



Community Health Needs Assessment

2019

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Executive Summary

MemorialCare Saddleback Medical Center is a nonprofit hospital and member of MemorialCare, an integrated health care delivery system. As required by state and federal law, Saddleback Medical Center 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 Orange Coast Medical Center. The health needs identified in this report help to guide the hospital's community benefit activities.

Community Definition

Saddleback Medical Center (Saddleback) is located at 24451 Health Center Drive, Laguna Hills, California 92653. The service area is located in Orange County and includes 40 ZIP Codes, representing 17 cities or communities. Saddleback determines the service area by assigning ZIP Codes based on patient origin for hospital discharges. More than 70% of admissions come from these ZIP Codes.

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, maternal and infant health, leading causes of death, disability and 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 two focus groups that engaged 22 people and 14 interviews with 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.

Significant Health Needs

The community stakeholders were asked to prioritize the significant 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 and resulted in an overall average for each health need. Among the interviewees and focus group participants, mental health, access to care, preventive practices, and substance use and misuse were ranked as the top five priority needs in the service area. A brief description of the significant health needs listed in priority order follows:

1. Mental health – In Orange County, 6.5% of adults experienced serious psychological distress in the past year. 15.6% of adults needed help for emotional, mental health, alcohol or drug issues; however, 85.5% of those who sought or needed help did not receive treatment. Stakeholders noted there continues to be a stigma associated with mental health.
2. Access to health care – Health insurance coverage is considered a key component to accessing health care. The service area insurance rate is 92.5%. Among children in the service area, 97% have insurance coverage, 85.9% of non-senior adults are insured and 99.3% of seniors have health care insurance. A community stakeholder noted health care coverage and access are two separate things. We've seen improved coverage for a large part of the population. But we still have challenges obtaining access to providers who accept Medi-Cal and to specialists.
3. Preventive practices – 40.9% of Orange County residents have received a flu shot. 37.0% of children age 0-17, and 68.4% of seniors in Orange County received flu shots. The Healthy People 2020 objective is for 70% of the population to receive a flu shot. Most Orange County school districts have high rates of compliance with childhood immunizations upon entry into kindergarten (95.7%). A community provider noted for the populations who do not have access to health coverage, there are gaps to get preventive services and they tend to only seek help when there is an urgent need.
4. Substance use and misuse – 7.5% of teens in Orange County had tried marijuana, cocaine, sniffing glue, other drugs and 3.8% had used marijuana in the past year. These rates of reported drug use are less than state rates of teen drug use. Opioid overdose deaths in Orange County were 7.5 per 100,000 persons, which was a higher death rate than in the state (4.5 per 100,000 persons). Stakeholders noted vaping among youth is becoming widespread.

Also, opioids are contributing to the substance misuse problem in Orange County.

5. Senior health – Among Orange County Medicare beneficiaries (adults 65 and older), 31.4% have been treated for arthritis or osteoarthritis. 19.4% of seniors have been treated for chronic kidney disease. 10.9% have been treated for Alzheimer’s disease or dementia and 9.1% have been treated for osteoporosis. These rates are higher than in the state. Stakeholders noted the lack of transportation for seniors limits their ability to access health and social services and contributes to their isolation.
6. Heart disease/stroke – In the service area, the age-adjusted mortality rate for ischemic heart disease (a sub-category of heart disease) was 80.5 deaths per 100,000 persons. The age-adjusted rate of death from stroke was 32.2 deaths per 100,000 persons. A co-morbidity factor for diabetes, heart disease and stroke is hypertension (high blood pressure). In Orange County, 22.4% of adults have been diagnosed with high blood pressure.
7. Diabetes – Diabetes is a leading cause of death. Diabetes disproportionately affects minority populations and the elderly. In the service area, the diabetes death rate was 7.9 per 100,000 persons. This was lower than the county rate (15.1 per 100,000 persons). In the service area, the rates of adults with diabetes range from 5.2% in San Clemente 92673 to 9.2% in Laguna Woods.
8. Dental care – In Orange County, 69.0% of adults saw a dentist within the past six months compared to the state (73.5%). Among children in Orange County, 77.5% of children saw a dentist within the past six months compared to the state (79.5%). Stakeholders noted the cost of dental care is high. Denti-Cal does not cover many procedures.
9. Overweight and obesity – In Orange County, 33.3% of the adult population reported being overweight. The county adult rate of overweight is lower than the state rate of 34.8%. 17.7% of Orange County teens are overweight compared to the state (18.1%). 23.3% of adults and 28.3% of teens are obese. The Healthy People 2020 objectives for obesity are 30.5% of adults aged 20 and over, and 16.1% of teens. The rate of obese teens exceeds the state rate (22.6%) and the Healthy People 2020 objective.
10. Asthma/Lung disease – In Orange County, 15.2% of the population has been diagnosed with asthma. Among county youth, 22.0% have been diagnosed with asthma, and 8.5% have visited the ER as a result of their asthma. In the service area, the rates of adults with asthma range from 11.8% in Lake Forest to 17.9% in Laguna Beach.
11. Liver disease – In the service area, the liver disease death rate was 6.9 per 100,000 persons. This rate met the Healthy People 2020 objective for liver disease death (8.2 per 100,000 persons).

Report Adoption, Availability and Comments

This CHNA report was adopted by the MemorialCare Orange County Boards of Directors in June 2019.

This report is widely available to the public on the hospital's web site, <https://www.memorialcare.org/content/community-benefit>. Written comments on this report can be submitted to communitybenefit@memorialcare.org.

Introduction

Background and Purpose

MemorialCare is a nonprofit integrated health care delivery system that includes five hospitals – Long Beach Medical Center, Miller Children's & Women's Hospital Long Beach, Community Medical Center Long Beach¹, Orange Coast Medical Center, and Saddleback Medical Center; award-winning medical groups – MemorialCare Medical Group and Greater Newport Physicians; Seaside Health Plan; and convenient outpatient health centers, imaging centers, surgical centers and dialysis centers throughout Orange and Los Angeles Counties.

MemorialCare Saddleback Medical Center is a full service, nonprofit hospital in Laguna Hills, California. Saddleback Medical Center has been named one of the top 50 U.S. Cardiovascular Hospitals, American Heart Association/American Stroke Association Stroke Care Gold Plus, Leapfrog Group's Top "A" Grade for Patient Safety and Quality, Magnet® Designation for Nursing Excellence and Thrombectomy-Capable Stroke Center certification.

Saddleback Medical Center provides a wide range of services and innovative specialty programs through its Centers of Excellence, which include the MemorialCare Heart & Vascular Institute, the MemorialCare Cancer Institute, the MemorialCare Breast Center, the MemorialCare Joint Replacement Center, Spine Health Center, robotic-assisted surgery program and The Women's Hospital at MemorialCare Saddleback Medical Center.

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

Saddleback Medical Center (Saddleback) is located at 24451 Health Center Drive, Laguna Hills, California 92653. The service area is located in Orange County and includes 40 ZIP Codes, representing 17 cities or communities. Saddleback determines

¹ Due to an active earthquake fault line under the hospital and California's impending seismic regulations for acute care hospitals, Community Medical Center Long Beach closed on July 3, 2018.

the service area by assigning ZIP Codes based on patient origin for hospital discharges. More than 70% of admissions come from these ZIP Codes.

Saddleback Medical Center Service Area

City	ZIP Code
Aliso Viejo	92656, 92698
Capistrano Beach	92624
Dana Point	92629
Foothill Ranch	92610
Irvine	92602, 92603, 92604, 92606, 92612, 92614, 92616, 92617, 92618, 92619, 92620, 92623, 92650, 92697
Ladera Ranch	92694
Laguna Beach	92651, 92652
Laguna Hills	92653, 92654
Laguna Niguel	92677, 92607
Laguna Woods	92637
Lake Forest	92630
Mission Viejo	92690, 92691, 92692
Rancho Santa Margarita	92688
San Clemente	92672, 92673, 92674
San Juan Capistrano	92675, 92693
Trabuco Canyon	92678, 92679
Tustin	92782

Project Oversight

The Community Health Needs Assessment process was overseen by:
 Jan Gameroz, MSN, RN
 Manager of Community Outreach
 Saddleback 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, Denise Flanagan, BA and Trixie Hidalgo, MPH. 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, maternal and infant health, leading causes of death, disability and disease, health behaviors, mental health, substance use and misuse, and preventive practices. When available, data sets are presented in the context of Orange County and California to help frame the scope of an issue as it relates to the broader community.

Sources of data include: U.S. Census American Community Survey, California Department of Public Health, California Health Interview Survey, Orange County's Healthier Together, 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

Saddleback Medical Center conducted focus groups and interviews to gather information and opinions from persons who represent the broad interests of the community served by the medical center.

Interviews

Fourteen (14) interviews were completed from January to March, 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 the Orange

County Health Care Agency.

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

Focus Groups

Two focus groups were conducted in February 2019 and engaged 22 persons. The focus group meetings were hosted by trusted community organizations. An organization contact was available to answer any questions at each focus group. At the beginning of each focus group, the purpose of the focus group and the community assessment were explained, the participants were assured their responses would not be attributed to them as responses would be aggregated. The focus group discussions were voice recorded for ease of documenting the discussion.

Before beginning the discussion, the facilitator asked for oral consent from each of the participants that they wished to participate in the focus group and agreed to be voice recorded. The focus group participants were asked to share their perspectives related to topics within the following areas:

- Biggest issues and health concerns facing the community.
- Issues, challenges, barriers faced by community members specific to the identified health needs.
- Special populations or groups most affected by a health need.
- Programs and resources available to address the health needs.
- Other comments or concerns.

A list of the stakeholder interview respondents, their titles and organizations and focus group participants 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.memorialcare.org/content/community-benefit>. 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 afflicted by 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 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 that 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 care
- Chronic diseases (asthma/lung disease, diabetes, heart disease/stroke, liver disease)
- Dental care
- Mental health
- Overweight and obesity
- Preventive practices/injury prevention
- Senior health
- Substance use and misuse

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 and focus groups 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 interviewees 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, senior health and diabetes received

the highest rankings for severe and significant impact on the community. Mental health and substance use and misuse had the highest scores for worsened over time. Mental health, overweight and obesity, and dental health had the highest scores for insufficient or absent resources.

Significant Health Need	Severe and Significant Impact on the Community	Worsened over Time	Insufficient or Absent Resources
Access to care	62.5%	12.5%	37.5%
Asthma/lung disease	75.0%	33.3%	33.3%
Dental care	57.1%	40.0%	83.3%
Diabetes	87.5%	37.5%	62.5%
Heart disease/stroke	80.0%	20.0%	40.0%
Liver disease	No Data	50.0%	50.0%
Mental health	100%	85.7%	100%
Overweight and obesity	75.0%	50.0%	85.7%
Preventive practices/injury prevention	71.4%	14.3%	28.6%
Senior health	100%	25.0%	75.0%
Substance use and misuse	71.4%	66.7%	71.4%

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 and focus group participants, mental health, access to care, preventive practices, and substance use and misuse were ranked as the top five priority needs in the service area. Calculations from the community stakeholders resulted in the following prioritization of the significant health needs.

Prioritization of Health Needs

Significant Health Need	Rank Order Score (Total Possible Score of 4)
Mental health	3.95
Access to care	3.86
Preventive practices/injury prevention	3.76
Substance use and misuse	3.76
Senior health	3.70
Heart disease/stroke	3.67
Diabetes	3.63
Dental care	3.62
Overweight and obesity	3.43
Asthma/lung disease	3.14
Liver disease	3.00

Resources to Address Significant Health Needs

Through the interview and focus group 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, Saddleback 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 health care, chronic diseases, and mental health/behavioral health through a commitment of community benefit programs and charitable resources. The impact of the actions Saddleback Medical Center used to address these significant health needs can be found in Attachment 4.

Demographics

Population

The population in the Saddleback (SMC) service area is 919,008.

Population by ZIP Code

	Number
92602 – Irvine	29,326
92603 – Irvine	23,625
92604 – Irvine	27,830
92606 – Irvine	23,343
92612 – Irvine	32,944
92614 – Irvine	25,741
92617 -- Irvine	15,765
92618 – Irvine	29,156
92620 – Irvine	48,191
92697 – Irvine	36
92624 – Capistrano Beach	7,113
92629 – Dana Point	27,053
92630 – Lake Forest	63,043
92610 – Foothill Ranch	11,083
92637 – Laguna Woods	17,636
92651 – Laguna Beach	24,950
92653 – Laguna Hills	28,765
92656 – Aliso Viejo	52,615
92657 – Newport Beach	12,124
92672 – San Clemente	42,259
92673 – San Clemente	33,536
92675 – San Juan Capistrano	38,333
92677 – Laguna Niguel	66,341
92678 – Trabuco Canyon	494
92679 – Trabuco Canyon	33,362
92688 – Rancho Santa Margarita	45,955
92691 – Mission Viejo	48,900
92692 – Mission Viejo	48,324
92694 – Ladera Ranch	32,806
92782 -- Tustin	28,359
SMC Service Area	919,008
Orange County	3,205,771
California	39,695,753

Source: Orange County's Healthier Together, Claritas, 2018. www.ochealthiertogether.org

*Data not available for 92616, 92619, 92623, 92650, 92652, 92654, 92698, 92674, 92693, 92607, 92677, 92690

Gender

In the Saddleback (SMC) service area, 48.9% of the population is male and 51.1% is female.

Population by Gender

	SMC Service Area	Orange County	California
Male	48.9%	49.4%	49.6%
Female	51.1%	50.6%	50.4%

Source: Orange County's Healthier Together, Claritas, 2018. www.ohealthiertogether.org

Age

Children and youth make up 20.5% of the service area population, 63.6% are adults, and 15.9% are seniors. The service area has a higher percentage of seniors than found in the county (12.5%) and the state (12.3%).

Population by Age

	SMC Service Area		Orange County		California	
	Number	Percent	Number	Percent	Number	Percent
Age 0-4	50,181	5.2%	189,814	5.9%	2,510,642	6.3%
Age 5-17	143,252	15.3%	521,288	16.3%	6,648,281	16.7%
Age 18-24	90,016	12.1%	300,120	9.4%	3,832,735	9.7%
Age 25-44	233,555	24.6%	874,523	28.2%	11,101,459	28.8%
Age 45-64	260,415	26.9%	857,886	27.7%	10,003,365	21.2%
Age 65+	146,096	15.9%	413,945	12.5%	4,893,517	12.3%

Source: Orange County's Healthier Together, Claritas, 2018. www.ohealthiertogether.org

Race/Ethnicity

In the service area, over half of the population (56.7%) is White. 20.0% of the population are Asians. Latinos or Hispanics make up 17.1% of the population in the service area. Black/African Americans are 1.5% of the population. The remaining races/ethnicities comprise 4.7% of the service area population.

Race/Ethnicity

	SMC Service Area		Orange County		California	
	Number	Percent	Number	Percent	Number	Percent
White	507,511	56.7%	1,277,083	39.8%	14,571,546	37.8%
Asian	179,235	20.0%	651,711	20.3%	5,719,102	14.8%
Hispanic or Latino	153,242	17.1%	1,114,153	34.8%	14,534,449	37.7%
Other or Multiple	38,563	4.3%	94,054	3.0%	1,253,380	3.2%
Black/African American	13,597	1.5%	53,261	1.7%	2,199,398	5.7%
American Indian/Alaskan Native	1,759	0.2%	6,405	0.2%	162,534	0.4%

	SMC Service Area		Orange County		California	
	Number	Percent	Number	Percent	Number	Percent
Native Hawaiian/Pacific Islander	1,350	0.2%	9,104	0.2%	143,353	0.4%

Source: Orange County's Healthier Together, Claritas, 2018. www.ochealthiertogether.org.

Citizenship

In the Saddleback service area, 25.4% of residents are foreign born and 10.5% of the foreign born residents are not citizens. This is a lower percentage of foreign born residents and those who are not citizens than found in the county and state.

Foreign Born Residents and Citizenship

	SMC Service Area	Orange County	California
Foreign born	25.4%	32.1%	28.7%
Of foreign born, not a US citizen	10.5%	15.4%	14.5%

Source: U.S. Census Bureau, American Community Survey, 2012-2016, B05001, B05002. <http://factfinder.census.gov>

Language

In the service area, 66.8% of residents speak English only in the home. An Asian or Pacific Islander language is spoken in 13.5% of service area homes. Spanish is spoken in 9.7% of the homes in the service area. 1.7% of residents in the service area speak an Indo-European language in the home.

Language Spoken at Home, Population 5 Years and Older

	SMC Service Area	Orange County	California
Speaks only English	66.8%	54.4%	56.0%
Speaks Asian/Pacific Islander language	13.5%	14.3%	9.8%
Speaks Spanish	9.7%	26.2%	28.8%
Speaks other Indo-European language	8.3%	4.1%	4.4%
Speaks other language	1.7%	1.0%	1.0%

Source: Orange County's Healthier Together, Claritas, 2018. www.ochealthiertogether.org.

Among students enrolled in area school districts, 14.2% are English learners, lower than the percentage of English learners in the county (23.5%) and state (20.4%).

English Learners

	Percent
SMC Service Area	14.2%*
Orange County	23.5%
California	20.4%

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

*Includes the School Districts of Irvine, Capistrano Beach, Laguna Beach, and Tustin

Veterans

In the service area, 5.6% of the population, 18 years and older, are veterans.

Veterans

	Percent
SMC Service Area	5.6%
Orange County	5.0%
California	5.9%

Source: U.S. Census Bureau, American Community Survey, 2012-2016, S2101. <http://factfinder.census.gov>

Social Determinants of Health

Social and Economic Factors Ranking

The County Health Rankings rank counties according to health factors data. Social and economic indicators are examined as a contributor to the health of a county's residents. California's 57 evaluated counties (Alpine excluded) are ranked according to social and economic factors with 1 being the county with the best factors to 57 for the county with the poorest factors. This ranking examines: unemployment, high school graduation rates, children in poverty, income inequality, social support, and others. In 2018, Orange County ranked sixth, putting the county in the top 10% of all California counties on social and economic factors.

Social and Economic Factors Ranking

	County Ranking (out of 57)
Orange County	6

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

Poverty

Poverty thresholds are used for calculating all official poverty population statistics. They are updated each year by the Census Bureau. From 2012-2016, the federal poverty threshold for one person ranged from \$11,170 to \$11,880, and for a family of four from \$23,050 in 2012 to \$24,300 in 2016.

Among the service area population, 10.6% are living at or below the 100% poverty level, and 18.0% are living at or below the 200% poverty level (low income). Poverty levels in the Saddleback service area are lower than county and state levels

Ratio of Income to Poverty Level

	Below 100% Poverty	Below 200% Poverty
SMC Service Area	10.6%	18.0%
Orange County	12.5%	29.0%
California	15.8%	35.2%

Source: U.S. Census Bureau, American Community Survey, 2012-2016, S1703. <http://factfinder.census.gov>

In the service area, 9.3% of children live in poverty. 7.3% of seniors, and 14.8% of female head of households (HoH) with children live in poverty. The rate of poverty among females head of household living with children is higher in the service area than in the county (14.4%).

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

	Children Under 18 Years Old	Seniors	Female HoH with Children
SMC Service Area	9.3%	7.3%	14.8%
Orange County	22.9%	13.1%	14.4%
California	23.7%	12.8%	17.0%

Source: U.S. Census Bureau, American Community Survey, 2012-2016, DP03. <http://factfinder.census.gov>

The National School Lunch Program is a federally assisted meal program providing free, nutritionally balanced lunches to children whose families meet eligibility income requirements. The number of students eligible for the free and reduced price lunch program is one indicator of the socioeconomic status within a region. The county rate of student eligibility was 49.2% in the 2017-2018 school year.

Eligibility for Free and Reduced Price Meals (FRPM) Program

	Students Eligible for FRPM
Orange County	49.2%
California	60.1%

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

Unemployment

The unemployment rate in the service area was 5.2% in 2018. Orange County's unemployment rate averaged 2.6% in 2018.

Unemployment Rate, 2018 Average

	Unemployment Rate
SMC Service Area	5.2%
Orange County	2.6%
California	3.8%

Source: California Employment Development Department, [Labor Market Information, 2018](#). Not seasonally adjusted.

Households

The median household income for the service area is \$106,137. This is higher than the median income for the county (\$84,901) and state (\$71,061).

Median Household Income

	Median Household Income
SMC Service Area	\$106,137
Orange County	\$84,901
California	\$71,061

Source: Orange County's Healthier Together, Claritas, 2018. www.ochealthiertogether.org

In the SMC service area there are 326,056 households. 32.4% of households are 2-

person households and 27.6% of households are 4 or more person households.

Household Size

Household Size	SMC Service Area	Orange County	California
1 person households	23.5%	21.3%	23.6%
2 person households	32.4%	29.0%	28.6%
3 person households	16.5%	17.0%	16.4%
4+ person households	27.6%	33.0%	31.4%

Source: Orange County's Healthier Together, Claritas, 2018. www.ohealthiertogether.org.

Over half of Orange County renters (55.2%) spend 30% or more of their household income on housing. Among Orange County seniors, 32.3% spend 30% or more of their household income on housing.

Spending 30% or More of Income on Housing

	Orange County	California
Renters who spend \geq 30% of income on housing	55.2%	56.5%
Seniors who spend \geq 30% of income on housing	32.3%	32.3%

Source: U.S. Census Bureau, American Community Survey, 2012-2016; Conduent Healthy Communities www.ohealthiertogether.org.

Seniors Living Alone

In the SMC service area, Laguna Woods has the highest percentage of seniors living alone (43.6%). In Rancho Santa Margarita, over one-third of seniors (33.9%) live alone.

Seniors, 65+, Living Alone

	Percent
92602 – Irvine	21.6%
92603 – Irvine	24.9%
92604 – Irvine	22.3%
92606 – Irvine	25.1%
92612 – Irvine	27.0%
92614 – Irvine	22.1%
92617 -- Irvine	29.2%
92618 – Irvine	24.7%
92620 – Irvine	16.0%
92624 – Capistrano Beach	25.5%
92629 – Dana Point	26.8%
92630 – Lake Forest	21.2%
92610 – Foothill Ranch	10.0%
92637 – Laguna Woods	43.8%
92651 – Laguna Beach	23.0%

	Percent
92653 – Laguna Hills	16.9%
92656 – Aliso Viejo	28.5%
92657 – Newport Beach	10.3%
92672 – San Clemente	31.0%
92673 – San Clemente	15.2%
92675 – San Juan Capistrano	25.7%
92677 – Laguna Niguel	20.6%
92678 – Trabuco Canyon	17.2%
92679 – Trabuco Canyon	11.2%
92688 – Rancho Santa Margarita	33.9%
92691 – Mission Viejo	16.0%
92692 – Mission Viejo	23.1%
92694 – Ladera Ranch	16.8%
92782 -- Tustin	18.7%
Orange County	21.2%
California	23.1%

Source: Orange County's Healthier Together, Claritas, 2018. www.ochealthiertogether.org

*Data not available for 92616, 92619, 92623, 92650, 92652, 92654, 92697, 92698, 92674, 92693, 92607, 92677, 92690

In the service area, 2.8% of residents receive SSI (Supplemental Security Income), 1.5% receives Public Assistance, and 2.5% receives Food Stamps/SNAP. These rates of public assistance are lower than county and state rates.

Household Supportive Benefits

	SMC Service Area	Orange County	California
Households	326,056	1,017,012	12,807,387
Supplemental Security Income (SSI)	2.8%	4.3%	6.2%
Public Assistance	1.5%	2.2%	3.8%
Food stamps/SNAP	2.5%	6.4%	9.4%

Source: U.S. Census Bureau, American Community Survey, 2012-2016, DP03. <http://factfinder.census.gov>

Food Insecurity

Food insecurity is an economic and social indicator of the health of a community. The U.S. Department of Agriculture (USDA) defines food insecurity as a limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire these foods in socially acceptable ways. The percentage of food insecurity in Orange County is 9.6%, which is lower than the state rate (11.7%). 16.3% of children live in households experiencing food insecurity and 23% of seniors experience food insecurity.

Food Insecurity

	Orange County	California
Food insecurity rate	9.6%	11.7%
Children (<18 years) living in households that experience food insecurity*	16.3%	19.0%
Adults (65+) that experience food insecurity*	23.0%	35.3%

Feeding America, 2016, www.ohealthiertogether.com

*Source: Orange County's Healthier Together, Claritas, 2018. www.ohealthiertogether.org.

Educational Attainment

In the service area, 5.2% of adults have not graduated from high school, 12% of area adults are high school graduates and 63.4% are college graduates.

Educational Attainment of Adults, 25 Years and Older

	SMC Service Area*	Orange County	California
Population 25 years and older	635,424	2,100,472	25,554,412
Less than 9 th grade	2.7%	8.7%	9.9%
Some high school, no diploma	2.5%	6.8%	8.0%
High school graduate	12.0%	17.4%	20.6%
Some college, no degree	19.4 %	20.9%	21.7%
Associate degree	8.2%	7.8%	7.8%
Bachelor degree	33.9%	24.8%	20.1%
Graduate or professional degree	21.3%	13.7%	11.9%

Source: U.S. Census Bureau, American Community Survey, 2012-2016, S1501. <http://factfinder.census.gov>

*Source: Orange County's Healthier Together, Claritas, 2018. www.ohealthiertogether.org.

High school graduation rates are the number of high school graduates who graduated four years after starting ninth grade. In Orange County, the high school graduation rate is 88.8%, which is higher than the state average (82.7%). The county rate exceeds the Healthy People 2020 objective for high school graduation of 87%.

High School Graduation Rates, 2016-2017

	Percent
Orange County	88.8%
California	82.7%

Source: California Department of Education DataQuest, Cohort Outcome Data for Class of 2016-2017.

<http://dq.cde.ca.gov/dataquest/>

Homelessness

The US Department of Housing and Urban Development (HUD) conducts an annual 'point-in-time' count (PIT) of homeless, with data reported by Continuums of Care (CoC). The total number of people experiencing homelessness during PIT counts collected in Orange County during 2017 was 4,792. Recent trends show rates of homelessness are increasing in Orange County, along with the percentage of homeless who are unsheltered (5% increase).

Homeless Annual Count, Santa Ana/Anaheim/Orange County CoC

Year of Count	Total Homeless	Sheltered	Unsheltered
2015	4,452	51%	49%
2017	4,792	46%	54%

Source: Orange County CoC Homeless Count & Survey Report/2-1-1 Orange County by Focus Strategies, July 2017
<https://www.211oc.org/images/PIT-Final-Report-2017-072417.pdf>

Among public school children, 5.8% are homeless, which is higher than the state rate of 4.4% homeless public school children.

Homeless Public School Students

	Percent
Orange County	5.8%
California	4.4%

Source: Kids Data, 2016. <https://www.kidsdata.org/region/365/orange-county/summary#37/family-economics>

Transportation

Orange County workers spend, on average, 27.2 minutes a day commuting to work. 78.5% of workers drive alone to work and 39.7% of solo drivers have a long commute. Few workers commute by public transportation (2.4%) or walk to work (1.9%).

Transportation/Commute to Work

	Orange County	California
Mean travel time to work (in minutes)	27.2	28.4
Solo drivers with a long commute	39.7%	39.3%
Workers commuting by public transportation	2.4%	5.2%
Workers who drive alone	78.5%	73.5%
Workers who walk to work	1.9%	2.7%

Source: U.S. Census Bureau, American Community Survey, 2012-2016. Conduent Healthy Communities, www.ochealthiertogether.org

Crime and Violence

Violent crimes include homicide, rape, robbery and assault. Crime statistics indicate Orange County has lower rates (240.5 per 100,000 persons) of violent crime than the state (450.7 per 100,000 persons).

Violent Crimes, per 100,000 Persons

	Number	Rate
Orange County	7,267	240.5
California	178,553	450.7

Source: California Department of Justice, Office of the Attorney General, 2017. <http://oag.ca.gov/crime/cjisc/stats/crimes-clearance>

Calls for domestic violence are categorized as with or without a weapon. The majority of domestic violence calls in Orange County did not involve a weapon (70.5%).

Domestic Violence Calls

	Total	Without Weapon	With Weapon
Orange County	8,452	70.5%	29.4%
California	169,362	55.6%	44.3%

Source: California Department of Justice, Office of the Attorney General, 2017. <http://oag.ca.gov/crime/cjsc/stats/domestic-violence>

Health Access

Health Insurance

Health insurance coverage is considered a key component to accessing health care. The service area insurance rate is 92.5%. Among children in the service area, 97.0% have insurance coverage, 85.9% of non-senior adults are insured, and 99.3% of seniors have health care insurance.

Insurance Coverage

	Total Population	Children, 0-17	Adults, 18-64	Seniors, 65+
SMC Service Area	92.5%	97.0%	85.9%	99.3%
Orange County	87.7%	95.0%	82.8%	98.4%
California	87.4%	94.6%	82.4%	98.6%

Source: U.S. Census Bureau, American Community Survey, 2016, S2701. <http://factfinder.census.gov>

Source: Orange County's Healthier Together, Claritas, 2018. www.ochealthiertogether.org. *SMC Service Area by City or ZIP Code where available: Lake Forest, Mission Viejo, Laguna Niguel, San Clemente, Newport Beach, Irvine, Tustin.

In the service area, health insurance coverage ranges from a low of 81.2% in Trabuco Canyon (92678) to a high of 98.4% in Laguna Woods (92637).

Insurance Coverage

	Percent
92602-Irvine	94.7%
92606-Irvine	94.9%
92604-Irvine	92.2%
92606-Irvine	91.9%
92610-Foothill Ranch	96.6%
92612-Irvine	92.4%
92614-Irvine	95.0%
92617-Irvine	96.0%
92618-Irvine	94.4%
92620-Irvine	94.3%
92624-Capistrano Beach	86.8%
92629-Dana Point	90.1%
92630-Lake Forest	90.0%
92637-Laguna Woods	98.4%
92651-Laguna Beach	94.0%
92653-Laguna Hills	90.9%
92656-Aliso Viejo	94.1%
92657-Newport Beach	95.2%
92672-San Clemente	89.4%
92673-San Clemente	94.0%

	Percent
92675-San Juan Capistrano	85.1%
92677-Laguna Niguel	94.7%
92678-Trabuco Canyon	81.2%
92679-Trabuco Canyon	96.5%
92688-Rancho Santa Margarita	94.0%
92691-Mission Viejo	92.8%
92692-Mission Viejo	94.8%
92694-Ladera Ranch	96.8%
92782-Tustin	92.5%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, S2701. <http://factfinder.census.gov>

In Orange County, 49.1% of the population has employment-based health insurance. 24.9% are covered by Medi-Cal and 9.1% of the population has coverage that includes Medicare. Orange County has higher rates of employment-based and private purchase insurance than found in the state.

Insurance Coverage by Type of Coverage

	Orange County	California
Total Insured	87.7%	87.4%
Employment-based	49.1%	45.5%
Medi-Cal	24.9%	31.0%
Medicare and others	9.1%	9.2%
Private purchase	7.6%	6.4%
Medicare and Medi-Cal	3.4%	4.6%
Other public	1.9%	1.7%
Medicare Only	1.5%	1.5%

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

Sources of Care

Residents who have a medical home and access to a primary care provider improve continuity of care and decrease unnecessary Emergency Room (ER) visits. In Orange County, 82.9% of the population reported a regular source for medical care. The source of care for 64.6% of residents is a doctor's office, HMO, or Kaiser. Clinics and community hospitals are the source of care for 15.9% in the county, while 17.1% of county residents have no regular source of care.

Sources of Care

	Orange County	California
Have usual place to go when sick or need health advice	82.9%	85.4%
Dr. office/HMO/Kaiser Permanente	64.6%	58.7%
Community clinic/government clinic/community hospital	15.9%	23.7%

	Orange County	California
ER/Urgent Care	0.8%	1.8%
Other	1.6%	1.2%
No source of care	17.1%	14.6%

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

Accessing health care can be affected by the availability of providers in the community. According to the 2018 County Health Rankings, Orange County ranks 21 out of 58 California counties for clinical care, which includes health insurance coverage, ratios of population-to-care providers and preventive screening practices, among others.

The ratio of individuals to primary care providers is 1,050:1. There is a ratio of 920 persons to one dentist in Orange County and 440 persons to one mental health care provider.

Ratio of Population to Health Care Providers

	Orange County	California
Primary care physicians	1,050:1	1,280:1
Dentists	920:1	1,210:1
Mental health providers	440:1	320:1

Source: County Health Rankings, 2018.

<http://www.countyhealthrankings.org/app/california/2017/rankings/orange/county/outcomes/overall/snapshot>

Delayed care may also indicate reduced access to care; 10.7% of county residents reported delaying or not seeking medical care and 8.0% reported delaying or not getting their prescription medication in the last 12 months.

Delay of Care

	Orange County	California
Delayed or didn't get medical care in last 12 months	10.7%	9.8%
Delayed or didn't get prescription medicine in last 12 months	8.0%	9.0%

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

Use of the Emergency Room

An examination of ER use can lead to improvements in providing community-based prevention and primary care; 19.5% of residents in Orange County visited an ER in the past 12 months. Adults, ages 18-64, visited the emergency room at higher rates (21.2%) than other age groups.

Use of Emergency Room

	Orange County	California
Visited ER in last 12 months	19.5%	21.4%
0-17 years old	12.2%	19.7%
18-64 years old	21.2%	21.9%
65 and older	20.9%	22.0%
<100% of poverty level	21.9%	26.3%
<200% of poverty level	16.1%	21.7%

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

Community Input – Access to Care

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

- The insurance deductibles are so high people think twice before going to the doctor.
- The high cost of medications results in people not taking their medications until they don't feel well.
- The copay to see the doctor costs \$30. If you have to go to a specialist, it is an additional copay of \$50. Also, you must miss time off from work to go to the doctor. It is almost like they set up the system to discourage people not to use it.
- It is difficult to find a specialist who will take Medi-Cal. Once you do find one, there are long waits because he/she is booked solid.
- Social, economic disparities, language, social isolation are barriers. And for seniors, transportation and a lack of caregivers all are barriers to care
- Health care coverage and access are two separate things. We've seen improved coverage for a large part of the population. But we still have challenges obtaining access to providers who accept Medi-Cal, and specialists for frail children or seniors.
- Immigration status is an issue. They are not documented and they have difficulty finding accessible health care they can afford.
- Seniors are reluctant to access health care services due to the cost.
- We have community clinics and some take patients based on their income. Very few take patients who don't have a social security card or do not have papers.
- For many of our clients the cost of accessing health care is overwhelming.
- There are transportation issues in the county. This is a big social determinate that has a strong influence on access to care.
- For undocumented adults, they continue to be served by a fragmented community of care and have limited access to resources. We also have a whole population of young adults who don't access services unless they are sick, even though they have access to preventive services.
- Older adults need a transportation service that picks them up in the home and brings them to care services. The Access bus provides transportation, but there is 15-

minute wait coming and going and usually they are late or early, and they drop off at the curb by the office or the house. If a person is in a wheelchair or walker, they need more assistance and the wait period is difficult for older adults.

- Seniors are unable to get to the doctor or medical centers for lack of transportation and they are aging in place and they get older, and are not driving any longer, so this is a huge problem. These are frail individuals when they can no longer get around they are homebound.
- Our patients tend to work in the service and hospitality industries. We find they may miss their appointments because they cannot take time off work without losing pay. They lack transportation to get to a doctor’s appointment.

Dental Care

In Orange County, 69.0% of adults saw a dentist within the past six months compared to the state (73.5%).

Time since Last Dental Visit, Adult

	Orange County	California
6 months ago or less	69.0%	73.5%
More than 6 months up to 1 year ago	8.1%	9.5%
More than 1 year up to 2 years ago	1.4%	3.0%

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

Among children in Orange County, 77.5% of children saw a dentist within the past 6 months compared to the state (79.5%)

Time since Last Dental Visit, Children, Ages 2-11

	Orange County	California
6 months ago or less	77.5%	79.5%
More than 6 months up to 1 year ago	10.0%	10.7%
More than 1 year up to 2 years ago	1.7%	3.4%

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

Community Input – Dental Care

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

- My dentist is open until 7 pm, and every time I go to the dentist, I’m able to go after work. I don’t have to miss any work to go.
- The cost of dental care is high. Denti-Cal does not cover many procedures.
- There is a lack of dental care coverage. People who have not taken care of their oral health will see the negative side effects as they grow older.

- Poor dental health impacts nutrition and, as a result, people may not be able to eat well or what they want or should be eating.
- Historically, the homeless do not have access to appropriate dental care. Many are missing a significant number of teeth. They look different and it becomes a barrier to enter the workforce, even if they are housed.
- Regular dental check-ups are expensive. People don't have dental insurance and they are afraid to go. They don't want to lose teeth, so they just ignore it.
- There is a link between poor oral hygiene and heart disease.
- Dental care is cost-prohibitive for many people. We get emergency calls from people when they try to apply for a job and they are missing a front tooth or they have impacted wisdom teeth.
- There are very few dental providers in Orange County who are willing to see adults on a sliding fee or even accept Denti-Cal.
- Kids have more access to dental services. Really, it is adults who have gone without. For adults, it is more expensive to care for dental.
- I cannot recall the last time a mobile dental van came to South Orange County.
- We need programs at the school so parents and families can learn about what they can do to be more responsible for their own dental health.
- This is a considerable issue in the senior population. They do not have dental insurance and it is extremely expensive. Poor dental care causes hygiene issues and impacts other health conditions.

Maternal and Infant Health

Births

On average, from 2013-2015, there were 10,116 births in the Saddleback service area.

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 296.2 per 1,000 live births, which is lower than county (440.6 per 1,000 live births) or state (524.0 per 1,000 live births) rates.

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

	SMC Service Area	Orange County	California
Delivery paid by public insurance or self-pay	296.2	440.6	524.0

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2013-2015, and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001

Health Status

93.3% of women in Orange County were in good to excellent health before pregnancy. 20.3% of pregnant women in Orange County had inadequate weight gain and 35.3% had excessive weight gain during pregnancy. 11.7% of Orange County women experienced food insecurity during pregnancy.

Health Status Before and During Pregnancy

	Orange County	California
Good to excellent health before pregnancy	93.3%	92.0%
Inadequate weight gain during pregnancy	20.3%	18.2%
Excessive weight gain during pregnancy	35.5%	41.2%
Food insecurity during pregnancy	11.7%	15.6%

Source: California Department of Public Health, Maternal Infant Health Assessment, 2013-2015.

<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Data-and-Reports.aspx?Name=SnapshotBy>

Prenatal Care

Among pregnant women in the service area, 88.4% entered prenatal in the first trimester. This exceeds the Healthy People 2020 objective of 78% of women entering prenatal care in the first trimester.

Mother Received Early Prenatal Care, per 1,000 Live Births

	SMC Service Area	Orange County
Early prenatal care	88.4%	86.7%

Source: Calculated by Gary Bess Associates using California Department of Public Health Birth Profiles by ZIP Code of Residence, 2013-2015, and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001

Teen Birth Rate

Teen births occurred at a rate of 14.1 (1.4%) per 1,000 live births in the service area. This rate is lower than the teen birth rate in the county (41.5 per 1,000 live births) and state (55.4 per 1,000 live births).

Births to Teenage Mothers (Under Age 20), 3-Year Average, per 1,000 Live Births

	SMC Service Area	Orange County	California
Births to teen mothers	1.4%	4.2%	5.5%

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

Mother Smoked Regularly During Pregnancy

The rate of mothers who smoked regularly during pregnancy in the service area was 1.3% (12.9 per 1,000 live births), which is higher than the county rate (1.1%) and lower than the state rate (2.4%).

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

	SMC Service Area	Orange County	California
Smoked during pregnancy	1.3%	1.1%	2.4%

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

Premature Birth

The rate of premature birth, occurring before the start of the 37th week of gestation, in the service area is 4.2% (41.5 per 1,000 live births). This rate of premature birth is lower than the county rate (4.7%) and state rate (5.3%).

Premature Birth, Before Start of 37th Week or Unknown, per 1,000 Live Births

	SMC Service Area	Orange County	California
Premature birth	4.2%	4.7%	5.3%

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

Low Birth Weight

Babies born at a low birth weight are at higher risk for disease, disability and possibly death. The service area rate of low birth weight babies is 5.9% (59.3 per 1,000 live births). This is lower than the county (6.3%) and state (6.8%) rates. The service area rate meets the Healthy People 2020 objective of 7.8% of births being low birth weight.

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

	SMC Service Area	Orange County	California
Low birth weight	5.9%	6.3%	6.8%

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

Infant Mortality

Infant mortality reflects deaths of children under one year of age. The infant death rate in the county is 2.9 deaths per 1,000 live births. This rate is lower than the California rate of 4.5 deaths per 1,000 live births. Orange County fares better than the Healthy People 2020 objective of 6.0 deaths per 1,000 live births.

Infant Mortality Rate

	Rate
Orange County	2.9
California	4.5

Source: California Department of Public Health, 2015 <https://letsgethealthy.ca.gov/goals/healthy-beginnings/reducing-infant-mortality/>

Breastfeeding

Data on breastfeeding are collected by hospitals on the Newborn Screening Test Form. Breastfeeding rates at Saddleback Medical Center indicate 95.5% of new mothers breastfeed and 72.6% breastfeed exclusively. The rates of breastfeeding are higher than the average rates among hospitals in the county and state.

In-Hospital Breastfeeding

	Any Breastfeeding		Exclusive Breastfeeding	
	Number	Percent	Number	Percent
Saddleback Medical Center	2,256	95.5%	1,715	72.6%
Orange County	34,573	94.8%	24,111	66.1%
California	384,637	93.9%	285,146	69.6%

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>

There are ethnic/racial differences noted in breastfeeding rates of mothers who deliver at Saddleback Medical Center. Among White mothers, 96.7% initiated breastfeeding and 77% breastfed exclusively. 93.6% of Asian mothers chose to breastfeed and 62.9% breastfed exclusively. Among Latina mothers, 94.2% initiated breastfeeding and 67.2% breastfed exclusively. Among mothers of multiple races, 95.2% initiated breastfeeding and 76.8% breastfed exclusively.

In-Hospital Breastfeeding, Saddleback Medical Center, by Race/Ethnicity

	Any Breastfeeding		Exclusive Breastfeeding	
	Number	Percent	Number	Percent
White	1,334	96.7%	1,063	77.0%
Asian	381	93.6%	256	62.9%
Latino/Hispanic	342	94.2%	244	67.2%
Multiple races	119	95.2%	96	76.8%
Saddleback Medical Center	2,256	95.5%	1,715	72.6%

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>

Leading Causes of Death

Mortality Rates

Cancer, heart disease and Alzheimer’s disease were the top three causes of death in the hospital service area. Stroke was the fourth leading cause of death and unintentional injuries was the fifth leading cause of death. The leading causes of death are presented 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.

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

	SMC Service Area		Orange County	California	Healthy People 2020 Objective
	Number	Rate	Rate	Rate	Rate
Cancer	3,688	134.7	145.2	158.4	161.4
Heart disease	3,586	129.2	148.3	161.5	No objective
Ischemic heart disease	2,229	80.5	94.6	103.8	103.4
Alzheimer’s disease	1,092	39.3	40.1	35.5	No objective
Stroke	886	32.2	37.4	38.2	34.8
Unintentional injuries	617	23.6	23.8	31.8	36.4
Chronic Lower Respiratory Disease	630	23.0	30.1	36.0	Not comparable
Pneumonia and influenza	402	14.7	17.2	16.8	No objective
Suicide	287	10.8	10.0	11.0	10.2
Kidney Disease	226	8.2	9.6	8.5	Not comparable
Diabetes	217	7.9	15.1	22.6	Not comparable
Liver Disease	188	6.9	11.4	13.8	8.2
Homicide	28	1.1	1.9	4.9	5.5
HIV	18	0.7	0.9	1.9	3.3

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

Cancer

In the service area, the age-adjusted cancer mortality rate was 134.7 per 100,000 persons. This was lower than the state rate of 158.4 per 100,000 persons. The cancer death rate in the service area meets the Healthy People 2020 objective of 161.4 per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Cancer death rate	3,688	134.7	145.2	158.4

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

The five-year average cancer mortality rate for all cancer sites in Orange County was 137.8 per 100,000 persons, lower than the California rate of 146.6 per 100,000 persons. In the county, the rates of death from pancreatic cancer, ovarian cancer, brain cancer, leukemia, and melanoma exceeded the state rates of death.

Cancer Mortality Rates, Age-Adjusted, per 100,000 Persons, 2011-2015

	Orange County	California
Cancer all sites	137.8	146.6
Lung and bronchus	29.6	31.9
Breast (females)	18.7	20.1
Prostate (males)	18.2	19.6
Colon and rectum	11.6	13.2
Pancreas	10.7	10.3
Ovary (females)	7.4	7.1
Liver and intrahepatic bile duct	6.9	7.6
Non-Hodgkin lymphoma	4.7	5.4
Brain	4.5	4.3
Urinary bladder	3.9	3.9
Stomach	3.7	4.0
Myeloid and monocytic leukemia	3.5	3.3
Kidney and renal pelvis	3.1	3.5
Melanoma of the skin	2.8	2.4
Lymphocytic leukemia	1.9	1.9
Cervix uteri (females)	1.6	2.2
Thyroid	0.5	0.6
Testis (males)	0.3	0.3

Source: California Cancer Registry, Cancer Surveillance Section, California Department of Public Health, 2011-2015.
<http://www.cancer-rates.info/ca/>

When examined by race/ethnicity, Blacks have the highest rate of cancer mortality (157.8 per 100,000 persons), followed by Whites (148.9), Hispanics have a lower rate (122.9), and Asians/Pacific Islanders have the lowest rate of cancer mortality (106.0 per 100,000 persons). Exceptions are Asians have high rates of mortality from liver and bile duct, and stomach cancers.

Cancer Mortality Rate, Age-Adjusted, per 100,000 Persons, by Race for Orange County

	Hispanic	White	Asian/PI	Black	Orange County
Cancer all sites	122.9	148.9	106.0	157.8	137.8
Lung and Bronchus	15.4	34.5	24.5	32.3	29.7
Breast (female)	17.0	20.9	11.5	30.8	18.7
Prostate (males)	20.0	20.3	7.1	49.4	18.2
Colon and Rectum	11.9	11.8	10.3	12.0	11.6
Pancreas	11.0	11.1	8.9	11.1	10.7
Ovary (female)	6.2	8.5	4.5	0.00	7.4
Liver and Bile Duct	9.3	4.8	11.5	7.2	6.9
Miscellaneous	7.5	9.1	5.4	0.00	6.2
Leukemia*	5.2	6.6	4.1	7.5	6.2
Non-Hodgkin Lymphoma	5.6	5.3	4.0	0.0	5.1
Urinary Bladder	2.1	4.7	2.0	0.0	3.9
Stomach	6.1	2.1	6.3	0.0	3.7
Uterine** (female)	3.4	3.2	0.0	0.0	3.1
Kidney & Renal Pelvis	3.5	3.3	1.9	0.0	3.1
Esophagus	1.8	3.9	1.5	0.0	3.1
Myeloma	3.4	3.1	1.8	9.4	3.0
Oral Cavity and Pharynx	1.7	2.4	1.6	0.0	2.4
Skin Melanoma	0.7	4.3	0.0	0.0	2.4
Cervical (female)	2.4	1.4	0.0	0.0	1.6

Source: California Cancer Registry, California Department of Public Health, 2008-2012; Age-adjusted to 2000 U.S. Standard. <http://www.cancer-rates.info/ca/> *Myeloid & Monocytic + Lymphocytic + "Other" Leukemias **Uterus, NOS + Corpus Uteri

Heart Disease and Stroke

In the service area, the age-adjusted mortality rate for ischemic heart disease (a sub-category of heart disease) was 80.5 deaths per 100,000 persons. The age-adjusted rate of death from stroke was lower in the service area (32.2 deaths per 100,000 persons) than in the county (37.4 deaths per 100,000 persons) and the state (38.2 deaths per 100,000 persons). The rate of stroke death meets the Healthy People 2020 objective of 34.8 per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Heart disease death rate	3,586	129.2	148.3	161.5
Ischemic heart disease death rate	2,229	80.5	94.6	103.8
Stroke death rate	886	32.2	37.4	38.2

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million

Alzheimer's Disease

Alzheimer's disease is the most common form of dementia, accounting for 50% to 80% of dementia cases. In the service area, the Alzheimer's disease-specific death rate was 39.3 per 100,000 persons. This was lower than the county rate (40.1 per 100,000 persons).

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Alzheimer's disease death rate	1,092	39.3	40.1	35.5

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

Pneumonia and Influenza

In the service area, the pneumonia and influenza-specific death rate was 14.7 per 100,000 persons, which was lower than county and state rates.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Pneumonia and influenza death rate	402	14.7	17.2	16.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2010 U.S. standard million.

Chronic Lower Respiratory Disease

Chronic lower respiratory disease (CLRD) or chronic obstructive pulmonary disease (COPD) refers to a group of diseases that causes airflow blockage and breathing-related problems. COPD most commonly includes chronic bronchitis and emphysema. In the service area, the CLRD death rate was 23.0 per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Chronic lower respiratory disease death rate	630	23.0	30.1	36.0

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

Unintentional Injury

Major categories of unintentional injuries include motor vehicle collisions, poisonings, and falls. The age-adjusted death rate from unintentional injuries in the service area was 23.6 per 100,000 persons. The death rate from unintentional injuries was lower

than the Healthy People 2020 objective of 36.4 deaths per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Unintentional injury death rate	617	23.6	23.8	31.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2010 U.S. standard million.

Diabetes

Diabetes is a leading cause of death in the United States. Diabetes disproportionately affects minority populations and the elderly. In the service area, the diabetes death rate was 7.9 per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Diabetes death rate	217	7.9	15.1	22.6

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

Homicide

In the service area, the age-adjusted rate from homicides was 1.1 per 100,000 persons. The Healthy People 2020 objective for homicides is 5.5 per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Homicide	28	1.1	1.9	4.9

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

Suicide

In the service area, the age-adjusted rate from suicides was 10.8 per 100,000 persons. The Healthy People 2020 objective for suicide is 10.2 per 100,000 persons.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Suicide	287	10.8	10.0	11.0

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001, and using the 2010 U.S. standard million.

Liver Disease

In the service area, the liver disease death rate was 6.9 per 100,000 persons. This rate meets the Healthy People 2020 objective for liver disease death (8.2 per 100,000 persons).

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Liver disease death rate	188	6.9	11.4	13.8

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2010 U.S. standard million

Kidney Disease

In the service area, the kidney disease death rate was 8.2 per 100,000 persons. This rate was lower than county and state rates of death from kidney disease.

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
Kidney disease death rate	226	8.2	9.6	8.5

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S. Census Bureau American Community Survey, 5-Year Average 2012-2016, Table B01001 and using the 2010 U.S. standard million.

HIV

In the service area, the death rate from HIV was 0.7 per 100,000 persons. This rate was lower than the county death rate from HIV (0.9) and state rate of death from HIV (1.9).

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

	SMC Service Area		Orange County	California
	Number	Rate	Rate	Rate
HIV death rate	18	0.7	0.9	1.9

Source: Calculated by Gary Bess Associates using California Department of Public Health Master Death File 2013-2015 and U.S.

Disability and Disease

Health Status

Among the Orange County population, 15.7% reported being in fair or poor health. This rate was lower than the California rate of 17.3%.

Health Status, Fair or Poor Health

	Orange County	California
Persons with fair or poor health	15.7%	17.3%

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

Disability

Among adults in Orange County, 24.0% are identified as having a physical, mental or emotional disability. This is lower than the state disability rate (29.7%). 6.0% of Orange County adults could not work for at least a year due to physical or mental impairment.

Population with a Disability

	Orange County	California
Adults with a disability	24.0%	29.7%
Couldn't work due to impairment	6.0%	7.0%

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

In Orange County, 4.5% of the population has an ambulatory difficulty that limits physical activity. 2.5% of the population has a hearing difficulty, 2.1% have a self-care difficulty, and 1.7% of Orange County residents have a vision difficulty.

Health Status Disabilities

	Orange County	California
Persons with ambulatory difficulty	4.5%	5.9%
Persons with hearing difficulty	2.5%	2.9%
Persons with self-care difficulty	2.1%	2.6%
Persons with vision difficulty	1.7%	2.0%

Source: Orange County's Healthier Together, US Census Bureau American Community Survey, 2012-2016.

www.ochealthiertogether.org

Diabetes

Among adults in Orange County, 11.3% have been diagnosed with diabetes compared to 13.4% of adults with diabetes in the state. 9.2% of adults have been diagnosed as pre-diabetic. Among adults with diabetes, 53.3% are very confident they can control their diabetes; 6.6% of adults in Orange County are not confident they can control/manage their diabetes.

Adult Diabetes

	Orange County	California
Diagnosed pre-diabetic	9.2%	10.5%
Diagnosed diabetic	11.3%	13.4%
Very confident to control diabetes	53.3%	58.5%
Somewhat confident	40.1%	33.8%
Not confident	6.6%	7.7%

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

In the service area, the rates of adults with diabetes range from 5.2% in San Clemente 92673 to 9.2% in Laguna Woods.

Adults with Diabetes

	Percent
92602-Irvine	6.7%
92603-Irvine	6.0%
92604-Irvine	7.1%
92606-Irvine	6.4%
92614-Irvine	6.0%
92618-Irvine	5.5%
92620-Irvine	6.9%
92629-Dana Point	6.3%
92630-Lake Forest	6.8%
92637-Laguna Woods	9.2%
92651-Laguna Beach	5.3%
92653-Laguna Hills	6.2%
92656-Aliso Viejo	4.9%
92672-San Clemente	6.2%
92673-San Clemente	5.2%
92675-San Juan Capistrano	7.5%
92677-Laguna Niguel	6.0%
92679-Trabuco Canyon	4.4%
92688-Ranch Santa Margarita	5.5%
92691-Mission Viejo	6.8%
92692-Mission Viejo	6.1%
92782-Tustin	5.4%
Orange County	7.9%

Source: Orange County's Healthier Together, California Health Interview Survey, 2013-2014. <http://www.ochealthiertogether.org>

*No data available for ZIP Codes 92610, 92624, 92637, 92657, 92674 and 92694.

The federal Agency for Healthcare Research and Quality (AHRQ) developed Prevention Quality Indicators (PQIs) that identify hospital admissions that may be avoided through access to high-quality outpatient care. Four PQIs are related to diabetes: long-term

complications (renal, ophthalmic, or neurological manifestations, and peripheral circulatory disorders); short-term complications (ketoacidosis, hyperosmolarity and coma); amputation; and uncontrolled diabetes. For all indicators, hospitalization rates were lower for Orange County than for California.

Diabetes Hospitalization Rates* for Prevention Quality Indicators

	Orange County	California
Diabetes long term complications	69.2	79.8
Diabetes short term complications	42.0	54.4
Lower extremity amputation among patients with diabetes	15.8	23.6
Uncontrolled diabetes	28.4	33.9

Source: California Office of Statewide Health Planning & Development, 2016.

http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html

*Risk-adjusted (age-sex) annual rates per 100,000 persons.

Heart Disease

For adults in Orange County, 4.6% have been diagnosed with heart disease. Among these adults, 70.1% are very confident they can manage their condition; however, 7.5% were not confident they could control their heart disease. 70.5% have a disease management care plan developed by a health care professional.

Adult Heart Disease

	Orange County	California
Diagnosed with heart disease	4.6%	6.2%
Has a disease management care plan	70.5%	70.2%
Very confident to control condition	70.1%	57.4%
Somewhat confident to control condition	22.4%	36.8%
Not Confident to control condition	7.5%	5.8%

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

As noted, Prevention Quality Indicators (PQIs) identify hospital admissions that may be avoided through access to high-quality outpatient care. The PQIs related to heart disease are congestive heart failure and hypertension. The rates of hypertension (18.7) and congestive heart failure (241.5) were lower in the county than in the state.

Hospitalization Rates* for Prevention Quality Indicators – Heart Disease

	Orange County	California
Congestive heart failure	241.5	317.7
Hypertension	18.7	25.0

Source: California Office of Statewide Health Planning & Development, 2016.

http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html

*Risk-adjusted (age-sex) annual rates per 100,000 persons.

High Blood Pressure

A co-morbidity factor for diabetes, heart disease and stroke is hypertension (high blood pressure). In Orange County, 22.4% of adults have been diagnosed with high blood pressure. Of those adults, 60.6% take medication to control their hypertension. The Healthy People 2020 objective is to reduce the proportion of adults with high blood pressure to 26.9%. Orange County complies with this objective.

High Blood Pressure

	Orange County	California
Ever diagnosed with hypertension	22.4%	28.4%
Takes medicine for hypertension	60.6%	65.1%

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

Cancer

In Orange County, the five-year, age-adjusted cancer incidence rate is 401.0 per 100,000 persons. The rate of cancer among children, below 20 years old, is 19.3 per 100,000 persons, which is higher than the rate of cancer in children in the state (17.9 per 100,000 persons). Rates of female breast cancer and melanoma are higher in Orange County than the state.

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

	Orange County	California
All sites	401.0	404.0
Breast (female)	123.9	121.5
Prostate	99.3	101.2
Lung and bronchus	37.5	39.0
Colon and rectum	34.2	36.2
Melanoma of the skin	27.4	22.1
Children (<20 years) all sites	19.3	17.9
Leukemia	9.2	9.6
Cervix	6.2	7.2

Source: National Institutes of Health, State Cancer Profiles, 2011-2015. <https://statecancerprofiles.cancer.gov>

Asthma

In Orange County, 15.2% of the population has been diagnosed with asthma. 89.0% have had symptoms in the past year, and 41.3% take daily medication to control their asthma. Among county youth, 22.0% have been diagnosed with asthma, and 8.5% have visited the ER as a result of their asthma.

Asthma

	Orange County	California
Diagnosed with asthma, total population	15.2%	14.8%

	Orange County	California
Diagnosed with asthma, 0-17 years old	22.0%	16.7%
ER visit in past year due to asthma, total population	12.6%	13.1%
ER visit in past year due to asthma, 0-17 years old	8.5%	10.5%
Takes daily medication to control asthma, total population	41.3%	45.1%
Takes daily medication to control asthma, 0-17 years old	15.0%	30.7%
Had asthma symptoms in the past 12 months	89.0%	90.3%

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

In the service area, the rates of adults with asthma range from 11.8% in Lake Forest to 17.9% in Laguna Beach.

Adults with Asthma

	Percent
92602-Irvine	15.0%
92603-Irvine	14.5%
92604-Irvine	13.9%
92606-Irvine	13.0%
92612-Irvine	14.9%
92614-Irvine	14.2%
92618-Irvine	13.5%
92620-Irvine	14.4%
92629-Dana Point	16.3%
92630-Lake Forest	11.8%
92637-Laguna Woods	13.7%
92651-Laguna Beach	17.9%
92653-Laguna Hills	14.7%
92656-Alisa Viejo	15.2%
92672-San Clemente	16.2%
92673-San Clemente	13.5%
92675-San Juan Capistrano	13.9%
92679-Trabuco Canyon	12.5%
92688-Rancho Santa Margarita	15.2%
92691-Mission Viejo	15.7%
92692-Mission Viejo	14.2%
92782-Tustin	13.1%
Orange County	11.2%

Source: Orange County's Healthier Together, California Health Interview Survey, 2013-2014. <http://www.ochealthiertogether.org>

*No data available for ZIP Codes 92610, 92624, 92637, 92657, 92674 and 92694.

Prevention Quality Indicators (PQIs) related to asthma includes chronic obstructive pulmonary disease (COPD) and asthma in younger adults. Hospitalization rates for

COPD were lower in the county (184.7) than the state (265.6). Hospitalization rates for asthma in younger adults were lower in the county (13.2) than the state (22.6).

Asthma Hospitalization Rates* for Prevention Quality Indicators (PQI)

	Orange County	California
COPD or asthma in older adults	184.7	265.6
Asthma in younger adults	13.2	22.6

Source: California Office of Statewide Health Planning & Development, 2016. *Risk-adjusted (age-sex) annual rates per 100,000 population. http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html

Chronic Diseases among Seniors

Among Orange County Medicare beneficiaries (adults 65 and older), 31.4% have been treated for arthritis or osteoarthritis. 19.4% of seniors have been treated for chronic kidney disease. 10.9% have been treated for Alzheimer’s disease or dementia and 9.1% have been treated for osteoporosis. These rates are higher than in the state.

Chronic Diseases among Medicare Beneficiaries

	Orange County	California
Rheumatoid arthritis or osteoarthritis	31.4%	27.6%
Chronic kidney disease	19.4%	17.9%
Alzheimer’s disease or dementia	10.9%	9.3%
Osteoporosis	9.1%	6.7%

Source: Centers for Medicare and Medicaid Services, 2015. www.ochealthiertogether.com

Community Input – Senior Health

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

- If seniors live on their own, they don’t have anyone to help them take their medications.
- I know people who left the area because once they retired they couldn’t afford to live here.
- What we see as a major issue among homebound seniors is food insecurity and an inability to pay for care in the home. Homebound individuals have a need for nonemergency medical transportation. They need transportation services to go to dialysis, the doctor and to pick up prescriptions.
- Seniors who live alone may be isolated and in-home care is expensive.
- Elder abuse is not talked about a lot. But it happens all the time. There is a stigma, it is not something they like to talk about, especially when it is a financial issue, like when money is taken from them, people don’t want others to know. They are a huge target and it happens every day.

- Transportation is an issue for seniors who don't drive. They have to wait hours to get their rides.
- We offer senior classes and people don't come because they don't have transportation. They can't get here.
- Seniors have a high prevalence of isolation and loneliness, even those who live with family members.
- There are increased rates of Alzheimer's disease. We need to identify the issue, get them linked to appropriate levels of care, and provide families and caregivers with the support they need. As the population ages and lives longer, resources will have to increase dramatically to support the need.
- The big challenge is having a system of care that can handle the volume of persons we will see in the next 25 years.
- We are seeing a lot of issues with potential homelessness with the aging population. They are living in cars because assisted living resources and memory care services aren't available to people on fixed incomes.
- Isolation is a big factor for seniors. Access to housing is also a concern because a lot of them are being evicted. Access to healthy food is really difficult.
- They come to see us when they can't afford rent, prescriptions and food. But they are embarrassed and ashamed and think they should be able to care for themselves. Work needs to be done with seniors to normalize that need and realize it is okay to ask for help.
- For monolingual seniors, family members have to be more involved in their care with interpreting and explaining what is going on.
- People, when they age, need some caregiver services, and in-home support services. But many do not qualify and they are at a loss for getting the help they need. It is difficult to afford these services.
- Seniors fear memory loss and Alzheimer's disease.
- There is a big push to get physicians more involved so they know what resources are available in the community for their patients. Hospitals need to join forces with local senior centers.

HIV/AIDS

In Orange County, the rate of persons living with HIV/AIDS infection is 273.1 per 100,000 persons, which is lower than the state rate of 391.7 per 100,000 persons.

HIV/AIDS, 2013-2015

	Orange County	California
HIV/AIDS infection ages 13 years and older	273.1	391.7

Source: California Department of Public Health, County Health Status Profiles 2018 Report <http://www.cdph.ca.gov/data/statistics/>

Sexually Transmitted Infections

The rate of chlamydia in Orange County is 353.6 per 100,000 persons. The rate of gonorrhea in Orange County males (219.5 per 100,000 persons) is higher than in females (114.2 per 100,000 persons). Rates of syphilis are also higher among men (15.5 per 100,000 persons) than women (0.9 per 100,000 persons). The county rates of chlamydia, gonorrhea and syphilis are lower than state rates.

Sexually Transmitted Infections, 2014-2016

	Orange County	California
Chlamydia	353.6	480.3
Gonorrhea (females)	114.2	218.0
Gonorrhea (males)	219.5	372.6
Syphilis (females)	0.9*	2.6
Syphilis (males)	15.5	22.5

Source: California Department of Public Health, County Health Status Profiles 2018 Report <http://www.cdph.ca.gov/data/statistics/>

*Data unreliable based on fewer than 20 data elements.

Community Input – Chronic Diseases

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

- We need to back up and look at prevention issues. It starts with trying to remove the things that might contribute to disease, like tobacco.
- We need to improve our system for management of stroke. Obesity and diabetes are factors that increase our risk of stroke.
- Referring to the homeless population and those who have been previously homeless, there is a lack of continuing health care and this often results in chronic diseases. Often we see homeless individuals who are living with diabetes and chronic diseases and they tend to die younger.
- Prevention, education and awareness are key to reducing heart disease, diabetes and stroke.
- Because of their avoidance of going to the doctor for preventive care, there are more people who have unchecked diseases.
- To state the obvious, the sooner we can address and diagnose the state of disease, the better outcomes we can achieve. Sometimes it is a challenge with patients who have diseases that need to be managed by specialists and there is a limited number of specialists.
- We have students who have diabetes but they do not have a physician or do not have a medical plan in place.
- We have a lot of kids with asthma and who are insulin-dependent diabetics. Parents, youth and school staff need to know what resources are available to get the help they need to manage these diseases.

- At senior centers, we have a doctor come in all time to talk about chronic diseases and seniors are extremely interested in this. Those who are active want to educate themselves and take care of themselves.

Health Behaviors

Health Behaviors Ranking

The County Health Rankings examines healthy behaviors and ranks 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. A ranking of 4 places Orange County in the top of California counties for health behaviors. This ranking has been stable for the past three years.

Health Behaviors Ranking

	County Ranking (out of 57)
Orange County	4

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

Overweight and Obesity

In Orange County, 33.3% of the adult population reported being overweight. The county adult rate of overweight is lower than the state rate of 34.8%. 17.7% of Orange County teens are overweight compared to the state (18.1%).

Overweight

	Orange County	California
Adult (ages 20+ years)	33.3%	34.8%
Teen (ages 12-17 years)	17.7%	18.1%

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

In Orange County, 23.3% of adults and 28.3% of teens are obese. The Healthy People 2020 objectives for obesity are 30.5% of adults aged 20 and over, and 16.1% of teens. The rate of obese teens exceeds the state rate (22.6%) and the Healthy People 2020 objective.

Obesity

	Orange County	California
Adult (ages 20+) obesity	23.3%	27.9%
Teen (ages 12-17) obesity	28.3%	22.6%
Senior adults (ages 65+) obesity	23.0%	23.5%

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

Source: Orange County's Healthier Together, California Health Interview Survey, 2013-2014. <http://www.ochealthiertogether.org>

When adult obesity levels were tracked over time, the county has experienced a decrease in adult obesity from 2012 to 2014, then an increase from 2014 to 2016.

Adult Obesity, 2012-2016

	2012	2013	2014	2015	2016
Orange County	21.1%	20.8%	18.2%	23.5%	23.3%
California	24.2%	24.7%	27.0%	27.9%	27.9%

Source: California Health Interview Survey, 2012, 2013, 2014, 2015, 2016. <http://ask.chis.ucla.edu>

Adult overweight and obesity by race and ethnicity indicate high rates among African Americans (83.3%) and Whites (61.2%), compared with state averages. Asians in Orange County have the lowest rates of overweight and obesity (38.1%).

Adult Overweight and Obese by Race/Ethnicity

	Orange County	California
African American	83.3%	71.7%
White	61.2%	58.1%
Latino	60.2%	73.9%
Asian	38.1%	43.6%
Total Adult Population	56.6%	62.7%

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

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 high risk (obese). In Orange County, 17.8% of 5th grade students tested as needing improvement (overweight) or at high risk (obese) for body composition, slightly lower than the California rate of 19.1%. Among 9th graders, the county rate was 15.9%, also below the state average (17.8%).

5th and 9th Graders, Body Composition, Needs Improvement and High Risk

	Fifth Grade	Ninth Grade
Orange County	17.8%	15.9%
California	19.1%	17.8%

Source: California Department of Education, Fitnessgram Physical Fitness Testing Results, 2016-2017.

<http://data1.cde.ca.gov/dataquest/>

Fast Food

In Orange County, 29.7% of children and 29.1% of adults consumed fast food three to four times a week. This rate of fast food consumption was higher than the state rate.

Fast Food Consumption

	Orange County	California
Children who were reported to eat fast food 3-4 times a week	29.7%	25.5%
Adults who reported eating fast food 3-4 times a week	29.1%	25.4%

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

Soda Consumption

16.0% of children in Orange County consumed at least two to three sodas a week compared to the state (17.4%). Among county adults, 7.3% drank at least seven or more sodas weekly; 58.3% of adults drank no soda in a week.

Soda or Sweetened Drink Consumption

	Orange County	California
Children reported to drink at least 2 sodas or more a week	16.0%	17.4%
Adults who reported drinking at least 7 or more sodas a weekly	7.3%	10.4%
Adults who reported drinking no soda a week	58.3%	59.6%

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

Fresh Fruits and Vegetables

79.3% of children in Orange County consumed two or more servings of fruit in a day. 50.4% of adults reported they find fresh fruits and vegetables in the neighborhood affordable, and 73.8% reported fresh fruits and vegetables were always accessible in the neighborhood.

Access to and Consumption of Fresh Fruits and Vegetables

	Orange County	California
Children who reported eating 2 or more servings of fruit in the previous day	79.3%	70.4%%
Adults who reported finding fresh fruits and vegetables in the neighborhood affordable	50.4%	49.0%
Adults who reported fresh fruits and vegetables were always accessible in the neighborhood.	73.8%	73.5%

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

Physical Activity

For school-aged children in Orange County, 33.1% engaged in physical activity for two or more days for at least one hour in the week. 93.1% of Orange County children visited a park, playground or open space in the last month.

Physical Activity, Children and Teens, 2016

	Orange County	California
2 or more days physically active at least one hour (past week)	33.1%	22.4%
Visited a park, playground or open space in the last month	93.1%	87.9%

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

Among adults in Orange County, 36.8% regularly walked for transportation, fun, and exercise. This was lower than the state rate (39.5%).

Physical Activity Adults

	Orange County	California
Adults who regularly walked for transportation, fun, and exercise	36.8%	39.5%

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

One of the components of the physical fitness tests (PFT) for students in schools is measurement of aerobic capacity through run and walk tests. 5th, 7th and 9th graders who meet the aerobic capacity standards are categorized as being in the Healthy Fitness Zone. 68.3% of Orange County 5th graders, 74.0% of 7th graders, and 70.6% of 9th graders achieved the Healthy Fitness Zone. Youth in Orange County exceed state rates for aerobic capacity

5th, 7th and 9th Grade Students, Aerobic Capacity, Healthy Fitness Zone

	Fifth Grade	Seventh Grade	Ninth Grade
Orange County	68.3%	74.0%	70.6%
California	62.0%	64.6%	61.9%

Source: California Department of Education, Fitnessgram Physical Fitness Testing Results, 2016-2017.

<http://data1.cde.ca.gov/dataquest/>

Community Input – Overweight and Obesity

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

- Healthier food costs more. Salads are more expensive than burgers.
- There are not a lot of places for seniors to go and exercise. Senior centers have some activities, Fullerton has a gym with geriatrics, but it costs money so low-income seniors do not have access. We have the park available but if you are in a wheelchair, or frail, or you do not know how to exercise, it is not accessible.
- We face a number of challenges. We have over 50% of the population that is overweight or obese. We have a cultural set of norms that encourage overeating and unhealthy eating, such as eating increased amounts of high fat foods and significantly larger quantities than the average person needs.
- For the homeless a solution to hunger is often fast food and cheap foods.
- We have seen an increased amount of childhood obesity in our community. Healthy food can be expensive. But there are food pantries and Farmers Markets that have great prices for healthy food.
- We know morbidity and mortality rates are tied to key behaviors, such as lack of physical activity, unhealthy diets, not eating fruits and vegetables, and tobacco use. If you live in an area without bike lanes or with parks that are not safe, it is harder to be physically active. If there aren't local stores with fresh fruits and vegetables, it's harder to make that choice.

- From a community perspective, I do not see as much energy around this as I did five years ago. There are many programs to help families. The challenge with our patient population is a lack of funds for healthy eating options. They have very busy households and are not really living in neighborhoods well situated for outdoor activities. They do not always have parks and other outdoor areas that are close and accessible. We have a WIC program and nutrition education for moms and kids, but they show up with their bag of Cheetos.
- There persists a cultural perspective around weight and food. Hispanic families may feel their child is healthy if they have some weight on them.

Mental Health

In Orange County, 6.5% of adults experienced serious psychological distress in the past year. 15.6% of adults needed help for emotional, mental health, alcohol or drug issues; however, 85.5% of those who sought or needed help did not receive 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). 12.9% of adults took prescription medicine for emotional/mental health issues in the past year.

Mental Health Indicators, Adults

	Orange County	California
Adults who likely had serious psychological distress during past year	6.5%	8.0%
Adults who needed help for emotional-mental and/or alcohol-drug issues in past year	15.6%	16.4%
Adults who saw a health care provider for emotional/mental health and/or alcohol-drug issues in past year	15.0%	13.4%
Adults who sought/needed help but did not receive treatment	85.5%	86.6%
Adults who took prescription medicine for emotional/mental health issue in past year	12.9%	11.1%

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

In Orange County, 6.3% of teens experienced serious psychological distress during the past year, and 8.9% of teens received counseling.

Mental Health Indicators, Teens

	Orange County	California
Teens who likely has had serious psychological distress during the past year	6.3%	7.9%
Teens who received psychological/emotional counseling in past year	8.9%	10.1%

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

In Orange County, 12.7% of adults had seriously considered suicide. This is higher than the state rate (9.3%).

Thought about Committing Suicide

	Orange County	California
Adults who ever seriously thought about committing suicide	12.7%	9.3%

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

The average annual age-adjusted emergency room visit rate for Orange County adults with mental health issues is 67.6 per 10,000 persons. The emergency room visit rate for children (under 18 years of age) is 28.5 per 10,000 persons. The ER rate for adults with

intentional self-injury is 16.6 per 10,000 persons and for adolescents (ages 12-17) the rate is 46.3 per 10,000 persons. These ER rates are lower than found in the state.

Mental Health ER Rate, per 10,000 Persons, Age-Adjusted, 2013-2015

	Orange County	California
Adult mental health concern	67.6	93.4
Adult suicide and intentional self-injury	16.6	21.7
Pediatric (under 18 years) mental health concern	28.5	30.4
Adolescent (ages 12-17) suicide and intentional self-injury	46.3	46.3

Source: California Office of Statewide Health Planning and Development, 2013-2015. www.ochealthiertogether.com

Community Input – Mental Health

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

- There is still stigma around anxiety and depression.
- There are no available addiction treatment centers unless a person has good private insurance.
- The process to get mental health care and medications is exhausting. There are so many hoops to jump through that people don't even try.
- Persons with mental health disease are not taken seriously.
- People are fearful to access services with the stigma around mental health issues.
- There are limited resources, but that is changing countywide. There are limited programs for those who are not eligible for public programs and they cannot financially afford mental health services.
- When people experience a mental health crisis, they can't wait a month to be seen. That is why they end up in the ED because it is of such a proportion they need immediate help.
- Many psychiatrists have gone to private pay only. When people go to bigger services to get to see a practitioner, they say they are not getting the attention they need.
- College students feel isolated and depressed and are not really connected to the outside community. If we can help students get the help they need, they will be healthier adults in the future. They have limited resources to access information and support. We believe UCI is a school where kids are financially well off, but a lot have financial aid and struggle with food insecurity. And we have a lot of international students with no families here. They feel isolated and this impact on their behavioral health.
- There is a stigma with mental health. If someone is dealing with mental health issues, there is a fear that goes along with it.

- We are finding a lot of anxiety and depression and suicidal ideation at a very young age. While we have prevention and intervention activities in place, as early as preschool and kindergarten, there is such a wave of needs we cannot do it all on our own as a school district.
- Parents who deal with a child who has mental health issues have a hard time navigating where to start. There are resources in the community and counseling, and there is an outpatient program and a partial hospitalization program, so it can be hard for parents to know where to start. It is not a lack of resources, but knowing how to navigate. They will often come to school to ask for help. We have mental health counselors at the district, and we have agencies we refer to.
- There is a lack of programs in the community about mental health issues. We don't have places to refer families to where they can go to get the help they need, especially for a free or reduced price.
- Suicide rates are up with students, and social media is a contributing factor. Parents don't know what it looks like when their kid is in distress.
- With seniors there is difficulty with delirium and dementia. This may make them a risk to themselves and others.
- If a person has no insurance or CalOptima, there is very little access for psychiatric care.

Substance Use and Misuse

Cigarette Smoking

In Orange County, 10.9% of adults smoke cigarettes, lower than the state rate of 11.7% and the Healthy People 2020 objective of 12%.

Cigarette Smoking, Adults

	Orange County	California
Current smoker	10.9%	11.7%
Former smoker	22.4%	21.7%
Never smoked	66.6%	66.6%

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

Teens in Orange County are more likely to have smoked with an electronic cigarette (vaporizer) than a cigarette. Among 11th graders in Orange County, 11% had smoked a cigarette and 31% had used an e-cigarette (vaping).

Smoking, Teens

	7 th Graders	9 th Graders	11 th Graders
Ever smoked a whole cigarette	1%	7%	11%
Ever used an e-cigarette or vaping method	7%	21%	31%

Source: California Healthy Kids Survey, 2015-2017. www.ochealthieretogether.com

Alcohol and Drug Use

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. 35.5% of Orange County adults had engaged in binge drinking in the past year.

Alcohol Consumption Binge Drinking, Adult

	Orange County	California
Reported binge drinking in the past year	35.5%	34.7%

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

14.5% of Orange County women who became pregnant engaged in binge drinking in advance of their pregnancy and 7.3% drank alcohol in the third trimester of their pregnancy.

Alcohol Use Before and After Pregnancy

	Orange County	California
Any binge drinking, 3 months before pregnancy	14.5%	15.1%
Any alcohol use, 3 rd trimester	7.3%	7.3%

Source: California Department of Public Health, Maternal Infant Health Assessment, 2013-2015.

<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Data-and-Reports.aspx?Name=SnapshotBy>

Among Orange County teens, 6.2% reported having an alcoholic drink and 2.6% engaged in binge drinking in the past month.

Alcohol Consumption and Binge Drinking, Teens

	Orange County	California
Ever had an alcoholic drink	6.2%	22.5%
Reported binge drinking in the past month*	2.6%	3.1%

Source: California Health Interview Survey, 2015* and 2016. <http://ask.chis.ucla.edu>

7.5% of teens in Orange County had tried marijuana, cocaine, sniffing glue, other drugs and 3.8% had used marijuana in the past year. These rates of reported drug use were less than state rates of teen drug use.

Illicit Drug Use, Teens

	Orange County	California
Ever tried marijuana, cocaine, sniffing glue, other drugs	7.5%	12.4%
Marijuana use in the past year	3.8%	8.6%

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

For teens in Orange County who used drugs, they had most frequently tried marijuana and taken prescription pills.

Lifetime Drug Use, Teens

	7 th Graders	9 th Graders	11 th Graders
Marijuana	3%	13%	26%
Prescription pills	Not asked	11%	15%
Inhalants	3%	5%	5%
Cocaine	Not asked	2%	3%
Ecstasy, LSD, other psychedelic	Not asked	2%	5%

Source: California Healthy Kids Survey, 2015-2017. www.ochealthiertogether.com

Opioid Use

The rate of hospitalizations due to an opioid overdose was 5.5 per 100,000 persons in Orange County. This is lower than the state rate (8.5 per 100,000 persons). Opioid overdose deaths in Orange County were 7.5 per 100,000 persons, which was a higher death rate than in the state (4.5 per 100,000 persons). The rate of opioid prescriptions in Orange County was 429.7 per 1,000 persons. This rate is lower than the state rate of opioid prescribing (507.6 per 1,000 persons).

Opioid Use

	Orange County	California
Hospitalization rate for opioid overdose (excludes heroin), per 100,000 persons	5.5	8.5
Age-adjusted opioid overdose deaths, per 100,000 persons	7.5	4.5

	Orange County	California
Opioid prescriptions, per 1,000 persons	429.7	507.6

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

- Vaping has become common place. Kids think it is a safe alternative to smoking and you see it everywhere now.
- Doctors' offices won't even prescribe anything with narcotics. They'll make you go to a pain management specialist, which takes a long time to get in to see. In the meantime, you're in pain.
- The opioid epidemic is a huge contributor to the substance abuse problem in Orange County. We know one of the biggest sources of opioids is unused meds in the home. We need increased efforts for safe med disposal so we do not risk leaving meds that are accessible to others.
- Seniors might not be taking their medications as often as they should, or they are forgetting or refusing to take their medications.
- Vaping is becoming a significant issue.
- Substance use is a challenge in this population and often the reason people lose employment, housing or custody of their kids. The availability of treatment options is a drop in the bucket compared to what is needed.
- Youth using tobacco products through vaping is really an epidemic.
- Sometimes people self-medicate because they are dealing with mental health issues or they are homeless.
- We have drug seeking patients. We have countered this with a protocol for how we prescribe and manage narcotics.
- We have seen an extraordinary increase in vaping with THC at school, more specifically in secondary schools. Some parents and some students do not think of THC as being a drug and see it as safer than alcohol.
- There is a lack of drug rehab programs for teens. Specifically, a lot of teens start recreationally using vapes, then they vape marijuana, which leads to the next thing. Students lack knowledge of the hazards of vaping. The common perception is that vaping is a much safer alternative to smoking and marijuana is natural and legal. And parents may not view it as a serious problem. So while they are not condoning it, they are not addressing it in the home setting.
- Alcohol use gets exacerbated as people age and have other health needs

- Prescription misuse and alcohol use are huge issues with seniors. They may have been misusing for many years and they are good about covering it up. Seniors are also using pot.

Preventive Practices

Immunization of Children

Most Orange County school districts have high rates of compliance with childhood immunizations upon entry into kindergarten. The county immunization rate (95.7%) is higher than the state rate (95.1%). California law mandates kindergarten students be up-to-date on vaccines that help prevent communicable childhood diseases, such as whooping cough, measles and polio. With the passage of SB 277 in 2015, the 2015-2016 school year was the final year in which parents were able to opt out of the vaccine requirements for their children as result of religious or personal reasons.

Required Immunizations for Kindergarten

	Immunization Rate
Orange County	95.7%
California	95.1%

Source: California Department of Health Immunization Branch, 2017. www.ohealthiertogether.com

Flu Vaccine

40.9% of Orange County residents have received a flu shot. 37.0% of children, ages 0-17, and 68.4% of seniors in Orange County received flu shots. The Healthy People 2020 objective is for 70% of the population to receive a flu shot.

Flu Vaccine in Past 12 months

	Orange County	California
Vaccinated for flu in past 12 months	40.9%	44.8%
Vaccinated for flu in past 12 months, 0-17	37.0%	49.6%
Vaccinated for flu in past 12 months, 18-64	36.5%	37.7%
Vaccinated for flu in past 12 months, 65+	68.4%	69.3%

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

Mammograms

A mammogram is an x-ray of the breast that can be used to detect changes in the breast. In Orange County, 63% of female Medicare enrollees, ages 67 to 69, have had a mammogram in the past two years.

Mammography Screening: Medicare Population

	Orange County	California
Women Medicare enrollees, ages 67-69, who reported having a mammogram in the past two years	63.0%	59.5%

Source: Orange County's Healthier Together, 2015. www.ohealthiertogether.org

In Orange County, 83.5% of women have obtained a mammogram in the past two years. This rate is higher than the Healthy People 2020 objective of 81% of women, 50

to 74 years, to have a mammogram within the past two years.

Mammograms

	Orange County	California
Women ages 50-74 who reported having a mammogram in the past 2 years	83.5%	83.2%

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

Colorectal Cancer Screening

According to the Centers for Disease Control and Prevention (CDC), colorectal cancer—cancer of the colon or rectum—is one of the most commonly diagnosed cancers in the United States, and is the second leading cancer killer in the United States. The CDC estimates if adults, ages 50 or older, had regular screening tests for colon cancer, as many as 60% of the deaths from colorectal cancer could be prevented. Recommended screening procedures include one of the following: Fecal occult blood tests (FOBT) annually, flexible sigmoidoscopy every 5 years; double-contrast barium enema every 5 years, or colonoscopy every 10 years. In Orange County, 73.6% of adults, ages 50 and over, are compliant with the recommended screening practices for colorectal cancer.

Colorectal Cancer Screening

	Orange County	California
Colorectal cancer screening, among adults, 50+	73.6%	68.1%

Source: Orange County's Healthier Together, 2015. www.ohealthiertogether.org

Community Input – Preventive Practices

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

- Prevention is the key. If we are not going in to the doctor to get preventive measures, then we are catching something when it is way too late.
- For cancer screenings, insurance may not cover the procedure, it is expensive, and it is difficult to find a place to obtain the screening.
- There is a lot of work to do with providers and health care systems to get people routinely checked and screened according to current national guidelines. For those populations who do not have access to health coverage, there are gaps to get preventive services and they tend to only seek help when there is an urgent need.
- The medical community and community organizations have been putting good effort into immunizations and basic screenings for seniors.
- For the recommended screenings for seniors, a lot are covered by Medicare. But seniors do not know what is covered.
- Do people have to take off work to get preventive medicine? Then they won't do it. If

we had more hours available, it would be so much more appealing to come and do preventive screenings.

- We have program to try to get kids vaccinations. It can be a challenge to overcome some misconceptions and practical issues to get to the clinics. Schools have to get up-to-date vaccines to allow kids in, so ultimately, it gets done.
- Everyone wants to do screenings, but we need to have resources to refer them when we find issues. Do you have a dermatologist to volunteer time when you find something? If you do a glucose testing, and you see an issue, what do you do?
- Some parents in the community continue to have a perception that certain vaccines will cause autism.
- Availability, location, access, education and awareness. If we did offer a one-day clinic, and we could do it at a couple of school locations, parents would come. We don't seem to have a lot of these resources that people are aware of. Our community is so spread out and there is no good public transportation. To hold a flu clinic and have it at the hospital, it does no good for those who live too far away.

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 benchmarks; non-bolded items meet or exceed benchmarks.

Service Area Data	Healthy People 2020 Objectives
High school graduation rate 88.8%	High school graduation rate 87%
Child health insurance rate 97%	Child health insurance rate 100%
Adult health insurance rate 85.9%	Adult health insurance rate 100%
Persons unable to obtain medical care 10.7%	Persons unable to obtain medical care 4.2%
Heart disease deaths 80.5 per 100,000	Heart disease deaths 103.4 per 100,000
Cancer deaths 134.7 per 100,000	Cancer deaths 161.4 per 100,000
Stroke deaths 32.2 per 100,000	Stroke deaths 34.8 per 100,000
Unintentional injury deaths 23.6 per 100,000	Unintentional injury deaths 36.4 per 100,000
Liver disease deaths 6.9 per 100,000	Liver disease deaths 8.2 per 100,000
Homicides 1.1 per 100,000	Homicides 5.5 per 100,000
Suicides 10.8 per 100,000	Suicides 10.2 per 100,000
HIV death 0.7 per 100,000	HIV death 3.3 per 100,000
On-time (1 st Trimester) prenatal care 88.4% of women	On-time (1 st Trimester) prenatal care 78% of women
Low birth weight infants 5.9% of live births	Low birth weight infants 7.8% of live births
Infant death rate 2.9 per 1,000 live births	Infant death rate 6.0 per 1,000 live births
Adult obese 23.3%	Adult obese 30.5%
Teens obese 28.3%	Teens obese 16.1%
High blood pressure 22.4%	High blood pressure 26.9%
Annual adult influenza vaccination 40.9%	Annual adult influenza vaccination 70%
Cigarette smoking by adults 10.9%	Cigarette smoking by adults 12%
Mammograms 83.5%, ages 50-74, screened in the past 2 years	Mammograms 81.1%, ages 50-74, screened in the past 2 years

Attachment 2. Community Stakeholders

Interview Respondents

Name	Title	Organization
Helen Cameron	Business Development Analyst, Permanent Supportive Housing	Jamboree Housing Corporation
Carolina Gutierrez-Richau	Director Preventive Mental Health Department	Orange County Council of Aging, Southern California
Susan Mcinerney	Social Services Manager	Laguna Woods Village
Steve Moyer	Chief Executive Officer	Age Well Senior Services
Mary Gray Perdue	Executive Director	Family Assistance Ministries
Wendy Pospichal	Executive Director, Integrated Support Services	Capistrano Unified School District
Randy Smith	Chief Operating Officer	Camino Health Clinic
David Souleles	Deputy Agency Director	Orange County Health Care Agency
Suzie Swartz	Board of Directors	Saddleback Valley Unified School District
Tim Tatum	District Coordinator	Saddleback Valley Unified School District
Erin Ulibarri	Policy, Planning, and Community Engagement Manager	Orange County Community Services, Office on Aging
Marklem Valdovinos	Senior Director, Community Impact	American Heart Association, Orange Coast Division
Margie Wakeham	Executive Director	Families Forward
Shirley Witt	Director of Operations	Age Well Senior Services

Focus Group Participants

Group	Focus Group Date	Number of Participants	Participants
Family Assistant Ministries, San Clemente	2/21/19	14	Recently homeless, living in group home/shelter
American Heart Association	2/23/19	8	Exercise class participants

Attachment 3. Resources to Address Needs

Saddleback Medical Center solicited community input through key stakeholder interviews and focus groups to identify resources potentially available to address the significant health needs. These identified resources are listed in the table below. This is not a comprehensive list of all available resources. For additional resources refer to Orange County’s Healthier Together at <http://www.ochealthiertogether.org> and 211 Orange County at <https://www.211oc.org/>.

Health Need	Community Resources
Access to health care	Age Well Senior Services AltaMed Boys & Girls Club CalOptima El Camino Health Center Family Assistance Ministries Family Resource Centers HiCap (Health Insurance Counseling and Advocacy Program) Measure M Taskforce Orange County Annual Conditions of Children Report Orange County Health Care Agency Orange County Health Improvement Partnership Orange County Links Orange County Strategic Plan for Aging Collaborative Parent Project Planned Parenthood Saddleback College Student Health Center Share Our Selves Community Health Center Wellness and Prevention Center
Chronic diseases	AARP AltaMed Alzheimer’s Association Orange County American Cancer Association American Heart Association American Lung Association Braille Institute CalFresh Dayle McIntosh Center Diabetes Collaborative – Orange County Healthier Together El Camino Health Center Family Caregiver Resource Center Health Insurance Counseling and Advocacy Program Pathfinders Laguna Beach Community Clinic Meals on Wheels MemorialCare Orange County Health Care Agency Parkinson’s Association of Orange County Senior centers Veterans Health Clinic Vietnamese American Cancer Foundation
Dental care	Boys & Girls Club El Camino Health Center

Health Need	Community Resources
	Friends of Family Health Center Healthy Kids of Orange County Healthy Smiles Laguna Beach Community Clinic Orange County Health Care Agency Orange County Oral Health Collaborative Share Our Selves Community Health Center UCI Dental Truck
Mental health	Be Well OC Center for Healthy Living Child Guidance Center El Camino Health Center Families Assistance Ministries Families Forward Family Resource Centers Jamboree Housing National Alliance on Mental Illness (NAMI) Olive Crest Orange County Behavioral Health Orange County Crisis Assessment Team Orange County Health Care Agency Orange County Links Saddleback Church Saddleback College Student Health Center System of Care Taskforce for Mental Health Western Youth Services Windstone Behavioral Health Services
Overweight and obesity	Boys & Girls Club El Camino Health Center Girls, Inc. Orange County Health Care Agency Schools Weight Watchers WIC (Women, Infants and Children)
Preventive practices	AltaMed El Camino Health Center Jamboree Housing Lotus Committee for OCMC Orange County Health Care Agency Planned Parenthood Saddleback College Student Health Center Senior fairs Share Our Selves Community Health Center Walgreens
Senior health	AARP Adult Protective Services Age Well Senior Services Alzheimer's Family Center Assisted Living Taskforce Council on Aging Dial-a-Ride El Camino Health Center Families Assistance Ministries Financial Abuse Services Team Florence Sylvester Senior Center

Health Need	Community Resources
	Friendly Visitor Program Goodwill Industries In-Home Supportive Services Meals on Wheels Norman P. Murry Community and Senior Center Office on Aging Orange County Aging Services Collaborative Orange County Council on Aging Orange County Health Care Agency Orange County Housing Authority Saddleback Church Food Pantry Senior centers SeniorServ SmileMakers Guild
Substance use and misuse	1-800-No-Butts Al-Anon Alcoholics Anonymous (AA) Casa De La Familia Church support groups County Behavioral Health Services Drug Abuse Resistance Education (DARE) Garden Grove Tobacco Initiative Mariposa Center National Council on Alcoholism and Drug Dependency Orange County Orange County Health Care Agency PRYDE Juvenile Diversion Program Seneca Family of Agencies Substance Abuse Treatment and Recovery Program The Effect Church Tobacco Use Prevention Program Touchstone

Attachment 4. Report of Progress

Saddleback Medical Center developed and approved an Implementation Strategy to address significant health needs identified in the 2016 Community Health Needs Assessment. The medical center addressed: access to health care, chronic diseases, and mental health/behavioral health 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 Health Care

- Patient Financial Services helped individuals enroll in low cost or no cost insurance programs, regardless of where they received care.
- Information on Medicare enrollment was provided to 321 seniors through education sessions.
- 40 seniors who could not afford their medications were provided with low-cost or no cost pharmacy assistance.
- Through the Senior Advocacy program, older adults received assistance on a variety of insurance issues over the phone or in person at the Florence Sylvester Memorial Senior Center and assisted living facilities in the community. Support was given to individuals who need assistance with dual eligibility (Medicare/Medi-Cal).
- Transportation programs for patients and families with limited resources to support access to care. Over 4,250 persons were supported with needed transportation.
- Through care coordination, patients received assistance with prescriptions, home health and transportation services.

Chronic Diseases

- General health and wellness education reached over 3,500 individuals on topics that included: heart disease, stroke, lung disease, cancer, diabetes, podiatry, Parkinson's disease, nutrition, Alzheimer's disease, spine health, joint pain, and cardiac rehab, among others.
- Balance and conditioning classes assisted older adults in learning techniques to help prevent falls and the associated injuries. Over 2,000 encounters were provided.

- Exercise and stretching classes engaged seniors. 630 encounters were provided.
- Support groups for over 200 community residents and family members/caregivers included:
 - Parkinson's Disease
 - Cancer
 - Pulmonary Disease
 - Stroke
- Health fairs offered in the community focused on the health of the community specific to heart health, stroke prevention, healthy food choices, cooking demonstrations, fall prevention, cancer prevention, and joint health. Over 5,000 persons received information and engaged in preventive care demonstrations.
- Free cholesterol and lung screenings for 167 persons encouraged healthy behaviors, improved preventive practices, and provided early detection of diseases.

Mental Health/Behavioral Health

- MemorialCare participated in Be Well OC, a community-based, cross-sector strategy to create a community-wide, coordinated ecosystem to support optimal mental health. The Be Well OC initiative aspires to create a best-in-class system of mental health care and support for all Orange County residents. The Be Well OC effort, which also includes substance use services, spans across all cities in Orange County and a range of needs, from prevention and early intervention to crisis aversion, acute care and recovery.

Community Support to Address Health Needs

Contributions were made to nonprofit organizations that support community benefit efforts and address significant health needs in the community. Saddleback Medical Center supported:

- The Family Assistance Ministries' (FAM) Care Coordination Program. Through this program, FAM provided needed health and social services to individuals and families in South Orange County who are low-income or poverty level, and are homeless or at risk of homelessness. During the grant period, FAM provided necessary support to 8,835 economically vulnerable South Orange County residents who had complex health, behavioral and social needs. FAM utilized their Care Coordination Program to address the underlying causes of each person's instability to help them create a working path toward self-sufficiency or to provide care and comfort during a major illness. Care coordinators

incorporated nutritious food options, client cash aid, and housing continuum options. Care coordination ensured each client established a health home.

- 679 FAM clients were provided a health needs assessment during their initial program enrollment. 15 children in their shelters received early childhood development screenings.
 - 775 FAM clients received assistance with health insurance enrollment and assistance to identify and connect to a medical home for dental, vision, medical and mental health care.
 - FAM had 11,193 encounters with people accessing food. Clients also had the opportunity to pick up nutritious food educational resources.
 - All clients needing housing stability were provided housing resource assistance including emergency shelter, motel vouchers, rental assistance, rapid rehousing, and permanent supportive housing.
 - 549 clients were offered assistance for medication, utilities, and transportation.
 - 1,454 new clients were assisted with financial budgets to coincide with their health needs assessment.
 - 5,173 people were provided clothing and personal care items.
- The Illumination Foundation's Bridge2Care Program. The Bridge2Care program helps fill gaps in the continuum of care for homeless Orange County patients in need of housing and services after discharge from the hospital who do not qualify for other programs. Funds from Saddleback Medical Center made it possible to provide 12 medically-vulnerable homeless adults in South Orange County with 203 extension bed nights. This extension to their recuperative care stay allowed them to recuperate and fully benefit from wrap-around supportive services, which in turn lowers the likelihood of excessive emergency room use in the future.

Nurse medical coordinators, case managers, and facility and transportation staff provided wraparound services that included medical and behavioral health monitoring, identification and benefits acquisition, connections to resources, including housing and medical, and transportation facilitation. The Bridge2Care program provided housing for these homeless individuals upon discharge from the hospital. Upon exiting the Bridge2Care program, these clients had identified a safe housing option that they transitioned to.

- Out of the 10 clients who were *not* actively engaged with their PCP, medical specialist, and/or mental health specialist, 9 (90%) received medical coordination, which included PCP connection, appointment

coordination, education about the process, transportation, and attending the appointment with the client if necessary.

- The 12 Bridge2Care clients were provided with a total of 7,308 meals during their extended stay. Clients were provided three meals a day and healthy snacks.
- Case managers and housing navigators connected 11 (92%) B2C clients to housing resources. 5 (45%) of those clients received further housing coordination in supportive bridge housing and 5 (45%) were living in permanent housing.
- Case managers discussed financial literacy with 12 (100%) B2C clients, approximately 5 of whom received further training in budgeting, credit counseling, bank account, savings plan, and debt reduction.