of 6.0 deaths per 1,000 births.

Birth Cohort Infant Deaths, Rate per 1,000 Live Births

	El Dorado County	California
Infant deaths	2.3	4.6

Source: California Department of Public Health, County Health Status Profiles, 2018.
<https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx>

Breastfeeding

Data on breastfeeding are collected by hospitals on the Newborn Screening Test Form. Breastfeeding rates at Marshall Medical Center indicated 96.1% of new mothers breastfed and 85.6% breastfed exclusively.

In-Hospital Breastfeeding

	Any Breastfeeding		Exclusive Breastfeeding	
	Number	Percent	Number	Percent
Marshall Medical Center	414	96.1%	369	85.6%
El Dorado County	699	96.4%	590	81.4%
California	384,637	93.9%	285,146	69.6%

Source: California Department of Public Health, Breastfeeding Hospital of Occurrence, 2017, as San Joaquin Community Hospital
<https://www.cdph.ca.gov/Programs/CFH/DMCAH/Breastfeeding/Pages/In-Hospital-Breastfeeding-Initiation-Data.aspx>

There were ethnic/racial differences noted in breastfeeding rates of mothers who deliver at Marshall Medical Center. 97.2% of White mothers initiate breastfeeding and 89.2% breastfed exclusively. Hispanic/Latina mothers initiated breastfeeding at a rate of 94% and 73.5% breastfed exclusively. These breastfeeding rates meet the Healthy People 2020 objective of 81.9% of all infants having ever been breastfed,

In-Hospital Breastfeeding, Marshall Medical Center, by Race/Ethnicity of Mother

	Any Breastfeeding		Exclusive Breastfeeding	
	Number	Percent	Number	Percent
White	307	97.2%	282	89.2%
Latino/Hispanic	78	94.0%	61	73.5%
Asian	N/A	N/A	N/A	N/A
African American	N/A	N/A	N/A	N/A
Marshall Medical Center	414	96.1%	369	85.6%

Source: California Department of Public Health, Breastfeeding Hospital of Occurrence, 2017.

<https://www.cdph.ca.gov/Programs/CFH/DMCAH/Breastfeeding/Pages/In-Hospital-Breastfeeding-Initiation-Data.aspx>

N/A = rate suppressed due to fewer than 11 instances; in 2017 each group had two births at Marshall Medical Center.

Leading Causes of Death

Leading Causes of Death

Cancer, heart disease and unintentional injuries are the top three causes of death in the service area. Chronic Lower Respiratory Disease is the fourth-leading cause of death and Alzheimer's disease is the fifth-leading cause of death. These leading causes of death are reported as age-adjusted death rates. Age-adjusting eliminates the bias of age in the makeup of the populations being compared. When comparing across geographic areas, age-adjusting is typically used to control for the influence that different population age distributions might have on health event rates.

Leading Causes of Death, Age-Adjusted, Rate per 100,000 Persons, 2014-2015 Average

	Marshall Service Area		Sacramento Metro	California	Healthy People 2020 Objective
	Average Annual Deaths	Rate	Rate	Rate	Rate
Cancer	334	150.3	153.1	143.4	161.4
Heart disease	302	136.2	147.5	143.9	No Objective
Ischemic heart disease	184	82.1	92.3	130.2	103.4
Unintentional injuries	76	44.0	35.6	29.9	36.4
Chronic Lower Respiratory Disease	84	38.7	38.0	32.6	Not Comparable
Alzheimer's disease	64	29.0	34.3	33.3	No Objective
Stroke	56	25.5	36.0	35.1	34.8
Pneumonia and influenza	32	15.2	13.1	14.8	No Objective
Suicide	25	13.4	12.8	10.4	10.2
Liver disease	28	13.0	12.1	12.3	8.2
Diabetes	22	10.8	20.5	20.8	Not Comparable
Kidney disease	14	6.5	3.5	8.2	Not Comparable
Homicide	5	2.8	5.3	4.8	5.5

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2000 U.S. standard million.

Cancer

In the service area, the age-adjusted cancer mortality rate is 150.3 per 100,000 persons. This rate meets the Healthy People 2020 objective (161.4 deaths per 100,000 persons).

Cancer Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Cancer death rate	334	150.3	153.1	143.4

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2000 U.S. standard million.

Mortality rates for specific types of cancer are available at the county level from the National Cancer Institute. In El Dorado County, the rates of death from cancers that exceed the state cancer death rates include: lung and bronchus cancers (32.3 deaths per 100,000 persons), prostate cancer (20.2 per 100,000 men), ovarian cancer (8.0 per 100,000 women), Non-Hodgkin Lymphoma (6.0 per 100,000 persons), urinary bladder cancer (5.1 per 100,000 persons), esophageal cancer (4.1 deaths per 100,000 persons), myeloid and monocytic leukemia (3.9 deaths per 100,000 persons) and kidney and renal pelvic cancers (3.9 deaths per 100,000 persons).

Cancer Mortality Rates, Age-Adjusted, per 100,000 Persons

	El Dorado County	California
Cancer all sites	144.8	146.6
Lung and bronchus	32.3	32.0
Prostate (males)	20.2	19.6
Breast (female)	18.5	20.1
Colon and rectum	11.5	13.2
Pancreas	9.7	10.3
Ovary (females)	8.0	7.1
Non-Hodgkin lymphoma	6.0	5.4
Urinary bladder	5.1	3.9
Liver and intrahepatic bile duct	4.4	7.6
Melanoma of the skin	4.3	4.5
Esophagus	4.1	3.3
Myeloid and monocytic leukemia	3.9	3.3
Kidney and renal pelvis	3.9	3.5
Myeloma	2.8	3.1

Source: The Centers for Disease Control and Prevention, National Cancer Institute, State Cancer Profiles, 2011-2015
<http://www.cancer-rates.info/ca/>

Heart Disease and Stroke

The age-adjusted mortality rate for ischemic heart disease is 82.1 deaths per 100,000 persons. This rate is lower than the Healthy People 2020 objective of 103.4 heart disease deaths per 100,000 persons. The age-adjusted rate of death from stroke is 25.5 deaths per 100,000 persons. This rate is lower than the Healthy People 2020 objective of 34.8 stroke deaths per 100,000 persons.

Ischemic Heart Disease and Stroke Mortality Rates, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Ischemic heart disease death rate	184	82.1	92.3	130.2
Stroke death rate	56	25.5	36.0	35.1

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2000 U.S. standard million.

Unintentional Injury

The age-adjusted death rate from unintentional injuries in the service area is 44.0 deaths per 100,000 persons. This rate is higher than the Healthy People 2020 objective of 36.4 unintentional injury deaths per 100,000 persons.

Unintentional Injury Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Unintentional injuries death rate	76	44.0	35.6	29.9

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2000 U.S. standard million.

Community Input – Unintentional Injuries

Stakeholder interviews identified the following issues, challenges and barriers related to unintentional injuries. Following are their comments, quotes and opinions edited for clarity:

- For the aging population, they have a higher incidence of slip and falls.
- Our number one issue is vehicle accidents.
- We have quite a few vehicle accidents as a result of substance use. Our DUIs are higher than they have ever been
- Texting and talking on the phone cause a lot of vehicle accidents here.
- People unintentionally hurt themselves through addiction all the time. Any time you are in an altered state you are in danger of hurting yourself by accident.
- Substance use is a big cause of accidents.
- We don't have a great network of trails and sidewalks, so people who attempt to stay fit with walking have challenges.

Chronic Lower Respiratory Disease

Chronic Lower Respiratory Disease (CLRD) and Chronic Obstructive Pulmonary Disease (COPD) include emphysema and bronchitis. The age-adjusted death rate for respiratory disease in the service area is 38.7 per 100,000 persons. This is higher than the Sacramento Metro rate (38.0 per 100,000 persons) and the state rate (32.6 per 100,000 persons).

Chronic Lower Respiratory Disease Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Chronic Lower Respiratory Disease death rate	84	38.7	38.0	32.6

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2000 U.S. standard million.

Alzheimer's Disease

The mortality rate from Alzheimer's disease is 29 deaths per 100,000 persons.

Alzheimer's Disease Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Alzheimer's disease death rate	64	29.0	34.3	33.3

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2000 U.S. standard million.

Pneumonia and Influenza

The age-adjusted death rate for pneumonia and influenza is 15.2 per 100,000 persons. This rate is higher than the Sacramento Metro area rate (13.1 per 100,000 persons) and the state rate (14.8 per 100,000 persons).

Pneumonia and Influenza Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Pneumonia and flu death rate	32	15.2	13.1	14.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2000 U.S. standard million.

Suicide

The suicide rate in the service area is 13.4 deaths per 100,000 persons. This rate is higher than the Healthy People 2020 objective for suicide death of 10.2 per 100,000 persons.

Suicide Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Suicide	25	13.4	12.8	10.4

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2000 U.S. standard million.

Liver Disease

The death rate from liver disease in the service area is 13.0 deaths per 100,000 persons. This is higher than the Healthy People 2020 objective of 8.2 deaths per 100,000 persons.

Liver Disease Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Liver disease death rate	28	13.0	12.1	12.3

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2000 U.S. standard million.

Diabetes

The age-adjusted mortality rate from diabetes is 10.8 deaths per 100,000 persons. This is lower than in the Sacramento Metro area rate (20.5 per 100,000 persons) or state rate (20.8 deaths per 100,000 persons).

Diabetes Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Diabetes death rate	22	10.8	20.5	20.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2000 U.S. standard million.

Kidney Disease

The death rate from kidney disease is 6.5 deaths per 100,000 persons. This is a higher rate than the Sacramento Metro area rate (3.5 per 100,000 persons) or state rates (8.2 deaths per 100,000 persons).

Kidney Disease Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Kidney disease death rate	14	6.5	3.5	8.2

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2000 U.S. standard million.

Homicide

The homicide rate in the service area is 2.8 deaths per 100,000 persons. This rate meets the Healthy People 2020 objective for homicide death of 5.5 per 100,000 persons.

Homicide Mortality Rate, Age-Adjusted, per 100,000 Persons

	Marshall Service Area		Sacramento Metro	California
	Number	Rate	Rate	Rate
Homicide	5	2.8	5.3	4.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2014-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2000 U.S. standard million.

Drug Use

The age-adjusted death rate from dependent and non-dependent drug use in El Dorado County was 23.6 deaths per 100,000 persons, which is higher than the state rate of 12.2 deaths per 100,000 persons.

Death Rate Due To Drug Use, Age-Adjusted, per 100,000 Persons, 2014-2016

	Rate
El Dorado County	23.6
California	12.2

Source: California Department of Public Health, per Conduent Healthy Communities Institute via <http://www.welldorado.org/>

The age-adjusted death rate from opioid overdoses in El Dorado County was 2.4 deaths per 100,000 persons, which was less than the state rate of 5.2 per 100,000 persons.

Opioid Drug Overdose Deaths, Age-Adjusted, per 100,000 Persons, 2017

	Rate
El Dorado County	2.4
California	5.2

Source: California Office of Statewide Health Planning and Development, via California Department of Public Health, California Opioid Overdose Surveillance Dashboard, 2017. <https://discovery.cdph.ca.gov/CDIC/ODdash/>

Acute and Chronic Disease

Hospitalization Rates by Diagnoses

At Marshall Medical Center, the top five primary diagnoses resulting in hospitalization were circulatory system, digestive system and respiratory system disorders, infections, and all pregnancies.

Hospitalization Rates by Principal Diagnosis, Top Ten Causes, 2017

	Marshall Medical Center
Circulatory system	13.2%
Digestive system	12.7%
Respiratory system	12.0%
Infections	9.9%
All pregnancies	8.5%
Musculoskeletal system	8.4%
Births	8.0%
Injuries/poisonings	6.9%
Genitourinary system	4.9%
Skin disorders	2.7%

Source: Healthy Communities Institute, California Office of Statewide Health Planning and Development, 2017.
http://report.oshpd.ca.gov/?DID=PID&RID=Facility_Summary_Report_Hospital_Inpatient

Emergency Room Rates by Diagnoses

At Marshall Medical Center, the top five primary diagnoses seen in the Emergency Department were injuries/poisonings, respiratory system, musculoskeletal system, nervous system and digestive system diagnoses.

Emergency Room Rates by Principal Diagnosis, Top Ten Causes, 2017

	Marshall Medical Center
Injuries/poisonings	24.2%
Respiratory system	10.9%
Musculoskeletal system	7.5%
Nervous system (including eye and ear disorders)	5.6%
Digestive system	5.3%
Genitourinary system	5.2%
Mental disorders	4.5%
Skin disorders	3.6%
Circulatory system	3.1%
Infections	1.5%

Source: Healthy Communities Institute, California Office of Statewide Health Planning and Development, 2017.
http://report.oshpd.ca.gov/?DID=PID&RID=Facility_Summary_Report_Hospital_Inpatient

Diabetes

Among adults in El Dorado County, 8.9% have been diagnosed as pre-diabetic and 6.3% have been diagnosed with diabetes. For adults with diabetes, 65.6% felt very confident that they could control their diabetes.

Adult Diabetes

	El Dorado County	California
Diagnosed pre-diabetic	8.9%	13.3%
Diagnosed with diabetes	6.3%	9.6%
Very confident to control diabetes	65.6%	58.7%
Somewhat confident	27.9%	32.9%
Not confident	7.5%*	8.4%

Source: California Health Interview Survey, 2014-2017. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

Diabetes is an Ambulatory Care Sensitive (ACS) condition. Hospitalizations for diabetes in El Dorado County occur at a rate of 11.5 per 10,000 persons. ER visits for diabetes occur at a rate of 14.9 per 10,000 persons. These rates are lower than the diabetes hospitalization and ER rates in California.

Diabetes Hospitalization and ER Rates, per 10,000 Persons

	El Dorado County	California
Hospitalization rate due to diabetes	11.5	17.2
Due to long-term complications	4.5	10.2
Due to short-term complications	6.5	5.9
Due to uncontrolled diabetes	0.4	0.9
ER rate due to diabetes	14.9	26.6
Due to long-term complications	6.9	12.4
Due to short-term complications	1.1	1.8
Due to uncontrolled diabetes	1.1	2.2

Source: California Office of Statewide Health Planning & Development, accessed via wELI Dorado County, 2013-2015. <http://www.welldorado.org/>. Age-adjusted annual rates per 10,000 hospitalizations.

High Blood Pressure

A co-morbidity factor for diabetes and heart disease is hypertension (high blood pressure). In El Dorado County, 25.1% of adults have been diagnosed with high blood pressure, which is lower than the state rate of 28.7%. 74.8% of persons with high blood pressure take medications for their condition.

High Blood Pressure

	El Dorado County	California
Diagnosed with high blood pressure	25.1%	28.7%
Takes medication for high blood pressure	74.8%	68.0%

Source: California Health Interview Survey, 2015-2017. <http://ask.chis.ucla.edu/>

The hospitalization rate for hypertension among adults in El Dorado County was 1.8 per 10,000 persons and the ER rate for hypertension was 17.3 per 10,000 persons. These rates are lower than found in the state.

Adult Hospitalization and ER Hypertension Rates, Age-Adjusted, per 10,000 Persons

	El Dorado County	California
Hospitalization rate due to hypertension	1.8	3.3
ER rate due to hypertension	17.3	26.4

Source: California Office of Statewide Health Planning & Development, accessed via wELI Dorado County, 2013-2015. <http://www.welldorado.org/> Age-adjusted annual rates per 10,000 hospitalizations.

Heart Disease

10.2% of El Dorado County adults have been diagnosed with heart disease, which is higher than the state rate of 6.2%. Among adults diagnosed with heart disease, 66.1% were given a management care plan by a health care provider. Of those El Dorado County adults with a management plan, 49.2% were very confident of their ability to control their condition.

Adult Heart Disease

	El Dorado County	California
Diagnosed with heart disease	10.2%*	6.2%
Has a management care plan	66.1%*	72.1%
Very confident to control condition**	49.2%	59.4%
Somewhat confident to control condition**	42.1%*	35.3%
Not confident to control condition**	8.7%*	5.3%

Source: California Health Interview Survey, 2013-2017. **2015-2016 <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

The age-adjusted rate of hospitalization for heart failure in El Dorado County was 29.8 per 10,000 persons. The ER visit rate for heart failure was 8.0 visits per 10,000 persons.

Adult Hospitalization and ER Heart Failure Rates, Age-Adjusted, per 10,000 Persons

	El Dorado County	California
Hospitalization rate due to heart failure	19.3	29.1
ER rate due to heart failure	8.0	9.4

Source: California Office of Statewide Health Planning & Development, accessed via wELI Dorado County, 2013-2015. <http://www.welldorado.org/> Age-adjusted annual rates per 10,000 hospitalizations.

Asthma

In El Dorado County, 19% of the population has been diagnosed with asthma. 18.3% of children have been diagnosed with asthma. 4.9% of those with diagnosed asthma went to the ER for asthma symptoms in the past year and 66.5% take medication daily to control their symptoms.

Asthma

	El Dorado County	California
Diagnosed with asthma, total population	19.0%	14.8%
Diagnosed with asthma, 0-17 years old	18.3%*	14.9%

	El Dorado County	California
ER visit in past year due to asthma, total population**	4.9%*	12.2%
ER visit in past year due to asthma, 0-17 years old**	9.4%*	16.9%
Takes daily medication to control asthma, total population	66.5%	44.6%
Takes daily medication to control asthma, 0-17 years old	53.0%*	40.2%

Source: California Health Interview Survey, 2013-2017 and **2012-2016. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Two Prevention Quality Indicators (PQIs) related to asthma include Chronic Obstructive Pulmonary Disease (COPD) or asthma in older adults, and asthma in younger adults. In 2016, hospitalization rates in El Dorado County for COPD and asthma among adults were 196.4 per 100,000 persons. The rate of hospitalizations in El Dorado County for asthma among young adults, ages 18 to 39, were 31.4 hospitalizations per 100,000 persons.

Asthma Hospitalization Rates, Age-Adjusted, per 100,000 Hospitalizations

	El Dorado County	California
COPD or asthma in older adults, 40+	196.4	265.6
Asthma in younger adults, 18 to 39	31.4	22.6

Source: California Office of Statewide Health Planning & Development, 2016. <https://oshpd.ca.gov/data-and-reports/healthcare-quality/ahrq-quality-indicators/>

Cancer

Cancer incidence rates are available at the county level. In El Dorado County, cancer rates are higher overall than at the state level. Most specific cancers also exceed state rates, particularly female breast (133.6 cancers per 100,000 persons) and melanoma of the skin (38.4 cancers per 100,000), as well as prostate, lung and bronchus, and urinary bladder cancers.

Cancer Incidence Rates, Age-Adjusted, per 100,000 Persons

	El Dorado County	California
Cancer all sites	431.5	395.2
Breast (female)	133.6	120.6
Prostate (males)	101.8	97.1
Lung and bronchus	47.7	42.2
Melanoma of the skin	38.4	21.6
Colon and rectum	35.1	35.5
In situ breast (female)	28.2	28.2
Corpus Uteri (females)	23.1	24.0
Urinary bladder	21.5	16.8
Non-Hodgkin lymphoma	20.2	18.2
Thyroid	14.5	12.8
Kidney and renal pelvis	14.0	13.9
Ovary (females)	13.1	11.6

	El Dorado County	California
Lymphocytic + myeloid and monocytic leukemia	12.9	11.8
Pancreas	12.5	11.4

Source: The Centers for Disease Control and Prevention, National Cancer Institute, State Cancer Profiles, 2011-2015
<http://www.cancer-rates.info/ca/> *Myeloid & Monocytic + Lymphocytic

HIV

The rate of new HIV cases in El Dorado County was 1.6 per 100,000 persons in 2016. 81.3% of persons with HIV are receiving care and 73.4% are virally suppressed.

HIV

	El Dorado County	California
Newly diagnosed cases	3	5,061
Rate of new diagnoses	1.6	12.9
Living Cases	192	132,405
Rate of HIV	104.2	336.4
Percent in care	81.3%	73.2%
Percent virally suppressed	73.4%	62.6%
Percent deceased in 2016	1.0%	1.3%

Source: California Department of Public Health, Office of AIDS, California HIV Surveillance Report, 2016.
https://www.cdph.ca.gov/Programs/CID/DOA/Pages/OA_case_surveillance_reports.aspx

Community Input – Chronic Diseases

Stakeholder interviews identified the following issues, challenges and barriers related to chronic diseases. Following are their comments, quotes and opinions edited for clarity:

- The cost is high to provide services for those who have chronic conditions. These people are frequent users of the system.
- There are barriers to get needed services. It might be difficult to see a specialist in a timely manner, because of impacted practices and transportation issues and education.
- People refuse to make adjustments to their lifestyles. They are not being active participants in their own health.
- We have an aging county, so chronic disease management is important and it can be costly for seniors on a fixed income.
- A large percentage of the population has diabetes, and heart disease raises the risk of diabetes.
- Chronic disease is often what people die from. From a public health perspective, we want to address it through lifestyle and environmental changes so people do not get these diseases in the first place.
- We need education and early detection.

Health Behaviors

Health Behaviors Ranking

County Health Rankings examine healthy behaviors and rank counties according to health behavior data. California's 57 evaluated counties (Alpine excluded) are ranked from 1 (healthiest) to 57 (least healthy) based on a number of indicators that include: adult smoking, obesity, physical inactivity, excessive drinking, sexually transmitted infections, and others. El Dorado County is ranked at 13 and is in the top quartile of California counties for health behaviors.

Health Behaviors Ranking

	County Ranking (out of 57)
El Dorado County	13

Source: County Health Rankings, 2018. www.countyhealthrankings.org

Health Status

Among the residents in El Dorado County, 15.4% rate themselves as being in fair or poor health. Among adults, 18 and older, 18.7% rate themselves as being in fair or poor health.

Health Status, Fair or Poor Health

	El Dorado County	California
All persons	15.4%*	17.3%
Adults 18+	18.7%*	21.2%

Source: California Health Interview Survey, 2015-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size

Disability

In El Dorado County, 34.1% of adults had a physical, mental or emotional disability, which was higher than state disability rate of 29.6%. 11.1% of adults said they had been unable to work for a year or more due to physical or mental impairment.

Adults with a Disability

	El Dorado County	California
Adults with a disability	34.1%	29.6%
Couldn't work 1 year or more due to impairment	11.1%	6.4%

Source: California Health Interview Survey, 2012-2016. <http://ask.chis.ucla.edu>

Sexually Transmitted Infections

In 2017, the rate of chlamydia in El Dorado County was 242.3 cases per 100,000 persons. The El Dorado County rate of gonorrhea was 56.4 cases per 100,000 persons. The rate of primary and secondary syphilis for El Dorado County was 5.4 cases per 100,000 persons. The rate of early latent syphilis was 1.6 cases per 100,000 persons.

STI Cases, Rate per 100,000 Persons

	El Dorado County		California
	Cases	Rate	Rate
Chlamydia	451	242.3	552.2
Gonorrhea	105	56.4	190.3
Primary and secondary syphilis	10	5.4	16.8
Early latent syphilis	3	1.6	17.8

Source: California Department of Public Health, STD Control Branch, 2017.

<https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CA-STD-2017-Data-Tables.pdf>

Teen Sexual History

In El Dorado County, 39.8% of teens, ages 14 to 17, whose parents gave permission for the question to be asked, reported they had never had sex.

Teen Sexual History, 14 to 17 Years Old

	El Dorado County	California
Never had sex	39.8%	82.9%

Source: California Health Interview Survey, 2015-2017. <http://ask.chis.ucla.edu/>

Overweight and Obesity

In El Dorado County, 36.2% of adults, 10.3% of teens, and 14.4% of children are overweight. Rates of overweight adults in El Dorado County exceed state rates.

Overweight

	El Dorado County	California
Adults, ages 18+	36.2%	35.0%
Teens, ages 12-17	10.3%*	17.3%
Children, ages under 12	14.4%*	14.3%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

22.6% of El Dorado County adults, 20 years old and older, are obese (30+ BMI). 7.9% of El Dorado County teens are obese (top 5% of BMI percentiles). The Healthy People 2020 objectives for obesity are a maximum of 30.5% of adults, age 20 and over, and 16.1% of teens. El Dorado County meets these goals.

Obesity

	El Dorado County	California
Adults, ages 20 and older	22.6%	27.3%
Teens, ages 12-17	7.9%*	16.7%

Source: California Health Interview Survey, 2013-2017. <http://ask.chis.ucla.edu/>

When adult obesity levels are tracked over time, El Dorado County has had a 4.4% increase in obesity over the prior 12 years.

Adult Obesity, 2005 - 2017

	2005	2007	2009	2011	2013	2015	2017	Change 2005-2017
El Dorado County	17.5%	15.8%	22.7%	22.6%	17.5%	14.2%	21.9%*	+4.4%
California	21.6%	23.2%	23.0%	25.8%	25.1%	28.4%	26.9%	+5.3%

Source: California Health Interview Survey, 2005, 2007, 2009, 2011-2012, 2013, 2015 & 2017. <http://ask.chis.ucla.edu>. *Statistically unstable due to sample size.

In El Dorado County, 72.9% of Latino adults are overweight or obese. 46.8% of Whites and 37.4% of Asians in the county are overweight or obese.

Adults, 20+ Years of Age, Overweight and Obesity by Race/Ethnicity

	El Dorado County	California
Asian	37.4%*	42.4%
Latino	72.9%	74.1%
White	46.8%	58.6%
African American	N/A	73.9%

Source: California Health Interview Survey, 2012-2016. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.
N/A = suppressed due to small sample size

The physical fitness test (PFT) for students in California schools is the FitnessGram®. One of the components of the PFT is measurement of body composition (measured by skinfold measurement, BMI, or bioelectric impedance). Children who do not meet the “Healthy Fitness Zone” criteria for body composition are categorized as needing improvement (overweight) or at health risk (obese).

In El Dorado County, the percentage of 5th grade students who tested as body composition needing improvement or at health risk was 26.1%, which is lower than the state rate (40.7%). Among 7th grade students in El Dorado County, 26.7% needed improvement or were at health risk. By 9th grade, there was a decrease in the percentage of students needing improvement or at health risk in El Dorado County (21.9%).

5th, 7th and 9th Graders; Body Composition, Needs Improvement and at Health Risk

School District	Fifth Grade		Seventh Grade		Ninth Grade	
	Needs Improvement	Health Risk	Needs Improvement	Health Risk	Needs Improvement	Health Risk
Buckeye Union Elem.	12.0%	9.2%	12.5%	8.3%	N/A	N/A
Camino Union Elem.	11.4%	18.1%	22.9%	22.8%	N/A	N/A
Gold Oak Union Elem.	16.3%	8.2%	15.9%	15.9%	N/A	N/A
Gold Trail Union Elem.	15.1%	4.7%	15.3%	10.6%	N/A	N/A
Latrobe	*	*	5.9%	5.9%	N/A	N/A
Mother Lode Union Elem	22.0%	15.6%	24.4%	16.8%	N/A	N/A
Pioneer Union Elem.	*	*	*	*	N/A	N/A

School District	Fifth Grade		Seventh Grade		Ninth Grade	
	Needs Improvement	Health Risk	Needs Improvement	Health Risk	Needs Improvement	Health Risk
Placerville Union Elem.	16.4%	19.3%	9.7%	7.1%	N/A	N/A
Pollock Pines Elem.	20.3%	14.8%	19.4%	22.5%	N/A	N/A
Rescue Union Elem.	15.2%	11.1%	14.2%	7.6%	N/A	N/A
Black Oak Mine Unified	11.5%	5.2%	9.6%	10.9%	18.4%	16.6%
El Dorado Union High	N/A	N/A	N/A	N/A	12.8%	5.7%
El Dorado County	15.2%	10.9%	15.1%	11.6%	13.9%	8.0%
California	19.2%	21.5%	19.1%	19.6%	19.2%	18.0%

Source: California Department of Education, Fitnessgram Physical Fitness Testing Results, 2016-2017. N/A = Not Applicable <http://data1.cde.ca.gov/dataquest/page2.asp?Level=District&submit1=Submit&Subject=FitTest> *Suppressed due to 10 or fewer students.

Community Input – Overweight and Obesity

Stakeholder interviews identified the following issues, challenges and barriers related to overweight and obesity. Following are their comments, quotes and opinions edited for clarity:

- We see children edging toward obesity in grade school and middle school. We are raising our kids on fast foods and soda drinks because mom and dad are so busy and stressed out. The kids are not outside and exercising, instead they are inside playing video games.
- In our safety net population there is rampant obesity because they lack adequate funding to get healthful food.
- There are a lot of kids who are overweight. Parents may not have the resources to make a special meal with more healthy options. We need more education on healthy eating and access to sports programs for the children.
- It is easier and more convenient to eat junk food.
- We are starting to change the food in school cafeterias, and we are trying to feed the students more healthy meals.
- We don't have a lot of specialists in our community who really focus on it and provide leadership to make it a priority.
- Incentivizing healthy food choices would be an important component to reducing obesity
- Being outdoors is encouraged here but we lack sidewalks and bike paths. There is a lack of areas to easily go out and take a walk.
- Obesity increases the risk associated with chronic diseases.

Fast Food

Adults, ages 18-64, consumed fast food at higher rates than children or seniors. In El Dorado County, 17.4% of adults, 12.1% of children and 9.5% of seniors consumed fast food three or more times per week.

Fast Food Consumption, Three or More Times a Week

	El Dorado County	California
Adult, ages 18-64	17.4%	25.5%
Children and youth, ages 0-17	12.1%*	18.7%
Seniors, ages 65+	9.5%*	11.0%

Source: California Health Interview Survey, 2012-2016.; <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

Soda/Sugar-Sweetened Beverage (SSB) Consumption

8.6% of children in El Dorado County consumed at least two glasses of non-diet soda the previous day, and 4.9% of county children consumed at least two glasses of a sugary drink other than soda the previous day. 7.8% of El Dorado County adults consumed non-diet sodas at a high rate (7 or more times per week). 69.3% of adults reported drinking no non-diet soda in an average week.

Soda or Sweetened Drink Consumption

	El Dorado County	California
Children and teens reported to drink at least two glasses of non-diet soda yesterday	8.6%*	5.3%
Children and teens reported to drink at least two glasses sugary drinks other than soda yesterday	4.9%*	9.1%
Adults who reported drinking non-diet soda at least 7 times weekly	7.8%	10.3%
Adults who reported drinking no non-diet soda weekly	69.3%	60.1%

Source: California Health Interview Survey, 2013-2017. http://ask.chis.ucla.edu *Statistically unstable due to sample size.

Adequate Fruit and Vegetable Consumption

Teens are less likely than children to eat five or more servings of fruit and vegetables a day. In El Dorado County, 49.9% of children and 22% of teens eat five or more servings of fruit and vegetables daily (excluding juice and potatoes).

Five or More Servings of Fruit and Vegetables, Daily

	El Dorado County	California
Children	49.9%	32.3%
Teens	22.0% *	24.4%

Source: California Health Interview Survey, 2013-2017. http://ask.chis.ucla.edu *Statistically unstable due to small sample size.

Access to Fresh Produce

86.1% of adults in El Dorado County reported they could usually or always find fresh fruit and vegetables in the neighborhood.

Communities with Good or Excellent Access to Fresh Produce

	El Dorado County	California
Neighborhood usually or always has fresh produce	86.1%	87.2%

Source: California Health Interview Survey, 2014-2017. http://ask.chis.ucla.edu

Physical Activity

Current recommendations for physical activity for adults include aerobic exercise (at least 150 minutes per week of moderate exercise, or 75 minutes of vigorous exercise) and muscle-strengthening (at least 2 days per week). For children and teens, the guidelines are at least an hour of aerobic exercise daily and at least 2 days per week of muscle-strengthening exercises. 49.8% of children in El Dorado County meet the aerobic requirement. 41.7% of El Dorado County adults walk for at least 150 minutes per week, compared to 38.3% of adults at the state level.

Aerobic Activity Guidelines Met

	El Dorado County	California
Adults meeting aerobic guideline (walking at least 150 minutes per week)**	41.7%	38.3%
Teens meeting aerobic guideline (at least one hour of aerobic exercise daily)	N/A	12.6%
Children meeting aerobic guideline (at least one hour of aerobic exercise daily)	49.8%*	28.4%

Source: California Health Interview Survey, 2013-2017; **2015-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size. N/A = suppressed due to small sample size.

One of the components of the physical fitness test (PFT) for students is measurement of aerobic capacity through run and walk tests. 73.9% of El Dorado County 5th graders were in the 'Healthy Fitness Zone' (HFZ) of aerobic capacity. Area ninth graders performed better, with 76.2% of El Dorado County 9th graders testing in the Healthy Fitness Zone.

5th and 9th Grade Students, Aerobic Capacity, Healthy Fitness Zone

	Fifth Grade	Ninth Grade
Buckeye Union Elementary School District	86.1%	N/A
Camino Union Elementary School District	61.4%	N/A
Gold Oak Union Elementary School District	67.3%	N/A
Gold Trail Union Elementary School District	79.1%	N/A
Latrobe School District	*	N/A
Mother Lode Union Elementary School District	67.0%	N/A
Pioneer Union Elementary School District	*	N/A
Placerville Union Elementary School District	67.3%	N/A
Pollock Pines Elementary School District	47.3%	N/A
Rescue Union Elementary School District	76.7%	N/A
Black Oak Mine Unified School District	59.4%	70.9%
El Dorado Union High School District	N/A	82.2%
El Dorado County	73.9%	76.2%
California	62.0%	61.9%

Source: California Department of Education, Fitnessgram Physical Fitness Testing Results, 2016-2017. N/A = Not Applicable <http://data1.cde.ca.gov/dataquest/page2.asp?Level=District&submit1=Submit&Subject=FitTest> *Suppressed due to 10 or fewer students.

5.4% of El Dorado County children and teens spent over five hours in sedentary activities after school on a typical weekday, and 14% spent 8 hours or more a day on sedentary activities on weekend days.

Sedentary Children

	El Dorado County	California
5+ hours spent on sedentary activities after school on a typical weekday - children and teens	5.4%*	13.0%
8+ hours spent on sedentary activities on a typical weekend day - children and teens	14.0%*	8.2%

Source: California Health Interview Survey, 2013-2017; **2012-2016. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

17.2% of El Dorado County adults reported not participating in any leisure-time physical activities within the past month.

Sedentary Adults

	El Dorado County	California
Adults who did not participate in any leisure-time physical activities in the previous month.	17.2%	17.9%

Source: CDC BRFSS as analyzed by the National Diabetes Surveillance System, via <http://www.welldorado.org/>

Mental Health

Mental Health

Among adults in El Dorado County, 7.9% were determined to have likely experienced serious psychological distress in the past year, while 15.5% said they had taken a prescription medication for two weeks or more for an emotional or personal problem during the past year. Of those adults who had experienced moderate or severe psychological distress, county adults were more likely to have experienced impairments in their family and social lives, household chores and work life when compared to state rates of impairment. Serious psychological distress was experienced in the past year by 17.4% of area teens, which was higher than the state level (10%).

Mental Health Indicators

	El Dorado County	California
Adults who had serious psychological distress during past year	7.9%	8.9%
Adults taken prescription medicine at least 2 weeks for emotional/mental health issue in past year	15.5%	11.2%
Adults: family life impairment during the past year**	15.2%	14.3%
Adults: social life impairment during the past year**	15.8%	14.4%
Adults: household chore impairment during the past year**	16.2%	13.2%
Adults: work impairment during the past year**	12.8%	11.7%
Teens who had serious psychological distress during past year**	17.4%*	10.0%

Source: California Health Interview Survey, 2015-2017; **2014-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Mental Health Care Access

30.9% of El Dorado County teens needed help for emotional or mental health problems in the past year, and 18.4% of teens had received psychological or emotional counseling in the past year.

20.4% of adults in El Dorado County needed help for emotional-mental and/or alcohol-drug related issues in the past year. Among El Dorado County adults who sought help, 67.7% received treatment. The Healthy People 2020 objective is for 72.3% of adults with a mental disorder to receive treatment (27.7% who do not receive treatment).

Tried to Access Mental Health Care in the Past Year

	El Dorado County	California
Teen who needed help for emotional or mental health problems in the past year	30.9%*	19.7%
Teen who received psychological or emotional counseling in the past year	18.4%*	12.4%

	El Dorado County	California
Adults who needed help for emotional-mental and/or alcohol-drug issues in past year**	20.4%	17.5%
Adults, sought/needed help and received treatment	67.7%	59.1%
Adults, sought/needed help but did not receive	32.3%	40.9%

Source: California Health Interview Survey, 2013-2017; **2015-2017 <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

Community Input – Mental Health

Stakeholder interviews identified the following issues, challenges and barriers related to mental health. Following are their comments, quotes and opinions edited for clarity:

- Several years ago, we cut funding to our mental health program. As a result, we've seen a lot of untreated mental illness and we've seen an increase in mental illness in the homeless population. Bipolar disorder and schizophrenia are the most common conditions we see in the homeless. These conditions worsen when people misuse drugs and alcohol.
- We need Spanish speaking therapists. There are a lot of mental health needs and all the clinics that provide services are always full.
- We have very limited mental health resources, especially for the homeless and veteran populations.
- There are people who have dementia as a result of severe substance use. And also, STDs can cause dementia.
- We don't have enough services. One of the biggest barriers is finding services, and there are not enough services for the number of people who need them.
- Kids deal with a lot of mental health issues. We need to educate service providers and get the kids the help they need. Kids need to know there is a safe place where they can get help.
- There continues to be a stigma associated with mental health.
- We don't have mental health care resources and providers at all levels of that continuum. There is not enough funding to go around and we do not have providers in our community.
- Education is a barrier, especially for those who are dealing with mental health challenges. They may not have the capacity to understand the resources available to them.
- We have a lot of people with mental health issues. Because of the rural nature of our county, some people can disappear or hide with their mental health issues. Sometimes they self-medicate with drugs or alcohol.
- There are not enough mental health services in our community. This is impacted by there not being enough psychiatrists in the county. There are not enough clinicians in general. Funding is an issue as well.
- It is very difficult to recruit high quality providers in rural communities. I hope the

psychiatrists can get integrated and not get isolated and only take limited referrals.

- Dual diagnoses of substance use or addiction and mental health go hand in hand in such a high percentage of cases, and pharmacological care is underrepresented at every agency in the county.
- The county contracts heavily with private providers for mental health services. When it comes to chronic mental health issues, we have very limited resources.

Substance Use and Misuse

Cigarette Smoking

The Healthy People 2020 objective for cigarette smoking among adults is 12%. In El Dorado County, 14% of adults smoke cigarettes. 77.8% of El Dorado County adult smokers were thinking of quitting in the next 6 months. 23.1% of El Dorado County adults had smoked an e-cigarette, which is higher than the state rate (16.7%).

Smoking, Adults

	El Dorado County	California
Current smoker	14.0%	11.5%
Former smoker	31.8%	21.7%
Never smoked	54.2%	66.8%
Thinking about quitting in the next 6 months**	77.8%	72.0%
Ever smoked an e-cigarette***	23.1%	16.7%

Source: California Health Interview Survey, 2015-2017; **2013-2017; ***2016-2017. <http://ask.chis.ucla.edu>

1.8% of teens in El Dorado County were current smokers. They were more likely to have tried an e-cigarette (13.2%) than teens at the state level (9.0%).

Smoking, Teens

	El Dorado County	California
Current cigarette smoker**	1.8%*	1.8%
Ever smoked an e-cigarette	13.2%*	9.0%

Source: California Health Interview Survey, 2014-2017; **2013-2017. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Alcohol

Binge drinking is defined as consuming a certain amount of alcohol within a set period of time. For males this is five or more drinks per occasion and for females it is four or more drinks per occasion. Among adults, 37.8% in El Dorado County had engaged in binge drinking in the past year. 14.5% of El Dorado County teens binge drank in the past month, which was higher than the state rate of teen binge drinking (4.1%).

Adult and Teen Binge Drinking, and Teen Alcohol Experience

	El Dorado County	California
Adult binge drinking, past year	37.8%	34.7%
Teen binge drinking, past month	14.5%*	4.1%
Teen ever had an alcoholic drink	41.2%*	22.9%

Source: California Health Interview Survey, 2015 adults, 2013-2017 pooled, for teens. <http://ask.chis.ucla.edu/> *Statistically unstable due to sample size.

Marijuana Use in Youth

Marijuana use was reported by 3.5% of 7th graders in El Dorado County, which was less

than half of California's rate (7.2%). 39% of 11th graders had tried marijuana.

Marijuana Use, Teens

	El Dorado County	California
Ever tried marijuana, 7 th grade	3.5%	7.2%
Ever tried marijuana, 9 th grade	15.0%	22.3%
Ever tried marijuana, 11 th grade	39.0%	36.0%
Used marijuana 0 days in past 30 days, 7 th grade	98.3%	95.8%
Used marijuana 1 day in past 30 days, 7 th grade	0.7%	1.5%
Used marijuana 2 days in past 30 days, 7 th grade	0.3%	0.7%
Used marijuana 3-9 days in past 30 days, 7 th grade	0.3%	0.7%
Used marijuana 10-19 days in past 30 days, 7 th grade	0.1%	0.5%
Used marijuana 20-30 days in past 30 days, 7 th grade	0.3%	0.8%
Used marijuana 0 days in past 30 days, 11 th grade	76.8%	82.0%
Used marijuana 1 day in past 30 days, 11 th grade	4.5%	4.6%
Used marijuana 2 days in past 30 days, 11 th grade	3.9%	2.9%
Used marijuana 3-9 days in past 30 days, 11 th grade	5.5%	4.2%
Used marijuana 10-19 days in past 30 days, 11 th grade	3.6%	2.4%
Used marijuana 20-30 days in past 30 days, 11 th grade	5.7%	3.9%

Source: WestEd, California Healthy Kids Survey, California Department of Education, 2013-2015. via <http://www.kidsdata.org>.

Opioid Use

The rate of hospitalizations due to opioid overdose in El Dorado County was 7.9 per 100,000 persons. This was higher than the state rate (7.6 per 100,000 persons).

Emergency Department visits due to opioid use in El Dorado County were 12.3 per 100,000 persons, which was higher than the state rate (10.3 per 100,000 persons). The rate of opioid prescriptions in El Dorado County was 715.3 per 1,000 persons. This rate is higher than the state rate of opioid prescribing (508.7 per 1,000 persons).

Opioid Use, Age-Adjusted, per 100,000 Persons (Prescriptions per 1,000 Persons), 2017

	El Dorado County	California
Hospitalization rate for opioid overdose (excludes heroin)	7.9	7.6
ER visits for opioid overdose (excludes heroin)	12.3	10.3
Opioid prescriptions, per 1,000 persons	715.3	508.7

Source: California Office of Statewide Health Planning and Development, via California Department of Public Health, California Opioid Overdose Surveillance Dashboard, 2017. <https://discovery.cdph.ca.gov/CDIC/ODdash/>

Community Input – Substance Use and Misuse

Stakeholder interviews identified the following issues, challenges and barriers related to substance use and misuse. Following are their comments, quotes and opinions edited for clarity:

- Marijuana is now legalized, which is going to make things even worse, especially with the younger generation in our schools.

- We don't have treatment in our county, so patients have to be sent to other areas.
- Kids are using and drugs are available everywhere.
- We have limited funding to address the substance use situation.
- The long-term implications and ramifications have not been addressed, we haven't fixed alcohol and tobacco addiction. Societally, we continue to increase our ability to access substances and substance use is a huge issue.
- There is crime involved with substance use. It is impacting every community.
- We have families who don't believe substance use is an issue. They don't view it as harmful.
- We are having issues with kids who are vaping and they are using marijuana. It is so accessible.
- My concern with the legalization of marijuana is that we will see a tremendous increase in the use and misuse of that drug, especially with our younger generation. Marijuana has been normalized and people don't see it as a problem.
- Substance use is an escalating problem in our community, we see it in the homeless population, and among those populations where drug trafficking is easy money.
- People end up in jail from drug use and sales, and a lot of it is related to opioids. The county medical contractor does not provide opioid treatment in jail. If you get thrown in jail and you are a user, you go through withdrawal in jail. If you are in jail long enough, you lose your tolerance and then you have a higher risk of overdosing when you are discharged.
- Funding dictates treatment. We need to create a better pathway to access funding to get quicker treatment. Sometimes it is in that moment of desperation when people are ready. If we could improve access care in that moment, more people would go to treatment.
- A lot of people get Hepatitis C because of IV drug use.
- People in a crisis situation self-medicate their way through the crisis. That is their coping mechanism.
- Vaping and e-cigarettes are two huge issues. How many places in the community sell these products and make them easily available?

Preventive Practices

Immunization of Children

The rates of compliance with childhood immunizations upon entry into Kindergarten were 89.3% for El Dorado County and 79.9% to 97.3% in the area's school districts. Five of the area school districts had rates below the California rate of 94.9% of students immunized.

Up-to-Date Immunization Rates of Children Entering Kindergarten, 2017-2018*

	Immunization Rate
Black Oak Mine Unified School District	86.2%
Buckeye Union Elementary School District	79.9%
Camino Union Elementary School District	96.4%
Gold Oak Union Elementary School District	86.8%
Gold Trail Union Elementary School District	94.6%
Mother Lode Union Elementary School District	97.3%
Pioneer Union Elementary School District	82.8%
Placerville Union Elementary School District	96.4%
Pollock Pines Elementary School District	95.8%
Rescue Union Elementary School District	96.9%
El Dorado County*	89.3%
California*	94.9%

Source: California Department of Public Health, Immunization Branch, 2017-2018. *For those schools where data were not suppressed due to privacy concerns over small numbers.

<https://data.chhs.ca.gov/dataset/school-immunizations-in-kindergarten-by-academic-year>

Flu Vaccines

The Healthy People 2020 objective is for 70% of the population to receive a flu shot. 38.6% of El Dorado County adults received a flu shot. Among area seniors, 60.4% had received a flu shot. Among children, 6 months to 17 years, 34.1% in El Dorado County received the flu shot. County flu vaccinations rate do not meet the Healthy People 2020 objective.

Flu Vaccine

	El Dorado County	California
Received flu vaccine, 65+ years old	60.4%	70.4%
Received flu vaccine, 18+ (includes 65+)	38.6%	42.6%
Received flu vaccine, 6 months-17 years old	34.1%*	51.3%

Source: California Health Interview Survey, 2014-2016. <http://ask.chis.ucla.edu>. *Statistically unstable due to sample size.

Mammograms

The Healthy People 2020 objective for mammograms is for 81% of women, 50 to 74 years old, to have a mammogram within the past two years. In El Dorado County, 83.7% of women obtained mammograms.

Mammogram in the Past 2 Years, Women, 50-74 Years

	El Dorado County	California
Mammogram in past 2 years	83.7%*	82.9%

Source: California Health Interview Survey, 2015-2016. <http://ask.chis.ucla.edu> *Statistically unstable due to sample size.

Pap Smears

The Healthy People 2020 objective for Pap smears is 93% of women, 21-65 years old, to be screened in the past three years. Among women in area cities, where values were available, 81.4% of women in Elk Grove, 81.6% of women in Sacramento and 84.6% of women in Roseville had the recommended Pap smear.

Pap Smear in the Past 3 Years, Women, 21-65 Years

	Sacramento	Roseville	Elk Grove	U.S.
Pap smear in past 3 years	81.6%	84.6%	81.4%	79.5%

Source: Centers for Disease Control, 500 Cities Project, 2016. https://nccd.cdc.gov/500_Cities/

Colorectal Cancer Screening

The current recommendation for colorectal cancer screening is for adults, ages 50-75 years, to have a Fecal Occult Blood Test (FOBT) within the previous year, a sigmoidoscopy in the past five years *and* an FOBT in the past three years, or a colonoscopy exam within the past 10 years. In area cities, where values were available, the reported rate of colorectal cancer screening was 68.6% in Sacramento, 72.9% in Roseville and 71.8% in Elk Grove. The Sacramento rates of screening do not meet the Healthy People 2020 objective for colorectal cancer screening of 70.5%.

Colorectal Cancer Screening, Adults, 50-75 Years

	Sacramento	Roseville	Elk Grove	U.S.
Screening sigmoidoscopy, colonoscopy or Fecal Occult Blood Test	68.6%	72.9%	71.8%	65.2%

Source: Centers for Disease Control, 500 Cities Project, 2016. https://nccd.cdc.gov/500_Cities/

Community Input – Preventive Practices

Stakeholder interviews identified the following issues, challenges and barriers related to preventive practices. Following are their comments, quotes and opinions edited for clarity:

- With the homeless, the concern is TB, MRSA, pneumonia and the flu. If there is no preventive medicine, there is a high risk of transmission among the homeless.
- All of our clients take their kids to get immunizations. They are very committed to their kids' health. They have Medi-Cal and they make consistent follow-up appointments. They are doing a good job with preventive care but they aren't eating healthy.
- You can never over-communicate and until people know they have a problem, many

don't pay attention to the communication.

- There are a lot of efforts in schools, at an early age, to get kids on track for a good lifestyle. The challenge is that the parents don't reinforce healthy choices in the home.
- For our aging population, falls are a big problem. We live in a hilly area and homes have a lot of stairs. This becomes a problem for people as they age in place.
- We need to invest in screening for dementia. Changes in behavior may be explained by the onset of dementia.
- People are afraid to see the doctor because they might be diagnosed with an illness.
- For lower and middle families that have huge housing costs, perhaps they do not use health care services as they should. Because of cost and a lack of transportation, people do not have the ability to fully access preventive health care.
- We do have a proportion of those in our county that express independence in many ways and one of those ways is opposition to vaccinations.
- Insurance companies have begun to cover some preventive services, but they have not gone far enough. You could be overweight, and Medicare does not cover you to see a dietician for obesity or prediabetes in that way.
- First 5 does an excellent job in the community providing early intervention for vaccinations, education and prevention activities for children that are under age of 5 years old.

Attachment 1. Benchmark Comparisons

Where data were available, health and social indicators in the service area were compared to the Healthy People 2020 objectives. The **bolded items** are indicators that did not meet established Healthy People 2020 objectives; non-bolded items met or exceeded the objectives.

Service Area	Healthy People 2020 Objectives
High school graduation rate 93.3% to 94.1%	High school graduation rate 87%
Child health insurance rate 97.1%	Child health insurance rate 100%
Adult health insurance rate 92.4%	Adult health insurance rate 100%
Persons unable to obtain medical care 8.9%	Persons unable to obtain medical care 4.2%
Ischemic heart disease deaths 82.1 per 100,000	Ischemic heart disease deaths 103.4 per 100,000
Cancer deaths 150.3 per 100,000	Cancer deaths 161.4 per 100,000
Stroke deaths 25.5 per 100,000	Stroke deaths 34.8 per 100,000
Unintentional injury deaths 44.0 per 100,000	Unintentional injury deaths 36.4 per 100,000
Liver disease deaths 13.0 per 100,000	Liver disease deaths 8.2 per 100,000
Homicides 2.8 per 100,000	Homicides 5.5 per 100,000
Suicides 13.4 per 100,000	Suicides 10.2 per 100,000
On-time (1 st Trimester) prenatal care 83.2% of women	On-time (1 st Trimester) prenatal care 78% of women
Low birth weight infants 6.2% of live births	Low birth weight infants 7.8% of live births
Infant death rate 2.3 per 1,000 live births	Infant death rate 6.0 per 1,000 live births
Adult obese, age 20+ 22.6%	Adult obese, age 20+ 30.5%
Teens obese 7.9%	Teens obese 16.1%
Adults who are sedentary 17.2%	Adults who are sedentary 32.6%
Adults received needed mental health treatment 67.7%	Adults received needed mental health treatment 72.3%
Adults engaging in binge drinking 37.8%	Adults engaging in binge drinking 24.2%
Cigarette smoking by adults 14.0%	Cigarette smoking by adults 12%
Annual adult influenza vaccination, 18+ 38.6%	Annual adult influenza vaccination, 18+ 70%
Pap smears 81.4% to 84.6%	Pap smears 93%, 21-65-year-olds, screened in the past three years
Mammograms 83.7%	Mammograms 81.1%, 50-74 year-olds, screened in the past two years
Colorectal Cancer Screenings 68.6% to 72.9%	Colorectal Cancer Screenings 70.5%, 50-75 year-olds, screened per guidelines

Attachment 2. Stakeholder Interviewees

Name	Title	Organization
Josh Clark	Program Manager	Marshall Clinically Assisted Recovery and Education Services
Ken Earle	Deputy Fire Chief	Diamond Springs Fire Department
Shiva Frentzen	Supervisor, Cameron Park, Shingle Springs	El Dorado County Board of Supervisors
Lisa Hartley, RN	Certified Diabetes Educator	Marshall Medical Center
Jon Lehrman, MD	Medical Director	ACCEL Access El Dorado
Gabrielle Marchini	Director of Curriculum, Instruction, and Accountability	El Dorado County Office of Education
Sean McCartney	Chief Executive Officer	Boys & Girls Club El Dorado County
Lori Parlin	Supervisor, Georgetown	El Dorado County Board of Supervisors
Roberta Rimbault, MS	Board of Supervisors, Member at Large	Area Commission on Aging
William Roby	Executive Director	El Dorado Community Foundation
Terri Stratton	Executive Director	El Dorado Community Health Center
Wendy Thomas	Placerville City Council Member and Former Mayor	El Dorado County Board of Supervisors
Brian Veerkamp	Supervisor, Placerville	El Dorado County Board of Supervisors

Attachment 3. Resources to Address Needs

Community stakeholders and residents identified community resources potentially available to address the identified health needs. This is not a comprehensive list of all available resources. For additional resources refer to 211 El Dorado County at <http://www.211eldorado.org/home/>.

Health Need	Community Resources
Access to health care	Community Care Network El Dorado Community Foundation El Dorado Community Health Center ACCEL (Access El Dorado) El Dorado Community Health Centers Shingle Springs Health & Wellness Center Green Valley Community Church Promotora Latino Outreach Program
Chronic diseases	ACEs Collaborative Cameron Park Community Center Commission on Aging El Dorado Community Health Centers El Dorado Continuum of Care Plan El Dorado County ACEs Connection El Dorado County Senior Services El Dorado Hills Senior Center National Institute on Aging New Morning Youth & Family Services Placerville Senior Center Promotora Latino Outreach Program Senior Nutrition Program Senior Shuttle Shingle Springs Health & Wellness Sierra Renaissance Society South Lake Tahoe Senior Center Tobacco-Use Prevention Education Program Cancer Resource Center
Community safety	ACEs Collaborative Commission on Aging EDSO HOT: El Dorado County Sherriff's Homeless Outreach Team El Dorado County ACEs Connection El Dorado County Community Services El Dorado Fire Safe Council Friends of El Dorado County Seniors Nomadic Shelter Safe-D of El Dorado County Inc.
Environmental pollution	Active Transportation Plan of El Dorado County Transportation Commission Environmental Protection Agency Promotora Latino Outreach Program

Health Need	Community Resources
Food insecurity	Boys & Girls Clubs El Dorado County Food Bank Green Valley Community Church Pioneer Bible Church Placer Food Bank Placerville Seventh Day Adventist Church Senior Nutrition Program Upper Room
Mental health	Boys & Girls Clubs Center for Violence-Free Relationships El Dorado County Behavioral Health NAMI: National Alliance on Mental Illness New Morning Youth and Family Services
Overweight and obesity	Boys & Girls Clubs First 5 El Dorado Tops Club, Inc. Weight Watchers WIC
Preventive practices	Community Hubs El Dorado Community Health Centers El Dorado County Public Health First 5 El Dorado Motherload Rehabilitation Enterprises, Inc. Promotora Latino Outreach Program Shingle Springs Health & Wellness Center
Substance use and misuse	Al-Anon Alateen Alcohol Anonymous American Legion Cares Clinic Narcotics Anonymous Progress House Recovery in Action Summitview Child and Family Services The Promise House
Unintentional injury	ACEs Collaborative Active Transportation Plan of El Dorado County Transportation Commission El Dorado County ACEs Connection First 5 El Dorado Safe-D of El Dorado County Inc.

Attachment 4. Report of Progress

Marshall developed and approved an Implementation Strategy to address significant health needs identified in the 2016 Community Health Needs Assessment. The hospital addressed: access to behavioral health services, disease prevention, management, and treatment, and access to high quality health care and services through a commitment of community benefit programs and charitable resources.

To accomplish the Implementation Strategy, goals were established that indicated the expected changes in the health needs as a result of community programs and education. Strategies to address the priority health needs were identified and measures tracked. The following section outlines the health needs addressed since the completion of the 2016 CHNA.

Access to Behavioral Health Services

A psychiatrist and two social workers were hired in 2017 to increase access to behavioral health services. Additionally, Marshall opened a psychiatry clinic.

Since December 2016, Marshall has participated in a joint effort with the El Dorado Community Health Center (EDCHC) and the California Healthcare Foundation to move people off opioid dependency through Medication Assisted Treatment (MAT) for opioid addiction. When a patient presents in Marshall's Emergency Department in withdrawal, the patient is offered participation in MAT, which includes a prescription of suboxone to alleviate withdrawal symptoms. The patient is also referred to outpatient therapy, currently through the EDCHC. They are put on daily medications and given psychotherapy. The robust program includes group sessions, counseling, and social services. Of the 27 patients referred to the program, 26 followed up with their outpatient appointment. Thirteen of the 26 are still attending and the others have moved on to another program.

Access El Dorado (ACCEL) is a safety net provider network of multiple health care agencies in El Dorado County. ACCEL's work on care pathway development included a referral pathway for primary care providers to refer appropriate patients for pediatric mental health services. Marshall provided ACCEL with financial support in FY 17 and FY18.

In 2016, 22% of ED visits and hospitalizations were for mental health conditions. In 2017, the rate decreased to 18% and in 2019 the rate was 19%, which indicated a positive result from the community mental health efforts. The rate of patients served within 30 days of receiving a non-emergency referral from a primary care provider to a

mental health provider went from a 0% referral rate to 23% of referred patients being seen by a mental health provider within 30 days for nonemergency services. In 2018, the volume of referred patients more than doubled and 16% of referred patients were seen by a mental health provider within 30 days.

Marshall implemented two Rapid Process Improvement Workshops in 2017, the first focused on the identification of high risk opioid patients and creating a standard process to identify and evaluate patients in the Emergency Department for potential addictions. The second workshop focused on safe treatment for chronic pain patients in the outpatient setting, establishing a standard process for prescribing and refilling controlled substances in the primary care clinics.

Marshall participated in the ACCEL Provider Capacity Workgroup Meetings, which included discussion of substance abuse/community and agency planning and collaboration and the El Dorado Community Health Center's "C3 Clinic" (Complex Care Clinic for patients needing Medication Assisted Treatment of Substance Abuse Disorder). Through ACCEL, area health care providers have access to education through a partnership with UC Davis' Project Extension for Community Healthcare Outcomes (ECHO).

Marshall promoted community education programs for substance abuse prevention and treatment. This included education on drug and alcohol addiction for El Dorado High School students.

In 2018, Marshall introduced Safety Care Associates in the ER. These associates develop a non-threatening, working relationship with our mental health patients.

In March, 2017 Marshall made the decision to open a Medication Assisted Treatment clinic in Placerville. In November, 2018, Marshall CARES (Clinically Assisted Recovery & Education Services) was implemented to support treatment for patients with substance dependency, including alcohol, tobacco, stimulants, opioids, benzodiazepines and other sedative hypnotics. Clinic services include comprehensive medication assisted treatment with a physician, counseling, case management and behavioral health.

Disease Prevention, Management and Treatment

Marshall's Community Care Network (CCN), was developed to help people coordinate their health care after they are discharged from the hospital. A team made up of social workers, registered nurses, RN case managers, pharmacists, diabetes educators, dietitians, home health nurses and others helped patients navigate their care. In 2017

and 2018, CCN assisted 189 patients.

The Congestive Heart Active Telephone Treatment (CHATT) program helped patients manage congestive heart failure. CHATT worked to improve patients' quality of life, reduce CHF complications and keep them out of the hospital. In 2017, CHATT served 97 patients and in 2018, CHATT served 108 patients.

The Cancer Resource Center supported persons with cancer with system navigation, education, support groups, social services and emotional support. The Cancer Resource Center also provided no-cost mammograms to those who qualified, as well as transportation assistance. In 2017, the Cancer Resource Center provided support to 423 patients, provided transportation services 328 times, provided patient navigation services to 330 patients and funded 20 mammograms. In 2018, the Cancer Resource Center provided support to 350 patients, provided transportation services 320 times, and funded 25 mammograms.

Marshall provided collaborative disease prevention and health education efforts within the community, which focused on women's health events, youth programs, and local community task forces.

In 2017, Marshall participated in several collaborative efforts with community partners including ACCEL, El Dorado Community Health Center and El Dorado County Public Health in areas relating to access to care, disease prevention and management.

In 2017 and 2018, Marshall also hosted or participated in the following activities: health fairs, free FIT testing for colon cancer, flu shot clinics, women's health screenings, Affair of the Heart cardiology/health screenings, fall prevention education and workshops, stroke education, Healthy Babies lactation classes, cancer education, and low cost/no cost mammograms

Access to Health Care

To increase access to health care, added five new primary care providers, including one Spanish speaking provider to Marshall Sierra Primary Medicine in Placerville. In 2018, Marshall added four pediatric providers and three family medicine providers. Marshall has implemented a standard process to ensure that patients discharged from the hospital have an appointment with a primary care provider for follow up. Since implementing this process in 2017 and 2018, 99% of Marshall patients, who were discharged from the hospital, have a follow-up appointment scheduled.