
2017

Hoag Hospital Irvine
Hoag Hospital Newport Beach
Hoag Orthopedic Institute

Community Health Needs Assessment



A member of the
St. Joseph Hoag Health alliance



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Introduction

Background

Hoag is a nonprofit regional health care delivery network in Orange County, California, that treats more than 27,000 inpatients and 379,000 outpatients annually. Hoag consists of two acute-care hospitals – Hoag Hospital Newport Beach, which opened in 1952, and Hoag Hospital Irvine, which opened in 2010. Hoag health includes seven health centers, ten urgent care centers, and a network of more than 1,500 physicians, 5,000 employees, and 2,000 volunteers. Hoag offers a comprehensive blend of health care services, which includes five institutes that provide specialized services in the following areas: cancer, heart and vascular, neurosciences, women’s health, and orthopedics. The Hoag Orthopedic Institute consists of an orthopedic hospital, and two ambulatory surgical centers.

To further Hoag’s commitment to provide comprehensive care to the communities we serve, Hoag Medical Group was established in 2012 with the core values of excellence, innovation and compassion. The physician group comprises specialists and subspecialists in internal medicine, family medicine, pediatrics, geriatrics, genetics, endocrinology, rheumatology, diabetes, allergy & immunology and HIV medicine.

Hoag is fully accredited by DNV and has ISO 9001 certification. Additionally, Hoag is designated a Magnet[®] hospital by the American Nurses Credentialing Center’s (ANCC) Magnet Recognition Program. This credentialing program for hospitals recognizes excellence in nursing and is the highest honor an organization can receive for professional nursing practices. Hoag has been named one of the Best Regional Hospitals in the 2016 - 2017 *U.S. News & World Report*, and *Becker’s Hospital Review* named Hoag as one of the 2016 “100 Great Hospitals in America” – a designation Hoag has received four times. National Research Corporation has endorsed Hoag as Orange County’s most preferred hospital for the past 20 consecutive years and, for an unprecedented 21 years, residents of Orange County have chosen Hoag as one of the county’s best hospitals in a local newspaper survey.

St. Joseph Hoag Health

In 2013, Hoag entered into an alliance with St. Joseph Health to further expand health care services in the Orange County community, known as St. Joseph Hoag Health. The St. Joseph Hoag Health network, which is also affiliated with CHOC Children’s, focuses on meeting the big challenges of health care today, including expanding access, improving wellness and preventive services, ensuring quality and developing more efficient methods in the delivery of care.

Purpose

Hoag has undertaken a Community Health Needs Assessment (CHNA) as required by state and federal law. California Senate Bill 697 and the Patient Protection and Affordable Care Act and IRS section 501(r)(3) direct tax exempt hospitals to conduct a community health needs assessment and develop an Implementation Strategy every three years. The CHNA is a primary tool used by the hospital to determine its community benefit plan, which outlines how it will give back to the community in the form of health care and other community services to address unmet community health needs. 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

Hoag Hospital Newport Beach is located at 1 Hoag Drive, Newport Beach, CA 92663.

Hoag Hospital Irvine is located at 16200 Sand Canyon Avenue, Irvine, CA 92618.

Hoag Orthopedic Institute is located at 16250 Sand Canyon Avenue, Irvine, CA 92618.

The Hospitals' service area is comprised of 27 cities/communities located in 53 zip codes. All of these zip codes are located in Orange County except for Long Beach (90803), which is in Los Angeles County. The community was determined by the zip codes of residence of the majority of patients who visited Hoag hospitals.

City	Zip Code	City	Zip Code
Aliso Viejo	92656	Midway City	92655
Corona Del Mar	92625	Mission Viejo	92691, 92692
Costa Mesa	92626, 92627	Newport Beach	92660, 92661, 92662, 92663
Dana Point	92629	Newport Coast	92657
Fountain Valley	92708	Orange	92866, 92867, 92868, 92869
Garden Grove	92843, 92844	Rancho Santa Margarita	92688
Huntington Beach	92646, 92647, 92648, 92649	Santa Ana	92701, 92703, 92704, 92705, 92706, 92707
Irvine	92602, 92603, 92604, 92606, 92612, 92614, 92617, 92618, 92620	Seal Beach	90740
Laguna Beach	92651	Sunset Beach	90742
Laguna Hills	92653	Trabuco Canyon	92679
Laguna Niguel	92677	Tustin	92780, 92782
Laguna Woods	92637	Villa Park	92861
Lake Forest	92630	Westminster	92683
Long Beach	90803		

Service Area Map



Joint CHNA

The IRS regulations allow for the conduct of joint Community Health Needs Assessments (CHNA) when hospitals define their service area communities the same. In compliance with these regulations, this CHNA was conducted jointly by Hoag Hospital Newport Beach, Hoag Hospital Irvine and Hoag Orthopedic Institute.

Project Oversight

The Community Health Needs Assessment process was overseen by:

Minzah Malik, MPH, MBA
 Manager, Community Benefit Program
 Community Health
 Hoag Memorial Hospital Presbyterian

Lauren Tabios, MPH
 Coordinator of Grants & Special Projects
 Community Health
 Hoag Memorial Hospital Presbyterian

Consultant

Biel Consulting, Inc. conducted the Community Health Needs Assessment. Biel Consulting, Inc. is an independent consulting firm that works with hospitals, clinics and community-based nonprofit organizations. Dr. Melissa Biel conducted the Hoag Hospital Community Health Needs Assessment. She was joined by Sevanne Sarkis, JD, MHA, MEd, Sandra Humphrey and Denise Flanagan, BA. Biel Consulting, Inc. has extensive experience conducting hospital Community Health Needs Assessments and working with hospitals on developing, implementing, and evaluating community benefit programs. www.bielconsulting.com

Methods

Secondary Data Collection

Secondary data were collected from a variety of local, county, and state sources to present community demographics, social and economic factors, health access, birth characteristics, leading causes of death, chronic disease, mental health, health behaviors, substance abuse and preventive practices. Analyses were conducted at the most local level possible for the service area, given the availability of the data. These data are presented in the context of Orange County and California State, framing the scope of an issue as it relates to the broader community.

Sources of data include: U.S. Census Bureau American Community Survey, California Health Interview Survey, California Department of Public Health, California Department of Education, California Employment Development Department, California Cancer Registry, California Office of Statewide Health Planning & Development, Community Commons, County Health Rankings, Orange County's Healthier Together, and others.

Secondary data for the hospital 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 included an examination and reporting of health disparities for some health indicators. The report includes benchmark comparison data that measures Hoag Hospital's data findings with Healthy People 2020 objectives. Healthy People 2020 is a national initiative to improve the public's health by providing measurable objectives and goals that are applicable at national, state, and local levels.

Primary Data Collection

Targeted interviews and focus groups were used to gather information and opinions from persons who represent the broad interests of the community served by the hospital.

Interviews

Thirty-one (31) interviews were completed in December 2016 and January 2017. For the interviews, community stakeholders identified by Hoag Hospital were contacted and asked to participate in the needs assessment. Interviewees included individuals who are leaders and representatives of medically underserved, low-income, and minority populations, or local health or other departments or agencies that have current data or other information relevant to the health needs of the community served by the hospital facility. Input was obtained from Orange County Health Care Agency Public Health

officials. At the beginning of each interview, the purpose of the interview in the context of the assessment was explained, the stakeholders were assured their responses would remain confidential, and consent to proceed was given.

Focus Groups

Three focus groups were conducted in January and February 2017 that engaged 50 persons. The focus group meetings were hosted by trusted community organizations. An agency 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.

Initially, significant health needs were identified through a review of the secondary health data collected and analyzed prior to the interviews and focus groups. These data were then used to help guide the interviews and focus groups. The needs assessment interviews and focus groups were structured to obtain greater depth and richness of information and build on the secondary data review. During the data collection, participants were asked to identify the major health issues in the community, and socioeconomic, behavioral, environmental or clinical factors contributing to poor health. They were asked to share their perspectives on the issues, challenges and barriers relative to the significant health needs, and identify potential resources to address these health needs, such as services, programs and/or community efforts. The interviews and focus groups focused on these significant health needs:

- Access to Health Care
- Asthma
- Cancer
- Cardiovascular Disease
- Mental Health
- Overweight and Obesity
- Preventive Practices
- Substance Abuse

A list of the stakeholder interview respondents and focus groups can be found in Attachment 1.

Analysis of the primary data occurred through a process that compared and combined responses to identify themes. All responses to each question were examined together and concepts and themes were then summarized to reflect the respondents'

experiences and opinions. The results of the primary data collection were reviewed in conjunction with the secondary data. Primary data findings were used to corroborate the secondary data-defined health needs, serving as a confirming data source. The responses are included in the following Community Health Needs Assessment chapters.

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 to be solicited. In compliance with these regulations, the previous Community Health Needs Assessment and Implementation Strategy were made widely available to the public on the website <https://www.hoag.org/about-hoag/community-benefit/reports/>. Public comment was requested on these reports. To date, no written comments have been received.

Identification of Significant Health Needs

Review of Primary and Secondary Data

The analysis of secondary data yielded a preliminary list of significant health needs, which then informed primary data collection. The primary data collection process helped to validate secondary data findings, identify additional community issues, solicit information on disparities among subpopulations, and ascertain community assets to address needs.

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 analysis of secondary data yielded a preliminary list of significant health needs, which then 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.

Significant Health Needs

The following significant health needs were determined:

- Access to Health Care
- Asthma
- Cancer
- Cardiovascular Disease
- Economic Insecurity/Housing/Homelessness/Transportation
- Mental Health
- Overweight and Obesity
- Preventive Practices
- Substance Abuse

Resources to Address Significant Needs

Through the interviews community stakeholders identified potential community resources to address the significant health needs. These resources are presented in Attachment 2.

Demographics

Population

The population of the Hoag service area is 1,987,696.

Population by ZIP Code

	Number
90740 – Seal Beach	25,146
90742 – Sunset Beach	1,141
90803 – Long Beach *	33,948
92602 – Irvine	28,854
92603 – Irvine	23,934
92604 – Irvine	28,017
92606 – Irvine	23,475
92612 – Irvine	32,077
92614 – Irvine	25,689
92617 – Irvine	15,790
92618 – Irvine	23,888
92620 – Irvine	46,287
92625 – Corona Del Mar	12,679
92626 – Costa Mesa	52,063
92627 – Costa Mesa	64,832
92629 – Dana Point	27,185
92630 – Lake Forest	62,622
92637 – Laguna Woods	17,402
92646 – Huntington Beach	57,456
92647 – Huntington Beach	59,162
92648 – Huntington Beach	47,356
92649 – Huntington Beach	34,463
92651 – Laguna Beach	25,134
92653 – Laguna Hills	29,480
92655 – Midway City	8,810
92656 – Aliso Viejo	52,740
92657 – Newport Coast	12,038
92660 – Newport Beach	36,180
92661 – Newport Beach	3,707
92662 – Newport Beach	2,703
92663 – Newport Beach	22,532
92677 – Laguna Niguel	65,952
92679 – Trabuco Canyon	33,593
92683 -- Westminster	94,260

	Number
92688 – Rancho Santa Margarita	46,128
92691 – Mission Viejo	48,644
92692 – Mission Viejo	47,489
92701 – Santa Ana	55,546
92703 – Santa Ana	69,433
92704 – Santa Ana	90,467
92705 – Santa Ana	47,137
92706 – Santa Ana	37,583
92707 – Santa Ana	62,472
92708 – Fountain Valley	58,056
92780 – Tustin	57,933
92782 – Tustin	27,556
92843 – Garden Grove	48,752
92844 – Garden Grove	25,648
92861 – Villa Park	5,973
92866 – Orange	15,645
92867 – Orange	46,857
92868 – Orange	26,899
92869 – Orange	38,883
Hoag Service Area	1,987,696
Orange County	3,194,830
California	39,356,473

Source: Orange County's Healthier Together, Claritas, 2016. www.ohealthiertogether.org

*Think Health LA, 2016, www.thinkhealthla.com

Population growth in Orange County from 2010-2016 was 6.1%, which surpassed the state population growth rate of 5.6%.

Population Growth, 2010-2016

	Current Population Estimate	Percent Population Change (2010-2016)
Orange County	3,194,830	6.1%
California	39,356,473	5.6%

Source: Orange County's Healthier Together, Claritas, 2016. www.ohealthiertogether.org

Gender

In the Hoag service area 50.6% of the population is female and 49.4% is male.

Population by Gender

	Hoag Service Area	Orange County	California
Male	49.4%	49.4%	49.7%
Female	50.6%	50.6%	50.3%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP05. <http://factfinder.census.gov>

Age

The age distribution of the service area is children and youth 21.9%, 63.9% adults, and 14.1% seniors. The service area has a higher percentage of seniors than found in the county (13.5%) and the state (13.3%).

Population by Age

	Hoag Service Area *		Orange County		California	
	Number	Percent	Number	Percent	Number	Percent
Age 0-4	113,761	5.7%	191,907	6.0%	2,533,458	6.4%
Age 5-17	322,085	16.2%	537,450	16.8%	6,763,150	17.2%
Age 18-24	190,279	9.6%	311,511	9.8%	3,942,406	10.0%
Age 25-44	548,298	27.6%	875,315	27.4%	10,937,300	27.8%
Age 45-64	532,276	26.8%	846,683	26.5%	9,944,666	25.3%
Age 65+	280,997	14.1%	431,964	13.5%	5,235,493	13.3%
Total	1,987,696	100.0%	3,194,830	100.0%	39,356,476	100.0%

Source: Orange County's Healthier Together, Claritas, 2016. www.ochealthiertogether.org. * ZIP Code 90803 data source: Think Health LA, 2016 www.thinkhealthla.org

Race/Ethnicity

In the Hoag service area, 46.4% of the population is White and 31.1% of the population is Hispanic or Latino. Asians make up 18.1% of the population in the service area. The remaining races/ethnicities comprise 5.5% of the service area population.

Race/Ethnicity

	Hoag Service Area		Orange County		California	
	Number	Percent	Number	Percent	Number	Percent
White	892,397	46.4%	1,323,581	42.9%	14,905,601	39.2%
Asian	347,629	18.1%	569,625	18.5%	5,062,736	13.3%
Hispanic or Latino	597,390	31.1%	1,050,771	34.0%	14,534,449	38.2%
Other or Multiple	51,701	2.7%	80,283	2.6%	1,126,005	3.0%
Black or African American	24,655	1.3%	47,072	1.5%	2,155,929	5.7%
American Indian/AK Native	4,041	0.2%	6,264	0.2%	145,736	0.4%
Native HI / Pacific Islander	4,922	0.3%	8,735	0.3%	136,464	0.4%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP05. <http://factfinder.census.gov>

Citizenship

In the service area, 30% of residents are foreign born and 14.6% are not citizens. This percentage of foreign born residents is consistent with the county and slightly higher than the state. The percentage of those who are not citizens is comparable to that of the county and state.

Foreign Born Residents and Citizenship

	Hoag Service Area	Orange County	California
Foreign born	30.0%	30.3%	27.0%
Not a U.S. citizen	14.6%	14.9%	14.1%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP02. <http://factfinder.census.gov>

Language

In the service area 56.1% of the population speaks English only, which is higher than the county (54.4%) yet comparable to the state (56.2%). An Asian or Pacific Islander language is spoken in 13.6% of service area homes. Spanish is spoken in 24.8% of the homes in the service area, slightly below the percentage spoken in the rest of the county (26.5%) and state (28.7%). The percentage of residents in the service area who speak other Indo-European languages is 4.7%.

Language Spoken at Home, Population 5 Years and Older

	Hoag Service Area	Orange County	California
Speaks only English	56.1%	54.4%	56.2%
Speaks Asian/Pacific Islander language	13.6%	14.0%	9.7%
Speaks Spanish	24.8%	26.5%	28.7%
Speaks other Indo-European language	4.7%	4.2%	4.4%
Speaks other language	0.9%	0.9%	0.9%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP02. <http://factfinder.census.gov>

Among students enrolled in county school districts, 23.7% are English learners, below the percentage of English learners in the county (24.9%) but above the state (22.4%).

English Learners

	Percent
Hoag Service Area	23.7%
Orange County	24.9%
California	22.4%

Source: California Department of Education DataQuest, 2015-2016 Language Group Data. <http://dq.cde.ca.gov/dataquest/>

Veterans

In the service area, 5.4% of the population 18 years and older are veterans.

Veterans

	Percent
Hoag Service Area	5.4%
Orange County	5.4%
California	6.4%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP02. <http://factfinder.census.gov>

Social and Economic Factors

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 County excluded) are ranked according to social and economic factors with 1 being the county with the best factors to 57 for that county with the poorest factors. This ranking examines: unemployment, high school graduation rates, children in poverty, social support, and others. In 2015, Orange County ranked seventh, putting the county in the top 20% of all California counties on social and economic factors.

Poverty

Poverty thresholds are used for calculating all official poverty population statistics. They are updated each year by the Census Bureau. For 2014, the federal poverty level (FPL) for one person was an annual income of \$11,670 and for a family of four was \$23,850. Among area residents, 12.5% are at or below 100% of the federal poverty level (FPL) and 28.8% are at 200% of FPL or below (low-income). These poverty levels are comparable with county levels and below state averages.

Ratio of Income to Poverty Level

	Below 100% Poverty	Below 200% Poverty
Hoag Service Area	12.5%	28.8%
Orange County	12.8%	29.9%
California	16.4%	36.4%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, S1701. <http://factfinder.census.gov>

Examining poverty levels by age group indicates that 16.4% of children in the service area live in poverty. For seniors in the service area, 8.7% live in poverty.

Poverty Levels of Children and Seniors

	Children Under 18 Years Old	Seniors
Hoag Service Area	16.4%	8.7%
Orange County	17.6%	8.7%
California	22.7%	10.2%

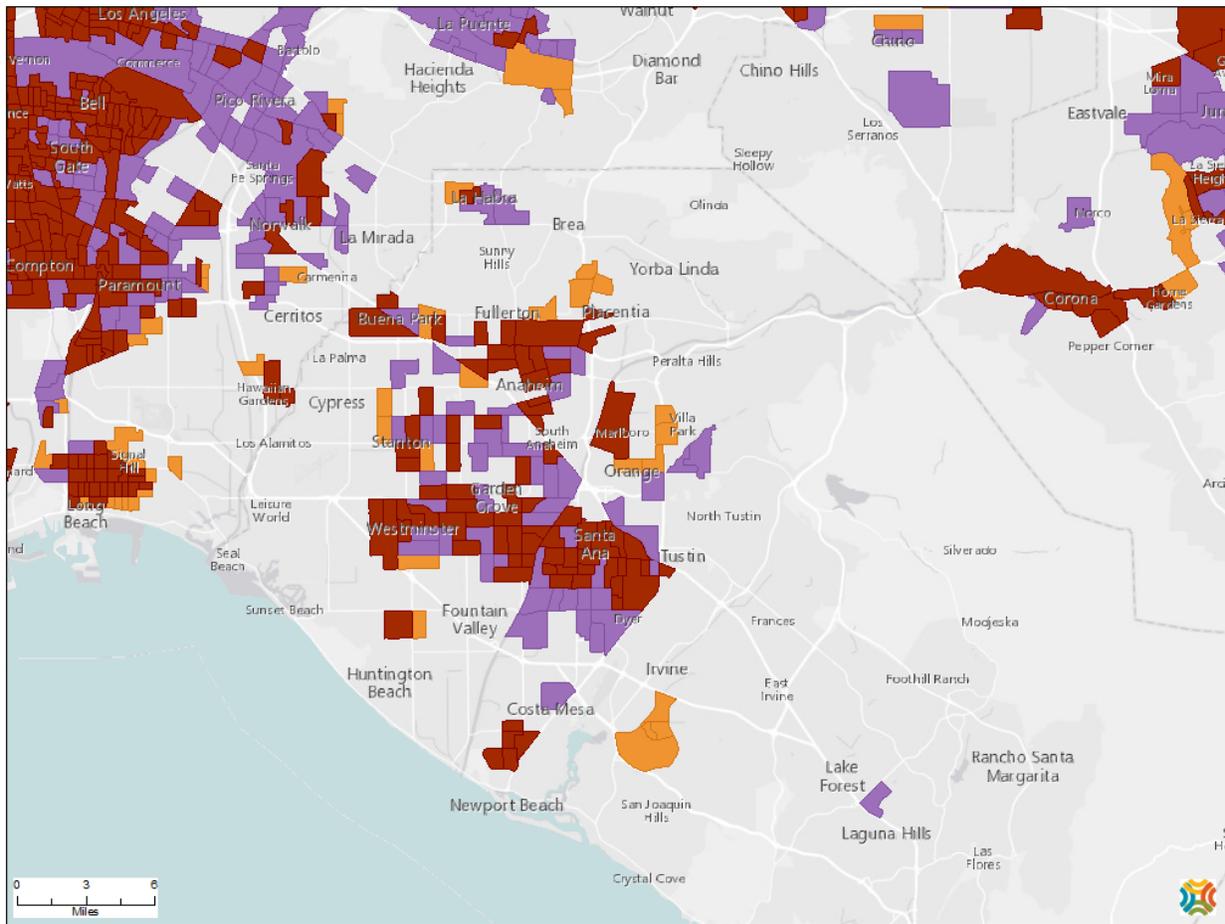
Source: U.S. Census Bureau, American Community Survey, 2010-2014, S1701. <http://factfinder.census.gov>

Vulnerable Populations

Poverty and education attainment are two indicators that are predictive of at-risk or vulnerable populations. Visualization of vulnerable populations is provided in the following map. Communities where 20% of the residents are in poverty are shown as

orange on the map. Communities where 25% or more of the residents do not have a high school education are shown as purple on the map. The overlap of high poverty and low-education attainment is depicted as brown on the map. The brown areas indicate communities with vulnerable populations and are clustered primarily in the north central part of the county.

Vulnerable Populations Footprint for Orange County



Map Legend

■ Vulnerable Populations Footprint, ACS 2011-15

Community Commons, 4/25/2017

Households

The median household income for the service area is \$86,469. This is higher than the median income for the county (\$75,998) and state (\$61,489).

Median Household Income

	Median Household Income
Hoag Service Area	\$86,469
Orange County	\$75,998
California	\$61,489

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP03. <http://factfinder.census.gov>

There are 651,588 occupied housing units in the service area. The service area percentage of 1- and 2-person households is higher than that of the county or state. The service area has a lower percentage of 3- and 4-person households than does the county or state.

Household Size

	Hoag Service Area	Orange County	California
1 person households	23.9%	21.3%	24.1%
2 person households	31.5%	30.3%	30.0%
3 person households	16.1%	17.0%	16.5%
4+ person households	28.5%	31.4%	29.5%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, S2501. <http://factfinder.census.gov>

In the service area, residents receive lower rates of supportive benefits than found in the county or state. 3.9% of service area households receive SSI benefits, 2.2% receive cash public assistance income and 5% of residents receive food stamp benefits.

Household Supportive Benefits

	Hoag Service Area	Orange County	California
Households	651,588	1,002,285	12,617,280
Supplemental Security Income (SSI)	3.9%	4.2%	6.2%
Public Assistance	2.2%	2.4%	4.0%
Food stamps/SNAP	5.0%	5.7%	8.7%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, DP03. <http://factfinder.census.gov>

Food insecurity is the lack of access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. Food security then is access to sufficient, safe and nutritious food. This indicator was asked of adults ages 18+ with an income < 200% FPL. Among low-income adults in Orange County, 35.8% reported food insecurity, which is lower than the state rate of 38.4%.

Low-Income (<200 FPL) Adult with Food Insecurity

	Percent
Orange County	35.8%
California	38.4%

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

Free and Reduced Price Meals

The number of students eligible for the free and reduced price lunch program is one indicator of the socioeconomic status within a region. The service area rate of eligibility was 49.6% in the 2014-2015 school year. This is higher than for the county (49%) but lower than the state (58.6%) rate.

Eligibility for Free and Reduced Price Meals Program

	Percent Eligible Students
Hoag Service Area	49.6%
Orange County	49.0%
California	58.6%

Source: California Department of Education DataQuest, 2014-2015. <http://dq.cde.ca.gov/dataquest/>

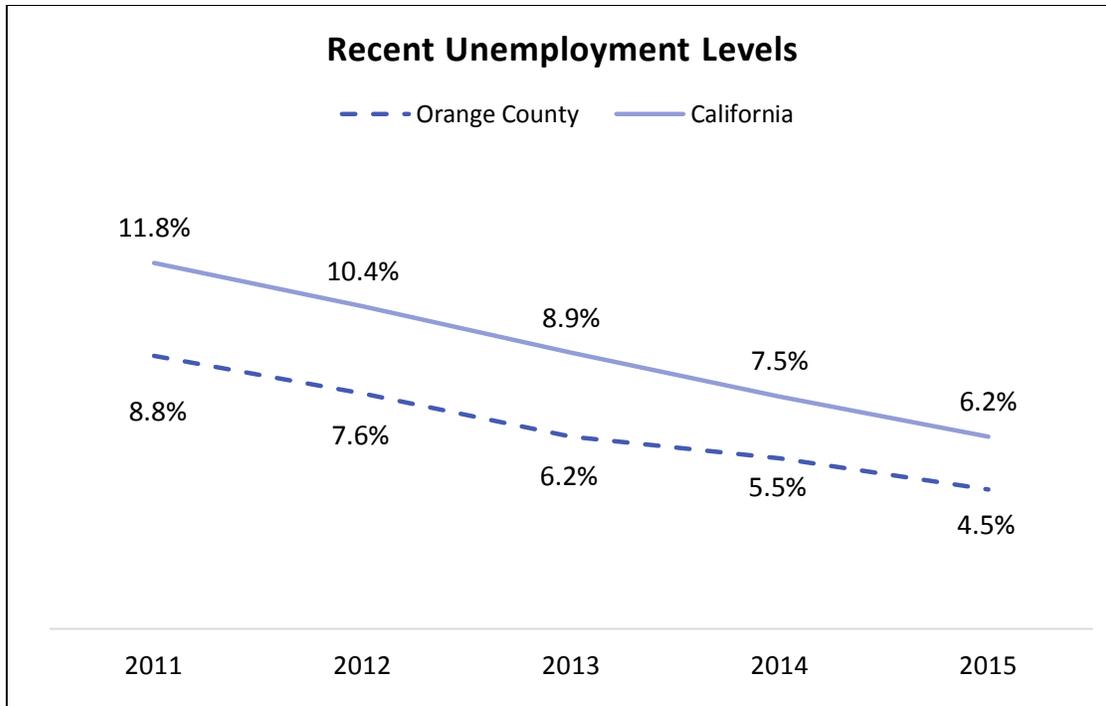
Unemployment

The unemployment rate in the service area was 4.9% in 2015. Orange County's unemployment rate averaged 4.5% in 2015. Orange County ranks fifth in unemployment levels among California counties. Unemployment rates have dropped steadily over the past five years.

Unemployment Rate, 2015 Average

	Percent
Hoag Service Area *	4.9%
Orange County	4.5%
California	6.2%

Source: California Employment Development Department, [Labor Market Information, 2015](#). Not seasonally adjusted. * No data available for Zip Codes 90742, 92625, 92655, 92660, and 92679.



Source: California Employment Development Department, Labor Market Information, 2011-2015.

Educational Attainment

In the service area, 16.1% of adults are high school graduates, lower than the rate for the county (17.8%) and the state (20.7%). 48.5% of the population in the service area has graduated college, higher than the rate for the county (45.1%) and the state (38.8%).

Educational Attainment of Adults, 25 Years and Older

	Hoag Service Area	Orange County	California
Population 25 years and older	1,293,367	2,043,735	24,865,866
Less than 9 th grade	8.6%	8.8%	10.1%
Some high school, no diploma	6.7%	7.1%	8.4%
High school graduate	16.1%	17.8%	20.7%
Some college, no degree	20.2%	21.1%	22.0%
Associate degree	7.8%	7.8%	7.8%
Bachelor degree	25.7%	24.2%	19.6%
Graduate or professional degree	14.9%	13.1%	11.4%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, S1501. <http://factfinder.census.gov>

Of the population age 25 and over, 15.3% in the service area have not attained a high school diploma.

Population, 25 Years and Older, with No High School Diploma

	Percent
Hoag Service Area	15.3%
Orange County	15.9%
California	18.5%

Source: U.S. Census Bureau, American Community Survey, 2010-2014, S1501. <http://factfinder.census.gov>

High school graduation rates are the number of high school graduates that graduated four years after starting ninth grade. In the service area, the high school graduation rate is 92%, which is higher than the county (88.6%) and the state (80.9%). The service area and county rates exceed the Healthy People 2020 objective for high school graduation of 82.4%.

High School Graduation Rates, 2013-2014

	Percent
Hoag Service Area	92.0%
Orange County	88.6%
California	80.9%

Source: California Department of Education DataQuest, Cohort Outcome Data for Class of 2013-14.

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

Homelessness

The US Department of Housing and Urban Development (HUD) conducts an annual 'point-in-time' count of homeless, with data reported by Continuums of Care (CoC). Among Smaller City, County, and Regional CoCs, the Santa Ana/Anaheim/Orange County CoC had 4,452 homeless persons observed in January 2015. 2015 saw an increase in the number of homeless individuals, along with an increase in the unsheltered homeless.

Homeless Annual Count, Santa Ana/Anaheim/Orange County CoC, 2011 to 2015

Year of Count	Total Homeless	Sheltered	Unsheltered
2011	6,939	38.4%	61.6%
2012	7,010	39.1%	60.9%
2013	4,251	60.5%	39.5%
2014	3,833	56.2%	43.8%
2015	4,452	50.6%	49.4%

Source: HUD Annual Homeless Assessment Report, 2015; HUD PIT Counts by CoC.

<https://www.hudexchange.info/resource/4832/2015-ahar-part-1-pit-estimates-of-homelessness/>

Among school-aged children, 6.5% of public school enrollees in Orange County were recorded as being homeless at some point during the 2013-2014 school year, according to the California Department of Education; this rate is higher than the California average of 4.8% (Source: kidsdata.org, January 2015).

Crime and Violence

Violent crimes include homicide, rape, robbery and assault. Crime statistics indicate that the rate of violent crime in the service area is 187.4 per 100,000 persons. Orange County has lower rates of violent crime than the state, with 199.7 crimes per 100,000 persons, nearly half the California rate of 393.3.

Violent Crimes, per 100,000 Persons

	Number	Rate
Hoag Service Area *	3,659	187.4
Orange County	6,257	199.7
California	151,425	393.3

Source: US Department of Justice, Federal Bureau of Investigation, 2012. * No data available for Zip Codes 90742, 92625, 92655, 92657, 92679 or 92861. Long Beach (90803) data excluded. <http://www.ucrdatatool.gov/Search/Crime/Local/LocalCrime.cfm>

Calls for domestic violence are categorized as with or without a weapon. The majority of domestic violence calls in the service area did not involve a weapon (83.1%), which was lower than the county average (85.7%).

Domestic Violence Calls, 2014

	Total	Without Weapon	With Weapon
Hoag Service Area *	4,738	83.1%	16.9%
Orange County	7,928	85.7%	14.3%
California	155,965	57.3%	42.7%

Source: California Department of Justice, Office of the Attorney General, 2014. * No data available for Zip Codes 90742, 92625, 92655, 92657, 92679 or 92861. Long Beach (90803) data excluded. <http://oag.ca.gov/crime/cjisc/stats/domestic-violence>

The 2015 Orange County Community Indicators noted that child abuse reporting increased 9% while confirmed reports of abuse (substantiated allegations) fell 43% in the 10-year period from 2004 to 2013. Over the same 10-year period, entries to foster care fell 42% (<http://ocgov.com/about/infooc/facts/indicators>).

Community Input – Social and Economic Factors

Stakeholder interviews and focus groups identified the most important socioeconomic, behavioral, environmental and clinical factors contributing to poor health in the community. Following are the overall themes that were discussed:

- Poverty, poor housing, racism, lack of education and unemployment all impact the health of the community.
- Language and culture create barriers to accessing health care and other services.
- Residents living in poverty cannot meet their daily needs. They are forced to pay for rent or food and cannot afford medical care.
- Healthy food is an expense that many low-income individuals cannot afford.
- There are socioeconomic disparities in Orange County, which result in low-income

populations who lack adequate health care coverage, housing and education.

- Multiple families crowd into one house or apartment to be able to afford the high rents found in Orange County.
- People work multiple jobs and move out of county and have long commutes to their jobs.
- People living in poorer neighborhoods experience negative environmental factors such as higher levels of pollution that has an effect on health.
- Insufficient transportation is an issue that impacts individuals' ability to access jobs, health care and social service resources.
- Safety concerns in neighborhoods limit outside activities like walking and playing in parks.
- Low education levels and language barriers impact parents' abilities to attend to their children's health care needs.
- We have a rapidly growing and aging population in Orange County. For seniors, rents have skyrocketed and there are fewer affordable housing units available. As a result, the potential for homelessness causes anxiety and stress.

Health Access

Health Insurance

Health insurance coverage is considered a key component to accessing health care. The service area insurance rate is 84.7%. Among children in the service area, 92.9% have insurance coverage, and 79.1% of non-senior adults are insured. Nearly all seniors are insured (98.3%). In Orange County, 83.9% of the total civilian non-institutionalized population is insured, similar to the state rate of 83.3%.

Insurance Coverage by Age Group

	Total Population	Children, 0-17	Adults, 18-64	Seniors, 65+
Hoag Service Area	84.7%	92.9%	79.1%	98.3%
Orange County	83.9%	92.6%	78.0%	98.1%
California	83.3%	92.5%	76.9%	98.3%

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

In the Hoag service area, health insurance coverage is 84.7%, which is lower than the county rate of 96.8% but higher than the state rate of 80.3%.

Insurance Coverage

	Percent
Hoag Service Area	84.7%
Orange County	96.8%
California	80.3%

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

In Orange County, 49.9% of the population has employment-based health insurance. 19.4% are covered by Medi-Cal and 11.3% 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. According to the 2015 Orange County Community Indicators report, in the six-month period between October 1, 2013 and March 31, 2014, 131,804 Orange County residents enrolled in a Covered California health plan

(<http://ocgov.com/about/infooc/facts/indicators>).

Insurance Coverage by Type of Coverage

	Orange County	California
Total Insured	88.8%	88.1%
Employment-based	49.9%	44.8%
Medi-Cal	19.4%	22.5%
Medicare and others	7.6%	9.0%
Private purchase	7.6%	6.4%
Medicare and Medi-Cal	3.1%	3.0%
Other public	0.6%	1.0%

	Orange County	California
Medicare	0.6%	1.4%
No Insurance	11.2%	11.9%

Source: California Health Interview Survey, 2014. <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 ER visits. Among Orange County residents, 86.5% reported a regular source for medical care. The source of care for 70.3% of Orange County adults is a doctor's office, HMO, or Kaiser. This is higher than the state rate (60.7%). Clinics and community hospitals are the source of care for 15.3% of adults in the county, while 13.5% 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	86.5%	85.8%
Dr. office/HMO/Kaiser Permanente	70.3%	60.7%
Community clinic/government clinic/community hospital	15.3%	23.0%
ER/Urgent Care	0.1%	1.4%
Other	0.7%	0.7%
No source of care	13.5%	14.2%

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

Accessing health care can be affected by the number of providers in a community. According to the 2015 County Health Rankings, Orange County ranks 18 out of 58 California counties for clinical care, which includes ratios of population-to-care providers and preventive screening practices, among others. The ratio of county population to health care providers indicates there are more primary care physicians and dentists, but fewer mental health providers for the population when compared to California.

Ratio of Population to Health Care Providers

	Orange County	California
Primary Care Physicians	1,063:1	1,294:1
Dentists	987:1	1,291:1
Mental Health Providers	511:1	376:1

Source: County Health Rankings, 2015.

<http://www.countyhealthrankings.org/app/california/2015/rankings/orange/county/outcomes/overall/snapshot>

Delayed care may also indicate reduced access to care; 11.3% of county residents reported delaying or not seeking medical care and 10.8% 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	11.3%	11.3%
Delayed or didn't get prescription medicine in last 12 months	10.8%	8.7%

Source: California Health Interview Survey, 2014. <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; 14.4% of residents in Orange County visited an ER over the period of a year. Seniors visited the emergency room at higher rates (23.8%) than other age groups.

Use of Emergency Room

	Orange County	California
Visited ER in last 12 months	14.4%	17.4%
0-17 years old	17.0%	19.3%
18-64 years old	11.8%	16.5%
65 and older	23.8%	18.4%
<100% of poverty level	16.1%	20.6%
<200% of poverty level	15.0%	19.8%

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

Dental Care

In Orange County, less than 1% of adults (0.7%) have never been to the dentist compared with 2.2% at the state level; 78.1% of adults have been to a dentist in the past two years.

Time since Last Dental Visit, Adult

	Orange County	California
Less than 6 months to 2 years ago	78.1%	79.7%
More than 2 years to more than 5 years	21.2%	18.1%
Never been to dentist	0.7%	2.2%

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

In Orange County, 1.8% of teens have never been to the dentist; 98% of teens have been to a dentist in the past two years.

Time since Last Dental Visit, Teens

	Orange County	California
Less than 6 months to 2 years ago	98.0%	94.7%
More than 2 years to more than 5 years	0.2%	3.5%
Never been to dentist	1.8%	1.8%

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

Among children in Orange County, 88.7% had been to the dentist in the last two years; 11.3% of children in the county had never been to the dentist.

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

	Orange County	California
Less than 6 months to 2 years ago	88.7%	83.8%
More than 2 years to more than 5 years	0%	0.9%
Never been to dentist	11.3%	15.3%

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

Community Input – Access to Care

Stakeholder interviews and focus groups identified issues, challenges and barriers related to access to health care. Following are the overall themes that were discussed:

- Finances, culture, language and transportation are barriers to access care.
- More persons now have insurance coverage as a result of the Affordable Care Act. However, insurance copays are high and necessary care isn't always covered.
- There are not enough providers to care for the low-income Medi-Cal population. It is difficult to get appointments in a timely manner. Many clinics and doctors' offices are not open on weekends or in the evenings.
- The Medi-Cal system is confusing and hard to navigate.
- For the undocumented, sometimes it's the fear of not being served that keeps people from trying to access care.
- The cost of dental care is very expensive so people are not getting routine dental care. People suffer with dental problems and lose time at work and school.
- We have a lack of specialty services available to the underserved.
- People who work at part-time or low-wage jobs may not have health insurance. They access health care on an emergency basis.
- There is a lack of accessible transportation for the elderly. Public transportation is limited and may not exist in some neighborhoods. Getting from one place and back can take most of the day.
- Many people may access care in the ED because they do not have a primary physician who can see them in a timely manner.
- We need culturally and linguistically appropriate services. In Orange County we only have one doctor who speaks Cambodian serving over 10,000 people. Language services are very limited.
- There is uncertainty around the future of the Affordable Care Act. This is a big unknown and a threat to access.
- It's a barrier to get families to seek additional appointments with health care providers to follow-up on problems. Transportation, taking time off work, and missing school, all impact whether a person gets medical care.
- There are delays in processing Medi-Cal applications. Health insurance enrollment and establishing a primary care provider is typically a confusing process.

Birth Characteristics

Births

In 2012, there were 22,879 births in the hospital service area. 44.1% were to mothers who were Hispanic or Latino, 31.1% were White, and 10.2% of births were to Asian women.

Teen Birth Rate

Teen birth rates in the service area occurred at a rate of 49.6 per 1,000 births (or 5% of total births). This rate is comparable to the teen pregnancy rate found in the county (4.7%) and lower than the state rate (7% of total births).

Births to Teenage Mothers (Under Age 20)

	Births to Teen Mothers	Live Births	Rate 1,000 Live Births
Hoag Service Area *	1,134	22,879	49.6
Orange County	1,876	40,083	46.8
California	35,281	503,788	70.0

Source: California Department of Public Health, 2012. <http://www.cdph.ca.gov/data/statistics/Pages/BirthProfilesbyZIPCode.aspx>

*No data available for Zip Code 90742.

Prenatal Care

Pregnant women in the hospital service area entered prenatal care early – within the first trimester – at a rate of 90.8%. This rate of early prenatal care exceeded the California rate of 83.6%. The service area also exceeded the Healthy People 2020 benchmark of 77.9% of women entering prenatal care in the first trimester.

Early Entry into Prenatal Care (In First Trimester)

	Early Prenatal Care	Live Births*	Percent
Hoag Service Area *	20,456	22,533	90.8%
California	412,679	492,643	83.6%

Source: California Department of Public Health, 2012. <http://www.cdph.ca.gov/data/statistics/Pages/BirthProfilesbyZIPCode.aspx>

*Births in which the first month of prenatal care is unknown are not included in the tabulation. *No data available for Zip Code 90742.

Low Birth Weight

Low birth weight is a negative birth indicator. Babies born at a low birth weight are at higher risk for disease, disability and possibly death. The service area has a lower rate of low birth weight babies (61.7 per 1,000 live births) when compared to the state (67.0 per 1,000 live births). The rate of incidence of low birth weight (6.2%) is lower than the Healthy People 2020 objective of 7.8%.

Low Birth Weight (Under 2,500 g)

	Low Birth Weight	Live Births	Percent of Live Births
Hoag Service Area *	1,411	22,879	6.2%
California	33,723	503,257	6.7%

Source: California Department of Public Health, 2012. <http://www.cdph.ca.gov/data/statistics/Pages/BirthProfilesbyZIPCode.aspx>

*No data available for Zip Code 90742.

Infant Mortality

Infant mortality reflects deaths of children under one year of age. The infant death rate in the service area is 3.7 deaths per 1,000 live births. This rate is lower than the California rate of 4.5 as well as the Healthy People 2020 objective of 6.0 deaths per 1,000 live births.

Infant Mortality Rate, 2013

	Infant Deaths	Live Births	Rate
Hoag Service Area *	84	22,879	3.7
California	2,247	503,788	4.5

Source: California Department of Public Health, 2012. <http://www.cdph.ca.gov/data/statistics/Pages/DeathProfilesbyZIPCode.asp>

*No data available for Zip Code 90742.

Breastfeeding

Breastfeeding has been proven to have considerable benefits to baby and mother. The California Department of Public Health highly recommends babies be fed only breast milk for the first six months of life. Data on breastfeeding are collected by hospitals on the Newborn Screening Test Form. Breastfeeding rates at Hoag Hospital Newport Beach indicate 96% of new mothers use some breastfeeding and 72.7% use breastfeeding exclusively, which is higher than county and state rates.

In-Hospital Breastfeeding

	Any Breastfeeding		Exclusive Breastfeeding	
	Number	Percent	Number	Percent
Hoag Hospital Newport Beach	5,235	96.0%	3,962	72.7%
Orange County	33,720	93.9%	22,898	63.8%
California	396,602	92.9%	275,706	64.6%

Source: California Department of Public Health, Breastfeeding Hospital of Occurrence, 2013

<https://www.cdph.ca.gov/data/statistics/Documents/MO-MCAH-HospitalTotalsReport2013.pdf>

Mortality/Leading Causes of Death

Mortality Rates

The top five leading causes of death in Orange County are 1) cancer, 2) heart disease, 3) Alzheimer’s disease, 4) stroke, and 5) lung disease. Age-adjusted death rates eliminate 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. Death counts and death rates are averages for the three-year period, 2011-2013.

The cancer death rate is 145.1 per 100,000 persons, lower than the state average and the Healthy People 2020 target of 161.4. The heart disease mortality rate in the county is 101.3 per 100,000 persons, lower than the state rate (104.3) and the Healthy People 2020 objective of 103.4 deaths per 100,000 persons. The death rates due to Alzheimer’s disease ranked third at 38.4, which is higher than the state rate. The death rate due to stroke was 35.2 per 100,000 persons, which exceeded the Healthy People 2020 objective of 34.8. Liver disease death rate in Orange County was 10.3 per 100,000 persons, this exceeds the Healthy People 2020 objective of 8.2 per 100,000 persons.

Mortality Rates, Age Adjusted, per 100,000 Persons, 2011-2013

	Orange County		California	Healthy People 2020
	Number	Rate	Rate	Rate
Cancer	4,458	145.1	150.9	161.4
Heart disease	3,111	101.3	104.3	103.4
Alzheimer’s disease	1,154.7	37.6	30.9	No Objective
Stroke	1,081.7	35.2	35.7	34.8
Chronic Lower Respiratory Disease	950	30.9	35.0	No Objective
Unintentional injuries	695	22.6	28.4	36.4
Pneumonia and influenza	555.7	18.1	16.3	No Objective
Diabetes	470.3	15.3	20.7	No Objective
Liver disease	315.7	10.3	12.3	8.2
Suicide	306	10.0	10.4	10.2

Source: California Department of Public Health, 2011-2013. <http://www.cdph.ca.gov/programs/ohir/Pages/CHSP.aspx>

In the service area, there were a total of 11,354 deaths in 2012. 51% of the deaths were among females and 49% were male. Heart disease, cancer and Alzheimer’s disease were the top three leading causes of death in the service area. When compared to the state, the service area has higher death rates for the top three causes of death and for pneumonia and influenza. These are crude death rates (not age-adjusted) and are subject to wide variation due to differences in median age from zip code to zip code.

Mortality Rates, per 100,000 Persons

	Hoag Service Area *		California
	Number	Rate	Rate
Heart disease	2,864	252.2	243.5
Cancer	2,824	248.7	237.2
Alzheimer's disease	739	65.1	48.0
Stroke	668	58.8	59.9
Chronic Lower Respiratory Disease	548	48.3	53.3
Unintentional injuries	402	35.4	44.3
Pneumonia and influenza	350	30.8	24.0
Diabetes	252	22.2	32.5
Liver disease	195	17.2	19.2
Suicide	195	17.2	15.9

Source: California Department of Public Health, 2012. www.cdph.ca.gov/data/statistics/Pages/DeathProfilesbyZIPCode.aspx *No data available for Zip Code 90742.

The five-year average cancer mortality rate for all cancer sites in Orange County was 143.6 per 100,000 persons, statistically significantly lower than the California rate. Mortality in the county from digestive system, respiratory system, and breast cancers were lower than the state rates.

Cancer Mortality Rates, per 100,000 Persons, 2008-2013

	Orange County		California
	Number	Rate	Rate
Cancer, all sites	21,983	143.6	152.1
Digestive system	5,935	38.4	41.6
Respiratory system	5,018	33.4	35.8
Breast	1,677	10.7	11.5
Female genital	1,226	14.3	14.9
Male genital	1,209	19.9	21.0
Urinary system	1,119	7.3	7.7
Leukemia	1,001	6.6	6.5
Lymphoma	887	5.9	6.0

Source: California Cancer Registry, Cancer Surveillance Section, California Department of Public Health, 2008-2013. <http://www.cancer-rates.info/ca/>

Chronic Disease

Health Status

Among the Orange County population, 17.4% reported being in fair or poor health. This rate is slightly higher than the California rate of 17%.

Health Status, Fair or Poor Health

	Orange County	California
Persons with fair or poor health	17.4%	17.0%

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

Diabetes

Diabetes is a growing concern in the community; 7.1% of adults in Orange County have been diagnosed with diabetes, and 9.2% have been diagnosed as pre-diabetic. Among adults with diabetes, 51.2% are very confident they can control their diabetes; 12.2% of adults in Orange County are not confident that they can control/manage their diabetes.

Adult Diabetes

	Orange County	California
Diagnosed pre/borderline diabetic	9.2%	10.5%
Diagnosed with diabetes	7.1%	8.9%
Very confident to control diabetes	51.2%	56.5%
Somewhat confident	36.6%	34.7%
Not confident	12.2%	8.8%

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

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	92.4	107.4
Diabetes short term complications	39.9	56.1
Lower-extremity amputation among patients with diabetes	11.3	16.1
Uncontrolled diabetes	7.7	9.2

Source: California Office of Statewide Health Planning & Development, 2013. * Risk-adjusted (age-sex) annual rates per 100,000 population. http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html

Heart Disease

For adults in Orange County, 6.3% have been diagnosed with heart disease. Among these adults, 57% are very confident they can manage their condition but 13.7% were not confident they could control their heart disease. 62.9% have a disease management care plan developed by a health care professional.

Adult Heart Disease

	Orange County	California
Diagnosed with heart disease	6.3%	6.1%
Very confident to control condition	57.0%	53.6%
Somewhat confident to control condition	29.3%	34.9%
Not Confident to control condition	13.7%	11.5%
Has a disease management care plan	62.9%	67.1%

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

Prevention Quality Indicators (PQIs) identify hospital admissions that may be avoided through access to high-quality outpatient care. The three PQIs related to heart disease are hypertension, heart failure, and angina without procedure. In 2013, rates of hypertension, Congestive Heart Failure and Angina were lower in the county than in the state.

Hospitalization Rates* for Prevention Quality Indicators – Heart Disease

	Orange County	California
Congestive Heart Failure	213.2	292.0
Hypertension	22.5	33.3
Angina without procedure	8.5	16.9

Source: California Office of Statewide Health Planning & Development, 2013. * Risk-adjusted (age-sex) annual rates per 100,000 population. http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html

High Blood Pressure

A co-morbidity factor for diabetes and heart disease is hypertension (high blood pressure). In Orange County, 27.8% of adults have been diagnosed with hypertension. Of those, 75% take medication to control their blood pressure. The Healthy People 2020 objective is to reduce the proportion of adults with high blood pressure to 26.9%.

High Blood Pressure

	Orange County	California
Ever diagnosed with hypertension	27.8%	28.5%
Takes medicine for hypertension	75.0%	68.5%

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

Community Input – Cardiovascular Disease

Stakeholder interviews and focus groups identified issues, challenges and barriers related to cardiovascular disease. Following are the overall themes that were

discussed:

- Heart disease is the number one cause of death among seniors.
- Obesity is a growing problem that impacts cardiovascular health.
- Access to healthy food is an issue. Community members don't have time to cook, and they are negatively influenced by advertisements about food and portion size.
- Smoking is a risk factor for cardiovascular disease and tobacco use is increasing among young kids.
- There is a lack of access to preventive practices. People don't have time for exercise and they do not have access to fresh fruits and vegetables.
- Living in poverty is a big stressor that leads to cardiovascular disease.
- Being overweight has a tremendous impact on cardiac disease. We need to focus on healthy approaches to nutrition and activity.
- We need to change policies on land use, access to fruit and vegetables, and environments that are safe to be physically active in. This will impact the root causes of cardiovascular disease.
- There needs to be an emphasis on prevention and lifestyle changes to reduce cardiovascular disease.

Cancer

In Orange County, the five-year, age-adjusted cancer incidence rate is 418.6 per 100,000 persons, statistically significantly lower than the state average (95% confidence). Rates for cancers of male genital, digestive system, female genital, and urinary system were significantly lower than the state average. Cancers of breast (either sex), skin, and endocrine system/thyroid had modest but significantly higher rates.

Cancer Incidence, per 100,000 Persons, Age Adjusted, 2008-2012

	Orange County	California
All sites	418.6	424.9
Male genital	127.6	133.7
Digestive system	76.4	81.1
Breast, either sex	67.4	65.3
Respiratory system	49.0	51.2
Female genital	45.1	47.6
Urinary system	30.2	33.5
Skin	28.4	23.0
Lymphoma	21.1	21.3
Endocrine system/thyroid	14.3	12.7
Leukemia	12.5	12.5
Oral Cavity and pharynx	10.6	10.4
Brain and nervous system	6.4	6.1

Source: California Cancer Registry, Cancer Surveillance Section, Cancer Surveillance and Research Branch, California Department of Public Health, 2008-2012. <http://www.cancer-rates.info/ca/>

Community Input – Cancer

Stakeholder interviews and focus groups identified issues, challenges and barriers related to cancer. Following are the overall themes that were discussed:

- Adolescent girls and boys are not getting full HPV coverage at adequate rates.
- Families may have a hard time finding a support group for cancer.
- Women die silently from cancer in our community. People hide their diagnoses of cancer. Breast cancer is very shameful for some. This shame is mostly for breast cancer but it is present with all cancers.
- There are disparities accessing cancer treatments depending on socioeconomic status. Economic status impacts having access to the latest technology, scientific findings, clinical trials, and medications.
- Pediatric chemotherapy and antibiotics can lead to hearing loss. Children can survive cancer and be healthy with permanent hearing loss.
- There is an abundance of good options for cancer care in Orange County. But there is not equal access to information or care.
- Cancer is a powerful, scary word and a cancer diagnosis needs explanation and support.
- Patients with cancer are terrified if they think they have to pay for cancer treatment and therapy.
- We are fortunate in Orange County to have cancer detection programs through Medi-Cal and state breast and cervical coverage, as long as the programs remain intact with changes at the federal level.
- People have a fear of cancer so they forgo cancer screenings.
- There is not a lot of funding available for cancer screenings and follow-up for younger women. It is easier to obtain funds for women who are 40 years and older.

Asthma

In Orange County 6.4% of the population has asthma. This is lower than the state rate of 8.3%. Among youth, 7.5% currently have asthma, which is lower than the state rate of 10.1%.

Active Asthma Prevalence

	Orange County	California
Youth (ages 0-17) with active asthma	7.5%	10.1%
Adults (ages 18 and over) with active asthma	8.0%	7.7%
All ages with active asthma	6.4%	8.3%

Source: California Breathing accessing CHIS, 2014. www.californiabreathing.org/asthma-data/county-asthma-profiles/orange-county-asthma-profile.

In Orange County, 10.7% of the population has been diagnosed with asthma in their lifetime. 93.2% have had symptoms in the past year, and 48.9% take daily medication to

control their asthma. Among county youth, 17.2% have been diagnosed with asthma in their lifetime, and 39.6% have visited the ER as a result of their asthma, and 60.1% take daily medication to control their asthma.

Asthma

	Orange County	California
Ever diagnosed with asthma in lifetime, total population	10.7%	15.2%
Ever diagnosed with asthma in lifetime, 0-17 years old	17.2%	13.8%
ER visit in past year due to asthma, total population	18.4%	12.6%
ER visit in past year due to asthma, 0-17 years old	39.6%	20.1%
Takes daily medication to control asthma, total population	48.9%	46.8%
Takes daily medication to control asthma, 0-17 years old	60.1%	48.2%
Had asthma symptoms in the past 12 months	93.2%	88.1%

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

In Orange County, 15.6% of adults have been diagnosed with asthma.

Adults with Asthma

	Percent
Orange County	15.6%

Source: Orange County's Healthier Together, California Department of Public Health, 2013. <http://www.ochealthiertogether.org>

The hospitalization rates for asthma were lower in the county (5.3 per 10,000 persons) than the state (7.6).

Asthma Hospitalizations, Age-Adjusted Rates (per 10,000 Persons)

	Orange County	California
Youth (ages 0-17)	7.1	10.9
Adults (ages 18 and over)	4.6	6.5
All ages with active asthma	5.3	7.6

Source: California Breathing accessing California Office of Statewide Health Planning & Development, 2014. www.californiabreathing.org/asthma-data/county-asthma-profiles/orange-county-asthma-profile.

The rate of Emergency Department visits due to asthma was 32.2 (per 10,000 persons) in Orange County, compared to 49.5 (per 10,000 persons) in the state.

ED Visits Due to Asthma, Age-Adjusted Rates (per 10,000 Persons)

	Orange County	California
Youth (ages 0-17)	56.7	80.7
Adults (ages 18 and over)	23.8	38.6
All ages with active asthma	32.2	49.5

Source: California Breathing accessing California Office of Statewide Health Planning & Development, 2014. www.californiabreathing.org/asthma-data/county-asthma-profiles/orange-county-asthma-profile.

Community Input – Asthma

Stakeholder interviews and focus groups identified issues, challenges and barriers related to asthma. Following are the overall themes that were discussed:

- Compliance is a big factor in making sure kids with asthma follow-up with their primary care doctors, know how to use inhalers and avoid triggers, and not wait until it's an emergency.
- Community members who live near freeways and are in jobs exposed to certain irritants (i.e. paints, chemicals, nail salons) have higher rates of asthma.
- Instead of getting a good diagnosis or care for asthma for their kids, some parents just won't let their kids exercise or play.
- Adults will use their kids' medicines instead of getting their own diagnoses and treatments.
- Children whose families don't know what asthma is may think their kids just have a constant cough. They do not know that a cough may be the first sign of asthma.
- Low-income persons may live in substandard housing that has mold, vermin, and leaks, which can exacerbate an asthma condition.
- Increasing rates of asthma are tied to the home environment, the physical environment, paint, mold, cleaners, and air quality. It is difficult for persons with asthma to control their home and physical environments.
- There is a lack of fundamental education for families to understand how to respond to asthma and prevent issues. More and more people are getting asthma management through the ED. They wait until there is a crisis before they get care.
- It is a challenge is to get uncompensated patients to specialty appointments, even when it's something as common as asthma.

Disability

Among of adults in Orange County, 27.3% had been identified as having a physical, mental or emotional disability. This rate is lower than the state rate of disability (28.5%). 4.6% of 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	27.3%	28.5%
Couldn't work due to impairment	4.6%	5.2%

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

Mental Health

Mental Health

In Orange County, 6.3% of adults experienced serious psychological distress in the past year. Among adults, 9.9% saw a health care provider for emotional, mental health, alcohol or drug issues, however, 55.3% of those who sought or needed help did not receive treatment. The Healthy People 2020 objective is for 64.6% of adults with a mental disorder to receive treatment (35.4% who do not receive treatment). 11.1% of adults took prescription medicine for emotional/mental health issues in the past year.

Mental Health Indicators, Adults

	Orange County	California
Adults who has likely had serious psychological distress during past year	6.3%	7.7%
Adults who needed help for emotional-mental and/or alcohol-drug issues in past year	14.9%	15.9%
Adults who saw a health care provider for emotional/mental health and/or alcohol-drug issues in past year	9.9%	12.0%
Adults who sought/needed help but did not receive treatment	55.3%	56.6%
Adults who took prescription medicine for emotional/mental health issue in past year	11.1%	10.1%

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

In Orange County, 33.1% of teens needed help for an emotional or mental health problem and 15.1% received counseling.

Mental Health Indicators, Teens

	Orange County	California
Teens who needed help for emotional/mental health problems in past year	33.1%	23.2%
Teens who received psychological/emotional counseling in past year	15.1%	11.6%

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

In Orange County, 7.7% of adults had seriously considered suicide. This is less than the state rate.

Thought about Committing Suicide

	Orange County	California
Adults who ever seriously thought about committing suicide	7.7%	7.8%

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

Community Input – Mental Health

Stakeholder interviews and focus groups identified issues, challenges and barriers related to mental health. Following are the overall themes that were discussed:

- There has been an effort by the County to make mental health services more accessible by making them easier to navigate. CalOptima has invested in infrastructure to help people as they navigate mental health services.
- There is a lack of behavioral health services available in the community for homeless and vulnerable populations. This results in Hoag having more homeless and psychiatric patients than any other hospital in Orange County. People can board in the ED for days because there is no place to refer them for services.
- The way in which mental health is accessed and delivered is somewhat unique for a domestic violence survivor. She doesn't have a typical network of family and friends to take care of the kids or she cannot go to a regular provider if the abusive partner knows who her provider is or when her appointment is.
- People are too afraid to get help because they're worried that Social Services will get involved and make the situation in the family worse.
- There are long delays for care and trouble finding help, even in cases of attempted suicide.
- In the school setting, mental health issues are pretty prevalent. Social media has resulted in anxiety, depression and peer pressure among our kids.
- Seniors are homebound and isolated, socially and culturally. They don't want to tell people they are depressed and anxious, and not getting or seeking treatment. They have untreated mental health issues.
- For Cambodians mental health care needs to focus on PTSD and depression.
- It would help if specialists gave all the options for care, not just medication. They may want to also discuss exercise, therapy, art, talking to friends and family as options.
- Stigma reduction is needed especially with cultural groups that feel they can't tell someone that there is a mental health issue.
- There are gaps in resources for people with mental health issues. It is easy for people to get out of the system or off track if they do not have strong advocates to keep them engaged with services.
- For pediatric patients there is only one facility in Orange County that has inpatient beds. UCI is closing their beds and then we will only have College Hospital's resources until CHOC opens their mental health beds. There are not enough inpatient beds and not enough outpatient providers.
- Mental health issues tend to focus on stigma and access. We find people may have access to the initial appointment but no access to follow-up. They need to meet with a psychologist and get drugs for treatment and that becomes a barrier.
- It seems there is so little that we have to offer for people who need it the most. A majority of homeless street people either suffer from profound mental health problems or substance abuse and there are only a few places to be: on the street or in jail.

- Among refugees mental health is a taboo topic. People believe mental health care is for crazy people. We need to overcome that stigma.
- There is an access barrier for people of different cultures and languages. It's hard to locate a therapist from a specific culture.
- Mental health issues are underdiagnosed in the poorest populations and there is a lack of quality services addressing these needs.
- In Orange County, there are not enough areas to admit patients in psychiatric crisis or enough places to go for care. Patients continue to worsen and the only place to go is the ED because they are gravely disabled, homicidal or suicidal.
- There is a stigma associated with mental health issues in Latino and Vietnamese populations. In Hispanic populations, the stigma is related to being seen as weak and unable to manage stress or grief. Among the Vietnamese, they feel shame. They are embarrassed, so it is hidden or ignored. It is hard to come out of the darkness they are living in.
- Postpartum depression is a concern. Some providers don't take the time to evaluate and screen patients that are at risk.
- Depression and anxiety caused by violence and obesity continue, and substance abuse ties into efforts to cope with mental health issues.
- More people die from suicide in Orange County than from homicide. Here homicide gets more attention but we need to give more attention to suicide. Suicide is a substantial public health risk.

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 County 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 8 puts Orange County in the top 20% of California counties for health behaviors. This ranking has been stable for the past three years.

Overweight and Obesity

In Orange County, 41.9% of the adult population reported being overweight. The county adult rate of overweight exceeds the state rate of 35.5%. 12.7% of teens and 12.8% of children in the county are overweight.

Overweight

	Orange County	California
Adult (ages 20+ years)	41.9%	35.5%
Teen (ages 12-17 years)	12.7%	16.3%
Child	12.8%	13.6%

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

The Healthy People 2020 objectives for obesity are 30.5% of adults and 16.1% of teens. In Orange County, 18.2% of adults and 16.6% of teens are obese.

Obese

	Orange County	California
Adult (ages 20+ years)	18.2%	27.0%
Teen (ages 12-17 years)	16.6%	14.6%

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

When adult obesity levels are tracked over time, the county has experienced an increasing obesity trend over time. California has seen a small but measurable increase in rates of obesity.

Adult Obesity, 2005-2013

	2005	2007	2009	2011	2013
Orange County	17.3%	18.5%	17.3%	24.2%	20.8%
California	21.2%	22.6%	22.7%	25.1%	24.7%

Source: California Health Interview Survey, 2005, 2007, 2009, 2011, 2013. <http://ask.chis.ucla.edu>

Adult overweight and obesity by race and ethnicity indicate high rates among Latinos (75.3%) and African Americans (71.4%). Whites also report higher levels of overweight and obesity (60.2%) compared with the state (58.9%). Asians in Orange County have the lowest rates of overweight and obesity (36.5%).

Adult Overweight and Obesity by Race/Ethnicity

	Orange County	California
Latino	75.3%	73.2%
African American	71.4%	71.2%
White	60.2%	58.9%
Asian	36.5%	43.7%
Total Adult Population	60.1%	62.5%

Source: California Health Interview Survey, 2014. <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 or at high risk (overweight/obese). In the service area, 17.8% of 5th grade students and 13.2% of 9th graders tested as needing improvement or at high risk for body composition.

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

	Fifth Grade	Ninth Grade
Hoag Service Area	17.8%	13.2%
Orange County	17.7%	13.1%
California	20.9%	17.2%

Source: California Department of Education, Fitnessgram Physical Fitness Testing Results, 2014-2015.

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

Fast Food

In Orange County, 20.2% of children and 29.2% of adults consume fast food three to four times a week. This rate of fast food consumption is higher than the state rate.

Fast Food Consumption

	Orange County	California
Children who were reported to eat fast food 3-4 times a week	20.2%	14.6%
Adults who reported eating fast food 3-4 times a week	29.2%	22.2%

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

Soda Consumption

14.2% of children in Orange County consume at least two sodas or sweetened drinks a day. Among county adults, 6.7% drank at least seven sodas or sweetened drinks weekly; 63.3% of adults drank no soda or sweetened drinks.

Soda or Sweetened Drink Consumption

	Orange County	California
Children reported to drink at least 2 sodas or sweetened drinks a day*	14.2%	14.2%
Adults who reported drinking at least 7 sodas or sweetened drinks weekly^	6.7%	10.1%
Adults who reported drinking no soda or sweetened drinks weekly^	63.3%	61.4%

Source: California Health Interview Survey, *2012, ^2014. <http://ask.chis.ucla.edu>

Fresh Fruits and Vegetables

58.8% of children and teens in Orange County consume two or more servings of fruit in a day. Adults (86.6%) report that they could usually or always find fresh fruits and vegetables in the neighborhood. And 80.2% of adults reported the fruits and vegetables were always or usually affordable.

Access to and Consumption of Fresh Fruits and Vegetables

	Orange County	California
Children and teens who reported eating 2 or more servings of fruit in the previous day	58.8%	63.3%
Adults who reported finding fresh fruits and vegetables in the neighborhood always or usually	86.6%	86.7%
Adults who reported fresh fruits and vegetables were always or usually affordable in the neighborhood	80.2%	78.1%

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

Physical Activity

For school-aged children in Orange County, 25.5% engage in physical activity for at least one hour a day, 7 days a week, which is less than the state rate of 32.8%. 92.8% of Orange County teens and children visited a park, playground or open space in the last month.

Physical Activity, Children and Teens, Ages 6-17

	Orange County	California
Activity available one hour or more per day, 7 days per week	25.5%	32.8%
Visited a park, playground or open space in the last month	92.8%	83.9%

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

Among adults in Orange County, 15.4% are sedentary and do not participate in leisure time physical activities. This rate compares favorably to the Healthy People 2020 objective of 32.6%.

Adults who are Sedentary

	Orange County	Healthy People 2020 Objective
Adults (ages 20+) who did not participate in any leisure-time physical activities during past month	15.4%	32.6%

Source: Centers for Disease Control and Prevention, 2012. Accessed from www.ochealthiertogether.org

One of the components of the physical fitness test (PFT) for students in schools is measurement of aerobic capacity through run and walk tests. 72% of 5th grade students and 72.1% of 9th graders in the service area meet the Healthy Fitness Zone standards for aerobic capacity.

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

	Fifth Grade	Ninth Grade
Hoag Service Area	72.0%	72.1%
Orange County	70.7%	71.8%
California	63.5%	63.8%

Source: California Department of Education, Fitnessgram Physical Fitness Testing Results, 2014-2015.

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

Community Input – Overweight and Obesity

Stakeholder interviews and focus groups identified issues, challenges and barriers related to overweight and obesity. Following are the overall themes that were discussed:

- How do we make food healthy, affordable, easy to prepare, and tasty? Fast food is inexpensive and people are busy and do not have time to cook healthy meals.
- For people with dementia they may not remember they just ate or they just want to eat more.
- Kids are afraid to play outside and instead play video games and eat fast food.
- A sedentary lifestyle has increased in all populations. We lack access to outdoor spaces and exercise spaces. Families work all the time and do not have time to exercise, even if they live close to the beach.
- The Vietnamese incidence of diabetes is skyrocketing and surpassing that of Hispanics, all without the traditional BMI, which bears watching.
- Families are eating very unhealthy food with high sugar content and parents are not taking this very seriously. There is not an underlying understanding that bad habits are developing early and they are difficult to reverse.
- Childhood obesity is multifactorial. There are misguided principles on adopting a

healthy diet.

- School food is not always healthy and parents don't have enough money for nutrient rich foods.

HIV/AIDS

The 2015 County Health Rankings reports an HIV prevalence rate, or the number of persons living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population. The Orange County rate was 259, lower than the California rate of 363. There were 6,478 documented cases in the county in 2010.

Sexually Transmitted Diseases

The rate of Chlamydia cases in Orange County is 296.6 per 100,000 persons. This rate represents a 4-year high but remains below the California rate of 453.4. The county rate of Gonorrhea is 57.3 per 100,000 persons, also lower than the state rate of 116.8. Rates of Syphilis are slightly lower than the state rates.

STD Cases, Rate per 100,000 Persons, 2014

	Orange County		California
	Cases	Rate	Rate
Chlamydia	9,292	296.6	453.4
Gonorrhea	1,796	57.3	116.8
Primary & Secondary Syphilis	205	6.5	9.9
Early Latent Syphilis	143	4.6	8.8

Source: California Department of Public Health, 2014. <http://www.cdph.ca.gov/data/statistics/>

Substance Abuse

Cigarette Smoking

In Orange County, 10.8% of adults smoke cigarettes, lower than the state rate of 11.6% and the Healthy People 2020 objective of 12%.

Cigarette Smoking, Adults

	Orange County	California
Current smoker	10.8%	11.6%
Former smoker	21.8%	22.4%
Never smoked	67.5%	66.0%

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

Among teens in Orange County, 5.5% smoke cigarettes and 3.2% have smoked an electronic (vaporizer) cigarette.

Smoking, Teens

	Orange County	California
Current cigarette smoker	5.5%	3.1%
Ever smoked an e-cigarette	3.2%	10.3%

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

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. Among adults, 35.1% of 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	35.1%	34.0%

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

Among Orange County teens, 17.6% had reported having an alcoholic drink and 1.9% had engaged in binge drinking in the past month.

Alcohol Consumption and Binge Drinking, Teens

	Orange County	California
Ever had an alcoholic drink	17.6%	22.5%
Reported binge drinking in the past month	1.9%	3.6%

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

The number of fatal motor vehicle collisions as a result of driving under the influence of alcohol or drugs has increased annually from 2011 to 2013. The number of injury

collisions due to driving under the influence of alcohol or drugs, increased from 2011 to 2012, but declined in 2013.

Driving Under the Influence of Alcohol or Drugs, Fatal or Injury Collisions, 2011-2013

	2011		2012		2013	
	Fatal	Injury	Fatal	Injury	Fatal	Injury
Fatal injuries or collisions caused by driving under the influence of drugs or alcohol	25	1,061	29	1,102	36	980

Source: California Highway Patrol, 2013 Annual Report of Fatal and Injury Motor Vehicle Traffic Collisions.

www.chp.ca.gov/Programs-Services/Services-Information/SWITRS-Internet-Statewide-Integrated-Traffic-Records-System/SWITRS-2013-Report#2013section1

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.

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, 2012. <http://ask.chis.ucla.edu>

Community Input – Substance Abuse

Stakeholder interviews and focus groups identified issues, challenges and barriers related to substance abuse. Following are the overall themes that were discussed:

- There are concerns about the new laws legalizing marijuana.
- There are not enough substance abuse services and we need to increase capacity.
- We have seen a huge increase in substance abuse, including opiate and heroin addiction. We don't have adequate pain control programs.
- Substance abuse services are difficult to access. They are also expensive, not family friendly and it's only in recent years that the county has begun to cover the mild-to-moderate mental health service population.
- Drugs are rampant, impacting kids at younger and younger ages. Peer influence is so difficult to overcome.
- The elderly are frequently overmedicated. They have multiple doctors prescribing multiple medications.
- Often substance abuse is a form of self-treatment of a mental health issue.
- Alcohol use within the adult population is excessive. We see heavy alcohol use in low-income communities.
- Homelessness and being undocumented are challenges that compound substance abuse. There are no major outpatient or inpatient programs for substance abuse that you don't have to pay for out-of-pocket. Managed care does not usually pay for

substance abuse programs.

- Persons who have psychiatric crisis and/or are homeless, have a high tendency for substance abuse and overdoses.
- Smoking cessation programs are hard to find and expensive.
- When people come in and need help for substance abuse, there is still a gap in getting the right care at the right time for patients who are ready to receive that care. It is difficult to get timely care and often it's based on income.
- Tobacco is the leading cause of preventable death. The passage of the law to increase tobacco taxes will add a significant amount of revenue for prevention programs.
- We are seeing a normalization of using marijuana to get high. It can be a gateway drug for some.
- There are not many resources for rehab especially for the teen population.
- Doctors and other providers need to be on alert that they are not overmedicating people, or prescribing opiates that can be abused.

Preventive Practices

Immunization of Children

Most Orange County school districts have high rates of compliance with childhood immunizations upon entry into kindergarten, with the county rate similar to the state average. The service area has a slightly lower rate of compliance when compared to the county or state.

Up-to-Date Immunization Rates of Children Entering Kindergarten, 2014-2015

	Immunization Rate
Hoag Service Area	89.5%
Orange County	90.1%
California	90.5%

Source: California Department of Public Health, Immunization Branch, 2014-2015. <https://cdph.data.ca.gov/Healthcare/School-Immunizations-In-Kindergarten-2014-2015/4y8p-xn54>

Flu Vaccine

46.4% of Orange County residents have received a flu shot. 60.4% of children, 0-17, and 74.6% 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	46.4%	45.8%
Vaccinated for flu in past 12 months, 0-17	60.4%	53.7%
Vaccinated for flu in past 12 months, 18-64	36.7%	37.4%
Vaccinated for flu in past 12 months, 65+	74.6%	72.8%

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

Mammograms

In Orange County, 72.3% of women have obtained a mammogram in the past two years. This rate is less 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	72.3%	65.1%

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

Colorectal Cancer Screening

In Orange County, the rate of compliance for colorectal cancer screening is 80.8%, which exceeds the Healthy People 2020 objective for colorectal cancer screening of

70.5%. Of adults advised to obtain screening, 73.6% of county residents were compliant at the time of the recommendation.

Colorectal Cancer Screening, Adults 50+

	Orange County	California
Sigmoidoscopy, colonoscopy or fecal occult blood test	80.8%	78.0%
Compliant with screening at time of recommendation	73.6%	68.1%

Source: California Health Interview Survey, 2009. <http://ask.chis.ucla.edu>

Community Input – Preventive Practices

Stakeholder interviews and focus groups identified issues, challenges and barriers related to preventive practices. Following are the overall themes that were discussed:

- Clients are so overwhelmed with their lives that when it comes to prevention they can't quite get to it; they are still dealing with the fundamentals.
- For seniors, if they have access to get care, which they may not, there are a lot of opportunities to get flu vaccinations. It is very rare to hear about getting pneumonia vaccines or shingles vaccines.
- Progressive companies reward people for prevention, losing weight and riding their bikes to work.
- People are really open to prevention but they don't have time and they don't do it on a regular basis.
- For some first generations in the US, older adults feel vaccines will cause them to get sick or trigger an imbalance.
- Often people coming from east African countries and Afghanistan, they don't have adequate vaccines. When their children enroll in school they are missing a lot of required vaccines.
- Vaccines have gained attention with the new law, now parents want their children to get vaccinated. However, pockets of the community are still opposed to vaccines.
- The guidelines for preventive screenings change frequently, which leads to confusion and fear.
- People do not think flu is a significant cause of mortality but it is for older adults.

Priority Health Needs

Hoag Hospital hosted a community forum on February 28, 2017 in Newport Beach to prioritize the significant health needs. The forum engaged 35 community leaders in public health, government agencies, schools, and nonprofit organizations that serve the medically underserved, low-income, and minority populations in the community. These individuals have current data or other information relevant to the health needs of the community served by the hospital facilities. A list of the participants can be found in Attachment 3.

Priority Setting Process

A review of the significant health needs was presented at the community forum. The forum attendees were then engaged in a process to prioritize the health needs using the Relative Worth method. The Relative Worth method is a ranking strategy where each participant received a fixed number of points; in this case 100 points (5 dots equaled 100 points, where each dot was worth 20 points). Instructions were given, and the criteria for assigning points were explained. The points were assigned to health needs based on the size of the problem (relative portion of population afflicted by the problem); or seriousness of the problem (impact at individual, family, and community levels).

The points could be distributed among the health needs in a number of ways:

- Give all points to a single, very important item
- Distribute points evenly among all items (if none is larger or more serious than another)
- Distribute some points to some items, no points to other items

In the tabulation, the health needs were ranked in priority order according to the total points the group assigned. The top three ranked priority needs were: economic insecurity/housing/homelessness/transportation, mental health and access to care.

Community Health Needs Prioritized by CHNA	
1.	Economic insecurity/housing/homelessness/transportation
2.	Mental health
3.	Access to health care
4.	Preventive practices
5.	Substance abuse
6.	Overweight and obesity/Diabetes
7.	Cancer
8.	Cardiovascular disease
9.	Asthma

Participants engaged in a group discussion about the priority areas and were asked to discuss the following questions for the high priority areas:

- For priority issues, what is going well? What works in the community to address this issue?
- Who has plans to work on these issues over the next year?

The information gathered from the community forum will be used for decision making in creation of the Implementation Strategy.

Impact Evaluation

In 2015, Hoag Hospital conducted their previous Community Health Needs Assessment (CHNA). Significant health needs were identified from issues supported by primary and secondary data sources gathered for the Community Health Needs Assessment. In developing the hospitals' Implementation Strategies associated with the 2015 CHNA, Hoag Hospital Newport Beach and Hoag Hospital Irvine chose to address access to health care, chronic disease management, mental health and preventive care through a commitment of community benefit programs and resources. Hoag Orthopedic Institute focused its Implementation Strategy on arthritis and osteoporosis. The evaluation of the impact of actions the hospitals used to address these significant health needs can be found in Attachment 4.

Regional Priority

As part of the definitive agreement for the St. Joseph Health Hoag (SJHH) affiliation, a commitment was made to reduce health disparities in the communities we serve. In 2016, a regional SJHH health disparities needs assessment was completed and a plan approved in 2017 to address the disparities. One of the plan action steps is the identification of a regional priority for SJHH to address the issue of education equity in our communities. This priority will be incorporated in the SJHH Community Benefit Strategy and Implementation Plan for 2018-2020.

Attachments

- Focus Groups and Interviewees
- Community Resources
- Community Participants in Prioritization Process
- Impact Evaluation

Attachment 1 – Focus Groups and Interviewees

Community input was obtained from focus groups and interviews that engaged public health professionals, community members and representatives from organizations that represent medically underserved, low-income, and/or minority populations.

Focus Groups

Agency	Participant Description	Language	Number of Participants
Melinda Smith Hoag Center for Healthy Living	Latina Women	Spanish	12
Costa Mesa Senior Center	Seniors	English	15
Rea Elementary School	Parents of school children	Spanish	23
TOTAL			50

Interview Key Informants

	Name	Title	Organization
1	Nancy Amo, RN, BSN	Faith Community Nurse	Trinity Presbyterian Church
2	Kim Beeson	Executive Director	Irvine Adult Day Health Services, Inc.
3	Angela Castellanos	Mental Health Coordinator	Newport Mesa Unified School District
4	Laura Garcia Chandler	School Nurse	HOPE Clinic, Newport Mesa Unified School District
5	Veronica Escobedo	Director of Program Services	Girls, Inc.
6	Mary Anne Foo	Executive Director	Orange County Asian and Pacific Islander Community Alliance
7	Yessenia Garcia, RN	Public Health Nurse	County of Orange
8	Laurie Grisgam	Senior Management	City of Irvine
9	Eric Handler, MD, MPH, FAAP	County Health Officer	Orange County Health Care Agency
10	Erik Huang, MD	Medical Director	Share Our Selves Community Health Center
11	Lisa Wright Jenkins	President & CEO	Council on Aging
12	Nahla Kayali	Executive Director	Access California Services
13	Mark Lowry	Orange County Food Bank Director	Community Action Partnership of Orange County
14	Yadira Lopez	Community Manager	Oak View Renewal Partnership
15	Karen McGlenn	CEO	Share Our Selves Community Health Center
16	Jila Nikkhah, DDS	Dental Director	Share Our Selves Community Health Center
17	Yessenia Velez Ochoa, MA	Executive Director	Oak View Renewal Partnership
18	Vattana Peong, MPH	Executive Director	The Cambodian Family Community Center
19	Pamela Pimentel, RN	CEO	MOMS Orange County
20	Rudy Ramos	Social Services Director	Share Our Selves Community Health Center
21	Nancy Raymon, RN, MS	Congregational Nurse	Congregation B'Nai Israel

22	Patricia Riba, MD	Medical Director	Serving Kids Hope
23	Jim Rice, MBA, FACHE	Chief Operations Officer	Share Our Selves Community Health Center
24	Maricela Rios-Faust, MSW, LCSW, CFRE	Chief Executive Officer	Human Options
25	Carla Schneider	Director of Nursing, ED	Hoag Hospital
26	Corine Schneider-Jones	Health and Human Services Manager	City of Irvine
27	Sergey Sergeyev	CFO	Share Our Selves Community Health Center
28	Linda H. Smith, RN, BSN, PHN	CEO	Providence Speech and Hearing Center
29	Allyson Sonenshine, JD	Founder/Project Director	Orange County Women's Health Project
30	David Souleles	Deputy Agency Director	Orange County Health Care Agency Public Health Services
31	Muriel Ullman	Homeless Consultant	City of Costa Mesa

Attachment 2 – Community Resources

Community resources to potentially address the identified significant health needs are listed in the table below. This is not a comprehensive list of all available resources. For additional resources refer to 211 Orange County at <https://www.211oc.org/> and Orange County’s Healthier Together at <http://www.ochealthiertogether.org/>.

Significant Health Needs	Community Resources
Access to care	CalOptima Costa Mesa Family Resource Center Healthy Smiles of Orange County HICAP HOPE Clinic Hurtt Family Health Clinic Latino Health Access Lestonnac Free Health Clinic Melinda Hoag Smith Center for Health Living Mercy House Orange County Asian and Pacific Islander Community Alliance Share Ourselves Community Health Center The Cambodian Family Community Center
Asthma	Breathmobile Asthma Clinic (CHOC) Children’s Hospital of Orange County Orange County Health Care Agency Share Ourselves Community Health Center
Cancer	American Cancer Society Center for Cancer Counseling Every Women Counts North Orange County YWCA Orange County Cancer Coalition Orange County Health Care Agency Orange County Women's Health Project Planned Parenthood Susan G. Komen Orange County
Cardiovascular disease	American Heart Association The Cambodian Family Community Center Latino Health Access MOMS Orange County NuPAC – Nutrition and Physical Activity Collaborative
Economic insecurity, housing, homelessness, transportation	Faith community Jewish Family Services (transportation) Meals on Wheels OC Access

	<p>One Step Ministry Orange County Asian and Pacific Islander Community Alliance Orange County Rescue Mission Outreach Office Net Salvation Army Second Harvest Food Bank Straight Talk The Cambodian Family Community Center</p>
Mental health	<p>FaCT Families and Communities Together Family Resource Center Human Options Latino Health Access Melinda Hoag Smith Center for Health Living NAMI Orange County Asian and Pacific Islander Community Alliance Orange County Health Care Agency Pathways The Cambodian Family Community Center Turning Point Western Youth Services</p>
Overweight and obesity	<p>Champions for Change Fit Club Fresh Beginnings Ministries Kid Healthy Padres en Acción Latino Health Access Melinda Hoag Smith Center for Health Living NuPAC – Nutrition and Physical Activity Collaborative Serving Kids Hope Someone Care Soup Kitchen The Cambodian Family Community Center Waste Not OC</p>
Preventive care	<p>Family Support Network HOPE Clinic Orange County Health Care Agency Orange County Immunization Coalition Planned Parenthood Senior Centers Share Ourselves Community Health Center The Cambodian Family Community Center WIC</p>
Substance abuse	<p>Alcoholics Anonymous/Alanon American Recovery Center Hoag Hospital Chemical Dependency Unit</p>

	Narcotics Anonymous/NarcAnon Orange County Health Care Agency Phoenix House Red Gate Straight Talk The Gary Center
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Attachment 3 – Community Participants in Prioritization Process

These community members participated in the health needs prioritization process.

Name	Organization	Representative Type
Mary Barbe	St. John Vianney	Parish Nurse
Vicki Booth	Community Benefit Committee	Business and Community Leader
Shannon Cotton	PADRE	Social Service Provider
Jeffrey Dimsdale	Kiwanis Club of Costa Mesa	Social Service Provider
Sarah Efthymiou	Public Law Center	Social Service Provider
Eva Elser	Serving Kids Hope	Social Service Provider
John Fay	Laguna Beach Seniors	Social Service Provider
Donna Fleming	Orange County Health Care Agency	Public Health
Laura Garcia-Chandler	HOPE Clinic	Other Health Provider
Martha Hernandez	Laguna Beach Seniors	Social Service Provider
Lisa Wright Jenkins	Council on Aging	Social Service Provider
Nahla Kayali	Access California Services	Social Service Provider
John Leyerle	NAMI	Social Service Provider
Karen Linden	Community Benefit Committee	Business and Community Leader
Jadira Lopez	Oak View Renewal Partnership	Social Service Provider
Mark Lowry	Community Action Partnership of Orange County	Social Service Provider
Ann Mason	The Center OC	Social Service Provider
David Nunez	Orange County Health Care Agency	Public Health
Dan Palumbo	Age Well Senior Center	Social Service Provider
Vattana Peong	The Cambodian Family	Social Service Provider
Rudy Ramos	SOS	Social Service Provider
Nancy Raymon	Congregation B'nai Israel Tustin	Other Health Provider
Judith Rose	Human Options	Social Service Provider
Jolynn Salvador	Student/RN	Student
Brenda Schisler	Community Benefit Committee	Other Health Provider
Corinne Schneider-Jones	City of Irvine	Social Service Provider
Michele Silva	MOMS	Social Service Provider
Linda Smith	Providence Speech & Hearing	Business and Community Leader
Allyson Sonenshine	OC Women's Health Project	Other Health Provider
Cindy Stokke	Community Benefit Committee	Business and Community Leader
Kim Strohm	Families Forward	Social Service Provider
Luz Takahashi	AFSC	Social Service Provider
Muriel Ullman	City of Costa Mesa	Social Service Provider
Wendy Weeks	YES	Social Service Provider
Michelle Yerke	City of Huntington Beach	Social Service Provider

Attachment 4 – Impact Evaluation

Hoag Hospital Newport Beach, Hoag Hospital Irvine and Hoag Orthopedic Institute developed and approved an Implementation Strategy to address significant health needs identified in the 2015 Community Health Needs Assessment. The Implementation Strategy addressed the following selected health needs for Hoag Hospital Newport Beach and Hoag Hospital Irvine: access to care, chronic disease management, mental health and preventive care. Hoag Orthopedic Institute selected arthritis and osteoporosis as the health needs they would address.

To accomplish the Implementation Strategy, goals were established that indicated the expected changes in the health needs as a result of community programs and activities. Strategies to address the priority health needs were identified and impact measures tracked. The following section outlines the impact made on the selected significant health needs since the completion of the 2015 CHNA.

Impact

The following sections outline the impact made on the selected significant health needs for FY15 (July 1, 2014 – June 30, 2015) and FY16 (July 1, 2015 – June 30, 2016). At the time of this report, impact data for FY17 were not fully available and are not included.

Access to Care

Melinda Hoag Smith Center for Healthy Living

With the opening of the Melinda Hoag Smith Center for Healthy Living in May 2016, Hoag has created a synergistic model of service delivery, which not only addresses the identified lack of resources in the service area, but also seeks to bridge gaps between services. This service delivery model has helped facilitate collaboration and build capacity in our community partner agencies, by providing non-profit partners with physical space and resources within the Melinda Hoag Smith Center for Healthy Living (MHSCHL).

Current services and partner agencies include:

- Hoag's Mental Health Center
- Hoag's Health Ministries
- SOS Children & Family Health Center
- SOS Dr. Robert & Dorothy Beauchamp Child and Family Dental Center
- ASPIRE
- OC Public Health Nursing
- Public Law Center
- National Alliance for the Mentally Ill

- Be the Change Yoga
- Council on Aging OC
- Susan G. Komen OC
- Youth Employment Services
- 211
- Alzheimer's OC
- Orange County Vital Aging Program
- Big Brothers Big Sisters

The MHSCHL has provided space to like-minded community agencies that seek to improve the quality of lives of those in the community. A key component that makes the collaborative unique, is our centralized registration and case management team. This team screens all client's coming into the center and seeks to identify; socio-economic stressors, potential health risks, mental and emotional health issues, legal issues, access to health care, and other life stressors that can affect ones quality of life. Our case management team plays a critical role in linking clients to the appropriate services, while also monitoring client's progression through the referral process. This model for service delivery helps bridge gaps between community, clients and agencies, while also leveraging resources and the fostering collaboration between organizations. The MHSCHL's co-location of resources has created a cohesive, one-stop, welcoming environment where community members can find a breadth of services/ support.

Share Our Selves (SOS)

SOS has served Orange County since founding in 1970 and remains principled on providing social and health services to the most at-risk in our community. SOS's history is intimately tied to Hoag Memorial Hospital Presbyterian and its Community Benefit Programs, a partnership which has greatly benefited Orange County. SOS is the only community health center network in the county providing a full continuum of health care and social services to its patients. The SOS Comprehensive Service Center provides patients access to extensive social support services addressing these social determinants of health. On-site services are inclusive of:

- Food Pantry
- OC Health Care Agency
- Public Health Nurse
- Homeless Outreach Case Manager
- CalFresh Enrollment
- Emergency Financial Aid
- Medi-Cal Case Worker
- Public Law Center
- US Mail Services

- California LifeLine

With the extensive funding and in-kind support provided by Hoag, SOS is afforded the ability to provide exceptional care within a collaborative spirit that is principle on efficient, effective and respectful healthcare. Hoag and SOS continue to share in the care of the targeted population, either starting at Hoag and receiving follow up care at SOS or starting at SOS and referred to Hoag for advanced diagnostics, treatment, surgery, emergency services, or hospital admission. Through a shared Health Information Exchange, this hospital-clinic model allows the Hoag and SOS Nurse Case Manager's to develop a discharge plan coordinating care inclusive of primary, specialty, and enabling social services; reducing patient re-admission through comprehensive care coordination.

During FY15, SOS provided a medical home to 11,966 unduplicated patients accounting for a total of 35,961 provider encounters; a 35% growth over prior years. The continuum of care between SOS and Hoag allows for a seamless transition of uninsured patients accessing Hoag affiliated Specialists and Hoag ancillary support services, evidenced by over 3,000 charity care encounters completed by Hoag during the fiscal year.

In 2016, Social Services expanded to include a Homeless Specialist and formalized 26 the SOS Center of Care for the Homeless which is principled on providing health and housing to the homeless within our community. SOS relies on a network of partners to enhance accessibility of social services at SOS to include the Public Law Group, CalFresh, and Orange County Health Care Agency providing a Public Health Nurse and Homeless Mental Health Specialist and Mental Health Worker, in addition to Mental Health Association Case Workers. Grant funding awarded by Hoag Community Benefit Program during FY16 provided SOS the ability to personalize care to 3,371 unduplicated uninsured individuals equating to 8,045 medical encounters at the SOS Community Health Center located in Costa Mesa.

This close partnership between SOS and Hoag demonstrates a sustainable and replicable model of care for others to follow and truly expands access to all levels of health care for the community. Further, it increases efficiencies, reduces the use of the Emergency Department (reducing costs and opening access for true emergencies), protects public health, and improves opportunities for county residents without insurance to receive primary care and control their chronic diseases.

Newport Mesa Unified School District

Hoag collaborates with the Newport-Mesa Unified School District by providing a grant to the HOPE Clinic, a school-based health center. The HOPE Clinic is located in Costa Mesa and housed on a campus with Rea Elementary school, a district run preschool, an adult education center, several after school programs, and a Head Start Program as

well as a community theatre. The HOPE clinic is unique in that it facilitates children's access to school programs and serves to keep children healthy and in school. Health promotion and well child exams are the cornerstones of the program. The primary focus is to promote wellness and prevent illness through periodic well child exams and recommended immunizations. Services are at no cost to families and provided by a bilingual Spanish-speaking staff.

The HOPE Clinic is a nurse practitioner and school nurse run practice supervised by a volunteer community pediatrician. Clinic providers are school district employees who are familiar with district and community programs. Staff serves as liaisons to services within the district and the broader community. At the HOPE Clinic, children are linked to a variety of programs including Dr. Riba's Health Club, which offers a specialty program addressing childhood obesity. Assistance with health insurance is available on site or by referral. At each visit, parents are encouraged to read to their children and books are distributed through the Reach Out and Read Program, an initiative supporting literacy. Other services at HOPE Clinic include TB screening and testing for students, staff and school volunteers and influenza immunizations for the entire community. The HOPE Clinic continues to participate in a national initiative led by Kaiser Permanente and the National School Based Health Alliance to improve health behavior among students, their families, and school staff at Rea Elementary.

During the school year, major accomplishments included:

- 3,775 patient encounters.
- 785 children's comprehensive physical exams.
- 1,411 child immunizations provided.
- 991 Tuberculosis skin tests.
- Referral and case management services including dental, vision, hearing, mental health and social services.
- Over 282 children received insurance at the clinic and more were referred for assistance.
- Over 300 individuals received flu vaccine at the Community Flu Vaccine clinic hosted at Rea Elementary School.
- Rejuvenated the student-supported garden at Rea Elementary School.
- Implementing a targeted Staff Wellness Program at Rea Elementary School to help lessen stress and improve the educational experience for both students and staff.

Oak View Mobile Health Program

The Oak View neighborhood, home to approximately 10,000 individuals, faces significant challenges, including generational poverty, high unemployment, low home

ownership, and poor graduation rates. 97% of students qualify for free or reduced-price lunch. While the city of Huntington Beach is predominantly affluent with poverty rates hovering near 6%, the rate is five times that in the Oak View neighborhood where 32% of residents live below the federal poverty level; furthermore, 70% of those 25 or older lack a high school diploma or GED. Nearly 40% of residents live in households of seven or more, and approximately 90% of the adult population has limited English-speaking abilities.

In FY15, Oak View's Healthy Community Initiative facilitated the following programs and services:

- Mobile Health & Dental Clinic served approximately 250 clients, bringing previously inaccessible services right into the heart of the neighborhood through partnerships with the Hurtt Family Clinic, Healthy Smiles, Ocean View High School and other community-based organizations.
- A Youth Soccer League serves 40 boys and girls teams for youth ages 5 to 15 and provides a positive outlet for over 500 children from Oak View and surrounding neighborhoods. Partnerships with the Ocean View School District, Ocean View High School, and local Boys and Girls Clubs have provided facilities for the teams to practice and play games. Primarily driven by community leadership, the league keeps local youth off the streets while promoting healthy living and physical activity.
- A Zumba Class program was developed and enhanced in response to community surveys indicating a lack of easily accessible physical activities for local adults. Classes are offered weekly at the Family Resource Center, and over 1,200 residents participated this past year. Many in the class meet 30 minutes beforehand to discuss nutrition or host a nutrition expert. The success of this class has led to the start of two additional classes in the neighborhood park, supported and run by local resident leaders. There are now Zumba options provided throughout the neighborhood every day of the week.
- In partnership with Oak View Elementary and Second Harvest Food Bank, we host a School Pantry that provided 1,362 residents last year with access to fresh produce on a monthly basis. Residents are now volunteering to help the operations of the program.
- Ongoing evaluation improvements are being made to better understand the impact of the programs and the organization on the community. We are currently collaborating with the USC Center for Social Innovation and The Olin Group to enhance our programmatic logic models/outcomes measures system, and further develop our community-wide evaluation index.

Providence Speech and Hearing Center

Providence Speech and Hearing Center (Providence) was founded in 1965 to provide Audiology and Hearing Care and Speech-Language Pathology to all those in need, regardless of their ability to pay. Providence is the only safety net clinic of its type in Orange County and the only agency of its kind willing to accept Medi-Cal.

Approximately 61% of our work is dedicated to low-income patients all of whom are uninsured or under-insured. Providence received grant funding in support of its Low Income Subsidy Program. This program works to respond to and resolve the speech, language and hearing barriers that exist for low-income children, adults and seniors. Our Low Income Subsidy Program offers comprehensive auditory, speech and language services to all low-income people in need.

Providence achieved the following results during FY15:

- Served 6,869 unduplicated low-income patients with 64,087 appointments.
- Provided 48,742 speech/language sessions or appointments to low-income pediatric patients.
- Distributed 1,217 free or reduced cost hearing aids to low-income patients.
- 96% of adults fitted with hearing aids expressed improvement in their hearing.
- 98% of caregivers whose children were fit with hearing aids expressed a noticeable improvement in their child's hearing.
- 99.1% of patients felt Providence met their needs.

Case Management

Case management services establish pathways for health care access and specialized attention to people with unique health care navigation needs. Case management provides health care liaison services between Hoag, the Share our Selves (SOS) Clinic, and other community agencies that serve the low-income, uninsured and underinsured population within the Hoag service area. Individuals are assessed for funding eligibility by financial counselors and linked to an appropriate care program. Through collaborations involving a multi-disciplinary team of health care providers, effective care plans are developed for each patient including patient support, education and access to needed medical services. By optimizing health and wellness through a seamless continuum of care, hospitalization rates have been reduced.

During FY15:

- 6,052 unduplicated SOS patients received Hoag services.
- 268 hospital days were utilized by patients needing medical, surgical or obstetric care.

- In partnership with local senior centers, a personal alert (Lifeline) system was provided for four homebound older adult residents.

Senior Transportation

The Community Benefit Program collaborates with seven community senior centers for transportation services for program participants. In providing transportation services for seniors, we assist them in their efforts to sustain good mental and physical health, and to maintain their independence. The seniors use the transportation services to attend doctor appointments, shop and do errands, and participate in group social activities. The seven organizations served are: Alzheimer's Family Services Center; Costa Mesa Senior Center; Huntington Beach Council on Aging; Irvine Adult Day Center; Newport Beach's Oasis Senior Center; Age Well Senior Services, and Laguna Beach Seniors.

Total Hoag expenditure on transportation for FY15 was \$538,885, which provided 145,553 senior passenger trips. Total Hoag expenditure in FY16 to provide senior passenger trips was \$480,000.

Chronic Disease Management

Better Breather's Club

Better Breather's Club is a program of education and support sponsored by Hoag Hospital and supported by the American Lung Association. It's designed for people with breathing problems and their families and is open to the public.

Cinco de Mayo Heart Health Fair

Hoag Community Health collaborated with Hoag's Heart & Vascular Institute, Edwards Lifesciences and the SOS Clinic in providing telemedicine heart screening services to 1,000 low-income community members. Follow-up services for the 480 individuals identified with pre/hypertension, valve or other heart problems were scheduled with the SOS Clinic if they did not have a medical home. Additionally, each participant received a \$10 Farmer's Market gift certificate, promoting access to healthy foods.

Health Ministries

Hoag Health Ministries celebrates its twenty-eighth year of serving Orange County faith communities through the Faith Community Nursing (FCN) Program. The program has grown to 64 volunteer FCN's who dedicate their time and service to those in need at 33 congregations throughout Orange County. All denominations are welcome to participate in this spiritually-centered wellness program, which seeks to incorporate a balance of the mind, body and spirit. Each FCN works independently within their congregation in creating individual and population health based preventive health programs specific to the needs, beliefs and practices unique to their faith traditions.

During FY15, Health Ministries:

- Provided 2 Automated External Defibrillators (AED's) to partners, total 32 placed.
- Trained 212 persons in life-saving CPR & Automated External Defibrillator usage.
- Screened blood pressure readings for 1,058 individuals, teaching healthy lifestyle options and Stroke recognition skills.

During FY16, Health Ministries:

- Trained 106 persons in life-saving CPR & Automated External Defibrillator usage.
- Screened blood pressure readings for 496 individuals, teaching healthy lifestyle options and Stroke recognition skills.

The Mary & Dick Allen Diabetes Center

Since its opening in 2009, the Center has offered comprehensive services that include health education by our nurses and dietitians, medication management by our pharmacist, and medical consultation and evaluation by our endocrinologist. The Center has also participated in various outreach events including lectures at the Costa Mesa Senior Center, diabetes risk assessments at local health fairs, and cooking demonstrations. Below are a few program highlights from FY15:

- Diabetes Self-Management Training/Education (DSMT/E) and Medical Nutrition Therapy (MNT) are the core functions of the Center in which participants learn to live successfully with diabetes through guidance from our dedicated physician, nurses, dietitians, and certified diabetes educators. In FY15, 624 initial DSMT assessments and 511 MNT visits were completed in which 68 were unfunded patients. In FY16, there were 517 initial DSMT assessments and 2,571 total DSMT encounters. 713 MNT visits were completed. 142 patients were provided free care.
- Children's Hospital of Orange County (CHOC) Diabetes and Endocrine Center at the Allen Diabetes Center provides pediatric specialty care services for patients with diabetes. This program provides clinical services, health maintenance and treatment, and outreach for children considered at risk for developing diabetes. In FY15, there were 2,096 clinical encounters. Prevention of Obesity and Diabetes through Education Resources (PODER) offers no-cost diabetes and obesity prevention education programs, cooking classes and Zumba exercise classes. 20 PADRE (Pediatric Adolescent Diabetes Research Education Foundation) provides support to Type 1 diabetic patients and to their families through events

and educational workshops. 4,787 participants joined the PODER classes, and 223 participants were involved in the PADRE classes. In FY16, there were 2,178 clinical encounters. 7,629 participants joined the PODER classes, and 119 participants were involved in the PADRE classes.

- The Annual Diabetes Conference titled “Diabetes: What’s new? What’s next?” invited Certified Diabetes Educators, Pharmacists, Registered Nurses and Registered Dietitians to attend for an educational day on clinical management. This one-day conference provided information on diabetes management and topics will include emerging adults and type 1 diabetes, nutrition, diabetes and cognitive impairment, cholesterol management, and the most recent technology and pharmacology updates. Over 100 participants attend on an annual basis.
- Herbert Family Program for Young Adults with Type 1 Diabetes focuses on catering to the unique needs of young adults with Type 1 Diabetes (ages 18-30). The program addresses various aspects including the financial, psychological, social and physical changes that challenge the young adult, their family, and support systems. In the upcoming year (FY16), a licensed clinical social worker will be joining the team at the Allen Diabetes Center to provide the psychological and emotional support that are of great need to further emphasize the importance of comprehensive care in regards to diabetes management. In FY16, a clinical social worker and health psychologist joined our team to address the psychosocial aspect of care. In addition, we hosted a half-day conference in which 55 attendees participated in a discussion-based event focused on various topics such as body image, traveling with T1D, and peer pressure.
- Ueberroth Family Program for Women with Diabetes (Sweet Success) Expectant mothers with diabetes prior to pregnancy and those diagnosed with gestational diabetes, who are at higher risk of developing Type 2 diabetes after pregnancy, benefit from pre-conception family planning, diabetes education, as well as ante-partum and post-partum glucose management. In a collaborative effort with the Hoag Women’s Health Institute and the Department of Perinatology, the program continues to provide perinatology services to a growing number of women with pre-conception and gestational diabetes. During FY15, we had 2,073 patient encounters in which 46 unfunded patients were seen. Macrosomia rate dropped from 8.2% to 6.6%, significantly lower than the national average of 10%. Plans are in place to encourage physicians to order the oral glucose tolerance test for patients with gestational diabetes, improve the referral processes, and to ensure continuity of care from the in-patient setting to the Allen Diabetes Center. During FY16, we had 661 unique patients and 2,492 encounters. Macrosomia rate was 7%, which is significantly lower than the national average of 10%. The Allen Diabetes Center now offers free oral glucose tolerance testing 6-8 weeks

postpartum as of May 2016. 22 patients have come in June to receive their testing.

- In FY15, approximately 450 people participated in the Sweet Life cooking classes, and in FY16, approximately 715 people participated in the Sweet Life cooking classes. During these classes, a professional chef and our nutritionist and certified diabetes educator provide insight on recipes and nutrition. The recipes used in the Sweet Life classes are designed by nutritionists and tailored to the dietary needs of individuals with diabetes. Our educators have also participated in various health fairs and senior centers by providing health education materials, presenting lectures, and conducting risk assessments to continue to positively impact the overall health outcomes in our community.

Mental Health

Mental Health

The Mental Health Center was created to provide bilingual, bicultural services to people who otherwise could not obtain mental health services. The program's clients are low-income, uninsured and highly vulnerable. They present with a mild to moderate level of distress/symptomatology. These clients have limited health insurance with no mental health/behavioral health benefits or they have benefits but cannot afford the co-payments and/or deductibles. During FY15 and FY16, the program employed seven full-time bilingual Master's prepared social workers, 6 of the staff are licensed. These social workers provided mental health services to 746 clients in FY15 and 822 in FY16 in the form of psychotherapy, resource brokering, and/or case management. In addition, the program offered psychotherapeutic and psycho educational groups to 897 participants in FY15 and 2,402 participants in FY16. All services were offered on a voluntary basis. Services were offered on a low-cost sliding scale. The sliding scale starts at zero (free services) and increases according to the individual's self-reported annual income level. The majority of people were seen at no charge or at a nominal fee per session. A review of client demographics found that the majority of the clients seen through the Mental Health Center were female, Hispanic, and indicated a language other than English as their primary language. The average client age for our adult population was 38.9 years of age and the average age of the minor population was 14.8 years of age. 44% (FY15) and 59% (FY16) of the adult clients and 45% of minor clients reported having an annual household income below \$20,000.

The program has proven to be highly efficient and effective. The program utilized a clinical assessment tool (DASS) to measure levels of depression, anxiety, and stress in clients. According to pre and post test scores, clients who participated in either individual or group psychotherapy saw a statistically significant decline in depression, anxiety, and stress scores. The program also implemented a self-esteem assessment

tool (Rosenberg) on a pre and post-test basis. For all persons engaged in individual and group psychotherapy, there was statistically significant improvement in self-esteem.

The Mental Health Center provided a supervised clinical internship training program for 14 (FY15) and 9 (FY16) MSW (Master of Social Work) students. The center collaborates with the University of Southern California, California State University at Fullerton and California State University at Long Beach. Each intern was provided weekly with one hour long supervision and one and a half hour long group supervision for a total of 572.5 (FY15) and 311 (FY16) direct clinical supervision hours provided to the group. The internship program includes providing consultation, support, and education to paraprofessionals at partner agencies such as Girls Incorporated and the Newport Mesa Unified School District. This support included telephone consultation, workshops, and in-service education.

In addition to support for the staff of partner agencies, the Mental Health Center offered several different psychotherapeutic and psycho educational groups and workshops for the partner agency clients. These efforts allowed our partner agencies to offer mental health services at no cost to their clientele and all services are provided in-kind to the not-for-profit agencies. Some examples include: a diabetes support group, depression support groups, self-esteem groups, and stress management workshops. Group sessions were also offered for parents, families, and adult couples struggling with relationship issues. During FY15, the program continued its support to the Mary and Dick Allen Diabetes Center at Hoag Hospital. The Mental Health Center was responsible for all the mental health services being provided to the patients of this center. A LCSW served a total of 138 clients by means of 62 mental health consults and 12 stress management classes. During FY 2016, the Mental Health Center acquired a part time Psychiatrist and 44 consultation appointments were scheduled during a 4 month period.

Preventive Care

Health Ministries

Hoag Health Ministries celebrates its twenty-eighth year of serving Orange County faith communities through the Faith Community Nursing (FCN) Program. The program has grown to 64 volunteer FCN's who dedicate their time and service to those in need at 33 congregations throughout Orange County. All denominations are welcome to participate in this spiritually-centered wellness program, which seeks to incorporate a balance of the mind, body and spirit. Each FCN works independently within their congregation in creating individual and population health based preventive health programs specific to the needs, beliefs and practices unique to their faith traditions.

During FY15, Health Ministries:

- Comprised of 9 denominations among 33 Faith Based Partnerships.
- Donated 8,000 Volunteer RN hours at the local, national and international level.
- Touched the lives of more than 45,000 congregants.
- Administered 7,373 flu vaccine doses to faith members and the community.
- Served 503 congregants with spiritually-based aging and dementia care lectures.
- Provided 2 Automated External Defibrillators (AED's) to partners, total 32 placed.
- Trained 212 persons in life-saving CPR & Automated External Defibrillator usage.
- Screened Blood Pressure readings for 1,058 individuals, teaching healthy lifestyle options and Stroke recognition skills.
- Organized blood donations, receiving 407 units of life-giving blood.
- 194 children received disease-preventing hand washing training.
- Distributed 1,871 Project Wipeout Beach Safety booklets.

During FY16, Health Ministries:

- Included 9 denominations among the 36 Faith Based Partnerships, located within a 300 square mile area throughout Orange County.
- Welcomed a new Catholic Church and the first two Islamic Mosques into the program.
- Donated 3,289 volunteer RN hours at the local, national and international level.
- Touched the lives of more than 30,000 congregants through individual, group and community interventions.
- Administered 7,208 flu vaccine doses to faith members and the community.
- Served 693 congregants with spiritually-based aging and dementia care lectures.
- Trained 106 persons in life-saving CPR & Automated External Defibrillator usage.
- Screened Blood Pressure readings for 496 individuals, teaching healthy lifestyle options and Stroke recognition skills.
- Organized blood donations, receiving 446 units of life-giving blood.

Project Wipeout

The mission of Project Wipeout is to educate and raise awareness on injury prevention at the beach, particularly neck and spinal cord injuries, by distributing beach safety information locally and nationwide. Project Wipeout:

- Emphasizes education on drowning and neck and spinal cord injury prevention
- Focuses on those most at risk children and young people between the ages of 16 and 30

- Participates in community events and provides free beach safety educational presentations and materials to schools and community organizations
- Collaborates with members of Lifeguard and Fire Departments, teachers, parents and committed volunteers to broaden public access to our beach safety message.

Project Wipeout’s intent is to provide basic information on the types of injuries that occur, how they happen, and what to do to protect against them. This information is disseminated via presentations, videos, and printed materials at schools, community events, lifeguard training, and seminars. More than 30,000 copies of Project Wipeout brochures, coloring books and activity books are distributed annually through community events and at elementary, junior high and high schools. Print materials are also used at presentations given by local lifeguards, which feature Project Wipeout’s video (mandatory viewing for trainees in Orange County’s junior guard programs). It is also being used throughout the U.S. and by lifeguard departments as far away as England and Australia, and it is seen by thousands of elementary, junior high and high school children every year

In FY16, Project Wipeout hosted the annual Lifeguard Conference, with over 200 lifeguards and fire personnel from all over Orange County, and representatives from as far as San Diego and Los Angeles Counties. The conference continues to grow, and serves as an opportunity for lifeguards and other service providers to receive education on current beach and water safety information to integrate into their training and safety responses, as well as health and wellness topics pertinent to beach exposures.

During FY16, Project Wipeout’s main community outreach took place at large county events, which included the Festival of Children, Imaginology, and the Orange County Fair. Altogether, these events allowed for thousands of interactions between lifeguards, educators, children, and families that included distribution of beach safety materials. Materials include video segments available for class presentations, as well as printed materials such as brochures, coloring books, activity books, and rip current posters.

Arthritis and Osteoporosis

Community members were provided with focused health education.

- Fall prevention and balance education were provided to 100 persons
- A lecture on osteoporosis reached 100 community members.
- 200 persons received an assessment for fall risk.

**RESOLUTION
OF
THE BOARD OF DIRECTORS
OF
HOAG MEMORIAL HOSPITAL PRESBYTERIAN**

Community Health Needs Assessment

Friday, June 2, 2017

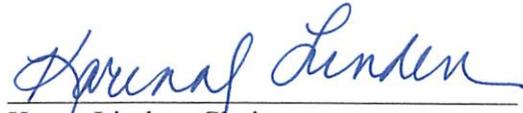
WHEREAS, pursuant to state and federal law, tax exempt hospital organizations are required to conduct a Community Health Needs Assessment (“**CHNA**”) and develop an implementation strategy at least once every three years;

WHEREAS, Hoag Memorial Hospital Presbyterian (“**Hoag**”) retained Biel Consulting, Inc. to undertake the 2017 CHNA; and

WHEREAS, the 2017 CHNA, which is attached hereto as Exhibit A, has been presented to the Hoag Board of Directors (the “**Board**”) for its consideration, review and approval.

NOW, THEREFORE, BE IT RESOLVED, that the Board, having considered and reviewed the CHNA, and having had the opportunity to ask questions regarding the same, hereby approves the CHNA.

The foregoing resolutions were adopted at a special meeting of the Board of Directors of Hoag Memorial Hospital Presbyterian held on Friday, June 2, 2017, at which a quorum was present.



Karen Linden, Chair