2016 Community Health Needs Assessment

Kaiser Foundation Hospital Anaheim & Irvine

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Approved by KFH Board of Directors

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To provide feedback about this Community Health Needs Assessment, email CHNA-communications@kp.org

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Ersoylu Consulting is a woman-owned, Very Small Business Enterprise (VSBE) located in Costa Mesa, CA. Founded in 2007, Ersoylu Consulting provides project support to public agencies and private partners interested in meaningful social change. Our Planning, Research & Evaluation Services help clients accurately research and evaluate issues, make effective policy decisions, and attain their program goals through effective project management. We work to ensure full participation of diverse stakeholders in program design, and we specialize in the interpretation of research and evaluation findings as well as policy analysis in economically and culturally diverse communities.

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Cal State Fullerton	Orange County Department of Education
California Youth Services	Orange County Food Access Coalition
CalOptima	Orange County Food Bank
Casa Teresa	Orange County Health Care Agency
City of Stanton	Pacific Islander Health Partnership
Clinic in the Park	Pretend City Children's Museum
Coalition of Orange County Community Health Centers	Project Access
Community Action Partnership of Orange County	Second Harvest Food Bank of Orange County
Community SeniorServ	Seneca Orange County
Council on Aging - Orange County	Shanti Orange County
El Viento Foundation	South County Outreach
The Eli Home	St. Jude Medical Center

Families Forward

Fit to be Kids

Friendship Shelter

Grandma's House of Hope

Healthy Smiles for Kids of Orange County

Helping Others Prepare for Eternity (H.O.P.E)

Human Options

Illumination Foundation

Inside the Outdoors

Jamboree Housing

The Kennedy Commission

Strength in Support

Taller San Jose/ Hope Builders

The Gary Center

The Raise Foundation

Think Together

Tiger Woods Foundation

Vietnamese American Cancer Foundation

Vietnamese American Chamber of Commerce

Vietnamese Community of Orange County

Western Youth Services

YMCA of Orange County

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I. EXECUTIVE SUMMARY

Kaiser Permanente is an integrated healthcare delivery system comprised of Kaiser Foundation Hospitals (KFH), Kaiser Foundation Health Plan (KFHP), and physicians in the Permanente Medical Groups. KFH-Anaheim and KFH-Irvine serve a diverse and vibrant community in Orange County. KFH-Anaheim is centrally located in Central Orange County with 10 medical offices located across Central and North Orange County. The KFH-Irvine is located in Southern Orange County with 8 medical offices serving Southern Orange County. The communities served by KFH-Anaheim are: Brea, Euclid, Garden Grove, La Palma, Lakeview, Tustin-Santa Ana and Yorba Linda. The communities served by the KFH-Irvine include: Aliso Viejo, Barranca, Foothill Ranch, Harbor/McArthur, Huntington Beach, Mission Viejo, San Juan Capistrano and Tustin Ranch.

This report documents the community health needs assessment conducted for KFH-Anaheim and KFH-Irvine. The results of the CHNA will inform the development of implementation strategies developed by KFH-Anaheim and KFH-Irvine to address the health needs found in the community. This executive summary is intended to provide a high level snapshot of the CHNA regulations governing hospitals, the list of prioritized health needs found in the report, the methodology used to identify those health needs, and a summary of the overall assessment.

A. Community Health Needs Assessment (CHNA) Background

The Patient Protection and Affordable Care Act (ACA), enacted on March 23, 2010, included new requirements for nonprofit hospitals in order to maintain their tax-exempt status. The provision was the subject of final regulations providing guidance on the requirements of section 501(r) of the Internal Revenue Code. Included in the new regulations is a requirement that all nonprofit hospitals must conduct a community health needs assessment (CHNA) and develop an implementation strategy (IS) every three years (http://www.gpo.gov/fdsys/pkg/FR-2014-12-31/pdf/2014-30525.pdf).

While Kaiser Permanente has conducted CHNAs for many years to identify needs and resources in our communities and to guide our Community Benefit plans, these new requirements have provided an opportunity to revisit our needs assessment and strategic planning processes with an eye toward enhancing compliance and transparency and leveraging emerging technologies. The CHNA process undertaken in 2016 and described in this report was conducted in compliance with current federal requirements.

B. Summary of Prioritized Needs

Surveying service providers from the KFH-Anaheim and KFH-Irvine Medical Center Areas resulted in the prioritization of the following health needs from highest priority to lowest priority:

KFH-Anaheim Medical Center Area	KFH-Irvine Medical Center Area
1. *Economic Insecurity*	1. *Housing*
2. *Housing*	2. *Mental & Behavioral Health*
3. *Diabetes*	3. *Obesity / Overweight*
4. *Obesity / Overweight*	4. *Economic Insecurity*
5. *Mental & Behavioral Health*	5. *Diabetes*
6. Community Violence	6. Substance Abuse / Use
7. *Healthcare Access*	7. *Healthcare Access*
8. Physical Activity	8. Oral / Dental Health
9. *Cardiovascular Disease*	9. Cancer
10. Language Barriers	10. *Cardiovascular Disease*

Note: Shared prioritized health needs are in italics.

The top ten health needs for KFH-Anaheim and KFH-Irvine Medical Center Areas were prioritized based on the identification of health needs from the primary and secondary data analysis conducted for purposes of this CHNA. Following is a summary of each identified health need in alphabetical order. More details can be found within the report and in the Health Need Profiles located in Appendix C.

Cancer. African Americans and Whites have the highest instances of cancers in both KFH-Anaheim and KFH-Irvine Medical Center Areas. In addition, for the Vietnamese American community, liver cancer is particularly common, due to the prevalence of Hepatitis B, as a common contributing factor (Vietnamese Community of Orange County Inc., n.d.). Breast Cancer is most prevalent among Whites, while prostate cancer occurs most commonly in Blacks.

Cardiovascular Disease. The KFH-Anaheim and KFH-Irvine Medical Center Areas have higher rates of heart disease than California. The KFH-Irvine Medical Center Area has a higher number of deaths from ischemic heart disease than KFH-Anaheim Medical Center Area, though rates of heart disease are relatively similar between the two. White adults are most commonly diagnosed with heart disease (10.03%) very closely followed by Blacks (9.63%), those classified as Other Race (5%), and finally Hispanic/Latinos (4.69%). Patients in the KFH-Anaheim (31.60%) and the KFH-Irvine (31.50%) Medical Center Areas both perform slightly worse than the CA average (30.30%) for managing high blood pressure (Kaiser Permanente CHNA Data Platform, 2015).

Community Violence. Since 2004, the rate of crime in Orange County has declined by 21%, (1,977 per 100,000 population), is lower than the state (3,060 per 100,000 pop) and national (3,227 per 100,000 pop) averages (Children & Families Commission of Orange County, 2015). Nonetheless, there are still areas in the community more disproportionately impacted by violence and the trauma that can often coincide with it. African Americans and Native Hawaiians represent the highest rates of death due to assault. For youth, unintentional injury deaths had been in decline from 2003 – 2011 but experienced a 36.4% increase from 2012-2013. Further, according to *The 21st Annual Report on the Conditions of Children's in Orange County* (2015), "unintentional childhood mortality due to injury is strongly inversely related to median income and thus, a solid indicator of poverty."

Diabetes. From 2004-2011, the rate of diabetes in Orange County and California has steadily increased. Though Orange County performs better than California, as of 2011 the percentage of adults with diabetes in Orange County (7.4%) is only slightly below that of California (7.93%; Centers for Disease Control and Prevention, 2012). Nevertheless, the proportion of diabetes is higher in Orange County for those 65 year and older (16.0%), 45-65 year olds (11.6%), and Latino females (10.95%) and males (9.3%; Orange County Health Care Agency, 2014). Moreover, diabetes is the 3rd leading cause of death for the Native Hawaiian Pacific Islanders (HNPIs), Laotian, and Thai communities (8%, 8%, 6%, respectively; Asian Americans Advancing Justice Orange County & Orange County Asian and Pacific Islanders Community Alliance, 2014). About 10% of Asian Americans are diagnosed with diabetes, a rate that is 1.7 times higher than the general United States population (5.9%), and is higher than Asians in their native countries (Vietnamese Community of Orange County Inc., n.d.).

Economic Insecurity. Orange County has recovered more than half of the jobs lost between 2006 and 2010 (Orange County Communities Organized for Responsible Development, 2015). However, Orange County shows signs of rapidly increasing economic inequality, reflected in the economic and demographic divide between north and south Orange County, and an increase in spatial economic segregation, with low income families living in primarily low-income neighborhoods. The KFH-Anaheim Medical Center Area in particular faces more challenges in terms of economic indicators than the KFH-Irvine Medical Center Area. Despite equal rates of unemployment between KFH-Anaheim and KFH-Irvine Medical Center Areas, the KFH-Anaheim Medical Center Area has a higher percent of its population living below the poverty line, poorer educational attainment, and higher rates of uninsured residents compared to the KFH-Irvine Medical Center Area.

Healthcare Access. Both KFH-Anaheim and KFH-Irvine Medical Center Areas have high rates of primary health care providers for their populations, yet a significant amount of the population in the KFH-Anaheim Medical Center Area is uninsured, suggesting that they may be unable to access health care professionals should the need arise. In particular, Native American/Alaskan Natives and Hispanics comprise the greatest proportion of the population that is uninsured in both KFH-Anaheim and KFH-Irvine Medical Center Areas. Similarly, there is no lack of dentists in both Medical Center Areas, but rather, a lack of dental insurance, coupled with the high expense of dental care, make it difficult for many residents to access dental care. Lastly, there is a shortage of mental health professionals in the the KFH-Anaheim and KFH-Irvine Medical Center Areas with 123.6 and 122.9 mental health providers per 100,000 population (respectively), compared to California at 157 providers per 100,000 population which may indicate a difficulty in accessing behavioral and mental health services when needed.

Housing. Orange County has a high proportion of individuals and families in *unstable housing*. According to *The Report on the Conditions of Children in Orange County* (2015), housing insecurity for children has increased from .07% in 2004/05 to 6.5% in 2013/14. *The Orange County Community Indicators Report* (Children & Families Commission of Orange County, 2015) notes that in the past 10 years this equates to approximately a 236% increase in homeless and housing insecurity. Though employment rates have recently increased, the majority of the jobs created offer low wages that qualify individuals for low-income housing. From 1990 to 2014, in Orange County, the minimum wage has increased by 18% but housing costs have increased by 57%; making housing here more expensive than California or the United States as a whole (Orange County Communities Organized for Responsible Development, 2015).

Language Barriers. Thirty percent of Orange County citizens are foreign born, and 45% of all residents over age five speak a language other than English at home (Children & Families Commission of Orange County, 2015). A significant proportion of the KFH-Anaheim Medical Center Area (26.46%) residents are *not proficient in English*, a rate higher than the state average (19.35%). Compounding this problem, over 13% of the KFH-Anaheim Medical Center Area residents live in linguistically isolated households. As such, 33% of students in the KFH-Anaheim Medical Center Area score poorly in reading proficiency and English learners represent a significant proportion of high school dropouts in Orange County (16.00%; Orange County Children's Partnership, 2015).

Maternal & Child Health. In Orange County, the percentage of women who received prenatal care has decreased since 2004 when it was at 91.7% to 88.3% in 2013; although this was still higher than the percentage in California (82.1%) and the United States (74.1%). While this decrease has occurred across ethnicities, Black women have the lowest percentage of early prenatal care. Also, the rate of low birth weight babies born in Orange County in 2013 was lower (6.3%) than the state (6.8%) and the country (8.2%) averages. However, when broken down by race/ethnicity, Black babies had the highest rate of low birth weight at 9.5%, followed by Asians (7.2%), Hispanics (6.0%), and White (5.9%).

Mental & Behavioral Health. The *Orange County Health Improvement Plan* (2014b) identified behavioral health as one of their top four priority action areas in 2014. In particular, suicide and self-harm are a major concern for the KFH-Irvine Medical Center Area (see section on suicide). Suicide is the 2rd leading cause of premature death for Orange County youth ages 15-24, second to unintentional injuries of which accidental poisoning/overdose accounted for most instances (Orange County Health Care Agency & Orange County Sheriff-Coroner Department, 2015). Additionally, of all teens hospitalized for self-inflicted injuries, 87% had known mental illness diagnoses, the most common ones being episodic mood disorders, substance use disorder, and anxiety/adjustment disorders (Orange County Health Care Agency & Orange County Sheriff-Coroner Department, 2015). Hospitalization rates for children have also increased from 11.3 in 2008 to 18.8 per 10,000 children in 2013 (Orange County Children's Partnership, 2015). Focus group interviews (October 20, 2015) indicate that despite this increase there is a significant lack of beds for youth with mental health issues.

Obesity / Overweight. From 2004-2009, adult obesity in the United States had been steadily on the rise. Weight status has worsened in Orange County, decreasing from 50% of adults with a healthy weight in 2001 to only 43% in 2011/12 (Children & Families Commission of Orange County, 2015). However, the percent of obese adults has decreased by 1% in the KFH-Anaheim and KFH-Irvine Medical Center Areas since 2010 when both were just over 20% (Kaiser Permanente Community Health Needs Assessment, 2013a). In contrast, the rate of overweight youth has increased from 14.8% (Kaiser Permanente Community Health Needs Assessment, 2013a) to 18.84% (Kaiser Permanente CHNA Data Platform, 2016) in the KFH-Anaheim Medical Center Area and from 12.5% (Kaiser Permanente Community Health Needs Assessment, 2013b) to 15.53% (Kaiser Permanente CHNA Data Platform, 2016) in the KFH-Irvine Medical Center Area, suggesting greater efforts are needed to drive down this condition in children. Although Orange County performs better (23.8%) than the state (27.8%), and nation (27.0%) in general, the proportion of obese Latinas (39.8%) and 45-65 year olds (27.0%) is higher in Orange County (Orange County Health Care Agency, 2014).

Oral / Dental Health. Poor oral health is preventable through regular oral examinations and daily oral health habits. There are no oral health professional shortage areas in Orange County, yet, 26% of the population reports not having visited a dentist in the past year. Having not visited a dentist within the past year points to a lack of access to preventative care, health knowledge, insufficient provider outreach, or social barriers that prevent use of available services. Despite reporting 0% of the population living in an area with a shortage of dental health professionals, 42% of Orange County residents lack dental insurance, up from 2007 (35%) and greater than the state average (41%), making it difficult for Orange County residents to utilize these services.

Physical Activity. A key driver to maintaining a healthy lifestyle is physical activity. The percent of physically inactive adults in Orange County has decreased from 16.4% to 15.3% from 2008 to 2012, and remains lower than the California average of 16.6%. Of physically inactive youth, Hispanics represent a substantial proportion, with nearly 39% of Hispanic youth in the KFH-Anaheim Medical Center Area not in a healthy fitness zone and 34.12% in the KFH-Irvine Medical Center Area, followed closely by Black youth with 32.69% and 27.42%, respectively (Kaiser Permanente CHNA Data Platform, 2015).

Substance Abuse. Although Orange County adults as a whole tend to have lower rates of alcohol and other drug use compared to the state and the country (Orange County Health Care Agency, 2014a), there are still some concerning trends. According to the *Orange County Community Indicators Report* (2015), in 2012, the majority of hospitalizations for adults ages 18-64 were due to substance abuse; an 8% increase since 2003. Additionally, from 2003 - 2012 there was a 33% increase in drug-induced deaths and a 7% increase in deaths due to liver disease and cirrhosis. Relatedly, the *Alcohol and Other Drugs Prevalence 2012 Survey of Orange County Adults* reported that White male adults consumed alcohol more than all other ethnic groups. Prevalence of use tended to increase with age with highest points between the ages of 45 - 64 and was also higher for more affluent and educated adults. Overall, 34% of Orange County adults reported ever using illicit drugs, with the majority of adults reporting having used marijuana. Though only 6% of adults report having used prescription drugs, focus group data (October 20, 2015) indicates that this is a considerable problem in the community, especially in the KFH-Irvine Medical Center Area.

Suicide. Suicide and self-harm are a major concern for the KFH-Irvine Medical Center Area. This community currently performs worse than the county, the SCAL Hospital region, *and* the state in suicide rates. In fact, the KFH-Irvine Medical Center Area rate of 13.68 deaths per 100,000 population (Kaiser Permanente CHNA Data Platform, 2015) is worse than the Healthy People 2020 goal of less than 10.2 suicides per 100,000 population (Orange County Health Improvement Plan, 2014b). For youth, suicide is the 2rd leading cause of premature death for Orange County youth ages 15-24, second to unintentional injuries of which accidental poisoning/overdose accounted for most instances (Orange County Health Care Agency & Orange County Sheriff-Coroner's Department, 2015). Additionally, of all

teens hospitalized for self-inflicted injuries, 87% had known mental illness diagnoses, the most common ones being episodic mood disorders, substance use disorder, and anxiety/adjustment disorders (Orange County Health Care Agency & Orange County Sheriff-Coroner's Department, 2015).

C. Summary of Needs Assessment Methodology and Process

The CHNA utilized a mixed-methods approach that includes the collection and analysis of secondary data from existing data sources, supplanted by qualitative primary data in the form of community input (focus groups, survey, and interviews with community stakeholders).

Secondary data was used to support the initial benchmarking and corroboration of health needs. This data was obtained through the Kaiser Permanente CHNA Data Platform. In addition, a tool was used to organize the data and for benchmarking. This tool was intended for each consultant to customize based on the unique needs of the service area and the methods that each consultant used. In addition, a comprehensive literature review of 12 local Orange County reports was conducted. For the purpose of this Assessment, to be considered a health need, a health outcome or driver had to meet two conditions: (1) existing or secondary data had to demonstrate that the pertinent medical center area fared worse than a comparison benchmark; and (2) the health outcome or driver had to be mentioned meaningfully in at least two data sources from primary data collection.

Next, community input was obtained through 4 focus groups and 21 key informant interviews that took place between September 2015 to December 2015 to identify health needs, barriers, and assets for both KFH-Anaheim and KFH-Irvine Medical Center Areas. Following the identification of the health needs, the consultant team distributed an online survey to over 130 community stakeholders. This survey asked participants to prioritize the health needs and then rate them on four criteria (severity, trend, disparities, and community concern) on a scale from 1 (lowest score) to five (highest score). In addition, community forums were held in the KFH-Anaheim and in the KFH-Irvine Medical Center Areas to validate the assessment findings and allow more individuals to complete the prioritization survey. Overall, fifty-five community stakeholders from the KFH-Anaheim Medical Center Area and 35 stakeholders from the KFH-Irvine Medical Center Area completed the prioritization survey.

Each health need received a composite score that is the sum of the averages of each of the four criteria scores (severity, disparity, community concern, and trend). The higher the composite score, the higher the health need ranked on the prioritized list.

Overall, Orange County tends to perform better than the SCAL Hospital Region, state and often the nation across multiple health needs. However, many gaps still exist in large part due to housing and economic drivers that specifically affect the County's low-income populations. In order to address these socio-economic drivers in Orange County, there is a continued need for increased business sector engagement. Also, while there are many services available, service coordination remains an issue, as does the promotion of services. Specifically, subpopulations challenged by health disparities remained underserved due to their lack of awareness that certain programs exist. This is especially true for our linguistically isolated and low-income communities. In addition, there is a need to address the necessities of the growing senior population in Orange County. This population is already experiencing a shortage in housing options and services and the population is rapidly growing. Other areas, where Orange County can improve are the emerging issues of suicide and substance abuse, specifically for the KFH-Irvine Medical Center Area. Largely, Orange County is doing very well in many regards but there are still areas of growth and gaps in services that need to be addressed in order to continue to better serve all community members.

D. Implementation Strategy Evaluation of Impact

In the 2013 Implementation Strategy (IS) process, all KFH planned for and drew on a broad array of resources and strategies to improve the health of communities and vulnerable populations, such as grantmaking, in-kind resources, collaborations and partnerships, as well as several internal KFH

programs including, charitable health coverage programs, future health professional training programs, and research. KFH-Anaheim and KFH-Irvine are monitoring and evaluating progress to date on their 2013 Implementation Strategies for the purpose of tracking the implementation of those strategies as well as to document the impact of those strategies in addressing selected CHNA health needs. Tracking metrics for each prioritized health need include the number of grants made, the number of dollars spent, the number of people reached/served, collaborations and partnerships, and KFH in-kind resources. In addition, KFH-Anaheim and KFH-Irvine track outcomes, including behavior and health outcomes, as appropriate and where available. As of the documentation of this CHNA Report in March 2016, KFH-Anaheim and KFH-Irvine had evaluation of impact information on activities from 2014 and 2015. While not reflected in this report, KFH-Anaheim and KFH-Irvine will continue to monitor impact for strategies implemented in 2016.

II. INTRODUCTION/BACKGROUND

A.   About Kaiser Permanente

Founded in 1942 to serve employees of Kaiser Industries and opened to the public in 1945, Kaiser Permanente is recognized as one of America's leading health care providers and nonprofit health plans. We were created to meet the challenge of providing American workers with medical care during the Great Depression and World War II, when most people could not afford to go to a doctor. Since our beginnings, we have been committed to helping shape the future of health care. Among the innovations Kaiser Permanente has brought to U.S. health care are:

- Prepaid health plans, which spread the cost to make it more affordable
- A focus on preventing illness and disease as much as on caring for the sick
- An organized coordinated system that puts as many services as possible under one roof—all connected by an electronic medical record

Kaiser Permanente is an integrated healthcare delivery system comprised of Kaiser Foundation Hospitals (KFH), Kaiser Foundation Health Plan (KFHP), and physicians in the Permanente Medical Groups. Today we serve more than 10 million members in nine states and the District of Columbia. Our mission is to provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.

Care for members and patients is focused on their Total Health and guided by their personal physicians, specialists, and team of caregivers. Our expert and caring medical teams are empowered and supported by industry-leading technology advances and tools for health promotion, disease prevention, state-of-the-art care delivery, and world-class chronic disease management. Kaiser Permanente is dedicated to care innovations, clinical research, health education, and the support of community health.

KFH-Anaheim and KFH-Irvine serve a diverse and vibrant community in Orange County. KFH-Anaheim is centrally located in Central Orange County with 10 medical offices located across Central and North Orange County. The KFH-Irvine is located in Southern Orange County with 8 medical offices serving Southern Orange County. The communities served by KFH-Anaheim are: Brea, Euclid, Garden Grove, La Palma, Lakeview, Tustin-Santa Ana and Yorba Linda. The communities served by the KFH-Irvine include: Aliso Viejo, Barranca, Foothill Ranch, Harbor/McArthur, Huntington Beach, Mission Viejo, San Juan Capistrano and Tustin Ranch.

B.   About Kaiser Permanente Community Benefit

For more than 70 years, Kaiser Permanente has been dedicated to providing high-quality, affordable health care services and to improving the health of our members and the communities we serve. We believe good health is a fundamental right shared by all and we recognize that good health extends beyond the doctor's office and the hospital. It begins with healthy environments: fresh fruits and vegetables in neighborhood stores, successful schools, clean air, accessible parks, and safe playgrounds. These are the vital signs of healthy communities. Good health for the entire community, which we call Total Community Health, requires equity and social and economic well-being.

Like our approach to medicine, our work in the community takes a prevention-focused, evidence-based approach. We go beyond traditional corporate philanthropy or grant making to pair financial resources with medical research, physician expertise, and clinical practices. Historically, we've focused our investments in three areas—Health Access, Healthy Communities, and Health Knowledge—to address critical health issues in our communities.

For many years, we've worked side-by-side with other organizations to address serious public health issues such as obesity, access to care, and violence. And we've conducted Community Health Needs

Assessments to better understand each community's unique needs and resources. The CHNA process informs our community investments and helps us develop strategies aimed at making long-term, sustainable change—and it allows us to deepen the strong relationships we have with other organizations that are working to improve community health.

C.   Purpose of the CHNA Report

i. To Advance Community Health

Community Health Needs Assessments (CHNA) have been integral to learning about the health of the communities Kaiser Permanente serves. We are committed to building on the CHNA and relationships in the community to deepen our knowledge of the community specific needs and the resources and leaders in the community. This deeper knowledge will enable us to develop a new approach by engaging differently and activating in a way that addresses specific community needs and in collective action with the community. This new approach will leverage our existing and new community partnerships and harness the power of all Kaiser Permanente asset – economic, relationships, and expertise – to positively impact community health.

ii. To Implement ACA Regulations

The Patient Protection and Affordable Care Act (ACA), enacted on March 23, 2010, included new requirements for nonprofit hospitals in order to maintain their tax-exempt status. The provision was the subject of final regulations providing guidance on the requirements of section 501(r) of the Internal Revenue Code. Included in the new regulations is a requirement that all nonprofit hospitals must conduct a community health needs assessment (CHNA) and develop an implementation strategy (IS) every three years (http://www.gpo.gov/fdsys/pkg/FR-2014-12-31/pdf/2014-30525.pdf). The required written IS plan is set forth in a separate written document. Both the CHNA Report and the IS for each Kaiser Foundation Hospital facility are available publicly at kp.org/chna.

D.   Kaiser Permanente Approach to CHNA

Kaiser Permanente has conducted CHNAs for many years, often as part of long standing community collaboratives. The new federal CHNA requirements have provided an opportunity to revisit our needs assessment and strategic planning processes with an eye toward enhanced compliance and transparency and leveraging emerging technologies. Our intention is to develop and implement a transparent, rigorous, and whenever possible, collaborative approach to understanding the needs and assets in our communities. From data collection and analysis to the identification of prioritized needs and the development of an implementation strategy, the intent was to develop a rigorous process that would yield meaningful results.

Kaiser Permanente's innovative approach to conducting CHNAs includes the development of a free, web-based CHNA data platform that is available to the public. The data platform provides access to a core set of approximately 150 publicly available indicators to understand health through a framework that includes social and economic factors; health behaviors; physical environment; clinical care; and health outcomes. The Kaiser Permanente common indicators data on the CHNA Data Platform are calculated to obtain unique service area rates. In most cases, the service area values represent the aggregate of all data for geographies (zip codes, counties, tracts, etc.), which fall within the service area boundary. When one or more geographic boundaries were not entirely encompassed by a service area, the measure was aggregated proportionally. The options for weighing "small area estimations" were based upon total area, total population, and demographic-group population. The specific methodology for how service area rates were calculated for each indicator can be found on the CHNA.org/kp website.

In addition to reviewing the secondary data available through the CHNA data platform, and in some cases other local sources, each KFH facility, individually or with a collaborative, collected primary data

through key informant interviews, focus groups, and surveys. Primary data collection consisted of reaching out to local public health experts, community leaders, and residents to identify issues that most impacted the health of the community. The CHNA process also included an identification of existing community assets and resources to address the health needs.

Each hospital/collaborative developed a set of criteria to determine what constituted a health need in their community. Once all of the community's health needs were identified, they were all prioritized, based on identified criteria. This process resulted in a complete list of prioritized community health needs. The process and the outcome of the CHNA are described in this report.

Both KFH-Anaheim and KFH-Irvine will develop an implementation strategy for the priority health needs the hospital will address. These strategies will build on Kaiser Permanente's assets and resources, as well as evidence-based strategies, wherever possible. The Implementation Strategy will be filed with the Internal Revenue Service using Form 990 Schedule H. Both the CHNA and the Implementation Strategy, once they are finalized, will be posted publicly on our website, www.kp.org/chna.

III. COMMUNITY SERVED

A.   Kaiser Permanente's Definition of Community Served

Kaiser Permanente defines the community served by a hospital as those individuals residing within its hospital service area. A hospital service area includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations.

B.   Map and Description of Community Served

i. Map
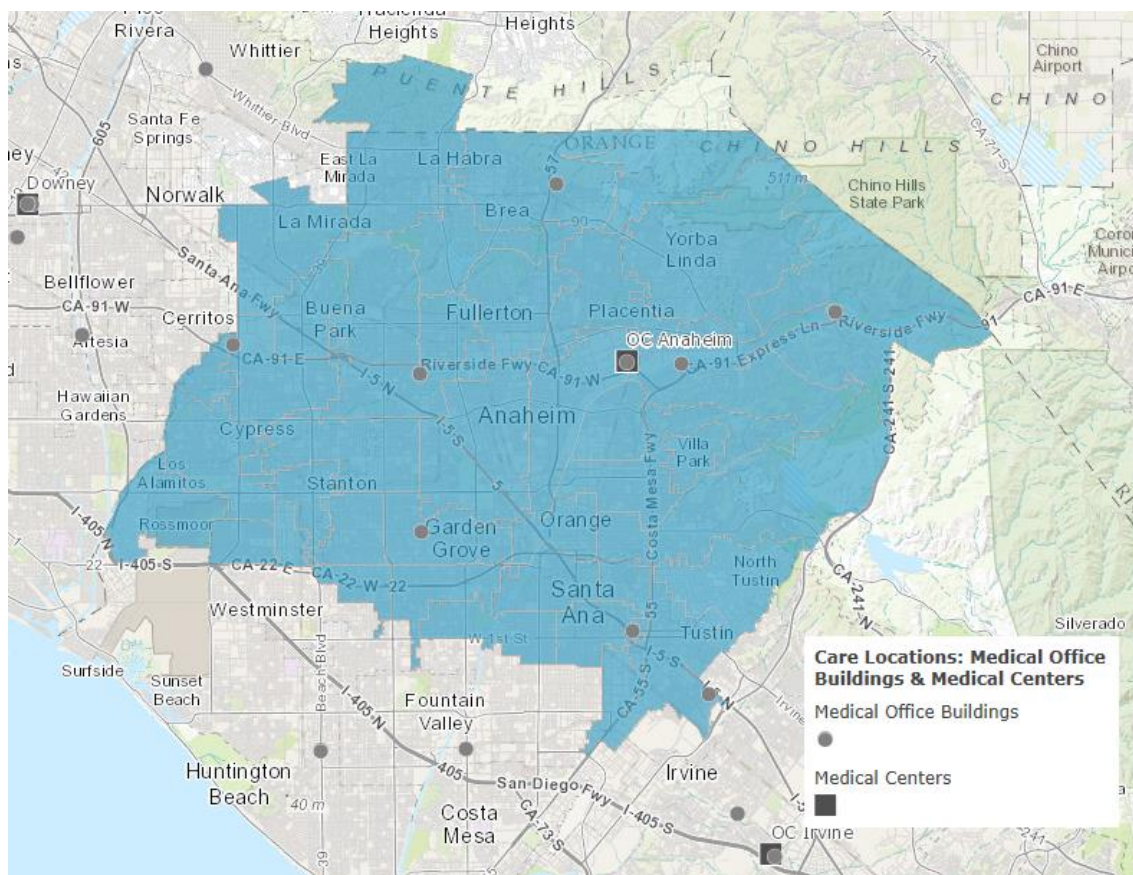
ii. Geographic description of community served (towns, county, and/or zip codes)

The KFH-Anaheim Medical Center Area primarily encompasses the northern part of Orange County, with 43 zip codes and the KFH-Irvine Medical Center Area primarily encompasses the southern part of Orange County, with 47 zip codes. The following cities and zip codes (see Table 1) are included in the KFH-Anaheim Medical Center Area and the KFH-Irvine Medical Center Area.

Table 1a: Cities and Zip Codes Included in the KFH-Anaheim Medical Center Area

KFH-Anaheim Medical Center Area	
City	Zip Codes
Anaheim	92801, 92802, 92804, 92805, 92806, 92807, 92808, 92809, 29899
Brea	92821, 92823
Buena Park	90620, 90621
Cypress	90630
Fullerton	92831, 92832, 92833, 92835
Garden Grove	92840, 92841, 92843, 92844, 92845
La Habra	90631
La Mirada	90638
La Palma	90623
Los Alamitos	90720
Orange	92862, 92865, 92866, 92867, 92868, 92869
Placentia	92870
Santa Ana	92701, 92703, 92705, 92706

Stanton	90680
Tustin	92780
Villa Park	92861
Yorba Linda	92886, 92887

Table 1b: Cities and Zip Codes Included in the KFH-Irvine Medical Center Area

KFH-Irvine Medical Center Area	
City	Zip Codes
Aliso Viejo	92656
Capistrano Beach	92624
Corona Del Mar	92625
Costa Mesa	92626, 92627
Dana Point	92629
Foothill Ranch	92610
Fountain Valley	92708
Huntington Beach	92646, 92647, 92648, 92649
Irvine	92602, 92603, 92604, 92606, 92612, 92614, 92617, 92618, 92620
Ladera Ranch	92694
Laguna Beach	92651
Laguna Hills	92653
Laguna Niguel	92677
Laguna Woods	92637
Lake Forest	92630
Midway City	92655
Mission Viejo	92691, 92692
Newport Beach	92660, 92661, 92662, 92663
Newport Coast	92657
Rancho Santa Margarita	92688
San Clemente	92672, 92673
San Juan Capistrano	92675
Santa Ana	92704, 92707, 92799
Seal Beach	90740
Silverado	92676
Trabuco Canyon	92679
Tustin	92782
Westminster	92683

    iii.   Demographic profile of community served

The following demographic profile describes both the KFH-Anaheim and KFH-Irvine Medical Center Areas. The data presented below highlights various trends and comparisons between service areas, as well as comparisons to Orange County and California, when available. The population in both the KFH-Anaheim and KFH-Irvine Medical Center Areas has grown over the past 10 years and both are comprised of large subpopulations of Whites, Latinos, and Asians. Of the total population, the majority fall within the age range of 0 - 27 years of age. In general, both Medical Center Areas tend to perform better than the county and the state across indicators, except in some instances where the KFH-Anaheim area performs worse than both. For example, both Medical Center Areas have a large

percentage of their populations that fall below the 200% Federal Poverty Level, however, KFH-Irvine performs better than the county and state while KFH-Anaheim performs worse compared to all three.

When comparing the two medical center areas, KFH-Anaheim consistently performs worse than the KFH-Irvine area. For example, the KFH-Anaheim area has more individuals 25 years of age or older without a high school diploma compared to the KFH-Irvine area. Across both Medical Center Areas, there is an adequate number of health care providers (including dental providers) but there is a shortage of mental health providers. In addition, there is still a large percentage of the population that is uninsured, in particular for the KFH-Anaheim area compared to the KFH-Irvine area as well as the state.

The population of Orange County has grown by 5.76% from 2000 to 2010. Specifically, the population of KFH-Irvine Medical Center Area has grown by 8.64%, while KFH-Anaheim Medical Center Area's population has grown by only 2.95%. Comparably, the state's population has grown by nearly 10% in the past 10 years (see Table 2 below).

Table 2: Total Population and Population Growth

	KFH-Anaheim	KFH-Irvine	Orange County	California
Total Population 2000	1,493,224	1,413,318	2,846,289	33,871,648
Total Population 2010	1,537,257	1,535,473	3,010,232	37,253,956
Total Population Change 2000-2010	44,033	122,155	281,480	3,382,308
Percent Population Change 2000-2010	2.95%	8.64%	5.76%	9.99%

Data Source: US Census Bureau, American Community Survey. 2009-13. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

The table below (Table 3) reports the percentage of residents who identified as White, Black, Asian, Hispanic/Latino, Native American/Alaska Native, Native Hawaiian/Pacific Islander, Some Other Race or Multiple Races. The non-Hispanic White population is the majority of the population in the KFH-Anaheim Medical Center Area, closely followed by Hispanic/Latino.

Table 3: Total Population by Race/Ethnicity

	KFH-Anaheim	KFH-Irvine	Orange County	California
White	57.96%	67.30%	62.68%	62.31%
Black	1.95%	1.36%	1.63%	5.99%
Asian	19.02%	17.57%	18.34%	13.29%
Hispanic/Latino	44.63%	23.22%	33.85%	37.89%
Native American/Alaskan Native	0.42%	0.36%	0.38%	0.76%
Native Hawaiian/Pacific Islander	0.41%	0.25%	0.33%	0.39%
Other Race	16.96%	9.63%	13.28%	12.93%
Multiple Races	3.28%	3.52%	3.36%	4.32%

Data Source: US Census Bureau, American Community Survey. 2009-13. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

The table below (Table 4) breaks down the population by age. The age groups 0-4 and 5-17 have been combined. The majority of the population falls between ages 25-54. Additionally, the proportion of male and females is approximate to that of the state of California as a whole with 50.34% women in KFH-Anaheim Medical Center Area, 50.66% in KFH-Irvine Medical Center Area, 50.53% in Orange County, and 50.27% in California as a whole.

Table 4: Total Population by Age, percent

	KFH-Anaheim	KFH-Irvine	Orange County	California
Age 0-17	25.49%	22.48%	24.02%	24.54%
Age 18-24	10.96%	9.64%	10.16%	10.52%
Age 25-34	14.18%	13.42%	13.83%	14.39%
Age 35-44	14.01%	14.39%	14.28%	13.73%
Age 45-54	14.15%	15.12%	14.67%	13.9%
Age 55-64	10.12%	11.87%	11.01%	11.1%
Age 65+	11.1%	13.07%	12.04%	11.81%

Data Source: US Census Bureau, American Community Survey, 2009-13. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

The table below (Table 5) reports the percentage of the population with income at or below the federal poverty line (FPL). Eligibility for Medicaid and the Children's Health Insurance Program (CHIP) is determined by the Federal Poverty guidelines. KFH-Anaheim Medical Center Area performs significantly worse than Orange County, with 34.93% at or below the 200% FPL. Further, the table reports the percentage of the population aged 25 years and older without a high school diploma (or equivalency) or higher. KFH-Anaheim Medical Center Area has a higher prevalence of individuals (21.71%) with no high school diploma compared to Orange County (16.19%) and California (18.76%).

Table 5: Socio-Economic Indicators

	KFH-Anaheim	KFH-Irvine	Orange County	California
Percent Population with Income at or Below 200% FPL	34.93%	23.78%	29.49%	35.91%
Percent Population Under Age 18 in Poverty	20.99%	11.91%	16.90%	22.15%
Unemployment Rate	5.3%	5.2%	5.2%	7.1%
Percent Population Age 25+ with No High School Diploma	21.71%	10.84%	16.19%	18.76%

Data Source: Poverty data from US Census Bureau, American Community Survey. 2009-13; Unemployment rate data from US Department of Labor, Bureau of Labor Statistics. 2015 - September. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16); US Census Bureau, American Community Survey. 2009-13. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

The table below (Table 6) reports the percentage of the population with limited English proficiency (households with no individuals of 5 years and older who speak English "very well"). KFH-Anaheim Medical Center Area is at 26.46%, with 13.15% of the population linguistically isolated. Meanwhile, KFH-Irvine Medical Center Area performs better at 15.06% with limited English proficiency and 7.13% of the population linguistically isolated.

Table 6: Language

	KFH-Anaheim	KFH-Irvine	Orange County	California
Percent Population Age 5+ with Limited English Proficiency	26.46%	15.06%	20.89%	19.35%
Percent Linguistically Isolated Population	13.15%	7.13%	10.20%	9.90%

Data Source: US Census Bureau, American Community Survey. 2009-13. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

Regarding healthcare access, there has been an increasing trend in health coverage in Orange County with the 1-Year Estimates for uninsured rates declining steadily since 2010 (US Census Bureau, 1-year

estimates of uninsured, 2010-2014). The Medi-Cal expansion and recent changes to healthcare access through the Affordable Care Act likely played a part in this shift. In particular, in 2014, the Orange County 1-Year estimate for uninsured rate was 11.9%, down from 18% in 2010. Furthermore, for the Latino population, this decline was even more dramatic with uninsured rates at 31.8% in 2010 and 21.6% in 2014 (American Community Survey, 1-Year estimates).

The table below (Table 7) reports the indicators that reflect a person's general access to healthcare; being uninsured, living in a health professional shortage area (HPSA) and the number of PCP doctors per 100,000 are all indicators of a community's access to care. KFH-Anaheim Medical Center Area (20.81%) performs significantly worse than KFH-Irvine Medical Center Area (13.58%), Orange County (17.29%), and California (17.78%). The KFH-Anaheim Medical Center Area (93.3 per 100,000), KFH-Irvine Medical Center Area (94), and Orange County (94.1) all perform significantly better than California (77.2) regarding the number of primary care physicians available per 100,000 population.

Lastly, although both KFH-Anaheim and KFH-Irvine Medical Center Areas perform better than the state regarding the percentage of the population living in an area with a shortage of health professionals, the KFH-Anaheim Medical Center Area performs worse than KFH-Irvine Medical Center Area with 18.01% living in a health professional shortage area, compared to 6% for the KFH-Irvine Medical Center Area. Overall, California performs far better than the nation, with the United States rate of individuals living in a HPSA at 34.07%.

Table 7: General Health Access

	KFH-Anaheim	KFH-Irvine	Orange County	California
Percent Uninsured Population	20.81%	13.58%	17.29%	17.78%
Number of Primary Care Physicians (per 100,000)	93.3	94	94.1	77.2
Percentage of Population Living in a Health Professional Shortage Area	18.01%	6.0%	12.26%	25.18%

Data Source: US Census Bureau, American Community Survey. 2009-13. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16); US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16) US Department of Health & Human Services, Health Resources and Services Administration, Health Resources and Services Administration. March 2015. Source geography: HPSA (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

Though KFH-Anaheim and KFH-Irvine Medical Center Areas perform well in the number of primary health care providers per 100,000 population, they perform *significantly worse* in the rate of mental health care providers per 100,000 population, with 123.6 providers in KFH-Anaheim Medical Center Area and 122.9 providers in the KFH-Irvine Medical Center Area, compared to California with 157 providers (see Table 8 below).

Table 8: Mental Health Care Provider Rate

	KFH-Anaheim	KFH-Irvine	Orange County	California
Ratio of Mental Health Providers to Population (1 Provider per x Persons)	809	813.7	815.3	636.6
Mental Health Care Provider Rate (Per 100,000 Population)	123.6	122.9	122.7	157

Data Source: University of Wisconsin Population Health Institute, County Health Rankings. 2014. (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

For dental and oral health care, a different issue emerges in Orange County. According to the US Department of Health and Human Services (Health Resources & Services Administration, March 2015),

although the percentage of the population living in a dental health professional shortage area is 4.9%, Orange County, including KFH-Anaheim and KFH-Irvine Medical Center Areas, fare significantly better at 0% of the population in the 3 areas living in a health care shortage area.

Though KFH-Anaheim and KFH-Irvine Medical Center Areas have a significant number of dental care providers, nearly half of the population in Orange County (42.5%) does not have dental insurance, thus limiting their access to dental providers (see Table 9 below).

Table 9: Dental Insurance Coverage

	Orange County	California
Percentage of adults without dental insurance	42.5%	40.9%

Data Source: University of California Center for Health Policy Research, California Health Interview Survey. 2009. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 1/18/16)

Overall, the communities of KFH-Anaheim and KFH-Irvine Medical Center Areas outperform most indicators when compared to the state of California, and often, the nation. However, as we see above, there are significant pockets of poverty, primarily in the KFH-Anaheim Medical Center Area, that create a barrier to good health, as does the linguistic isolation found in the various ethnic enclaves across the County. In addition, the growing mental health access needs are a key driver to supporting mental and behavioral health of children and adults throughout the County, namely in the KFH-Irvine Medical Center Area.

IV. WHO WAS INVOLVED IN THE ASSESSMENT

A. Identity of Hospitals that collaborated on the assessment

In terms of collaboration, there were significant conversations among the hospital systems in Orange County, through the *Orange County Health Improvement Plan* (OCHIP) work groups. Included in the OCHIP Hospital System's Group are:

- KFH-Anaheim and KFH-Irvine
- Memorial Care
- St. Jude Medical Center
- St. Joseph's Medical Center
- Hoag Memorial Hospital
- University of California Irvine

Together, this group discussed their respective CHNA processes. As a part of these conversations, Kaiser Permanente staff shared key indicators, the CHNA.org website and the MATCH framework with other members of the group.

B. Other partner organizations that collaborated on the assessment

The Orange County Health Care Agency (OCHCA) was a key partner in terms of sharing data reports and information on countless indicators and health needs. While undergoing their accreditation process, OCHCA conducted various assessments and planning processes that resulted in much of the invaluable data and reports that were used throughout this process.

C. Identity and qualification of consultants used to conduct the assessment

Ersoylu Consulting was contracted to support the CHNA process for the KFH-Anaheim and KFH-Irvine Medical Center Service Areas. Ersoylu Consulting is a woman-owned Very Small Business Enterprise (VSBE) located in Costa Mesa, CA. Founded in 2007, Ersoylu Consulting provides project support to public agencies, nonprofit organizations and private ventures or other partners interested in meaningful social change. Their Planning, Research & Evaluation Services help clients accurately research and

evaluate issues, make effective policy decisions, and attain their program goals through effective project management. They work to ensure full participation of diverse stakeholders in program design, and specialize in the interpretation of research and evaluation findings as well as policy analysis in economically and culturally diverse communities.

Their experience with both qualitative and quantitative methods includes: focus group facilitation, direct observation, survey data analysis, process and outcome evaluation, community assessments, movement and coalition building, and general technical support for advocacy efforts. Ersoylu Consulting works closely with collaborative partners and clients to provide formative feedback in a timely manner. Through their combination of research and administrative and technical expertise, they ensure that projects are completed on time, meeting the desired objectives and using appropriate resources.

V. PROCESS AND METHODS USED TO CONDUCT THE CHNA

A. Secondary Data

i. Sources and dates of secondary data used in the assessment

Both KFH- Anaheim and KFH-Irvine Medical Center Areas used the Kaiser Permanente CHNA Data Platform (www.chna.org/kp) to review over 135 indicators from publically available data sources. It allows users to view, map, and analyze the common indicators according to a specific hospital service area. Users are able to review the indicators and compare them against pre-defined benchmarks to determine how the hospital service area is performing on the respective indicator. The consultant team used the platform to generate demographic data tables for the report. This information was used to help us explore any geographic or subpopulation disparities within the data and inform focus group discussions during primary data collection.

The consultant team queried data on the indicators found through the Kaiser Permanente CHNA data platform and obtained the data rates unique for the KFH-Irvine and KFH-Anaheim Medical Center Areas. In most cases, the service area values represent the aggregate of all data for geographies (zip codes, counties, tracts, etc.), which fall within the service area boundary. When one or more geographic boundaries were not entirely encompassed by a service area, the measure was aggregated proportionally. The options for weighing "small area estimations" were based upon total area, total population, and demographic-group population. Data on gender and race/ethnicity breakdowns were analyzed when available. The specific methodology for how service area rates were calculated for each indicator can be found on the CHNA.org/kp website.

In addition to the data obtained from the Kaiser Permanente CHNA Data Platform, additional secondary data from over a dozen local Orange County reports was also reviewed and factored into the analysis. For details on specific sources and dates of the data used, please see Appendix A.

ii. Methodology for collection, interpretation and analysis of secondary data

Secondary data was analyzed using an excel based data analysis tool that organized data from the CHNA Platform indicators. Kaiser Permanente relies on the Mobilizing Action Toward Community Health (MATCH) model to identify key health needs and drivers that guide their analysis. The MATCH model is a population health model that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. These factors include the mortality and morbidity status of the community, and the four key sets of drives that impact that status: access to healthcare, behaviors, socio-economic factors, and the physical environment.

In this tool, the KFH-Anaheim and KFH-Irvine data indicators were organized within the morbidity/mortality (health outcome) and health driver categories to enable a broad understanding of

the health needs in the community. This tool organizes the 135 Kaiser Permanente common indicators[1] for California by health need labels and demographics to distinguish the health need topics the secondary data set is exploring (see Table 10). For example, indicators related to depression, suicide rates, and poor mental health describe the health need, Mental Health. Each health need topic is assigned a score based on the relative variance of the data values at the hospital service area compared to three benchmarks: the relative county, CA State, and the Kaiser Permanente SCAL Hospital Region.

Table 10: Health Needs

Health Outcomes	Health Drivers
Asthma	Access to Healthcare
Cancers	Breastfeeding
Cardiovascular Disease	Built Environment (HEAL)
Diabetes	Built Environment (Housing)
Injury (Mortality)	Built Environment (Transportation)
Maternal And Child Health	Care Delivery
Mental Health	Economic Security
Obesity/Overweight	Educational Attainment
Oral Health	Environmental Health
STI	Healthy Eating
	Language Barriers
	Maternal and child health
	Physical Activity
	Safety / Violence
	Social and Emotional Support
	Substance use

Using a Secondary Data Tool, the consultant team identified the indicators where the KFH-Irvine and KFH-Anaheim Medical Center Areas performed "worse" than at least 2 of the following benchmarks: SCAL Hospital Region (the regional average across all Kaiser Permanente hospitals in Southern California), State (CA), County (Orange) or Healthy People 2020. This generated lists of **28 indicators (representing 16 unique potential health needs) for the KFH-Anaheim Medical Center Area** and **19 indicators (representing 15 unique potential health needs) for the KFH-Irvine Medical Center Area**. Additionally, maternal and child access, was identified as an additional potential health need for the KFH-Anaheim area. Although KFH-Anaheim did not perform "worse" on the core drivers to maternal and child health, namely, teen birth rates and infant mortality (both of which are performing better than the benchmarks), this additional health need was identified through analysis of the related drivers to maternal and child health, namely breastfeeding rates and education rates that performed worse than the benchmark.

Concurrently, we conducted an extensive literature review, reviewing additional secondary data sources such as reports from the Orange County Children & Families Commission, Orange County Health Care Agency, community based organizations and other local funders. These reports were identified through a combination of Ersoylu Consulting's pre-existing relationships in the community, an extensive online data search, and the local knowledge of the Kaiser Permanente Community Benefits staff. These reports served as complementary data to the common indicators, providing a more robust

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[1] The full list can be found at
http://assessment.communitycommons.org/chna/Datalist.aspx?reporttype=overview&dataarea=0

understanding of community health needs for both the KFH-Irvine and KFH-Anaheim Medical Center Areas.

Through the literature review we were able to augment the gaps and limitations from the Kaiser Permanente common indicators available. For instance, although Economic Security and Housing needs emerged in the CHNA Platform, our understanding of the nuances regarding the trend, severity and disparities was deepened through the literature review (and subsequently through the primary data collection). In addition, we identified health needs that were not immediately evident in the CHNA data platform. For instance, Substance Abuse (prescription drug and illicit drugs) was an issue that, although not in the CHNA Platform, was evident through our secondary data literature review.

B.   Community Input

i.   Description of the community input process

Fifty-nine (59) individuals with the knowledge, information, and expertise relevant to the health needs of the community were consulted through an extensive community input process. Between September 1 and December 1, 2015, local stakeholders participated in focus groups or key informant interviews to discuss health needs, barriers and assets regarding both the KFH-Irvine and KFH-Anaheim Medical Center Areas. In total, **4 focus groups** and **21 key informant interviews** were conducted. These individuals included representatives from state, local, tribal, or other regional governmental public health departments (or equivalent department or agency) as well as leaders, representatives, or members of medically underserved, low-income, and minority populations, in compliance with ACA requirements. Additionally, other individuals with expertise of local health needs were consulted.

Participants were recruited based on their particular areas of expertise and work experience within a broad range of diverse communities. Focus groups were conducted because of interest to identify shared themes among providers who have direct experience with community residents. On the other hand, key informant interviews were conducted with individuals who either have a very particular area of expertise and could provide high level insights. Outreach with direct community members was not conducted as a part of the process.

In order to increase the diversity of community input, and to acknowledge the growing diversity of Orange County, the consulting team conducted a focus group of Asian-Pacific Islander community organization representatives, as well as stakeholder interviews with members of the Arab-American and Latino community. In addition to the traditional partners from public health, medical service providers and those in social services, the 59 individuals also included the following non-traditional partners: 7 were from direct advocacy organizations, two were from the foundation community, one professor and one business leader. For a complete list of individuals who provided input, see Appendix B.

Community stakeholders were invited to attend any one of the four focus groups. These focus groups were thematic, based on the following broad topics.

- Economic Instability - Community based service and advocacy organizations focused on economic inequity inclusive of housing & homelessness, food security and workforce-related issues

- Trauma-Related - Providers working in the Mental Health, Substance Abuse, Community Violence & Domestic Violence arenas

- Child & Family Services - Clinics & Social Service providers working with youth and families on issues of obesity/diabetes, education, pre-post natal health and general health

- API Community Organizations - Community based organizations, businesses and networks engaged in supporting the various API subpopulations (Vietnamese, Korean, Pacific

Island and other) in Orange County

The 4 focus groups were broad enough to engage diverse stakeholders, while still ensuring that stakeholders were provided an opportunity to delve deeper into particular topics.

ii. Methodology for interpretation and analysis of primary data

Focus groups were conducted in either Kaiser Foundation Hospital facilities or in the community. The key informant interviews were conducted either by telephone or at the key informant's office location.

A focus group guide was developed for each of the focus group discussions, with questions in the following broad categories:

(1) Health needs; major health needs in the community, including trends and contributing factors. These health needs were including but not limited to: mental health, obesity, diabetes, community violence and others.

(2) Health barriers; challenges that impact an individual's ability to live well. This included socio-economic issues, economic trends, social norms and environmental factors.

(3) Health assets; various resources that positively impact health. These assets include programs, promising practices, institutions, collaborations and networks.

The key informant interview guides adhered to the same framework but were tailored to the specific expertise of each participant. While focus groups and interviews in general sought to ascertain disparities and key concerns in both KFH-Anaheim and KFH-Irvine Medical Center Areas, both focus group and interview guides included probing questions in order to gather more specific information about health issues and disparities of concern.

In addition to the focus group verbal protocol, wall posters and sticker-dot voting were also used during the focus groups. As noted above, a key part of our focus group methodology was to provide large posters at the focus group sessions where individuals were provided with maps of each service area and asked broadly to, "*identify all the health needs impacting the Irvine Medical Center Area*" and "*identify all the health needs impacting Anaheim Medical Center Area*". These posters were pre-populated with 20 common health needs and had several blank spaces for "Other", where individuals could write-in other health needs that they did not see. These responses were tallied and, from that "vote", **29 health needs were identified for KFH-Anaheim Medical Center Areas and 26 health needs were identified initially for the KFH-Irvine Medical Center Areas**. Some health needs were identified more frequently than others, with participants allowed to "vote" using sticker-dots. For instance, for the KFH-Anaheim Medical Center Area, issues such as mental health (53), economic insecurity (47), and obesity (44) were mentioned far more frequently whereas asthma (7), HIV/AIDS (5) and vision (1) were found at the other end of the spectrum—mentioned by some participants, but with far less frequency. This activity provided us with a clear quantitative understanding of the priority health needs. We felt this was an important step because often, in relying only on meeting transcripts to conduct a coded word-search, data can be biased for instance, if one vocal participant mentioned "diabetes" several times. Having a dot-voting process to supplement the dialogue allows for a clear, equal voice given to the thoughts of each participant, which can be supplemented by the dialogue.

In order to discuss barriers to good health, a wall-poster and sticker-dot voting process was used based on the MATCH framework since it offers a consistent method to examine health needs by categorizing data by health outcomes and drivers for analysis. We provided participants with a copy of the MATCH framework to help individuals conceptualize "barriers to good health". Each participant was given 3 sticker-dot "votes" for each community—KFH-Irvine Medical Center Area and KFH-Anaheim Medical Center Area—and asked to choose which elements in the MATCH framework posed the biggest barrier to good health. This information was used to corroborate what we had learned about needs from both the primary and secondary data; in particular, we were interested in how the MATCH framework

captured both the socio-economic nuances as well as the physical environment issues facing the community. It provided us with a common language to explore the barriers to health with the community participants.

We supplemented this with a content analysis of the notes from the community dialogue. This is where the nuances and information on health disparities or drivers was gleaned, related to each of the health needs. Immediately after each focus group or key stakeholder interview, the consulting team members debriefed to identify general consensus and disagreements in findings around health needs, barriers, and assets, paying close attention to community input that reinforced or contradicted secondary data. In addition, at all focus groups, there were at least two members of the consulting team; one facilitator and one note-taker. The note-taker was responsible for documenting the comments during the conversation, as well as summarizing the dot-voting flip-chart sheets that were used for participants to identify what they believed were the top health needs and barriers for both KFH-Irvine Medical Center Area and KFH-Anaheim Medical Center Area. The key informant interviews were transcribed and the notes were analyzed for key themes, trends and idea clusters.

Data from both the sticker-dot voting and the content analysis of health needs in key informant interviews were then aggregated. Based on this data, the consulting team developed a preliminary list of the health needs to be used for community prioritization. Because of the inter-relatedness of needs, barriers and assets, the analysis also focused on relationships among key themes and nuances within each. See Appendix E for the full results from the primary data health needs identification process.

C.   Written Comments

Kaiser Permanente provided the public an opportunity to submit written comments on the two facility's previous CHNA Report through CHNA-communications@kp.org. This website will continue to allow for written community input on the facility's most recently conducted CHNA Report.

As of the time of this CHNA report development, neither the KFH-Anaheim nor KFH-Irvine Medical Center Areas had received written comments about previous CHNA Reports. Kaiser Permanente will continue to track any submitted written comments and ensure that relevant submissions will be considered and addressed by the appropriate Facility staff.

D.   Data limitations and information gaps

The Kaiser Permanente CHNA data platform includes approximately 150 secondary indicators that provide timely, comprehensive data to identify the broad health needs faced by a community. However, there are some limitations with regard to these data, as is true with any secondary data. Some data were only available at a county level, making an assessment of health needs at a neighborhood level challenging. Furthermore, disaggregated data around age, ethnicity, race, and gender are not available for all data indicators, which limited the ability to examine disparities of health within the community. In addition, data are not always collected on a yearly basis, meaning that some data are several years old.

Furthermore, the number of indicators for some health issues is limited. For instance, the primary indicators for substance abuse on the Kaiser Permanente CHNA data platform only include indicators for alcohol and tobacco use whereas we know from primary data and other secondary sources that prescription drug use and other drugs are also an issue in Orange County. Lastly, the CHNA data platform does not include trend data, making it difficult to understand whether issue are performing better or worse than in previous years.

In addition to these secondary data limitations, the primary data collection methods have limitations. In particular, the consultant team primarily relied on service providers, community leaders, and public agency officials for input. While these stakeholders are knowledgeable about the communities they serve and work with, engagement with community members throughout the CHNA process would also

provide rich data. However, due to research design and time constraints, engaging community members was not part of the data collection process for this CHNA process.

VI. IDENTIFICATION AND PRIORITIZATION OF COMMUNITY HEALTH NEEDS: PROCESS AND KEY FINDINGS

A. Identifying Community Health Needs

i. Definition of Health Need

For the purposes of the CHNA, Kaiser Permanente defines a "health need" as a health outcome and/or the related conditions [drivers] that contribute to a defined health need. Health needs are identified by the comprehensive identification, interpretation, and analysis of a robust set of primary and secondary data.

ii. Criteria and analytical methods used to identify the community health needs

The Community Health Needs Assessment (CHNA) utilized a mixed-methods approach that includes the collection and analysis of secondary data from existing data sources, supplemented by more qualitative, primary data in the form of community input (focus groups, survey, and interviews with community stakeholders). In addition, the CHNA secondary data process began with a review of the last CHNA plans for the two Orange County Medical Center Areas: KFH-Irvine and KFH-Anaheim. Note that in 2013 health needs for KFH-Anaheim and KFH-Irvine both included teen pregnancy, prenatal care, domestic violence, asthma, and breast cancer but they did not arise as top health needs in this CHNA. Teen pregnancy rates have decreased and as a result did not make the list of top health needs but prenatal care was included as part of *maternal access* for the KFH-Anaheim area. Additionally, domestic violence was included as part of the broader category of *community violence* for both areas but asthma and breast cancer did not rise as a top health needs this time around in either area. By grounding our analysis in understanding the health needs that ranked high in the last assessment (2013), we had a clear idea of the 2013 baseline from which we were moving.

During our analysis, secondary and primary data findings worked together in a constant iterative analysis process. New health needs that emerged from the primary data guided probing secondary data sources for corroboration.

To be considered a health need, a health outcome or a health driver had to meet the criteria of **corroboration,** with substantial support from both primary and secondary data. Furthermore, the data had to also meet the criteria of **benchmark/comparison**, this means that the data for the Medical Center Area had to fare worse than the Healthy People 2020 objectives and/or state (California) averages *or* demonstrates a worsening trend when compared to local data in recent years.

Benchmarking

As noted above, the consultant team first identified indicators where the KFH-Irvine and KFH-Anaheim Medical Center Areas performed "worse" than at least 2 benchmarks: SCAL Hospital Region (the regional average across all Kaiser Permanente hospitals in Southern California), State (CA), and County (Orange). However, to compensate for the fact that service area data was not always available (i.e. the service area data was the county data) we also included any additional indicators for which the Medical Center Area performed 'worse' than both the SCAL Hospital Region *and* the State. We then reviewed the limited data available from Healthy People 2020, and found that, of our indicators, two— *Cancer Incidence, Breast* (for KFH-Anaheim and KFH-Irvine) and *Mortality- Suicide* (for KFH-Irvine only), performed worse than the HP2020 benchmarks. This left us with a list of 28 indicators for KFH- Anaheim Medical Center Area and 19 indicators for KFH-Irvine Medical Center Area representing 17 and 15 unique health needs for the KFH- Anaheim and the KFH-Irvine areas, respectively.

For each indicator identified through the Secondary Data Tool, we then reviewed the CHNA Data

Platform to explore any disparities by community/ neighborhood/ ethnicity and poverty & education rates. This data was useful in helping us to generate more granular data, useful for the Health Need Profiles, found in Appendix C.

Corroboration

Lastly, to be considered a health need, a health outcome or a health driver, each had to be corroborated; with substantial support from *both* primary and secondary data. As a result, our list of 17 needs for the KFH-Anaheim area and 15 needs for the KFH-Irvine area were juxtaposed to the primary data gleaned from community input on health needs and barriers. Based on this criteria, the following 15 and 14 health needs were identified for the KFH-Anaheim and the KFH-Irvine Medical Center Areas, respectively, in alphabetical order (see Table 14 below).

Table 14: Preliminary Health Needs in Alphabetical Order by Medical Center Area

KFH-Anaheim Health Needs	KFH-Irvine Health Needs
Alzheimer's	Alzheimer's
Cancer	Cancer
Cardiovascular Disease	Cardiovascular Disease
Community Violence	Diabetes
Diabetes	Economic Instability
Economic Instability	Healthcare Access
Healthcare Access	HIV / AIDS
HIV / AIDS	Housing
Housing	Maternal & Child Health
Language Barriers	Mental Health
Maternal & Child Health	Obesity / Overweight
Mental Health	Oral / Dental Health
Obesity/Overweight	Substance Abuse / Use
Oral/Dental Health	Suicide*
Physical Activity*	

Indicates they are unique for the particular Medical Center Area.

B. Process and criteria used for prioritization of the health needs

The prioritization process relied on two key prioritization methods: a simplex method survey distributed via Survey Monkey link and self-administered online to community stakeholders and a face-to-face community-wide discussion (and voting) to finalize the prioritized health needs.

First, from November 2015 – January 2016, the simplex method survey was distributed online in English and Spanish. This is a strategy for quantitatively gathering individual input via a survey with close-ended questions for each health need based on selected criteria. The scores for each question on the survey were averaged in order to produce a preliminary prioritized list of needs.

The online simplex method survey and the issue statements of the 15 identified health needs for the KFH-Anaheim Medical Center Area and the 14 identified health need for the KFH-Irvine Medical Center Area were sent to over 130 community stakeholders and residents. We chose to use a survey to get the broadest community input possible, given that we were told repeatedly through the focus group phase that Orange County service providers were undergoing extreme *"meeting fatigue"* due to

numerous community health needs assessment processes recently taking place.

The survey asked participants to identify the top five most important health needs for their community to address and to provide a ranking for each based on the four criteria- *Severity, Trend, Disparities and Community Concern*- as a basis for each decision, ranking each from 1 (lowest score) to 5 (highest score).

(1) Severity: The health need has serious consequences (morbidity, mortality, and/or economic burden) for those affected. Key questions: If the health need is not addressed, would it result in serious consequences (morbidity or mortality) for those affected?

(2) Trends: The health need is changing over time (e.g. is getting worse and/or not improving over time) Key questions: Is the issue getting worse and/or not improving over time?

(3) Disparities: The health need disproportionately impacts the health status of one or more vulnerable population groups. Key questions: Does the health issue disproportionately affect vulnerable population groups?

(4) Community Concern: The community prioritizes the health need over other health needs. Key questions: Are health issues important for community stakeholders? For underserved populations?

Each question had an "I don't know" response for participants who did not feel comfortable rating a health need that they were not familiar with, even after the group discussion. In cases where more than one representative was participating from an agency, only one survey was given. Participants filled out final prioritization surveys anonymously and completed surveys were collected before participants left the forum.

All respondents were able to prioritize health needs for either the KFH-Anaheim Medical Center Area or the KFH-Irvine Medical Center Area, or both if they were familiar with both. A total of 97 individuals completed the survey (online and paper versions combined), but 20 were removed due to incomplete data. Of the 77 that remained, 42 answered for the KFH-Anaheim Medical Center Area, 22 answered for the KFH-Irvine Medical Center Area, and 13 answered for both.

The survey also included demographic questions meant to identify the population(s) served by each respondent's organization (i.e., minority community, low income population, and medically underserved communities), and which type of organization they were representing (e.g., advocate/attorney, business owner/business community, health professional, nonprofit organization, etc.). Respondents for the KFH-Anaheim Medical Center Area (n = 55) were composed primarily of those that worked for nonprofit organizations (n = 41), followed by community residents (n = 5), health professionals/public health department staff (n = 4), school employees/academics (n = 3), and business owners/business community (n = 2). With regards to the populations their agencies served, respondents were able to select any of the three categories that applied to them. Therefore, the majority selected low-income populations (n = 53), followed by minority communities (n = 42), and medically underserved populations (n =32).

Respondents for the KFH-Irvine Medical Center Area (n = 35) were also composed primarily of those that worked for nonprofit organizations (n = 21), followed by health professionals/public health department staff (n = 6), community residents (n = 3), government employees (n = 3), and social services staff (n = 2). Similar to KFH-Anaheim Medical Center Area respondents, KFH-Irvine Medical Center Area respondents could select any of the three categories that applied to the types of populations their agencies serve. Most respondents selected low-income populations (n = 32), followed by minority communities (n = 27), and medically underserved populations (n = 19).

Next, in January 2016, community stakeholders were convened in two (2) community forums—one in the KFH-Anaheim Medical Center Area on January 14, 2016 and one in the KFH-Irvine Medical Center

Area on January 15, 2016—to review and discuss CHNA findings, leading to a final prioritization based on the survey responses.

Thirty (30) community stakeholders attended the KFH-Anaheim Medical Center Area and twenty (20) attended the KFH-Irvine Medical Center Area forum. Stakeholders who participated in the community forums represented the healthcare sector (e.g. hospitals, clinics and providers), mental health, nonprofit and community-based organizations (e.g. churches, grassroots, food pantries, coalitions), county and city agencies and programs (e.g. police, public health department, criminal justice, school districts), public health experts and professionals, social service providers (e.g. family assistance, children's services, domestic violence) and academic institutions (e.g. colleges and universities).

Prioritization survey preliminary results were shared at the community forums during the discussion to stimulate reaction and feedback. Facilitators then focused on a dialogue about community assets. This community planning dialogue was chosen because many of the participants in the process wanted to engage in a further dialogue about "solutions" and "opportunities", given that there was such clarity and understanding around the high level needs and barriers. The dialogue allowed participants to share their reflections, reactions, ideas, experiences, and resources with each other.

Each agency present was given a final prioritization survey (the same one available online) and asked to complete if they were not able to complete it at a prior date. After the forum, the surveys from the community forum were coded and responses added to the survey database for final analysis. Each health need received a composite score…that is the sum of the averages of each of the four criteria (severity, disparity, community concern, and trend). The higher the composite score, the higher the health need ranked on the prioritized list (see Table 15a-c).

Table 15a: Final Ranking of Health Needs With Score Breakdown (KFH-Anaheim)

KFH-Anaheim Medical Center Area (N = 55)					
Health Need Ranking	Total Score	Community Concern	Trend	Disparities	Severity
1. Economic Insecurity	16.53	4.35	3.68	4.23	4.28
2. Housing	16.24	4.36	3.67	4.10	4.12
3. Diabetes	14.97	3.74	3.49	3.85	3.90
4. Obesity / Overweight	14.69	3.65	3.32	3.84	3.88
5. Mental & Behavioral Health	14.45	3.70	3.46	3.67	3.63
6. Community Violence	14.41	3.83	3.09	3.74	3.76
7. Healthcare Access	14.00	3.91	2.72	4.00	3.37
8. Physical Activity	13.93	3.58	3.15	3.65	3.55
9. Cardiovascular Disease	12.43	3.12	2.88	3.29	3.13
10. Language Barriers	11.31	3.15	2.40	3.04	2.71
11. Cancer	10.56	3.00	2.44	2.47	2.64
12. Oral/Dental Health	10.37	2.62	2.24	2.95	2.56
13. Maternal & Child Health	10.16	2.50	2.27	2.50	2.89
14. Alzheimer's	9.06	2.44	2.29	2.06	2.27
15. HIV / AIDS	7.62	1.88	1.50	2.24	2.00

Table 15b: Final Ranking of Health Needs With Score Breakdown (KFH-Irvine)

KFH-Irvine Medical Center Area (N = 35)					
Health Need Ranking	Total Score	Community Concern	Trend	Disparities	Severity
1. Housing	15.31	3.82	3.77	4.00	3.71
2. Mental & Behavioral Health	14.78	3.93	3.66	3.45	3.75
3. Obesity / Overweight	13.86	3.79	3.13	3.38	3.57

4. Economic Insecurity	13.81	3.68	3.26	3.42	3.44
5. Diabetes	13.79	3.67	3.29	3.19	3.65
6. Substance Abuse / Use	13.56	3.71	3.13	3.00	3.73
7. Healthcare Access	12.66	3.50	2.75	3.20	3.21
8. Oral / Dental Health	11.87	2.88	2.94	3.13	2.93
9. Cancer	11.73	3.35	2.53	2.47	3.38
10. Cardiovascular Disease	11.51	3.50	2.50	2.38	3.13
11. Alzheimer's	11.21	3.07	2.93	2.07	3.14
12. Suicide	11.01	3.17	2.42	2.33	3.09
13. Maternal & Child Health	10.30	2.83	2.33	2.50	2.64
14. HIV / AIDS	6.81	1.89	1.44	1.22	2.25

Table 15c: *Shared* **Prioritized Health Needs With Score Breakdown (KFH-Anaheim & KFH-Irvine)**

KFH-Anaheim & KFH-Irvine Medical Center Areas Shared Priorities		
Health Need	KFH-Anaheim Medical Center Area Total Score	KFH-Irvine Medical Center Area Total Score
Cardiovascular Disease	12.43	11.51
Diabetes	14.97	13.79
Economic Insecurity	16.53	13.81
Healthcare Access	14.00	12.66
Housing	16.24	15.31
Mental & Behavioral Health	14.45	14.78
Obesity / Overweight	14.69	13.86

C.   Prioritized description of all the community health needs identified through the CHNA

i.   Community Health Landscape and Trends

This section describes the health outcomes and important determinants (drivers) of health in the community. The list of significant health outcomes and drivers listed in this section is determined by the primary and secondary data collection and analysis (as described in Section V). Below is a table outlining the significant outcomes and drivers for the KFH-Anaheim and KFH-Irvine Medical Center Areas based on the MATCH framework.

Table 16: Prioritized Health Needs Arranged by the MATCH Framework

Key Health Outcomes:		- Mental Health - Diabetes - Cardiovascular Disease - Suicide - Cancer - Alzheimer's - AIDS/HIV
Key Health Drivers:	*Clinical Care:*	- Healthcare Access - Maternal & Child Health - Oral Health

	Health Behavior:	• Substance Abuse • Obesity • Physical Activity
	Social & Economic Factors:	• Economic Insecurity • Community Violence • Language Access
	Physical Environment:	• Housing

a. Significant Morbidity and Mortality (Health Outcomes)

For the KFH-Anaheim and KFH-Irvine Medical Center Areas, diabetes, cardiovascular disease, and mental health were ranked in the top five health needs. Alzheimer's on the other hand was ranked fairly low for both Medical Center Areas, while HIV/AIDS and suicide were only ranked for the KFH-Irvine area but did not make their top ten health priorities.

Obesity (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Weight status has worsened in Orange County, decreasing from 50% of adults with a healthy weight in 2001 to only 43% in 2011/12 (CFCOC, 2015). Although Orange County performs better (23.8%) than the state (27.8%), and nation (27.0%) in general, the proportion of obese Latinas (39.8%) and 45-65 year olds (27.0%) is higher in Orange County (OCHCA, 2014). Obese adults are also disproportionally African American; accordingly, diabetes impacts African American and Latino adults disproportionately. Although Latinos walk to work more often than others and more frequently rely on public transportation (OCHCA, 2014), they represent a substantial proportion of obese adults.

Diabetes (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Unhealthy weight, physically inactivity, and poor eating habits all contribute to the risk of developing Type II diabetes. From 2004-2009, adult obesity in the United States had been steadily on the rise (CFCOC, 2015) with a 1% decrease in the number of obese adults in KFH-Anaheim and KFH-Irvine Medical Center Areas since 2010 when both were just over 20% (CHNA, 2013). In contrast, the rate of overweight youth has increased from 14.8% (CHNA, 2013a) to 18.84% (Kaiser Permanente CHNA Data Platform, 2016) in the KFH-Anaheim Medical Center Area and from 12.5% (CHNA, 2013b) to 15.53% (Kaiser Permanente CHNA Data Platform, 2016) in KFH-Irvine Medical Center Area, suggesting greater efforts are needed to drive down this condition in children. A key driver is physical inactivity reported by children, with 32% of children in KFH-Anaheim reporting they are physical inactive. The Orange County Health Improvement Plan (2014) initiative assessed the county's health and identified Obesity & Diabetes as one of their top four priority action areas in 2014 (OCHCA, 2014).

From 2004-2011, the rate of diabetes in Orange County and California has steadily increased. Though Orange County performs better than California, as of 2011 the percentage of adults with diabetes in Orange County (7.4%) is only slightly below that of California (7.93%; CDC, 2012). Nevertheless, the proportion of diabetes is higher in Orange County for those 65 year and older (16.0%), 45-65 year olds (11.6%), and Latino females (10.95) and males (9.3%; OCHCA, 2014). Diabetes is the 3rd leading cause of death for the Native Hawaiian Pacific Islanders (HNPIs), Laotian, and Thai communities (8%, 8%, 6%, respectively; AAAJOC and OCAPICA, 2014). About 10% of Asian Americans are diagnosed with diabetes, a rate that is 1.7 times higher than the general U.S. population (5.9%), and is higher than Asians in their native countries (VNCOC, n.d.).

Cardiovascular Disease (KFH-Anaheim & KFH-Irvine Medical Center Areas)

KFH-Anaheim and KFH-Irvine Medical Center Areas have higher rates of heart disease than California, with community feedback stressing the importance of increased physical activity and stress reduction as two drivers that can hopefully impact this health need.

The KFH-Irvine Medical Center Area has a higher number of deaths from ischemic heart disease than the KFH-Anaheim Medical Center Area, though rates of heart disease are relatively similar between the two. White adults are most commonly diagnosed with heart disease (10.03%) very closely followed by Blacks (9.63%), than those classified as Other Race (5%), and Hispanic/Latinos (4.69%). Taking medication for high blood pressure is crucial in decreasing the likelihood of developing complications. Not only does not taking medication for high blood pressure indicate poor health, but also highlights a lack of access to preventative care, lack of health knowledge, insufficient provider outreach, and social barriers preventing utilization of services. Patients in KFH-Anaheim (31.60%) and KFH-Irvine (31.50%) Medical Center Areas both perform slightly worse than the CA average (30.30%) for managing high blood pressure (Kaiser Permanente CHNA Data Platform, 2015).

Further, a total of 113,266 White adults in KFH-Anaheim and KFH-Irvine Medical Center Areas have been diagnosed with heart disease, significantly more than any other race. This is in line with the findings from a recent study of Kaiser Permanente patients in Northern California that found Whites are at an increased risk of coronary heart disease than other minorities (Rana et al., 2016). Nevertheless, Native Hawaiians and Blacks represent the highest group of *mortalities* from heart disease, suggesting a lack of access to care or preventative measures for these ethnic groups.

Behavioral & Mental Health (KFH-Anaheim & KFH-Irvine Medical Center Areas)

The Orange County Health Improvement Plan (2014b) identified behavioral health as one of their top four priority action areas in 2014. In particular, suicide and self-harm are a major concern for the KFH-Irvine Medical Center Area. This community currently performs worse than the county, the SCAL Hospital region, *and* the state in suicide rates. In fact, the KFH-Irvine Medical Center Area rate of 13.68 deaths per 100,000 (Kaiser Permanente CHNA Data Platform, 2015) is worse than the Healthy People 2020 goal of less than 10.2 suicides per 100,000 (OCHIP, 2014b).

Additionally, of all teens hospitalized for self-inflicted injuries, 87% had known mental illness diagnoses, the most common ones being episodic mood disorders, substance use disorder, and anxiety/adjustment disorders (OCHCA & OCSCD, 2015). Hospitalization rates for children have also increased from 11.3 in 2008 to 18.8 per 10,000 children in 2013 (OCCP, 2015). Focus group interviews (October 20, 2015) indicate that despite this increase there is a significant lack of beds for youth with mental health issues. The increasing need for adequate behavioral health services will stress the current system unless it rises to meet the demands of the Orange County population.

Alzheimer's (KFH-Anaheim & KFH-Irvine Medical Center Areas) According to the Health Improvement Plan (2014) it is projected that 1 out of 5 residents in Orange County will be 65 years of age or older by 2030. As a result, meeting their needs is of great importance. Alzheimer's was the 4th leading cause of death in Orange County in 2010 and in that same year, the rate of older adults with Alzheimer's disease was 34.2 for every thousand people, a rate that was both higher than the state (29.0) and the nation (25.1). Of these, White females were the most likely to have Alzheimer's.

HIV / AIDS (KFH-Anaheim & KFH-Irvine Medical Center Areas)

The rate of HIV/AIDS is higher in the KFH-Anaheim Medical Center Area (268.1) than the KFH-Irvine Medical Center Area (259.8) but both are lower than the SCAL Hospital region (395.2), the state (363), and the nation (340.4). From 2008 to 2011 there has been an upward trend in the prevalence of HIV for Orange County (243.4 to 258.9), California (347.58 to 363), and the United States in general (327.37 to 342.17). Additionally, the prevalence of this life threatening communicable disease is greater for Black individuals than for Whites and Latinos in both the KFH-Anaheim and KFH-Irvine Medical Center Areas. Further the percentage of adults never screened for HIV is greater in Orange County (63.72%) than in

the SCAL Hospital region (59.5%) and the state (60.83%; Kaiser Permanente CHNA Data Platform, 2/21/16).

Suicide (KFH-Irvine Medical Center Area)

Suicide and self-harm are major concerns for the KFH-Irvine Medical Center Area. This community currently performs worse than the county, the SCAL Hospital Region, *and* the state in suicide rates. In fact, the KFH-Irvine Medical Center Area rate of 13.68 deaths per 100,000 (Kaiser Permanente CHNA Data Platform, 2015) is worse than the Healthy People 2020 goal of less than 10.2 suicides per 100,000 (OCHIP, 2014b).

For youth, the issue is even more pressing. Suicide is the 2rd leading cause of premature death for Orange County youth ages 15-24, second to unintentional injuries of which accidental poisoning/overdose accounted for most instances (OCHCA & OCSCD, 2015). Moreover, from 2009-2013, there were 3,613 cases of self-inflicted injury and suicides reported among 10-19 year olds in Orange County combined; sixty-five of which resulted in death. Despite a slight decrease in the number of self-inflicted injury cases from 2009 to 2010, there was a 26.8% increase in the total number of cases from 2010 to 2013 (OCHCA & OCSCD, 2015).

Cancer (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Cancer is a leading cause of death in the United States, second to heart disease. Over 1 million people in the United States get cancer annually (American Cancer Society, 2016). A lack of health care and low socioeconomic status can often prevent the early detection needed to combat the disease.

African Americans and Whites have the highest instances of cancers in both KFH-Anaheim and KFH-Irvine Medical Center Areas. In addition, for the Vietnamese American community, liver cancer is particularly common, due to the prevalence of Hepatitis B, as a common contributing factor (VNCOC, n.d.). Breast Cancer is most prevalent among Whites, while prostate cancer occurs most commonly in Blacks. Identifying the types of cancers most common in different populations can allow practitioners to develop tailored campaigns to target these groups and address access to care and preventative measures.

    b. Significant Health Drivers
        i. Access to Care

Healthcare Access (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Access to care, whether primary care, dental care, or mental health care, are central to preventing poor health outcomes. As such, access to primary care is important in both preventing major health issues and decreasing emergency department visits. Both KFH-Anaheim and KFH-Irvine Medical Center Areas have high rates of primary health care providers for their populations, yet a significant amount of the population in the KFH-Anaheim Medical Center Area is uninsured, suggesting that they may be unable to access health care professionals should the need arise.

There has been a recent increasing trend in health coverage in Orange County when examining the US Census, American Community Survey's 1-Year Estimates. In Orange County, the uninsured rate has declined steadily since 2010 (US Census Bureau, 1-year estimates of uninsured, 2010-2014). In particular, in 2014, the Orange County 1-Year estimate for uninsured rate was 11.9%, down from 18% in 2010. Furthermore, for the Latino population, this decline was even more dramatic with uninsured rates at 31.8% in 2010 and 21.6% in 2014 (American Community Survey, 1-Year estimates). The Medi-Cal expansion and recent changes to healthcare access through the Affordable Care Act may be impacting these trends in coverage.

In particular, Native American/Alaskan Natives and Hispanics comprise the greatest proportion of the population that is uninsured in both KFH-Anaheim and KFH-Irvine Medical Center Areas.

Similarly, there is no lack of dentists in KFH-Anaheim or KFH-Irvine Medical Center Areas, but rather, a lack of dental insurance, coupled with the high expense of dental care make it difficult for many residents to access dental care. This may be shifting with the recent expansion of dental care under Covered California. Prior to 2015, only pediatric dental coverage was provided through Covered California yet, in 2015 enrollment began for adult and family dental coverage to begin in 2016. Lastly, there is a shortage of mental health professionals in the KFH-Anaheim and KFH-Irvine Medical Center Areas with 123.6 and 122.9 mental health providers per 100,000 population (respectively), compared to California at 157 providers per 100,000 population making it difficult to access behavioral and mental health services when needed.

Maternal & Child Health (KFH-Anaheim Medical Center Area)

Receiving early prenatal care (within the first three months of pregnancy) is important for promoting healthy births which in turn saves on potential costs of neonatal intensive care services for babies with low birth weight (OCCP, 2015). In Orange County, the percentage of women who received prenatal care has decreased since 2004 when it was at 91.7% to 88.3% in 2013; although this was still higher than the percentage in California (82.1%) and the United States (74.1%). While this decrease has occurred across ethnicities, Black women have the lowest percentage of early prenatal care. Also, the rate of low birth weight babies born in Orange County in 2013 was lower (6.3%) than the state (6.8%) and the country (8.2%). However, when broken down by race/ethnicity, Black babies had the highest rate of low birth weight at 9.5%, followed by Asians (7.2%), Hispanics (6.0%), and White (5.9%).

Oral Health (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Poor oral health is still a concerning issue in America. Although compared to other countries the US performs better, there are still considerable disparities that need improvement. According to the Centers for Disease Control and Prevention (2015), many contributing factors include gender, age, socioeconomic status, and geographic location; contributing behavioral factors include tobacco use, regularity of alcohol consumption, and poor eating habits. Poor oral health is preventable through regular oral examinations and daily oral health habits.

However, a lack of access to dental care and affordable dental insurance make this increasingly difficult for families. There are no oral health professional shortage areas in Orange County (Orange County), yet, 26% of the population reports not having visited a dentist in the past year. Having not visited a dentist within the past year points to a lack of access to preventative care, health knowledge, insufficient provider outreach, or social barriers that prevent use of available services. There is a need to make dental services more accessible to the population. On the other hand, since much of the KFH-Anaheim and KFH-Irvine Medical Center Areas has safe drinking water, fewer residents consume soft drinks, which is beneficial for oral health.

A lack of insurance is a primary barrier to healthcare access, and contributes to poor oral health status. Despite reporting 0% of the population living in an area with a shortage of dental health professionals, 42% of Orange County residents lack dental insurance, up from 2007 (35%) and greater than the state average (41%), making it difficult for them to utilize these services.

   ii. Health Behaviors

Substance Abuse (KFH-Irvine Medical Center Area)

Substance abuse is a significant problem, with alcohol and drug use representing two of the top nine principal behavioral contributors to death in the United States (OCHCA, 2014b). Continuous and persistent use of alcohol and other drugs (AOD), can cause serious health issues, including but not limited to, cardiovascular and liver disease, and can increase violent behavior and risk of injury (OCHCA, 2014b). In Orange County (Orange County), *the Orange County Health Improvement Plan* identified behavioral health as one of their top four priority action areas in 2014. Although Orange

County adults as a whole tend to have a lower rates of AOD use compared to the state and the country (OCHCA, 2014a), there are still some concerning trends.

According to the Orange County Community Indicator's Report (2015), in 2012, the majority of hospitalizations for adults ages 18-64 were due to substance abuse; an 8% increase since 2003. Additionally, from 2003 - 2012 there was a 33% increase in drug-induced deaths and a 7% increase in deaths due to liver disease and cirrhosis. There are also concerning trends for children and youth. Based on the *Orange County Conditions of Children Report* (2015), hospitalization rates for 0-17 year olds due to serious mental illness and substance abuse (combined) has increased by 25.6% since 2004 with a rate of 22.6 for every 10,000 children in 2013. Moreover, the majority of substance related hospitalizations were comprised of males (63%). This has the potential to impart unhealthy behaviors to children, as indicated by focus group data (October 20, 2015). Relatedly, the *AOD Prevalence 2012 Survey of Orange County Adults* reported that White male adults consumed alcohol more than all other ethnic groups. Prevalence of use tended to increase with age with highest points between the ages of 45 - 64 and was also higher for more affluent and educated adults.

Overall, 34% of Orange County adults reported ever using illicit drugs, with the majority of adults reporting having used marijuana. Though only 6% of adults report having used prescription drugs, focus group data (October 20, 2015) indicates that this is a considerable problem in the community, especially in the KFH-Irvine Medical Center Area.

Additionally, current or past alcohol use (within 30 days) is often associated with community problems. Based on the Alcohol and Other Drug Use Prevalence 2012 Survey of Orange County Adults, 47% (1,063,000) of adults reported consuming alcohol in the past 30 days. Orange County adults who were most likely to have consumed alcohol in the past 30 days tended to be male, more affluent, educated (college graduates), White, and consumed their first alcoholic beverage before the age of 18. On the other hand, individuals who were less likely to have consumed alcohol in the past 30 days tended to be less acculturated (particularly Vietnamese and Hispanic), females, of Asian or Pacific Islander descent, 18-24 or 35-44 years old, had lower levels of education, and had annual incomes of less than $40,000 (OCHCA, 2014a).

Physical Activity (KFH-Anaheim Medical Center Area)

Another key driver to maintaining a healthy lifestyle is physical activity. The percent of physically inactive adults in Orange County has decreased from 16.4% to 15.3% from 2008 to 2012, and remains lower than the California average of 16.6%. Of physically inactive youth, Hispanics represent a substantial proportion, with nearly 39% of Hispanic youth in the KFH-Anaheim Medical Center Area not in a healthy fitness zone and 34.12% in the KFH-Irvine Medical Center Area, followed closely by Black youth with 32.69% and 27.42%, respectively (Kaiser Permanente CHNA Data Platform, 2015).

iii.   Physical Environment

Housing (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Orange County (Orange County) is among the top 10 least affordable metropolitan markets in the nation (Covarrubias, 2015). Access to affordable housing impacts an individual's level of economic security, their ability to financially access nutritious foods and health care, stress and overall health outcomes. In fact, over the last two years, there has been a 45% increase the homeless population in Costa Mesa alone (Zint, 2016). Additionally, Orange County has a high proportion of individuals and families in *unstable housing*. According to the *Report on the Conditions of Children in Orange County* (2015), housing insecurity for children has increased from .07% in 2004/05 to 6.5% in 2013/14.

The Orange County Community Indicators Report (CFOC, 2015) notes that in the past 10 years this equates to approximately a 236% increase in homeless and housing insecurity. This is due to a toxic combination of rising rent and depressive wages; what has lead to the phrase coined in the *Orange*

County Community Indicators Report (2015) describing Orange County as, "job rich and housing poor." Though employment rates have recently increased, the majority of the jobs created offer low wages that qualify individuals for low-income housing. From 1990 to 2014, in Orange County, the minimum wage has increased by 18% but housing costs have increased by 57%; making housing here more expensive than California or the United States as a whole (OCCORD, 2015). This has led to an unaffordable market for home buying or renting. Also, given our steadily growing senior population—the 65+ age demographic being the only Orange County group projected to grow in the next 25 years— there is a unique need for housing that meets their needs—at all income levels (CFOC, 2015).

The percentage of cost burdened households (housing costs exceeding 30% or more of the household income) in the KFH-Anaheim Medical Center Area (46.85%) and the KFH-Irvine Medical Center Area (43.74%) is comparable to that of CA as a whole (44.99%; Kaiser Permanente CHNA Data Platform, 2016). Excessive costs may prohibit individuals from financially meeting basic life needs such as health care, childcare, healthy food purchasing, and transportation costs. In addition, according to the Orange County Healthier Together website (OCHCA, 2016), from 2009-2013, 57.3% of the renters in Orange County spent over 30% of their income on rent, making them among the most 'cost burdened' renters in the state. Likewise, Over 50% of Asian Americans who rent are considered cost burdened. Thai (62%), Vietnamese (60%) and Koreans (57%) are the most housing-cost burdened (AAAJOC & OCAPICA, 2014).

        iv.   Socioeconomic Factors

Economic Insecurity (KFH-Anaheim & KFH-Irvine Medical Center Areas)

Orange County has recovered more than half of the jobs lost between 2006 and 2010 (OCCORD, 2015). However, Orange County shows signs of rapidly increasing economic inequality, reflected in the economic and demographic divide between north and south Orange County, and an increase in spatial economic segregation, with low income families living in primarily low-income neighborhoods. Since 1970, income inequality increased faster in Orange County than in the state of California or the US. In Orange County, the top 20% of households take home just over 50 percent of all the income earned, with the top 5 percent taking over 22 percent of total income, with childhood poverty concentrated mostly in north Orange County (OCCORD, 2015).

The KFH-Anaheim Medical Center Area in particular faces more challenges in terms of economic indicators than the KFH-Irvine Medical Center Area. Despite equal rates of unemployment between KFH-Anaheim and KFH-Irvine Medical Center Areas, KFH-Anaheim Medical Center Area has a higher percent of the population living below the poverty line, poorer educational attainment, and higher rates of uninsured residents compared to KFH-Irvine. According to the *A Community of Contrasts 2014 Report on Asian Americans and Pacific Islanders in Orange County*, the number of Asian Americans living in poverty increased 51% from 2007-2012. During that same period, the number of unemployed Asian Americans in Orange County increased 123%.

Moreover, according to the *21st Annual Report on the Conditions of Children's in Orange County* (2015), housing insecurity has increased by 700% due to a combination of the rising rent and depressive wages. The cost of monthly housing expenses can place a significant burden on finances. Below is the percentage of housing costs that exceed 30% of total household income. This provides a measure how affordable housing is. Excessive costs affect an individual's ability to financially meet basic needs (e.g. health care, healthy food, transportation, etc.; Kaiser Permanente CHNA Platform, 1/2/16). In general, KFH-Anaheim and KFH-Irvine perform similar to the state average; however, this average is notably greater than the national average.

Though employment is growing, incomes have been trending downward, contributing to the growing income inequality in Orange County. A disproportionately large number of jobs in Orange County

created will be added in low wage industries, thus putting more people in low-income housing and further burdening public assistance programs.

Community Violence (KFH-Anaheim Medical Center Area)

Community violence can impact an individual's physical and mental health; it can include experience of and exposure to crimes, gangs, drugs, graffiti, acts of interpersonal violence, or racial conflicts in a community. Injuries and violence have a significant impact on the wellbeing of Americans by contributing to premature death, disability, poor mental health, high medical costs, and lost productivity. The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities. For children, exposure to community violence can have negative impact on emotional, behavioral, substance use and academic development. Since 2004, the rate of crime in Orange County has declined by 21%, (1,977 per 100,000 population), is lower than the state (3,060 per 100,000 pop) and national (3,227 per 100,000 pop) averages (CFCOC, 2015).

Nonetheless, there are still areas in our community more disproportionately impacted by violence and the trauma that can often coincide with it. For example, African Americans and Native Hawaiians represent the highest rates of death due to assault. For youth, unintentional injury deaths had been in decline form 2003 – 2011 but experienced a 36.4% increase from 2012-2013. Further, according to the *21st Annual Report on the Conditions of Children's in Orange County* (2015), "unintentional childhood mortality due to injury is strongly inversely related to median income and thus, a solid indicator or poverty."

Language Barriers (KFH-Anaheim Medical Center Area)

The inability to speak English well creates barriers to education, economic prosperity, healthcare access, provider communication, and health literacy and education. Minorities often do not seek care due to language barriers; this is true for the Asian and Hispanic populations who do not speak English well. Those with limited English proficiency tend to trust providers who speak their language. Thirty percent of Orange County citizens are foreign born, and 45% of all residents over age five speak a language other than English at home (CFCOC, 2015). A significant proportion of KFH-Anaheim Medical Center Area (MCA; 26.46%) residents are *not proficient in English*, a rate higher than the state average (19.35%). Compounding this problem, over 13% of KFH-Anaheim Medical Center Area residents live in linguistically isolated households. As such, 33% of students in KFH-Anaheim Medical Center Area score poorly in reading proficiency and English learners represent a significant proportion of high school dropouts in Orange County (16.00%; OCCP, 2015).

   ii.   Prioritized List of Health Needs

KFH-Anaheim Medical Center Area (N = 55)	KFH-Irvine Medical Center Area (N = 35)	KFH-Anaheim & KFH-Irvine MCAs Shared Priorities
Health Need Ranking	Health Need Ranking	Shared Health Needs
1. Economic Insecurity	1. Housing	Cardiovascular Disease
2. Housing	2. Mental & Behavioral Health	Diabetes
3. Diabetes	3. Obesity / Overweight	Economic Insecurity
4. Obesity / Overweight	4. Economic Insecurity	Healthcare Access
5. Mental & Behavioral Health	5. Diabetes	Housing
6. Community Violence	6. Substance Abuse / Use	Mental & Behavioral Health
7. Healthcare Access	7. Healthcare Access	Obesity / Overweight
8. Physical Activity	8. Oral / Dental Health	
9. Cardiovascular Disease	9. Cancer	
10. Language Barriers	10. Cardiovascular Disease	

11. Cancer	11. Alzheimer's
12. Oral/Dental Health	12. Suicide
13. Maternal & Child Health	13. Maternal & Child Health
14. Alzheimer's	14. HIV / AIDS
15. HIV / AIDS	

D. Community assets, capacities and resources potentially available to respond to the identified health needs

The Anaheim and Irvine MCAs are both rich with diverse assets and resources. The CHNA team considered a community asset to be any organization, network/ coalition, policy change or pilot program that has the potential to positively impact any of the most pressing health needs or their associated driver. These organizations, networks and collaborations while often focused on one issue or population, they intersect with multiple health needs. Leveraging these assets may provide an opportunity to address multiple health needs such as diabetes, obesity and cardiovascular disease. There have also been several key policy shifts in recent years, noted below, that are reducing systemic barriers and addressing the drivers of health that can improve individual and population health overall.

During the focus groups, interviews and town hall forums, participants shared countless resources with the consultant team. After learning of a given resource, the consultant team worked to corroborate the resource through a combination of: online search for the resource, conversations with the local Kaiser Permanente Community Benefit Manager as well as a review of other local hospital recent CHNA reports (when possible).

Therefore, the assets mentioned below are not comprehensive, as the information is based entirely on insights provided directly by the community participants. Occasionally, throughout the data collection period, gaps in services and strategies to support the health needs were also identified by participants. When a gap was mentioned, it is noted in the section related to its corresponding health need below.

The following assets are organized in order of their corresponding health needs. Most were identified as a priority for both KFH-Anaheim and KFH-Irvine Medical Center Areas. If they were identified as only supporting either KFH-Anaheim Medical Center Area or KFH-Irvine Medical Center Area only, it is noted. This information is not exhaustive but are some examples of potential resources available to address the most pressing health needs in the county. Overall, participants noted that there were numerous organizations and networks throughout the two Medical Center Areas, addressing a wide variety of health needs. The primary gap identified across the health needs was that there is a gap in effectively, and consistently linking community to social services when needed. In particular, a lack of updated, useful resource guides for particular heath needs, as well as a lack of coordination among service providers meeting similar health needs were identified by several participants. For more information about community assets, please refer to the respective health need profiles in Appendix C.

Access to Healthcare (KFH-Anaheim & KFH-Irvine Priority)

Regarding access to healthcare, is important to note that Orange County is also home to several hospitals and FQHCs. To locate the closest Federally Qualified Health Centers (FQHC) based on zip code, 211-Orange County has created an online portal at: http://www.211oc.org/211oc-database-search.html.

To address access to care issues, organizations and networks that provide outreach, education and assistance with healthcare coverage were identified as potential assets to support reducing the number of uninsured to improve access to care. The Children's Health Initiative of Orange County works to expand healthcare coverage and enrollment in federal services for the low income children and their families in Orange County. In addition, the Coalition of Orange County Community Health Centers provides services to families in need, who may not have a regular health home. The Affordable Care Act has increased the opportunity for individuals to access the healthcare insurance marketplace at an

increased rate; Covered California facilitates this for residents of Orange County.

Cardiovascular Disease (KFH-Anaheim & KFH-Irvine Priority)

The Orange County Health Care Agency works in collaboration with other organizations to improve the general health of Orange County residents in ways that can impact cardiovascular disease. The American Heart Association in Orange County empowers residents to live healthier lives through advocacy of key issues such as lower caloric intake of children at school, smoke-free public spaces, appropriate nutritional labeling, and other ways, as well as providing education to at-risk populations, improving quality of care for heart and stroke patients, and through research.

Diabetes (KFH-Anaheim & KFH-Irvine Priority)

Diabetes is a health need that can be prevented (type 2) and requires patients to continually manage. The resources and assets in Orange County range from those supporting healthy eating, increased opportunities for physical activity and education around prevention.   The American Diabetes Association seeks to prevent and cure diabetes by educating the public about how to stop diabetes and provides support for those already diagnosed. There are other organizations that aim to improve health in general but not directly targeted at diabetes.

Orange County Partnerships to Improve Community Health Diabetes Collaboration was awarded $1,385,251 to help address the diabetes and risk factors associated with in for Orange County residents by increasing access to healthy food and beverages, increasing physical activity and promoting healthy living through education. Relatedly, there is an annual Collaborative Diabetes Education Conference that provides local health care professionals with evidence-based education about new advances in diabetes in an effort to reduce complications due to diabetes and improve the quality of life for those with the illness.

In addition, the Children's Hospital of Orange County provides Healthy Lifestyles classes free of charge to children and their families that incorporate nutrition and physical activity. Latino Health Access also provides a 12-session diabetes self-management program in for Spanish speaking adults and their families.

In addition, Orange County has numerous Farmer's Markets, most of which accept WIC/EBT. The following website provides a full listing of these locations, dates and hours of operation: http://ocagcomm.com/services/markets.

Economic Insecurity (KFH-Anaheim & KFH-Irvine Priority)

Addressing economic insecurity is a complex issue requiring a multi-pronged approach, with several organizations and policy shifts working in tandem across the social services, criminal justice, employment and housing sectors. Taller San Jose Hope Builders seeks to empower youth who are at risk of not reaching their full potential by providing job training and life skills necessary to become successful and avoid poverty. Another organization is the Assistance League of Huntington Beach, a national nonprofit organization that works to improve the quality of life for children and adults through various programs such as Operation School Bell and their Thrift Shop.

There are several coalitions working to meet the basic needs of the county's most vulnerable. The Orange County Food Access Coalition works to provide healthy food to vulnerable residents and works to transforms the local food system to help ensure this continues. Likewise, the Waste Not Orange County Coalition helps to provide nutritious food to residents by facilitation the donation and distribution of healthy food. There are programs such as the Energy Assistance Fund and the Family Electric Rate Assistance program that provide utility bill assistance to low and moderate income individuals. Additionally, the HUD-funded Community Development Block Grant programs in cities across Orange County seek to improve the lives of low and moderate-income individuals by creating and expanding

community and economic development opportunities that support the most economically vulnerable in our communities.

Housing (KFH-Anaheim & KFH-Irvine Priority)

Housing is a critical need in Orange County—impacting both Medical Center Areas. One critical gap in services mentioned by several stakeholders was the need for affordable housing to meet the needs of the rapidly aging population across the county. Advocates mentioned that this demographic is being particularly hard-hit by the lack of affordable housing options.

Affordable Housing Access (AHA) is a non-profit corporation established in 1999 that works to create and maintain affordable housing for low and moderate-income individuals, families, and seniors. Similarly, the Kennedy Commission is a collaborative that advocates for the availability of affordable homes to Orange County residents that are most at risk for housing insecurity. The work of housing advocates in Orange County often includes the pursuit of Inclusionary Housing Policies can offer incentives for the development of affordable housing as part of the development of market-rate housing in different cities across Orange County. This often takes the form of requiring a certain percentage of new homes being built to qualify as affordable housing.

In addition to addressing housing, other partners are working to address homelessness as well; the Commission to End Homelessness works in collaboration with other partners in Orange County to coordinate efforts and resources to decrease the number of individuals that are homeless or at risk of homelessness in Orange County. Similarly, the Homeless Orange County Task Force is a collaborative of service providers, advocates, civic organizations, religious congregations, businesses, and individuals that work to identify and develop solutions to the underlying issues related to homelessness.

The Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act allowed for the expansion of homeless prevention, gave incentives to place more emphasis on prompt re-housing, continues emphasis on creating permanent supportive housing for people experiencing chronic homelessness but allows for families to be considered chronically homeless as well, and provides a different set of guidelines that are more flexible for rural communities.

Mental Health (KFH-Anaheim & KFH-Irvine Priority)

The Mental Health Services Act (MHSA) was enacted in 2004 to provide increased funding, staffing, and other resources to support county mental health programs in their service of children, youth, adults, older adults, and families in general. Similarly, the Mental Health Parity Act of 2008 requires that group health plans and health insurance carriers are no more restrictive with co-pays and number of visits with mental health services as they are with general medical benefits.

Across the county, there are several organizations and networks addressing the growing mental and behavioral health needs. There are various organizations that provide mental health services throughout the county. Didi Hirsch Mental Health provides both mental health and substance abuse services. Strength in Support-Orange County, which provides services to military members and their families. Mission hospital in collaboration with Each Mind Matters launched a program in 2005 to help encourage the conversation about mental health to help reduce stigma and increase help-seeking. Likewise, Mental Health First Aid is an in-person training that teaches individuals how to identify and get help for those that are developing a mental illness. Courses can be found online at the following web link: http://www.mentalhealthfirstaid.org/cs/take-a-course/find-a-course.

Despite these assets, the stakeholders who were engaged in the primary data collection mentioned that major gaps remain in the services available for pediatric mental health. In particular, they mentioned that there is a need for more detection and early identification of pediatric mental health needs, as well as a more comprehensive resource referral network to support the identified needs.

Obesity/Overweight (KFH-Anaheim & KFH-Irvine Priority)

There are countless resources addressing the obesity issue in Orange County. In recent years, there has been significant investment from the donor community on this issue, ranging from the Healthy Eating, Active Living (HEAL) Zone in Anaheim, to the work of the Nutrition & Physical Activity Collaborative (NUPAC) and the work of the Orange County Health Care Agency, providing a physical activity resource guide to help residents find ways to stay active. In addition, Fit to be Kids, America On Track and Kid Healthy all seek to address health and wellness by encouraging children and their families from underserved communities to participate in wellness programs to improve their nutrition and fitness levels.

Orange County's Healthier Together is an initiative that seeks to align community resources with the public health system in an effort to improve the health of Orange County residents. The more recent group, Alliance for a Healthy Orange County (AHOC) is focused on expanding obesity prevention policies throughout the county by promoting active transportation policies, and other resources and tools to localities.

The Healthy, Huger-Free Kids Act of 2010 enhances previous Local School Wellness Policy requirements by strengthening requirement for ongoing implementation, assessment, and public reporting of wellness policies as well as requiring more collaboration with community members. Additionally, the 2009 Commuter Bikeways Strategic Plan supports bicycle transportation as a feasible commute alternative as well as an enjoyable recreational activity.

At the state level, CalFresh program provides nutritional assistance to low-income individuals to help them buy more nutritious food. Likewise, the Champions for Change movement encourages Californians to eat healthier, be more physically active, drink more water and less sugary beverages and to use CalFresh benefits, as well as building community with other Champions for Change.

Orange County also has numerous Farmer's Markets, most of which accept WIC/EBT. The following website provides a full listing of these locations, dates and hours of operation: http://ocagcomm.com/services/markets.

Community Violence (KFH-Anaheim Priority)

Across the county, there are organizations working with communities on various aspects of community violence—in the KFH-Anaheim Medical Center Area in particular, the KFH-Anaheim Family Justice Center works with effectively with law enforcement and families on domestic violence, trauma and other areas of community violence.

In Santa Ana, as a result of the Building Healthy Communities initiative, the Boys & Men of Color work has emerged as a strong force for positive change in the past couple years. With a focus on eliminating the school to prison pipeline, and increasing the availability of restorative justice practices in the schools and in the justice system, this coalition is conducting community education and engaging in policy dialogues both countywide and as a part of a statewide network as well.

Language Access (KFH-Anaheim Priority)

There are several organization working throughout Orange County to support the various ethnic enclaves across our diverse community. Among them, Latino Health Access has provided resources for the monolingual Spanish-speaking community for over 15 years. In addition, Orange County Asian Pacific Islander Community Alliance, Orange County Korean American Health Information & Education Center, the Vietnamese Community of Orange County, Inc and Cambodian Family has supported the diverse subpopulations of the API community. ACCESS California provides services to the growing Arab American population as well as to the various Muslim American communities throughout Orange County.

Physical Activity (KFH-Anaheim Priority)

In addition to the countless organizations supporting physical activity both in children and adults, there are several community-based policies that support a healthy, vibrant walking community. Cities across Orange County have implemented joint use agreements between school districts and the community while others have Safe Routes to School passages promoted and are working to capture some of the state and federal Active Transportation funding. Several cities in Orange County, such as Costa Mesa, have created Walkabilty & Bikeability Commissions to create plans for increasing physical activity programming and infrastructure in the community. Further, SB 1183 was passed in 2014 to allow cities, counties or regional park districts to impose and collect vehicle registration fees that can be used for bicycle infrastructure purposes, thus increasing another venue for physical activity.

Cancer (KFH-Irvine Priority)

The American Cancer Society is very active in Orange County, with numerous partnership, programs and policy advocacy initiatives. In addition, Susan G Koman Orange County is active, as is the Vietnamese American Cancer Foundation supports the API community. The Orange County Cancer Coalition improves patient centered care for cancer patients in Orange County.

Oral/ Dental Health (KFH-Irvine Priority)

Healthy Smiles for Kids-Orange County is the premier organization supporting the dental and oral health of Orange County's most vulnerable children. This organization is committed to improving the oral health of children in Orange County through collaborative programs directed at prevention, outreach and education, access to treatment and advocacy. Students from USC Pediatric Dentistry program also support the work of Healthy Smiles for Kids- Orange County by serving as hospital-based residents at CHOC and Healthy Smiles' Smile Center site.

Substance Abuse (KFH-Irvine Priority)

There are various assets related to the substance abuse needs facing community members in the county. The Orange County Health Care Agency's Behavioral Health Division convenes the Alcohol and Drug Advisory Board (ADAB) regularly, hosting educational workshops and other events for providers and the community. They also advise the Board of Supervisors on issues related to alcohol and drug policies and goals affecting the County Alcohol & Drug Program.

In addition to the Mental Health Services Act, another recent policy change relevant to substance abuse is the Affordable Care Act including substance use disorders as one of the ten elements of essential health benefit, leading to an increased availability of covered treatment options. Another local policy issue facing Orange County related to substance abuse is the proliferation of the sober living homes that have led many communities to explore implementing sober living home ordinances and has prompted lawsuits in certain cities in attempt to limit the concentration of these homes in certain geographic areas, while considering compliance with the Americans with Disabilities Act (ADA).

VII. KFH-Anaheim & KFH-IRVINE 2013 IMPLEMENTATION STRATEGY EVALUATION OF IMPACT

KFH-Anaheim 2013 IMPLEMENTATION STRATEGY EVALUATION OF IMPACT

A.   Purpose of 2013 Implementation Strategy evaluation of impact

KFH-Anaheim's 2013 Implementation Strategy report was developed to identify activities to address health needs identified in the 2013 CHNA. This section of the CHNA Report describes and assesses the impact of these activities. For more information on KFH-Anaheim's Implementation Strategy report, including the health needs identified in the facility's 2013 service area, the health needs the facility chose to address, and the process and criteria used for developing Implementation Strategies, please visit https://share.kaiserpermanente.org/wp-content/uploads/2013/10/IS-Report-Anaheim.pdf . For

reference, the list below includes the 2013 CHNA health needs that were prioritized to be addressed by KFH-Anaheim in the 2013 Implementation strategy report.

1. Access to Care
2. Economic Instability
3. Mental Health
4. Obesity/Overweight
5. Broader Health Care System Needs in Our Communities - Research and Workforce

KFH-Anaheim is monitoring and evaluating progress to date on their 2013 Implementation Strategies for the purpose of tracking the implementation of those strategies as well as to document the impact of those strategies in addressing selected CHNA health needs. Tracking metrics for each prioritized health need include the number of grants made, the number of dollars spent, the number of people reached/served, collaborations and partnerships, and KFH in-kind resources. In addition, KFH-Anaheim tracks outcomes, including behavior and health outcomes, as appropriate and where available.

As of the documentation of this CHNA Report in March 2016, KFH-Anaheim had evaluation of impact information on activities from 2014 and 2015. While not reflected in this report, KFH-Anaheim will continue to monitor impact for strategies implemented in 2016.

B.   2013 Implementation Strategy Evaluation of Impact Overview

In the 2013 IS process, all KFH planned for and drew on a broad array of resources and strategies to improve the health of communities and vulnerable populations, such as grantmaking, in-kind resources, collaborations and partnerships, as well as several internal KFH programs including, charitable health coverage programs, future health professional training programs, and research. Based on years 2014 and 2015, an overall summary of these strategies is below, followed by tables highlighting a subset of activities used to address each prioritized health need.

- **KFH Programs:** From 2014-2015, KFH supported several health care and coverage, workforce training, and research programs to increase access to appropriate and effective health care services and address a wide range of specific community health needs, particularly impacting vulnerable populations. These programs included:

    - **Medicaid:** Medicaid is a federal and state health coverage program for families and individuals with low incomes and limited financial resources. KFH provided services for Medicaid beneficiaries, both members and non-members.
    - **Medical Financial Assistance:** The Medical Financial Assistance (MFA) program provides financial assistance for emergency and medically necessary services, medications, and supplies to patients with a demonstrated financial need. Eligibility is based on prescribed levels of income and expenses.
    - **Charitable Health Coverage:** Charitable Health Coverage (CHC) programs provide health care coverage to low-income individuals and families who have no access to public or private health coverage programs.
    - **Workforce Training:** Supporting a well-trained, culturally competent, and diverse health care workforce helps ensure access to high-quality care. This activity is also essential to making progress in the reduction of health care disparities that persist in most of our communities.
    - **Research:** Deploying a wide range of research methods contributes to building general knowledge for improving health and health care services, including clinical research,

health care services research, and epidemiological and translational studies on health care that are generalizable and broadly shared. Conducting high-quality health research and disseminating its findings increases awareness of the changing health needs of diverse communities, addresses health disparities, and improves effective health care delivery and health outcomes.

- **Grant-making:** For 70 years, Kaiser Permanente has shown its commitment to improving Total Community Health through a variety of grants for charitable and community-based organizations. Successful grant applicants fit within funding priorities with work that examines social determinants of health and/or addresses the elimination of health disparities and inequities. From 2014-2015, KFH-Anaheim had 48 grant payments, amounting to a total payment of $735,000, in service of 2013 health needs. Additionally, KFH-Anaheim has funded significant contributions to a donor advised fund (DAF), managed by the The California Community Foundation, in the interest of funding effective long-term, strategic community benefit initiatives. During 2014-2015, a portion of money managed by this foundation was used to support 46 grant payments, amounting to a total payment of $6,206,764, in service of 2013 health needs. An illustrative list of active grants is provided in each health need section below.

- **In-Kind Resources:** Kaiser Permanente's commitment to Total Community Health means reaching out far beyond our membership to improve the health of our communities. Volunteerism, community service, and providing technical assistance and expertise to community partners are critical components of Kaiser Permanente's approach to improving the health of all of our communities. From 2014-2015, KFH-Anaheim donated several in-kind resources in service of 2013 Implementation Strategies and health needs; an illustrative list is provided in each health need section below.

- **Collaborations and Partnerships:** Kaiser Permanente has a long legacy of sharing its most valuable resources: its knowledge and talented professionals. By working together with partners (including nonprofit organizations, government entities, and academic institutions), these collaborations and partnerships can make a difference in promoting thriving communities that produce healthier, happier, more productive people. From 2014-2015, KFH-Anaheim engaged in several partnerships and collaborations in service of 2013 Implementation Strategies and health needs; an illustrative list is provided in each health need section below.

C.   2013 Implementation Strategy Evaluation of Impact by Health Need

<u>**KFH-Anaheim Priority Health Need: Access to Care**</u>

Long-term Goal
- Increase the number of Orange County residents who have access to appropriate, high-quality health care services

Intermediate Goals
- Increased access to and capacity of the overall system of safety-net care in Orange County
- Increased access to quality, culturally competent clinical care among underserved populations
- Increased number of underserved individuals who have access to a medical home

Access to Care
KFH Administered Program Highlights

KFH Program Name	KFH Program Descriptions	Results to Date
Medicaid	Medicaid is a federal and state health coverage program for families and individuals with low incomes and limited financial resources. KFH provided services for Medicaid beneficiaries, both members and non-members.	• In 2014, $7,102,623 was spent on the Medicaid program and 21,556 Medi-Cal managed care members were served • In 2015, $9,678,034 was spent on the Medicaid program and 27,224 Medi-Cal managed care members were served
Medical Financial Assistance	The Medical Financial Assistance (MFA) program provides financial assistance for emergency and medically necessary services, medications, and supplies to patients with a demonstrated financial need. Eligibility is based on prescribed levels of income and expenses.	• In 2014, $2,837,553 was expended for 2,095 MFA recipients • In 2015, $2,579,007 was expended for 2,401 MFA recipients
Charitable Health Coverage	Charitable Health Coverage (CHC) programs provide health care coverage to low-income individuals and families who have no access to public or private health coverage programs.	• In 2014, $2,089,919 was spent on the CHC program and 4,314 individuals received CHC • In 2015, $1,681,830 was spent on the CHC program and 4,081 individuals received CHC

Access to Care Grant-Making Highlights
Grant-Making Snapshot During 2014-2015, there were 13active KFH grant payments, totaling $195,000 addressing the priority health need in the KFH-Anaheim service area. In addition, a portion of the money managed by a donor advised fund (DAF)[1], the California Community Foundation, was used to pay 19 grants, totaling $2,037,500; DAF grants are denoted by asterisks (*). Donor advised fund (DAF) grants may cover multiple KFH service areas and address multiple health needs. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.

Grantee	Grant Amount	Project Description	Results to Date
Community Partners	$512,000*	Please see description for the Specialty Care Initiative under Impact of Regional Initiatives.	Please see description for the Specialty Care Initiative under Impact of Regional Initiatives.

Grantee	Grant Amount	Project Description	Results to Date
Community Clinics Health Network	$175,000*	Please see description for the ALL HEART program under Impact of Regional Initiatives.	Please see description for the ALL HEART program under Impact of Regional Initiatives.
Insure the Uninsured Project	$75,000*	Insure the Uninsured Project (ITUP) received funding to focus on educating consumers and stakeholders on health reform as well as Outreach, Enrollment, Retention and Utilization (OERU) strategies for the uninsured.	ITUP will convene its statewide and regional workgroups to build consensus and engage local leaders to focus on region specific issues that will address the health outcomes of the newly insured and disseminate its non-partisan reports on statewide and local issues. Annually, ITUP will host at least 18 meetings—six statewide issue workgroups, ten regional workgroups, two Los Angeles Health Collaborative meetings, and legislative briefings—as well as produce twenty-five research reports on coverage efforts for the uninsured, health reform implementation strategies, and findings from statewide and regional workgroups, annually.
Coalition of Orange County Community Clinics	$150,000*	The Coalition of Orange County Community Clinics received funding to focus on access and member services as defined in their 2013-2016 strategic plan that emphasizes long term sustainability of its member base and documenting its value for members.	To date, the Coalition has conducted a survey of the 12 Federally Qualified Health Centers in its membership. A total of 10 topics were most frequently cited by respondents as both urgent and non-urgent. The Coalition has worked with third-party consultants to design a cost-effective and informative technical assistance program whereby interested health centers may combine proposals where there are similar needs for services. Additionally, the Coalition has compiled a list of 21 projected consultants that may provide services to its members across multiple disciplines/area needs. To date, three health centers have engaged consultants from this work to support their needs around FQHC site visits and policies and procedure development. The Coalition is also assisting four member health centers achieve Patient Centered Medical Home (PCMH) recognition.

Grantee	Grant Amount	Project Description	Results to Date
Susan G. Komen Breast Cancer Foundation	$10,000	Engage, educate and link uninsured rarely or never-screened Latinas living in Anaheim, La Habra and Santa Ana to breast health care services.	A total of 4,027 education encounters were made with high risk Latino women through various health fairs and community events. These efforts have helped to link 702 women to vital breast cancer screening services. Through onsite mammography efforts, clinical breast exams, mammograms. For example, a total of 18 supermarket outreach events in October 2014 and May 2015, reaching a total of 2,445 low-income Latino women and directly linking 525 of these women to screening services. Additionally, a new Spanish-language Support Group for Latina breast cancer survivors has been initiated. The women have become community leaders who are trained with breast cancer 101 and are active volunteers at outreach events. The Foundation is continuing to explore new outreach sites and explore new collaboration opportunities with local nonprofits and businesses that target Latinas.
AccessOC Southern California	$10,000	Via expert care coordination, AccessOC's Outpatient Surgery Program connects underserved patients to essential specialty care services, up to and including outpatient surgery and other clinical procedures.	One hundred percent (100%) of the 452 patients referred for care during the grant period received comprehensive care coordination, health navigation and evaluation and follow-up services. In addition, more than 95% of patients who received surgical/screening procedures enjoyed improved health outcomes post-procedure, and experienced reduced pain, fewer symptoms, enhanced physical mobility, ability to work and/or overall improved well-being and quality of life. Additionally, 100% of surveyed patients expressed no need for emergency room visits post-procedure, related to their referred diagnosis.

Impact of Regional Initiatives Addressing Access to Care

In addition to the illustrated grants listed above, Kaiser Permanente designs Regional Health Initiatives that are implemented in one or more KFH service areas to address the priority health needs. These initiatives are multi-year investments that support policy, advocacy and/or system changes in communities, including support for clinic systems to enhance capacity, service provision and or

coordination. Kaiser Permanente invests in external evaluation for Regional Health Initiatives, and where possible, the results to date will reflect the most recent evaluation findings.

Kaiser Permanente's Building Clinic Capacity for Quality (BCCQ) initiative aims to improve the quality of health care provided to Southern Californians by enhancing the capacity of community clinics to implement Quality Improvement (QI) strategies that are supported by health information technology (HIT). The overall goals of BCCQ are to increase the capacity of participating community clinics and to advance community clinics' implementation of HIT. In order to accomplish these goals, Kaiser Permanente funded a project office (Community Partners) to develop and implement a three series training program designed to reach clinics that were at different levels of QI experience and capacity. Additionally, the project office piloted the Proactive Office Encounter (POE) program to translate a promising practice from Kaiser Permanente to community clinics. POE is a model of planned care that uses clinical care guidelines, patient data, and team and practice organization to proactively ensure all patient needs are met. Clinics were recruited to participate in BCCQ in Los Angeles, Orange, and San Diego Counties. BCCQ also engaged with the Riverside County Health System by implementing a tailored program. To date, KPSC CB has invested a total of three (3) grants, amounting to $3,500,000 to support this initiative. (Note that this initiative continued to operate in 2014 and 2015, although no grant amounts were paid for these years).

Over 40 community clinics participated in this program and developed projects focused on improving areas such a m cancer and LDL screening, patient wait times, diabetes self-management, no-show rates, scheduling and appointments, care team guidelines and protocols, and medication management (among others). To date, participating clinics have reported satisfactory progress against their stated project goals. Among clinics participating in POE, most are indicating improvements in areas such as clinic and operational outcomes, data, and ability to provide high quality pro-active care, including improved preventive health services.

Kaiser Permanente's Specialty Care Initiative aims to increase access to healthcare services for the underserved through the development and enhancement of specialty care access. In order to achieve this goal, Kaiser Permanente funded technical assistance through Community Partners to implement a coalition approach, where various partners collaborated to develop and implement strategies tailored to their communities in Southern California. These strategies focused on instituting and enhancing referral processes, building and expanding specialty care networks, increasing primary care physicians' capacity, and utilizing care coordination in the safety net. This multi-year initiative was launched in 2007 and to date a total of over $4,953,000 were awarded and paid to community based agencies across Southern California to support specialty care access. In order to increase the capacity of primary care physicians (PCPs), the Access OC Coalition purchased and developed an eConsult system, which enables PCPs to access guidelines that have been uploaded by specialists and communicate with specialists via secure email.

ALL HEART - In 2006, Kaiser Permanente's Southern California Community Benefit (KPSC CB) began the translation of KP's evidence-based cardiovascular disease (CVD) risk-reduction program across the safety net organizations in Southern California through a program called ALL (Aspirin, Lisinopril, and Lipid lowering medications). As a result of receiving the James A. Vohs Award for Quality in 2011, Kaiser Permanente Southern California selected the Community Clinic Health Network (CCHN) to serve as a Project Office to further translate the ALL protocol across the Southern California Region. The program was renamed to ALL HEART (Heart Smart Diet, Exercise, Alcohol limits, Rx Medicine compliance, and Tobacco cessation) to include lifestyle measures that were also included in this program. CCHN continues to enroll community health centers across Southern California into the ALL HEART Program. To date, KPSC CB has invested a total of six (6) grants, amounting to $1,220,000 to

support this initiative. This current two year grant began in 2015 and the focus will be on the diabetic and/or hypertension population. The ALL HEART program will also continue its pilot projects around behavioral health integration and clinic to community linkages.

CCHN has exceeded reach targets for ALL HEART, reaching over 35,000 patients served by 14 health centers and 75 clinic sites in Southern California. Based on the results of an evaluation of a cohort of 11 health centers in San Diego County, ALL HEART has built health center capacity to successfully implement and institutionalize the ALL medication protocol and most participating health centers improved blood pressure control among their patients, potentially reducing the risks associated with cardiovascular disease. Furthermore, Health Centers built their capacity to engage in population health management and to align with other national initiatives, such as Patient Centered Medical Home (PCMH) and Meaningful Use. Successful implementation of ALL HEART was driven by several HEAL Center characteristics, including data & IT systems, dedicated staffing, leadership buy-in, quality improvement infrastructure, and adequate time and space.

KFH-Anaheim Priority Health Need: Economic Instability

Long-term Goals
- Reduce health inequity by ensuring more residents have an equal opportunity to reach their full potential
- Relieve burden of poverty by decreasing food insecurity and associated health risk factors among vulnerable populations
- Prevent homelessness and improve access to affordable housing among low-income individuals

Intermediate Goals
- Increased educational attainment and training opportunities among underserved populations
- Increased awareness and utilization of existing food assistance resources among low-income individuals
- Maintain and expand availability of existing resources for individuals in crisis relying on short-term housing solutions

Economic Instability Grant-Making Highlights			

Grant-Making Snapshot During 2014-2015, there were 15 active KFH grant payments, totaling $230,000, addressing the priority health need in the KFH-Anaheim service area. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded. Grants supporting economic security may include grants that address workforce (see section below under Healthcare Needs).

Grantee	Grant Amount	Project Description	Results to Date
Taller San Jose	$15,000	Taller San Jose's Medical Careers Academy recruits disconnected youth and puts them on a path to livable wage careers in the allied health industry.	To date, out of the 123 youth enrolled, 74% completed their training and 71% of them are successfully employed. Additionally, 22% of youth improved their basic skills by one grade level and 52% of youth improved their basic skills by more than one grade level, as measured by the Test of Adult Basic Education.

Grantee	Grant Amount	Project Description	Results to Date
Serve The People, Inc.	$15,000	STP will enhance access to care at STP's Food Pantry Healthcare Station with new health education programs and improved point-of-care diagnostic testing: Hemoglobin A1C analysis and blood pressure screenings.	Serve the People's (STP) Food Pantry was open 24 times throughout the grant period and helped break the cycle of poverty for 38,347 individuals, consisting of 15,236 children and 23,111 adults. Many additional individuals were served through food distributions to church ministries, shelters and group homes. STP documented 1,898,162 pounds of food and merchandise collected from Second Harvest Food Bank and OC Food Bank. Throughout the year, STP receives many additional food and merchandise from wholesale providers (such as Trader Joe's) that are not weight or itemized due to the variety and volume of packaged products. In addition, 250 individuals were referred to STP health center from the health station set up at the food pantry.
Community Seniorserv, Inc.	$10,000	Meals on Wheels program provides homebound older adults who are no longer able to shop or cook with meals and support services that helps them maintain their health and independence.	During the grant period 1,300 low-income homebound seniors were provided delivered meals, case management, and home safety checks and 1,509 low-income homebound older adults in center and north Orange County. Additionally, 631,843 nutritious meals were provided to 1,509 Meals on Wheels participants. .

Economic Instability Collaboration/Partnership Highlights		
Organization/Collaborative Name	**Collaborative/Partnership Goal**	**Results to Date**
Commission to End Homelessness	Work collaboratively and provide strategic leadership to promote best practices, monitor outcomes, and report results on the success of the Ten-Year Plan to end Homelessness.	KFH-Anaheim and KFH-Irvine have participated in prevention and outreach subcommittee meetings and provided volunteers to the coalition efforts. Due to the collaborative efforts of the Continuum of Care System and the public/private partnerships that have developed, Orange County has been awarded over $169.9 million in SuperNOFA Continuum of Care Homeless Assistance Grant funds from 1996-2012.

Economic Instability In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Food Finders, Inc.	To date, 8,104 pounds of food was recovered from the cafeteria at Anaheim Medical Center in an effort to meet the nutritional needs of our community by facilitating the donation and distribution of wholesome surplus food with the ultimate vision of ending hunger in Orange County.
Giving Children Hope, Second Harvest Food Bank, Harvest Club of Orange County	One hundred fifty KP employees and SCPMG physician partners volunteered 425 hours to food assistance programs, including: Giving Children Hope, Second Harvest Food Bank, and the Harvest Club of Orange County. Activities included filling back backs with food for the "We've Got Your Back" program, sorting and packing food at the food bank, and gleaning backyard fruit with the Harvest Club of Orange County On July 19, thirty KP volunteers harvested 1,400 pounds of oranges from a back yard grower in partnership with the Harvest Club. Oranges were delivered that day to a local food pantry to be distributed to families in need.

KFH-Anaheim Priority Health Need: Mental Health

Long-term Goals
- Prevent and treat mental illness and associated substance abuse among vulnerable populations in Orange County
- Minimize the risk of mental illness and initiation of controlled substance use
- Prevent and treat mental illness and associated substance abuse among those exposed to violence or trauma

Intermediate Goals
- Improved detection and management of mental health symptoms among elderly adults
- Improved social supports and connection to community-based mental health services for members of the
- Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) population experiencing mental health disorders
- Strengthen the resilience of youth in the context of their family and leaning environments
- Decreased risk for prescription drug addiction as an increased number of community clinic patients access appropriate pain treatment
- Reduce the harmful mental health impacts of violence and trauma among victims of domestic violence and child maltreatment as well as veterans and the formerly incarcerated population

Mental Health Grant-Making Highlights			
Grant-Making Snapshot During 2014-2015, there were 11 KFH grant payments, totaling $170,000, addressing the priority health need in the KFH-Anaheim service area. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.			
Grantee	**Grant Amount**	**Project Description**	**Results to Date**
Orange County Family	$15,000	The Youth Violence Prevention Program targets at-risk youth and families with the aim of increasing	Two hundred and fifty-seven (257) children were served, ages 5-18, through the Youth Violence

Grantee	Grant Amount	Project Description	Results to Date
Justice Center Foundation		the resilience and coping capacity of individuals with physiological symptoms associated with exposure to traumatic events and enhancing parental capacity for nurturing and family management.	Prevention Programs. Additionally, this program identified and served 38 families (169 individuals) through our Adopt A Family event. Youth graduating from these programs are expected to increase their knowledge about unhealthy relationships and how to identify and get help for someone (maybe themselves, but not exclusively) in an abusive relationship. Families participating in the program will receive assistance in meeting some of the immediate financial and emotional needs of the youth.
Garden Grove Drug Free Coalition (GGDFC)	$15,000	The Garden Grove Mental Wellness Collaborative aims to reduce substance abuse and mental illness by providing low-income residents with counseling and education.	GGMWC was able to provide additional mental health and substance abuse counseling services for low-income families in Garden Grove, with 145 individual clients receiving individual and group counseling and 114 families provided with family advocacy and case management services. Additionally, ten educational workshops were conducted with youth, and ten educational workshops were conducted with parents. A post-survey, collected from 88 parents that attended an event intended to educate and raise awareness about the underage drinking and drug use that takes place at many house parties revealed that 100% of parents agreed that the event was a valuable learning experience, and 96% of parents reported intent to take action to prevent their child from attending teen house parties.
Council on Aging - Orange County	$15,000	The Friendly Visitor Program offers field-tested prevention and early intervention services to improve the mental health condition and the quality of life of older and disabled adults in Orange County.	The Friendly Visitor Program aims to improve the mental health status of isolated older and disabled adults by strengthening the support/safety network and access to community-based healthcare services. The Program anticipates providing face-

Grantee	Grant Amount	Project Description	Results to Date
			to-face and telephone contacts to at least 4,000 participants in a 12-month period. The mental health status, levels o overall well-being and quality of life, as measured by PHQ-9 and the World Health Organization-5 Well-being Index, respectively, will be measured and results will be shared when available.

Mental Health In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Human Options, Orange County Family Justice Center Foundation, and the Orange County Women's Health Project	KFH-Anaheim and KFH-Irvine employees donated their time and organizational expertise by serving on boards whose focus was on domestic violence services. Mary Jo-Mursa, Assistant Medical Group Administrator serves on the board of directors for Human Options. Cheryl Vargo, Community Benefit Manager, serves on the board of directors for the Orange County Family Justice Center Foundation. Cheryl Vargo and Dr. Liza Eshilian-Oates, regional physician leader for the Family Violence Prevention Program, serve on the Orange County Women's Health Project – Health and Domestic Violence taskforce.
Alzheimer's Association Orange County Chapter	Provide education and training to Orange County (PCPs) on the diagnostic and screening criteria for Alzheimer's and related dementias, to assist in more individuals accessing accurate diagnosis and early intervention. Provide training to ancillary providers to enhance their awareness of the programs and services of the Alzheimer's Association, increasing access to care through referrals to programs and services. Increase cost savings and efficiency of health plans through early interventions, and reduced case management load.

KFH-Anaheim Priority Health Need: Obesity/Overweight

Long-term Goals
- Reduce obesity/overweight among vulnerable Orange County residents

Intermediate Goals
- Increase healthy eating among youth and economically vulnerable residents
- Increase active living among youth and economically vulnerable residents
- Improve weight management skills for overweight/obese and diabetic patients

Obesity/Overweight Grant-Making Highlights
Grant-Making Snapshot During 2014-2015, there were 10 KFH grant payments, totaling $140,000, addressing the priority health need in the KFH-Anaheim service area. In addition, a portion of the

money managed by a donor advised fund (DAF), The California Community Foundation, was used to pay 23 grants, totaling $2,969,264; DAF grants are denoted by asterisks (*). Donor advised fund (DAF) grants may cover multiple KFH service areas and address multiple health needs. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.

Grantee	Grant Amount	Project Description	Results to Date
Dr. Riba's Health Club OneOC	$25,000*	OneOC serves as the fiscal agent for Dr. Riba's Health Club to provide clinical care, nutrition education, and physical activity opportunities to low-income overweight or obese children in Orange County.	To date, Dr. Riba's Health Club provided 4,000 low-income youth with prevention and treatment services through the health club, fit club, and nutrition education programs resulting in healthier lifestyles.
Council Of Orange County Society Of St Vincent De Paul (Second Harvest)	$47,500*	The Promoting Healthy Eating and CalFresh project seeks to alleviate food insecurity for low-income individuals in Orange County by developing policy changes to increase the nutritive quality of the food, procure and distribute produce, and perform CalFresh Program outreach and enrollment.	Second Harvest's Programs and Policy Department drafted a comprehensive nutrition policy that outlines healthy foods to encourage people to donate, foods to discourage, and foods that will not be purchased by the organizations. To date, Second Harvest acquired more than 4,125,000 pounds of food through Farm to Family Program. They have restructured their CalFresh outreach program and prescreened over 1,300 families, and assisted 648 families with their CalFresh applications.
Community Partners	$350,000*	Community Partners provides technical assistance and strategic support for coalition building, resident engagement, and leadership through peer-to-peer learnings, webinars, teleconferences for the HEAL Zone and HEAL Partnership grant communities.	Community Partners provided technical assistance and strategic support to ten HEAL grantees, their partners, and resident/youth leaders to apply the knowledge, skills, and competencies to successfully implement their HEAL Community Action Plan strategies in 2015.
YMCA of Anaheim	$150,000*	This HEAL Zone site focuses on school and community strategies, such as: a) instituting healthy food policies in after-school programs, b) building a physical activity into daily routines and removing flavored milk from school meals, b) improving walking and biking to schools, c) introducing healthy	To date, there have been improvements in school meals and physical activity and increased visibly of healthy food offerings in community settings. In participating schools, a) flavored milk was removed from school meals in the entire district, b) active recess was

Grantee	Grant Amount	Project Description	Results to Date
		options in food markets, d) crating joint use agreements with middle schools, and e) working with clinics to implement healthy activity vouchers for classes offered at local parks.	implemented at two participating elementary schools with support from parent and student volunteers, c) noticeable increases in physical activity levels were observed, and d) new nutrition and PA policies were adopted in afterschool program. At the community level, a HEAL Cities resolution was passed by Anaheim City Council and a joint use agreement to enable physical activity use of a school field was developed between middle school and the City. Built environment changes also took place, including an increase in healthy options offered through an expanded produce area at a local market and over 20 built environment improvements including painted crosswalks, repaired sidewalls, walking paths, and improved park equipment and playgrounds with support by resident advocates. These efforts have the potential to benefit approximately 13,000 youth, parents, and residents.
MOMS Orange County	$15,000	MOMS Orange County provides breastfeeding promotion to low-income mothers through in-home education and support, breastfeeding classes and support groups as part of its maternal and child obesity prevention efforts.	During July 1, 2014 through June 30, 2015, MOMS Orange County provided in-home breastfeeding education and support to 2,455 pregnant and parenting women and 2,096 babies residing in the Anaheim MC service area. To support breastfeeding practices, 135 prenatal breastfeeding classes to 352 were provided to nursing mothers. Weekly breastfeeding support groups (36) were conducted with 38 attendees. MOMS Orange County services were also responsive to urgent needs of mothers and babies by providing 401 phone consults and 134

Grantee	Grant Amount	Project Description	Results to Date
			home or on-side visits to families having breastfeeding challenges. Services were provided in both English, Spanish and Vietnamese.
Tiger Woods Foundation, Inc.	$10,000	The Tiger Woods Foundation, Inc. FIT PLAN arms low-income and minority youth with both the knowledge and the practical skills needed to prevent obesity.	A total of 210 youth received seven-week classless that supported students learning about the importance of positive self-worth, identified lifestyle choices that would decrease the risk for health-related problems, and set goals for living a healthy life. 91% of participants reported learning about healthy eating behaviors that will reduce the risk for health-related diseases. 88% reported practicing fitness activities that will help increase activity levels. The program aims to improve the reach of its program to impact at least 500 youth.
KidWorks Community Development Corporation	$15,000	KidWorks promotes health by increasing opportunities for families to practice healthy eating and physical activity and engaging youth and parents to lead public health advocacy efforts in Santa Ana.	A total of 369 K-12th grade students were given a healthy snack each day and 48 preschool students were given a healthy meal. In addition, 100 parents participated in a nutrition workshop and 100% of these parents increased their knowledge of healthy living and nutrition. The K-5th grade students also participated in nutrition workshops and 88% of them (174 of 198) improved their knowledge of good nutrition and healthy living practices, based on pre- and post-surveys. Additionally, there has been an increase in the involvement of family participants in the composting and gardening project by 60%.
Obesity/Overweight Collaboration/Partnership Highlights			

Organization/Collaborative Name	Collaborative/Partnership Goal	Results to Date
Orange County Food Access Coalition (OCFAC)	OCFAC works to define the gaps in services and resources that prevent healthy food access.	KFH-Anaheim and KFH-Irvine are a member of the policy/advocacy subcommittee and has participated in the strategic planning efforts of the coalition. Since, 2013 County agency and community member participation in Hunger Action Day tripled, allowing OCFAC to make the most of this important opportunity to talk about hunger-related legislation both in the district and in Sacramento. OCFAC was successful in holding their second annual Legislative Roundtable with 10 state and federal legislative offices in attendance, focusing on Farm to School issues. Additionally, OCFAC formed the Medi-Cal/Cal Fresh One Stop Enrollment Workgroup and developed a 12-month cross-enrollment pilot program with county partners called Healthy Connections. To connect agencies and community groups who work on food access in the city to enhance collaboration and increase collective impact, OCFAC created the Santa Ana Food Justice and Urban Agriculture workgroup, connecting agencies and community groups who work on food access in the city to enhance collaboration and increase collective impact.
Alliance for a Healthy Orange County (AHOC)	AHOC is a county-wide collaborative whose mission is to champion policy strategies and leverage funding opportunities that result in enhanced health outcomes and reduced health disparities for Orange County residents.	KFH-Anaheim and KFH-Irvine attended coalition meetings, supported strategic planning, and provided volunteers for the Alliance for a Healthy Orange County (AHOC). The collaborative continues to work with cities to collaborate and coordinate with regional and

Organization/Collaborative Name	Collaborative/Partnership Goal	Results to Date
		county organizations, such as the Orange County Transportation Authority, the Southern California Association of Governments, and Caltrans. AHOC has played a lead role in advocating for active transportation on a regional level which has led to increased funding for Orange County's built environment: Fifteen cities were awarded $40,860,000 and an additional $2.1 million has been awarded for planning. In addition, AHOC piloted its first Active Transportation Leadership Project in Santa Ana in partnership with Santa Ana Active Streets.

Impact of Regional Initiatives Addressing Obesity/Overweight

In addition to the illustrated grants listed above, Kaiser Permanente designs Regional Health Initiatives that are implemented in one or more KFH service areas to address the priority health needs. These initiatives are multi-year investments that support policy, advocacy and/or system changes in communities, including support for clinic systems to enhance capacity, service provision and or coordination. Kaiser Permanente invests in external evaluation for Regional Health Initiatives, and where possible, the results to date will reflect the most recent evaluation findings.

Kaiser Permanente's HEAL (Healthy Eating, Active Living) Zone initiative is a place-based approach that aims to lower the prevalence of obesity and overweight by increasing access to fresh fruit, vegetables and healthy beverages, as well as increasing safe places to be play and be physically active. HEAL Zones work through a collaboration of local organizations and agencies to implement policies, programs and environmental system changes to impact healthy eating and active living behavior. To date, Kaiser Permanente has awarded over $7,000,000 to community based organizations across Southern California to support this initiative. For the specific project implemented in KFH-Anaheim and the results to date, please see the listing above for Anaheim HEAL Zone coordinated by the YMCA.

PRIORITY HEALTH NEED V: BROADER HEALTH CARE SYSTEM NEEDS IN OUR COMMUNITIES – WORKFORCE

KFH Workforce Development Highlights
Long Term Goal:
• To address health care workforce shortages and cultural and linguistic disparities in the health care workforce
Intermediate Goal:

- Increase the number of skilled, culturally competent, diverse professionals working in and entering the health care workforce to provide access to quality, culturally relevant care

Summary of Impact: During 2014-2015, a portion of money managed by a donor advised fund at California Community Foundation was used to pay two grants, totaling $150,000, that address this need. An illustrative sample of grants is provided below; DAF grants are denoted by asterisks (*).All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded. KFH-Anaheim also provided trainings and education for 222 residents in its Graduate Medical Education program, four nurse practitioner or other nursing beneficiaries, and 31 other health (non-MD) beneficiaries as well as internships for 39 high school and college students (Summer Youth, INROADS, etc.).

Grant Highlights			
Grantee	**Grant Amount**	**Project Description**	**Results to Date**
Campaign for College Opportunity (CCO)	$50,000*	This grant supports an in-depth research report to analyze trends in California science, technology, engineering, and math (STEM)/health workforce needs. The STEM/Health Workforce Report will focus on factors affecting demand and supply; public higher education funding policies; and programs to help meet workforce demands. This grant supports an in-depth research report to analyze trends in California science, technology, engineering, and math (STEM)/health workforce needs. The STEM/Health Workforce Report will focus on factors affecting demand and supply; public higher education funding policies; and programs to help meet workforce demands.	The Campaign for College Opportunity will develop and disseminate the STEM/Health Workforce Report to increase awareness among the public and policymakers of the growing need for STEM health workers in California and the role California community colleges play in filing the demand. CCO has completed the report and the general release will occur in June 2016. The report's release will be accompanied by a media and communications strategy including a webinar, briefings with key stakeholders (in education, business, community and civic organizations) along with policymakers in Sacramento.
California Institute for Nursing and Health Care (CINHC)	$100,000*	To provide expert technical assistance to registered nursing programs at California state universities (CSUs) and their identified California community college (CCC) partners in Southern California. It will also help schools implement an associate degree to a bachelor of science in nursing	CINHC will facilitate engagement and partnership to develop, implement, and sustain the CCMNE across all 10 CSU's and respective CCC's. CINHC will engage interested private universities and colleges within the region, including deans, directors, and faculty. Lastly, CINHC will conduct a curriculum review, mapping process, and

| | | pathway, facilitating fast tracking and efficient implementation of the California Collaborative Model of Nursing Education (CCMNE). | development of integrated pathways based on prior success strategies that are consistent with evidence based models. |

In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Individuals and organizations in the health care and medical workforce.	Kaiser Permanente Southern California Region's Department of Professional Education offered Advanced Practice and Allied Health Care Educational Programs for allied health care providers throughout Southern California. In 2015, across Kaiser Permanente Southern California Region, 644 community-based nurses, nurse practitioners, physician assistants, imaging professionals, clinical laboratory scientists, community audiologists and speech pathologists, and other health care professionals participated in symposia at no cost.

PRIORITY HEALTH NEED VI: BROADER HEALTH CARE SYSTEM NEEDS IN OUR COMMUNITIES – RESEARCH

KFH Research Highlights
Long Term Goal:
• To increase awareness of the changing health needs of diverse communities
Intermediate Goal:
• Increase access to, and the availability of, relevant public health and clinical care data and research
Summary of Impact: Kaiser Permanente conducts, publishes, and disseminates research to improve the health and medical care of members and the communities served. The Southern California Region Department of Research and Evaluation (DRE) conducted a total of 988 studies in 2014 and 1,404 studies in 2015 across all regional hospitals, totaling $16,385,832. Research focuses on clinical trials, building scientific expertise in health services and policy, and implementation science to bridge the gap between research and practice. In addition, a portion of money managed by a donor advised fund (DAF) at California Community Foundation was used to pay two grants, totaling $1,050,000 that address this need. An illustrative grant is provided below. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.

Grant Highlights			
Grantee	**Grant Amount**	**Project Description**	**Results to Date**
UCLA Center for Health Policy Research	$500,000*	The California Health Interview Survey (CHIS) investigates key public health and health care policy issues, including health insurance coverage and access to health services, chronic health conditions and their prevention and management, the health of children, working age adults, and the elderly, health care reform,	At the end of the grant period, UCLA Center for Health Policy Research interviewed approximately 41,500 households and completed 78,127 screenings along with 40,125 adult, 2,255 adolescent and 5,514 child interviews. In addition, 12 AskCHIS online trainings were completed.

		and cost effectiveness of health services delivery models.	

In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Individuals and organizations in the health care and medical community.	Kaiser Permanente Southern California Region's Department of Research and Evaluation works closely with national and regional research institutions and universities to provide high-quality health research. In the KFH-Anaheim service area 67 research projects were active in 2014 and 40 research projects were active as of year-end 2015.
Individuals and organizations in the health care and medical community.	Kaiser Permanente Southern California Region's Nursing Research Program provides administrative and technical support for nurses to conduct, publish and disseminate research studies and evidence based practice projects. In the KFH-Anaheim service area, eight research projects were active as of year-end 2014 and seven research projects were active as of year-end 2015.

KFH-Irvine 2013 IMPLEMENTATION STRATEGY EVALUATION OF IMPACT

A.   Purpose of 2013 Implementation Strategy evaluation of impact

KFH-Irvine's 2013 Implementation Strategy report was developed to identify activities to address health needs identified in the 2013 CHNA. This section of the CHNA Report describes and assesses the impact of these activities. For more information on KFH-Irvine's Implementation Strategy report, including the health needs identified in the facility's 2013 service area, the health needs the facility chose to address, and the process and criteria used for developing Implementation Strategies, please visit https://share.kaiserpermanente.org/wp-content/uploads/2013/10/IS-Report-Irvine.pdf . For reference, the list below includes the 2013 CHNA health needs that were prioritized to be addressed by KFH-Irvine in the 2013 Implementation strategy report.

1. Access to Care
2. Economic Instability
3. Mental Health
4. Obesity/Overweight
5. Broader Health Care System Needs in Our Communities - Research and Workforce

KFH-Irvine is monitoring and evaluating progress to date on their 2013 Implementation Strategies for the purpose of tracking the implementation of those strategies as well as to document the impact of those strategies in addressing selected CHNA health needs. Tracking metrics for each prioritized health need include the number of grants made, the number of dollars spent, the number of people reached/served, collaborations and partnerships, and KFH in-kind resources. In addition, KFH-Irvine tracks outcomes, including behavior and health outcomes, as appropriate and where available.

As of the documentation of this CHNA Report in March 2016, KFH-Irvine had evaluation of impact information on activities from 2014 and 2015. While not reflected in this report, KFH-Irvine will continue to monitor impact for strategies implemented in 2016.

B.   2013 Implementation Strategy Evaluation of Impact Overview

In the 2013 IS process, all KFH planned for and drew on a broad array of resources and strategies to improve the health of communities and vulnerable populations, such as grantmaking, in-kind resources, collaborations and partnerships, as well as several internal KFH programs including, charitable health coverage programs, future health professional training programs, and research. Based on years 2014 and 2015, an overall summary of these strategies is below, followed by tables highlighting a subset of activities used to address each prioritized health need.

- **KFH Programs:** From 2014-2015, KFH supported several health care and coverage, workforce training, and research programs to increase access to appropriate and effective health care services and address a wide range of specific community health needs, particularly impacting vulnerable populations. These programs included:

  - **Medicaid:** Medicaid is a federal and state health coverage program for families and individuals with low incomes and limited financial resources. KFH provided services for Medicaid beneficiaries, both members and non-members.
  - **Medical Financial Assistance:** The Medical Financial Assistance (MFA) program provides financial assistance for emergency and medically necessary services, medications, and supplies to patients with a demonstrated financial need. Eligibility is based on prescribed levels of income and expenses.
  - **Charitable Health Coverage:** Charitable Health Coverage (CHC) programs provide health care coverage to low-income individuals and families who have no access to public or private health coverage programs.
  - **Workforce Training:** Supporting a well-trained, culturally competent, and diverse health care workforce helps ensure access to high-quality care. This activity is also essential to making progress in the reduction of health care disparities that persist in most of our communities.
  - **Research:** Deploying a wide range of research methods contributes to building general knowledge for improving health and health care services, including clinical research, health care services research, and epidemiological and translational studies on health care that are generalizable and broadly shared. Conducting high-quality health research and disseminating its findings increases awareness of the changing health needs of diverse communities, addresses health disparities, and improves effective health care delivery and health outcomes.

- **Grant-making:** For 70 years, Kaiser Permanente has shown its commitment to improving Total Community Health through a variety of grants for charitable and community-based organizations. Successful grant applicants fit within funding priorities with work that examines social determinants of health and/or addresses the elimination of health disparities and inequities. From 2014-2015, KFH-Irvine made 31 grant payments, amounting to a total payment of $400,000, in service of 2013 health needs. Additionally, KFH-Irvine has funded significant contributions to a donor advised fund (DAF), managed by the California Community Foundation, in the interest of funding effective long-term, strategic community benefit initiatives. During 2014-2015, a portion of money managed by this foundation was used to support 34 grant payments totaling $4,414,289, in service of 2013 health needs. An illustrative list of active grants is provided in each health need section below.

- **In-Kind Resources:** Kaiser Permanente's commitment to Total Community Health means reaching out far beyond our membership to improve the health of our communities. Volunteerism, community service, and providing technical assistance and expertise to community partners are critical components of Kaiser Permanente's approach to improving the health of all of our communities. From 2014-2015, KFH-Irvine donated several in-kind resources

in service of 2013 Implementation Strategies and health needs; an illustrative list is provided in each health need section below.

- **Collaborations and Partnerships:** Kaiser Permanente has a long legacy of sharing its most valuable resources: its knowledge and talented professionals. By working together with partners (including nonprofit organizations, government entities, and academic institutions), these collaborations and partnerships can make a difference in promoting thriving communities that produce healthier, happier, more productive people. From 2014-2015, KFH-Irvine engaged in several partnerships and collaborations in service of 2013 Implementation Strategies and health needs; an illustrative list is provided in each health need section below.

C. 2013 Implementation Strategy Evaluation of Impact by Health Need

KFH-Irvine Priority Health Need: Access to Care

Long-term Goal
- Increase the number of Orange County residents who have access to appropriate, high-quality health care services

Intermediate Goals
- Increased access to and capacity of the overall system of safety-net care in Orange County
- Increased access to quality, culturally competent clinical care among underserved populations
- Increased number of underserved individuals who have access to a medical home

Access to Care KFH Administered Program Highlights		
KFH Program Name	**KFH Program Descriptions**	**Results to Date**
Medicaid	Medicaid is a federal and state health coverage program for families and individuals with low incomes and limited financial resources. KFH provided services for Medicaid beneficiaries, both members and non-members.	• In 2014, $3,555,640 was spent on the Medicaid program and 10,589 Medi-Cal managed care members were served • In 2015, $4,648,205 was spent on the Medicaid program and 14,390 Medi-Cal managed care members were served
Medical Financial Assistance	The Medical Financial Assistance (MFA) program provides financial assistance for emergency and medically necessary services, medications, and supplies to patients with a demonstrated financial need. Eligibility is based on prescribed levels of income and expenses.	• In 2014, $1,234,007 was expended for 900 MFA recipients • In 2015, $484,875 was expended for 928 MFA recipients

Charitable Health Coverage	Charitable Health Coverage (CHC) programs provide health care coverage to low-income individuals and families who have no access to public or private health coverage programs.	• In 2014, $1,129,002 was spent on the CHC program and 2,470 individuals received CHC • In 2015, $1,312,434 was spent on the CHC program and 2,529 individuals received CHC

Access to Care **Grant-Making Highlights**		
Grant-Making Snapshot During 2014-2015, there were 6 KFH grant payments, totaling $85,000, addressing the priority health need in the KFH-Irvine service area. In addition, a portion of the money managed by a donor advised fund (DAF)[1], The California Community Foundation, was used to pay 15 grants, totaling $1,537,000; DAF grants are denoted by asterisks (*). Donor advised fund (DAF) grants may cover multiple KFH service areas and address multiple health needs. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.		

Grantee	Grant Amount	Project Description	Results to Date
Insure the Uninsured Project	$75,000*	Insure the Uninsured Project (ITUP) received funding to focus on educating consumers and stakeholders on health reform as well as Outreach, Enrollment, Retention and Utilization (OERU) strategies for the uninsured.	ITUP will convene its statewide and regional workgroups to build consensus and engage local leaders to focus on region specific issues that will address the health outcomes of the newly insured and disseminate its non-partisan reports on statewide and local issues. Annually, ITUP will host at least 18 meetings—six statewide issue workgroups, ten regional workgroups, two Los Angeles Health Collaborative meetings, and legislative briefings—as well as produce twenty-five research reports on coverage efforts for the uninsured, health reform implementation strategies, and findings from statewide and regional workgroups, annually.
Coalition of Orange County Community Clinics	$150,000*	The Coalition of Orange County Community Clinics received funding to focus on access and member services as defined in their 2013-2016 strategic plan that emphasizes long term sustainability of its member base and documenting its value for members.	To date, the Coalition has conducted a survey of the 12 Federally Qualified Health Centers in its membership. A total of 10 topics were most frequently cited by respondents as both urgent and non-urgent. The Coalition has worked with third-party consultants to design a cost-effective and informative technical assistance program whereby interested health

Grantee	Grant Amount	Project Description	Results to Date
			centers may combine proposals where there are similar needs for services. Additionally, the Coalition has compiled a list of 21 projected consultants that may provide services to its members across multiple disciplines/area needs. To date, three health centers have engaged consultants from this work to support their needs around FQHC site visits and policies and procedure development. The Coalition is also assisting four member health centers achieve Patient Centered Medical Home (PCMH) recognition.
Community Partners	$512,500*	Please see description for the Specialty Care Initiative under Impact of Regional Initiatives.	Please see description for the Specialty Care Initiative under Impact of Regional Initiatives.
Community Clinics Health Network	$175,000*	Please see description for the ALL HEART program under Impact of Regional Initiatives.	Please see description for the ALL HEART program under Impact of Regional Initiatives.
Share Our Selves Corporation	$10,000	Increasing access to care via SOS Community Health Center and SOS PEACE Center Health Clinic providing comprehensive integrated healthcare across the life spectrum to those who otherwise lack that access.	Two clinic sites have increased access to care by expanding hours, increasing services, and improving process. For example, the Costa Mesa medical clinic was able to expand its Monday through Thursday operating hours to serve patients during non-traditional times (until 7 PM). During the grant period, the site was able to increase productivity by 53% and reduce its no-show rate by 16% through implementing reminder calls and ensuring patients were able to get to the clinic. By implementing a chart management system, the Lake Forest clinic increased access during the grant term and has a 17% no-show rate and an 80% utilization rate which is an improvement over baseline. In addition, this clinic increased access to specialty care as noted in the Well Woman program where the clinic provided 219 well

Grantee	Grant Amount	Project Description	Results to Date
			women encounters and completed 209 screenings for mammograms. Financially, process improvement across all centers accounted for not only meeting target, but exceeding it by $20.00 per encounter which is below state and national averages.
Healthy Smiles for Kids of Orange County	$15,000	The project is aimed at preventing and treating oral disease by providing education and care services via a mobile clinic to high risk children living in areas of limited access.	This program was able to provide preventive oral health care to students in 48 schools through 61 visits in Orange County. Additionally, the mobile units attended 19 organizations every weekend throughout the year to treat community members. The Prevention Team screened more than 9,500 children with 7,800 children receiving fluoride and 4,000 children having 12,000 sealants applied, exceeding the target number of the grant. During the grant period, the Outreach and Prevention staff has provided education to 29,705 children, 1,210 teachers and 518 parents at schools and community events.
Hurtt Family Health Clinic, Inc.	$15,000	The Prescription Assistance Program is designed to assist uninsured, extremely low income or homeless populations with the cost of medications in order to improve health outcomes.	The Hurtt Family Health Clinic was able to provide a total of 3,505 medications to 1,001 individuals during the grant period through the Prescription Assistance Program. Most individuals who participated in the program were under the Federal Poverty Level and about one third were uninsured. All program participants received medications at an estimated 3.5 medications per individual and an average cost of $12.50 per medication.

Access to Care In-Kind Resources Highlights	
Recipient	Description of Contribution and Purpose/Goals
Latino Health Access, Illumination Foundation and Clinic in the Park	Health education was provided to 75 parents and children for Clinic in the Park in December by Kaiser Permanente Orange County community medicine fellow, Dr. Melgar. Education was provided to parents and children on nutrition and physical education. Dr. Melgar worked alongside Latino

Recipient	Description of Contribution and Purpose/Goals
	Health Access Promotores regarding their Diabetes Self-Management Program. A subset of thirty (30) patients have been monitored more closely with more frequent visits from the promotores. The patients have also requested to be seen by the same physician when in seeing a physician in the program. This will allow the patients to get to know the provider better with the goal of the provider understanding the patient and their social life/barriers. Dr. Melgar consulted with Illumination Foundation on a mobile clinic for seeing homeless individuals at the Civic Center in Santa Ana.
AccessOC	Twenty-five uninsured community members received free outpatient surgeries through a partnership between Access OC and Kaiser Permanente Orange County on Saturday, May 17, 2015 at the Kaiser Permanente Anaheim Medical Center campus. Access OC is a non-profit program mobilizing medical volunteers to provide free surgeries to the uninsured. This was Kaiser Permanente's 13th "Free Surgery Day" with Access OC.

Impact of Regional Initiatives Addressing Access to Care

In addition to the illustrated grants listed above, Kaiser Permanente designs Regional Health Initiatives that are implemented in one or more KFH service areas to address the priority health needs. These initiatives are multi-year investments that support policy, advocacy and/or system changes in communities, including support for clinic systems to enhance capacity, service provision and or coordination. Kaiser Permanente invests in external evaluation for Regional Health Initiatives, and where possible, the results to date will reflect the most recent evaluation findings.

Kaiser Permanente's Building Clinic Capacity for Quality (BCCQ) initiative aims to improve the quality of health care provided to Southern Californians by enhancing the capacity of community clinics to implement Quality Improvement (QI) strategies that are supported by health information technology (HIT). The overall goals of BCCQ are to increase the capacity of participating community clinics and to advance community clinics' implementation of HIT. In order to accomplish these goals, Kaiser Permanente funded a project office (Community Partners) to develop and implement a three series training program designed to reach clinics that were at different levels of QI experience and capacity. Additionally, the project office piloted the Proactive Office Encounter (POE) program to translate a promising practice from Kaiser Permanente to community clinics. POE is a model of planned care that uses clinical care guidelines, patient data, and team and practice organization to proactively ensure all patient needs are met. Clinics were recruited to participate in BCCQ in Los Angeles, Orange, and San Diego Counties. BCCQ also engaged with the Riverside County Health System by implementing a tailored program. To date, KPSC CB has invested a total of three (3) grants, amounting to $3,500,000 to support this initiative. (Note that this initiative continued to operate in 2014 and 2015, although no grant amounts were paid for these years).

Over 40 community clinics participated in this program and developed projects focused on improving areas such as cancer and LDL screening, patient wait times, diabetes self-management, no-show rates, scheduling and appointments, care team guidelines and protocols, and medication management (among others). To date, participating clinics have reported satisfactory progress against their stated project goals. Among clinics participating in POE, most are indicating improvements in areas such as clinic and operational outcomes, data, and ability to provide high quality pro-active care, including improved preventive health services.

Kaiser Permanente's Specialty Care Initiative aims to increase access to healthcare services for the underserved through the development and enhancement of specialty care access. In order to achieve this goal, Kaiser Permanente funded technical assistance through Community Partners to implement a coalition approach, where various partners collaborated to develop and implement strategies tailored to their communities in Southern California. These strategies focused on instituting and enhancing referral processes, building and expanding specialty care networks, increasing primary care physicians' capacity, and utilizing care coordination in the safety net. This multi-year initiative was launched in 2007 and to date a total of over $4,953,000 were awarded and paid to community based agencies across Southern California to support specialty care access. In order to increase the capacity of primary care physicians (PCPs), the Access OC Coalition purchased and developed an eConsult system, which enables PCPs to access guidelines that have been uploaded by specialists and communicate with specialists via secure email.

ALL HEART - In 2006, Kaiser Permanente's Southern California Community Benefit (KPSC CB) began the translation of KP's evidence-based cardiovascular disease (CVD) risk-reduction program across the safety net organizations in Southern California through a program called ALL (Aspirin, Lisinopril, and Lipid lowering medications). As a result of receiving the James A. Vohs Award for Quality in 2011, Kaiser Permanente Southern California selected the Community Clinic Health Network (CCHN) to serve as a Project Office to further translate the ALL protocol across the Southern California Region. The program was renamed to ALL HEART (Heart Smart Diet, Exercise, Alcohol limits, Rx Medicine compliance, and Tobacco cessation) to include lifestyle measures that were also included in this program. CCHN continues to enroll community health centers across Southern California into the ALL HEART Program. To date, KPSC CB has invested a total of six (6) grants, amounting to $1,220,000 to support this initiative. This current two year grant began in 2015 and the focus will be on the diabetic and/or hypertension population. The ALL HEART program will also continue its pilot projects around behavioral health integration and clinic to community linkages.

CCHN has exceeded reach targets for ALL HEART, reaching over 35,000 patients served by 14 health centers and 75 clinic sites in Southern California. Based on the results of an evaluation of a cohort of 11 health centers in San Diego County, ALL HEART has built health center capacity to successfully implement and institutionalize the ALL medication protocol and most participating health centers improved blood pressure control among their patients, potentially reducing the risks associated with cardiovascular disease. Furthermore, Health Centers built their capacity to engage in population health management and to align with other national initiatives, such as Patient Centered Medical Home (PCMH) and Meaningful Use. Successful implementation of ALL HEART was driven by several HEAL Center characteristics, including data & IT systems, dedicated staffing, leadership buy-in, quality improvement infrastructure, and adequate time and space.

KFH-Irvine Priority Health Need: Economic Instability

Long-term Goals
- Reduce health inequity by ensuring more residents have an equal opportunity to reach their full potential
- Relieve burden of poverty by decreasing food insecurity and associated health risk factors among vulnerable populations
- Prevent homelessness and improve access to affordable housing among low-income individuals

Intermediate Goals
- Increased educational attainment and training opportunities among underserved populations

- Increased awareness and utilization of existing food assistance resources among low-income individuals - Maintain and expand availability of existing resources for individuals in crisis relying on short-term housing solutions		

**Economic Instability
Grant-Making Highlights**

Grant-Making Snapshot During 2014-2015, there were 8 KFH grant payments, totaling $115,000, addressing the priority health need in the KFH-Irvine service area. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded. Grants supporting economic security may include grants that address workforce (see section below under Healthcare Needs).

Grantee	Grant Amount	Project Description	Results to Date
Oak View Renewal Partnership	$15,000	OVRP's Workforce Development Initiative provides neighborhood-based job readiness and training programs to the low-income, historically underserved community of Oak View in Huntington Beach.	From January 2014-June 2015, Oak View Renewal Partnership (OVRP) successfully placed 50 participants into jobs and provided job training support for 55 participants. In addition, more than 100 participants were provided Micro-enterprise and Workforce development services over the last year. To help spread computer literacy in the community, OVRP trained 5 residents in technology and entrepreneurial skills. These residents currently facilitate classes in the community to train their fellow residents in computer literacy reaching about 230 residents to date.
Working Wardrobes for a New Start	$15,000	VetNet addresses the high rate of unemployment and employability barriers faced by military veterans and their families by providing them with support and resources to identify and maintain employment.	In 2014, 582 veterans were served (16.4% above the goal of 500) with 82% completing their individual programs. This program was able to get needed wrap-around services including case management, transitional services, workforce development, and job placement and retention assistance to 200 veterans. Of this group, 73% received industry-specific training in addition to customer service training and 60% are currently employed with 72% retaining their jobs after 90 days. Most of the remaining veterans were not ready for these intensive services or employment and are currently receiving additional supportive services.
Families Forward	$15,000	Families Forward's Housing Program provides housing and	Families Forward was successful in meeting all of the grant objectives listed.

Grantee	Grant Amount	Project Description	Results to Date
		supportive services to homeless and near-homeless Orange County families with dependent children with the overarching goal of families becoming sustainably self-sufficient.	That is, 113 families (166 adults and 242 children) were linked to affordable, permanent housing and 95% of the families that graduated from the Housing Program secured and maintained stable housing upon completion. In addition, 77% of parents were able to either maintain or increase their income in order to maintain stability for their children.

Economic Instability Collaboration/Partnership Highlights		
Organization/Collaborative Name	**Collaborative/Partnership Goal**	**Results to Date**
Commission to End Homelessness, Prevention and Outreach Subcommittees	The Commission aims to promote best practices, monitor outcomes, and report results on the success of the Ten-Year Plan to end Homelessness.	KFH-Anaheim and KFH-Irvine have participated in prevention and outreach subcommittee meetings and provided volunteers to the coalition efforts. Due to the collaborative efforts of the Continuum of Care system and the public/private partnerships that have developed, Orange County has been awarded over $169.9 million in SuperNOFA Continuum of Care Homeless Assistance Grant funds from 1996-2012.

Economic Instability In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
OC Food Access Coalition, Waste Not OC Collaborative, Second Harvest Food Bank	One hundred fifty KP employees and SCPMG physician partners volunteered 425 hours to food assistance programs, including: Giving Children Hope, Second Harvest Food Bank, and the Harvest Club of Orange County. On July 19, thirty KP volunteers harvested 1,400 pounds of oranges from a back yard grower in partnership with the Harvest Club. Oranges were delivered that day to a local food pantry to be distributed to families in need. CB staff attended Orange County Food Access Coalition meetings (2/2) and six policy/advocacy subcommittee meetings in 2014. CB Staff met with the Public Health Officer for OC and Waste Not OC Coalition to begin the development of a food recovery project in the Orange County service area, which launched in November (Irvine Medical Center.) To date, 2,218 pounds of food have been recovered from our KFH-Irvine Medical Center facility, which is equivalent to 1,848 meals.

<u>KFH-Irvine Priority Health Need: Mental Health</u>

Long-term Goals
- Prevent and treat mental illness and associated substance abuse among vulnerable populations in Orange County
- Minimize the risk of mental illness and initiation of controlled substance use
- Prevent and treat mental illness and associated substance abuse among those exposed to violence or trauma

Intermediate Goals
¬ Improved detection and management of mental health symptoms among elderly adults
¬ Improved social supports and connection to community-based mental health services for members of the Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) population experiencing mental health disorders
¬ Strengthen the resilience of youth in the context of their family and leaning environments
¬ Decreased risk for prescription drug addiction as an increased number of community clinic patients access appropriate pain treatment
¬ Reduce the harmful mental health impacts of violence and trauma among victims of domestic violence and child maltreatment as well as veterans and the formerly incarcerated population

Mental Health Grant-Making Highlights

Grant-Making Snapshot During 2014-2015, there were 12 KFH grant payments, totaling $145,000, addressing the priority health need in the KFH-Irvine service area. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.

Grantee	Grant Amount	Project Description	Results to Date
Strength in Support	$10,000	SIS provides mental health services to veterans and their families, addressing their challenges in a timely, competent, and supportive manner.	Strength in Support was able to increase access to mental/behavioral health services and improve quality of life in the military community by reaching 499 individuals. Almost 9 in 10 participants (85%) reported an overall improvement in their well-being. Of those who presented with suicidal or homicidal ideation, 75% reported a decrease in these thoughts. In addition, this program connected 98% of their clients to needed community partners and offered six educational workshops to promote job readiness and financial literacy.
Western Youth Services	$10,000	SCHS Wellness and Prevention Program provides an on campus social worker up to 20 hours per week who offers prevention and individually tailored mental health services to students and families.	The program was able to contribute to (a) improved protective factors in teen clients who consistently received treatment with parents, (b) a 50% decrease in suspension rates for substance abuse over the grant period, and (c) an almost doubled increase in volunteer participation in monthly coalition meetings. In addition, the program held two large community events in the Fall (159

Grantee	Grant Amount	Project Description	Results to Date
			attendees) and Spring (277 attendees) to help educate the community.
AIDS Services Foundation of Orange County	$10,000	The Latino Mental Health Services for Women and Families serves monolingual Spanish-speaking women and their families who are both infected and affected by HIV in Orange County.	To date, all expected targets have been met. For instance, 88% of clients and family members demonstrated moderate to significant progress on their ASF Mental Health Treatment Plan in the areas of depression, anxiety, low self-esteem, anger, and strategies to address domestic progress. Moreover, 96% of clients who participate in the support group reported that they experienced a reduction in stress related to HIV disease, an increase in their coping skills, and an improved quality of life as a result of the mental health services they received. In addition, the program was able to coordinate transportation for all clients in need to ensure they attended support groups, counseling sessions, and other activities outlined in their Mental Health Treatment Plan.

Mental Health In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Caregiver Resource Center	KFH-Irvine provided free meeting room space for classes and support groups that improve social support for the elderly and their caregivers.
Human Options, Orange County Family Justice Center Foundation, Orange County Women's Health Project	KFH-Anaheim and KFH-Irvine employees donated their time and organizational expertise by serving on boards whose focus was on domestic violence services. Mary Jo-Mursa, Assistant Medical Group Administrator serves on the board of directors for Human Options. Cheryl Vargo, Community Benefit Manager, serves on the board of directors for the Orange County Family Justice Center Foundation. Cheryl Vargo and Dr. Liza Eshilian-Oates, regional physician leader for the Family Violence Prevention Program, serve on the Orange County Women's Health Project – Health and Domestic Violence taskforce.

KFH-Irvine Priority Health Need: Obesity/Overweight

Long-term Goals
- Reduce obesity/overweight among vulnerable Orange County residents

Intermediate Goals
- Increase healthy eating among youth and economically vulnerable residents

- Increase active living among youth and economically vulnerable residents - Improve weight management skills for overweight/obese and diabetic patients	

Obesity/Overweight **Grant-Making Highlights**
Grant-Making Snapshot During 2014-2015, there were 4 KFH grant payments, totaling $45,000, addressing the priority health need in the KFH-Irvine service area. In addition, a portion of the money managed by a donor advised fund (DAF)[1], the California Community Foundation, was used to pay 15 grants, totaling $1,676,789; DAF grants are denoted by asterisks (*). Donor advised fund (DAF) grants may cover multiple KFH service areas and address multiple health needs. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.

Grantee	Grant Amount	Project Description	Results to Date
Dr. Riba's Health Club OneOC	$25,000*	OneOC serves as the fiscal agent for Dr. Riba's Health Club to provide clinical care, nutrition education, and physical activity opportunities to low-income overweight or obese children in Orange County.	To date, Dr. Riba's Health Club provided 4,000 low-income youth with prevention and treatment services through the health club, fit club, and nutrition education programs resulting in healthier lifestyles.
Council Of Orange County Society Of St Vincent De Paul (Second Harvest)	$47,500*	The Promoting Healthy Eating and CalFresh project seeks to alleviate food insecurity for low-income individuals in Orange County by developing policy changes to increase the nutritive quality of the food, procure and distribute produce, and perform CalFresh Program outreach and enrollment.	Second Harvest's Programs and Policy Department drafted a comprehensive nutrition policy that outlines healthy foods to encourage people to donate, foods to discourage, and foods that will not be purchased by the organizations. To date, Second Harvest acquired more than 4,125,000 pounds of food through Farm to Family Program. They have restructured their CalFresh outreach program and prescreened over 1,300 families, and assisted 648 families with their CalFresh applications.
Orange County Department of Education (OCDE)	$15,000	This Thriving Schools project aims to a) revise, implement, and monitor a district wellness policy (specifically physical activity language), b) offer more physical activity opportunities during the school day and in the community, and d) implement a staff wellness program.	To date, the Department of Education has established a master Master Fit Kid Teacher Schedule for each site that enables teachers to offer more physical activity opportunities for students, b) hired 4 noon aides to support active recess, and c) revised the wellness policy to include stronger language around physical education (PE). This project is being implemented in three (3) Elementary Schools, and potentially reaches 1,730 students.

Grantee	Grant Amount	Project Description	Results to Date
Pretend City, The Children's Museum of Orange County	$10,000	Strive to Thrive scholarship field trips will educate children, families, and schools about nutrition, exercise, and provide BMI screenings, parent information, and teacher curriculum.	Pretend City Children's Museum educated approximately 1,000 students and 200 adult chaperones about nutrition and exercise. In addition, Pretend City was able to provide health screenings to 965 field trip students which allowed guardians to identify whether their children were at an unhealthy weight. Schools with 30% or more of their students who fell within the overweight or obese category were given information on community resources.
Orange County Department of Education	$15,000	Healthy OC will provide OC residents with the skills, knowledge, and tools needed to make choices in physical activity that lead to positive health outcomes.	In order to increase healthy eating and active living, the Department of Education in Orange county educated its teachers and students. For example, more than 90% of a sample of Orange County teachers were using county tools and resources which led to teachers providing up to 100 minutes of student physical education per week. For students, 16 schools from 8 school districts received the Traveling Scientist STEP program.
Girl Scouts of Orange County	$10,000	Comadres serves over 900 girls in low-income communities. Through your funding, these girls will develop healthy living skills and learn about the importance of eating right and staying active.	Girls of all ages successfully completed both their healthy living and cooking badges, encouraging them and giving them the skills to live a healthy and active lifestyle. In addition to the improvement in nutrition and increase in activities among the girls, some participants noted impacts in entire family units in eating better and being more active.
Obesity/Overweight Collaboration/Partnership Highlights			
Organization/Collaborative Name	**Collaborative/Partnership Goal**		**Results to Date**
Alliance for a Healthy Orange County	AHOC is a county-wide collaborative whose mission is to champion policy strategies and leverage funding opportunities that result in enhanced		KFH-Anaheim and KFH-Irvine have attended coalition meetings, supported strategic planning, and provided

Organization/Collaborative Name	Collaborative/Partnership Goal	Results to Date
	health outcomes and reduced health disparities for Orange County residents.	volunteers for the Alliance for a Healthy Orange County (AHOC). The collaborative continues to work with cities to collaborate and coordinate with regional and county organizations, such as the Orange County Transportation Authority, the Southern California Association of Governments, and Caltrans. AHOC has played a lead role in advocating for active transportation on a regional level which has led to increased funding for Orange County's built environment: Fifteen cities were awarded $40,860,000 and an additional $2.1 million has been awarded for planning. In addition, AHOC piloted its first Active Transportation Leadership Project in Santa Ana in partnership with Santa Ana Active Streets.

PRIORITY HEALTH NEED V: BROADER HEALTH CARE SYSTEM NEEDS IN OUR COMMUNITIES – WORKFORCE

KFH Workforce Development Highlights
Long Term Goal: • To address health care workforce shortages and cultural and linguistic disparities in the health care workforce
Intermediate Goal: • Increase the number of skilled, culturally competent, diverse professionals working in and entering the health care workforce to provide access to quality, culturally relevant care
Summary of Impact: During 2014-2015, there was one (1) grant payment totaling $10,000 addressing the priority health need. Additionally, a portion of money managed by a donor advised fund at California Community Foundation was used to pay two grants, totaling $150,000, that address this need. An illustrative sample of grants is provided below; DAF grants are denoted by asterisks (*).All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded. KFH-Irvine also provided trainings and education for 12 residents in its Graduate Medical Education program, 15 nurse practitioner or other nursing beneficiaries, and 20 other health (non-MD) beneficiaries.

Grant Highlights			
Grantee	**Grant Amount**	**Project Description**	**Results to Date**

California Institute for Nursing and Health Care (CINHC)	$100,000*	To provide expert technical assistance to registered nursing programs at California state universities (CSUs) and their identified California community college (CCC) partners in Southern California. It will also help schools implement an associate degree to a bachelor of science in nursing pathway, facilitating fast tracking and efficient implementation of the California Collaborative Model of Nursing Education (CCMNE).	CINHC will facilitate engagement and partnership to develop, implement, and sustain the CCMNE across all 10 CSU's and respective CCC's. CINHC will engage interested private universities and colleges within the region, including deans, directors, and faculty. Lastly, CINHC will conduct a curriculum review, mapping process, and development of integrated pathways based on prior success strategies that are consistent with evidence based models.
Campaign for College Opportunity (CCO)	$50,000*	This grant supports an in-depth research report to analyze trends in California science, technology, engineering, and math (STEM)/health workforce needs. The STEM/Health Workforce Report will focus on factors affecting demand and supply; public higher education funding policies; and programs to help meet workforce demands. This grant supports an in-depth research report to analyze trends in California science, technology, engineering, and math (STEM)/health workforce needs. The STEM/Health Workforce Report will focus on factors affecting demand and supply; public higher education funding policies; and programs to help meet workforce demands.	The Campaign for College Opportunity will develop and disseminate the STEM/Health Workforce Report to increase awareness among the public and policymakers of the growing need for STEM health workers in California and the role California community colleges play in filing the demand. CCO has completed the report and the general release will occur in June 2016. The report's release will be accompanied by a media and communications strategy including a webinar, briefings with key stakeholders (in education, business, community and civic organizations) along with policymakers in Sacramento.

In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Individuals and organizations in the health care and	Kaiser Permanente Southern California Region's Department of Professional Education offered Advanced Practice and Allied Health Care Educational Programs for allied health care providers throughout Southern California. In 2015, across Kaiser Permanente Southern California Region, 644 community-based nurses, nurse practitioners, physician assistants, imaging professionals, clinical

medical workforce.	laboratory scientists, community audiologists and speech pathologists, and other health care professionals participated in symposia at no cost.

PRIORITY HEALTH NEED VI: BROADER HEALTH CARE SYSTEM NEEDS IN OUR COMMUNITIES – RESEARCH

KFH Research Highlights
Long Term Goal: • To increase awareness of the changing health needs of diverse communities
Intermediate Goal: • **I**ncrease access to, and the availability of, relevant public health and clinical care data and research
Summary of Impact: Kaiser Permanente conducts, publishes, and disseminates research to improve the health and medical care of members and the communities served. The Southern California Region Department of Research and Evaluation (DRE) conducted a total of 988 studies in 2014 and 1,404 studies in 2015 across all regional hospitals, totaling $16,385,832. Research focuses on clinical trials, building scientific expertise in health services and policy, and implementation science to bridge the gap between research and practice. In addition, a portion of money managed by a donor advised fund (DAF) at California Community Foundation was used to pay two grants, totaling $1,050,000 that address this need. All grant amounts reflect the amount paid in 2014 or 2015 and may not be reflective of the total grant amount awarded.

Grant Highlights			
Grantee	**Grant Amount**	**Project Description**	**Results to Date**
UCLA Center for Health Policy Research	$500,000*	The California Health Interview Survey (CHIS) investigates key public health and health care policy issues, including health insurance coverage and access to health services, chronic health conditions and their prevention and management, the health of children, working age adults, and the elderly, health care reform, and cost effectiveness of health services delivery models.	At the end of the grant period, UCLA Center for Health Policy Research interviewed approximately 41,500 households and completed 78,127 screenings along with 40,125 adult, 2,255 adolescent and 5,514 child interviews. In addition, 12 AskCHIS online trainings were completed.

In-Kind Resources Highlights	
Recipient	**Description of Contribution and Purpose/Goals**
Individuals and organizations in the health care and medical community.	Kaiser Permanente Southern California Region's Department of Research and Evaluation works closely with national and regional research institutions and universities to provide high-quality health research. In the KFH-Irvine service area, one research project was active in 2014 and 29 research projects were active as of year-end 2015.
Individuals and organizations in the health	Kaiser Permanente Southern California Region's Nursing Research Program provides administrative and technical support for nurses to conduct, publish and disseminate research studies and evidence based practice projects. In the KFH-

care and medical community.	Irvine service area, six research projects were active as of year-end 2014 and five research projects were active as of year-end 2015.

VIII. APPENDIX

A. Secondary Data Sources and Dates

i. Quantitative Secondary Data Sources

1) California Department of Education. 2012-2013.
2) California Department of Education. 2013.
3) California Department of Education, FITNESSGRAM®; Physical Fitness Testing. 2013-2014.
4) California Department of Public Health, CDPH – Birth Profiles by ZIP Code. 2011.
5) California Department of Public Health, CDPH – Breastfeeding Statistics. 2012.
6) California Department of Public Health, CDPH – Death Public Use Data. University of Missouri, Center for Applied Research and Environmental Systems. 2010-2012.
7) California Department of Public Health, CDPH – Tracking. 2005-2012.
8) California Office of Statewide Health Planning and Development, OSHPD Patient Discharge Data. 2011.
9) Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2010.
10) Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2012.
11) Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-2012.
12) Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2005-2009.
13) Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-2012.
14) Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012.
15) Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. US Department of Health & Human Services, Health Indicators Warehouse. 2010.
16) Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. US Department of Health & Human Services, Health Indicators Warehouse. 2012.
17) Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network. 2008.
18) Centers for Disease Control and Prevention, National Vital Statistics System. Centers for Disease Control and Prevention, Wide Ranging Online Data for Epidemiologic Research. 2006-2010.
19) Centers for Disease Control and Prevention, National Vital Statistics System. Centers for Disease Control and Prevention, Wide Ranging Online Data for Epidemiologic Research. 2007-2010.
20) Centers for Disease Control and Prevention, National Vital Statistics System. Centers for Disease Control and Prevention, Wide Ranging Online Data for Epidemiologic Research. 2007-2011.
21) Centers for Disease Control and Prevention, National Vital Statistics System. University of Wisconsin Population Health Institute, County Health Rankings. 2008-2010.
22) Centers for Disease Control and Prevention, National Vital Statistics System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-2012.
23) Centers for Medicare and Medicaid Services. 2012.
24) Child and Adolescent Health Measurement Initiative, National Survey of Children's Health. 2011-2012.

25) Dartmouth College Institute for Health Policy & Clinical Practice. Dartmouth Atlas of Health Care. 2012.
26) Environmental Protection Agency, EPA Smart Location Database. 2011.
27) Federal Bureau of Investigation, FBI Uniform Crime Reports. 2010-2012.
28) Feeding America. 2012.
29) Multi-Resolution Land Characteristics Consortium, National Land Cover Database. 2011.
30) National Center for Education Statistics, NCES – Common Core of Data. 2012-2013.
31) National Oceanic and Atmospheric Administration, North America Land Data Assimilation System (NLDAS). 2014.
32) New America Foundation, Federal Education Budget Project. 2011.
33) Nielsen, Nielsen Site Reports. 2014.
34) State Cancer Profiles. National Institutes of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results Program. 2007-2011.
35) University of California Center for Health Policy Research, California Health Interview Survey. 2009.
36) University of California Center for Health Policy Research, California Health Interview Survey. 2012.
37) University of Wisconsin Population Health Institute, County Health Rankings. 2012-2013.
38) University of Wisconsin Population Health Institute, County Health Rankings. 2014.
39) US Census Bureau, American Community Survey. 2009-2013.
40) US Census Bureau, American Housing Survey. 2011, 2013.
41) US Census Bureau, County Business Patterns. 2011.
42) US Census Bureau, County Business Patterns. 2012.
43) US Census Bureau, County Business Patterns. 2013.
44) US Census Bureau, Decennial Census. 2000-2010.
45) US Census Bureau, Decennial Census, ESRI Map Gallery. 2010.
46) US Census Bureau, Small Area Income & Poverty Estimates. 2010.
47) US Department of Agriculture, Economic Research Service, USDA – Food Access Research Atlas. 2010.
48) US Department of Agriculture, Economic Research Service, USDA – Food Environment Atlas. 2011.
49) US Department of Agriculture, Economic Research Service, USDA – Child Nutrition Program. 2013.
50) US Department of Education, EDFacts. 2011-2012.
51) US Department of Health & Human Services, Administration for Children and Families. 2014.
52) US Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File. June 2014.
53) US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2012.
54) US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2013.
55) US Department of Health & Human Services, Health Resources and Services Administration, Health Professional Shortage Areas. March 2015.
56) US Department of Housing and Urban Development. 2013.
57) US Department of Labor, Bureau of Labor Statistics. June 2015.
58) US Department of Transportation, National Highway Traffic Safety Administration, Fatality Analysis Reporting System. 2011-2013.
59) US Drought Monitor. 2012-2014

ii. Secondary Literature

1) Asian Americans Advancing Justice—Orange County; Orange County Asian and Pacific Islander Community Alliance. (2014). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County*. Orange County.
2) Children & Families Commission of Orange County et al. *Orange County Community Indicators 2015 Report*.
3) Children & Families Commission of Orange County. Children's Oral Health Policy Brief. January 2015.
4) Children & Families Commission of Orange County. Supporting Children's Health in Orange County Policy Brief. September 2013.
5) Orange County Communities Organized for Responsible Development. (2015). *More jobs, less opportunity: Economic growth in Orange County.* Garden Grove.
6) Orange County Children's Partnership. (2014). *Conditions of Children in Orange County* (20th ed.). Orange County.
7) Orange County Health Care Agency et al. (2012). *Healthy places, healthy people: Snapshots of where we live, learn, work, and play*. Orange County.
8) Orange County Health Care Agency, *Orange County Health Improvement Plan* (2014).
9) OCHCA & Sherrif-Coroner. *Risk Factors for Teen Self-Inflicted Injury & Suicide in Orange County.* May 2015.
10) OCHCA. *Orange County Healthier Together*. Website.
11) OCHCA. *Alcohol & Other Drug Use Report: 2012 Survey of Adults.*
12) Vietnamese Community of Orange County. Harmony in Healthcare: A Resource Guide for Culturally Appropriate Care of Vietnamese Americans.

B. Community Input Tracking Form

CHNA Stakeholder List

ID	Location	Identification Phase KII=key informant FG=focus group **Prioritization Phase** TH=town hall	Organization	**a** = public health employee **b** = medically underserved **c** = minority population **d** = low-income population	**A** = community leader **B** = community representative **C** = community member	Date
1	Both	KII	Community Health Initiative of Orange County	b,c,d	A	10/1/15
2	Both	KII	Health Promotion Division, Orange County Healthcare Agency	a,b,c,d	A	10/12/15
3	Both	FG/TH	LGBT Center Orange County	b,c,d	B	10.20.15, 1.14.16
4	Anaheim	TH	OCAPICA	c,d	B	1.14.16
5	Both	KII	Orange County Coalition of Community Clinics	b,c,d	A	11.3.15
6	Anaheim	TH	Alliance for a Healthy Orange County	b,c,d	A	1.14.16
7	Both	FG	Vietnamese American Cancer Foundation	b,c,d	C	10/5/15
8	Both	FG	Carolina Gutierrez, Council on Aging	b,c,d	A	10.20.15
9	Both	KII	Kennedy Commission	c,d	A	12.3.15
10	Anaheim	TH	Council on Aging - Orange County	b,c,d	A	1.14.16
11	Anaheim	FG	Taller San Jose/ Hope Builders	b,c,d	A	10/6/15
12	Both	FG/TH	Orange County Food Access	b,d	A	10/6/15, 1.14.16
13	Irvine	FG	America On Track	b,c,d	A	10/9/15
14	Irvine	FG	El Viento Foundation	b,c,d	A	10/9/15
15	Irvine	TH	OCFAC		A	1.15.16
16	Both	KII	Children & Families Commission	b,c,d	A	9/2/15
17	Irvine	TH	Western Youth Services	b,c,d	A	1.15.16
18	Both	FG	Counselor, Shanti Orange County	b,c,d	B	10.20.15
19	Both	FG	Senior Serv	b,c,d	A	10/6/15
20	Both	FG	Alzheimer's Orange County	b,c,d	A	10.20.15
21	Both	FG	OCHCA Public Health	a	A	10.20.15
22	Irvine	TH	Aids Service Foundation	b,c,d	A	1.15.16
23	Anaheim	KII/TH	Director, Community Action Partnership of Orange County	b,c,d	B	9/18/151/14/16
24	Both	KII	Founder, Healthy Smiles, MOMS	b,c,d	B	10/1/15
25	Anaheim	TH	CAPOC	c,d	A	1.14.16
26	Anaheim	TH	Giving Children Hope			1.14.16
27	Irvine	TH	ASF Board Pres	b,c,d	B	1.15.16

28	Both	FG/ TH	Raise Foundation Director	b,c,d	A	10.20.15, 1.15.16
29	Anaheim	TH	Healthy Smiles for Kids of Orange County	b,c,d	A	1.14.16
30	Both	FG	Project Access	b,c,d	A	10/9/15
31	Both	KII	Jamboree Housing	c,d	A	12.3.15
32	Both	FG	Vietnamese American Chamber of Commerce	c,d	B	10/5/15
33	Both	KII	VP Home & Care Services, SeniorServ	b,d	A	10/7/15
34	Anaheim	TH	Cal State Fullerton	c	A	1.14.16
35	Both	KII	OCHCA	a,b,c,d	A	9/3/15
36	Anaheim	TH	Clinic in the Park	b,c,d	A	1.14.16
37	Both	KII	Orange County Healthcare Agency	a,b,c,d	A	10/15/15
38	Anaheim	TH	Alta Med Health Services Corp	b,c,d	A	1.14.16
39	Irvine	KII	Oakview Renewal Partnership	b, c, d	B	9/3/15
40	Both	FG	Bridges Network (CFOC)	b,c,d	B	10/9/15
41	Both	TH/KII	Orange County Healthcare Agency	a	A	9.3.15, 1.14.16, 1.15.16
42	Both	FG	Pacific Islander Health Partnership	b,c,d	B	10/5/15
43	Both	KII	Behavioral Health Navigations, Orange County Healthcare Agency	a	A	10/12/15
44	Both	KII	Division Manager for Family Health, Orange County Healthcare Agency	a,b,d	A	10/13/15
45	Irvine	TH	Tiger Woods Foundation	c,d	A	1.15.16
46	Irvine	TH	Human Options	c,d	A	1.15.16
47	Both	FG	Strength in Support	b,c,d	A	10.20.15
48	Irvine	TH	Oakview Renewal Partnership/CIELO	c,d	A	1.15.16
49	Anaheim	TH	Human Options	c,d	A	1.14.16
50	Both	KII	Orange County Labor Federation	c, d	B	11.3.15
51	Anaheim	TH	St. Jude Medical Center/Senior Services	b,c,d	A	1.14.16
52	Anaheim	TH	Hope Builders	b,c,d	A	1.14.16
53	Anaheim	FG	Tiger Woods Foundation	b,c,d	A	10/6/15
54	Both	FG	California Youth Services	c,d	A	10.20.15
55	Irvine	TH	Friendship Shelter	b,c,d	A	1.15.16
56	Anaheim	TH	Seneca Orange County	c,d	A	1.14.16
57	Irvine	TH	Think Together	c,d	A	1.15.16
58	Anaheim	FG/TH	Kid Healthy	b,c,d	A	10/9/15, 1.15.16
59	Both	KII	Strategic Development, CalOptima	a,d	A	10/13/15

60	Anaheim	TH	Casa Teresa	b,c,d	A	1.14.16
61	Irvine	TH	Inside the Outdoors	c,d	A	1.15.16
62	Anahiem	FG	Eli Home	b,c,d	C	10/6/15
63	Both	FG	Families Forward	b,c,d	A	10/6/15
64	Irvine	TH	Aids Services Foundation	b,c,d	B	1.15.16
65	Anaheim	TH	CAPOC	c,d	B	1.14.16
66	Both	KII	Orange County Dept of Education	c,d	B	11.3.15
67	Both	FG	Orange County Food Bank	b,c,d	B	10/6/15
68	Irvine	FG	Grandma's House of Hope	b,c,d	A	10/6/15
69	Anaheim	TH	MOMS Orange County	b,c,d	A	1.14.16
70	Both	FG	211	b,c,d	B	10/6/15
71	Anaheim	KII	Latino Health Access	b,c,d	B	9/3/15
72	Anaheim	KII	Access California Services	b,c	B	9/18/15
73	Anaheim	TH	The Raise Foundation	c,d	A	1.14.16
74	Anaheim	TH	The Gary Center	c,d	A	1.14.16
75	Anaheim	FG	MOMS	b,c,d	A	10/9/15
76	Both	FG	Illumination Foundation	b, c, d	A	10/6/15
77	Irvine	TH	Aids Services Foundation	b,c,d	B	1.15.16
78	Both	FG	UCI Clinic in the Park	b,c,d	A	10/9/15
79	Irvine	FG	SCO	b, c, d	A	10/6/15
80	Both	FG	Healthy Smiles for Kids, Orange County	b,c,d	A	10/9/15
81	Irvine	TH	Second Harvest Food Bank	b,c,d	A	1.15.16
82	Irvine	TH	Human Options	b,c,d	A	1.15.16
83	Anaheim	TH	Helping Others Prepare for Eternity (H.O.P.E)	b,c	A	1.14.16
84	Both	FG/ TH	Shanti, Orange County (AIDS support services)	b,c,d	A	10.20.15 1.15.16
85	Anaheim	TH	YMCA of Orange County	b,c,d	A	1.14.16
86	Both	FG	Fit to be Kids	b,c,d	A	10/9/15
87	Irvine	TH	Pretend City Museum		A	1.15.16
88	Anaheim	TH	City of Stanton	c,d	C	1.14.16
89	Both	KII	CSUF Deparmentt of Health Science, Board Member OCAPICA	b,c	C	10/2/15
90	Anaheim	TH	Anaheim Community Foundation/City of Anaheim		C	1.14.16
91	Irvine	FG	Western Youth Services	b,c,d	A	10.20.15
92	Both	FG	OCHCA Behavioral Health	a,b,c,d	A	10.20.15
93	Both	TH	OCAPICA	b,c,d	B	1.14.16, 1.15.16
94	Anaheim	TH	St. Jude Mecial Center	b,c,d	A	1.14.16

95	Both	FG	Vietnamese Community of Orange County	b,c,d	B	10/5/15
95	Both	FG	CalOptima	b,c,d	A	10/9/15
97	Both	FG	Orange County Korean American Health Information & Education Center	b, c,	B	10/5/15
98	Both	FG	Human Options	c,d	A	10.20.15

Simplex Method Survey Respondent Demographics

KFH-Anaheim Medical Center Area Respondents (n = 55)		KFH-Irvine Medical Center Area Respondents (n = 35)	
Nonprofit organization or community based organization	n = 41	Nonprofit organization or community based organization	n = 21
Community Resident	n = 5	Community Resident	n = 3
Health Professional	n = 4	Health Professional	n = 3
School employee/Academics	n = 3	Public Health Department staff	n = 3
Business Owner/Business Community	n = 2	Government employees	n = 3
		Social Services staff	n = 2

Populations Served by Agencies Respondents Represent

KFH-Anaheim Medical Center Area Respondents		KFH-Irvine Medical Center Area Respondents	
Low Income Populations	53, 96%	Low Income Populations	32, 91.4%
Minority Communities	42, 76%	Minority Communities	27, 77.1%
Medically Underserved Populations	32, 58%	Medically Underserved Populations	19, 54.3%

C.   Health Need Profiles

     i. Behavioral Health

Behavioral Health

The pervasiveness of mental and behavioral health issues makes an impact on individuals, children, families, and communities—especially those impacted by ongoing stress and trauma. In addition, mental health plays a major role in one's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. Likewise, physical health issues, such as injuries or chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery. Here in Orange County, the Orange County Health Improvement Plan (2014b) identified behavioral health as one of their top four priority action areas in 2014.

In particular, suicide and self-harm are a major concern for the KFH-Irvine Medical Center Area (MCA). This community currently performs worse than the county, the Southern California hospital region, and the state in suicide rates. In fact, the KFH-Irvine MCA rate of 13.68 deaths per 100,000 (Kaiser Permanente CHNA Data Platform, 2015) is worse than the Healthy People 2020 goal of less than 10.2 suicides per 100,000 (OCHIP, 2014b).

For youth, the issue is even more pressing. Suicide is the 2rd leading cause of premature death for Orange County youth ages 15-24, second to unintentional injuries of which accidental poisoning/overdose accounted for most instances (OCHCA &OCSCD, 2015). Additionally, of all teens hospitalized for self-inflicted injuries, 87% had known mental illness diagnoses, the most common ones being episodic mood disorders, substance use disorder, and anxiety/adjustment disorders (OCHCA & OCSCD, 2015). The increasing need for adequate behavioral health services will stress the current system unless it rises to meet the demands of the Orange County population.

Health Outcome Statistics

359,483 — **Adults in the KFH-Anaheim and KFH-Irvine MCAs suffering from poor mental health**

2,580 — **Approximate deaths in the KFH-Anaheim and KFH-Irvine MCAs due to intentional self-harm**
(per 100,000 population, from 2010-2012.)

The number of individuals with poor mental health (a time in the past 12 months when a person felt the need to see a

Suicide Mortality 2010-2012
(per 100,000 population)

mental health professional; Kaiser Permanente CHNA Data Platform, 2015) has increased in Orange County from 12.2% (Kaiser Permanente CHNA, 2013) to 14.9% since 2011(Kaiser Permanente CHNA Data Platform, 2015).

Percent Population with Poor Mental Health, 2013 - 2014

■ KFH-Anaheim MCA	15.00%
■ KFH-Irvine MCA	14.90%
■ SCAL Hospital Region	16.04%
■ CA	15.90%
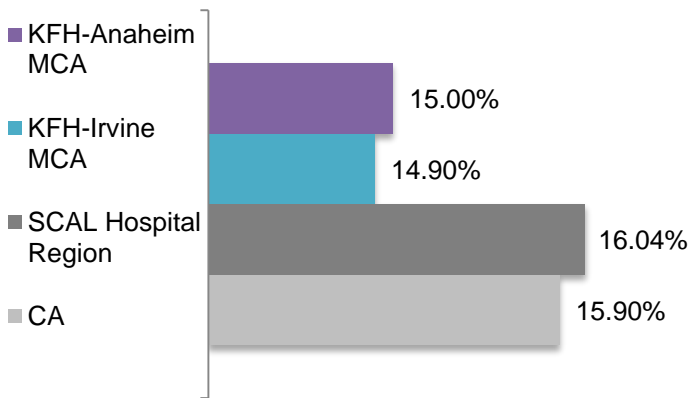
Source: Adults Age 18+ Needing Mental Health Care in Past 1 Year, CHIS 2013-14 (Accessed via Kaiser Permanente CHNA Data Platform, 12/22/15)
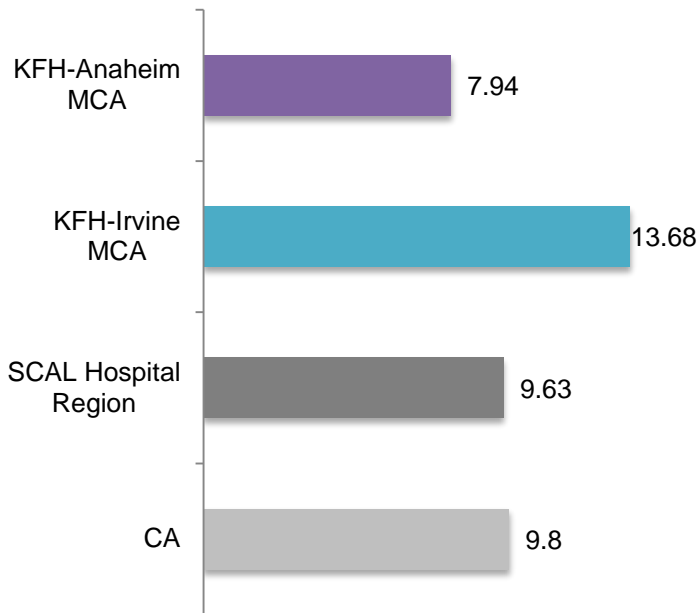
|	
KFH-Anaheim MCA	7.94
KFH-Irvine MCA	13.68
SCAL Hospital Region	9.63
CA	9.8

Source: University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data. 2010-12. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 12/22/15)

Suicide & Self-Inflicted Injury. From 2009-2013, there were 3,613 cases of self-inflicted injury and suicides reported among 10-19 year olds in Orange County combined; sixty-five of which resulted in death. Despite a slight decrease in the number of self-inflicted injury cases from 2009 to 2010, there was a 26.8% increase in the total number of cases from 2010 to 2013 (OCHCA & OCSCD, 2015).

Source: Orange County Health Care Agency (OCHCA) & Orange County Sheriff-Coroner Department (OCSCD). (2015). Risk factors for teen self-inflicted injury and suicide in Orange County. May 2015. p.2.

Total Self-Inflicted/Suicide Cases by Year

2009	2010	2011	2012	2013
691	671	694	722	835
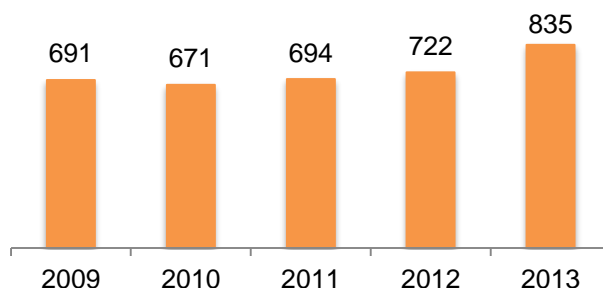
Teen Suicide Mortality and Self-Inflicted Injury Rates. Nearly 71.9% of teen suicide victims (2009 - 2013) demonstrated symptoms of mental illness and 65% were diagnosed with a mental illness. The two most common diagnoses were Depression and Bipolar Disorder. Additionally, from 2009 to 2013, a total of 3,559 incidents of teen self-inflicted cases were treated in Emergency Departments. The overall rate of self-inflicted injury among teens that resulted in a visit to the Emergency Department (2009 - 2013) was 156.3 per 100,000. Rates of self-harm for female teens were almost 2.5 times the rate of male teens (222.4 per 100,000, 92.9 per 100,000, respectively; OCHCA & OCSCD, 2015). From 2003 - 2012, the suicide rate for youth & young adults increased 34%. In addition, the children's hospitalization rate for major depression has increased 28% to 882 youth admitted for major depression or mood disorders, compared to 747 in 2003 (CFCOC et al., 2015). Despite the high incidence of self-harm, Orange County has a low capacity to house and treat youth with serious emotional or mental issues.

Hospitalizations. About 42.5% of self-inflicted injury cases from 2009 - 2013 by Orange County teens required hospitalization. Of those who were diagnosed with mental

Mental Health Hospitalizations Rates (per 10,000 children)

	White	Hispanic	Asian/Pacific

illness disorders (87%), the most common diagnoses were episodic mood disorders, substance use disorder, and anxiety/adjustment disorder. The most common mechanisms of self-inflicted injuries were poisoning and cutting and piercing. Together, they accounted for 88.6% of all teen self-inflicted injuries treated in the emergency department; poisoning occurred in 57.6% of cases while cutting and piercing occurred in 31% of cases. Similarly, a history of substance abuse was indicated in 66% of teen suicide cases (OCHCA & OCSCD, 2015).
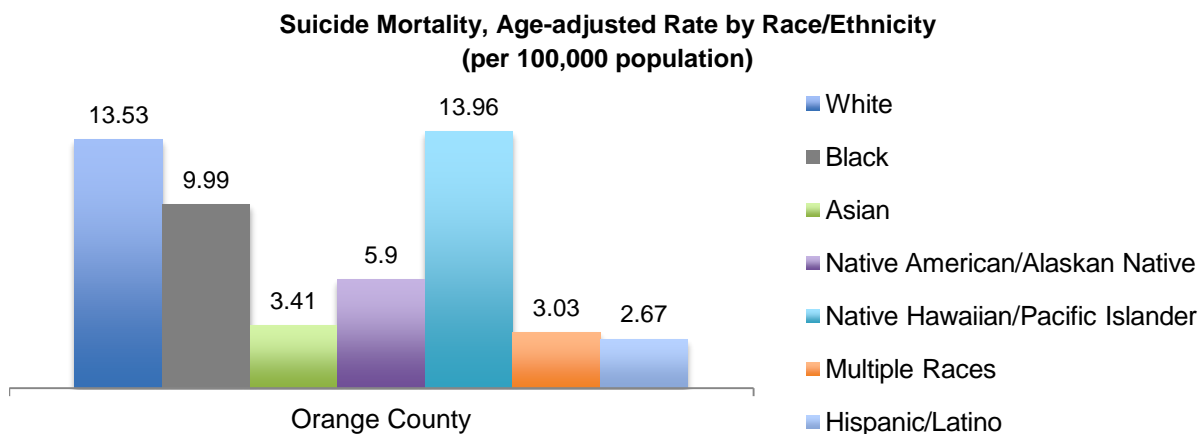
			Islander
Major Depression & Mood Disorder	22.2	9.6	5.7
Bipolar	8.1	2.5	1.5
Other	4.7	2.3	1.5
Substance Abuse	1.5	0.5	0.0
Schizophrenia & Psychosis	0.9	1.0	0.8
Schizoaffective Disorders	0.2	0.3	0.6

Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County, p.31.

Health Disparities

Race/Ethnicity. Orange County White and Native Hawaiian adults are significantly more likely to have died from suicide than any other race or ethnicity (Kaiser Permanente CHNA Data Platform, 2016). Similarly, according to *the Premature Mortality in Orange County Report* (2014a), the rate of unintentional injuries for Whites was 3.4 times higher than their Asian/Pacific Islander counterparts, and 2.0 times higher than Hispanics. Suicide rates were also higher for Whites with rates 2.6 times higher than Hispanic individuals and 2.2 times higher than Asian/Pacific Islander individuals. In general, males, White males, and Asian males had higher death rates per 100,000 population according to the 2010 Death File (as seen in OCHIP, 2014). Additionally, Asian Americans and Latinos have lower rates of receiving behavioral health treatment (OCHIP, 2014).
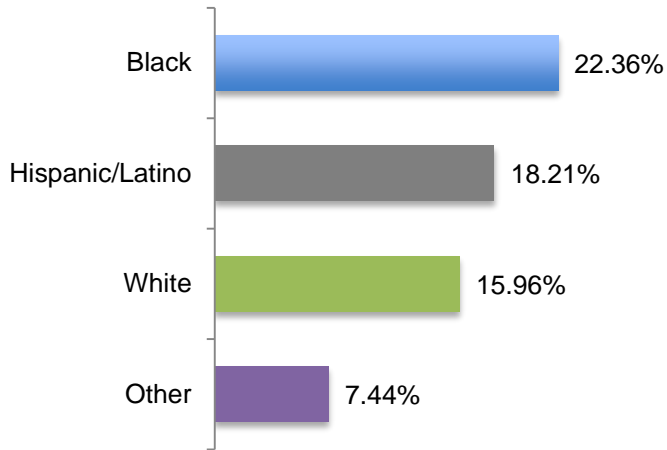
Suicide Mortality, Age-adjusted Rate by Race/Ethnicity (per 100,000 population)

- White: 13.53
- Black: 9.99
- Asian: 3.41
- Native American/Alaskan Native: 5.9
- Native Hawaiian/Pacific Islander: 13.96
- Multiple Races: 3.03
- Hispanic/Latino: 2.67

Orange County

Source: University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data. 2010-12. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 2/18/16)

From the figure below, we can see that African American adults in Orange County are more likely to have experienced problems with their mental health, including

Gender. Self-inflicted injury hospitalization rates for teens were 66.4 per 100,000. Female rates were more than double the rate of males (94.2 per 100,000, 39.7 per 100,000, respectively). Moreover, female teens

emotions, nerves, or use of alcohol or drugs and felt the need to see a professional for it.
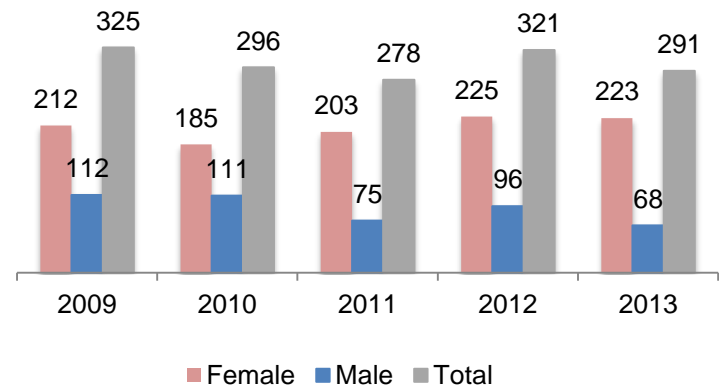
constitute the large majority (70%) of individuals who engaged in deliberate self-inflicted injury (OCHCA & OCSCD, 2015).

Percent Adults with Poor Mental Health by Race/Ethnicity

Race/Ethnicity	Percent
Black	22.36%
Hispanic/Latino	18.21%
White	15.96%
Other	7.44%

Source: Accessed via Kaiser Permanente CHNA Data Platform, 2/18/16

Self-Inflicted Injury Hospitalizations Number by Gender

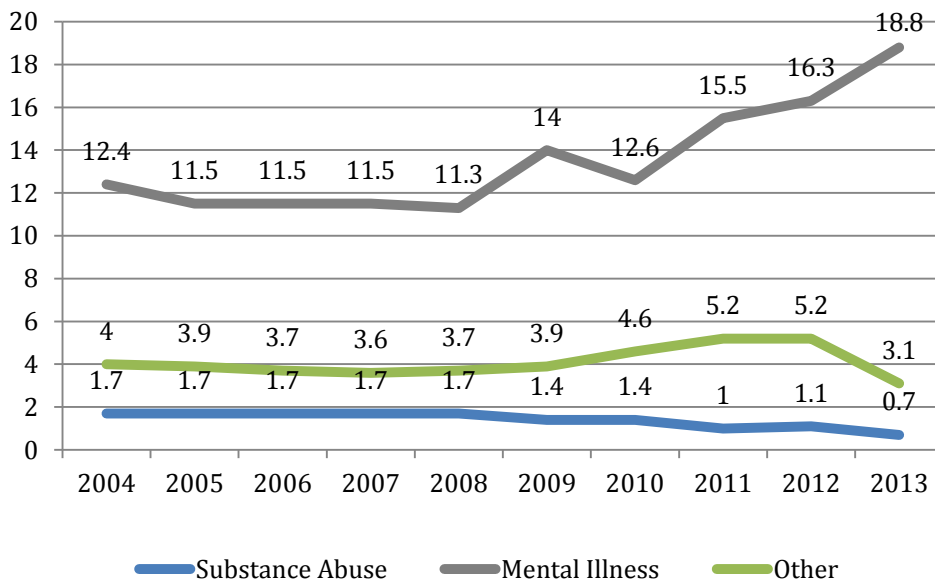| Year	Female	Male	Total
2009	212	112	325
2010	185	111	296
2011	203	75	278
2012	225	96	321
2013	223	68	291

Note: there was an unknown case in 2009
Source: Orange County Health Care Agency and Sheriff-Coroner (2015). Risk Factors for Teen Self-Inflicted Injury and Suicide in Orange County, p.7.

Age. Older adult mental health is an increasingly serious concern due to the Orange County aging population. Hospitalization rates for children have also increased from 11.3 in 2008 to 18.8 per 10,000 children in 2013 (OCCP, 2015). Focus group interviews (October 20, 2015) indicate that despite this increase there is a significant lack of beds for youth with mental health issues.

Mental Health and Substance Abuse-Related Hospitalization Rates, per 10,000 children (2004 - 2013)

Year	Substance Abuse	Mental Illness	Other
2004	1.7	12.4	4
2005	1.7	11.5	3.9
2006	1.7	11.5	3.7
2007	1.7	11.5	3.6
2008	1.7	11.3	3.7
2009	1.4	14	3.9
2010	1.4	12.6	4.6
2011	1	15.5	5.2
2012	1.1	16.3	5.2
2013	0.7	18.8	3.1

Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County., p.31.

Key Health Drivers

Clinical Care

Access to Mental Health Providers. Lack of health care access (i.e. primary care, mental health care, and specialty services) is a key contributor to poor health status. As seen in the table below, Orange County performs particularly poor in this area, with 35 fewer mental health care providers than the state. Focus group participants (October 20, 2015) further reported that access to care is the result of high cost, lack of transportation to health providers, and the stigma associated with seeking help. These groups report that while there is a need for more therapists on the ground, there is also a need for more hands-off nontraditional therapy (e.g. traveling therapist or in school therapist).

The table below reports the rate of mental health providers (e.g. psychiatrists, psychologists, clinical social workers, and counselors) that specialized in mental health care per 100,000 total population.

Mental Health Care Provider Rate (per 100,000 population)

KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
123.6	122.9	122.7	133.7	157

Source: University of Wisconsin Population Health Institute, County Health Rankings. 2014. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 2/28/16)

Social and Economic

Social and Emotional Support. Social and emotional support is critical for navigating the challenges of daily life, and is particularly important for maintaining good mental health. The table below indicates the percentage of adults who reported receiving insufficient social and emotional support all or most of the time. Though Orange County performs better than the Southern California hospital region, there remains a stigma for seeking help. According to recent CHNA Orange County focus group participants (October 20, 2015) many do not want to reach out for help due to the shame and guilt they feel, and are more likely to talk about physical health than mental health. In addition, participants noted that there is often a lack of family nearby and of a sense of community. With the increase in travel and transportation, connections are fading and the family system is no longer caring for itself. Through local groups and organizations, a sense of community can grow and bolster social support.

Age-adjusted Percent of Adults Without Adequate Social or Emotional Support

KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region
21.80%	21.50%	21.50%	25.8%

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (Accessed via Kaiser Permanente CHNA Data Platform, 2/18/16)

Assets & Opportunities

"Caring for the mind is as important and crucial as caring for the body. In fact, one cannot be healthy without the other."
-- Sid Garza-Hillman

Note: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.

Organizations

- Access California Services - http://www.accesscal.org/home/
- AIDS Services Foundation Orange County – http://www.ocasf.org/
- Alzheimer's Orange County - http://www.alz.org/
- Boys Town - http://www.boystown.org/
- CalOptima - https://www.caloptima.org/en/AboutUs.aspx
- Casa de la Familia - http://www.casadelafamilia.org/
- Child Abuse Prevention Center - https://www.brightfutures4kids.org/
- Child Guidance Center - http://cgcoc.org/
- CHOC – Mental Health Unit – Pediatric - http://www.choc.org/
- Council on Aging OC - http://www.coaoc.org/
- Council on Aging OC, Reconnect - http://www.coaoc.org/programs-and-services/reconnect-socialization/how-it-helps.aspx
- Didi Hirsch - http://www.didihirsch.org/orange-county-services
- Families and Communities Together OC - http://factoc.org/
- Grandma's House of Hope - https://grandmashouseofhope.org/
- Health Care Agency - http://ochealthinfo.com/info
- HOAG Community Health Services - http://www.hoag.org/About-Hoag/Community-Benefit/Hoag-Programs.aspx
- Human Options - http://humanoptions.org/
- Interval House - http://www.intervalhouse.org/
- Korean Community Services - http://www.koreancommunity.org/e_about.aspx
- Latino Health Access - http://www.latinohealthaccess.org/
- Laura's House - https://www.womenshelters.org/det/lauras-house
- Mariposa - http://www.mariposacenter.org/
- Mental Health Association of Orange County - http://www.mhaoc.org/
- Mission Hospital – Mental Health Unit - http://www.mission4health.com/
- National Alliance on Mental Illness - http://www.namioc.org/
- OC Asian Pacific Islander Community Alliance - http://ocapica.org/
- OC Post Partum Wellness - http://ochealthinfo.com/bhs/about/pi/early/ppw
- OC Veteran's Office - http://veterans.ocgov.com/
- National Suicide Prevention Lifeline - 800-273-TALK (8255)
- OCAPICA - http://ocapica.org/
- Providence Services - http://www.pshc.org/
- Seneca Family of Agencies - http://senecafamilyofagencies.org/orange-county
- Shanti Orange County- http://www.shantioc.org/
- Strength In Support - http://www.strengthinsupport.org/orange-county
- The Raise Foundation - http://theraisefoundation.org/
- The Regional Center OC - http://www.rcocdd.com/
- UCI Mind - http://mind.uci.edu/
- Vietnamese Community of Orange County - http://www.thevncoc.org/
- Western Youth Services - http://www.westernyouthservices.org/about-wys/our-locations/
- Women's Transitional Living Center (WTLC) - http://wtlc.org/

Networks / Coalitions

- Each Mind Matters - http://www.promisetotalk.org/
- Health Improvement Partnership of Orange County – http://www.ochealthiertogether.org
- Mental Health Advisory Board - http://ochealthinfo.com/bhs/about/mhb
- OC Alliance - http://orangecountyalliance.org/
- Orange County Human Trafficking Task Force - http://www.egovlink.com/ochumantrafficking/ - National Human Trafficking Hotline 1-888-373-7888.
- Orange County Women's Health Project – http://www.ocwomenshealth.org/about-us

- Mental Health Services Act Board -
  http://www.dhcs.ca.gov/services/mh/Pages/MH_Prop63.aspx

Policies

- Behavioral Health Services - http://ssa.ocgov.com/civicax/filebank/blobdload.aspx?BlobID=32055
- CalWORKs Housing Support Programs - http://ssa.ocgov.com/civicax/filebank/blobdload.aspx?BlobID=42821
- Homeless assistance - http://ssa.ocgov.com/civicax/filebank/blobdload.aspx?BlobID=32221
- Mental Health Parity Act - http://www.dol.gov/ebsa/mentalhealthparity/
- Mental Health Services Act (MHSA) - http://ochealthinfo.com/bhs/about/pi/mhsa
- Well-baby and Well-child Visits - http://orange.networkofcare.org/mh/library/article.aspx?hwid=ue5162

Programs & Pilots

- A Promise to Talk (Mission Hospital) - http://www.mission4health.com/Support-Services/Community-Outreach/Each-Mind-Matters.aspx
- CalOptima, SBIRT Services - https://www.caloptima.org/en/Providers/ManualsPoliciesAndResources/SBIRTResources.aspx
- Centralized Assessment Team - http://ochealthinfo.com/bhs/about/amhs/ces
- Certified Mental Health First Aid - http://www.mentalhealthfirstaid.org/cs/
- Crisis Prevention Hotline - http://ochealthinfo.com/bhs/about/pi/crisis/hotline - (877) 7-CRISIS or (877) 727-4747
- Know the Signs - Suicideispreventable.org
- Mission Hospital - Promise to talk/Each Mind Matters - http://www.mission4health.com/Support-Services/Community-Outreach/Each-Mind-Matters.aspx
- OC Links - http://ochealthinfo.com/bhs/about/pi/oclinks/
- Program of Assertive Community Treatment - http://orange.networkofcare.org/mh/library/article.aspx?id=311
- St. Jude Medical Center Support Groups - http://www.stjudemedicalcenter.org/Patients-Visitors/Support-Groups.aspx

References

- Children & Families Commission of Orange County et al (CFCOC). (2015). *Orange County Community Indicators 2015 Report.* Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- Kaiser Permanente CHNA Data Platform*, (2015-2016).*
- *Kaiser Permanente Community Health Needs Assessment.* (2013).
- National Alliance on Mental Illness. (2015). *Mental health by the numbers.* Retrieved from https://www.nami.org/Learn-More/Mental-Health-By-the-Numbers
- Orange County Children's Partnership (OCCP). (2015). *Conditions of children in Orange County (21st ed.).* Orange County. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=47662
- Orange County Health Care Agency (OCHCA) & Orange County Sheriff-Coroner Department (OCSCD). (2015). *Risk factors for teen self-inflicted injury and suicide in Orange County.* May 2015. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=44265
- Orange County Health Care Agency (OCHCA). (2014a). *Premature mortality in Orange County.* Santa Ana, California. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=40596
- Orange County Health Care Agency. (2014b). *Orange County Health Improvement Plan 2014-16.* Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=34860#4#4=[4]
- Icons from The Noun Project

ii. Cancer

Cancer

Cancer is a leading cause of death in the United States, second to heart disease. Over 1 million people in the United States are diagnosed with cancer annually. There are many types of cancer; it can present itself in the lungs, the colon, or in the blood. Cancer may present itself for different reasons including genetic factors; lifestyle factors such as tobacco use, diet, and physical activity; certain types of infections; and environmental exposures to different types of chemicals or radiation (American Cancer Society, 2016). In

addition, a lack of health care access and low socioeconomic status can often prevent the early detection needed to combat the disease.

Note: Medical Center Area (MCA)

Health Outcome Statistics

40,264 **Total number of deaths in the KFH-Anaheim and KFH-Irvine MCAs due to malignant cancer per 100,000 population from 2010-12**
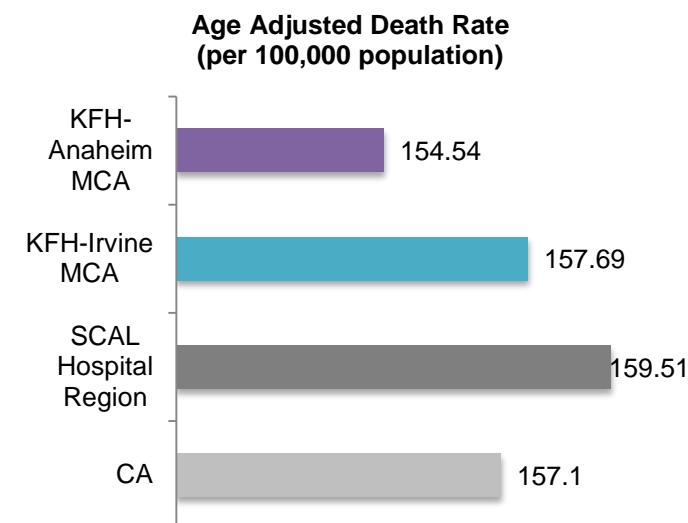
Age Adjusted Death Rate (per 100,000 population)

Region	Rate
KFH-Anaheim MCA	154.54
KFH-Irvine MCA	157.69
SCAL Hospital Region	159.51
CA	157.1

Source: University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data. 2010-12. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Cancer Incidence. The most common types of cancers are breast, cervical, colorectal, lung, and prostate. Typically, with the exceptions of breast cancer, KFH-Anaheim and KFH-Irvine MCAs perform better than the state averages.

Cancer Incidence Rate by Type (per 100,000 population)

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Breast	125.1	125.4	122.1
Cervical	6.5	6.5	7.7
Colorectal	37.7	37.6	40.0
Lung	46.0	46.2	48.0
Prostate	120.6	120.6	126.9

Source: National Institutes of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results Program. State Cancer Profiles. 2008-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform 12/28/15)

Health Disparities

Breast Cancer is most prevalent among Whites, while prostate cancer occurs most commonly in Blacks. Identifying the types of cancers most common in different populations can allow practitioners to develop tailored campaigns to target these groups and address access to care and preventative measures.
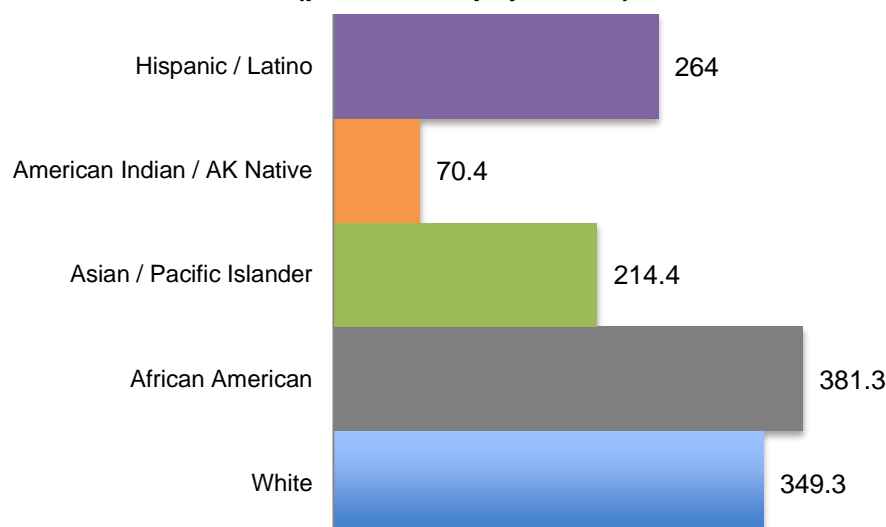
Cancer Incidence Rate by Type and Race/Ethnicity
(per 100,000 population)

	White	Black	Asian	American Indian	Hispanic/ Latino
Breast	133.9	108.9	85.8	31	91.9
Cervical	6.7	8.5	6	n/a	8.4
Colon & Rectum	37.4	40.9	35.3	7.9	31.6
Lung	48.3	49.2	35.5	7.7	25
Prostate	123	173.8	51.8	23.8	107.1

Source: Kaiser Permanente CHNA Data Platform, 2/15/16

African Americans and whites have the highest instances of cancers in both KFH-Anaheim and KFH-Irvine MCAs. In addition, for the Vietnamese American community, liver cancer is particularly common, due to the prevalence of Hepatitis B, as a common contributing factor (VNCOC, n.d.).

Cancer Incidence Rate by Race/Ethnicity
(per 100,000 population)

Race/Ethnicity	Rate
Hispanic / Latino	264
American Indian / AK Native	70.4
Asian / Pacific Islander	214.4
African American	381.3
White	349.3

Source: National Institutes of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results Program. State Cancer Profiles. 2008-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Key Health Drivers

Clinical Care

Physical Environmental

Cancer Screening. Preventative behaviors such as mammograms, pap tests, and colonoscopies allows for early detection and treatment of cancers. According to the Vietnamese Community of Orange County Inc. (n.d.), nearly 25% of Vietnamese-American women have not have a Pap test. This lack of access to preventative care, insufficient provider outreach, and socio-cultural barriers often prevent the utilization of services.

Population Screened for Cancers

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Mammogram (Female Medicare enrollees in past 2 years)	63.8%	64.0%	59.3%
Pap Test (Ages 18+ in the past 3 years, age-adjusted)	81.7%	81.8%	78.3%
Sigmoid/Colonoscopy (Adults ages 50+, age-adjusted)	61.4%	61.7%	57.9%

Source: Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)
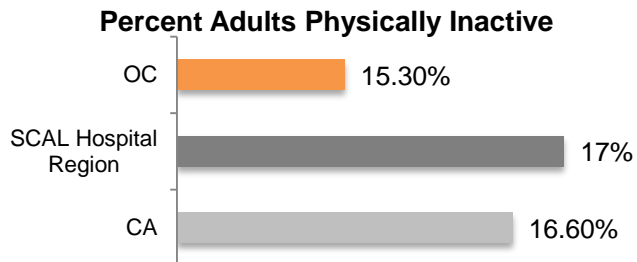*Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)*

Air Quality. Poor air quality contributes to respiratory issues, cancer, and overall poor health. Below are the average daily levels of ambient particulate matter and the population adjusted average percentage of days with particulate matter exceeding the standard 2.5 levels above the National Ambient Air Quality Standard of 35 micrograms per cubic meter per year. We can see that the rates for the Anaheim MCA exceed those of the State.

Air Quality – Particulate Matter 2.5

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	CA
Average Daily Ambient Particulate Matter 2.5	16.73	12.60	15.13	14.14
% of Days Exceeding Standards (population adjusted average)	2.48%	0.92%	1.69%	4.17%

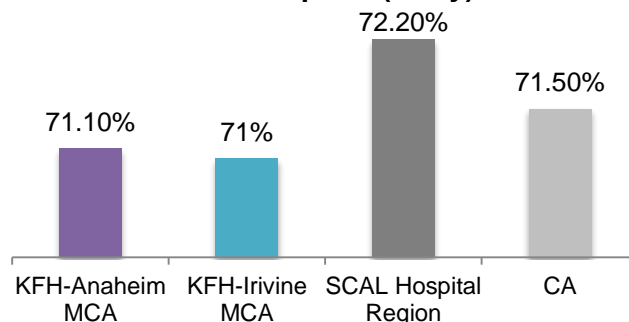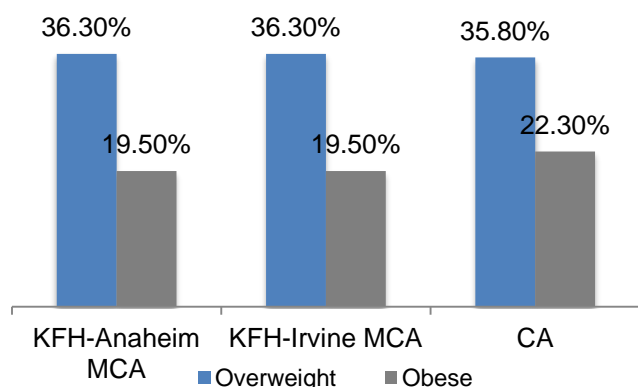*Source: Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network. 2008. Source geography: Tract, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15)*

Health Behaviors

Physical Inactivity. Physical activity is a key determinant impacting a person's health, including risk for cancer. From 2008 to 2012, the percent of physically inactive adults in both the KFH-Anaheim and KFH-Irvine MCAs have decreased from 16.4% to 15.3%; making the rate lower than that of California (16.6%).

Percent Adults Physically Inactive

OC	15.30%
SCAL Hospital Region	17%
CA	16.60%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15.).

Fruit/Vegetable Consumption. Dietary habits are a significant driver of overall health. According to the American Cancer Society (2016), research has shown that poor diet and lack of physical activity are 2 key factors leading to increased cancer risk. A majority of Orange County adults are not meeting the recommended fruit and vegetable intake benchmark. In Orange County, only 14.24% of food-at-home expenditures go toward fruit and vegetables. Additionally, 3.47% of food expenditures goes toward purchasing unhealthy soft drinks.

Adults & Youth with Inadequate Fruit/Vegetable Consumption (5/day)

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15)

Health Behaviors

Obesity. Being overweight is a prevalent problem in the U.S.; putting individuals at risk for countless health issues, including cancer. While the numbers of obese adults in the KFH-Anaheim and KFH-Irvine MCAs are below the national average of 27.1%, the rate of *overweight adults* is slightly above the national average of 35.8%.

Percent Overweight & Obese Adults

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Alcohol and Tobacco. Another set of behavioral drivers for the incidence of cancer is alcohol and tobacco consumption. Heavy alcohol consumption may cause cirrhosis, liver cancer, and mental health needs. Similarly, tobacco usage is linked to lung cancer and cardiovascular disease, two leading causes of death.

Estimated Adults Drinking Excessivley and Population Smoking Cigarettes (Age-Adjusted)
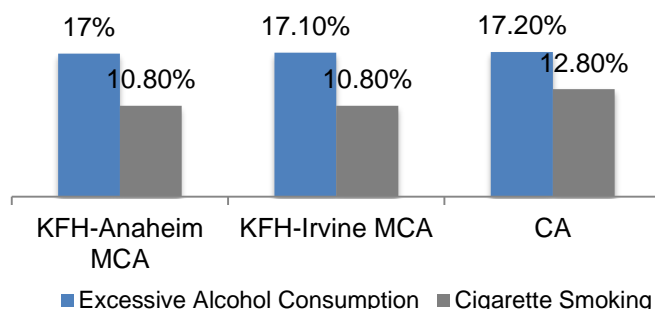
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Assets & Opportunities

"Everyone needs to be proactive and know the various warning signs of cancer. Early detection and research to make detection easier at earlier stages, along with the treatment needs, is still a must. I salute all those winning the battle."
-- Dennis Franz, Actor

Note: *The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.*

Organizations

- American Cancer Society - http://www.cancer.org/
- Hospitals in OC - http://gis.oshpd.ca.gov/atlas/places/list-of-hospitals/county/orange
- Susan G Komen Orange County - http://www.komenoc.org/
- Vietnamese-American Cancer foundation - http://www.vacf.org/

Networks / Coalitions

- Orange County Cancer Coalition - http://myoc3.org/

References

- American Cancer Society. (2016). *Learn about cancer.* Retrieved from http://www.cancer.org/cancer/index
- *Kaiser Permanente CHNA Data Platform, (2015-2016).*
- Vietnamese Community of Orange County Inc. (VNCOC). (n.d.). *Harmony in Healthcare: A Resource Guide for Culturally Appropriate Care of Vietnamese Americans.* Retrieved from http://www.thevncoc.org/VNCOC_toolkit.pdf
- Icons from The Noun Project

iii.   Community Violence

Community Violence

Community violence can impact an individual's physical and mental health; it can include experience of and exposure to crimes, gangs, drugs, graffiti, acts of interpersonal violence, or racial conflicts in a community. Injuries and violence have a significant impact on the wellbeing of Americans by contributing to premature death, disability, poor mental health, high medical costs, and lost productivity. The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities. For children, exposure to community violence can have negative impact on emotional, behavioral, substance use and academic development. Since 2004, the rate of crime in Orange County has declined by 21%, (1,977 per 100,000 population), is lower than the state (3,060 per 100,000 pop) and national (3,227 per 100,000 pop) averages (CFCOC, 2015). Nonetheless, there are still areas in our community more disproportionately impacted by violence and the trauma that can often coincide with it.
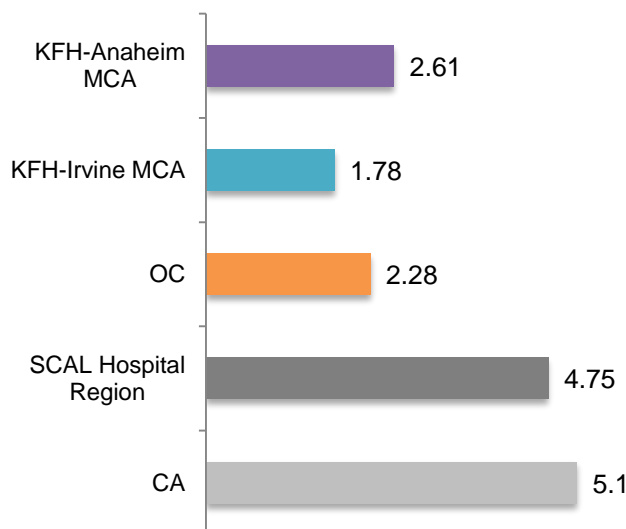
Health Outcome Statistics

634 Total Deaths in the KFH-Anaheim and KFH-Irvine MCAs due to Homicide

Death Rate due to Homicide (age adjusted rate per 100,000 population)

KFH-Anaheim MCA	2.61
KFH-Irvine MCA	1.78
OC	2.28
SCAL Hospital Region	4.75
CA	5.1

Source: University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data. 2010-12. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Violent Crimes. Below is the rate of violent crime offences reported by law enforcement per 100,00 residents, including homicide, rape, robbery, and aggravated assault. Both KFH-Anaheim and KFH-Irvine MCAs have low rates of violent crime, particularly compared to that of the United States.

Violent Crime Rate (per 100,000 population)
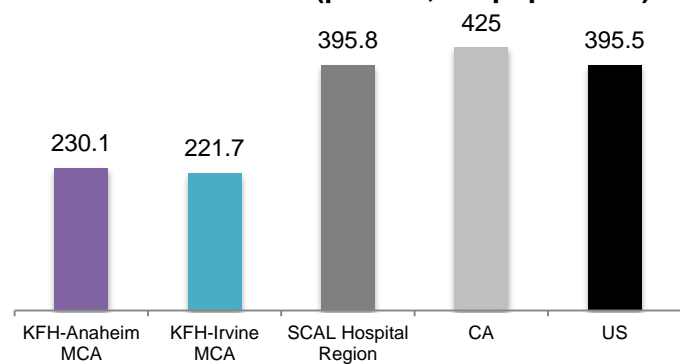
| KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA	US
230.1	221.7	395.8	425	395.5

Source: Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Inter-university Consortium for Political and Social Research. 2010-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Mortality: Homicide, Suicide, Motor Vehicle Accident, and Pedestrian Accident. These instances of death represent causes of premature death, and often indicate a measure of poor community safety and poor mental health. Notably, suicide represents the highest cause of premature death in the KFH-Irvine Medical Center Area (MCA) in particular and across California in general, suggesting a need to address mental health (Kaiser Permanente CHNA Data Platform, 2015).
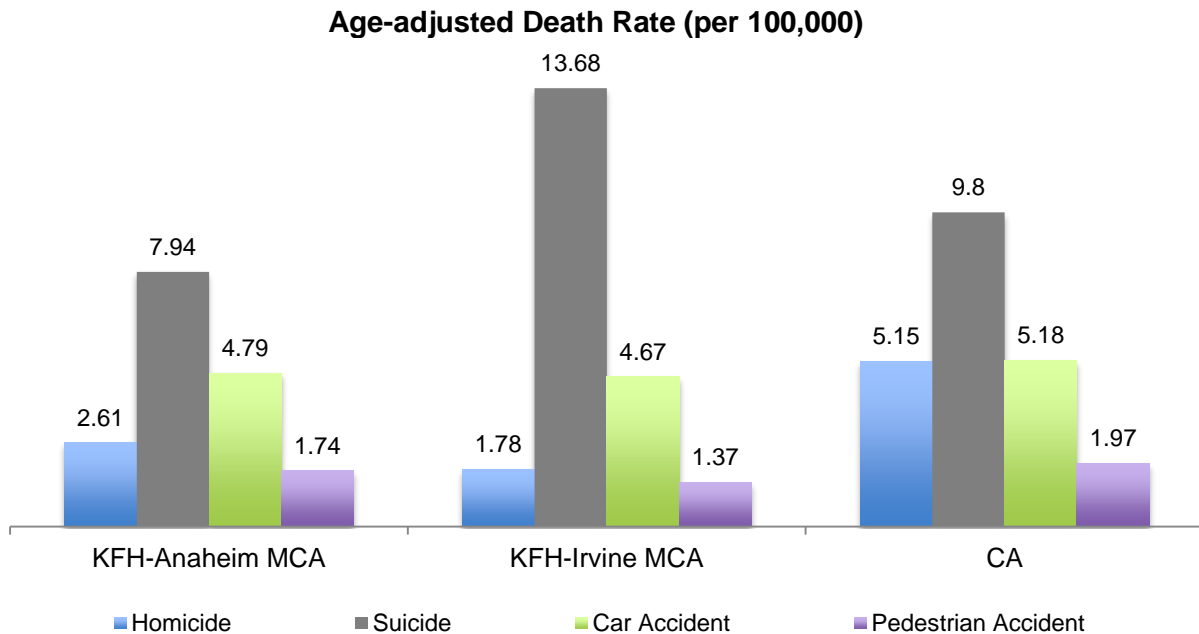
Age-adjusted Death Rate (per 100,000)

Source: University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data. 2010-12. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Juvenile Arrests. Arrests are often the first encounter a youth has with the juvenile justice system, and may be predictive of criminal activity continued into adulthood. Prevention programs can avert the flow of youth into the justice system and decrease crime (OCCP, 2015).
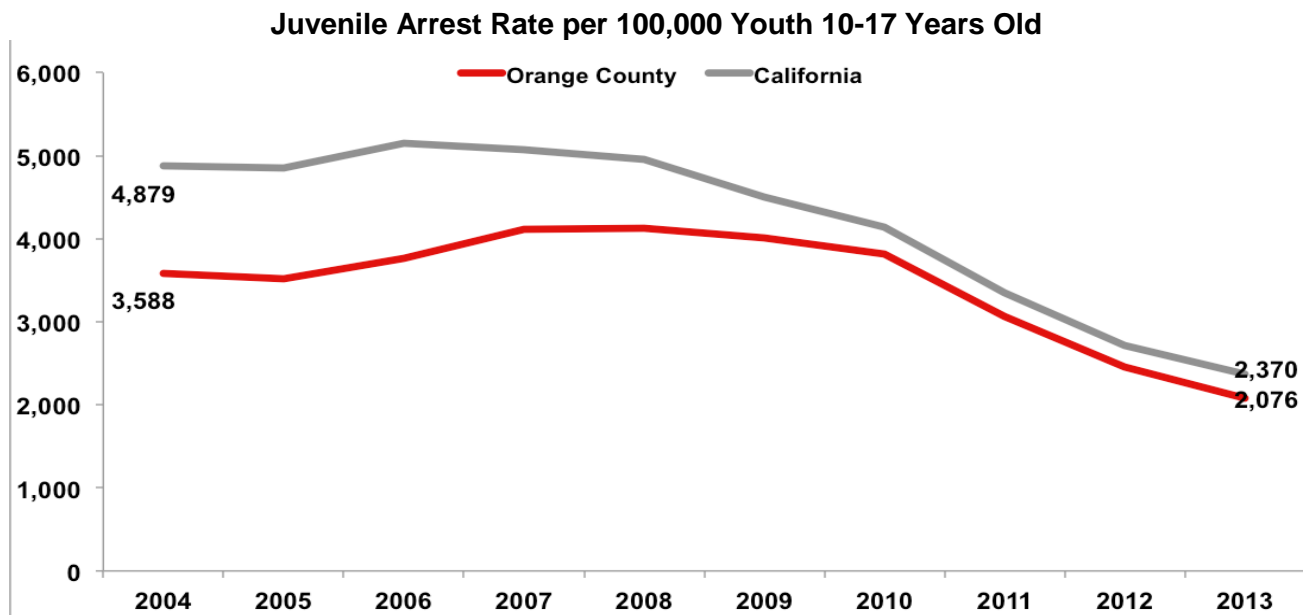
Juvenile Arrest Rate per 100,000 Youth 10-17 Years Old

Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County, p.58

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Violence. The prevalence of assault, violent crime, robbery, domestic violence, and rape are a measure of community safety. Overall, KFH-Anaheim and KFH-Irvine MCAs both have significantly fewer rates of violent crimes than the Southern California hospital region and California, with fewer reported instances of domestic violence in particular.

Rates of Violence (per 100,000 population)

	KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA
Assault	149.5	144.6	268.7	290.3
Youth Self-harm	489.2	481.9	649.9	738.7
Violent Crime	133.2	129.6	224.3	249.4
Robbery	80.6	76.1	148.1	149.5
Domestic Violence	4.7	4.6	7.7	9.5
Rape	13.9	13.7	18.7	21

Source: Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Inter-university Consortium for Political and Social Research. 2010-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15).

Youth Violence. School suspensions, and school expulsions are associated with lower educational attainment, higher dropout rates, and engagement with the juvenile justice system. These may be indicators of future violence, incarceration, decreased economic security, and poor mental health outcomes in adulthood. Though KFH-Anaheim and KFH-Irvine perform better than California in rates of suspension and expulsion, they both perform worse than Orange County (Kaiser Permanente CHNA Data Platform, 2015). According to the *Conditions of Children Report in Orange County* (2015), the juvenile arrest rate of youth ages 10-17 has decreased from 3,588 in 2004 to 2,076 in 2013; a 42% decrease. Nevertheless, trauma is closely linked to community violence and there are many factors that contribute to youth violence such as poverty and insecure housing. In Orange County, over 50% of public school students qualify for free or reduced-cost school lunch, an increase of over 25% from 10 years ago, with almost 17% of Orange County children in poverty (OCHCA, 2014). Further, the number of students living in insecure housing arrangements (two or three families in one household due to financial hardship) increased by 6% in 2013/14 (CFCOC, 2015). Taken together, youth violence is still a concern despite decreases in rates.

Violence – School Suspension and Expulsion Rates
(per 100 enrolled students)

	KFH-Anaheim MCA	KFH-Irvine MCA	KFH-Anaheim & KFH-Irvine MCAs	SCAL Hospital Regions	CA
School Suspension	5.11	3.6	4.34	6.02	4.04
School Expulsion	0.06	0.09	0.07	0.09	0.05

Source: California Department of Education. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Health Disparities

African Americans and Native Hawaiians represent the highest rates of death due to assault. For youth, unintentional injury deaths had been in decline form 2003 – 2011 but experienced a 36.4% increase from 2012-2013. This indicator is highly inversely related to median income and thus highlights poverty and can pinpoint inadequate access to healthcare or safe spaces to play (OCCP, 2015).

Source: University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data. 2010-12. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Homicide Mortality Rate (per 100,000 population)

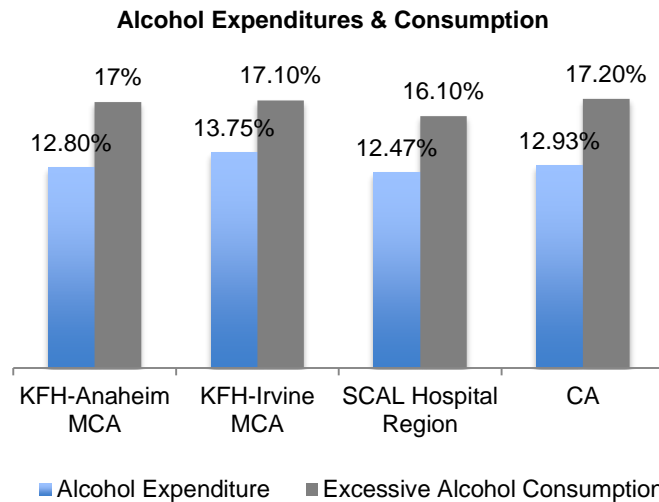|	KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA
White	1.32	1.3	2.29	2.6
Black	7.67	4.99	19.5	22.48
Asian	0.09	0.01	1.82	3.45
Native American	1.2	1.2	1.38	2.03
Native Hawaiian	7.47	7.39	9.45	7.5
Hispanic/Latino	3.4	3.3	4.7	5.23

Key Health Drivers

Health Behaviors

Drug Use. Overall, 34% of Orange County adults reported ever using illicit drugs, with the majority of adults reporting having used marijuana. Though only 6% of adults report having used prescription drugs, focus group data indicates that this is a considerable problem in the community, especially in the KFH-Irvine MCA.

History of Lifetime Drug Use in Orange County Adults (2012 Survey)

Drug	Percent
Club Drugs	4%
Meth	6%
Presc. Drugs	6%
Hallucinogens	9%
Cocaine	13%
Marijuana	33%
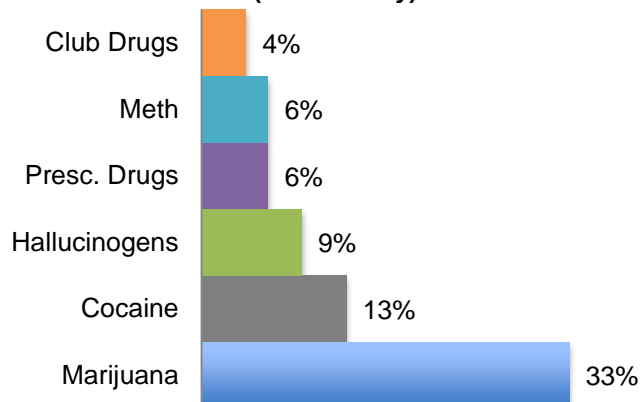
Source: Alcohol and Other Drug Use Prevalence: 2012 Survey of Orange County Adults, p.20-31.

Alcohol Expenditures & Consumption

Alcohol Expenditure
Excessive Alcohol Consumption

	KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA
Alcohol Expenditure	12.80%	13.75%	12.47%	12.93%
Excessive Alcohol Consumption	17%	17.10%	16.10%	17.20%

Alcohol and Tobacco. Alcohol expenditures and heavy alcohol consumption are central behavioral drivers for instances of community violence. Together, these are often associated with violence, and may illustrate untreated behavioral health needs. The graph below indicates the expenditures for alcohol beverages as a percentage of total household expenditures, and the percent of adults reporting excessive alcohol consumption.

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Liquor Store Access. Alcohol consumption is the third leading cause of preventable deaths in the nation. Additionally, high alcohol outlet density has been linked with negative outcomes such as higher rates of alcohol related automobile accidents and fatalities, and pedestrian collisions. Moreover, for every 10% increase in the number of alcohol outlets in an area, it is estimated that there will also be an increase in violent crime of 1.7 – 2.1%(OCHCA, 2012). Cities such as San Clemente, Huntington Beach, Dana Point, N. Newport Beach, and Mission Viejo, to name a few, are inundated with stores that sell liquor (Kaiser Permanente CHNA Data Platform, 12/22/2015).

Source: US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2012. Source geography: ZCTA, Accessed from CHNA Data Platform, 12/22/15

Assets & Opportunities

"The world is a dangerous place, not because of those who do evil, but because of those who look on and do nothing."-- Albert Einstein

Note: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.

Organizations

- Ageless Alliance - http://www.agelessalliance.org/
- CASA - http://www.casaoc.org/
- Child Abuse Prevention Center - https://www.brightfutures4kids.org/orange-county-child-abuse-prevention-center/
- Community Service Program - http://www.cspinc.org/communities.
- Council on Aging OC, FAST - http://www.coaoc.org/programs-and-services/fast/contact-fast.aspx
- Human Options - http://humanoptions.org/
- Laura's House - https://www.laurashouse.org/
- Mariposa - http://www.mariposacenter.org/
- OC Bar Foundation - http://ocbarfoundation.org/

- OC Family Justice Center - http://www.orangecountyfamilyjusticecenter.org/
- OC Human Relations - http://www.ochumanrelations.org/
- OC Human Trafficking Task Force - http://www.egovlink.com/ochumantrafficking/
- OC Police Departments - http://ocgov.com/residents/law/safety/police
- OC Probation Department - http://ocgov.com/gov/probation
- OC Sheriff's Department - http://ocsd.org/
- Olive Crest - http://www.olivecrest.org/
- Orangewood Foundation - https://orangewoodfoundation.org/
- The Raise Foundation - http://theraisefoundation.org/

Networks / Coalitions

- Accelerate Change Together (ACT) Anaheim- http://www.oc-cf.org/for-nonprofits/act-anaheim
- Boys and Men of Color - https://www.facebook.com/SABMOC/
- FACT (Families and Communities Together) - http://factoc.org/
- OC Human Trafficking Task Force - http://www.egovlink.com/ochumantrafficking/

Policies

- Prop 47 - http://www.californiacriminaldefender.com/californias-proposition-47-what-you-need-to-know.html
- Public Safety Realignment - http://www.cdcr.ca.gov/realignment/
- Realignment AB 109 - http://www.shouselaw.com/realignment.html

Programs & Pilots

- Council on Aging, How Ombudsman Helps - http://www.coaoc.org/programs-and-services/ombudsman/how-it-helps.aspx
- OC Police Departments - http://ocgov.com/residents/law/safety/police
- Restorative Justice Collaborative – http://www.courts.ca.gov/documents/BARJManual3.pdf

References

- Children & Families Commission of Orange County et al (CFCOC). (2015). *OC Community Indicators 2015 Report.* Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- Children & Families Commission of Orange County et al (CFCOC). (2015). *OC Community Indicators 2015 Report.* Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- *Kaiser Permanente CHNA Data Platform, (2015-2016).*
- Orange County Children's Partnership (OCCP). (2015). *Conditions of children in Orange County* (21st ed.). Orange County. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=47662
- Orange County Health Care Agency. (2014). *Orange County Health Improvement Plan 2014-16.* Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=34860 - 4
- Icons from The Noun Project

iv. CVD & Physical Inactivity

Cardiovascular Disease & Physical Inactivity

Cardiovascular Disease is a leading cause of death in the U.S., killing approximately 610,000 people in the United States. Of these, coronary heart disease is the most common, killing over 370,000 Americans annually (CDC, 2015). Prevention and early intervention is particularly useful to combat high blood pressure, high cholesterol, heart attack and stroke. Obesity and diabetes can also be drivers to cardiovascular disease. Physical inactivity, maintaining an unhealthy diet, and excessive alcohol and tobacco use are some of the health behaviors that put people at higher risk for heart disease. KFH-Anaheim and KFH-Irvine Medical Center Areas (MCAs) have higher rates of heart disease than California, with community feedback stressing the importance of increased physical activity and stress reduction as two drivers that can hopefully impact this health need.

Health Outcome Statistics

176,648   Adults in the KFH-Anaheim and KFH-Irvine MCAs with Heart Disease

Heart Disease Diagnoses. White adults are most commonly diagnosed with heart disease (10.03%) very closely followed by Blacks (9.63%), then those classified as Other Race (5%), and Hispanic/Latinos (4.69%).

Percentage of Adults with Heart Disease (Coronary Hearth Disease and Angina)
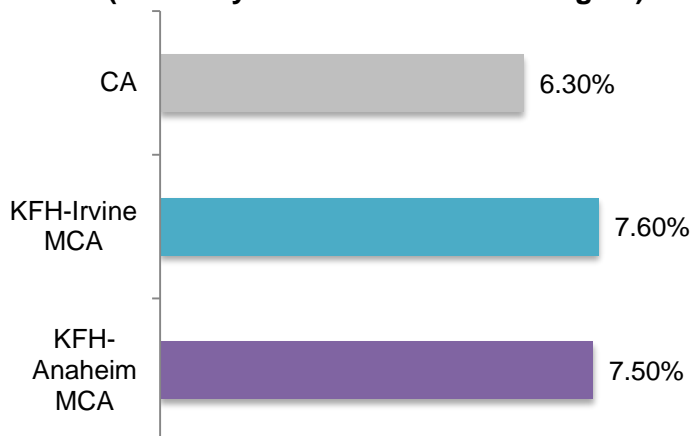
Category	Percentage
CA	6.30%
KFH-Irvine MCA	7.60%
KFH-Anaheim MCA	7.50%

Source: University of California Center for Health Policy Research, California Health Interview Survey. 2011-12. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 2/19/16

Diabetes. Over 29 million people in the U.S. suffer from Diabetes (CDC, 2014). Being overweight or obese increases the chance of developing Type II diabetes. The prevalence of diabetes in Orange County has increased slightly from 7.1% in 2009 to 8.20% in 2012 (KPCHNA, 2013). Addressing weight and inactivity can decrease the prevalence of diabetes.

Population Diagnosed with Diabetes, Age-Adjusted Rate
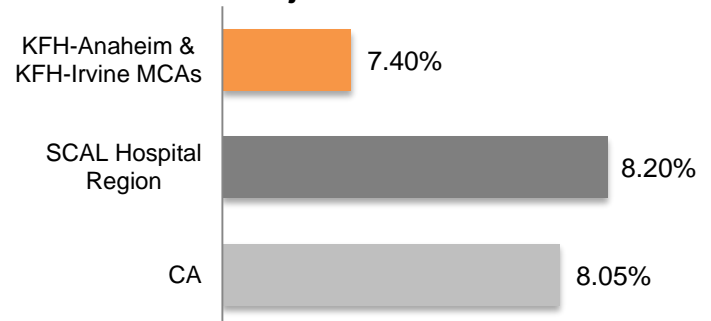
Category	Percentage
KFH-Anaheim & KFH-Irvine MCAs	7.40%
SCAL Hospital Region	8.20%
CA	8.05%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15)

Mortality: Ischemic Heart Disease & Stroke. Heart disease and stroke are leading causes of death in the U.S. KFH-Irvine MCA has a higher number of deaths from ischemic heart disease than KFH-Anaheim MCA, though rates of heart disease are relatively similar between the two.

Age Adjusted Death Rate from Heart Disease and Stroke (per 100,000 population)

	Ischemic Heart Disease	Stroke
KFH-Anaheim MCA	161.46	38.9
KFH-Irvine MCA	175.62	36.97
Orange County	151.08	35.58
SCAL Hospital Region	177.96	38.03
California	163.18	37.38

Percent of adults with BMI> 30 Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/30/15)

Health Disparities

Native Hawaiians and Blacks represent the highest group of *mortalities* from heart disease, suggesting a lack of access to care or preventative measures for these ethnic groups.

**Heart Disease and Stroke Mortality Rates by Race
(per 100,000 Population)**
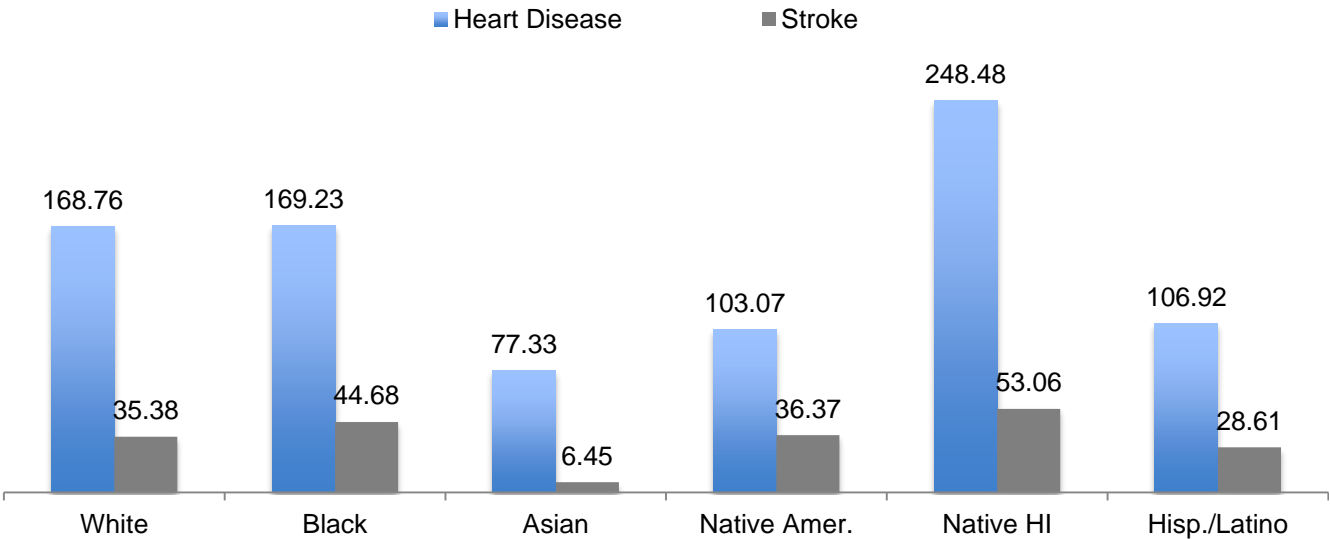
Source: University of California Center for Health Policy Research, California Health Interview Survey. 2011-12. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 12/30/15)

A total of 113,266 White adults in KFH-Anaheim and KFH-Irvine MCAs have been diagnosed with heart disease, significantly more than any other race. This is in line with the findings from a recent study of Kaiser Permanente patients in Northern California that found Whites are at an increased risk of coronary heart disease than other minorities (Rana et al., 2016).

Percent Adults Diagnosed with Heart Disease by Race in Anaheim and Irvine MCAs

Race	Percent
White	10.03%
Black	9.63%
Other	5.00%
Hisp./Latino	4.69%
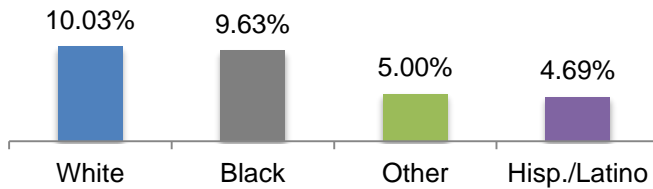
Physical Inactivity by Gender. Participating in physical activities or exercises, such as running, calisthenics or walking, may be a determinant of future health. Engaging in no leisure time activity may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.
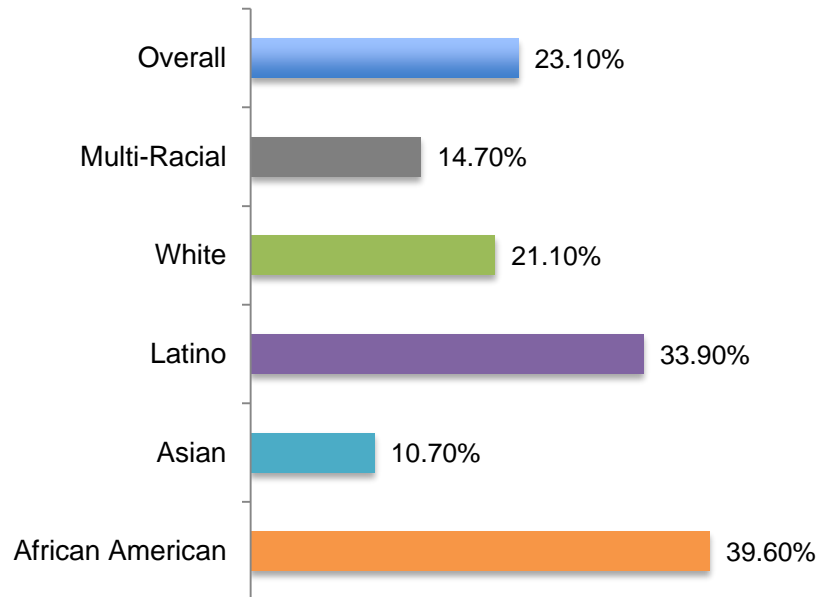
Percent Adults Physically Inactive
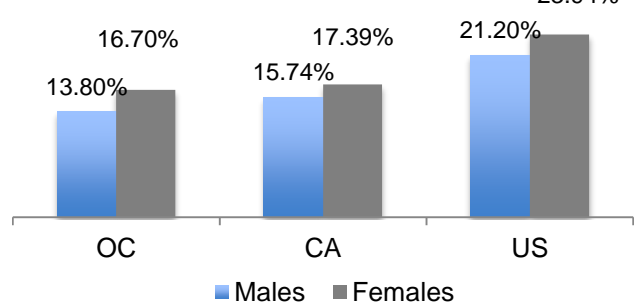
	Males	Females
OC	13.80%	16.70%
CA	15.74%	17.39%
US	21.20%	23.94%

Adults. Obese adults are disproportionally African American and Latino. Although Latinos walk to work more often than others and more frequently rely on public transportation (OCHCA, 2014), they maintain higher rates of obesity than their White or Asian peers.
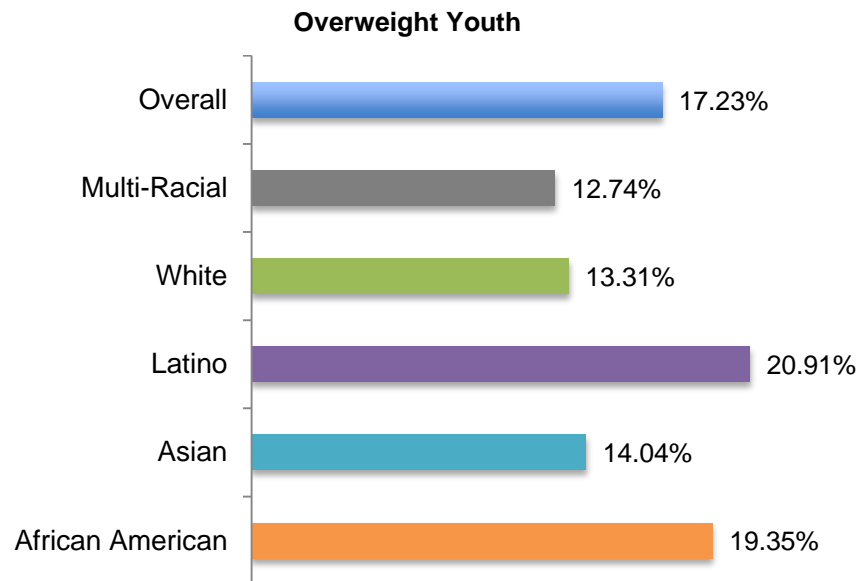
Adults who are Obese by Race/Ethnicity

Race/Ethnicity	Percent
Overall	23.10%
Multi-Racial	14.70%
White	21.10%
Latino	33.90%
Asian	10.70%
African American	39.60%

* Values may be statistically unstable and should be interpreted with caution.

Youth. Nearly one in three Orange County Students are obese or overweight. Latino and African American youth are disproportionately overweight. The highest proportion of children ages 2+ who report eating less than the five recommended servings of fruit and vegetables are those labeled as Non-Hispanic Other with 48.9%, followed by Non-Hispanic White (48.7%), Hispanic/Latino (45.4%) and Non-Hispanic Black (35%).

Overweight Youth

Category	Percent
Overall	17.23%
Multi-Racial	12.74%
White	13.31%
Latino	20.91%
Asian	14.04%
African American	19.35%

Source: California Department of Education, FITNESSGRAM® Physical Fitness Testing. 2013-14. Source geography: School District; (Accessed via Kaiser Permanente CHNA Data Platform 12/23/15
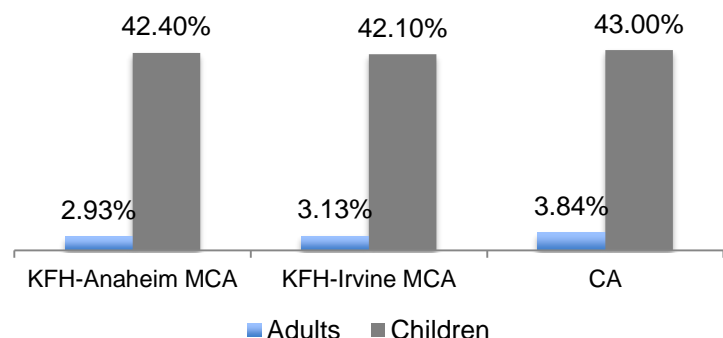
Key Health Drivers

Health Behaviors

Commute to Work. An active commute can reduce the risk of cardiovascular disease, obesity, and diabetes. However, in Orange County, 78% of residents commute to work alone in a car, suggesting a need to improve active transportation networks to encourage walking and biking to work.

Source: US Census Bureau, American Community Survey. 2010-14. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 2/17/16).
Source: University of California Center for Health Policy Research, California Health Interview Survey. 2011-12. Source geography: County (Grouping), (Accessed via Kaiser Permanente CHNA Data Platform, 2/17/16).

Percent Adults Walking or Biking to Work and Children ages 5-17 Walking/Biking/Skating to School

	Adults	Children
KFH-Anaheim MCA	2.93%	42.40%
KFH-Irvine MCA	3.13%	42.10%
CA	3.84%	43.00%

■ Adults   ■ Children

Health Behaviors

Physical Inactivity. Physical activity is key to maintaining a healthy lifestyle. The percent of physically inactive adults in Orange County has decreased from 16.4% to 15.3% from 2008 to 2012, and remains lower than the California average of 16.6%. These areas likely perform well as a result of park access and city walkability. In the KFH-Anaheim MCA, 73.87% of residents and 84.54% of the KFH-Irvine MCA residents live within ½ mile of a park. Moreover, 122% of KFH-Anaheim MCA residents and 97% of KFH-Irvine MCA residents live in cities that are considered at least somewhat walkable.

Of physically inactive youth, Hispanics represent a substantial proportion, with nearly 39% of Hispanic youth in the KFH-Anaheim MCA not in a healthy fitness zone and 34.12% in the KFH-Irvine MCA, followed closely by Black youth with 32.69% and 27.42%, respectively (Kaiser Permanente CHNA Data Platform, 2015). See table on next page for a summary of the percent of adults and youth physically inactive by region.

Percent Adults and Youth Physically Inactive

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
Adults	15.4%	15.3%	15.3%	17%	16.6%
Youth	32.27%	22.92%	27.71%	36.38%	35.92%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15.)

Alcohol and Tobacco. Alcohol and tobacco use are well known to be unhealthy behaviors impacting heart disease risk. Heavy alcohol consumption may cause cirrhosis, liver cancer, and cardiovascular disease. Similarly, tobacco usage is linked to lung cancer and cardiovascular disease, two leading causes of death.

Percent Adults Drinking Excessively and Smoking Cigarettes (Age-Adjusted)

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Excessive Alcohol Consumption	17.0%	17.1%	17.2%
Cigarette Smoking	10.8%	10.8%	12.8%

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Clinical Care

Unmanaged High Blood Pressure. Taking medication for high blood pressure is crucial in decreasing the likelihood of developing complications. Not only does not taking medication for high blood pressure indicate poor health, but also highlights a lack of access to preventative care, lack of health knowledge, insufficient provider outreach, and social barriers preventing utilization of services. Patients in KFH-Anaheim (31.60%) and KFH-Irvine (31.50%) MCAs both perform slightly worse than the CA average (30.30%) for managing high blood pressure (Kaiser Permanente CHNA Data Platform, 2015).

Social & Economic

Tobacco & Alcohol Expenditures. Tobacco use is the single greatest preventable cause of death in the United States, and increases risk of death from cardiovascular disease and cancer. Similarly, greater expenditures for alcoholic beverages may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs.

Percentage of Food-At-Home Expenditures: Tobacco & Alcohol

	KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA
Tobacco	0.9%	0.86%	1%	1.02%
Alcohol	12.8%	13.3%	12.47%	12.93%

Source: Nielsen, Nielsen SiteReports. 2014. Source geography: Tract; (Accessed via Kaiser Permanente CHNA Data Platform 12/22/15)

Assets & Opportunities

"Think about it: Heart disease and diabetes, which account for more deaths in the U.S. and worldwide than everything else combined, are completely preventable by making comprehensive lifestyle changes. Without drugs or surgery."
-- Dean Ornish

Note: *The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.*

Organizations

- America on Track - http://www.americaontrack.org/
- American Heart Association - http://www.heart.org/HEARTORG/
- Boys and Girls Club - http://www.bgca.org/Pages/index.aspx
- Edward Life Sciences - http://www.edwards.com/
- Farmer's Markets - http://ocagcomm.com/services/markets
- Fit to be Kids - http://www.fit2bekids.com/
- Hospitals in OC - http://gis.oshpd.ca.gov/atlas/places/list-of-hospitals/county/orange
- Kid Healthy - http://mykidhealthy.org/
- Latino Health Access - http://www.latinohealthaccess.org/
- OC Department of Education - http://www.ocde.us/Pages/default.aspx
- OC Health Care Agency - http://ochealthinfo.com/
- YMCA - http://www.ymcaoc.org/

Networks / Coalitions

- Alliance for a Healthier Orange County - http://www.ochealthalliance.org/
- HEAL - http://www.healcitiescampaign.org/
- OC Nutrition & Physical Activity Collaborative - http://ochealthinfo.com/phs/about/family/nutrition/nupac
- OC Partnership to Improve Community Health - http://www.ocpich.org/

Policies

- Joint Use Agreements - http://www.jointuse.org/
- School Wellness Councils - http://www.ochealthiertogether.org/
- SB 1183 was passed in 2014 to allow cities, counties or regional park districts to impose and collect vehicle registration fees that can be used for bicycle infrastructure purposes, thus increasing another venue for physical activity. - http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB1183

Programs & Pilots

- Physical Activity Resource Directory - http://d405443.c39.fortehosting.com/active/

References

- Centers for Disease Control and Prevention (CDC). (2014). *2014 national diabetes statistics report.* Retrieved from http://www.cdc.gov/diabetes/data/statistics/2014statisticsreport.html
- Centers for Disease Control and Prevention (CDC). (2015). *Heart disease facts.* Retrieved from http://www.cdc.gov/heartdisease/facts.htm
- *Kaiser Permanente CHNA Data Platform, (2015-2016).*
- *Kaiser Permanente Community Health Needs Assessment* (KPCHNA). (2013).
- Orange County Health Care Agency (OCHCA). (2014b). *Orange County Health Improvement Plan 2014-16.* Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=34860 - 4
- Rana, J.S., Liu, J. Y., Moffet, H. H., Jaffe, M. G., Sidney, S., & Karter, A. J. (2016). Ethnic differences in risk of coronary heart disease in a large contemporary population. *American Journal of Preventive Medicine*, p. 1-5. doi:http://dx.doi.org/10.1016/j.amepre.2015.12.009
- Icons from The Noun Project

v. Diabetes & Obesity

Diabetes & Obesity

Diabetes is a metabolic disease that causes the person to experience high blood glucose, a result of either the body's inability to produce insulin (Type I) or the body's failure to produce enough insulin for proper function (Type II). As of 2012, **over 23 million people in the United States were diagnosed with diabetes**; Type I accounts for approximately 10% of all cases while 90% of cases are Type II. Type II diabetes is often linked to poor health behaviors, with overweight and obese people at a higher risk of developing it than those with a healthy body weight. Unhealthy weight, physically inactivity, and poor eating habits all contribute to the risk of developing Type II diabetes. The percent of obese adults has decreased by 1% in KFH-Anaheim and KFH-Irvine Medical Center Areas (MCAs) since 2010 when both were just over 20% (CHNA, 2013a). In contrast, the rate of overweight youth has increased from 14.8% (CHNA, 2013a) to 18.84% (KPCHNA Data Platform, 2016) in KFH-Anaheim MCA and from 12.5% (CHNA, 2013b) to 15.53% (KPCHNA Data Platform, 2016) in KFH-Irvine MCA, suggesting greater efforts are needed to drive down this condition in children. A key driver is physical inactivity reported by children, with 32% of children in KFH-Anaheim reporting they are physical inactive. The Orange County Health Improvement Plan is the foundation of *Orange County's Healthier Together*, a community-wide, county-led initiative that aligns public and private resources within the public health system to improve health for all communities in Orange County (OC). This initiative assessed the county's health and identified Obesity & Diabetes as one of their top four priority action areas in 2014 (OCHCA, 2014).
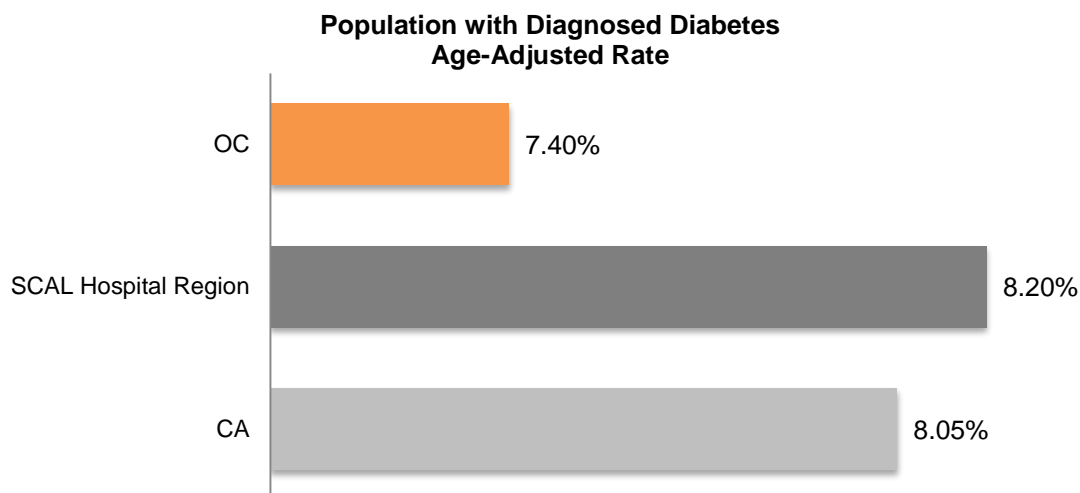
Health Outcome Statistics

**178,836** — Approximate number of adults in the KFH-Anaheim and KFH-Irvine MCAs diagnosed with diabetes

458,820 — Approximate number of obese adults ages 20+ in the KFH-Anaheim and KFH-Irvine MCAs

**Population with Diagnosed Diabetes
Age-Adjusted Rate**

Region	Rate
OC	7.40%
SCAL Hospital Region	8.20%
CA	8.05%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County; (Accessed via Kaiser Permanente CHNA Data Platform, 12/28)

Diabetes on the Rise. From 2004-2011, the rate of diabetes in Orange County and California has steadily increased. Though Orange County performs better than California, as of 2011 the percentage of adults with diabetes in Orange County (7.4%) is only slightly below that of California (7.93%; CDC, 2012). Nevertheless, the proportion of diabetes is higher in Orange County for those 65 year and older (16.0%), 45-65 year olds (11.6%), and Latino females (10.95) and males (9.3%; OCHCA, 2014).

Percent Adults with Diagnosed Diabetes by Year
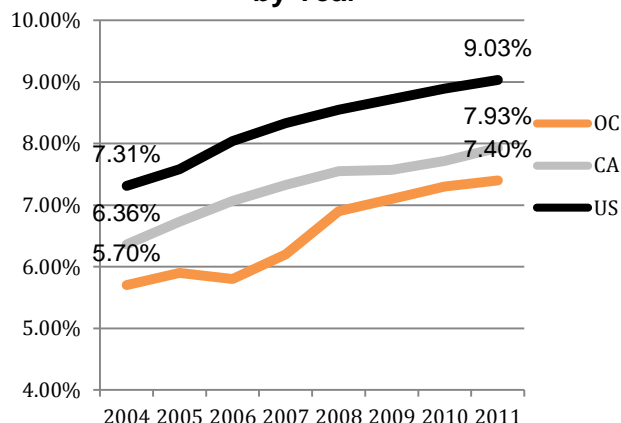
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Percent Overweight and Obese Adults
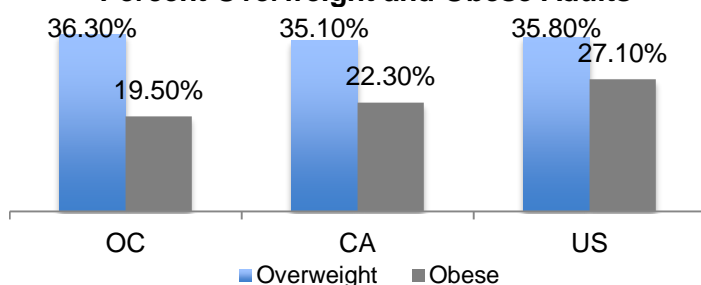
Overweight ■ Obese

Obesity. The link between weight and diabetes has been researched extensively. Being overweight or obese increases the chance of developing Type II diabetes. Over 60 million adults in the U.S. are obese. While the number of obese adults in Orange County is below the national average of 27.1%, the rate of overweight adults is slightly above the national average of 35.8%.

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)
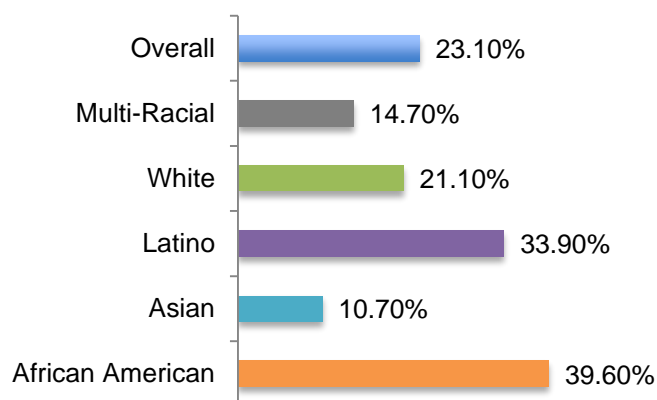
Health Disparities

Adults. Obese adults are disproportionally African American and Latino. Accordingly, diabetes impacts African American and Latino adults disproportionately. Although Latinos walk to work more often than others and more frequently rely on public transportation (OCHCA, 2014), they represent a substantial proportion of obese adults.
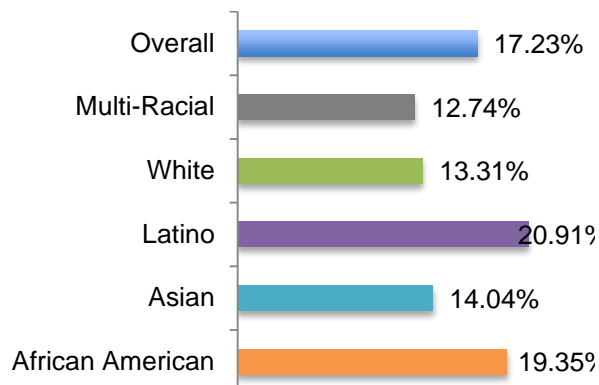
Youth. Nearly one in three Orange County Students are obese or overweight. Latino and African American youth are disproportionately overweight. The highest proportion of children ages 2+ who report eating less than the five recommended servings of fruit and vegetables are those labeled as Non-Hispanic Other with 48.9%, followed by Non-Hispanic White (48.7%), Hispanic/Latino (45.4%) and Non-Hispanic Black (35%).

Adults who are Obese by Race/Ethnicity

Race/Ethnicity	Percent
Overall	23.10%
Multi-Racial	14.70%
White	21.10%
Latino	33.90%
Asian	10.70%
African American	39.60%

* Values may be statistically unstable and should be interpreted with caution.
Source: Orange County Health Care Agency (OCHCA). (2014). Orange County Health Improvement Plan 2014-16.

Overweight Youth

Race/Ethnicity	Percent
Overall	17.23%
Multi-Racial	12.74%
White	13.31%
Latino	20.91%
Asian	14.04%
African American	19.35%

Source: California Department of Education, FITNESSGRAM® Physical Fitness Testing. 2013-14. Source geography: School District, (Accessed via Kaiser Permanente CHNA Data Platform 12/23/15)

Asian Americans. Diabetes is the 3rd leading cause of death for the Native Hawaiian Pacific Islanders (HNPIs), Laotian, and Thai communities (8%, 8%, 6%, respectively; AAAJOC and OCAPICA, 2014). About 10% of Asian Americans are diagnosed with diabetes, a rate that is 1.7 times higher than the general U.S. population (5.9%), and is higher than Asians in their native countries (VNCOC, n.d.).

Youth. 70% of obese adolescents will become obese adults, increasing their risk of developing diabetes. A large number of Pacific Islander and Hispanic children have poor body composition putting them at risk for future health problems.

5th Graders at Health Risk Due to Body Composition

Pacific Islander	28.6%
Hispanic	27.3%
Filipino	16.0%
African American	17.9%
Multi-Racial	9.9%
American Indian	16.6%
Asian	8.6%
White	9.3%
California	21.0%
Orange County	18.3%

Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County.

Percent of 5th, 7th, and 9th Grade Students in Healthy Fitness Zone (HFZ) for Aerobic Capacity

	2010/11	2011/12	2012/13	2013/14
5th Graders	69	62.4	63	70.2
7th Graders	71.1	63.6	64.4	74.7
9th Graders	69.5	62.4	63	72

Source: California Department of Education, DataQuest. As seen in Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County. Supplemental Tables p. 22.

The percentage of 5th graders classified as *needs improvement* based on their health risk for aerobic capacity is trending positively decreasing form 7.1% in 2010/11 to 5.8% in 2013/14. Similarly, the California trend decreased from 8.1% to 6.5% from 2010/22 to 2013/14, respectively. On the other hand, while Hispanic, Pacific Islander, White, Multi-racial, and Asian 5th graders classified as needs improvement decreased, this was not the case for African Americans (5.3% → 5.6%), American Indian (3.7% → 5.6%), and Filipino (4.4% → 5.0%).

Source: California Department of Education, DataQuest. As seen in Orange County Children's Partnership (2015) 21st Annual Report on the Conditions of Children in Orange County. Supplemental Tables Page 23

Key Health Drivers

Health Behaviors

Fruit/Vegetable Consumption. Healthy eating is a determinant of future health, as unhealthy eating habits may illustrate a cause of significant health issues, such as obesity and diabetes. Below is the percentage of adults and children who self-report consuming less than the daily recommended amount of 5 servings of fruits and vegetables a day. Fewer children than adults report inadequate fruit/vegetable consumption. From 2005 -2009 there has been a 1.6% decrease in adult fruit and vegetable intake in OC (27.4%), however, this percentage is still higher than the United States' rate (23.4%; OCHCA, 2014). Nevertheless, 14.24% of food-at-home expenditures for Orange County families go to fruit and vegetables, while 3.47% of expenditures are still spent on soft drinks.

Adults & Youth (2-13 years old) with Inadequate Fruit/Vegetable Consumption

	OC	SCAL Hospital Region	CA
Adults	71%	72.2%	71.5%
Youth	47.8%	46.9%	47.4%

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15)

Commute to Work. An active commute can reduce the risk of cardiovascular disease, obesity, and diabetes. Though 0% of KFH-Anaheim and KFH-Irvine populations live in what is considered car dependent cities, 78% of residents commute to work alone in a car, suggesting a need to improve active transportation networks to encourage walking and biking to work.

Physical Inactivity. Physical activity is a determinant of future health, and may illustrate a cause of significant health issues, including diabetes. Latino youth report engaging in far less regular physical activity compared to other races/ethnicities (OCHCA, 2014). The percent of physically inactive adults in Orange County has decreased from 16.4% to 15.3% from 2008 to 2012, and remains significantly lower than that of California (16.6%; CHNA Platform, 2016). These areas likely perform well as a result of park access and city walkability. In KFH-Anaheim, 73.87% of residents and 84.54% of KFH-Irvine residents live within ½ mile of a park. Similarly, KFH-Anaheim and KFH-Irvine are both considered walkable cities, with nearly 100% of the population living in an environment with safe walking routes and nearby amenities; this encourages physical activity and other healthy behaviors. However, there are still cities with inadequate park access such as: Villa Park (27.9%), Stanton (65.7%), Garden Grove (66.7%), Buena Park (73.5%), Seal Beach (74.8%), Orange (78.2%), and Santa Ana (79.1%; OCHCA, 2014).

Percent Adults and Youth Physically Inactive

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
Adults	15.4%	15.3%	15.3%	17%	16.6%
Youth	32.27%	22.92%	27.71%	36.38%	35.92%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County, (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15)

Method of Transportation to Work for Adults

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Driving Alone	77.10%	78.83%	73.16%
Walking or Biking	3.06%	3.13%	4.82%

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Clinical Care

Diabetes Management. Rates of diabetes in Orange County increased from 6.6% to 7.4% from 2003 to 2012. The hemoglobin A1c(hA1c) blood test measures blood sugar levels and is an annual exam administered by a healthcare professional. This preventative behavior allows for early detection and treatment of diabetes. Not engaging in this behavior highlights a lack of access to preventative care and barriers preventing utilization of services. Below is the percent of diabetic Medicare patients who have had a A1c(hA1c) test. Though more Medicare enrollees in Orange County receive the annual exam, this percentage is slightly smaller than those in the U.S.

Percent Medicare Enrollees with Diabetes Receiving Annual Exam

OC	S. CA	CA	US
83.7%	81.1%	81.5%	84.6%

Source: Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Platform, 2/15/16)

Percent Adults Obese 2004-2012. From 2004-2009, adult obesity in the U.S. has been steadily on the rise. Weight status has worsened in Orange County, decreasing from 50% of adults with a healthy weight in 2001 to only 43% in 2011/12 (CFCOC, 2015). Although Orange County performs better (23.8%) than the state (27.8%), and nation (27.0%) in general, the proportion of obese Latinas (39.8%) and 45-65 year olds (27.0%) is higher in Orange County (OCHCA, 2014).

Percent Adults Obese (BMI>30) by Year
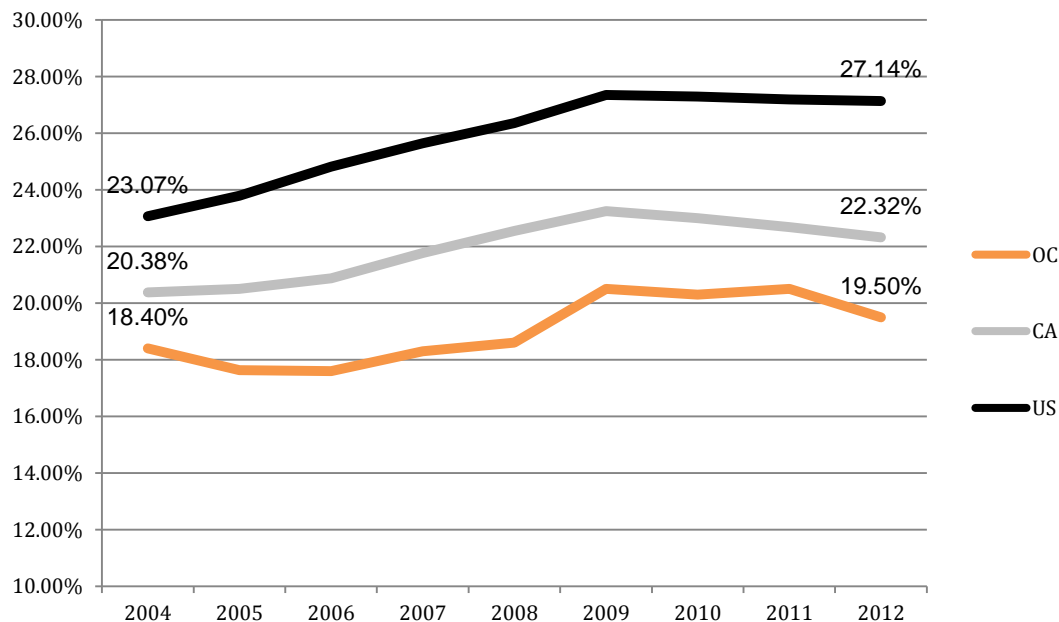
Source: Kaiser Permanente CHNA Data Platform, 12/23/15

Physical Environment

Climate Health and Canopy Cover. The chart below represents the percentage of area covered by tree canopy as reported in the National Land Cover Dataset (2011; as seen in KPCHNA Data Platform, 2016). Tree cover protects communities against the impacts of climate change and indicates access to green spaces where people can engage in healthy behaviors such as physical activity.

Area Covered by Canopy, Population Weighted Percentage
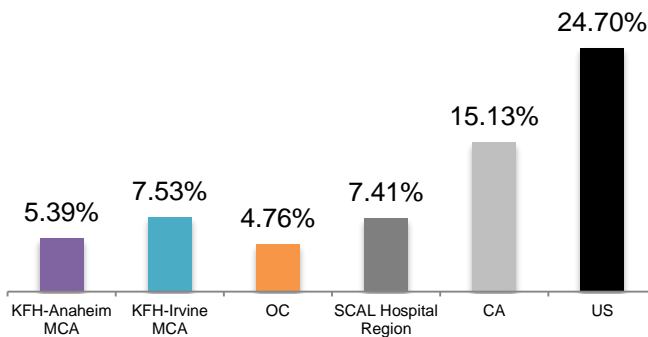
Data Source: Multi-Resolution Land Characteristics Consortium, National Land Cover Database 2011. Additional data analysis byCARES. 2011. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 2/15/16)

Park Access. The chart below shows the percentage of the population that lives within ½ mile of a park. Access to parks promotes outdoor activities and other healthy behaviors.

Percent Within ½ Mile of a Park
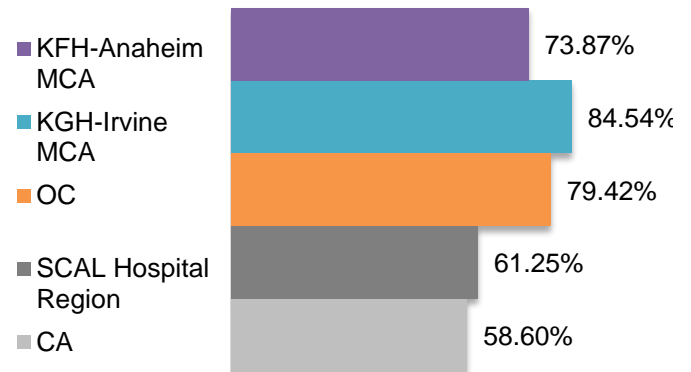
Data Source: US Census Bureau, Decennial Census. ESRI Map Gallery. 2010. Source geography: Block Group (Accessed via Kaiser Permanente CHNA Data Platform, 2/15/16)

Social and Economic

Food Environment. The presence of grocery stores gives Orange County residents access to healthy foods, including fresh fruits and vegetables, as well as meats, fish, and poultry. Similarly, food stores that are authorized to accept WIC Program (Special Supplemental Nutrition Program for Women, Infants, and Children) benefits indicates the food security and healthy food access for women and children in poverty. In contrast, fast food restaurants present families with cheap, unhealthy meal options. Taken together, the rates of each indicate healthy food access but environmental influences that may lead to diabetes. Even though the proportion of healthy food availability in Orange County is slightly higher (11.1) that the state's (11.0), and the US (10.0), it is low in cities such as San Clemente (4.0), Aliso Viejo (5.9), Stanton (6.7), Orange (7.1), Westminster (7.1), Seal Beach (7.7), Huntington Beach (8.0), Buena Park (9.1), Tustin (9.1), Lake Forest

Food Environment (Rate per 100,000 population)
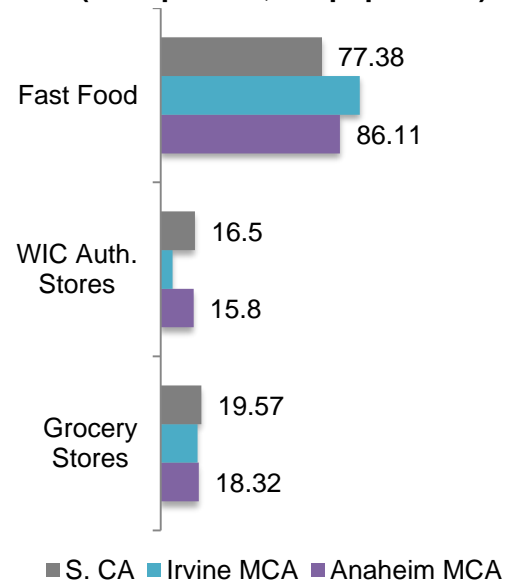
Source: U.S. Department of Agriculture, Economic Research Service, USDA – Food Environment Atlas.2011. Source geography: County. (Accessed via Kaiser Permanente CHNA Data Platform, 12/23/15)

(9.5), and Cypress (9.8). Additionally, over 50% of
public school students qualify for free or reduced-cost
school lunch, an increase of over 25% from 10 years
ago, with almost 17% of OC children in poverty
(OCHCA, 2014).

Assets & Opportunities

"We know that behavior change is difficult, and providing information on diet and exercise simply is not enough. We must look at the broader picture including community-based efforts and policy-making strategies to reduce obesity and further prevent Type II diabetes."

--Shari McMahan

Note: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.

Organizations

- American Diabetes Association - http://www.diabetes.org/in-my-community/local-offices/costa-mesa-california/?referrer=https://www.google.com/
- Anaheim YMCA - http://www.anaheimymca.org/healthy-living/
- Boys & Girls Clubs of America - http://www.bgca.org/Pages/index.aspx
- Community Action Partnership of Orange County - http://www.capoc.org/services/nutrition.html
- Farmer's Markets - http://ocagcomm.com/services/markets
- Health Care Agency - http://ochealthinfo.com/info
- Hospitals in OC - http://gis.oshpd.ca.gov/atlas/places/list-of-hospitals/county/orange
- Hospitals in Orange County - http://gis.oshpd.ca.gov/atlas/places/list-of-hospitals/county/orange
- Kid Healthy - http://mykidhealthy.org/
- Latino Health Access - http://www.latinohealthaccess.org/
- Latino Health Access - http://www.latinohealthaccess.org/
- Moms Orange County - http://momsorangecounty.org/
- OC Health Care Agency - http://ochealthinfo.com/
- OCDE/inside the outdoor (MMEH Nutrition, Physical Activity) - http://ito.ocde.us/Pages/Home.aspx
- Playworks - http://www.playworks.org/
- Second Harvest Food Bank - http://feedoc.org/
- Serving Kids Hope - http://servingkidshope.org/
- YMCA - http://www.ymcaoc.org/

Networks / Coalitions

- Alliance for a Healthy OC - http://www.ochealthalliance.org/
- HEAL Anaheim - http://healzones.org/communities/southern-california/anaheim-orange-county/
- Health Improvement Partnership of Orange County – http://ochealthiertogether.org/
- Mission Hospital – does diabetes screening/mobile clinics/community events
- New Obesity Work Group – OC Health Improvement Partnership - http://www.hfpoc.org/

- NUPAC – http://ochealthinfo.com/phs/about/family/nutrition/nupac
- OC Diabetes Collaborative - http://ocdiabetesconference.org/, http://www.ochealthiertogether.org/index.php?controller=index&module=PromisePractice&action=view&pid=4187
- OC Food Access Coalition - http://ocfoodaccess.org/
- OC Partnerships to Improve Community Health Diabetes Collaboration - http://www.cdc.gov/nccdphp/dch/programs/partnershipstoimprovecommunityhealth/pich.html
- Pacific Islanders Health Partnerships - http://pacificislanderhealthpartnership.org/
- Partnerships to Improve Community Health - http://www.cdc.gov/nccdphp/dch/programs/partnershipstoimprovecommunityhealth/pich.html

Policies

- Bikeways Master Plan - http://www.octa.net/Share-the-Ride/Bike/Bikeways-Planning/Bikeways-Master-Plan/
- CAL-fresh - http://ssa.ocgov.com/calfresh/calfresh
- Food Labeling Policy - http://www.registrarcorp.com/fda-food/labeling/
- Healthy Eating Active Living (HEAL) – League of Cities – http://www.healcitiescampaign.org/
- Joint use park agreements
- Market Match Programs – http://marketmatch.org/
- OC Complete Streets Initiative - http://occog.com/complete-streets/
- Safe Routes to Schools - http://saferoutescalifornia.org/2012-13-orange-county/
- School wellness policies - http://www.cde.ca.gov/ls/nu/he/wellness.asp
- Southern California Association of Governments - https://www.scag.ca.gov/Pages/default.aspx
- Sugar-sweetened Beverage Tax - http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB622
- Vision Zero

Programs & Pilots

- America on Track – Peer to Peer Training. Move more eat health - http://ocontrack.org/
- Building Healthier Communities, The California Endowment - http://www.calendow.org/places/santa-ana/
- Centennial Farm - http://www.ocfair.com/ocf2/community_programs/CentennialFarm.aspx
- Champions for Change - http://cachampionsforchange.cdph.ca.gov/Pages/default.aspx
- HEAL Zones - http://healzones.org/communities/southern-california/anaheim-orange-county/
- Hoag Hospital - http://www.hoag.org/Specialties-Services/Other-Programs-Services/Diabetes-Center.aspx
- Move More Eat Healthy OC - http://www.ochealthalliance.org/eat-healthy/
- Peso Saludable (Latino Health Access) - http://www.latinohealthaccess.org/
- Prevention of Obesity & Diabetes through Education and Resources - http://www.choc.org/programs-services/healthy-lifestyle-classes/
- School Site Wellness Councils - http://www.ochealthiertogether.org/index.php?controller=index&module=PromisePractice&action=view&pid=3704
- St. Jude's Healthy Community - http://www.stjudemedicalcenter.org/About-Us.aspx
- Women, Infants, and Children - http://ochealthinfo.com/phs/about/family/nutrition/wic

References

- Asian Americans Advancing Justice—Orange County (AAAJOC) & Orange County Asian and Pacific Islander Community Alliance (OCAPICA). (2014). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County*. Orange County. Retrieved from https://www.advancingjustice-la.org/sites/default/files/CommunityofContrasts_OC2014.pdf
- Children & Families Commission of Orange County et al (CFCOC). (2015). *OC Community Indicators 2015 Report*. Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- Community Health Needs Assessment (CHNA). (2013a). *Kaiser Foundation hospital – Anaheim Licence#060000091.* Orange County. Retrieved from http://share.kaiserpermanente.org/wp-content/uploads/2013/09/Anaheim-CHNA_2013.pdf
- Community Health Needs Assessment (CHNA). (2013b). *Kaiser Foundation hospital – Irvine Licence#06000091.* Orange County. Retrieved from http://share.kaiserpermanente.org/wp-content/uploads/2013/09/Irvine-CHNA_2013.pdf
- Kaiser Permanente CHNA Data Platform (KPCHNA Data Platform). (2015-2016).
- Orange County Health Care Agency (OCHCA). (2014). *Orange County Health Improvement Plan 2014-16.* Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=34860 - 4
- Vietnamese Community of Orange County Inc. (VNCOC). (n.d.). *Harmony in Healthcare: A Resource Guide for Culturally Appropriate Care of Vietnamese Americans.* Retrieved from http://www.thevncoc.org/VNCOC_toolkit.pdf
- Icons from The Noun Project

vi.   Economic Insecurity

Economic Insecurity

The past ten years saw remarkable ups and downs for both Orange County's (OC) economy and that of the nation; however, this was derailed with the crash of the market and the resulting recession. Since then, local indicators show economic recovery and forecast continuing growth. Orange County has recovered more than half of the jobs lost between 2006 and 2010 (OCCORD, 2015). However, Orange County shows signs of rapidly increasing economic inequality, reflected in the economic and demographic divide between north and south Orange County, and an increase in spatial economic segregation, with low income families living in primarily low-income neighborhoods. Since 1970, income inequality increased faster in Orange County than in the state of California or the US. In Orange County, the top 20% of households take home just over 50 percent of all the income earned, with the top 5 percent taking over 22 percent of total income, with childhood poverty concentrated mostly in north Orange County (OCCORD, 2015). The KFH-Anaheim Medical Center Area (MCA) in particular faces more challenges in terms of economic indicators than the KFH-Irvine MCA. Despite equal rates of unemployment between KFH-Anaheim and KFH-Irvine MCAs, KFH-Anaheim MCA has a higher percent of the population living below the poverty line, poorer educational attainment, and higher rates of uninsured residents compared to KFH-Irvine.

85,708 Unemployed Adults in the KFH-Anaheim and KFH-Irvine MCAs

Health Disparities

Lack of education is often linked to poverty and poor health. Below is the percentage of the population without a high school diploma (or equivalent) or higher. Hispanics, followed by African Americans, represent a large percentage of those without a high school diploma. Though dropout rates are declining, the 2013/14 school year continued to be one of the highest among African American students who drop out.

Population With No High School Diploma by Race

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	CA
White	17.3%	7.17%	12.32%	16.11%
African American	14.57%	5.02%	6.93%	12.06%
Asian	9.82%	11.86%	13.21%	13.90%
Native American	18.7%	16.26%	16.86%	25.15%
Native Hawaiian	12.8%	7.75%	13.45%	16.08%
Hispanic	41.76%	34.81%	40.77%	41.17%

Source: US Census Bureau, American Community Survey, 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16)

Key Health Drivers

Social and Economic

Substandard living conditions. Substandard conditions indicates that a living unit meets one or more of the following conditions: a) lacks complete plumbing facilities, b) lacks complte kitchen facilities, c) has more than 1.01 occupants per room, d) monthly owner costs is 30% or more of household income, and e) gross rent is more than 30% of the household income.

Percent Occupied Housing Units with One or More Substandard Conditions
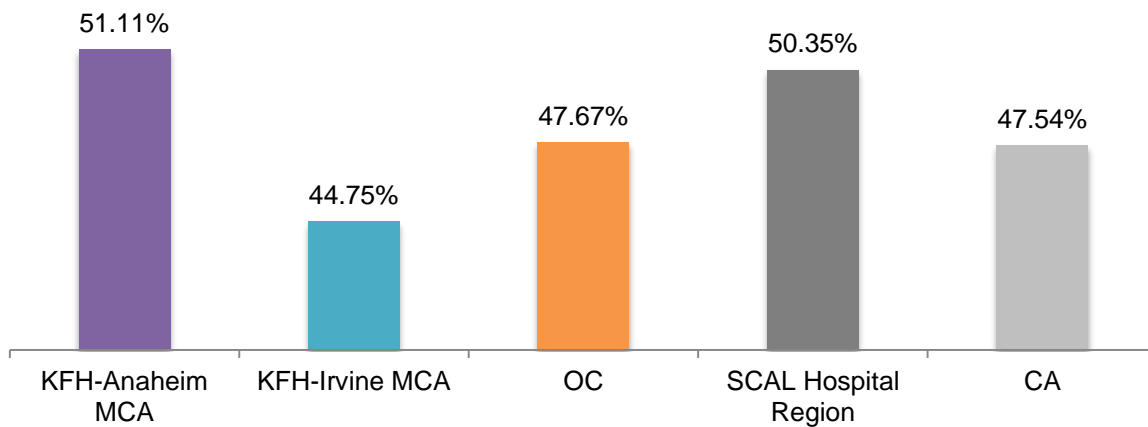
KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
51.11%	44.75%	47.67%	50.35%	47.54%

Source: US Census Bureau, American Community Survey. 2010-14. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 2/15/16)
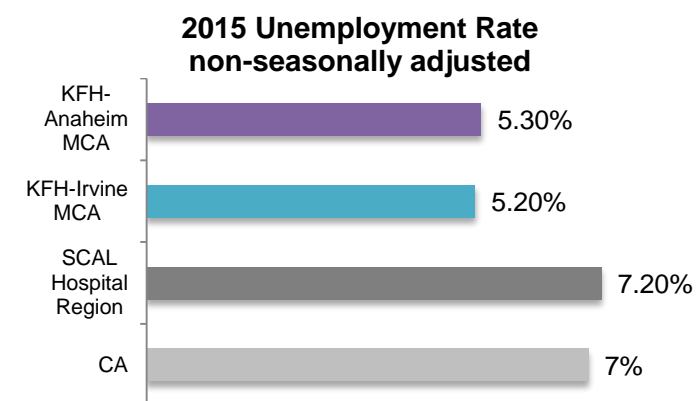
Unemployment Trends. Lack of a stable income creates barriers that prohibit individuals from affording adequate health care, healthy food, and fulfilling other needs that contribute to good. Unemployment rates in Anaheim and Irvine have been consistently the same, and thus were combined in the chart below. Though unemployment rates in KFH-Anaheim and KFH-Irvine MCAs have decreased since the stock market crash, rates are still above the 2004 average.

Average Annual Unemployment Rate
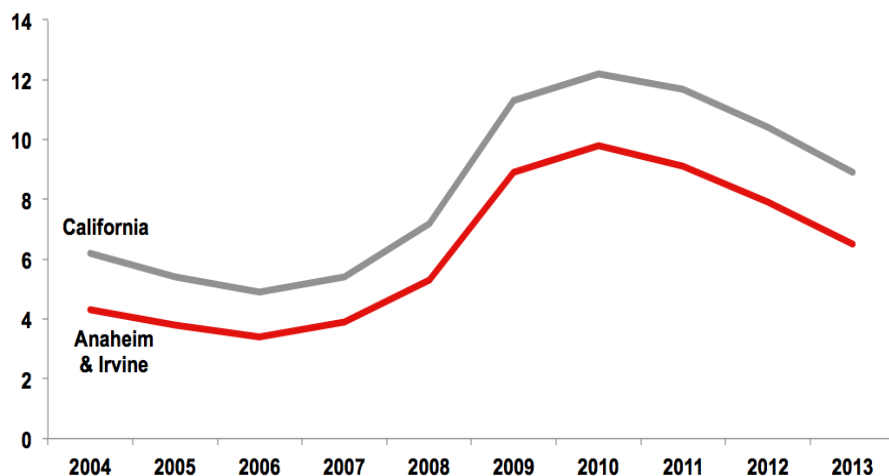
Source: US Department of Labor, Bureau of Labor Statistics. 2015 - October. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16)

Unemployment Rate. The graph below represents the percentage of non-institutionalized unemployed population that is 16 years or older.

2015 Unemployment Rate non-seasonally adjusted

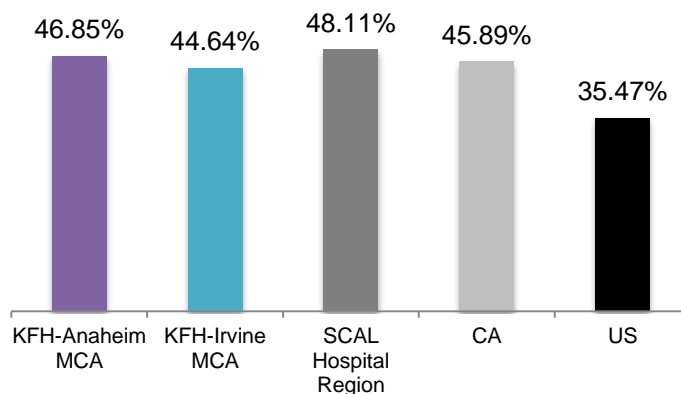|	
KFH-Anaheim MCA	5.30%
KFH-Irvine MCA	5.20%
SCAL Hospital Region	7.20%
CA	7%

Source: US Department of Labor, *Bureau of Labor Statistics*. 2015 - October. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16)

Percentage of Cost Burdened Households

KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA	US
46.85%	44.64%	48.11%	45.89%	35.47%

Source: US Census Bureau, *American Community Survey*. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16);
Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County.

Insurance. Lack of insurance is a primary barrier to healthcare access including primary care, specialty care, and other health services that contribute to poor health status. Anaheim reports a large number of residents that are uninsured, and performs noticeably worse than Irvine and the state as a whole. Similarly, enrollment in Medicaid represents vulnerable populations that are more likely to have multiple health access, health status, and social support needs. In combination with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.
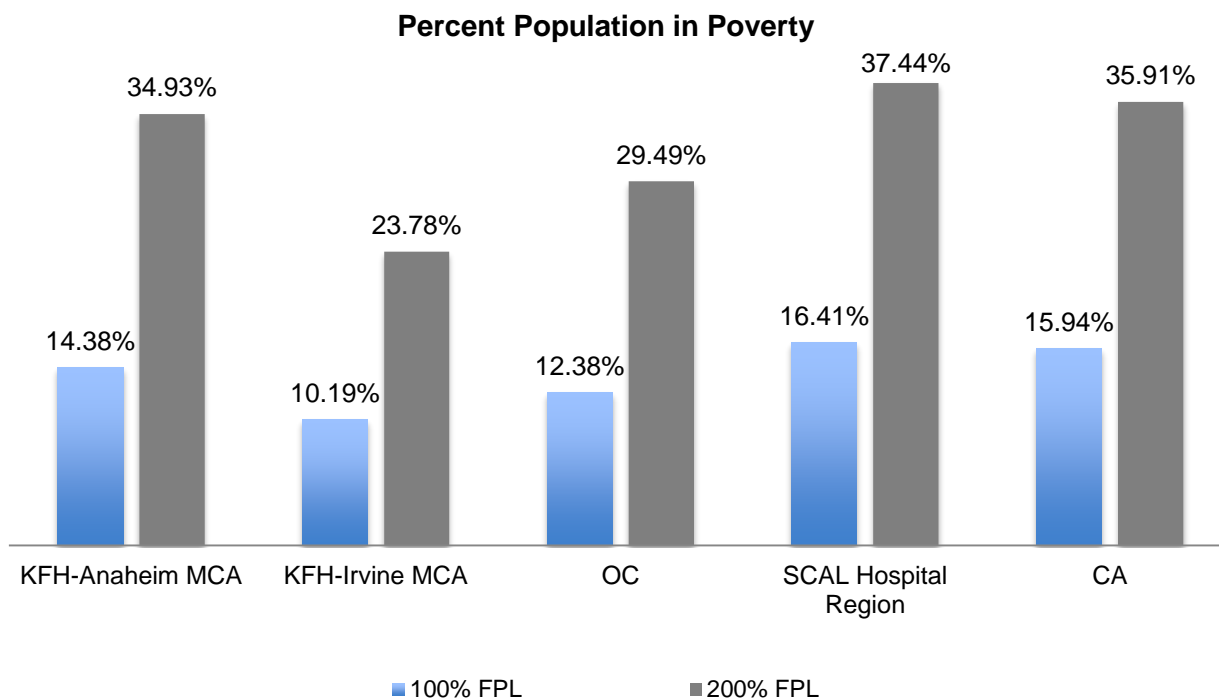
(See table on text page)

Insurance

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
Uninsured	20.81%	13.58%	17.29%	20.1%	17.78%
Insured Receiving Medicaid	23.02%	12.10%	17.43%	24.14%	23.41%

Source: US Department of Health & Human Services, Health Resources and Services Administration, <u>Area Health Resource File</u>. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16).

Housing. According to the Conditions of Children report (2015), housing insecurity has increased by 700% due to a combination of the rising rent and depressive wages. The cost of monthly housing expenses can place a significant burden on finances. To the right is the percentage of housing costs that exceed 30% of total household income. This provides a measure how affordable housing is. Excessive costs affect an individual's ability to financially meet basic needs (e.g. health care, healthy food, transportation, etc.; Kaiser Permanente CHNA Platform, 1/2/16). In general, Anaheim and Irvine perform similar to the state average; however, this average is notably greater than the national average.

Federal Poverty Line. A measure of income level issued by the Department of Health and Human Services, the federal poverty level (FPL) is used to determine whether a person is eligible for assistance through federal programs. According to *the A Community of Contrasts 2014 Report on Asian Americans and Pacific Islanders in Orange County*, the number of Asian Americans living in poverty increased 51% from 2007-2012. During that same period, the number of unemployed Asian Americans in Orange County increased 123%.
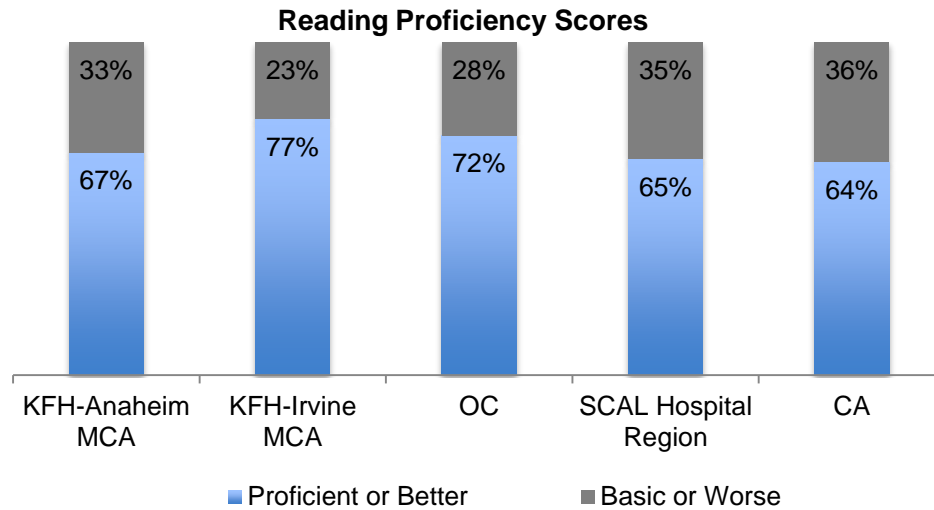
Percent Population in Poverty

	100% FPL	200% FPL
KFH-Anaheim MCA	14.38%	34.93%
KFH-Irvine MCA	10.19%	23.78%
OC	12.38%	29.49%
SCAL Hospital Region	16.41%	37.44%
CA	15.94%	35.91%

■ 100% FPL   ■ 200% FPL

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16).

Percent Adults and Children in Poverty by Race
(KFH-Anaheim and KFH-Irvine MCAs)

	Adults	Children
White	10.25%	5.74%
African American	14.71%	19.32%
Asian	12.03%	12.02%
Native American	18.31%	26.04%
Native Hawaiian	10.42%	18.9%
Hispanic	19.44%	29.74%
Other	22.06%	30.31%
Multiple Race	11.08%	10.65%

Source: Asian Americans Advancing Justice – Orange County: Orange County Asian and Pacific Islander Community Alliance (2014). A community of Contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County. Orange County.

Education. In 2013/14, the Anaheim Union High District had 39% of graduates UC/CSU eligible whereas Irvine Unified School District had 61.9% of graduates meeting UC/CSU entrance requirements (OCCP, 2015). Further, there is research that indicates reading proficiency in grade school impacts future academic achievement (Musen, 2010) which in turn can impact future success. Below is the percentage of children in grade 4 whose reading skills tested below the "proficient" level for the CST English Language Arts portion of the California STAR test. Just 23% of KFH-Irvine MCA students are below reading proficiency, whereas 33% of KFH-Anaheim MCA student are below proficiency.
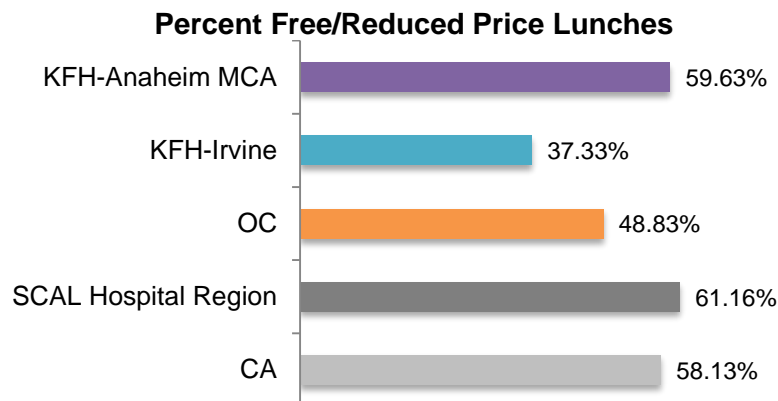
Reading Proficiency Scores

Region	Proficient or Better	Basic or Worse
KFH-Anaheim MCA	67%	33%
KFH-Irvine MCA	77%	23%
OC	72%	28%
SCAL Hospital Region	65%	35%
CA	64%	36%

■ Proficient or Better   ■ Basic or Worse

Student Reading Scores "Not Proficient" or Worse, Percent by Race

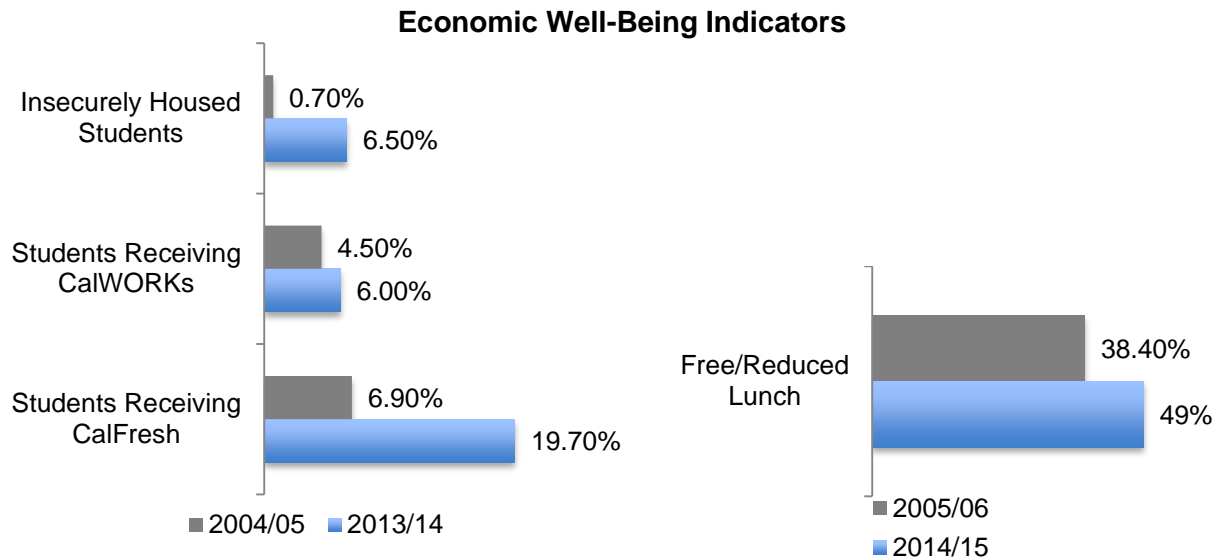|	White	Black	Asian	Native Hawaiian/ Pacific Islander	Hispanic/ Latino
KFH-Anaheim MCA	15.25%	35.45%	12.39%	38.57%	45.27%
KFH-Irvine MCA	12.15%	29.82%	9.62%	17.14%	41.97%
OC	13%	32.93%	10.99%	26.06%	44.0%
CA	21%	47%	16%	37.99%	46.0%

Source: California Department of Education. 2012-13. Source geography: School District (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16).

Free/Reduced Price Lunches. The chart below indicates the percentage of students in the public school system that meet criteria for free or reduced price lunches. This indicator can be used to identify populations that tend to have more needs in terms of access to health care, health status, and social support. This data in conjunction with poverty data can help assess gaps in eligibility and enrollment.

Percent Free/Reduced Price Lunches

Region	Percent
KFH-Anaheim MCA	59.63%
KFH-Irvine	37.33%
OC	48.83%
SCAL Hospital Region	61.16%
CA	58.13%

Source: National Center for Education Statistics, NCES - Common Core of Data. 2013-14. Source geography: Address (Accessed via Kaiser Permanente CHNA Data Platform 2/11/16)

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Economic Trends. The numbers of students receiving free and reduced lunch, insecurely housed, receiving CalWORKs, and receiving CalFresh, are often used as indicators for assessing economic well-being. The four indicators below for Orange County have had an upward trend and need improvement. Additionally, over 50% of public school students qualify for free or reduced-cost school lunch, an increase of over 25% from 10 years ago, with almost 17% of Orange County children in poverty (OCHCA, 2014).

Economic Well-Being Indicators

Insecurely Housed Students: 0.70% / 6.50%
Students Receiving CalWORKs: 4.50% / 6.00%
Students Receiving CalFresh: 6.90% / 19.70%
■ 2004/05 ■ 2013/14

Free/Reduced Lunch: 38.40% / 49%
■ 2005/06
■ 2014/15

Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County. p. 32.

Physical Environment

Head Start Program Facilities. The Head Start Program is a program of the United States Department of Health and Human Services that provides comprehensive early childhood education, health, nutrition, and parent involvement services to low-income children and their families. As shown in the map below, Irvine lacks head start facilities, with just 1.15 programs per 10,000 children.

All Head Start Facilities

Social and Economic

Job Creation. Though employment is growing, incomes have been trending downward, contributing to the growing income inequality in Orange County. A disproportionately large number of jobs in Orange County created will be added in low wage industries, thus putting more people in low-income housing and further burdening public assistance programs. The top 20% of households take home just over 50% of all the income earned, with the top 5% taking over 22% of total income (OCCORD, 2015).

Source Orange County Communities Organized for Responsible Development (OCCORD). (2015). More jobs, less opportunity: Economic growth in Orange County. Garden Grove. p.16
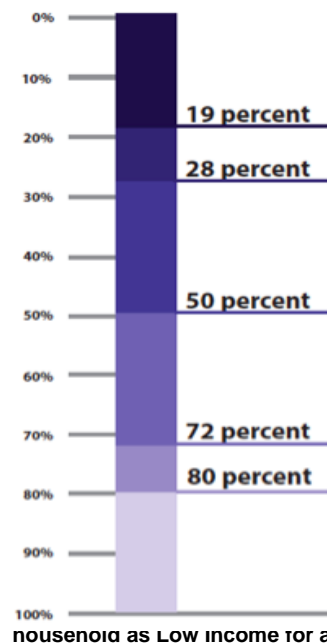
19% of projected new jobs pay average annual wages low enough to **meet eligibility requirements for Food Stamps for a single person household.**

28% of projected new jobs pay average annual wages low enough to **qualify a two-person household for WIC and Free or Reduced School Lunch programs.**

50% of projected new jobs pay average annual wages low enough to **qualify a single person household as Low Income for affordable housing based on state income limits for OC.**

72% of projected new jobs pay average annual wages that are **less than the housing wage required to afford a two-bedroom apartment at Fair Market Rent in OC.**

80% of projected new jobs pay average annual wages that are **less than the OC median household income, and qualify a four-person household as Low Income for affordable housing.**

Assets & Opportunities

"There can be no real individual freedom in the presence of economic insecurity."

-- Chester Bowles

Note: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.

Organizations

- 211 Orange County - http://www.211oc.org/
- Access California Services- http://www.accesscal.org/home/
- Assistance League (Huntington Beach)
- Community Action Partnership of OC - http://www.capoc.org/
- Consumer Credit Counseling Services of OC - http://www.cccsoc.org/
- Delhi Center - http://delhicenter.org/live/community-programs/
- Help Me Grow - http://www.helpmegrowoc.org/
- Oak View Renewal Partnership - http://oak-view.org/
- OC Asian Pacific Islander Community Alliance - http://ocapica.org/
- OC Family Resource Centers (FRCs) – built to serve low-income families and address a variety of needs
- Project Access - http://www.project-access.org/
- Social Services Agency - http://ssa.ocgov.com/
- Second Harvest Food Bank - http://feedoc.org/
- Taller San Jose - http://tsjhopebuilders.org/

- Women Helping Women - http://www.whw.org/
- Working Wardrobes - http://www.workingwardrobes.org/

Networks / Coalitions

- Homeless Provider Forum - http://www.ocpartnership.net/content/homelessproviderforum.html
- OC Food Access Coalition - http://ocfoodaccess.org/
- OCBC – Workforce Development Committee - http://www.ocbc.org/committees/workforce-development-committee/
- Orange County Children's Partnership – http://ochealthinfo.com/
- United Way Orange County - http://www.unitedwayoc.org/
- Waste Not OC Coalition – http://www.wastenotoc.org

Programs & Pilots

- Accelerate Change Together (ACT) Anaheim - http://www.oc-cf.org/for-nonprofits/act-anaheim
- Cal Fresh - http://www.calfresh.ca.gov/
- Cal Works - http://www.cdss.ca.gov/calworks/
- Community Development Block Grant - http://www.hcd.ca.gov/financial-assistance/community-development-block-grant-program/
- Council on Aging OC - http://www.coaoc.org/
- Earned Income Tax Credit - http://www.santa-ana.org/eitc/
- Edison – Utility Assistance - http://www.utilitybillassistance.com/html/southern_california_edison_ass.html
- OC STEM Initiative- http://www.ocstem.org/
- OC Workforce Investment Board - http://ocwib.org/
- VITA - http://www.unitedwayoc.org/become-vita-volunteer
- WIC - http://www.cdph.ca.gov/programs/wicworks/Pages/default.aspx

References

- Asian Americans Advancing Justice—Orange County (AAAJOC) & Orange County Asian and Pacific Islander Community Alliance (OCAPICA). (2014). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County*. Orange County. Retrieved from https://www.advancingjustice-la.org/sites/default/files/CommunityofContrasts_OC2014.pdf
- Kaiser Permanente CHNA Data Platform (KPCHNA Data Platform). (2015-2016).
- Musen, L. (2010). Early Reading Proficiency: A Companion Series to Beyond Test Scores: Leading Indicators for Education. Retrieved from http://files.eric.ed.gov/fulltext/ED533115.pdf
- Orange County Children's Partnership (OCCP). (2015). *Conditions of children in Orange County* (21st ed.). Orange County. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=47662
- Orange County Communities Organized for Responsible Development (OCCORD). (2015). *More jobs, less opportunity: Economic growth in Orange County.* Garden Grove. Retrieved from http://www.occord.org/downloads/More_Jobs_Less_Opportunity.pdf
- Orange County Health Care Agency (OCHCA). (2014). *Orange County Health Improvement Plan 2014-16*. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=34860 - 4
- Icons from The Noun Project

vii.   Healthcare Access

Healthcare Access

Access to care, whether primary care, dental care, or mental health care, are central to preventing poor health outcomes. As such, access to primary care is important in both preventing major health issues and decreasing emergency department visits. Both KFH-Anaheim and KFH-Irvine Medical Center Areas (MCAs) have high rates of primary health care providers for their populations, yet a significant amount of the population in the KFH-Anaheim MCA is uninsured, suggesting that they may be unable to access health care professionals should the need arise. Similarly, there is no lack of dentists in KFH-Anaheim or KFH-Irvine MCAs, but rather, a lack of dental insurance, coupled with the high expense of dental care make it difficult for many residents to access dental care. Lastly, there is a shortage of mental health professionals in Orange County, making it difficult to access behavioral and mental health services when needed.

Children, Teens, and Adults Uninsured in the KFH-Anaheim and KFH-Irvine Medical Center Areas

Health Disparities

Insurance. Lack of insurance is a primary barrier to healthcare access, including primary care, specialty care, and other health services that contribute to poor health status. According to the *Orange County Community Indicators Report* (2015), 16.9% of Orange County residents were uninsured in 2013. Of these, high school dropouts were the most likely cohort to be uninsured (41.4%), while Latino residents were the race/ethnic group most likely to be uninsured (28.7%). Additionally, in 2013, 29% of Orange County residents with a household income of less than $50,000 were uninsured. Additionally, over 87,000 Asian Americans in Orange County do not have health insurance; 14% Asian Americans compared to 9% of Whites (AAAJOC & OCAPICA, 2014).

Percent Uninsured Population by Race and Gender

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Non-Hispanic White	9.12%	7.41%	9.63%
Black/African Amer.	15.30%	11.13%	14.22%
Asian	16.01%	10.75%	13.05%
Native American/ Alaskan Native	22.30%	20.88%	23.05%
Native Hawaiian/ Pacific Islander	12.01%	15.48%	18.22%
Hispanic	28.23%	27.28%	25.9%
Males	20.68%	13.92%	18.41%
Females	17.76%	11.62%	15.02%

Source: Kaiser Permanente CHNA Data Platform, 2/17/16

Percent of Children Uninsured

	2010	2011	2012	2013
Hispanic	15.0%	11.5%	10.2%	10.3%
Asian	6.7%	6.3%	6.8%	7.1%
White	4.7%	5.0%	2.5%	4.7%
Other	2.6%	1.8%	4.0%	3.0%

Note: "Other" includes Afrian Americans

Source: American Community Survey, 2010, 2011, 2012, 2013. As seen in Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.), p. 5.

According to the *21st Annual Conditions of Children Report in Orange County,* Hispanic children have consistently comprised the highest percent of uninsured children from 2010-2013 followed by Asian children, White children, and then children categorized as Other.

Key Health Drivers

Clinical Care

Rate of Federally Qualified Health Centers (per 100,000 population)

- KFH-Anaheim MCA: 3.09
- KFH-Irvine MCA: 5.25
- SCAL Hospital Region: 4.14
- CA: 1.97
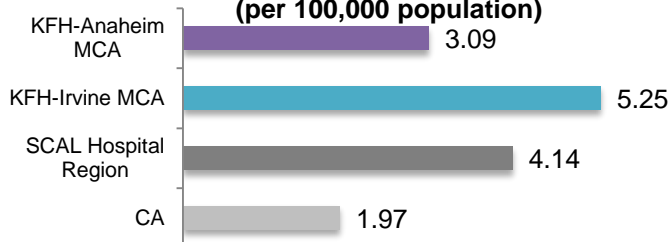
Federally Qualified Health Centers. Federally Qualified Health Centers (FQHCS) are assets that provide health care to vulnerable populations; they receive extra funding from the government to promote access to ambulatory care in areas designated as medically underserved.
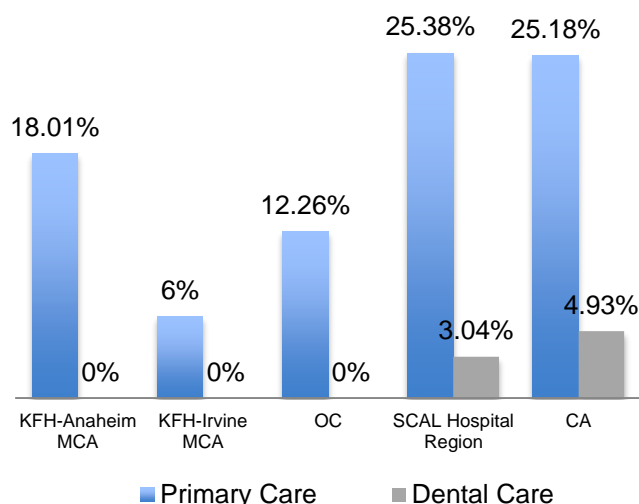
Source: US Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File. Sept. 2015. Source geography: Address (Accessed via Kaiser Permanente CHNA Data Platform 12/29/15)

Health Professional Shortage Area (HPSA). Living in an area with a shortage of health professionals contributes to difficulties in access to care and overall health status. To the right is the percentage of the population living in a geographic area with a shortage of primary medical care and dental care. The KFH-Irvine MCA performs particularly well, with only 6% of the population living in a primary care shortage area.

However, it is important to point out, as several focus group participants noted, it is not a lack of primary providers, but a lack of affordability, and often language accessibility, that is the most common driver to poor access to care. In particular, 18% of the Vietnamese population report difficulty communicating with their doctor and 27% face challenges accessing health information due to language barriers (AAAJOC & OCAPICA, 2014).

Percentage of Population Living in a HPSA

- KFH-Anaheim MCA: Primary Care 18.01%, Dental Care 0%
- KFH-Irvine MCA: Primary Care 6%, Dental Care 0%
- OC: Primary Care 12.26%, Dental Care 0%
- SCAL Hospital Region: Primary Care 25.38%, Dental Care 3.04%
- CA: Primary Care 25.18%, Dental Care 4.93%
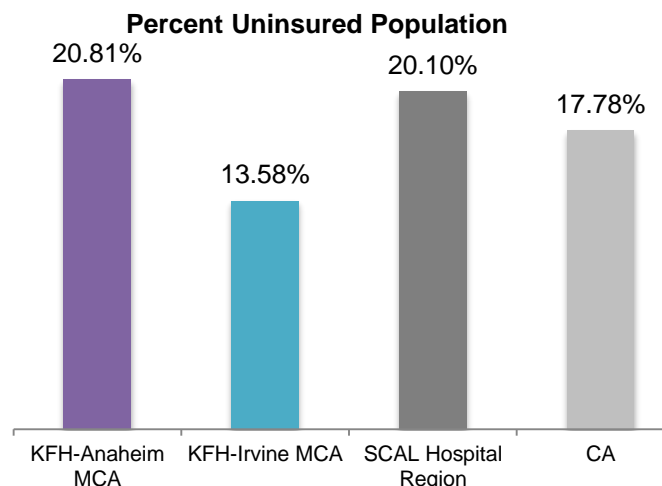
Primary Care ■ Dental Care ■

Source: US Department of Health & Human Services, Health Resources and Services Administration, Health Resources and Services Administration. March 2015. Source geography: HPSA (Accessed via Kaiser Permanente CHNA Data Platform 12/29/15)

Access to Care. Lack of access to care, including primary care, mental health care and dental care, contributes to poor health status. KFH-Anaheim and KFH-Irvine MCAs both have adequate rates of primary care physicians and dentists; yet lag far behind the state average for mental health care providers.

Health Care Providers (per 100,000 population)

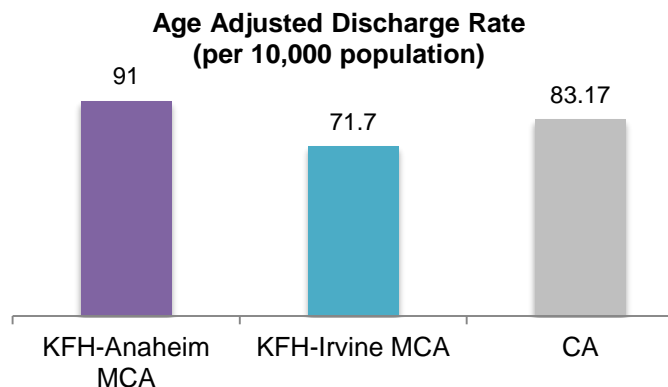|	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Primary Care Physicians	93.3	94.0	77.2
Dentists	100.5	101.2	77.5
Mental Health Providers	123.6	122.9	157.0

Source: University of Wisconsin Population Health Institute, County Health Rankings. 2014. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform 12/28/15).

Percent Uninsured Population

KFH-Anaheim MCA: 20.81%
KFH-Irvine MCA: 13.58%
SCAL Hospital Region: 20.10%
CA: 17.78%

Source: US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/29/15).

Preventable Hospital Events. To the right is the patient discharge rate for conditions considered ambulatory care sensitive such as: pneumonia, dehydration, asthma, diabetes, and other conditions. Ambulatory care sensitive conditions are those that could have been prevented had adequate primary care resources been available and accessed by patients. This indicates the need for interventions that reduce admissions to hospitals through better access to primary care providers.

Source: California Office of Statewide Health Planning and Development, OSHPD Patient Discharge Data. Additional data analysis by CARES. 2011. Source geography: ZIP Code (Accessed via Kaiser Permanente CHNA Data Platform, 12/29/15)

Age Adjusted Discharge Rate (per 10,000 population)

KFH-Anaheim MCA: 91
KFH-Irvine MCA: 71.7
CA: 83.17

Population Screened for Cancers

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
Mammogram (Female Medicare enrollees in past 2 years)	63.8%	64.0%	59.3%
Pap Test (Ages 18+ in the past 3 years, age-adjusted)	81.7%	81.8%	78.3%
Sigmoid/Colonoscopy (Adults ages 50+, age-adjusted)	61.4%	61.7%	57.9%

Cancer Screening. Regular cancer screenings allow for the early detection and treatment of cancer. Overall, Orange County performs better than California in providing these services to residents.

Source: Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2012. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/28/15)

Assets & Opportunities

"A stable healthcare system provides reliable care to those sick or injured. Responsible for providing medical advice, administering vaccines, writing prescriptions and performing operations, the healthcare industry is the most significant factor in determining a nation's prosperity."

-- Vance Stevens

Note*: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.*

Organizations

- Access California Services - http://www.accesscal.org/home/
- Affordable Care Act
- Age Well Senior Services - http://www.agewellseniorservices.org/html/index.html
- AIDS Services Foundation Orange County - http://www.ocasf.org/
- Altamed Clinics- http://www.altamed.org/altamed_overview/overview
- Alzheimer's Association - http://www.alz.org/oc/
- Cal Optima - https://www.caloptima.org/en/AboutUs.aspx
- CalOptima PACE - http://www.calpace.org/our-members/garden-grove/caloptima/
- Clinic at the Park - http://www.ocgp.org/2012/04/clinic-at-the-park/
- Community Health Initiative of Orange County - http://www.chioc.org/
- Family Resource Centers - http://factoc.org/family-resource-centers/

- Federally Qualified Health Centers - https://www.ruralhealthinfo.org/topics/federally-qualified-health-centers
- Help Me Grow - http://www.helpmegrowoc.org/
- Major Hospitals
- MOMS Orange County - http://www.momsorangecounty.org/
- OC Regional Center – services for children and adults with developmental disabilities
- Office on Aging, Adult Day Care - http://officeonaging.ocgov.com/services/adultdaycare
- Orange County Healthcare Agency - http://ochealthinfo.com/
- Planned Parenthood - https://www.plannedparenthood.org/
- Project Access - http://www.project-access.org/
- SeniorServ - http://www.communityseniorserv.com/
- Share Our Selves - http://www.shareourselves.org/
- Social Services Agency - http://www.ssa.ocgov.com/
- The Cambodian Family - http://cambodianfamily.org/
- The Gary Center - http://www.thegarycenter.org/

Networks / Coalitions

- Coalition of Orange County Community Health Centers - http://www.coccc.org/
- Covered Orange County - http://www.coveredoc.org/
- Multi Ethnic Collaborative of Community Agencies - http://ocmecca.org/
- North OC Senior Collaborative - http://nocsc.org/

- Orange County Aging Services Collaborative - http://www.ocagingservicescollaborative.org/
- Orange County CEC/CAA Task Force - http://www.chioc.org/taskforce/
- Orange County HICAP - http://www.cahealthadvocates.org/HICAP/orange.html

Policies

- Affordable Care Act - http://ochealthinfo.com/phs/about/dcepi/hiv/libehiv/aca

- California Health Advocates - http://www.cahealthadvocates.org/
- Deferred Action for Childhood Arrivals - http://www.migrationpolicy.org/content/orange-county-ca
- Health for All Act (Lara Bill) - http://www.ociyu.org/campaigns/health-for-all/
- Developmental screenings - http://healthychildcare.org/devscr.html

Programs & Pilots

- Irvine Children's Health Program - https://iusd.org/education_services/health_services/documents/ichpbrochure8-08English.pdf

References

- Asian Americans Advancing Justice—Orange County (AAAJOC); Orange County Asian and Pacific Islander Community Alliance (OCAPICA). (2014). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County*. Orange County. Retrieved from https://www.advancingjustice-la.org/sites/default/files/CommunityofContrasts_OC2014.pdf
- Children & Families Commission of Orange County et al. (2015). *OC Community Indicators 2015 Report*. Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- *Kaiser Permanente CHNA Data Platform, (2015-2016).*
- Icons from The Noun Project

viii.   Housing

Housing

Orange County (OC) is among the top 10 least affordable metropolitan markets in the nation (Covarrubias, 2015). Access to affordable housing impacts an individual's level of economic security, their ability to financially access nutritious foods and health care, stress and overall health outcomes. In fact, over the last two years, there has been a 45% increase the homeless population in Costa Mesa alone (Zint, 2016). Additionally, Orange County has a high proportion of individuals and families in *unstable housing*. According to the *Report on the Conditions of Children in Orange County* (2015), housing insecurity for children has increased from .07% in 2004/05 to 6.5% in 2013/14. The *Orange County Community Indicators Report* (CFOC, 2015) notes that in the past 10 years this equates to approximately a 236% increase in homeless and housing insecurity. This is due to a toxic combination of rising rent and depressive wages; what has lead to the phrase coined in the *Orange County Community Indicators Report* (2015) describing Orange Couinty as, "job rich and housing poor." Though employment rates have recently increased, the majority of the jobs created offer low wages that qualify individuals for low-income housing. From 1990 to 2014, in Orange County, the minimum wage has increased by 18% but housing costs have increased by 57%; making housing here more expensive than California or the United States as a whole (OCCORD, 2015). This has led to an unaffordable market for home buying or renting. Also, given our steadily growing senior population—the 65+ age demographic being the only Orange County group projected to grow in the next 25 years—there is a unique need for housing that meets their needs—at all income levels (CFOC, 2015).

## 1,077,190 Total Housing Units in the KFH-Anaheim and KFH-Irvine MCAs

Housing Disparities

Over 50% of Asian Americans who rent are considered cost burdened. Thai (62%), Vietnamese (60%) and Koreans (57%) are the most housing-cost burdened (AAAJOC & OCAPICA, 2014).

According to *the Orange County Community Indicators Report* (2015), Orange County Housing Authority provides rental assistance for approximately 21,700 low-income households as of December 2014. Of these, most rental assistance vouchers were for the *elderly*, followed by families with children. With the senior population steadily growing while others decrease, it is vital to understand and address this demographic's needs.

Number of Rental Assistance Vouchers

- Elderly — 9,963
- Families with Children — 6,211
- Disabled — 2,982
- Singles/Couples — 2,560
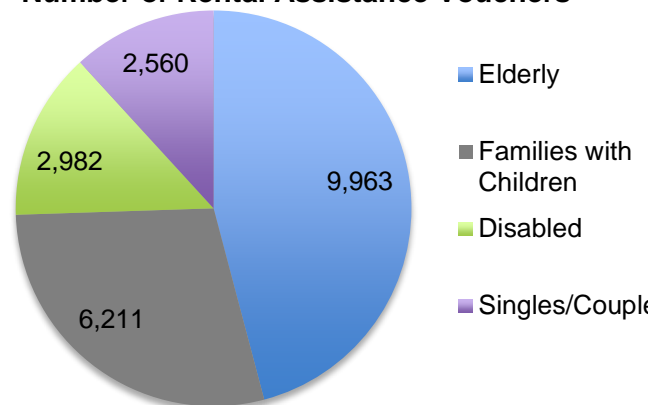
Source: OC Community Indicators 2015, p. 29

Assisted Housing Units. To the left is the rate of Housing and Urban Development (HUD) - Assisted Units in the Anaheim and Irvine MCAs, which is notably lower than that of California. As a result, 103,379 applicants remain on the waiting list for rental vouchers (CFOC, 2015).

Rate of HUD-Assisted Housing Units (per 10,000 rate)

Anaheim MCA	Irvine MCA	OC	S. CA	CA

| 265.22 | 259.17 | 258.64 | 345.38 | 1,399.04 |

Key Health Drivers

Social and Economic

Availability of Affordable Homes. California law requires that cities develop housing programs to meet their fair share of housing needs for the community. The Orange County Business Council's Workforce Housing Scorecard documents that Orange County homebuilding has not kept pace with job growth, creating a shortfall of 50,000 to 62,000 homes for the county's growing workforce. In addition, Orange County jurisdictions have fallen well short of state-monitored targets for the construction of new housing. Between 2006 and 2014, only 40% of the new housing needed to accommodate all income levels was constructed. Only 12% of the "very low" income units needed were built, and only 10% of "low income" units needed were built (CFOC, 2015).

Population, Jobs, and Homes. The population of Orange County has grown steadily since 2003, from just under 3 million to 3.4 million. Despite this increase, the number of affordable homes in Orange County has shown only slight growth, from 997 thousand to 1.1 million. As such, overcrowding in rental units is extremely high, and the demand for more affordable housing units has increased. Currently, there are 7 cities (out of 34 incorporated cities) in Orange County that employ mixed income ordinances and 3 that are inclusionary but not required city-wide (Covarrubias, 2015).

Cost Burdened Households. "Cost burdened" means housing costs exceeding 30% or more of the household income. The percentage of cost burdened households in the KFH-Anaheim MCA (46.85%) and the KFH-Irvine MCA (43.74%) is comparable to that of CA as a whole (44.99%; Kaiser Permanente CHNA Data Platform, 2016). Excessive costs may prohibit individuals from financially meeting basic life needs such as health care, childcare, healthy food purchasing, and transportation costs. In addition, according to the Orange County Healthier Together website (OCHCA, 2016), from 2009-2013, 57.3% of the renters in Orange County spent over 30% of their income on rent, making them among the most 'cost burdened' renters in the state.

Unemployment. Unemployment creates financial instability leading to barriers to insurance coverage, health services, healthy food, education, and other necessities needed for positive health outcomes (KPCHNA Data Platform, 2015). While Orange County will likely see strong employment growth in the next decade, a disproportionate number of these jobs will be in low wage industries; 50% of the jobs will pay average annual wages low enough to qualify an individual for low income housing in OC. These low wage jobs make it difficult for residents to buy or rent adequate homes (OCCORD, 2015).

2015 Unemployment Rate

Anaheim MCA	Irvine MCA	OC	S. CA	CA
5.3	5.2	5.2	7.2	7.0

Minimum Wage and Home Price. Minimum wage in OC increased by only 17% since 1990. More than half of jobs do not pay enough to afford rent and housing costs are more than half of income for many. In contrast, the median home price has increased by 57%, placing a burden on homebuyers and families, making it difficult to save money; threatening the overall economic stability of OC Families (OCCORD, 2015).

Orange County Median Home Price, Average Annual Wage, and Minimum Wage 1990- 2014 Indexed
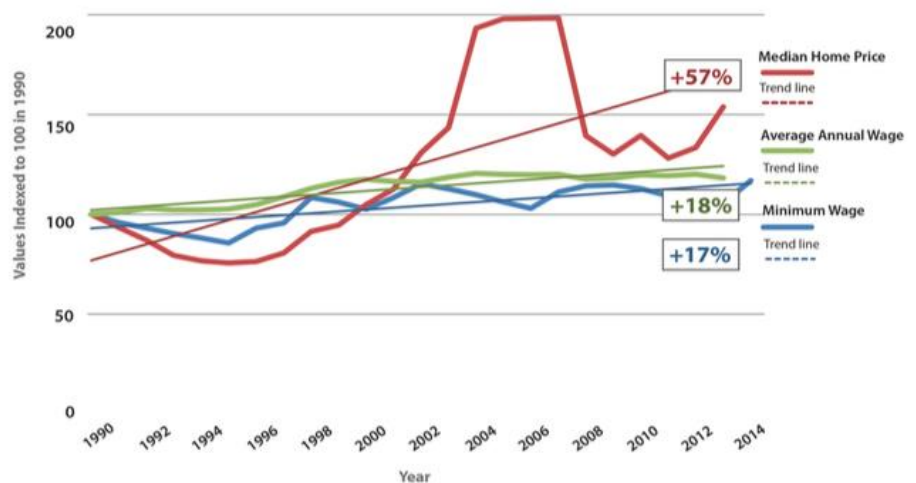
Source: OCCORD (2015). More Jobs, Less Opportunity: Economic Growth in Orange County, p. 13

Physical Environment

Substandard Housing. Inadequate housing can impact health outcomes and overall quality of life. Substandard housing refers to a housing situation that lacks complete plumbing or kitchen facilities, has 2+ occupants per room, and household costs greater than 30% of household income (CHNA, 2015). Over half of the Anaheim MSA residents live in substandard conditions, greater than Orange County and CA. In addition, the number of students with insecure housing in OC is proportionately greater than the state average and most CA regions (CFOC, 2015).

Percent Occupied Housing Units with One or More Substandard Conditions

Anaheim MCA	Irvine MCA	OC	S. CA	CA
51.64%	45.44%	48.29%	51.1%	48.37%

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 12/29/15)

Assets & Opportunities

"Housing is a human right. There can be no fairness or justice in a society in which some live in homelessness, or in the shadow of that risk, while others cannot even imagine it."

-- Jordan Flaherty

Note: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.

Organizations

- Affordable Housing Access - http://ahaccess.org/
- AIDS Services Foundation OC - http://www.ocasf.org/
- Casa Teresa - http://www.casateresa.com/
- Colette's Children's Home - http://www.coletteschildrenshome.com/
- Families Forward - http://www.families-forward.org/
- Friendship Shelter - http://www.friendshipshelter.org/
- Jamboree Housing - http://www.jamboreehousing.com/
- Kennedy Commission - http://kennedycommission.org/
- Mercy House - http://mercyhouse.net/
- Neighbor Works - https://www.nwoc.org/
- OC Community Housing Corp - http://www.occhc.org/

- Grandma's House of Hope - https://grandmashouseofhope.org/
- Habitat for Humanity – https://www.habitatoc.org/
- Heart of Delight - https://theheartofdelight.org/
- Home Aid OC, Emmanuel House - http://www.homeaidoc.org/emmanuel-house.html
- Illumination Foundation - http://www.ifhomeless.org/contact-us/
- Innovative Housing Opportunities - http://innovativehousing.com/
- Irvine Community Land Trust - http://www.irvineclt.com/
- OC Housing Authority - http://ochousing.org/
- Orange County Rescue Mission- https://www.rescuemission.org/
- Project Hope Alliance - http://www.projecthopealliance.org/
- Public Law Center - http://www.publiclawcenter.org/
- Salvation Army - http://www.salvationarmyoc.org/
- South County Outreach – http://www.sco-oc.org/
- United Way, Straight Talk Inc. - http://getconnected.unitedwayoc.org/agency/detail/?agency_id=3800
- Veterans Affairs Supportive Housing - http://ochousing.org/special/vash

Networks / Coalitions

- Commission to End Homelessness - http://occommunityservices.org/hcd/homeless/commission
- Homeless Provider Forum – OC Partnership - http://www.ocpartnership.net/content/homelessproviderforum.html
- Homelessness OC Task Force – http://accoc.org/
- United Way Housing Collaborative - http://www.unitedwayoc.org/

Policies

- Homeless Emergency Assistance and Rapid Transition to Housing Act - https://www.hudexchange.info/homelessness-assistance/hearth-act/
- Inclusionary housing policies (information from Kennedy Commission)

Programs & Pilots

- Affordable Care Act - http://ochealthinfo.com/phs/about/dcepi/hiv/libehiv/aca
- OC Homeless Services - http://ocgov.com/services/homeless/
- OC Housing Authority, Shelter Plus Care - http://ochousing.org/special/shelter
- Rapid Re-Housing Assistance Program – http://www.sco-oc.org/rapid-rehousing/

References

- Asian Americans Advancing Justice—Orange County (AAAJOC) & Orange County Asian and Pacific Islander Community Alliance (OCAPICA). (2014). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County*. Orange County. Retrieved from https://www.advancingjustice-la.org/sites/default/files/CommunityofContrasts_OC2014.pdf
- Children & Families Commission of Orange County et al (CFCOC). (2015). *OC Community Indicators 2015 Report*. Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- Covarrubias, C. (2015). *The Kennedy Commission: Affordable housing – OC* [PowerPoint slides].
- Kaiser Permanente CHNA Data Platform (KPCHNA Data Platform). (2015-2016).
- Orange County Children's Partnership (OCCP). (2015). *Conditions of children in Orange County* (21st ed.). Orange County. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=47662
- Orange County Communities Organized for Responsible Development (OCCORD). (2015). *More jobs, less opportunity: Economic growth in Orange County.* Garden Grove. Retrieved from http://www.occord.org/downloads/More_Jobs_Less_Opportunity.pdf
- Orange County Health Care Agency. (2016) *OC Healthier Together*. Retrieved from http://www.ochealthiertogether.org/
- Zint, B. (2016, February 6). Survey finds 45% rise in Costa Mesa homeless population. *Los Angeles Times.* Retrieved from http://www.latimes.com/socal/daily-pilot/news/tn-dpt-me-0206-costa-mesa-homeless-increase-20160205-story.html
- Icons from The Noun Project

ix.   Language Barriers

Language Barriers

The inability to speak English well creates barriers to education, economic prosperity, healthcare access, provider communication, and health literacy and education. Minorities often require care, but do not seek it due to language barriers; this is true for the Asian and Hispanic populations who do not speak English well. Those with limited English proficiency tend to trust providers who speak their language. Thirty percent of Orange County (OC) citizens are foreign born, and 45% of all residents over age five speak a language other than English at home (CFCOC, 2015). A significant proportion of KFH-Anaheim Medical Center Area (MCA; 26.46%) residents are *not proficient in English*, a rate higher than the state average (19.35%). Compounding this problem, over 13% of KFH-Anaheim MCA residents live in linguistically isolated households. As such, 33% of students in the KFH-Anaheim MCA score poorly in reading proficiency and English learners represent a significant proportion of high school dropouts in Orange County (16.00%; OCCP, 2015).
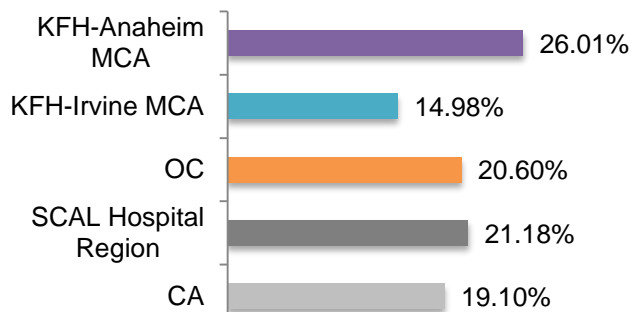
Language Barrier Statistics

**603,74** People in Orange County MCAs ages 5+ who speak English less than "very well"

Percentage of Population Age 5+ with Limited English Proficiency

KFH-Anaheim MCA	26.01%
KFH-Irvine MCA	14.98%
OC	20.60%
SCAL Hospital Region	21.18%
CA	19.10%

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 2/15/16)

Linguistically Isolated Populations. Being surrounded by English speakers cultivates English proficiency. Below is the percentage of the population age 5+ living in homes in which no one 14 years or older speak only English, or speaks a non-English language and speaks English "very well".

Percent Linguistically Isolated Population
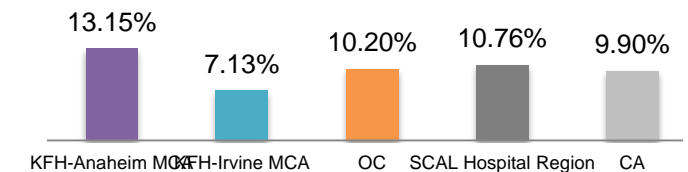
KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
13.15%	7.13%	10.20%	10.76%	9.90%

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16).

Health Disparities

Racial Breakdown. Hispanics, Whites, and Asians represent the largest portion of KFH-Anaheim and KFH-Irvine MCAs populations with limited English proficiency. Note that "White" is inclusive of those that speak Indo-European languages (32,386). Of those, the majority spoke Persian (10,885), followed by Guajarati (2,453), and Hindi (2,046). Within the Asian and Pacific Island Languages (205,777), Vietnamese is the most common language spoken at home (98,849), followed by Korean (45,670), Chinese (30,840), and Tagalog (11,699; Kaiser Permanente CHNA Data Platform, 2015). Particularly, the Vietnamese population in Orange County reports difficulties communicating with their health providers (AAAJOC & OCAPICA, 2014). Of the "Other Race" (163,546), Arab (6,158) was the most common language spoken at home (Kaiser Permanente CHNA Data Platform, 02/09/16).

Population with Limited English Proficiency by Race

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
White	17.1%	7.07%	11.79%	16.52%	14.18%
Black/African American	0.2%	0.08%	0.13%	0.24%	0.22%
Asian	14.4%	8.97%	11.49%	7.72%	7.9%
Native American/Alaskan Native	0.11%	0.08%	0.13%	0.18%	0.16%
Native Hawaiian/Pacific Islander	0.09%	0.03%	0.06%	0.06%	0.09%
Hispanic/Latino	39.3%	32.77%	37.5%	35.47%	34.71%
Other Race	12.76%	5.56%	8.96%	9.91%	7.73%

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16)

Head Start Program Facilities. Head Start Programs provide comprehensive early childhood education, health, nutrition, and parent involvement services to low-income children and their families. As seen below, most facilities are in the Anaheim MCA.

All Head Start Facilities
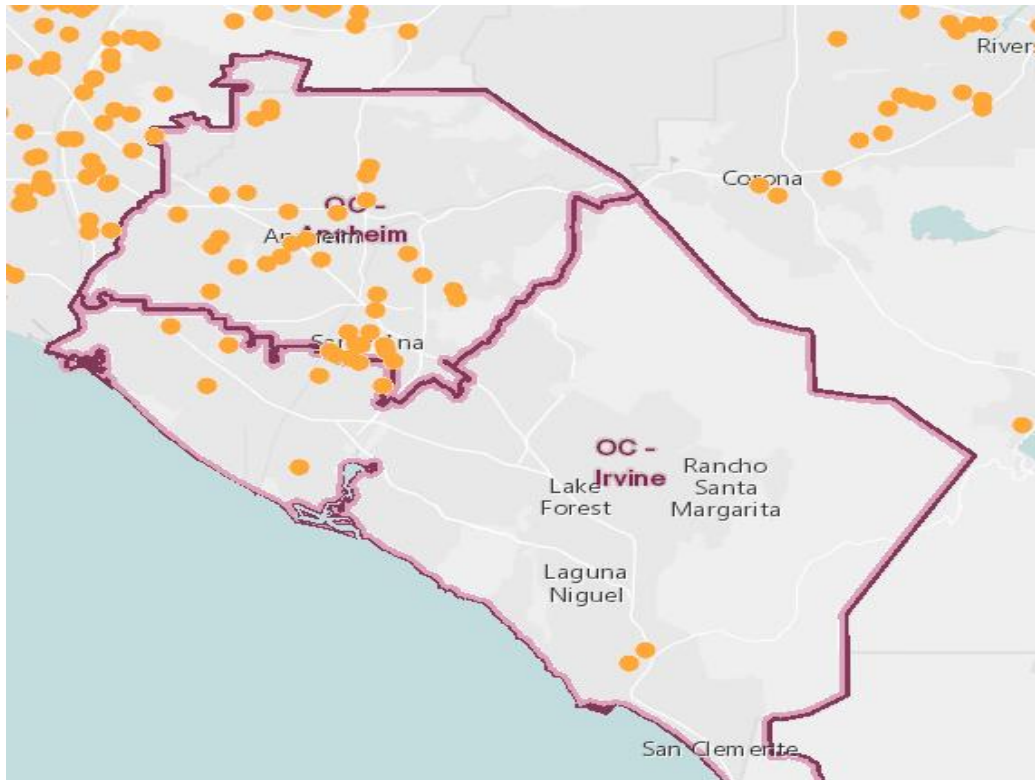
Source: US Department of Health & Human Services, Administration for Children and Families. 2014. Source geography: Point (Accessed via Kaiser Permanente CHNA Data Platform, 1/2/16)

Social and Economic

High School Dropout Rates. Language barriers represent a significant barrier to educational attainment. Lack of education is often linked to poverty and poor health. According to the *21st Annual Conditions of Children in Orange County* Report (2015), despite a decline in dropout rates across all race and ethnicities, in the 2013/14 school year African Americans and Hispanics (10%) had the highest dropout rates in OC. Additionally, among dropouts, students enrolled as English learners (16%) had the highest drop out rates by program despite a decrease from 2009/10.

Percent of Grade 9-12 Cohort Dropouts, by Program
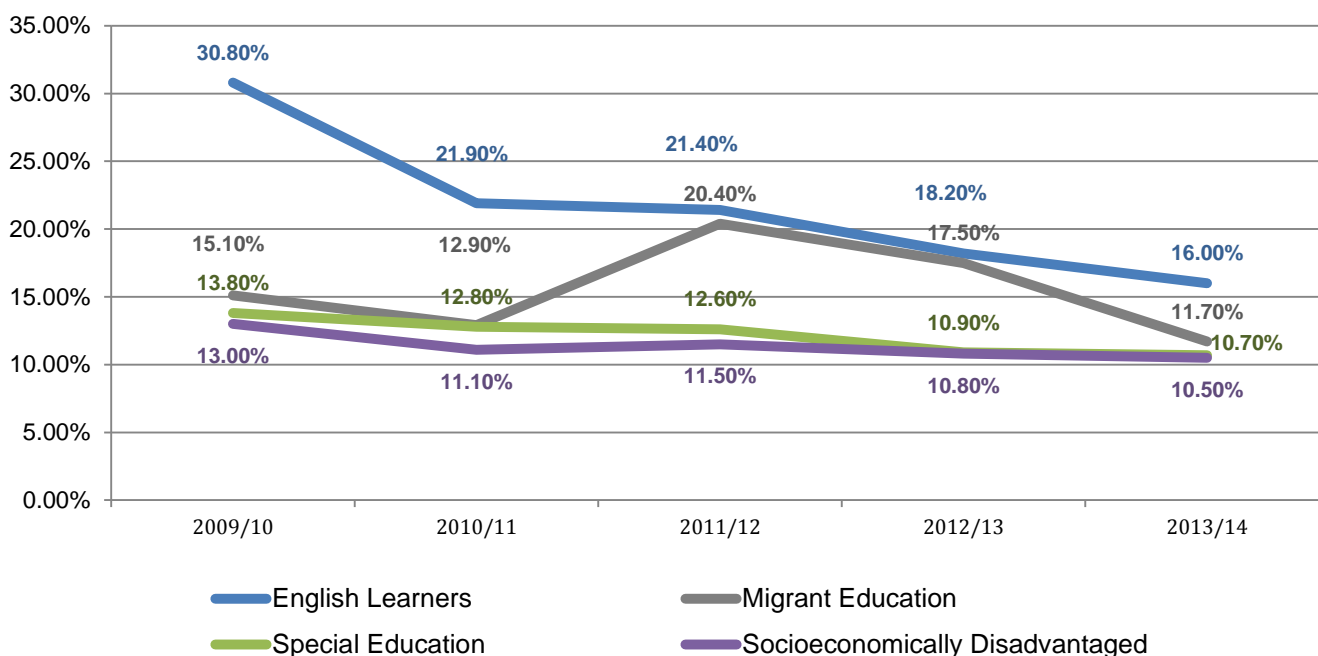
Source: Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County, p. 46.

Enrollment in School. Educational attainment is a primary social determinant of health, and is associated with increased economic opportunity, access to social resources (e.g. food access, spaces and facilities for physical activity), and is linked to positive health status and outcomes. The graph below indicates the percentage of children ages 3 to 4 enrolled in school. Irvine performs particularly well, with nearly 60% enrolled in school, while Anaheim is below the state average less than 45% of children enrolled in school.
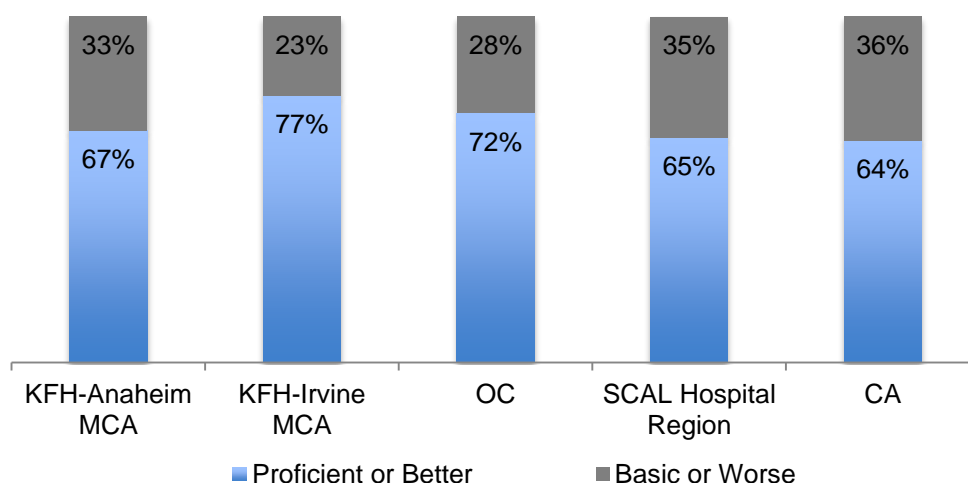
Percentage Age 3-4 Enrolled in School
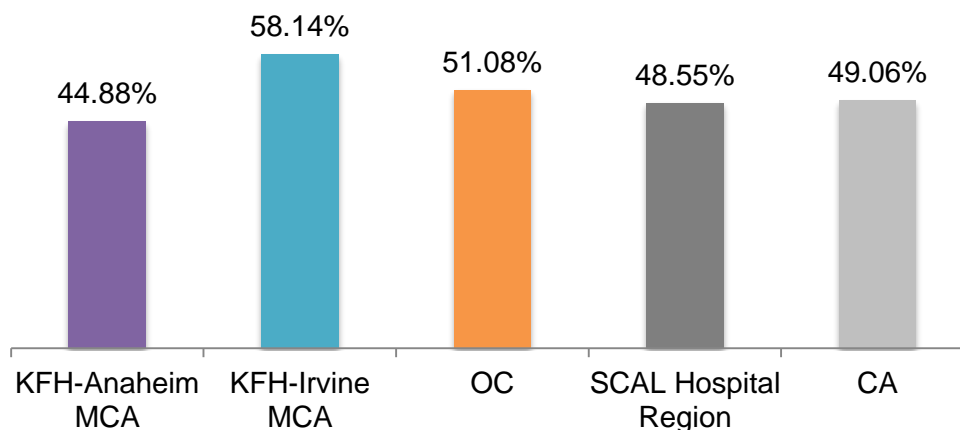
KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
44.88%	58.14%	51.08%	48.55%	49.06%

Reading Proficiency. To the right is the percentage of children in grade 4 whose reading skills tested below the "proficient" level for the CST English Language Arts portion of the California STAR test. Just 23% of KFH-Irvine MCA students are below reading proficiency, whereas 33% of KFH-Anaheim MCA student are below proficiency. As a result, the *21st Annual Conditions of Children in Orange County* Report (2015) states that in 2013/14, 39% of the Anaheim Union High District graduates were college ready whereas Irvine Unified School District had 61.9% of college ready graduates. In general, Asian American students were most likely to be UC/CSU eligible (74.5%), next were White students (55%), American Indian (45.8%), Black (38.4%), and lastly Hispanic students (33.6%; CCOC, 2015).

Reading Proficiency Scores

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
Basic or Worse	33%	23%	28%	35%	36%
Proficient or Better	67%	77%	72%	65%	64%

■ Proficient or Better ■ Basic or Worse

Assets & Opportunities

"If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart."

-- Nelson Mandela

Note: *The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.*

Organizations

- Access California Services - http://www.accesscal.org/home/
- Dayle McIntosh Center - http://www.daylemc.org/
- Delhi Center - http://delhicenter.org/live/community-programs/
- Latino Health Access - http://www.latinohealthaccess.org/
- MECCA - http://ocmecca.org/
- OC Korean American Health Information & Education Center
- OC Library Literacy Program - http://readoc.org/
- Orange County Asian and Pacific Islander Community Alliance - http://ocapica.org/
- Pacific Islander Health Partnership - http://www.pacifichealthpartners.org/
- Vietnamese Community of Orange County Inc. - http://www.thevncoc.org/

Policies

- SB 853 - http://cpehn.org/policy-center/cultural-and-linguistic-competency/sb-853-health-care-language-assistance-act

References

- Asian Americans Advancing Justice—Orange County (AAAJOC) & Orange County Asian and Pacific Islander Community Alliance (OCAPICA). (2014). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in Orange County*. Orange County. Retrieved from https://www.advancingjustice-la.org/sites/default/files/CommunityofContrasts_OC2014.pdf
- *Children & Families Commission of Orange County et al (CFCOC). (2015). OC Community Indicators 2015 Report.* Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- Kaiser Permanente CHNA Data Platform (KPCHNA Data Platform). (2015-2016).
- *Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County.* Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=47662
- Icons from The Noun Project

x. Oral Health

Oral Health

Poor oral health is still a concerning issue in America. Although compared to other countries the US performs better, there are still considerable disparities that need improvement. According to the Centers for Disease Control and Prevention (2015), many contributing factors include gender, age, socioeconomic status, and geographic location; contributing behavioral factors include tobacco use, regularity of alcohol consumption, and poor eating habits. Poor oral health is preventable through regular oral examinations and daily oral health habits. However, a lack of access to dental care and affordable dental insurance make this increasingly difficult for families. There are no oral health professional shortage areas in Orange County (OC), yet, 26% of the population reports not having visited a dentist in the past year. There is a need to make dental services more accessible to the population. On the other hand, since much of the KFH-Anaheim and KFH-Irvine Medical Center Areas (MCAs) has safe drinking water, fewer residents consume soft drinks, which is beneficial for oral health.
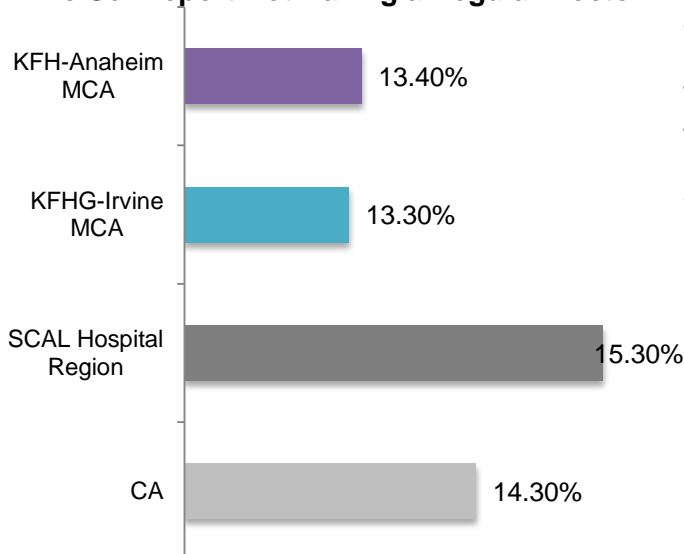
Oral Health Statistics

**194,381** **Adults in the Anaheim and Irvine MCAs with Poor Dental Health**

Percentage of Children, Teens, and Adults Who Self-report Not Having a Regular Doctor

KFH-Anaheim MCA	13.40%
KFHG-Irvine MCA	13.30%
SCAL Hospital Region	15.30%
CA	14.30%

Source: University of California Center for Health Policy Research, California Health Interview Survey. 2011-12. Source geography: County (Grouping), (Accessed via Kaiser Permanente CHNA Data Platform, 2/17/16)

Lack of Insurance. A lack of insurance is a primary barrier to healthcare access, and contributes to poor oral health status. Despite reporting 0% of the population living in an area with a shortage of dental health professionals, 42% of Orange County residents lack dental insurance, up from 2007 and greater than the state average, making it difficult for them to utilize these services.

Percent Adults without Dental Insurance
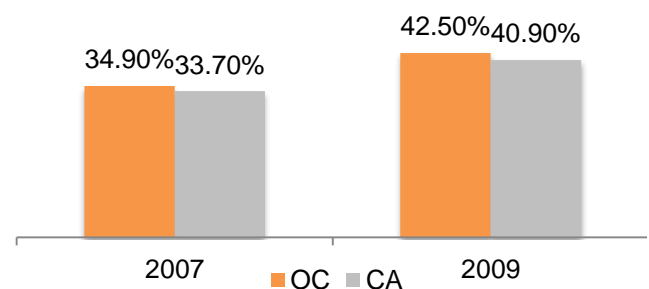
	2007	2009
OC	34.90%	42.50%
CA	33.70%	40.90%

Source: University of California Center for Health Policy Research, California Health Interview Survey. 2009. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15).

Dental Exams. Engaging in preventative behaviors decreases the likelihood of developing future health problems. Having not visited a dentist within the past year points to a lack of access to preventative care, health knowledge, insufficient provider outreach, or social barriers that prevent use of available services. Despite living in an area with no shortage of dental care, over 26% of Orange County adults have not had an exam in the last year.

Percent Adults with No Dental Exam and Children Without a Recent Dental Visit

	KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
Adults	26.5%	26.2%	26.2%	32.1%	30.5%
Children	11.8%	11.6%	11.6%	18.2%	18.5%

Source: University of California Center for Health Policy Research, California Health Interview Survey. 2013-14. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15).

Health Disparities

A total of 978,340 residents of KFH-Anaheim and KFH-Irvine MCAs lack dental insurance. Of this portion, nearly half of Hispanic residents lack dental insurance.

Population without Dental Insurance

	KFH-Anaheim MCA	KFH-Irvine MCA	CA
White	29.49%	29.42%	30.33%
African American	No Data	No Data	25.08%
Asian	30.90%	30.56%	25.08%
Native American	No Data	No Data	23.08%
Hispanic/Latino	47.18%	47.35%	41.96%

Source: University of California Center for Health Policy Research, California Health Interview Survey. 2009. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Key Health Drivers

Clinical Care

Dental Care – Lack of Affordability. Being unable to afford dental care points to a lack of access to dental health care and preventative health actions. Not utilizing these services Inability contributes to poor health status. Below is the percentage of children and teens who reported that during the past 12 months, there was a time when they needed dental care but could not afford it. Orange County has slightly higher rates of inability to afford dental care than the rest of California.

Percent of Children & Teens Unable to Afford Dental Care in the Past 12 Months

KFH-Anaheim MCA	8.70%
KFH-Irvine MCA	8.80%
SCAL Hospital Region	7.00%
CA	6.30%

Source: University of California Center for Health Policy Research, California Health Interview Survey. 2009. Source geography: County (Grouping) (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15).
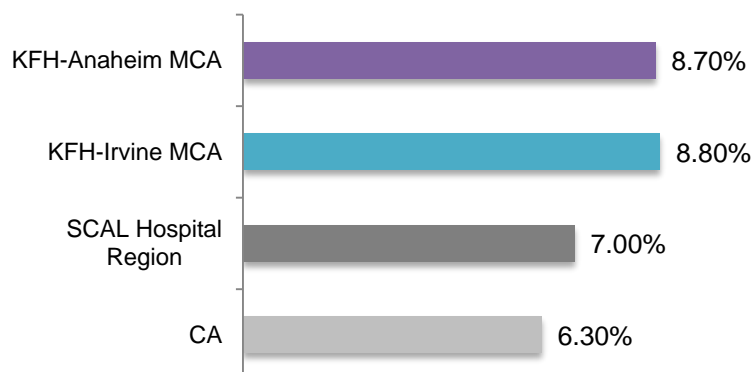
Health Professional Shortage Area. Living in an area with a shortage of health professionals can contribute to difficulties in access to care and overall health status concerns. Below is the percentage of the population living in a geographic area with a shortage of dental care. Both KFH-Anaheim and KFH-Irvine MCAs perform particularly well, with 0% of the population living in a shortage area.

Percentage of Population Living in a Health Professional Shortage Area - Dental

KFH-Anaheim MCA	KFH-Irvine MCA	OC	SCAL Hospital Region	CA
0%	0%	0%	3.04%	4.93%

Source: US Department of Health & Human Services, Health Resources and Services Administration, Health Resources and Services Administration. March 2015. Source geography: HPSA (Accessed via Kaiser Permanente CHNA Data Platform 12/29/15)

Physical Environment

Drinking Water Safety. Safe drinking water is important because it provides an affordable and safe way for the population to meet their daily fluid intake requirements. Additionally, it can work to reduce intake of sugary beverages often related to obesity. It is also a protective factor from water-borne diseases that can come with climate changes. Below is the population obtaining drinking water from public water systems with at least one health-based violation.

Percentage of Population Potentially Exposed to Unsafe Drinking Water

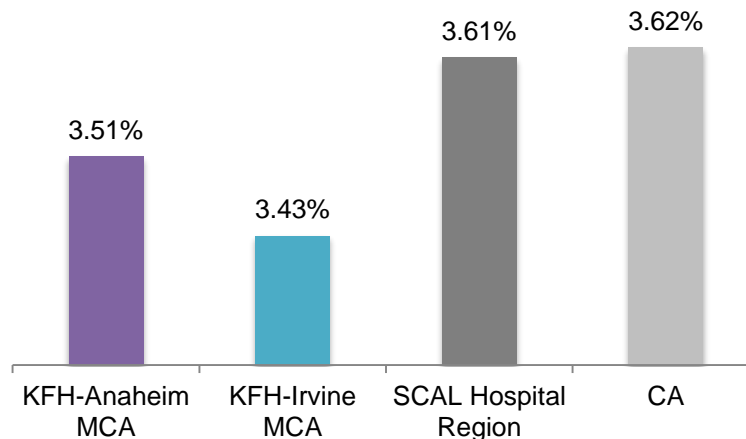| KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA
0.1%	0%	2.1%	2.7%

Source: University of Wisconsin Population Health Institute, County Health Rankings. 2012-13. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/31/15)

Health Behaviors

Soft Drink Expenditures. Soft drink consumption may be a cause of significant health issues such as diabetes and obesity, and may cause significant oral health problems. Below are the estimated expenditures for carbonated beverages, as a percentage of household expenditures.

Percentage of Soft Drink Expenditures

Category	Percentage
KFH-Anaheim MCA	3.51%
KFH-Irvine MCA	3.43%
SCAL Hospital Region	3.61%
CA	3.62%

Source: Nielsen, Nielsen SiteReports. 2014. Source geography: Tract (Accessed via Kaiser Permanganate CHNA Data Platform, 12/31/15)

Assets & Opportunities

"Maintaining optimal periodontal health may do more to reduce healthcare expenditures throughout the lifespan than any other public health measure."

-- Dr. Tony Lacopino

Note*: The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive*

Organizations

- Assistance League of Santa Ana – http://www.assistkids.org/
- Camino Health Center - http://www.dentalclinics.org/lis/ca-camino_health_center_dental_clinic
- Healthy Smiles for Kids of Orange County- http://www.healthysmilesoc.org/home/
- Huntington Beach Community Care Dental Clinic -
- Laguna Beach Community Clinic – http://lbclinic.org/
- Lestonnac Free Clinic – http://www.lestonnacfreeclinic.org
- Orange County Dental Health – http://ochealthinfo.com/
- SOS Dental Clinic – http://shareourselves.org/
- The Gary Center Dental Clinic – http://thegarycenter.org/

Networks / Coalitions

- American Academy of Pediatrics - https://www.aap.org/en-us/Pages/Default.aspx
- Children & Families Commission of OC - http://occhildrenandfamilies.com/

Policies

- Dental Coverage Expansion
- Restored Medi-Cal Coverage

Programs & Pilots

- Smile Line OC Referral Network - http://www.healthysmilesoc.org/

References

- Centers for Disease Control and Prevention (CDC). (2015). Disparities in oral health. Retrieved from http://www.cdc.gov/oralhealth/oral_health_disparities/index.htm
- Kaiser Permanente CHNA Data Platform (KPCHNA Data Platform). (2015-2016).
- Icons from The Noun Project

xi. Substance Abuse

Substance Abuse

Substance abuse is a significant problem, with alcohol and drug use representing two of the top nine principal behavioral contributors to death in the United States (OCHCA, 2014b). Continuous and persistent use of alcohol and other drugs (AOD), can cause serious health issues, including but not limited to, cardiovascular and liver disease, and can increase violent behavior and risk of injury (OCHCA, 2014b). Here in Orange County (OC), the Orange County Health Improvement Plan identified behavioral health as one of their top four priority action areas in 2014. Although Orange County adults as a whole tend to have a lower rates of AOD use compared to the state and the country (OCHCA, 2014a), there are still some concerning trends. According to the *Orange County Community Indicator's Report* (2015), in 2012, the majority of hospitalizations for adults ages 18-64 were due to substance abuse; an 8% increase since 2003. Additionally, from 2003 - 2012 there was a 33% increase in drug-induced deaths and a 7% increase in deaths due to liver disease and cirrhosis. There are also concerning trends for children and youth. Based on the *Orange County Conditions of Children Report* (2015), hospitalization rates for 0-17 year olds due to serious mental illness and substance abuse (combined) has increased by 25.6% since 2004 with a rate of 22.6 for every 10,000 children in 2013. Moreover, the majority of substance related hospitalizations were comprised of males (63%). This has the potential to impart unhealthy behaviors to children, as indicated by focus group data (October 20, 2015). Relatedly, the AOD prevalence 2012 Survey of Orange County Adults reported that white male adults consumed alcohol more than all other ethnic groups. Prevalence of use tended to increase with age with highest points between the ages of 45 - 64 and was also higher for more affluent and educated adults.

Substance Abuse Statistics

394,626 **Approximate number of adults who report heavy alcohol consumption in the KFH-Anaheim and KFH-Irvine MCAs**

Health Disparities

Binge Drinking. Binge drinking is defined as drinking 5 or more drinks on one occasion for males and 4 drinks for females. Males and18-34 year olds were more likely to engage in frequent binge drinking compared to females and those 35 years or older. Additionally, frequent binge drinkers reported having attended or graduated from college. Moreover, the greatest proportion of past-month binge drinkers were White males (35%) and Hispanic males (31%), followed by White females (17%) and API males (8%; OCHCA, 2014a). Based on focus group data (October 5th, 2015), there is a need to address cultural stress related to negative mental health outcomes for the Vietnamese community that may be associated with alcohol/tobacco usage, in addition to the need for family and social support.

Recent Alcohol Consumption. Orange County adults who were most likely to have consumed alcohol in the past 30 days tended to be male, more affluent, educated (college graduates), White, and consumed their first alcoholic beverage before the age of 18. On the other hand, individuals who were less likely to have consumed alcohol in the past 30 days tended to be less acculturated (particularly Vietnamese and Hispanic), females, of Asian or Pacific Islander descent, 18-24 or 35-44 years old, had lower levels of education, and had annual incomes of less than $40,000 (OCHCA, 2014a).

Drinking and Driving. Whites were most likely to have drank and driven while Asian Pacific Islanders were least likely to have done so. Also, males were three times more likely (74%) than females (26%) to report drinking and driving, an even more drastic number when reporting drinking *too much* and driving with males at 88% to females at 12% (OCHCA, 2014a).

Illicit Drug Use. According to the Alcohol and Other Drug Use Prevalence 2012 Survey of Orange County Adults, there was an increase in illicit drug use from 5% in 2002 to 7% in 2012 for males while women remained stable at 2%. The chart below show a four time increase in illicit drug use (past 30 days) for the Asian Pacific Islander (API) population while whites had a 20% decrease from 2002 to 2012. Similarly, the API population's reported past year marijuana use for 2002 and 2012 shows the greatest increase from 2% to 7% compared to Hispanics from 4% to 6% and Whites from 8% to 9%.

(See graph on next page)
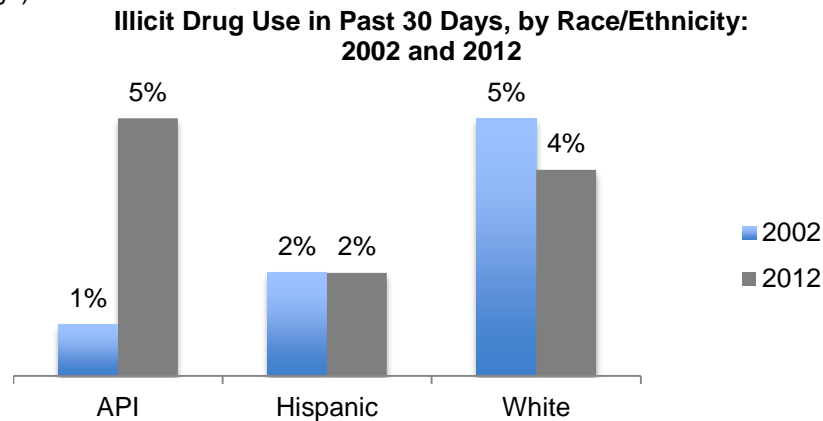
Illicit Drug Use in Past 30 Days, by Race/Ethnicity: 2002 and 2012

Source: Orange County Health Care Agency (OCHCA). (2014a). Alcohol and other drug use prevalence: 2012 survey of Orange County adults, p.54.

Key Health Drivers

Health Behavior

Tobacco & Alcohol Expenditures. Tobacco use is the leading cause of many preventable deaths in the United States. It increases the likelihood of death due to lung, esophageal, and pancreatic cancer and contributes to cardiovascular disease, bronchitis, emphysema, pneumonia, and other illnesses (OCHCA, 2012). Similarly, greater expenditures for alcoholic beverages may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs (KPCHNA Data Platform, 2015). The table below illustrates tobacco and alcohol expenditures as a percentage of total household expenditures. The KFH-Irvine MCA performs worse than the KFH-Anaheim MCA, the region, and the state, but still better than the nation (14.29%).

Tobacco & Alcohol Expenditures

	KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA
Tobacco	0.9%	0.86%	1%	1.02%
Alcohol	12.8%	13.75%	12.47%	12.93%

Source: Nielsen, Nielsen SiteReports. 2014. Source geography: Tract; Accessed via Kaiser Permenente CHNA Data Platform 1/9/16

Age of First Drink. Drinking behavior at a younger age is associated with higher risk of alcohol problems later in life. According to a report from the National Institute on Alcohol Abuse and Alcoholism (As seen in OCHCA, 2014a), about 50% of adults who consume their first alcoholic beverage before the age of 15 are more likely to develop alcohol use disorders during adulthood. This is concerning given that 14% of Orange County adults reported having their first alcoholic beverage before the age of 15 and 42% before the age of 18 (OCHCA, 2014a).

Estimated Adults Drinking Excessively
(Age-Adjusted Percentage)
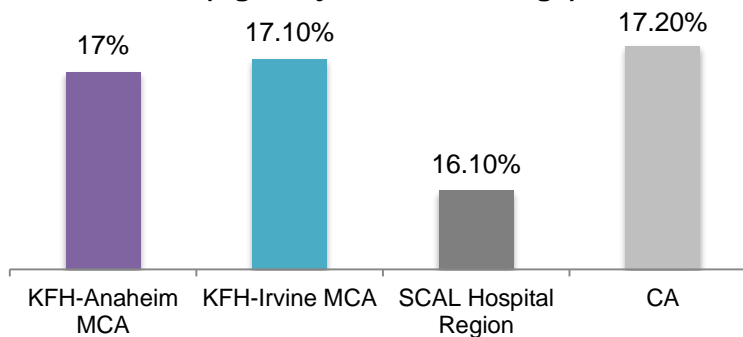
17%	17.10%	16.10%	17.20%
KFH-Anaheim MCA	KFH-Irvine MCA	SCAL Hospital Region	CA

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County. (Accessed via Kaiser Permanente CHNA Data Platform, 12/22/15)

Tobacco Usage. From 2006-2012, 251,206 adults reported regularly smoking cigarettes. This is relevant as tobacco use is linked to leading causes of death such as cancer and cardiovascular disease. Anaheim and Irvine Medical Center Areas (MCAs) perform better than Southern California, and the United States.

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse, US Department of Health & Human Services, Health Indicators Warehouse. 2006-12. Source geography: County (Accessed via Kaiser Permanente CHNA Data Platform, 12/22/15)

Tobacco Usage Among Adults, 2006 - 2012.
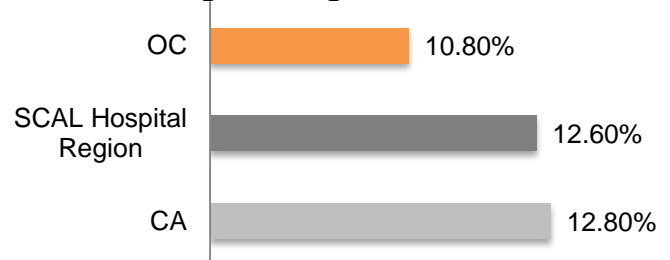
OC	10.80%
SCAL Hospital Region	12.60%
CA	12.80%

Drug Use. Overall, 34% of Orange County adults reported ever using illicit drugs, with the majority of adults reporting having used marijuana. Though only 6% of adults report having used prescription drugs, focus group data indicates that this is a considerable problem in the community, especially in the KFH-Irvine MCA.

History of Lifetime Drug Use in OC Adults
(2012 Survey)
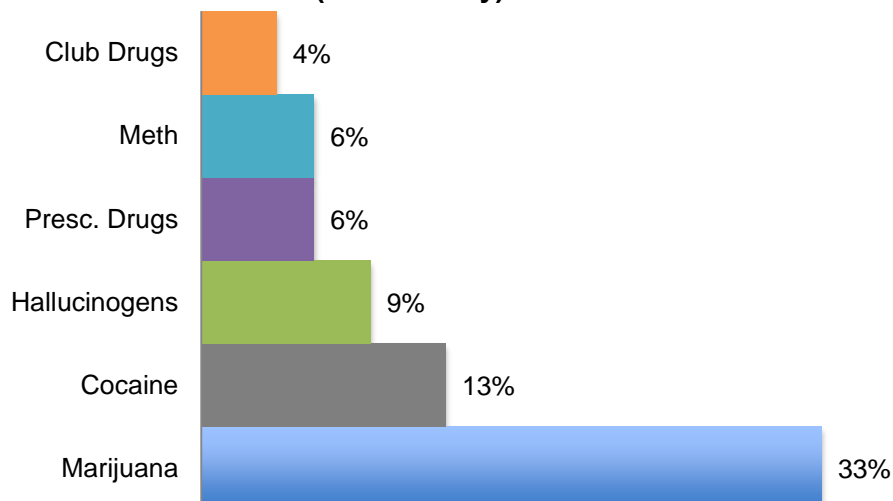
Club Drugs	4%
Meth	6%
Presc. Drugs	6%
Hallucinogens	9%
Cocaine	13%
Marijuana	33%

Source: Orange County Health Care Agency (OCHCA). (2014a). Alcohol and other drug use prevalence: 2012 survey of Orange County adults, p.20-31.

Recent Alcohol Consumption. Current or past alcohol use (within 30 days) is often associated with community problems. Based on the Alcohol and Other Drug Use Prevalence 2012 Survey of Orange County Adults, 47% (1,063,000) of adults reported consuming alcohol in the past 30 days.

Prevalence of Alcohol Use in the Past 30 Days by Demographic Groups in Orange County

Male	53%
Female	41%
White	59%
Asian/Pacific Islander	35%
Hispanic	35%
Vietnamese	28%
Overall	47%

Source: Orange County Health Care Agency (OCHCA). (2014a). Alcohol and other drug use prevalence: 2012 survey of Orange County adults, p7.

Physical Environment

Liquor Store Access. Alcohol consumption is the third leading cause of preventable deaths in the nation. Additionally, high alcohol outlet density has been linked with negative outcomes such as higher rates of alcohol related automobile accidents and fatalities, and pedestrian collisions. Moreover, for every 10% increase in the number of alcohol outlets in an area, it is estimated that there will also be an increase in violent crime of 1.7 – 2.1%(OCHCA, 2012). Cities such as San Clemente, Huntington Beach, Dana Point, N. Newport Beach, and Mission Viejo, to name a few, are inundated with stores that sell liquor (KPCHNA Data Platform, 12/22/2015).

Source: US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2012. Source geography: ZCTA, (Accessed via Kaiser Permanente CHNA Data Platform, 12/22/15)

Clinical Care

Suicide/Self-Inflicted Injury and Substance Abuse. Roughly 42.5% of Orange County teens with self-inflicted injuries required hospitalization. Most commonly these were through poisoning (solid or liquid substance, 57.6%) or by cutting and piercing (31.0%). Combined, they constituted 88.6% of all teen self-inflicted injuries treated in the Emergency Department. Additionally, of all teens hospitalized for self-inflicted injuries, 87% had known mental illness diagnoses, one of the most common being substance use disorder (OCHCA & OCSCD, 2015). Moreover, for the majority of teen suicide victim cases (66%), there was a history of substance abuse. Among the identified suicide risk factors for Orange County teens (2009-2013), history of substance abuse was present for 55% of "younger teens", 76.2% of "older teens" and 65.9% of all cases. Further, about 50% of all teen suicides had a positive toxicology screen with the most common drugs being cannabis, alcohol, opioids, and amphetamines (OCHCA & OCSCD, 2015).

Source: Orange County Health Care Agency and Sheriff-Coroner (2015) Risk Factors for Teen Self-Inflicted Injury and Suicide in Orange County.

Assets & Opportunities

"Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems."
-- Healthy People 2020

Note: *The list of assets below was gathered through feedback from individuals who participated in focus groups and town hall meetings as part of this CHNA and is by no means exhaustive.*

Organizations

- Child Guidance Center - http://cgcoc.org/
- OC Health Care Agency - http://ochealthinfo.com/

Networks / Coalitions

- Alcohol and Drug Advisory Board - http://ochealthinfo.com/bhs/about/adab
- Orange County Tobacco Education Coalition - http://www.octec.org/
- Irvine prevention coalition - http://www.irvinepreventioncoalition.org/

Policies

- Prop 47 - https://ballotpedia.org/California_Proposition_47,_Reduced_Penalties_for_Some_Crimes_Initiative_(2014)
- Sober Living Home Ordinances in various cities http://soberorangecounty.com/

Programs & Pilots

- "No Butts" cessation program - http://www.nobutts.org/
- Weaving an Islander Network for Cancer Awareness, research, and Training - http://wincart.fullerton.edu/
- Community Service Programs Inc. (CSP) Youth Shelter – http://www.cspinc.org/Youth%20Shelters
- SOMOS (HIU prevention program for young Latinos, MSM use substances, use awareness component) coordinated by ASF
- Anti Vaping Campaign - www.notsosafe.org

References

- Children & Families Commission of Orange County et al (CFCOC). (2015). OC Community Indicators 2015 Report. Retrieved from http://occhildrenandfamilies.com/wp-content/uploads/2014/12/OCCIR_2015_Report_Web.pdf
- Kaiser Permanente CHNA Data Platform (KPCHNA Data Platform). (2015-2016).
- Orange County Children's Partnership (OCCP). (2015). Conditions of children in Orange County (21st ed.). Orange County. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=47662
- Orange County Health Care Agency (OCHCA) & Orange County Sheriff-Coroner Department (OCSCD). (2015). Risk factors for teen self-inflicted injury and suicide in Orange County. May 2015. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=44265
- Orange County Health Care Agency (OCHCA) et al. (2012). Healthy places, healthy people: Snapshots of where we live, learn, work, and play. Orange County. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=14814
- Orange County Health Care Agency (OCHCA). (2014a). Alcohol and other drug use prevalence: 2012 survey of Orange County adults, p. 1 – 61. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=39640
- Orange County Health Care Agency (OCHCA). (2014b). Orange County Health Improvement Plan 2014-16. Retrieved from http://ochealthinfo.com/civicax/filebank/blobdload.aspx?BlobID=34860 - 4
- Icons from The Noun Project

D. Glossary of Terms

The following terms are used throughout the Community Health Needs Assessment report. They represent concepts that are important to understanding the findings and analysis in this report.

Age-adjusted rate. The incidence or mortality rate of a disease can depend on the age distribution of a community. Because chronic diseases and some cancers affect older adults disproportionately, a community with a higher number of older adults might have a higher mortality or incidence rate of some diseases than another community that may have a higher number of younger people. An incidence or mortality rate that is **age-adjusted** takes into the consideration of the proportions of persons in corresponding age groups, which allows for more meaningful comparison between communities with different age distributions.

Benchmarks. A benchmark serves as a standard by which a community can determine how well or not well it is doing in comparison for specific health outcomes. For the purpose of this report, one of two benchmarks is used to make comparison with the medical center area. They are Healthy People 2020 objectives and state (California) averages.

Death rate. See *Mortality rate*.

Disease burden. Disease burden refers to the impact of a health issue not only on the health of the individuals affected by it, but also the financial cost in addressing this health issue, such as public expenditures in addressing a health issue. The burden of disease can also refer to the disproportionate impact of a disease on certain populations, which may negatively affect their quality of life and socioeconomic status.

Health condition. A health condition is a disease, impairment, or other state of physical or mental ill health that contributes to a poor health outcome.

Health disparity. Diseases and health problems do not affect all populations in the same way. Health disparity refers to the disproportionate impact of a disease or a health problem on specific populations. Much of research literature on health disparity focuses on racial and ethnic differences in how these communities experience the diseases, but health disparity can be correlated with gender, age, and other factors, such as veteran, disability, and housing status.

Health driver. Health drivers are behavioral, environmental, social, economic and clinical care factors that positively or negatively impact health. For example, smoking (behavior) is a health driver for lung cancer, and access to safe parks (environmental) is a health driver for obesity/overweight. Some health drivers, such as poverty or lack of insurance, impact multiple health issues.

Health indicator. A health indicator is a characteristic of an individual, population, or environment which is subject to measurement (directly or indirectly) and can be used to describe one or more aspects of the health of an individual or population.

Health outcome. A health outcome is a snapshot of a disease in a community that can be described in terms of both morbidity and mortality (e.g. breast cancer prevalence, lung cancer mortality, homicide rate, etc.).

Health need. A health need is a poor health outcome and its associated health driver, or a health driver associated with a poor health outcome where the outcome itself has not yet arisen as a need.

Hospitalization rate. Hospitalization rate refers to the number of patients being admitted to a hospital and discharged for a disease, as a proportion of total population.

Incidence rate. Incidence rate is the number of *new* cases for a specific disease or health problem within a given time period. It is expressed either as a fraction (e.g. percentage) or a density rate (e.g., *x* number of cases per 10,000 people), in order to allow for comparison between different communities. It should not be confused with *prevalence rate*, which measures the proportion of people found to have a specific disease or health problem.

Morbidity rate. Morbidity rate refers to the frequency with which a disease appears within a population. It is often expressed as a *prevalence rate* or *incidence rate.*

Mortality rate. Mortality rate refers to the number of deaths in a population due to a disease. It is usually expressed as a density rate (e.g. *x* number of cases per 10,000 people). It is also referred to as "death rate."

Prevalence rate. Prevalence rate is the proportion of total population that currently has a given disease or health problem. It is expressed either as a fraction (e.g. percentage) or a density rate (e.g., *x* number of cases per 10,000 people), in order to allow for comparison between different communities. It should not be confused with incidence rate, which focuses only on *new* cases. For instance, a community may experience a decrease in new cases of a certain disease (incidence) but an increase in the total of number suffering that disease (prevalence) because people are living longer due to better screening or treatment for that disease.

Primary data. Primary data are new data collected or observed directly from first-hand experience. They are typically qualitative (not numerical) in nature. For this community health needs assessment, primary data were collected through focus groups, interviews with key stakeholders, survey collection, and community forums. These primary data describe what is important to the people who provide the information and are useful in interpreting secondary data.

Secondary data. Secondary data are data that have been collected and published by another entity. They are typically quantitative (numerical) in nature. Secondary data are useful in highlighting in an objective manner health outcomes that significantly impact a community.

E. Key Health Needs Identified through Primary Data

Health Needs from Primary Data (FGs & KIIs)	KFH-Anaheim Health Needs Total Votes
Mental Health	53
Economic Instability	47
Obesity/Overweight	44
Healthcare Access	42
Diabetes	36
Substance Abuse/Use	29
Food Access/Security	27
Oral Health	27
Domestic Violence	24
Community Violence	23
Child Abuse	21
Cardiovascular Disease	19
Prenatal/Perinatal Health	17
Suicide	17
Cancer	15
Self-Harm	11
Teen Pregnancy	11
Alzheimer's	10
Immigration Fears	9
Built Environment (Parks, sidewalks, etc.)	8
Asthma	7
Eating Disorders	6
HIV/AIDS	5
Housing	6
Homelessness	5
Case Management	3
Transportation	2
Vision	1
Work Force Training	1

Health Needs from Primary Data (FGs & KIIs)	KFH-Irvine Health Needs Total Votes
Mental Health	54
Healthcare Access	39
Economic Instability	35
Obesity/Overweight	35
Diabetes	32
Substance Abuse/Use	29
Oral Health	21
Food Access/Security	20
Domestic Violence	19
Cardiovascular Disease	19
Suicide	18
Child Abuse	15
Prenatal/Perinatal Health	15
Alzheimer's	12
Cancer	11
Community Violence	8
Built Environment (Parks, sidewalks, etc.)	8
Teen Pregnancy	8
Asthma	7
Immigration Fears	7
Case Management	6
Housing	**6**
HIV/AIDS	**3**
Immunization/Vaccinations	3
Transportation	2
Vision	2

Note: Bold items indicate pre-populated list on wall-posters for voting. Un-bolded items indicate write-in items that received votes during the 4 focus groups.