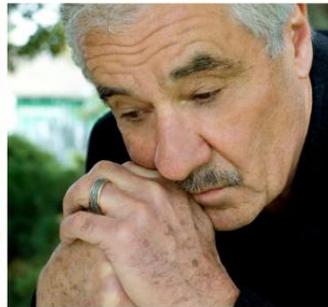




2013

Community Health Needs Assessment (CHNA)



Executive Summary

The Patient Protection and Affordable Care Act (ACA) added new federal requirements for not-for-profit hospitals and health systems, including academic medical centers and teaching hospitals such as UC Davis Medical Center. A key provision in the law is Section 501(r) related to community health needs assessments. In order to maintain tax-exempt status under Section 501(c) (3), not-for-profit hospitals are required to conduct a community health needs assessment (CHNA) and develop a companion implementation plan.

Beginning in early 2012 through February 2013, Valley Vision, Inc. conducted an assessment of the health needs of residents living in the UC Davis Medical Center service area. For the purposes of the assessment, a *health need* was defined as: “a poor health outcome and its associated driver.” A *health driver* was defined as: “a behavioral, environmental, and/or clinic factor, as well as more upstream social economic factors that impact health.”

The objective of the CHNA was:

To provide necessary information for UC Davis Medical Center’s community health improvement plan, identify communities and specific groups within these communities experiencing health disparities, especially as these disparities relate to chronic disease, and further identify contributing factors that create both barriers and opportunities for these populations to live healthier lives.

A community-based participatory research orientation was used to conduct the assessment that included both primary and secondary data. Primary data collection included input from more than 166 members of the hospital service area (HSA), expert interviews with 31 key informants, and focus group interviews with 135 community members. In addition, a community health assets assessment collected data on more than 200 assets in the greater Sacramento County area. Secondary data used included health outcome data, socio-demographic data, and behavioral and environmental data at the ZIP code or census tract level. Health outcome data included Emergency Department (ED) visits, hospitalization, and mortality rates related to heart disease, diabetes, stroke, hypertension, chronic obstructive pulmonary disease, asthma, and safety and mental health conditions. Socio-demographic data included data on race and ethnicity, poverty (female-headed households, families with children, people over 65 years of age), educational attainment, health insurance status, and housing arrangement (own or rent). Behavioral and environmental data helped describe general living conditions of the HSA such as crime rates, access to parks, availability of healthy food, and leading causes of death.

Analysis of both primary and secondary data revealed 15 specific *Communities of Concern* in Sacramento County that were living with a high burden of disease. These 15 communities had consistently high rates of negative health outcomes that frequently exceeded county, state, and Healthy People 2020 benchmarks. They were confirmed by area experts as

areas prone to experience poorer health outcomes relative to other communities in the HSA. These Communities of Concern are noted in the figure below.

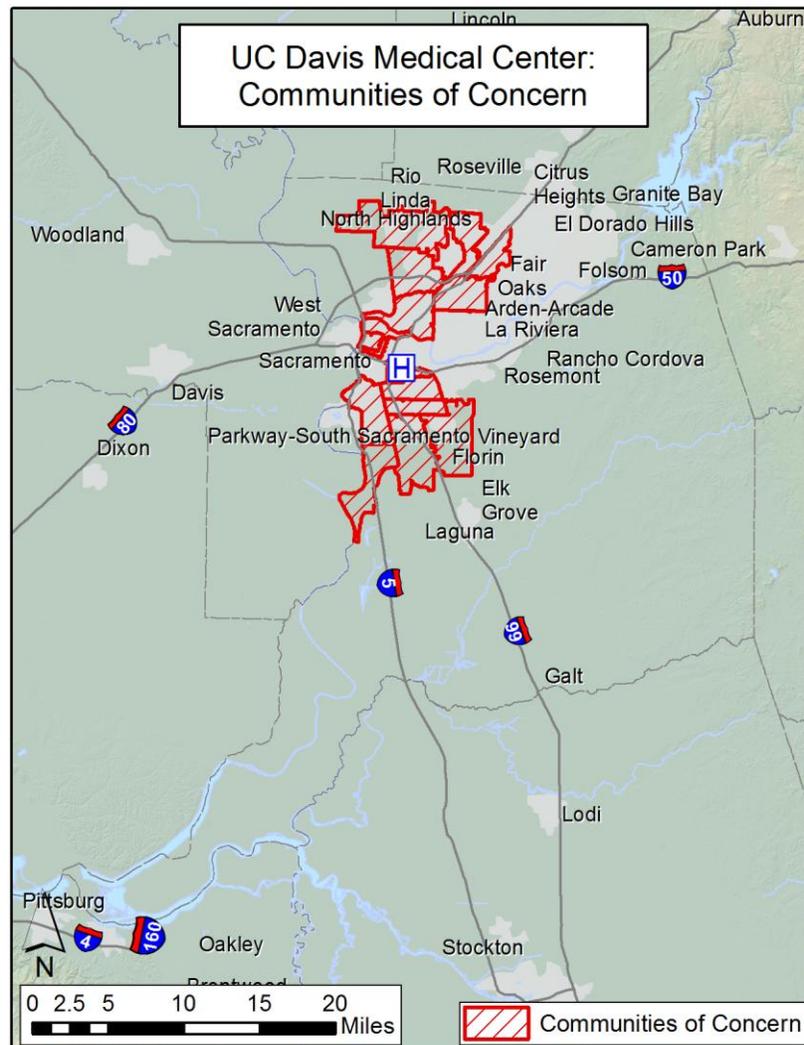


Figure 4: Map of UC Davis Medical Center hospital service area

Health Outcome Indicators

Age-adjusted rates of ED visits and hospitalization due to heart disease, diabetes, stroke, and hypertension were drastically higher in these ZIP codes compared to other ZIP codes in the HSA. In general, Blacks and Whites had the highest rates for these conditions compared to other racial and ethnic groups. Mortality data for these conditions showed high rates as well.

Environmental and Behavioral Indicators

Analysis of environmental indicators showed that many of these communities had conditions that were barriers to active lifestyles, such as elevated rates of crime and a traffic climate unfriendly to bicyclists and pedestrians. Furthermore, these communities frequently had higher percentages of residents that were obese or overweight. Access to healthy food outlets was limited, while the concentration of fast food outlets and convenience stores was high. Analysis of the health behaviors of these residents also show many behaviors that correlate to poor health, such as having a diet that is limited in fruit and vegetable consumption.

When examining these findings with those of the qualitative data (key informant interviews and focus groups), a consolidated list of priority health needs of these communities was compiled and is shown below. The complete priority health needs table can be found in Appendix G.

Priority Health Needs for UC Davis Medical Center HSA

1. Lack of access to primary health care services
2. Lack of access to mental health treatment and prevention services
3. Lack of access to coordinated care
4. Lack of access to healthy food
5. Safety as a health issue
6. Stress of living in poverty
7. Unhealthy food environment
8. Limited opportunities for physical activity engagement
9. Concerns over personal safety
10. Lack of alcohol/drug abuse treatment programs and prevention programs

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Introduction

In 1994, SB697 was passed by the California legislature. The legislation states that hospitals, in exchange for their tax-exempt status, "assume a social obligation to provide community benefits in the public interest."¹ The bill legislates that hospitals conduct a community health needs assessment (CHNA) every three years. Based on the results of this assessment hospitals must develop a community benefit plan detailing how they will address the needs identified in the CHNA. These plans are submitted to the Office of Statewide Health Planning and Development (OSHPD) and are available to the public for review. The state law exempted some hospitals from the requirement, such as small, rural hospitals as well as hospitals that are parts of larger educational systems, including UC Davis Medical Center.

In early 2010, the Patient Protection and Affordable Care Act was enacted. Similar to SB697, the law imposes similar requirements on nonprofit hospitals, requiring them to conduct CHNAs at a minimum of every three years. Results of these assessments are used by hospital community benefit departments to develop community health improvement implementation plans. Nonprofit hospitals are required to submit these annually as part of their Internal Revenue Service Form 990. Unlike California's SB697, the federal law extends the requirements to virtually all hospitals operating in the US, defining a "hospital organization" as "an organization that operates a facility required by a State to be licensed, registered, or similarly recognized as a hospital," and "any other organization that the Secretary determines has the provision of hospital care as its principal function or purpose constituting the basis for its exemption under section 501(c) (3)."²

In accordance with these legislative requirements, UC Davis Medical Center conducted a CHNA of the hospital service area (HSA). The CHNA was conducted over a two-year period through a participatory process led by Valley Vision, Inc., a community benefit organization dedicated to quality of life in the Sacramento region.

Assessment Collaboration and Assessment Team

A collection of four nonprofit hospital affiliations, all serving the same or portions of the same communities collaborated to sponsor and participate in the CHNA. This collaborative group retained Valley Vision, Inc. to lead the assessment process. Valley Vision (www.valleyvision.org) is a nonprofit 501(c) (3) consulting firm serving a broad range of communities across Northern California. The organization's mission is to improve quality of life

¹ *California's Hospital Community Benefit Law: A Planner's Guide*. (June, 2003). The California Department of Health Planning and Development. Retrieved from:

<http://www.oshpd.ca.gov/HID/SubmitData/CommunityBenefit/HCBPPlannersGuide.pdf>

² *Notice 2011-52, Notice and Request for Comments Regarding the Community Health Needs Assessment Requirements for Tax-exempt Hospitals*; retrieved from: <http://www.irs.gov/pub/irs-drop/n-11-52.pdf>

through the delivery of high-quality research on important topics such as healthcare, economic development, and sustainable environmental practices. Using a community-based participatory orientation to research, Valley Vision has conducted multiple CHNAs across an array of communities for over seven years. As the lead consultant, Valley Vision assembled a team of experts from multiple sectors to conduct the assessment that included: 1) a public health expert with over a decade of experience in conducting CHNAs, 2) a geographer with expertise in using GIS technology to map health-related characteristics of populations across large geographic areas, and 3) additional public health practitioners and consultants to collect and analyze data.

“Health Need” and Objectives of the Assessment

The CHNA was anchored and guided by the following objective:

To provide necessary information for UC Davis Medical Center’s community health improvement plan, identify communities and specific groups within these communities experiencing health disparities, especially as these disparities relate to chronic disease, and further identify contributing factors that create both barriers and opportunities for these populations to live healthier lives.

The World Health Organization defines health needs as “objectively determined deficiencies in health that require health care, from promotion to palliation.”³ Building on this and the definitions compiled by Kaiser Permanente⁴, the CHNA used the following definitions for health need written as a driver of a poor health outcome:

Health Need: A poor health outcome and its associated driver.

Health Driver: A behavioral, environmental, and/or clinical factor, as well as more upstream social economic factors, that impact health.

Organization of the Report

The following pages contain the results of the needs assessment. The report is organized accordingly: first, the methodology used to conduct the needs assessment is described. Here, the study area, or hospital service area (HSA), is identified and described, data and variables used in the study are outlined, and the analytical framework used to interpret these data is articulated. Further description of the methodology, including descriptions and definitions, is contained the appendices.

³ *Expert Committee on Health Statistics. Fourteenth Report.* Geneva, World Health Organization, 1971. WHO Technical Report Series No. 472, pp 21-22.

⁴ *Community Health Needs Assessment Toolkit – Part 2.* (September, 2012). Kaiser Permanente Community Benefit Programs.

Next, the study findings are provided, beginning with identified geographical areas, described as *Communities of Concern*, which were identified within an HSA as having poor health outcomes and socio-demographic characteristics, often referred to as the “social determinants of health” that contribute to poor health. Each Community of Concern is described in terms of its health outcomes and population characteristics, as well as health behaviors and environmental conditions. Behavioral and environmental conditions are organized into four profiles: safety, food environment, active living, and physical wellbeing. The report closes with a brief conclusion.

Methodology

The assessment used a mixed method data collection approach that included primary data such as key informant interviews, community focus groups, and a community assets assessment. Secondary data included health outcomes, demographic data, behavioral data, and environmental data (the complete data dictionary available in Appendix B).

Community Based Participatory Research (CBPR) Approach

The assessment followed a community-based participatory research approach for identification and verification of results at every stage of the assessment. This orientation aims at building capacity and enabling beneficial change within the hospital CHNA workgroup and the community members for which the assessment was conducted. Including participants in the process allows for a deeper understanding of the results.⁵

Unit of Analysis and Study Area

The assessment study area included the hospital service area for UC Davis Medical Center. A key focus was to show specific communities (defined geographically) experiencing disparities as related to chronic disease and mental health. To this end, ZIP code boundaries were selected as the unit of analysis for most indicators. This level of analysis allowed for examination of health outcomes at the community level that are often hidden when data are aggregated at the county level. Some indicators (demographic, behavioral, and environmental in nature) were included in the assessment at the census tract, census block, or point prevalence level, which allowed for deeper community level examination.

⁵ See: Minkler, M., and Wallerstein, N. (2008). Introduction to community-based participatory research. In *Community-based participatory research for health: From process to outcomes*. M. Minkler & N. Wallerstein (Eds). (pp. 5-23). San Francisco: John Wiley & Sons; Peterson, D. J., & Alexander, G. R. (2001). *Needs assessment in public health*. New York: Kluwer Academic/Plenum Publishers; Summers, G. F. (1987). Democratic governance. In D. E. Johnson, L. R. Meiller, L. C. Miller, & G. F. Summers (Eds.), *Needs assessment*, (pp. 3-19). Ames, IA: Iowa State University Press.

Identifying Hospital Service Areas (HSA)

The hospital service area (HSA) was determined by analyzing inpatient discharge data where it was determined that more than 60% of all inpatients were Sacramento County residents.

The HSA geographical area identified that was the focus of the needs assessment is depicted in Figure 1.

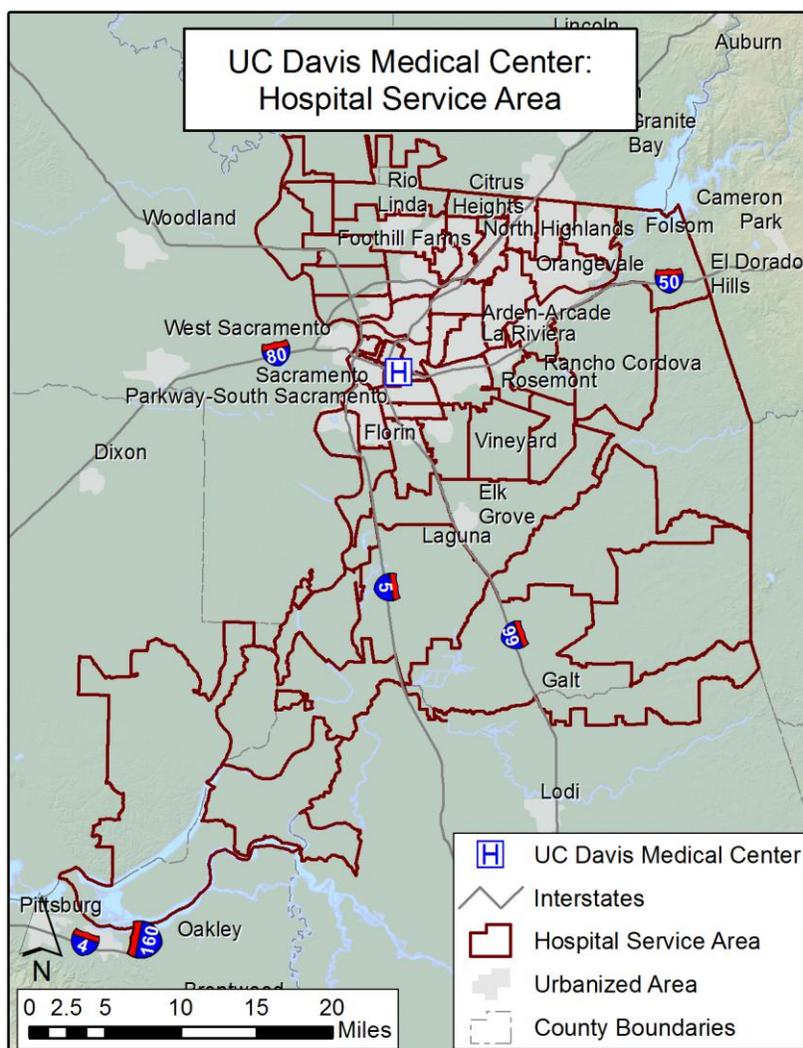


Figure 1: Map of UC Davis Medical Center service area

Primary Data: The Community Voice

Primary data collection included qualitative data gathered in five ways:

1. Meetings with the CHNA workgroup

2. Meetings with the Healthy Sacramento Coalition
3. Key informant interviews with area health and community experts
4. Focus groups with area community members
5. Community health asset collection via phone interviews and website analyses

CHNA Workgroup and Coalition Meetings

The CHNA workgroup was an active contributor to the qualitative data collection. Using the previously described CBPR approach, monthly meetings were held with the workgroup at each critical stage in the assessment process. In addition, data were collected from over 70 members of the Healthy Sacramento Coalition meetings over a nine-month period, allowing for identification of data sources and organizations to support key informant interviews and focus groups. At one of the meetings, more than 70 attendees participated in a data collection “quasi-forum” where they were asked to discuss their understanding of four main topic areas: 1) healthy eating, 2) active living, 3) tobacco use, and 4) clinical preventative services. Participants were also asked to identify on maps populations with health vulnerability and to note special characteristics of the communities (ZIP codes) and populations. Facilitators and note takers were assigned to each group and findings were recorded and summarized for inclusion in the health assessment. These data, combined with demographical data, informed the location and selection of key informant interviews for the assessment.

Key Informant Interviews

Key informants are health and community experts familiar with populations and geographic areas residing within the HSA. To gain a deeper understanding of the health issues pertaining to chronic disease and the populations living in these vulnerable communities input from 31 key informant interviews were conducted using a theoretically grounded interview guide (see interview protocol in Appendix D). Each interview was recorded and content analysis was conducted to identify key themes and important points pertaining to each geographic area. Findings from these interviews were used to help identify communities in which focus groups would most aptly be performed. A list of all key informants interviewed, including name, professional title, date of interview, and a description of knowledge and experience is detailed in Appendix C

Focus Groups

Members of the community representing subgroups, groups with unique attributes (race and ethnicity, age, sex, culture, lifestyle, or residents of a particular area of the HSA) were recruited to participate in focus groups. A standard protocol was used for all focus groups (see Appendix F) to understand the experiences of these community members as related to health disparities and chronic disease. In all, a total of 11 focus groups were conducted with 135 community members (for a complete list see Appendix E). Content analysis was performed on focus group interview notes and/or transcripts to identify key themes and salient health issues affecting the community residents.

Community Health Assets

Data were collected on health programs and support services within the HSA and the specific Communities of Concern. Existing resource directories were explored and additional assets were identified through internet and related searches. A list of assets was compiled and a master list was created. Next, detailed information for each asset was gathered through scans of the organization websites and, when possible, direct contact with staff via phone. The assets are organized by ZIP code with brief discussion in the body of the report and detailed as Appendix H.

Selection of Data Criteria

Criteria were established to help identify and determine all data to be included for the study. Data were included only if they met the following standards:

1. All data were to be sourced from credible and reputable sources.
2. Data must be consistently collected and organized in the same way to allow for future trending.
3. Data must be available at the ZIP code level or smaller.

All indicators listed below were examined at the ZIP code level unless noted otherwise. County, state, and Healthy People 2020 targets (when available) were used as benchmarks to determine severity. Rates above any benchmark are denoted by bold text in the tables. All rates are reported as *per 10,000 of population* unless noted otherwise. Health outcome indicator data were adjusted using Empirical Bayes Smoothing, where possible, to increase the stability of estimates by reducing the impact of the small number problem. To provide relative comparison across ZIP codes, rates of ED visits and hospitalization rates for heart disease, diabetes, hypertension, and stroke were age-adjusted to reduce the influence of age. Appendix B contains a detailed methodology of all data processing and data sources).

Secondary quantitative data used in the assessment include those listed in Tables 1 and 2:

Table 1: Health outcome data used in the CHNA reported as ED visits, hospitalization, and mortality

ED and Hospitalization ⁶		Mortality ⁷	
Accidents	Hypertension*	All-Cause Mortality*	Infant Mortality
Asthma	Mental Health	Alzheimer's Disease	Injuries
Assault	Substance Abuse	Cancer	Life Expectancy
Cancer	Stroke*	Chronic Lower	Liver Disease

⁶ Office of Statewide Health Planning and Development, ED Visits and Hospitalization, 2011

⁷ California Department of Public Health, Deaths by Cause, 2010

		Respiratory Disease	
Chronic Obstructive Pulmonary Disease	Unintentional Injuries	Diabetes	Renal Disease
Diabetes*	Self-Inflicted Injury	Heart Disease	Stroke
Heart Disease*		Hypertension	Suicide

*Age-adjusted by 2010 California standard population

Table 2: Socio-demographic, behavioral, and environmental data profiles used in the CHNA

Socio-Demographic Data	
Total Population	Limited English Proficiency
Family Makeup	Percent Uninsured
Poverty Level	Percent Over 25 with No High School Diploma
Age	Percent Unemployed
Race/Ethnicity	Percent Renting
Behavioral and Environmental Profiles	
<p>Safety Profile</p> <ul style="list-style-type: none"> Major Crime Assault Unintentional Injury Fatal Traffic Accidents Accidents 	<p>Food Environment Profile</p> <ul style="list-style-type: none"> Percent Obese/Percent Overweight Fruit and Vegetable consumption (≥ 5/day) Farmers Market Location Food Deserts modified Retail Food Environment Index (mRFEI)
<p>Active Living Profile</p> <ul style="list-style-type: none"> Park Access 	<p>Physical Wellbeing Profile</p> <ul style="list-style-type: none"> Age-adjusted Overall Mortality Life Expectancy Infant Mortality Health Professional Shortage Areas Health Assets

Data Analysis

Identifying Vulnerable Communities

The first step in the process was to examine socio-demographics in order to identify areas of the HSA with high vulnerability to chronic disease disparities and poor mental health outcomes. Race and ethnicity, household makeup, income, and age variables were combined into a *vulnerability index* that described the level of vulnerability of each census tract. This index was then mapped for the entire HSA. A tract was considered more vulnerable, or more likely to have higher unwanted health outcomes than others in the HSA, if it had higher: 1) percent non-White or Hispanic population; 2) percent single parent headed households; 3) percent below 125% of the poverty level; 4) percent under five years old; and 5) percent 65 years of age or older living in the census tract. This information was used in combination with input from the CHNA workgroup to identify prioritized areas for which key informants would be sought.

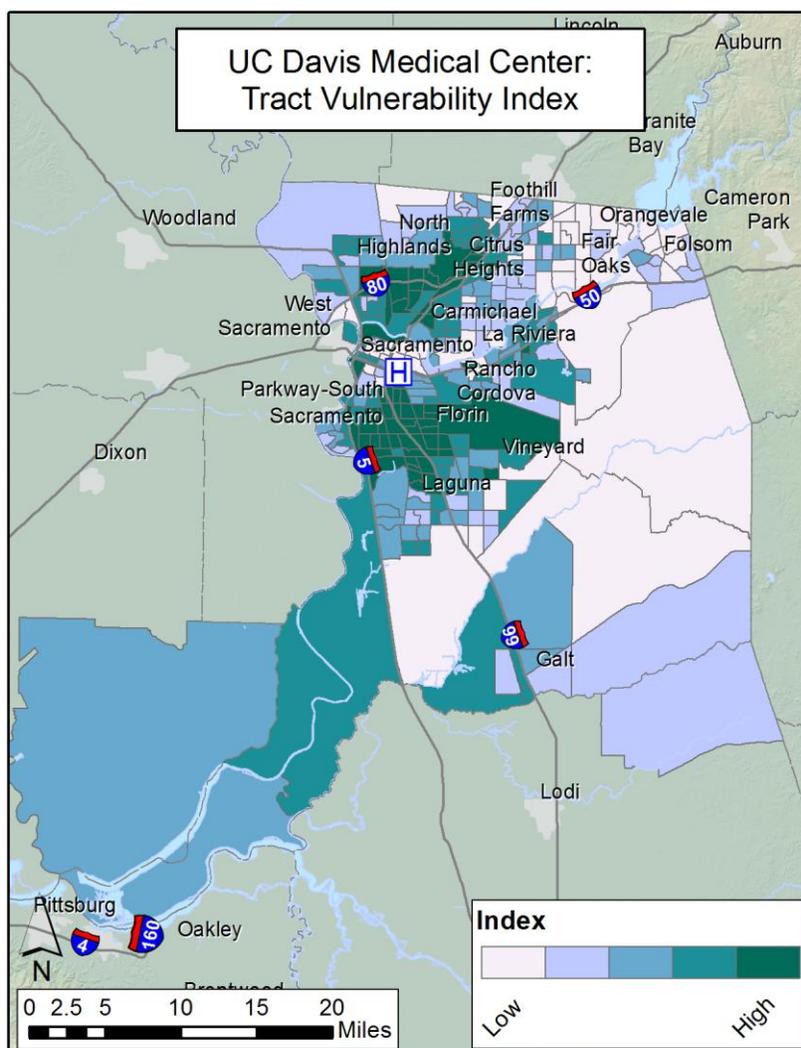


Figure 2: UC Davis Medical Center health service area map of vulnerability

Where to Focus Community Member Input? Focus Group Selection

Selection of locations for focus groups was determined by feedback from key informants, CHNA team input, and analysis of health outcome indicators (ED visit, hospitalization, and mortality rates) that pointed to disease severity. Key informants were asked to identify community members that were most at risk for chronic health disparities and mental health issues. In addition, analysis of health outcome indicators by ZIP code, race and ethnicity, age, and sex, revealed communities with high rates that consistently exceeded established county, state, and Healthy People 2020 benchmarks. This information was compiled to determine the location of focus groups within the HSA.

Identifying “Communities of Concern”: the First step in Prioritizing Area Health Needs

To identify Communities of Concern, input from the CHNA team, primary data from key informant interviews and focus groups, along with detailed analysis of secondary data, health outcome indicators, and socio-demographics were examined. ZIP codes with rates that consistently exceeded county, state, or Healthy People 2020 benchmarks for ED utilization, hospitalization, and mortality were considered. ZIP codes with rates that consistently fell in the top 20% were noted and then triangulated with primary and socio-demographic data to identify specific Communities of Concern. This analytical framework is depicted in Figure 3.

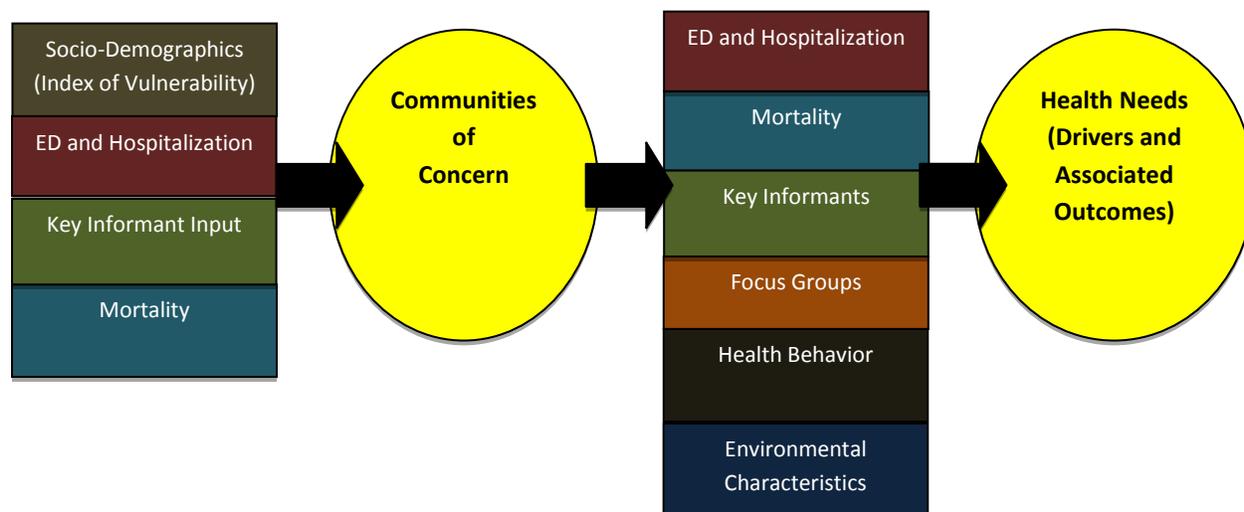


Figure 3: Analytical framework for determination of Communities of Concern and health needs

What is the Health Profile of the Communities of Concern? What are the Prioritized Health Needs of the Area?

Data on socio-demographics of residents in these communities, which included socio-economic status, race and ethnicity, educational attainment, housing arrangement, employment status, and health insurance status, were examined. Area health needs were determined via in-depth analysis of qualitative and quantitative data, and then confirmed with socio-demographic data. As noted earlier, a health need was defined as *a poor health outcome and its associated driver*. A health need was included as a priority if it was represented by rates worse than the established quantitative benchmarks or was consistently mentioned in the qualitative data.

Findings

UC Davis Medical Center HSA Communities of Concern

Table 3: Identified Communities of Concern for UC Davis Medical Center HSA

Communities of Concern			
<i>ZIP Code</i>	<i>Community/Area</i>	<i>County</i>	<i>Population</i>
95660	North Highlands	Sacramento	30,714
95673	Rio Linda	Sacramento	15,455
95811	Downtown Sacramento	Sacramento	7,595
95814	Downtown Sacramento	Sacramento	9,922
95815	North Sacramento	Sacramento	24,680
95817	Oak Park	Sacramento	13,534
95820	Tahoe Park	Sacramento	36,715
95821	North Watt, Marconi Area	Sacramento	33,550
95822	Executive Airport/Meadowview	Sacramento	42,347
95823	Fruitridge	Sacramento	73,985
95824	Parkway	Sacramento	30,221
95828	Florin	Sacramento	57,862
95832	Lower Meadowview	Sacramento	11,924
95838	Del Paso Heights	Sacramento	36,764
95841	Foothill Farms	Sacramento	19,448
Total Communities of Concern Population			444,716

(Source: 2010 US Census)

The UC Davis Medical Center 15 Communities of Concern are home to more than 400,000 county residents. The areas consist of ZIP codes occupying the northern, central, and southern portions of the Sacramento County.

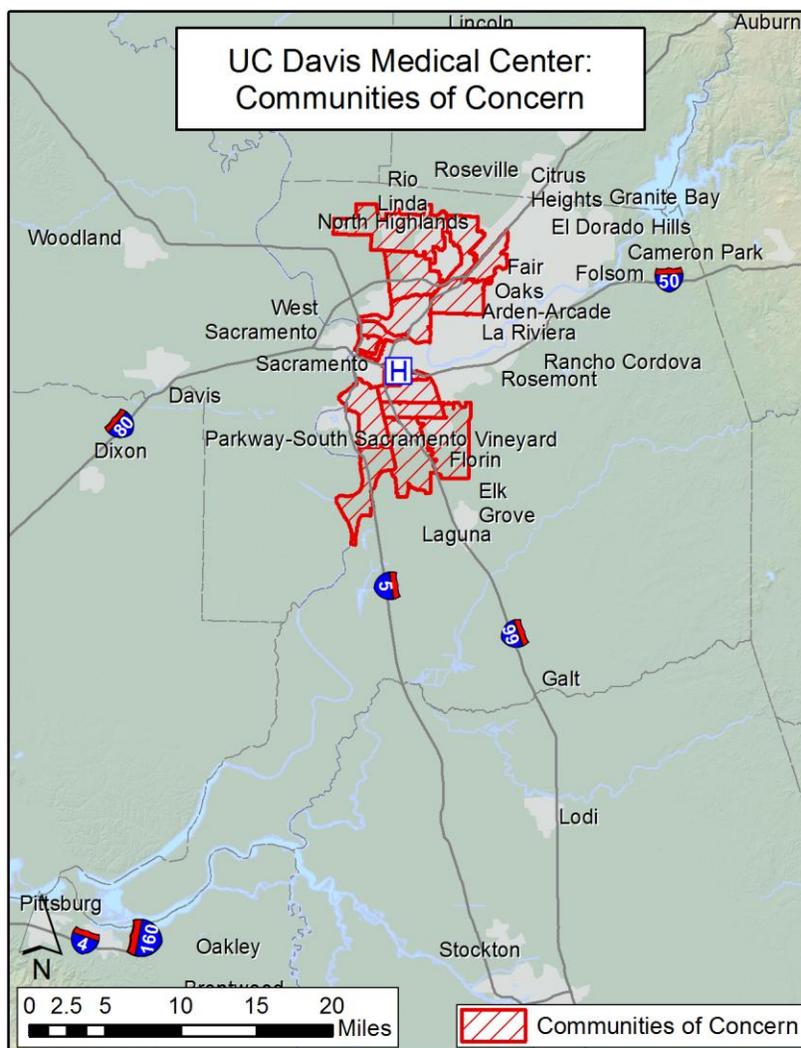


Figure 4: Hospital service area map of Communities of Concern

Socio-demographic profile of Communities of Concern

As noted earlier, these 15 ZIP codes are home to more than 400,000 residents. Data indicated that these areas of the HSA were highly diverse, with numerous areas characterized by high rates of poverty, low educational attainment, high percent unemployment, high percent uninsured, and a high number of residents renting their homes. In all 15 ZIP codes approximately 30% of residents reported being non-White or Hispanic. The percent of residents over the age of five with limited English proficiency ranged from 2.2% in ZIP code 95673 to 23.8% in 95811.

All of the Communities of Concern had a percent of poverty far exceeding the national benchmarks. Seven of the Communities of Concern had a higher percent of residents over the age 65 living in poverty compared to the national benchmark, and in 13 of the 15 ZIP codes the percent of families with children living in poverty was higher than the national average of 15.1%. Fourteen of the ZIP codes had a higher percent of single female-headed households

living in poverty than the national average of 31.2%. Key Informants and focus group participants emphasized the negative role that living in poverty has on HSA residents' ability to stay healthy. As one key informant stated, "...there are a lot of financial stresses and a lot of people here getting poorer" (KI_Sacramento_4). Another key informant expressed the mitigation of poverty on comparing health status of various race and ethnic groups, "If you go into a neighborhood where the poverty level is 20%, those issues cross all [races and] ethnicities" (KI_Sacramento_16).

All of the area ZIP codes had a higher percent of residents over the age of 25 living without a high school diploma than the benchmarks, except for 95811. In ZIP code 95824, the percent of residents without a high school diploma was 43.5%, more than two times the state benchmark and three times the national benchmark. All of the ZIP codes had a higher rate of unemployment compared to the national rate, and all had a much higher percent uninsured compared to the national rate of 16.3%. Looking at the percentage of residents in a ZIP code who rent versus own their place of residence provides a peak into a community's financial stability. The percent of residents who rent in the 15 HSA Communities of Concern ranged from 93.9% (95828) to 27.7% (95673).

Table 4: Socio-demographic characteristics for HSA Communities of Concern compared to national and state benchmarks

	% Households in poverty over 65 headed	% Families in poverty w/ kids	% Families in poverty female headed	% over 25 with no high school diploma	% Non-White or Hispanic	% pop over age 5 with limited Eng	% Unemployed	% No health insurance	% Residents Renting
95660	7.5	26.6	43.3	25.2	51.1	8.0	17.4	30.1	43.0
95673	7.4	14.7	32.5	19.3	28.4	2.2	14.2	18.8	27.7
95811	13.4	37.2	45.8	8.9	49.4	23.8	23.8	48.0	89.2
95814	15.8	30.8	36.0	23.2	47.8	6.9	14.0	43.2	93.9
95815	11.5	36.7	51.7	36.2	68.3	13.1	18.0	43.8	63.8
95817	17.3	34.0	45.6	26.1	65.7	9.4	16.9	44.1	62.6
95820	11.5	28.2	39.2	33.6	73.6	11.0	16.6	34.9	46.7
95821	6.2	22.8	39.5	13.5	38.9	6.5	13.0	31.7	55.6
95822	8.3	24.6	33.4	25.7	74.5	10.0	13.9	30.2	39.7
95823	8.3	23.5	35.4	25.3	84.8	10.8	14.7	31.1	46.5
95824	11.0	34.5	51.3	43.5	84.1	18.1	19.7	42.4	56.3
95828	7.3	14.5	24.4	21.5	75.5	9.0	12.9	19.0	30.2
95832	7.6	41.8	46.9	39.6	90.1	12.5	20.6	34.1	44.7
95838	11.7	29.8	43.7	30.2	74.8	9.1	14.9	33.5	48.6
95841	7.5	24.6	37.5	14.9	34.8	6.3	10.0	30.5	61.8
State	--	--	--	19.4 ⁸	--	--	9.8 ⁹	21.6 ¹⁰	--
National	8.7 ¹¹	15.1 ¹²	31.2 ¹³	12.9 ¹⁴	--	8.7 ¹⁵	7.9 ¹⁶	16.3 ¹⁷	--

(Source: Dignity Health Community Benefit, CNI data, 2011)

⁸ 2010 Educational Attainment by Selected Characteristics. US Census Bureau, Unpublished Data. Retrieved from: http://www.census.gov/compendia/statab/cats/education/educational_attainment.html

⁹ US Bureau of Labor Statistics (2012, December). *Unemployment Rates for States Monthly Rankings, Seasonally Adjusted*. Retrieved from: <http://www.bls.gov/web/laus/laumstrk.htm>

¹⁰ Fronstin, P. (2012, December). California's Uninsured: Treading Water. *California HealthCare Almanac*. Retrieved from: <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/C/PDF%20CaliforniaUninsured2012.pdf>

¹¹ 2011 rate as reported by De Navas, Proctor, and Smith. (2012). *Income, Poverty, and Health Insurance Coverage in the United States: 2011*. US Department of Commerce- Economic and Statistics Administration- Census Bureau.

¹² Ibid

¹³ Ibid

¹⁴ 2010 Educational Attainment by Selected Characteristics. US Census Bureau, Unpublished Data. Retrieved from: http://www.census.gov/compendia/statab/cats/education/educational_attainment.html

¹⁵ Pandya, C., Batalova, J., and McHugh, M. (2011). *Limited English Proficient Individuals in the United States: Number, Share, Growth, and Linguistic Diversity*. Washington, DC: Migration Policy Institute.

¹⁶ US Bureau of Labor Statistics (2012, December). *Unemployment Rates for States Monthly Rankings, Seasonally Adjusted*. Retrieved from: <http://www.bls.gov/web/laus/laumstrk.htm>

¹⁷ 2011 rate as reported by De Navas, Proctor, and Smith. (2012). *Income, Poverty, and Health Insurance Coverage in the United States: 2011*. US Department of Commerce- Economic and Statistics Administration- Census Bureau.

Prioritized Health Needs for UC Davis Medical Center HSA

The health needs identified through analysis of both quantitative and qualitative data are listed below. These were prioritized according to the degree of support in the findings. All needs are noted as a “health driver”, or a condition or situation that contributed to a poor health outcome. Health outcome results follow the list below, and a detailed listing of health needs is included in Appendix G.

1. Lack of access to primary health care services
2. Lack of access to mental health treatment and prevention services
3. Lack of access to coordinated care
4. Lack of access to healthy food
5. Safety as a health issue
6. Stress of living in poverty
7. Unhealthy food environment
8. Limited opportunities for physical activity engagement
9. Concerns over personal safety
10. Lack of alcohol/drug abuse treatment programs and prevention programs

Health Outcomes

Diabetes, Heart Disease, Stroke, and Hypertension

Diabetes, heart disease, stroke, and hypertension were consistently mentioned in the qualitative data as a priority health concerns for many area residents. As one community member explained, “...my family has diabetes...asthma...high blood pressure” (FG_Sacramento_10). Another key informant expressed the affects that poverty and other social living condition have on the health of area residents specifically related to chronic disease outcomes. “You see people with chronic health issues because of the crisis mode that they are living in” (KI_Sacramento_16). Examination of mortality, ED visits, and hospitalization showed rates in these ZIP codes were drastically higher than the established benchmarks.

Table 5: Mortality, ED visit, and hospitalization rates for diabetes compared to county, state, and Healthy People 2020 benchmarks (rates per 10,000 population)

Diabetes	ZIP Code	Mortality	ED Visits	Hospitalization
	95660	1.9	389.8	276.7
	95673	1.7	274.6	243.4
	95811	0	244.6	162.5
	95814	4.0	573.6	425.5
	95815	2.4	422.1	296.5
	95817	3.9	333.9	313.5
	95820	2.8	379.1	286.5
	95821	2.9	293.7	180.0
	95822	2.3	359.3	249.3
	95823	2.3	518.5	321.9
	95824	1.0	404.8	347.4
	95828	1.9	360.8	255.6
	95832	1.8	499.7	362.3
	95838	2.1	420.9	345.9
	95841	2.0	330.4	243.4
	<i>Sacramento County</i>	<i>1.8</i>	<i>257.5</i>	<i>198.8</i>
<i>CA State</i>	<i>1.8</i>	<i>188.4</i>	<i>190.9</i>	
<i>Healthy People 2020</i>	<i>6.6</i>	<i>--</i>	<i>--</i>	

(Sources: Mortality: CDPH, 2010; ED Visits and hospitalizations: OSHPD, 2011)

Thirteen of the HSA Communities of Concern had higher rates of both ED visits and hospitalization related to diabetes than the county of state benchmarks. Examination of ED visits related to diabetes by ZIP code and race and ethnicity revealed that Blacks consistently had rates drastically higher than any other group, and rates were two and three times higher than the state and county rates (consider ZIP code 95814 at 1083.7 visits per 10,000). Whites had the second highest rates for ED visits related to diabetes. The disparate pattern was similar for rates of hospitalization due to diabetes.

Table 6: Mortality, ED visit, and hospitalization rates for heart disease compared to county, state, and Healthy People 2020 benchmarks (rates per 10,000 population)

	ZIP Code	Mortality	ED Visits	Hospitalization
Heart Disease	95660	15.6	212.8	292.3
	95673	21.4	186.7	331.8
	95811	11.1	104.5	211.1
	95814	25.8	294.5	494.1
	95815	21.8	185.5	341.0
	95817	18.5	160.6	307.6
	95820	18.1	186.7	299.9
	95821	26.4	164.7	222.7
	95822	23.2	166.6	255.2
	95823	14.9	268.1	341.4
	95824	16.2	173.2	335.6
	95828	16.5	174.7	274.3
	95832	10.7	236.4	366.2
	95838	16.5	198.7	352.0
	95841	15.9	157.8	282.6
	<i>Sacramento County</i>	<i>12.4</i>	<i>152.6</i>	<i>236.6</i>
	<i>CA State</i>	<i>11.5</i>	<i>93.1</i>	<i>218.4</i>
	<i>Healthy People 2020</i>	<i>10.1</i>	--	--

(Sources: Mortality: CDPH, 2010; ED Visits and hospitalizations: OSHPD, 2011)

All ZIP codes had mortality rates above the Healthy People 2020 benchmark, and all but one had rates of ED visits or hospitalization related to heart disease above the county or state benchmarks. Examination of ED visits and hospitalization by race and ethnicity revealed that Whites and Blacks, respectively, consistently had the highest rates compared to the other racial and ethnic groups.

Table 7: Mortality, ED visit, and hospitalization rates for stroke compared to county, state, and Healthy People 2020 benchmarks (rates per 10,000 population)

Stroke	ZIP Code	Mortality	ED Visits	Hospitalization
	95660	4.1	32.5	69.1
	95673	2.7	20.4	68.9
	95811	2.8	9.2	39.1
	95814	4.2	30.9	102.2
	95815	4.4	30.5	86.5
	95817	4.4	20.6	68.4
	95820	4.3	23.2	65.6
	95821	6.0	30.6	51.0
	95822	7.8	26.9	69.3
	95823	3.8	41.3	84.6
	95824	3.6	28.0	87.3
	95828	3.8	32.9	71.0
	95832	4.2	28.1	75.0
	95838	4.8	23.3	79.4
	95841	4.9	22.5	66.5
	<i>Sacramento County</i>	3.9	26.7	59.3
	<i>CA State</i>	3.5	16.2	51.8
	<i>Healthy People 2020</i>	3.4	--	--

(Sources: Mortality: CDPH, 2010; ED Visits and hospitalizations: OSHPD, 2011)

Similar to diabetes, 13 of the Communities of Concern had mortality rates above the Healthy People 2020 benchmark, with the highest in ZIP code 95822 at 7.8 deaths per 10,000. This rate is more than twice the established benchmarks. In addition, all but one of the ZIP codes had stroke-related ED visit and hospitalization rates above the benchmarks. Whites had the highest rates of stroke-related ED visits and hospitalizations compared to any other group.

Table 8: ED visit and hospitalization rates for hypertension compared to county and state benchmarks (rates per 10,000 population)

Hypertension	ZIP Code	ED Visits	Hospitalization
	95660	721.2	514.1
	95673	532.4	512.3
	95811	434.8	335.3
	95814	1000.0	760.5
	95815	705.7	560.0
	95817	628.9	533.0
	95820	622.5	502.3
	95821	587.5	367.2
	95822	632.3	429.9
	95823	927.2	564.1
	95824	622.3	545.6
	95828	677.0	460.6
	95832	901.0	583.8
	95838	697.1	562.6
	95841	638.9	490.6
	<i>Sacramento County</i>	<i>513.9</i>	<i>395.2</i>
	<i>CA State</i>	<i>365.6</i>	<i>380.9</i>

(Source: OSHPD, 2011)

All Communities of Concern had ED visits related to hypertension clearly above county or state benchmarks. ZIP codes 95814 and 95832 had rates more than two times the state rate for ED visits. All but two ZIP code Communities of Concern had hospitalization rates due to hypertension clearly higher than the benchmarks, with the highest rate in 95814. Rates for ED visits due to hypertension were highest in Blacks, while hospitalization was highest in Whites. What is specifically noteworthy is that the rates for these outcomes in Blacks and Whites were two to three times higher in these two groups compared to Native Americans, Hispanics, and Asian/Pacific Islanders. Focus group participants expressed the pervasiveness of hypertension in the community stating, “Almost everyone has high blood pressure. I mean like everybody you talk to” (FG_Sacramento_10).

Mental Health

Area experts and community members consistently reported the immense struggle HSA residents had in maintaining positive mental health and accessing treatment for mental illness. Such struggles ranged from overall daily coping in the midst of personal and financial pressures to the management of severe mental illness requiring inpatient care. Table 9 provides data on ED visits and hospitalization related to mental illness.

Table 9: ED visit and hospitalization rates due to mental health issues compared to county and state benchmarks (rates per 10,000 population)

	ZIP Code	ED Visits	Hospitalization
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Mental Health (overall)	95660	300.6	275.5
	95673	217.2	261.2
	95811	316.0	304.5
	95814	920.5	705.6
	95815	268.2	304.8
	95817	245.4	349.4
	95820	259.3	288.2
	95821	352.1	313.0
	95822	253.9	254.3
	95823	359.4	265.8
	95824	222.5	247.2
	95828	261.3	211.2
	95832	219.4	192.6
	95838	206.9	232.2
	95841	316.2	320.8
	<i>Sacramento County</i>	<i>229.0</i>	<i>218.3</i>
<i>CA State</i>	<i>130.9</i>	<i>182.0</i>	

(Source: OSHPD, 2011)

All Communities of Concern had ED visits and hospitalization rates due to mental health illness above state benchmarks. The rate in ZIP code 95814 was seven times the state benchmark and four times the state benchmark for ED visits. This ZIP code also had staggeringly high rates of hospitalization for mental health illness. Whites, followed by Blacks, had the highest rates for both ED visits and hospitalization related to mental health compared to all other races and ethnic groups. The rate of ED visits related to mental health illness in 95814 was 1073.6 visits per 10,000 for Whites (five times higher than the county rate and eight times higher than the state rate), compared to Blacks at 922.3 visits per 10,000, Hispanics at 240.9 visits per 10,000, Asians and Pacific Islanders at 171.7 visits per 10,000, and Native Americans at 156.7 visits per 10,000 for the same ZIP code.

Key informants and focus group participants in the area stressed that living in poverty and perceptions of being unsafe often make it difficult to live healthy lives. One key informant described the lives of many residents as, "...they are just in that environment where it's like constant crisis...and when you are living in violence like that, you're in a state of crisis. And when you don't have enough money, you are in a state of crisis" (KI_Sacramento_26). Another key informant described the struggle residents face in staying healthy as an issue of the generational continuation of stress, stating, "I think there is this, I like to call it inherent trauma that we haven't addressed a lot with our community, especially our communities of poverty" (KI_Sacramento_11).

Many focus group participants and key informants expressed that mental health services are difficult to access within the HSA. Key informants explained, "Something really bad has to happen before you can get any mental health treatment, and that is very scary for everyone" (KI_Sacramento_19) and "A lot of mental health services that were available to our clients are gone now" (KI_Sacramento_19). Availability of mental health crisis treatment was

lacking in the county, as one key informant said, “...it is very difficult to get into a crisis treatment center in Sacramento County” (KI_Sacramento_22). Another key informant stated, “...but there is just no good place to send [mental health patients] because there are really no good psychiatric facilities as far as capacity; there’s good facilities, but their capacity is limited” (KI_Sacramento_13). Participants mentioned the over-utilization of the emergency room for mental health treatment due to the lack of access to and availability of mental health care in the area. As one key informant explained, “...our ER is just overwhelmed by [mental health] cases” (KI_Sacramento_21). The same informant stated that these ED visits tend to be extended because the area lacks capacity to provide continuous care for their mental health patients, “...the ability for these [mental health] patients to get any kind of help or follow-up is woefully lacking. I mean it is horrible. And so we end up having extended, long periods of stay...but no place for them to go” (KI_Sacramento_21).

As Table 10 shows, rates of substance abuse-related ED visits and hospitalization were clearly elevated in the Communities of Concern.

Table 10: ED visit and hospitalization rates due to substance abuse issues compared to county and state benchmarks (rates per 10,000 population)

Mental Health- Substance Abuse	ZIP Code	ED Visits	Hospitalization
	95660	586.5	329.4
	95673	496.8	273.1
	95811	930.7	336.5
	95814	2,001.7	784.5
	95815	898.3	404.4
	95817	633.4	351.2
	95820	542.2	287.3
	95821	651.3	285.8
	95822	462.1	215.5
	95823	652.5	242.5
	95824	534.6	293.0
	95828	457.3	188.9
	95832	537.3	218.3
	95838	573.3	268.2
	95841	561.8	312.7
	<i>Sacramento County</i>	<i>406.4</i>	<i>192.3</i>
<i>CA State</i>	<i>232.0</i>	<i>143.8</i>	

(Source: OSHPD, 2011)

ZIP code 95814 had a rate of ED visits for substance abuse that was five times the state rate. Whites, followed by Blacks, had the highest rates of ED visits related to substance abuse compared to other racial and ethnic groups, while the pattern was reversed for hospitalization. A local key informant pointed to substance abuse as a common coping mechanism for some area residents, “I think people tend to self-medicate and I have seen that a lot of times [here].” (KI_Sacramento_19).

Table 11: Mortality, ED visit and hospitalization rates due to self-inflicted injury compared to county and state benchmarks (rates per 10,000 population)

Suicide/Self-Inflicted Injury	ZIP Code	Suicide	ED Visits	Hospitalization
	95660	1.3	13.1	8.0
	95673	1.3	12.5	6.3
	95811	1.3	19.7	5.5
	95814	0	33.5	23.3
	95815	1.1	18.4	8.9
	95817	.9	12.2	5.8
	95820	1.1	12.5	6.8
	95821	1.4	12.6	5.1
	95822	1.1	11.5	2.6
	95823	1.0	20.6	4.7
	95824	1.3	14.8	3.8
	95828	.8	15.0	4.3
	95832	0	13.5	3.2
	95838	.9	9.1	4.6
	95841	1.6	25.3	8.0
	<i>Sacramento County</i>	<i>1.2</i>	<i>12.0</i>	<i>5.0</i>
	<i>CA State</i>	<i>1.1</i>	<i>7.9</i>	<i>4.4</i>
	<i>Healthy People 2020</i>	<i>1.0</i>	--	--

(Sources: Mortality: CDPH, 2010; ED Visits and hospitalizations: OSHPD, 2011)

Mortality rates for suicide and ED visits and hospitalization rates for self-inflicted injury are displayed in Table 11. Except for ZIP codes 95814 and 95832, nine Communities of Concern had suicide mortality rates above the Healthy People 2020 benchmark, and six ZIP codes were at or above state and county rates. Rates of ED visits and hospitalization for self-inflicted injury in many of the Communities of Concern were also clearly above the state rate, with ZIP code 95814 having the highest rates, including a rate of hospitalization of 23.3 per 10,000, over four times the county and state benchmarks.

Respiratory Illness: Chronic Obstructive Pulmonary Disease (COPD) and Asthma

Community residents and health professionals mentioned Chronic Obstructive Pulmonary Disease (COPD) and asthma as conditions that impact many community members. In an effort to understand the impact of tobacco use and respiratory illness in the Communities of Concern, rates of ED visits and hospitalization related to COPD, asthma, and bronchitis were examined and are displayed in Table 12. Rates of ED visits and hospitalization due specifically to asthma are examined independently in Table 13.

Table 12: ED visit and hospitalization rates due to COPD, asthma, and bronchitis compared to county and state benchmarks (rates per 10,000 population)

COPD, Asthma and Bronchitis	ZIP Code	ED Visits	Hospitalization
	95660	541.0	295.9
	95673	378.4	275.2
	95811	281.7	197.2
	95814	691.1	523.6
	95815	527.1	289.7
	95817	384.7	268.6
	95820	351.8	255.8
	95821	480.6	256.6
	95822	355.0	236.7
	95823	492.6	231.4
	95824	362.6	243.0
	95828	348.3	204.0
	95832	404.6	217.3
	95838	410.3	245.1
	95841	484.1	269.2
	<i>Sacramento County</i>	<i>318.1</i>	<i>195.3</i>
<i>CA State</i>	<i>202.3</i>	<i>156.8</i>	

(Source: OSHPD, 2011)

All Communities of Concern had rates above the county and state benchmarks. The highest rates were in ZIP code 95814, where the highest rates for ED visits were found in Blacks, followed by Whites. ZIP code 95821 showed a rate in Blacks of 1,313.1 visits per 10,000, compared to Whites at 460.0 visits per 10,000. Hospitalization rates related to COPD, asthma, and bronchitis were also highest in Blacks, followed by Whites, Native Americans, Asian/Pacific Islanders, and Hispanics.

Many community members and health professionals mentioned asthma as a health condition that greatly affected area residents. Rates of asthma-related ED visits and hospitalization are detailed below in Table 13.

Table 13: ED visit and hospitalization rates due to asthma compared to county and state benchmarks (rates per 10,000 population)

Asthma	ZIP Code	ED Visits	Hospitalization
	95660	357.5	139.0
	95673	236.3	126.8
	95811	142.0	84.0
	95814	360.9	186.1
	95815	341.3	130.7
	95817	243.9	138.1
	95820	218.3	127.0
	95821	314.4	133.3
	95822	231.7	110.6
	95823	338.1	130.5
	95824	235.4	125.1
	95828	242.5	110.8
	95832	294.6	133.6
	95838	270.6	123.3
	95841	323.8	130.4
	<i>Sacramento County</i>	<i>214.9</i>	<i>100.8</i>
<i>CA State</i>	<i>135.0</i>	<i>70.5</i>	

(Source: OSHPD, 2011)

ED visit and hospitalization rates related to asthma were consistently high in the Communities of Concern, with most rates at least twice the state rate. Blacks had the highest rates of all races and ethnic groups for both ED visits and hospitalization related to asthma, with a rate of ED visits related to asthma virtually twice that of Whites. For example, ZIP code 95821 had a rate of 918.8 visits per 10,000 for Blacks, compared to 277.7 visits per 10,000 for Whites. The pattern was similar for hospitalization rates for asthma.

Behavioral and Environmental

Safety Profile

Local experts and community members stressed the impact of safety on the health of the area residents living in the various Communities of Concern. Examination of safety indicators included looking at local law enforcement data for the greater Sacramento region as reported by Sacramento Police Department and the Sacramento County Sheriff's Department. In addition, outcome safety indicators of ED visits and hospitalization due to assault and unintentional injury were examined.

rates for ED visits more than twice the county rate, with ZIP code 95814 having the highest rate in the HSA at 176.7 visits per 10,000. This ZIP code also had the highest rate of hospitalization for assault in the HSA, at almost eight times the county benchmark.

Table 14: ED visit and hospitalization rates due to assault compared to county and state benchmarks (rates per 10,000 population)

Assault	ZIP Code	ED Visits	Hospitalization
	95660	52.0	7.5
95673	32.3	3.9	
95811	76.6	20.1	
95814	176.7	41.6	
95815	80.2	13.7	
95817	85.5	15.7	
95820	58.4	13.0	
95821	50.6	6.7	
95822	39.5	7.6	
95823	72.8	7.2	
95824	50.2	13.5	
95828	43.9	4.3	
95832	43.7	6.3	
95838	54.0	9.7	
95841	52.3	10.5	
<i>Sacramento County</i>	<i>36.8</i>	<i>5.7</i>	
<i>CA State</i>	<i>29.5</i>	<i>3.9</i>	

(Source: OSHPD, 2011)

Unintentional Injury

As the fifth leading cause of death in the nation and the first leading cause of death in those under the age of 35, examining rates of unintentional injuries was important. As Table 15 displays, all HSA ZIP codes were clearly above the state benchmarks for mortality, ED visit, and hospitalization rates. The rates of ED visits and hospitalization due to unintentional injuries were elevated for many of the Communities of Concern. Consider ZIP code 95814 with a rate of ED visits of 1785.9 per 10,000 versus the county rate of 728.2 visits per 10,000. This ZIP code also had the highest rate of hospitalization compared to any other Community of Concern within the HSA.

Table 15: ED visit and hospitalization rates due to unintentional injury compared to county and state benchmarks (rates per 10,000 population)

Unintentional Injury	ZIP Code	Mortality	ED Visits	Hospitalization
	95660	6.4	993.0	223.1
	95673	3.7	867.3	242.7
	95811	3.2	792.9	170.0
	95814	4.7	1785.9	465.5
	95815	4.7	1110.3	228.5
	95817	3.2	989.2	238.9
	95820	3.5	904.3	205.7
	95821	3.6	901.9	208.0
	95822	3.4	823.9	216.7
	95823	3.2	977.6	465.5
	95824	2.9	867.1	166.2
	95828	3.2	770.4	162.4
	95832	3.0	850.0	168.0
	95838	4.2	873.5	180.8
	95841	3.3	920.2	222.3
	<i>Sacramento County</i>	<i>3.4</i>	<i>728.2</i>	<i>174.3</i>
	<i>CA State</i>	<i>2.7</i>	<i>651.8</i>	<i>154.6</i>
	<i>Healthy People 2020</i>	<i>3.4</i>	<i>--</i>	<i>--</i>

(Sources: Mortality: CDPH, 2010; ED Visits and hospitalizations: OSHPD, 2011)

Fatality/Traffic Accidents

Figure 6 examines traffic accidents that resulted in a fatality, and Table 16 shows bicycle accidents and accidents involving a motor vehicle versus a pedestrian or bicyclist. Accidents resulting in a fatality, especially those on city streets, contribute to residents' perception of safety when traveling through their community, particularly for area residents that rely on public, pedestrian, or bicycle travel. Both area experts and community members in the HSA stated that access to services and care is largely dependent on adequate transportation and many residents' access services by walking, biking, or taking local, sporadically available public transportation. As one key informant stated, "The way the[se] suburbs are built, they are so dependent on somebody having a car..." (KI_Sacramento_5).

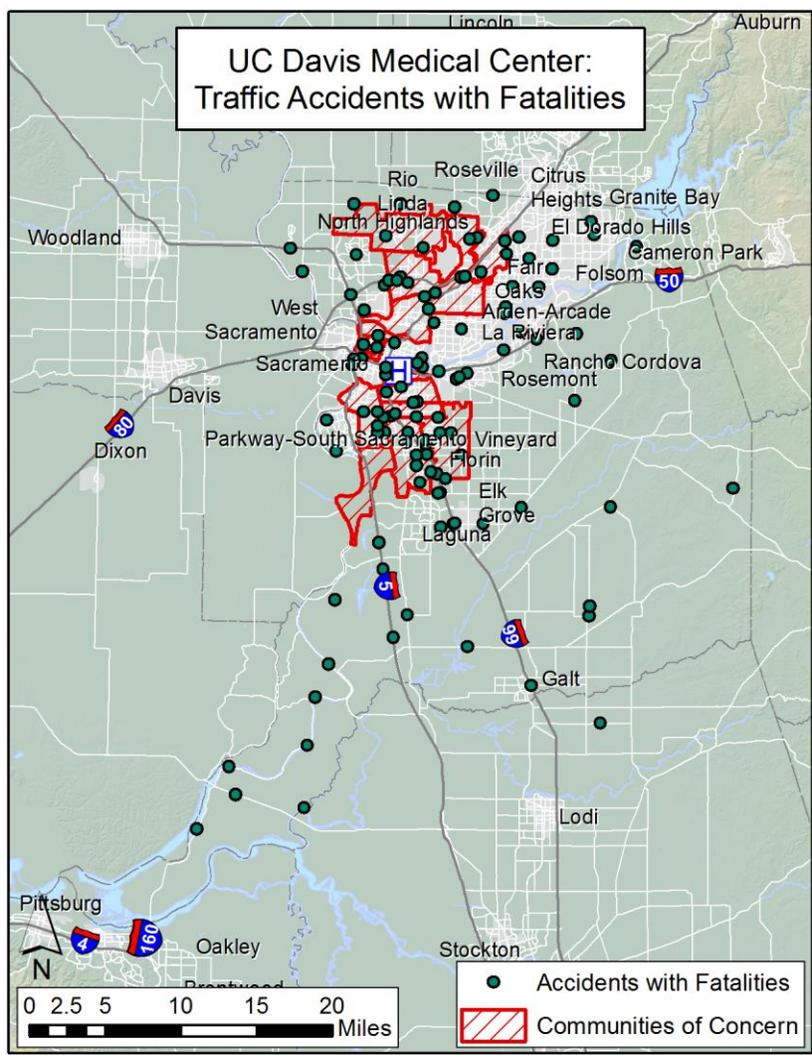


Figure 6: Traffic accidents resulting in fatalities as reported by the National Highway Transportation Safety Administration, 2010

Table 16: ED visit and hospitalization rates due to accidents compared to county and state benchmarks (rates per 10,000 population)

Accidents (Bike and Car Versus Bike/Pedestrian)	ZIP Code	ED Visits	Hospitalization
		95660	24.3
	95673	19.4	2.9
	95811	42.5	6.2
	95814	67.6	10.8
	95815	35.7	3.4
	95817	27.7	3.4
	95820	23.7	3.0
	95821	23.2	3.2
	95822	19.6	2.8
	95823	17.1	2.9
	95824	23.4	2.8
	95828	14.1	2.5
	95832	14.5	0.0
	95838	21.3	2.9
	95841	18.6	1.2
	<i>Sacramento County</i>	<i>17.4</i>	<i>2.8</i>
	<i>CA State</i>	<i>15.6</i>	<i>2.0</i>

(Source: OSHPD, 2011)

Communities of Concern 95822 and 95823 had more fatalities due to traffic accidents than any other ZIP code in the HSA, with six and nine fatalities respectively. These two areas of the HSA also had high rates of ED visits and hospitalization related to bicycle accidents and accidents involving motor vehicles versus bicycles or pedestrians. In addition, ZIP codes 95811, 95814, and 95815 had the highest rates of ED visits for accidents within the Communities of Concern.

The concern over pedestrian safety was mentioned consistently in the qualitative data, as many residents used walking or biking as a primary mode of transportation. Concerns ranged from safety due to fast-moving traffic to concerns about violence. One key informant stated, "...in the Valley-Hi community, you have this big dense area of apartment complexes along this incredibly fast road...and there's been a lot of accidents, people getting hit, people fearing for their lives...there is like no crosswalk for miles" (KI_Sacramento_26). Another informant said, "I know two people that have gotten killed and they were elderly; or, they just do their daily strolls and they have gotten hit" (KI_Sacramento_8). In addition, another key informant stated that for many residents access to area services was also a concern. Participants stressed that transportation services in the area need improvement. "Transportation needs to be improved because there is no point having a clinic that nobody can get to unless they have a car" (KI_Sacramento_5). Key informants indicated that public transportation is still costly for many area residents, "...even though we have bus access a lot of our families can't afford bus tickets" (KI_Sacramento_10). Another key informant stated that transportation drastically affects access to various resources. She spoke about a client walking a great distance for care due to the high

cost of area transportation. “I had a gentleman that walked from North Sacramento to where our clinic is in Oak Park to be seen. And that was his only way to get there was to walk” (KI_Sacramento_7).

Food Environment

An examination of the food environment in the Communities of Concern showed that approximately 20% of residents in every ZIP code are obese and approximately 28% of residents are overweight. In every ZIP code, more than 50% of residents reported not eating at least five servings of fruits or vegetables daily (5-a-day) as recommended by the State of California. Nine of the 15 ZIP codes have federally designated food desert tracts located within their boundaries. The federal government designates such tracts as census tracts in which at least 500 people and/or 33% of the population live more than one mile (10 miles in rural areas) from a supermarket or large grocery store. Only five of the 15 areas have a certified farmers’ market, with the downtown ZIP code 95815 having five farmers’ markets.

Table 17: Percent obese, percent overweight, percent eating at least five fruits and vegetables daily, presence (x) or absence (-) of federally defined food deserts, and number of certified farmers’ markets by ZIP code

	ZIP Code	% Obese	% Overweight	% no 5-a-day	Food Desert	# of Farmers’ Markets
Food Environment	95660	25.2	28.9	56	X	0
	95673	21.7	31.5	56	X	0
	95811*	--	--	--	-	0
	95814	26.5	31.9	53	X	5
	95815	26.2	29.9	55	X	0
	95817	26.7	30.0	56	-	1
	95820	26.5	29.9	56	X	0
	95821	25.4	29.8	54	-	1
	95822	24.5	29.1	56	-	0
	95823	23.7	28.6	57	-	1
	95824	23.0	28.3	56	X	0
	95828	22.4	27.9	57	X	0
	95832	18.7	29.0	59	X	0
	95838	24.1	28.2	57	X	1
	95841	24.4	28.9	55	-	0
	<i>CA State</i>	<i>24.8¹⁸</i>	--	--		

(Sources: % Obese & overweight, fruit & vegetable consumption: Healthy City (www.healthycity.org), 2003-2005; Food deserts: Kaiser Permanente CHNA Data Platform/US

¹⁸ Levi, J. (2012). “F” as in Fat: How obesity threatens America’s future. Retrieved from:

<http://healthyamericans.org/assets/files/TFAH2012FasInFatFnlRv.pdf>

*data was not available for ZIP code 95811 as this ZIP was formed after data was collected

showed very poor or no access to healthy food options. This ZIP code is also a federally designated food desert and has no certified farmers' market in its boundaries.

Key informants and community members also mentioned a lack of access to healthy foods in these areas. As one key informant said, "I think lower income means less access to everything including healthy food, so a lot of people are overweight, obese, heart disease, all those things" (KI_Sacramento_17). One key informant stated, "Your average next door neighbor...can't walk anywhere or drive to a grocery store in the neighborhood and get fresh fruits and vegetables" (KI_Sacramento_10). As mentioned previously, the Communities of Concern have a high percentage of residents living in poverty, making access to healthy food challenging. As one key informant explained, "...so if you have this choice between a dollar burger that has no nutrition and tons of calories and two pieces of fruit, what are you [going to] choose to feed your family?" (KI_Sacramento_26). Due to issues of poverty and transportation, it is important to make sure that it is easy for area residents to make healthy choices. One key informant stated, "It is not just simply a matter of telling a person you need to lose weight. It is the environment that they are in that is creating or helping them make those wrong choices" (KI_Sacramento_5).

Access to grocery stores in the area was challenging for some residents. One key informant stated, "So, even if you wanted to get to a good grocery store, transportation, particularly in South Sacramento, is terrible. It's absolutely terrible and it is expensive" (KI_Sacramento_26). A focus group participant talked about the overwhelming amount of liquor stores in the area, stating, "We got all the liquor stores you want. You don't have any grocery stores. We have fast food restaurants up and down the street. We don't have a grocery store" (FG_Sacramento_5). All of these issues serve as barriers for area residents trying to eat healthy foods. Expressed very simply, one key informant proposed, "We should work at making the healthy choice the easy choice" (KI_Sacramento_5).

Active Living

One of the largest barriers to engagement in physical activity is access to a recreational area. Figure 8 profiles the percent of the population in census tracts within the HSA that live within one-half mile of a recreational park.

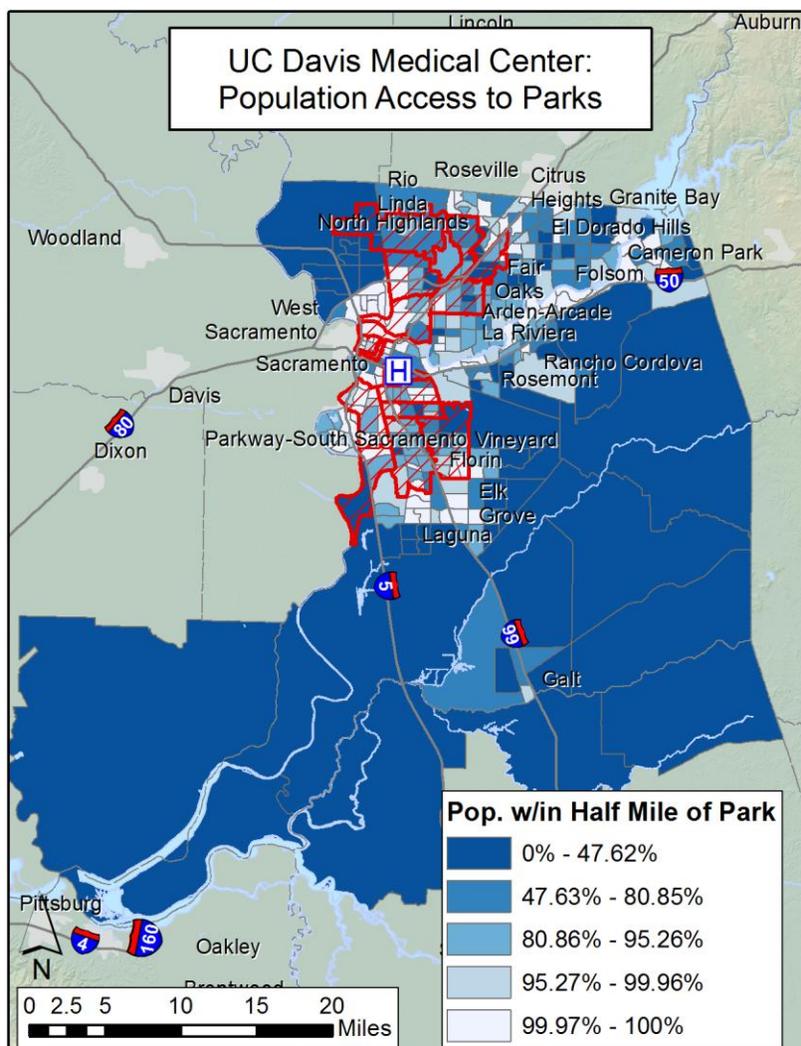


Figure 8: Percent population living in census tract within one-half mile of park space (per 10,000)

ZIP codes 95832, 95823, 95824, 95660, 95673, and 95825 had multiple census tracts with a low percentage of people living within one-half mile of a park. Specifically, more than half of the areas within ZIP codes 95673 and 95832 had no access to a park.

While the availability of places to engage in physical activity was important to note, this assessment found that it was also critical to explore the perceived comfort and feeling of safety residents felt while using these parks. Area residents consistently expressed pronounced concerns over safety in their community parks. As one key informant stated, “Are there parks in South Sacramento? There are. But people don’t really frequent them because there [are] either fights or folks just hanging out [there]...” (KI_Sacramento_26). Another key informant provided a specific example, “We were with a group of parents and they said... we always come to this park but we don’t go to the one end of the park because there is so much violent activity that happens. And sure enough, when we were in that end, a shooting happened” (KI_Sacramento_26).

Physical Wellbeing

Age-adjusted all-cause mortality rates are a major indicator of the health of a community. ZIP code 95815 had the highest age-adjusted overall mortality rate in the HSA at 90.7 deaths per 10,000. This ZIP code also had the lowest life expectancy at birth compared to any other Community of Concern ZIP code, and was lower than both the county and state benchmarks.

Infant mortality is a leading health status indicator of a community. ZIP code 95821 had the highest rate of infant mortality in HSA with a rate of 6.9 deaths per 1,000 live births. This is well above the county rate of 5.8 deaths per 1,000, the state rate of 5.2 deaths per 1,000, and the Healthy People 2020 target of 6.0 deaths per 1,000. ZIP codes 95820 and 95824 also had high rates at 6.6 deaths and 6.4 deaths per 1,000 live births, respectively. Life expectancy values in bold are those which fall below any reported benchmarks.

Table 18: Age-adjusted all-cause mortality rates, life expectancy at birth, and infant mortality rates (all-cause mortality rates per 10,000 population, life expectancy in years, and infant mortality per 1,000 live births)

ZIP Code	Age-adjusted All-Cause Mortality	Life expectancy	Infant Mortality
95660	79.6	76.8	5.0
95673	75.2	76.5	5.7
95811*	59.5	--	--
95814	80.2	76.3	5.5
95815	90.7	74.6	5.8
95817	75.2	76.9	5.5
95820	81.5	79.9	6.6
95821	75.1	78.3	6.9
95822	69.3	77.5	5.7
95823	75.0	82.5	6.3
95824	77.2	81.2	6.4
95828	75.9	79.1	5.3
95832	67.0	81.0	5.2
95838	88.4	74.8	6.4
95841	70.5	77.3	5.0
<i>Sacramento County</i>	<i>71.4</i>	--	<i>5.8</i>
<i>CA State</i>	<i>63.3</i>	<i>80.4¹⁹</i>	<i>5.2</i>
<i>National</i>		<i>78.6²⁰</i>	--
<i>Healthy People 2020</i>	--	--	<i>6.0</i>

(Source: Mortality: CDPH, 2010; Population count: US Census Bureau, 2010: rates calculated)

* Data was not available for ZIP code 95811 as this ZIP was formed after data was collected

Health Asset Analysis

Communities require resources in order to maintain and improve their health. These assets include access to health care professionals and community-based organizations. Health Professional Shortage Areas (HPSAs) are designated by the US Government Health Resources and Services Administration (HRSA) as having shortage of primary medical care, dental, or mental health providers and may be geographic (a county or service area), demographic (low income population) or institutional (comprehensive health center, federally qualified health center, or other public facility).

¹⁹ Henry J. Kaiser Family Foundation State Health Facts, 2007. Retrieved from: <http://www.statehealthfacts.org/profileind.jsp?ind=784&cat=2&rqn=6>

²⁰ *ibid.*

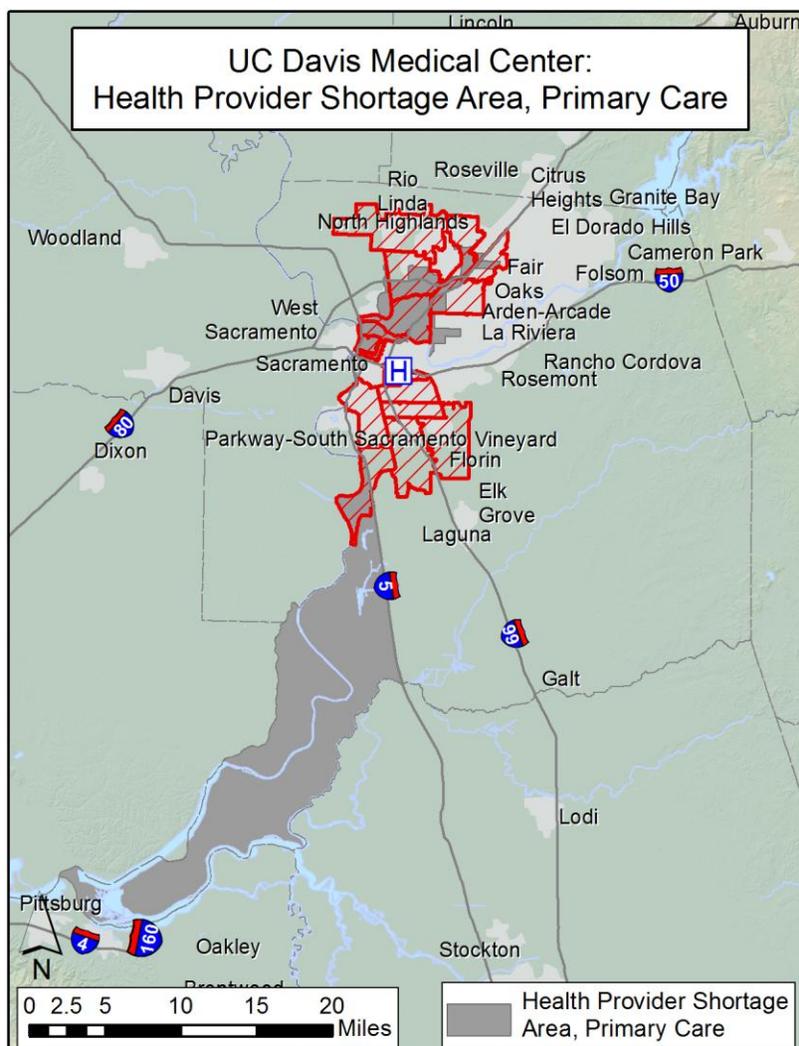


Figure 9: Federally defined primary medical care health professional shortage areas as designated by the Health Resources and Services Administration, 2011

Figure 9 reveals that eight of the 15 Communities of Concern had federally designated HPSAs. ZIP codes 95811, 95814, 95815, 95838, 95660, 95821, 95832, and 95841 all had designated shortage areas within their geographical boundaries.

Both the qualitative outcome data and qualitative data stressed a clear lack of access to primary, secondary, and preventive care for Community of Concern residents. The percent of uninsured in the Communities of Concern, mentioned previously in the report, is drastically above the established benchmarks. Additionally, virtually every key informant and focus group participant emphasized the need for increased care. One key informant stated, “I would say the biggest problem is a total lack of a health safety net...Our biggest health need is access to healthcare...” (KI_Sacramento_9). As one key informant explained, “We need to have more community clinics within the communities that need to be served” (KI_Sacramento_5). Another key informant discussed that many residents delay treatment for health issues because of a lack of access to affordable care, stating, “It’s is just so stressful. Not having the money like holding

the pain, trying to ask family and friends for money just to go to a clinic and pay for treatment” (KI_Sacramento_19). One mother described a personal story when her daughter was ill, “...my baby had a fever for a week and it got real high and I called the doctor and they told me [weeks away] is their soonest appointment. And then you are left with no choice, you go to the emergency room” (FG_Sacramento_5).

In addition, while some area residents may have Medi-Cal coverage to receive health care services, ability to use such coverage may be limited. “I have a couple of clients who all have Medi-Cal right now. Unfortunately a lot of clinics are not taking new patients” (KI_Sacramento_8). Another key informant stressed the lack of basic preventative health care services in the county and stated, “Access to care is considered one of the 12 essential services of public health...so if a person does not have access to care then they will not be able to get preventative services” (KI_Sacramento_5).

Furthermore, analysis of data indicated that almost 76 distinct health assets are located in the UC Davis Medical Center HSA Communities of Concern. These assets include community-based organizations delivering health related services such as counseling, education programs, primary care healthcare facilities including FQHCs and free clinics, food closets, homeless shelters, among others (a complete list of these services is available in Appendix H). The presence of these organizations presents UC Davis Medical Center with a unique opportunity to enhance community health through increased collaboration and coordination of services.

Other Findings

Qualitative data revealed other important health concerns for area residents. Key informant and community members discussed the difficulties of accessing dental care in the area, issues with food insecurity, and struggles unique to the Hmong and Hispanic residents living in the area.

Dental Care

Countless community members and area professionals stressed that dental health concerns were very common in area residents. Participants stated that access to dental services is extremely limited and preventive screenings are virtually non-existent. Many residents said they live with dental pain because they are unable to receive care. One community resident discussed an episode where an acquaintance was experiencing such a challenge. She said, “...she was in so much pain that she couldn’t open her mouth and she went to the dentist and they took her to a room and then they sent her home without treatment because her Medi-Cal card was not current” (FG_Sacramento_6). Another key informant in the area discussed the difficulties of accessing care even when services are in place, speaking specifically about pediatric dental services, “We have on paper these programs that are supposed to provide care for this vulnerable population and yet we have so many road blocks that make it difficult for them to even access care” (KI_Sacramento_5).

Immigrant Stress: Hmong and Hispanic

The UC Davis Medical Center's hospital service area is highly diverse. Qualitative and qualitative findings confirmed that the area is home to many immigrant communities, including the Hmong and Hispanic communities. Area experts stressed the need to capture the experiences of these two groups, as each demonstrates specifically defined cultural needs in the area.

A persistent theme in the qualitative data was the stress of living as an immigrant in the area, a term we defined as "immigrant stress." For the Hmong, area experts and community members said the transition of living in the HSA in comparison to Laos is drastically different. A key informant said, "I think the way they were describing living in Laos and living here is that Laos was a simple life but here there [are] so many things that you have to just worry about..." "There's a lot of stressors living in the US" (KI_Sacramento_20). This change has large effects on an individual's health and wellbeing. One community member said, "I think that stress, lots of stress, can affect the heart. I think this is even a bigger issue than strokes. Because now, our Hmong folks, when we go visit the doctor everything is because of the heart" (FG_Sacramento_9). Another member spoke of the onset of illness as a result of living in the area compared to their home country and said, "Why is it that once we come to this country there are so many Hmong that have diabetes and hypertension and gout and arthritis?" (FG_Sacramento_9).

Moreover, health professionals stressed the concerns area Hispanic residents have associated with the fear of living here with undocumented status or with limited English proficiency. As one participant stated, "...some of the people I see with the biggest health issues are undocumented Hispanic families because they let it [health issues] go for so long and they don't have access to anything...there is that fear of [being undocumented]" (KI_Sacramento_18). In addition, another area expert stated that for many of these residents, "They don't know how to read. They don't know how to speak English. It's very difficult for them" (KI_Sacramento_8).

Food Insecurity

Area experts and community members also discussed the challenge that some residents have with merely accessing enough food to eat on a daily basis. A community member spoke of seeing many highly impoverished residents with little access to food in general, let alone healthy food. She said, "They do not have anything to eat and they do not have any money. It's really sad. They [have] resorted to eating trash" (FG_Sacramento_9). One key informant stressed the importance that food security has on the stability of families. "I would say 70% of my families right now...when I ask them there is an average of 4 to 5 days per month where they don't have access to food. And that is even when they are receiving EBT and WIC" (KI_Sacramento_16). She elaborated, stating, "You want to improve quality of life for people and their health? Give them some food. I mean you can't create a demographic of people who

can be high-functioning workers or community members if they are constantly starving” (KI_Sacramento_16).

Limitations

Study limitations included difficulties acquiring secondary data and assuring community representation via primary data collection. ED visit and hospitalization data used in this assessment are markers of prevalence, but do not fully represent the prevalence of a disease in a given ZIP code. Currently there is no publicly available data set with prevalence markers at the sub-county level for the core health conditions examined in this assessment-- heart disease, diabetes, hypertension, stroke, and mental health. Similarly, behavioral data sets at the sub-county level were difficult to obtain and were not available by race and ethnicity. The format of the California Health Interview Survey (CHIS) data used in this assessment necessitated the creation of “small region” estimates. Additionally, the available CHIS data was from years 2003-2005. To mitigate these weaknesses, primary data were collected, analyzed, and triangulated with secondary data.

As is common, assuring that the community voice is thoroughly represented in primary data collection was a challenge. Measures were taken to outreach to area organizations for recruitment, assuming that the organization represented a Community of Concern geographically, racially, ethnically, or culturally. Focus group participants were offered incentives such as food and refreshments during the interview. Additionally, data collection of health assets in the hospital service areas was challenging. Many organizations were weary to provide information to our staff over the phone, resulting in limited data on some assets. Further, information on assets such as small community-based organizations was difficult to find and catalog in a systemic manner. Lastly, it is important to understand that services and resources provided by the listed health assets can change frequently, and this directory serves only as a snapshot in time of their offerings.

Conclusion

Public health researchers have helped expand our understanding of community health by demonstrating that health outcomes are the result of the interactions of multiple, inter-related variables such as socio-economic status, individual health behaviors, access to health related resources, cultural and societal norms, the built environment, and neighborhood characteristics such as crime rate. The results of this assessment help to shine a light on the relationships of some of these variables that were collected and analyzed to describe the Communities of Concern.

Hospital community benefit managers and personnel can use this expanded understanding of community health, along with the results of this assessment to target specific interventions and improve health outcomes in some of the area’s more vulnerable communities. By knowing where to focus community health improvement plans, i.e. the

identified Communities of Concern, and the specific conditions and health outcomes experienced by their residents, community benefit programs can develop plans to address the underlying contributors of negative health outcomes.

Appendix A
Qualitative Data Summary Table

Theme/Topic	Supporting Quote (KI=Key Informant; FG=Focus Group)
<i>What are the biggest health issues your community struggles with?</i>	
Chronic diseases, and disease management, obesity	<ul style="list-style-type: none"> • “I had never seen such bad diabetes [as when] people were dumped from [Sacramento] county’s health plan. I would see them...with untreated diabetes...it was frightening” (KI_Sacramento_2). • “...my family has diabetes...asthma...high blood pressure...” (FG_Sacramento_10). • “I think lower income means less access to everything including healthy food, so a lot of people are overweight, obese, heart disease, all those things (KI_Sacramento_17). • “Almost everyone has high blood pressure. I mean like everybody you talk to” (FG_Sacramento_10). • When asked, focus group participants spoke of a number health issues and consistently mentioned chronic diseases (FG_Sacramento_4).
Mental Health – depression, anxiety, stress associated with being poor	<ul style="list-style-type: none"> • “...there are a lot of financial stresses and a lot of people here getting poorer” (KI_Sacramento_4). • “...they are just in that environment where it’s like constant crisis...and when you are living in violence like that, you’re in a state of crisis. And when you don’t have enough money, you are in a state of crisis” (KI_Sacramento_26). • “I think that stress, lots of stress, can affect the heart. I think this is even a bigger issue than strokes. Because now, our Hmong folks, when we go visit the doctor everything is because of the heart” (FG_Sacramento_9). • “I think there is this, I like to call it inherent trauma that we haven’t addressed a lot with our community, especially our communities of poverty” (KI_Sacramento_11). • “...you know there’s a couple of stressors that trigger domestic violence, one is financial stress” (KI_Sacramento_21).

	<ul style="list-style-type: none"> • “... [my family] has concerns about finding counseling...my son specifically, I am having a hard time find [treatment] that takes Medi-Cal” (FG_Sacramento_10). • “There’s a lot of stressors living in the US” (KI_Sacramento_20).
COPD and Asthma	<ul style="list-style-type: none"> • “Cigarette smoking is notorious among our [homeless] population. And because of the cost of a pack of cigarettes, they don’t buy packs of cigarettes; they buy tobacco and wraps, no filters” (KI_Sacramento_22). • When asked, focus group participants spoke of a number of health issues, and consistently mentioned asthma (FG_Sacramento_4). • “...me and my son, we both have asthma. He has a hard time breathing at night. He has to be put in an incubator...” (FG_Sacramento_10).
Substance Abuse	<ul style="list-style-type: none"> • “A lot of people have turned to drug and alcohol because they can’t get medical treatment” (FG_Sacramento_2). • “I think people tend to self-medicate and I have seen that a lot of times” (KI_Sacramento_19).
Dental	<ul style="list-style-type: none"> • “...we have no dental or any way to get it taken care of, and the doctors won’t give you antibiotics until it is too late...” (FG_Sacramento_3). • “...she was in so much pain that she couldn’t open her mouth and she went to the dentist and they took her to a room and then they sent her home without treatment because her Medi-Cal card was not current” (FG_Sacramento_6). • “If you live in this community and you don’t have health insurance and you have a toothache or really bad tooth, where do you go? Emergency room...” (FG_Sacramento_5).
Food insecurity, poor nutrition	<ul style="list-style-type: none"> • “I would say 70% of my families right now...when I ask them there is an average of 4 to 5 days per month where they don’t have access to food. And that is even when they are receiving EBT and WIC” (KI_Sacramento_16). • “They do not have anything to eat and they do not have any money. It’s really sad. They’re resorted to eating trash” (FG_Sacramento_9). • “I am kind of conflicted on preaching nutrition to people because I think a lot of time they are just dealing with immediate like I have go to eat something so they are not in a position to be

	<p>really choosy around what they eat” (KI_Sacramento_9).</p> <ul style="list-style-type: none"> • “If families are food insecure or not eating properly, what does that do to their ability to pay attention?” (KI_Sacramento_20).
<i>Who within your community appears to struggle with these issues the most?</i>	
Low income populations, minorities, homeless	<ul style="list-style-type: none"> • “If you go into a neighborhood where the poverty level is 20%, those issues cross all [races and ethnicities]” (KI_Sacramento_16). • “...people without any money cannot go see the doctor because they do not have Medi-Cal...” (FG_Sacramento_9). • “I see the UC Davis [hospital] and now the [new building]. Why they make the hospital so big that they can’t help the poor people?” (FG_Sacramento_4). • “If you look at [gang violence], it weighs heavily with the African American community and Hispanic youth, follow pretty closely by Asian youth” (KI_Sacramento_21). • “African Americans as a whole have difficulty expressing mental health issues” (KI_Sacramento_6). • “you’ve got to be realistic people’s lives are so tough right now” KI_Sacramento_2 • “I think there are a lot of financial stresses and strains and a lot of people here are poor and getting poorer.” KI_Sacramento_4
Immigrants, including undocumented	<ul style="list-style-type: none"> • “...some of the people I see with the biggest health issues are undocumented Hispanic families because they let it go for so long and they don’t have access to anything...there is that fear of [being undocumented]” (KI_Sacramento_16). • “They don’t know how to read. They don’t know how to speak English. It’s very difficult for them” (KI_Sacramento_8). • “[Slavics] are Caucasians and we are invisible on the dataset...here in Sacramento [Slavic immigrants] from [the] former Soviet Union are over 150 thousand” (KI_Sacramento_18). • “Why is it that once we come to this country there are so many Hmong that have diabetes and hypertension and gout and arthritis?” (FG_Sacramento_9). • “I think the way they were describing living in Laos and living here is that Laos was a simple life

	but here there is so many things that you have to just worry about..." (KI_Sacramento_20).
<i>What are some challenges you and/or your community face in staying health?</i>	
Cultural competence/ language barriers	<ul style="list-style-type: none"> • "You get judged a lot and normally when people hear 'Medi-Cal' because you are a poor black person" (FG_Sacramento_10). • "I think a lot of the health systems don't have the cultural competency" (KI_Sacramento_13).
Lack of providers taking Medi-Cal	<ul style="list-style-type: none"> • "I have been enrolled [through Medi-Cal] with doctors I've never seen, but I have a card that says I am their patient. And they tell me 'we have no space for you...'" (FG_Sacramento_2). • "I have a couple of clients who all have Medi-Cal right now. Unfortunately a lot of clinics are not taking new patients" (KI_Sacramento_8). • "I have diabetes, my glucose levels have been so high it does not register, but when I go to the clinic I have to pay cash, so I decide not to go to the clinic. So I stay and diet. I drink some Hmong herbal tea to help" (FG_Sacramento_9).
Lack of specialty care for low income	<ul style="list-style-type: none"> • "...the nearest [specialists] who will take Medi-Cal...is at Stanford in Palo Alto (KI_Sacramento_12). • "...you still need the specialized care and follow through...to really take care of the real issues and underlying symptoms" (KI_Sacramento_22).
Lack of mental health services	<ul style="list-style-type: none"> • "...it is very difficult to get into a crisis treatment center in Sacramento County" (KI_Sacramento_22) • "Something really bad has to happen before you can get any mental health treatment, and that is very scary for everyone" (KI_Sacramento_19). • "It is just so stressful. Not having the money like holding the pain, trying to ask family and friends for money just to go to a cline and pay for treatment" (KI_Sacramento_19). • "...but there is just no good place to send [MH patients] because there are really no good psychiatric facilities as far as capacity; there's good facilities, but their capacity is limited" KI_Sacramento_13 • "...our ER is just overwhelmed by [mental health] case" (KI_Sacramento_21). • "...the ability for these [mental health] patients to get any kind of help or follow-up is woefully

	<p>lacking. I mean it is horrible. And so we end up having extended, long periods of stay...but no place for them to go” (KI_Sacramento_21).</p> <ul style="list-style-type: none"> • “A lot of mental health services that were available to our clients are gone now” (KI_Sacramento_19).
Access to primary care	<ul style="list-style-type: none"> • “...generally they [homeless populations] go to the ER and they are discharged back on the street without proper care” (KI_Sacramento_22). • “I would say the biggest problem is a total lack of a health safety net...Our biggest health need is access to healthcare...” (KI_Sacramento_9). • “Access to care is considered one of the 12 essential services of public health...so if a person does not have access to care then they will not be able to get preventative services” (KI_Sacramento_5). • “Here you go to primary care, they won’t see you until three months” (FG_Sacramento_2). • “...it takes you four months to get in...” (FG_Sacramento_2). • “And people don’t go to the doctor because you don’t have insurance or the funds to pay for the services and the few times when you are able to get services at the clinics, the wait is very long or you just get the minimal medical care.” FG_Sacramento_6 • “Even when, even right away when you get SSI it takes a while before your Medi-Cal even kicks in. That is stressful. That is called, that is a health issue by itself. That stress is a health issue by itself” FG_Sacramento_2 • “I think there is a myth within our communities that people do not want to take medication and that is not necessarily true. I think that a lot of people don’t have access to the medication that they need so it is not like they are just don’t want to take their medication. They cannot get their medication.” KI_Sacramento_19 • “...my baby had a fever for a week and it got real high and I called the doctor and they told me [weeks away] is their soonest appointment. And then you are left with no choice, you go to the emergency room” (FG_Sacramento_5). • “The few times when you are able to get services at the clinics the wait is very long and you just

	get the minimal care” (FG_Sacramento_6).
Increased coordination of services	<ul style="list-style-type: none"> • “The thing that is killing the community is the hospitalists is incredible at doing healthcare in the hospital. But that care transition; like you leave the hospital, it’s like walking off a cliff” (KI_Sacramento_9).
Avoid care—then end up in the ED	<ul style="list-style-type: none"> • “...these patients wait until their medical problems get out of control and then have no choice but to go to the emergency room” (KI_Sacramento_23)
Limited access to healthy foods	<ul style="list-style-type: none"> • “Your average next door neighbor...can’t walk anywhere or driver to a grocery store in the neighborhood and get fresh fruits and vegetables” (KI_Sacramento_10). • “We got all the liquor stores you want. You don’t have any grocery stores. We have fast food restaurants up and down the street. We don’t have a grocery store” FG_Sacramento_5). • “...if I were to say I wanted to get a healthy lunch in South Sacramento versus downtown Sacramento, I could rattle off a thousand places in Sacramento. But not in South Sacramento...” (KI_Sacramento_21). • ‘So, even if you wanted to get to a good grocery store, transportation, particularly in South Sacramento, is terrible. It’s absolutely terrible and it is expensive” (KI_Sacramento_26).
Sense of safety	<ul style="list-style-type: none"> • “I see moms with depression...and anxiety. I see a lot of trauma. A lot of PTSD. A lot of just fearful living in low income environment with abuse in their own family...” (KI_Sacramento_16). • “You see people with chronic health issues because of the crisis mode that they are living in” (KI_Sacramento_16). • “I know two people that have gotten killed and they were elderly; or, they just do their daily strolls and they have gotten hit” (KI_Sacramento_8). • “A lot of our elders or our families, they don’t want to walk outside anymore because it is not safe. They don’t want to take their kids out there. Sometimes they can’t afford to take them to nice parks” (KI_Sacramento_8) • “The community needs to be aware that [the fear of going outdoors] as opposed to placing some judgment like, ‘well, if they would just walk down the street” (KI_Sacramento_6). • “Are there parks in South Sacramento? There are. But people don’t really frequent them

	<p>because there's either fights or folks just hanging out..." (KI_Sacramento_26).</p> <ul style="list-style-type: none"> • "The way the suburbs are built, they are so dependent on somebody having a car..." (KI_Sacramento_5). • "...in the Valley-Hi community, you have this big dense area of apartment complexes along this incredibly fast road...and there's been a lot of accidents, people getting hit, people fearing for their lives...there is like not crosswalk for miles" (KI_Sacramento_25). • "We were with a group of parents and they said... we always come to this park but we don't go to this one end of the park because there is so much violent activity that happens. And sure enough, when we were in that end, a shooting happened." (KI_Sacramento_26)
<p>Transportation – logistics, costs</p>	<ul style="list-style-type: none"> • "Transportation needs to be improved because there is no point having a clinic that nobody can get to unless they have a car" (KI_Sacramento_5). • "...even though we have bus access a lot of our families can't afford bus tickets" (KI_Sacramento_10). • 'So, even if you wanted to get to a good grocery store, transportation, particularly in South Sacramento, is terrible It's absolutely terrible and its expensive" (KI_Sacramento_26). • "I had a gentleman that walked from North Sacramento to where our clinic is in Oak Park to be seen. And that was his only way to get there was to walk" (KI_Sacramento_7).
<p>Navigating a complex social services system</p>	<ul style="list-style-type: none"> • "[Sacramento County] has on paper these programs that are supposed to provide care for this vulnerable population; and yet we have so many road blocks that make it difficult for them to even access care" (KI_Sacramento_5). • "...they [new immigrants] don't know how to navigate those systems...so that impacts their health" (KI_Sacramento_8).
<p>Accessibility and affordability of fast food</p>	<ul style="list-style-type: none"> • "We should work at making the healthy choice the easy choice" (KI_Sacramento_5). • "...you get a big ole jumbo bag of Cheetos Puffs for 59 cents, and then at the same time you can get a small cantaloupe for \$1.09; it's like, well, this is more quantity..." (FG_Sacramento_10). • "...so if you have this choice between a dollar burger that has no nutrition and tons of calories and two pieces of fruit, what are you gonna choose to feed your family?" (KI_Sacramento_26)

Health literacy	<ul style="list-style-type: none"> • “Routine exercise is kind of a function of the middle and upper middle class. Poor people don’t really think of exercise in the way that we think of it when you’re better educated...” (KI_Sacramento_2).
Built environment not conducive to physical lifestyle	<ul style="list-style-type: none"> • “The way the suburbs are built, they are so dependent on somebody having a car...” (KI_Sacramento_5). • “It is not just simply a matter of telling a person you need to lose weight. It is the environment that they are in that is creating or helping them make those wrong choices.” KI_Sacramento_5 • “The way our society is set up nowadays just makes everybody so much more convenient and you can just sit around and really, literally just not do anything and still get entertained.” (KI_Sacramento_11)
<i>What are opportunities in your community to improve and maintain health?</i>	
Affordability	<ul style="list-style-type: none"> • “It needs to be easier to be a low-wage earner” (KI_Sacramento_12). • “...[our health insurance premium] comes out of her paycheck and we have to find a way to recuperate that money to pay rent, the gas bill, gas in the car...so it ends up being a game of trying to figure out what you are going to sacrifice” (FG_Sacramento_3).
Expand community clinic capacity	<ul style="list-style-type: none"> • “We need to have more community clinics within the communities that need to be served” (KI_Sacramento_5).
Culturally competent health education programs to improve health literacy	<ul style="list-style-type: none"> • “Education and health go hand-in-hand. The higher the education level the better the health outcomes...” (KI_Sacramento_5). • “...a lot of people look for just medication to suppress the symptoms...we need education on how to cure a symptom as opposed to just going to the emergency to get the medication...” (FG_Sacramento_2). • “Education and giving yourself opportunities is always a good thing. Its power. There is a lot of power in education. I believe in it” (KI_Sacramento_21). • “...we have done education and they [Laos Community] are very open if you teach them about why they need [various medical services]” (KI_Sacramento_20).
Improve food security	<ul style="list-style-type: none"> • “You want to improve quality of life for people and their health? Give them some food. I mean

	you can't create a demographic of people who can be high-functioning workers or community members if they are constantly starving" (KI_Sacramento_16).
<i>Other</i>	
Inappropriate use of ER	<ul style="list-style-type: none"> • "There is literally no disincentive to going to an emergency room. We hear people saying things like, 'I am going to the emergency room next Tuesday.' You are going to have an emergency medical condition next Tuesday?" (KI_Sacramento_12). • "I have been enrolled [through Medi-Cal] with doctors I've never seen, but I have a card that says I am their patient. And they tell me 'we have no space for you,' so I literally have no choice, everything goes to the emergency room" (FG_Sacramento_2).
Area lags behind others in healthcare	<ul style="list-style-type: none"> • "...this geographic region [Sacramento] is just, you know, uniquely bad relative to the whole state, in terms of healthcare" (KI_Sacramento_9).

Appendix B

Data Dictionary and Processing

Introduction

The secondary data supporting the 2013 Community Health Needs Assessment was collected from a variety of sources, and was processed in multiple stages before it was used for analysis. This document details those various stages. It begins with a description of the approaches used to define ZIP code boundaries, and the approaches that were used to integrate records reported for PO boxes into the analysis. General data sources are then listed, followed by a description of the basic processing steps applied to most variables. It concludes by detailing additional specific processing steps used to generate a subset of more complicated indicators.

ZIP Code Definitions

All health outcome variables collected in this analysis are reported by patient mailing ZIP codes. ZIP codes are defined by the US Postal Service as a physical location (such as a PO Box), or a set of roads along which addresses are located. The roads that comprise such a ZIP code may not form contiguous areas. These definitions do not match the approach of the US Census Bureau, which is the main source of population and demographic information in the US. Instead of measuring the population along a collection of roads, the Census reports population figures for distinct, contiguous areas. In an attempt to support the analysis of ZIP code data, the Census Bureau created ZIP Code Tabulation Areas (ZCTAs). ZCTAs are created by identifying the dominant ZIP code for addresses in a given block (the smallest unit of Census data available), and then grouping blocks with the same dominant ZIP code into a corresponding ZCTA. The creation of ZCTAs allows us to identify population figures that, in combination the health outcome data reported at the ZIP code level, allow us to calculate rates for each ZCTA. But the difference in the definition between mailing ZIP codes and ZCTAs has two important implications for analyses of ZIP level data.

First, it should be understood that ZCTAs are approximate representations of ZIP codes, rather than exact matches. While this is not ideal, it is nevertheless the nature of the data being analyzed. Secondly, not all ZIP codes have corresponding ZCTAs. Some PO Box ZIP codes or other unique ZIP codes (such as a ZIP code assigned to a single facility) may not have enough addressees residing in a given census block to ever result in the creation of a ZCTA. But residents whose mailing addresses correspond to these ZIP codes will still show up in reported health outcome data. This means that rates cannot be calculated for these ZIP codes individually because there are no matching ZCTA population figures.

In order to incorporate these patients into the analysis, the point location (latitude and longitude) of all ZIP codes in California (Datasheer, L.L.C., 2012) were compared to the 2010 ZCTA boundaries (U.S. Census Bureau, 2011). All ZIP codes (whether PO Box or unique ZIP code) that were not included in the ZCTA dataset were identified. These ZIP codes were then assigned to either ZCTA that they fell inside of, or in the case of rural areas that are not

completely covered by ZCTAs, the ZCTA to which they were closest. Health outcome information associated with these PO Box or unique ZIP codes were then assigned added to the ZCTAs to which they were assigned.

For example, 95609 is a PO Box located in Carmichael. 95609 is not represented by a ZCTA, but it does have patient data reported as outcome variables. Through the process identified above, it was found that 95609 is located within 95608, which does have an associated ZCTA. Health outcome data for ZIP codes 95608 and 95609 were therefore assigned to ZCTA 95608, and used to calculate rates.

Data Sources

Secondary data were collected in three main categories: demographic information, health outcome data, and behavioral and environmental data. Table B1 below lists demographic variables collected from the US Census Bureau, and lists the geographic level at which they were collected. These demographic variables were collected at the Census block, tract, ZCTA, and state levels. Census blocks are roughly equivalent to city blocks in urban areas, and tracts are roughly equivalent to neighborhoods. Table B2 lists demographic variables at the ZIP code level obtained from Dignity Health (2011).

Table B1. Demographic Variables Collected from the US Census Bureau (U.S. Census Bureau, 2013a; U.S. Census Bureau, 2013b)

Variable Name	Definition	Geographic Level	Source
Asian Population	Hispanic or Latino and Race, Not Hispanic or Latino, Asian alone	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Black Population	Hispanic or Latino and Race, Not Hispanic or Latino, Black or African American alone	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Hispanic Population	Hispanic or Latino and Race, Hispanic or Latino (of any race)	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Native American Population	Hispanic or Latino and Race, Not Hispanic or Latino, American Indian and Alaska Native alone	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Pacific Islander Population	Hispanic or Latino and Race, Not Hispanic or Latino, Native Hawaiian and Other Pacific Islander alone	Tract	2010 American Community Survey 5 Year Estimates Table DP05
White Population	Hispanic or Latino and Race, Not Hispanic or Latino, White alone	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Total Households	Total Households	Tract	2010 American Community Survey 5 Year Estimates Table S1101

Variable Name	Definition	Geographic Level	Source
Married Households	Married-couple family household	Tract	2010 American Community Survey 5 Year Estimates Table S1101
Single Female Headed Households	Female householder, no husband present, family household	Tract	2010 American Community Survey 5 Year Estimates Table S1101
Single Male Headed	Male householder, no wife present, family household	Tract	2010 American Community Survey 5 Year Estimates Table S1101
Non-Family Households	Nonfamily household	Tract	2010 American Community Survey 5 Year Estimates Table S1101
Population in Poverty (Under 100% Federal Poverty Level)	Total poverty under .50; .50 to .99	Tract	2010 American Community Survey 5 Year Estimates Table C17002
Population in Poverty (Under 125% Federal Poverty Level)	Total poverty under .50; .50 to .99; 1.00 to 1.24	Tract	2010 American Community Survey 5 Year Estimates Table C17002
Population in Poverty (Under 200% Federal Poverty Level)	Total poverty under .50; .50 to .99; 1.00 to 1.24; 1.25 to 1.49; 1.50 to 1.84; 1.85 to 1.99	Tract	2010 American Community Survey 5 Year Estimates Table C17002
Population by Age Group: 0-4, 5-14, 15-24, 25-34, 45-54, 55-64, 65-74, 75-84, and 85 and over	Total Population by Age Group	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Total Population	Total Population	Tract	2010 American Community Survey 5 Year Estimates Table DP05
Total Population	Total Population	Block	2010 Census Summary File 1 Table P1
Asian/Pacific Islander Population	Total Population, One Race, Asian, Not Hispanic or Latino; Total Population, One Race, Native Hawaiian and Other Pacific Islander, Not Hispanic or Latino	ZCTA, State	2010 Census Summary File 1 Table QTP14
Black Population	Total Population, One Race, Black or African American, Not Hispanic or Latino	ZCTA, State	2010 Census Summary File 1 Table QTP14
Hispanic Population	Total Population, Hispanic or Latino (of any race)	ZCTA, State	2010 Census Summary File 1 Table QTP3

Variable Name	Definition	Geographic Level	Source
Native American Population	Total Population, One Race, American Indian and Alaska Native, Non Hispanic or Latino	ZCTA, State	2010 Census Summary File 1 Table QTP14
White Population	Total Population, Once Race, White, Not Hispanic or Latino	ZCTA, State	2010 Census Summary File 1 Table QTP14
Male Population	Total Male Population	ZCTA, State	2010 Census Summary File 1 Table PCT12
Female Population	Total Female Population	ZCTA, State	2010 Census Summary File 1 Table PCT12
Population by Age Group: Under 1, 1-4, 5-14, 15-24, 25-34,45-54, 55-64, 65-74, 75-84, and 85 and over	Total Male and Female Population by Age Group	ZCTA, State	2010 Census Summary File 1 Table PCT12
Total Population	Total Population	ZCTA, State	2010 Census Summary File 1 Table PCT12

Table B2. ZIP Demographic Information (Dignity Health, 2011)

Variable
Percent Households 65 years or Older In Poverty
Percent Families with Children in Poverty
Percent Single Female Headed Households in Poverty
Percent Population 25 or Older Without a High School Diploma
Percent Non-White or Hispanic Population
Population 5 Years or Older who speak Limited English
Percent Unemployed
Percent Uninsured
Percent Renter Occupied Households

Collected health outcome data included the number of emergency department (ED) discharges, hospital (H) discharges, and mortalities associated with a number of conditions. ED and H discharge data for 2011 were obtained from the Office of Statewide Healthy Planning and Development (OSHPD). Table B3 lists the specific variables collected by ZIP code. These values report the total number of ED or H discharges that listed the corresponding ICD9 code as either a primary or any secondary diagnosis, or a principle or other E-code, as the case may be. In addition to reporting the total number of discharges associated with the specified codes per ZIP code, this data was also broken down by sex (male and female), age (under 1 year, 1 to 4 years, 5 to 14 years, 15 to 24 years, 25 to 34 years, 35 to 44 years, 45 to 54 years, 55 to 64 years, 65 to 74 years, 75 to 84 years, and 85 years or older), and normalized race and ethnicity (Hispanic of any race, non-Hispanic White, non-Hispanic Black, non-Hispanic Asian or Pacific Islander, non-Hispanic Native American).

Table B3. 2011 OSHPD Hospitalization and Emergency Department Discharge Data by ZIP code

Category	Variable Name	ICD9/E-Codes
Chronic Disease	Diabetes	250
	Heart Disease	410-417, 428, 440, 443, 444, 445, 452
	Hypertension	401-405
	Stroke	430-436, 438
Respiratory	Asthma	493-494
	Chronic Obstructive Pulmonary Disease (COPD)	490-496
Mental Health	Mental Health	290, 293-298, 301-302, 310-311
	Mental Health, Substance Abuse	291-292, 303-305
Injuries ²¹	Unintentional Injury	E800-E869, E880-E929
	Assault	E960-E969, E999.1
	Self Inflicted Injury	E950-E959
	Accidents	E814, E826
Cancer	Breast Cancer	174, 175
	Colorectal Cancer	153, 154
	Lung Cancer	162, 163
	Prostate Cancer	185
Other Indicators	Hip Fractures	820
	Tuberculosis	010-018, 137
	HIV	042-044
	STDs	042-044, 090-099, 054.1, 079.4
	Oral cavity/dental	520-529
	West Nile Virus	066.4
	Acute Respiratory Infections	460-466
	Urinary Tract Infections (UTI)	599.0
	Complications related to pregnancy	640-649

Mortality data, along with the total number of live births, for each ZIP code in 2010 were collected from the California Department of Public Health (CDPH). The specific variables collected are defined in Table B4. The majority of these variables were used to calculate specific rates of mortality for 2010. A smaller number of them were used to calculate more complex indicators of wellbeing. To increase the stability of these more complex measures, rates were calculated using values from 2006 to 2010. These variables include the total number of live births, total number of infant deaths (ages under 1 year), and all cause mortality by age. Table B4 consequently also lists the years for which each variable was collected.

Table B4. CDPH Birth and Mortality Data by ZIP Code

Variable Name	ICD10 Code	Years Collected
Total Deaths		2010
Male Deaths		2010

²¹ ICD9 code definitions for the Unintentional Injury, Self Inflicted Injury, and Assault variables were based on definitions given by the Centers for Disease Control and Prevention (CDC, 2011)

Female Deaths		2010
Population by Age Group: Under 1, 1-4, 5-14, 15-24, 25- 34,45-54, 55-64, 65-74, 75-84, and 85 and over		2006-2010
Diseases of the Heart	I00-I09, I11, I13, I20-I51	2010
Malignant Neoplasms (Cancer)	C00-C97	2010
Cerebrovascular Disease (Stroke)	I60-I69	2010
Chronic Lower Respiratory Disease	J40-J47	2010
Alzheimer's Disease	G30	2010
Unintentional Injuries (Accidents)	V01-X59, Y85-Y86	2010
Diabetes Mellitus	E10-E14	2010
Influenza and Pneumonia	J09-J18	2010
Chronic Liver Disease and Cirrhosis	K70, K73-K74	2010
Intentional Self Harm (Suicide)	U03, X60-X84, Y87.0	2010
Essential Hypertension & Hypertensive Renal Disease	I10, I12, I15	2010
Nephritis, Nephrotic Syndrome and Nephrosis	N00-N07, N17-N19, N25-N27	2010
All Other Causes	Residual Codes	2010
Total Births		2006-2010
Births with Infant Birthweight Under 1500 Grams, 1500-2499 Grams		2006-2010

Behavioral and environmental data were collected from a variety of sources, and at various geographic levels. Table B5 lists the sources of these variables, and lists the geographic level at which they were reported.

Table B5. Behavioral and Environmental Variable Sources

Category	Variable	Year	Definition	Reporting Unit	Data Source
Healthy Eating/ Active Living	Overweight and Obese	2003-2005	Percent of population with self-reported height and weight corresponding to overweight or obese BMIs (BMI greater than 25)	ZIP Code	Healthy Cities/CHIS
	No 5 a day Fruit and Vegetable Consumption	2003-2005	Percent of population age 5 and over not consuming five servings of fruit and vegetables a day	ZIP Code	Healthy Cities/CHIS
	Modified Retail Food Environment Index (mRFEI)	2011	Represents the percentage of all food outlets in an area that are considered healthy	Tract	Kaiser Permanente CHNA Data Platform/ Centers for Disease Control and Prevention: Division of Nutrition, Physical Activity, and Obesity
	Food Deserts	2011	USDA Defined food desert tracts	Tract	Kaiser Permanente CHNA Data Platform/ US Department of Agriculture
	Certified Farmers Markets	2012	Physical location of certified farmers markets	Location	http://www.cafarmersmarkets.com/
	Parks	2010	U.S. Parks, includes local, county, regional, state, and national parks and forests		Esri
Safe Physical Environments	Crime	2010	Major Crimes (Homicide, Forcible Rape, Robbery, Aggravated Assault, Burglary, Motor Vehicle theft, Larceny, Arson)	Municipality/ Jurisdiction	State of California Department of Justice, Office of the Attorney General (http://oag.ca.gov/crime/cjs-c-stats/2010/table11)
	Traffic Accidents Resulting in Fatalities	2010	Locations of traffic accidents resulting in fatalities	Location	National Highway Transportation Safety Administration
Other	Health Professional	2011	Federally designated primary care health		Kaiser Permanente CHNA

Category	Variable	Year	Definition	Reporting Unit	Data Source
Indicators	Shortage Areas (Primary Care)		professional shortage areas, which may be defined based on geographic areas or distributions of people in specific demographic groups		Data Platform/ Bureau of Health Professions
	Alcohol Availability	2012	Number of Active Off-Sale Retail Liquor Licenses	ZIP Code	California Department of Alcoholic Beverage Control

General Processing Steps

Rate Smoothing

All OSHPD, as well as all single-year CDPH, variables were collected for all ZIP codes in California. The CDPH datasets included separate categories that included either patients who did not report any ZIP code, or patients from ZIP codes whose number of cases fell below a minimum level. These patients were removed from the analysis. As described above, patient records in ZIP codes not represented by ZCTAs were added to those ZIP codes corresponding to the ZCTAs that they fell inside or were closest to. The next step in the analysis process was to calculate rates for each of these variables. However, rather than calculating raw rates, empirical Bayes smoothed rates (EBR) were created for all variables possible (Anselin, 2003). Smoothed rates are considered preferable to raw rates for two main reasons. First, the small population of many ZCTAs, particularly those in rural areas, meant that the rates calculated for these areas would be unstable. This problem is sometimes referred to as the small number problem. Empirical Bayes smoothing seeks to address this issue by adjusting the calculated rate for areas with small populations so that they more closely resemble the mean rate for the entire study area. The amount of this adjustment is greater in areas with smaller populations, and less in areas with larger populations.

Because the EBR were created for all ZCTAs in the state, ZCTAs with small populations that may have unstable high rates had their rates “shrunk” to more closely match the overall variable rate for ZCTAs in the entire state. This adjustment can be substantial for ZCTAs with very small populations. The difference between raw rates and EBR in ZCTAs with very large populations, on the other hand, is negligible. In this way, the stable rates in large population ZIP codes are preserved, and the unstable rates in smaller population ZIP codes are shrunk to more closely match the state norm. While this may not entirely resolve the small number problem in all cases, it does make the comparison of the resulting rates more appropriate. Because the rate for each ZCTA is adjusted to some degree by the EBR process, it also has a secondary benefit of better preserving the privacy of patients within the ZCTAs.

EBR were calculated for each variable using the appropriate base population figure reported for ZCTAs in the 2010 census: overall EBR for ZCTAs were calculated using total population; and sex, age, and normalized race/ethnicity EBR were calculated using the appropriate corresponding population stratification. EBR were calculated for every overall variable, but could not be calculated for certain of the stratified variables. In these cases, raw rates were used instead. The final rates in either case for H, ED, and the basic mortality variables were then multiplied by 10,000, so that the final rates represent H or ED discharges, or deaths, per 10,000 people.

Age Adjustment

The additional step of age adjustment (Klein & Schoenborn, 2001) was performed on the all-cause mortality variable as well as four OSHPD reported ED and H conditions: diabetes, heart disease, hypertension, and stroke. Because the occurrence of these conditions varies as a function of the age of the population, differences in the age structure between ZCTAs could

obscure the true nature of the variation in their patterns. For example, it would not be unusual for a ZCTA with an older population to have a higher rate of ED visits for stroke than a ZCTA with a younger population. In order to accurately compare the experience of ED visits for stroke between these two populations, the age profile of the ZCTA needs to be accounted for. Age adjusting the rates allows this to occur.

To age adjust these variables, we first calculated age stratified rates by dividing the number of occurrences for each age category by the population for that category in each ZCTA. Age stratified EBR were used whenever possible. Each age stratified rate was then multiplied by a coefficient that gives the proportion of California's total population that was made up by that age group as reported in the 2010 Census. The resulting values are then summed and multiplied by 10,000 to create age adjusted rates per 10,000 people.

OSHPD Benchmark Rates

A final step was to obtain or generate benchmark rates to compare the ZCTA level rates to. Benchmarks for all OSHPD variables were calculated at the HSA, county, and state levels by: first, assigning given ZIP codes to each level of analysis (HAS, county, or state); second, summing the total number of cases and relevant population for all ZCTAs for each HSA, county, or the state; and finally, dividing the total number of cases by the relevant population. Benchmarks for CDPH variables were obtained from two sources. County and state rates were found in the County Health Status Profiles 2010 (California Department of Public Health, 2012). Healthy People 2020 rates (U.S. Department of Health and Human Services, 2012) were also used as benchmarks for mortality data.

Additional Well Being Variables

Further processing was also required for the two additional mortality based well-being variables, infant mortality rate and life expectancy at birth. To develop more stable estimates of the true value of these variables, their calculation was based on data reported by CDPH for the years from 2006-2010. Because both ZIP code and ZCTAs can vary through time, the first step in this analysis was to determine which ZIP codes and ZCTAs endured through the entire time period, and which were either newly added or removed. This was done by first comparing ZIP code boundaries from 2007 (GeoLytics, Inc., 2008) to 2010 ZCTA boundaries. The boundaries of ZIP codes/ZCTAs that existed in both time periods were compared. While minor to more substantial changes in boundaries did occur with some areas, values reported in various years for a given ZIP code/ZCTA were taken as comparable. In a few instances, ZIP codes/ZCTAs that were included in the 2010 ZCTA dataset were not included in the 2007 ZIP code list, or vice versa. The creation date for these ZIP codes were confirmed using an online resource (Datasheer, L.L.C., 2013), and if these were created part way through the 2006 – 2010 time period, the ZIP code/ZCTA from which the new ZIP codes were created were identified. The values for these newly created ZIP codes were then added to the values of the ZIP code from which they were created. This meant that in the end, rates were only calculated for those ZIP codes/ZCTAs that existed throughout the entire time period, and that values reported for patients in newly created ZIP codes contributed to the rates for the Zip Code/ZCTA from which their ZIP codes were created.

Processing for Specific Variables

Additional processing was needed to create the tract vulnerability index, the additional well being variables, and some of the behavioral and environmental variables.

Tract Vulnerability Index

The tract vulnerability index was calculated using five tract level demographic variables calculated from the 2010 American Community Survey 5 Year Estimates data: the percent non-White or Hispanic population, percent single parent households, percent of population below 125% of the Federal Poverty Level, the percent population younger than 5 years, and the percent population 65 years or older.

These variables were selected because of their theoretical and observed relationships to conditions related to poor health. The percent non-White or Hispanic population was included because this group is traditionally considered to experience greater problems in accessing health services, and experiences a disproportionate burden of negative health outcomes. The percent of households headed by single parents was included as the structure of households in this group leads to a greater risk of poverty and other health instability issues. The percent of population below 125% of the federal poverty level was included because this is a standard level used for qualification for many state and federally funded health and social support programs. Age groups under 5 years old and 65 and older were included because these groups are considered to be at a higher risk for varying negative health outcomes. The population under 5 years group includes those at higher risk for infant mortality and unintentional injuries. The 65 and over group experiences higher risk for conditions positively correlated with age, most of which include the conditions examined in this assessment: heart disease, stroke, diabetes, and hypertension, among others.

Each input variable was scaled so that it ranged from 0 to 1 (the tract with the lowest value on a given variable received a value of 0, and the tract with the highest value received a 1; tracts with values between the minimum and maximum received some corresponding value less than 1). The values for these variables were then added together to create the final index. This meant that final index values could potentially range from 0 to 5, with higher index values representing areas that had higher proportions of each population group.

Well Being Variables

Infant Mortality Rate

Infant mortality rate reports the number of infant deaths per 1,000 live births. It was calculated by dividing the number of deaths for those with ages below 1 from 2006-2010 by the total number of live births for the same time period (smoothed to EBR), and multiplying the result by 1,000.

Life Expectancy at Birth

Life expectancy at birth values are reported in years, and were derived from period life tables created in the statistical software program R (R Development Core Team, 2009) using the

Human Ecology, Evolution, and Health Lab's (2009) example period life table function. This function was modified to calculate life tables for each ZCTA, and to allow the life table to be calculated from submitted age stratified mortality rates. The age stratified mortality rates were calculated for each ZIP code by dividing the total number of deaths in a given age category from 2006-2010 by five times the ZCTA population for that age group in 2010 (smoothed to EBR). The age group population was multiplied by five to match the five years of mortality data that were used to derive the rates. Multiple years were used to increase the stability of the estimates. In contexts such as these, the population for the central year (in this case, 2008) is usually used as the denominator. 2010 populations were used because they were actual Census counts, as opposed to the estimates that were available for 2008. It was felt that the dramatic changes in the housing market that occurred during this time period reduced the reliability of 2008 population estimates, and so the 2010 population figures were preferred.

Environmental and Behavioral Variables

The majority of environmental and behavioral variables were obtained from existing credible sources. The reader is encouraged to review the documentation for those variables, available from their sources, for their particulars. Two variables, however, were created specifically for this analysis: alcohol availability, and park access.

Alcohol Availability

The alcohol availability variable gives the number of active off-sale liquor licenses per 10,000 residents in each ZCTA. The number of liquor licenses per ZCTA was obtained from the California Department of Alcoholic Beverage Control. This value was divided by the 2010 ZCTA population, and multiplied by 10,000 to create the final rate.

Park Access

The park access variable reports the percent of the population residing in each Census tract that lives in a Census block that is within ½ mile of a park. ESRI's U.S. Parks data set (Esri, 2009) which includes the location of local, county, regional, state, and national parks and forests, was used to determine park locations. Blocks within ½ mile of parks were identified, and the percentage of population residing in these blocks for each tract was determined.

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Appendix C
Key Informant List

Name & Title	Agency	Area of Expertise	Date
Katy Robb and Danielle Lawrence, Social Workers	Mutual Assistance Organization	Community health; social support services	4/20/12
Seng Vang, staff Penny Lo, Program Manager	Hmong Women's Heritage Association	Community health and social support services, Hmong population	4/23/12
Christine Gonzales, FRC Coordinator and Michelle Allee, Team Leader	Birth and Beyond- The Effort North Highlands	Community health services	4/27/12
Gina Warren, Pharmacist	Primary Health Services	Chronic disease management, Community health	5/7/12
Roman Romaso, Executive Director	Slavic Assistance Network	Community health	4/27/12
Tasha Bryant, Manager of Clothing Program Lorena Carranza, Manager of Parent Education Program	Sacramento Food Bank	Community support services	4/30/12
Genevieve Diegnan, Program Director	Sacramento Food Bank	Community support services	5/1/12
Julie Debbs, Program Coordinator	Communities Against Sexual Harm (CASH)	Community violence, health promotion	5/2/12
Marty Keale, Executive Director	Capitol Community Health Network	Community health	5/2/12
Dr. Patricia Samuelson, Physician	Mercy Clinic Norwood	Community clinic services	5/11/12
Abraham Daniels, Program Officer	Sierra Health Foundation	Community health	5/15/12
Carole McCook, Nurse Practitioner	Mercy Clinic North Highlands	Public health nursing	5/21/12
Carolyn Martin, Executive Director	California Tobacco Control Alliance	Tobacco Prevention	5/22/12
Sister Libby Fernandez, Executive Director	Loaves and Fishes Homeless Clinic	Community health clinic for homeless services	5/25/12
Health Navigators Group	Capitol Community Health Network	Community health, patient navigation	5/29/12
Carol Mennel, Nursing Administrator	Mercy San Juan	Emergency care	5/29/12
Dr. Olivia Kasirye, Public Health Officer	Sacramento County	Community health	5/30/12
Dr. Maya Leggett, Trauma Surgeon	Kaiser Permanente	Emergency health care	5/31/12
Stephanie Nguyen, Executive Director	Asian Resources	Community health	5/31/12
Dr. Leonard Ranasinghe, Physician	Natomas Crossroads Clinic	Community health clinic	6/2/12
Carol Moses, Pastor	Natomas Crossroads Clinic	Community health clinic	6/2/12

Denise Aldred, Manager			
Melissa Bayne, PhD DeAngelo Mack Duante Moore	Sacramento Violence Intervention Program (SVIP)	Community violence prevention	6/6/12
Marcella Gonsalves, Program Administrator	Health Education Council	Community health promotion	6/11/12
Dr. Jonathan Porteus, CEO	The Effort, Inc.	Community health	6/11/12
Koua Franz, Chief Family and Community Engagement Center Officer	Sacramento City Unified School District	School health, family health	6/13/12
Dr. Catherine Vigran, Physician	Kaiser Permanente	Community health	6/14/12

Appendix D
Key Informant Interview Protocol

Project Objective

In order to provide the necessary information for sponsoring hospitals' community benefit plans and the Healthy Sacramento Coalition to develop an implementation plan...

For each Health Service Area (HSA), identify communities and specific groups within these communities experiencing health disparities, especially as these disparities relate to chronic disease, and further identify contributing factors that create both barriers and opportunities these populations to live healthier lives

Objective #1: to understand the nature of the organization (populations served)

Question: tell me about your organization, the geographic area and populations served.

Objective #2: To understand the predominant health issues in a HSA, and those subgroups disproportionately experiencing these issues

Question #1: What are the biggest health issues [your community, your HSA, you] struggles with?

Probes:

Diabetes, high blood pressure, heart disease, cancer

Mental health

Other issues, including those that are emerging that often go undetected

Question #2: Who [which specific sub-group(s)] within [your community, your HSA] appear(s) to struggle with these issues the most?

Probes:

How do you know, what leads you to make this conclusion?

Describe race/ethnic makeup of HSA to KI if needed

Subgroups within the larger categories

Where in [your community, your HSA] do these groups live?

Describe family status of HSA to KI if needed

Describe the socio-economic status of the HSA to KI if needed

Describe the overall vulnerability of the HSA to KI if needed

Question #3: In what ways do these health issues affect the quality of life of those who struggle with them the most (those subgroups identified above)?

Objective #3: Determine the barriers and opportunities to live healthier lives in the HSA

Question #4: What are some challenges that [your community, your HSA] faces in staying healthy?

Probes:

Behaviors common to your community?

Cultural norms and beliefs held by any subgroup, especially those identified above

Smoking

Diet, relationship with food

Physical activity, relationship with one's body

Safety

Access to preventative services, access to basic healthcare

[For specific KIs] *Policies, laws, regulations (provide example if needed)*

Question #5: What are opportunities in [your community, your HSA] to improve and maintain health? What does your community have that helps [your community, your HSA] live a healthy life?

Probes:

Shifting social and community norms and beliefs

Smoking and tobacco use

Opportunities to exercise

Access to fresh produce, healthier diet

Areas for families to gather

Sense of community safety

Access to preventative services, access to basic healthcare

[for specific KIs] *Policies, laws, and/or regulations that can be updated, nullified, amended, or enacted*

Question #6: Of all those you noted above, what is the biggest thing needed to improve the overall health of [your community, HSA]?

Probes:

Policies?

Partnerships?

Economic growth?

Other?

Who is responsible for creating that change?

Question #7: What else does our team need to know about [your community, HSA] that hasn't already been addressed?

What changes have you seen since the last assessment?

Appendix E
Focus Group List

Organization	Date	Number of ppl	Age	Demographic Information	Insurance
The Effort-North Highlands	6/18/12	10	Mid to late 30's	Majority African American	Unknown
Hmong Women's Heritage Association	6/21/12	13	Mid 30's	All Hmong	Partial insured
Mutual Assistance Organization	6/30/12	15	Mid 30's – late 40's	Majority African American and Hispanic	Unknown
Loaves and Fishes	7/2/12	10	20's -30's	African American, Hispanic	Uninsured
Roberts Family Development Center	7/2/12	16	Late 20's – 40's	Majority African American	Unknown
Women's Empowerment	7/5/12	11	40's	Mostly African American, White, Asian	Uninsured, govt insured
Slavic Assistance Center	7/9/12	11	40-60's	Slavic, White	Largely Medi-Cal, uninsured
La Familia Resources Center	7/10/12	18	15-60's	Hispanic	Uninsured
Sacramento Native American Health Clinic	7/13/12	6	20's to late 60's	White, Hepatitis C positive	Unknown
Sacramento Food Bank	7/16/12	15	Average 40's	African American and Hispanic	Unknown
Asian Resources	10/26/12	10	20's-40's	Slavic and Asian immigrants, low income	Medi-Cal, uninsured

Appendix F
Focus Group Interview Protocol

Demographic Make-up of Group:

Date of Focus Group:	Location:	Conducted by:
Total # of participants:	# male:	# female:
Total number of participants by race/ethnicity: <input type="checkbox"/> Caucasian <input type="checkbox"/> Caucasian – Slavic <input type="checkbox"/> African American <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Native American <input type="checkbox"/> Asian <input type="checkbox"/> More than one race	Total number of participants by insurance status: <input type="checkbox"/> no coverage at all <input type="checkbox"/> gov't program <input type="checkbox"/> commercial ins	Estimate average age of all participants:

Introductory language for the 2013 CHNA and the role of focus groups

As you may know, the State of California requires nonprofit hospitals to conduct community health needs assessments every three years, and to use the results of these to develop community benefit plans, or how each hospital will invest resources into the community to improve overall health. Now the Federal government, through the Affordable Care Act, has imposed the same requirement on nonprofit hospitals throughout the United States. Valley Vision is the organization leading the CHNA for sponsoring nonprofit hospitals that include Dignity Health, Kaiser Permanente, Marshall Medical Center, UC Davis Health System, and Sierra Health Foundation as the lead agency for the Community Transformation Grant. Valley Vision is a nonprofit community betterment consulting firm, and I am [state your relationship to Valley Vision, i.e., employee, contractor, volunteer, etc.] conducting interviews to gather important information to use in the CHNA. You have been identified as an individual with extensive and important knowledge that can help us get a clear picture of the health of [name of specific community, group, condition, or other].

I have several important questions I'd like to ask over the next hour or so. Please feel free to respond openly and candidly to every question. I want to record our interview so that I can be sure I capture everything you say. We will transcribe the recording and analyze the transcriptions of this and similar interviews in order to paint a complete picture of health of [name of specific community, group, condition, etc]. This interview is confidential, however, we may use quotes from the transcription in the writing of our final report and they will not be attributed directly to you.

Before we get going I also want to ask you to sign an informed consent stating your agreement to participate in this interview, and giving me permission to record and use the recording in the larger needs assessment [introduce informed consent form and get signed before beginning interview].

If needed, begin by stating the project's objective.....

Project Objective

In order to provide necessary information for sponsoring hospital's community benefit plans and the Healthy Sacramento Coalition to develop an implementation plan...

For each Health Service Area (HSA), identify communities and specific groups within these communities experiencing health disparities, especially as these disparities relate to chronic disease, and further identify contributing factors that create both barriers and opportunities these populations to live healthier lives

Objective #1: To understand the predominant health issues in a HSA, by those subgroups disproportionately experiencing these issues

Question #1: What are the biggest health issues [your community, your family, you] struggles with?

Probes:

- *Diabetes, high blood pressure, heart disease, cancer*
- *Mental health*
- *Other issues, including those that are emerging that often go undetected*

Objective #2: Determine contributors to the health outcomes experienced by participants.

Question #2: What do you think is causing these health outcomes and health issues you've described?

Probes:

- Tobacco use
- Diet
- Stress and anxiety
- Physical activity
- Cultural norms and beliefs pertaining to health, diet, and exercise

Question #3: Do you think there are things where you live that contribute to some of the health outcomes and health issues you've described?

Probes

- Perception of safety when outdoors
- Lack of places to exercise
- Second hand smoke, etc.

Objective #2: Determine the barriers and opportunities to living healthier lives in the HSA

Question #4: What are some challenges that [your community, your HSA] faces in staying healthy?

Probes:

- *Behaviors common to your community?*
- *Cultural norms and beliefs held by any subgroup, especially those identified above*
- *Smoking*
- *Diet, relationship with food*

- *Physical activity, relationship with one's body*
- *Safety*
- *Access to preventative services, access to basic healthcare*
- *Policies, laws, regulations (provide example if needed)*

Question #5: What are the opportunities in [your community, your HSA] to improve and maintain health? What does your community have that helps [your community, your HAS] live a healthy life?

Probes:

- *Shifting social and community norms and beliefs*
- *Smoking and tobacco use*
- *Opportunities to exercise*
- *Access to fresh produce, healthier diet*
- *Areas for families to gather*
- *Sense of community safety*
- *Access to preventative services, access to basic healthcare*
- *Policies, laws, and/or regulations that can be updated, nullified, amended, or enacted*

Question #6: Of all those you noted above, what is the biggest thing needed to improve the overall health of [your community, HSA]?

Probes:

- *Policies?*
- *Partnerships?*
- *Economic growth?*
- *Other?*
- *Who is responsible for creating that change?*

Question #7: When have you seen your community experience its greatest successes and/or accomplishments? What happened to account for the success?

Question #8: What are your community's greatest strengths and assets? How have these been used in the past to create positive change?

Question #9: What would you like the hospital systems to know about your community? What can the hospital systems do to improve the health of your community?

Question #10: What else does our team need to know about [your community, HSA] that hasn't already been addressed?

Appendix E
Health Needs Table

Health Driver	Clarifying Information	Associated Health Outcome(s)	Supporting Data
Lack of access to basic primary care services	<ul style="list-style-type: none"> ● Many uninsured; clinic care is expensive resulting in delay of care or ER utilization for primary care ● Wait time for appointments too long ● Unaware of where to go with MediCal coverage ● Qualifying for government coverage is conflicting- securing employment could mean losing coverage ● Difficult covering cost of medications 	<ul style="list-style-type: none"> ● Heart disease, diabetes, hypertension, stroke, cancer, asthma, mental health 	<ul style="list-style-type: none"> ● Qualitative ● % uninsured ● % living in poverty ● Educational attainment
Access to mental health treatment and prevention services	<ul style="list-style-type: none"> ● Lack of treatment in area- especially for low income ● Few programs to address prevention of poor mental health-crisis treatment. 	<ul style="list-style-type: none"> ● Mental health ● Mood disorders (anxiety, depression, stress) ● Substance abuse 	<ul style="list-style-type: none"> ● Qualitative ● Health outcome data-mental health ● Substance abuse
Lack of access to coordinated comprehensive care	<ul style="list-style-type: none"> ● Health care and social services in the area are uncoordinated in care-lack adequate referral system ● Consumers lack know-how to navigate the “safety net” system ● Consumers are unaware of all available services in the area 	<ul style="list-style-type: none"> ● Heart disease and diabetes ● Mental health 	<ul style="list-style-type: none"> ● Qualitative ● Asset assessment

Health Driver	Clarifying Information	Associated Health Outcome(s)	Supporting Data
Access to healthy food	<ul style="list-style-type: none"> • Healthy food is more expensive; preparation time is longer • Getting to vendors with healthy food is limited due to transportation issues in the area • Unaware of how to prepare food in a healthy way 	<ul style="list-style-type: none"> • Heart disease, stroke, diabetes, hypertension • Obesity 	<ul style="list-style-type: none"> • Qualitative • Federal designated food deserts • Fruit and vegetable consumption, • mRFEI • Location of certified farmers markets
Safety as a health issue	<ul style="list-style-type: none"> • Perception of safety affect mental health stability • gang violence • safe streets for access to healthy behaviors 	<ul style="list-style-type: none"> • Anxiety • Heart disease, diabetes, asthma, hypertension, stroke. • Physical activity 	<ul style="list-style-type: none"> • Qualitative • Safety variables (ED and Hosp visits for homicide, assault, and injury)
Stress of being poor	<ul style="list-style-type: none"> • Difficulty coping with everyday life stressors • Generational trauma • Living in a state of fear and worry • Stress of being a recent immigrant 	<ul style="list-style-type: none"> • Obesity • Substance abuse • Chronic disease- especially diabetes, heart disease, and stroke 	<ul style="list-style-type: none"> • Qualitative, vulnerability index • % uninsured • % living in poverty • % unemployed

Health Driver	Clarifying Information	Associated Health Outcome(s)	Supporting Data
Unhealthy food environment	<ul style="list-style-type: none"> ● Overabundance of fast food in the area ● Limited access to healthy food ● Food insecurity-families surviving on very limited budget for food 	<ul style="list-style-type: none"> ● Obesity ● Heart disease, stroke, diabetes, hypertension 	<ul style="list-style-type: none"> ● Qualitative ● Fruit and vegetable consumption ● mRFEI
Limited opportunities for physical activity engagement	<ul style="list-style-type: none"> ● Public recreational areas are often unsafe to exercise ● Physically not many parks present in area ● Area has high traffic congestion bringing concerns over pedestrian safety 	<ul style="list-style-type: none"> ● Obesity ● Heart disease, stroke, diabetes, hypertension 	<ul style="list-style-type: none"> ● Qualitative ● Park access data
Concerns over personal safety effects on health	<ul style="list-style-type: none"> ● Extreme financial insecurity brings maladaptive coping behaviors ● Domestic violence (DV) issues are ever present, with little help for victims of DV in the area 	<ul style="list-style-type: none"> ● Mental health ● Obesity ● Heart disease, stroke, diabetes, hypertension 	<ul style="list-style-type: none"> ● Qualitative ● Educational attainment ● % unemployed ● Major crime data
Lack of alcohol/drug abuse treatment and prevention programs	<ul style="list-style-type: none"> ● Maladaptive coping mechanism for living in financial hardship ● Lack of access to treatment programs for substance abuse-cost of programs available is high ● Issues of safety around DUI 	<ul style="list-style-type: none"> ● Mental health ● Substance abuse 	<ul style="list-style-type: none"> ● Qualitative ● Liquor store density
Lack of access to health prevention/screening programs	<ul style="list-style-type: none"> ● Screening for disease and illness in young adults is limited ● Cancer screening in older adults virtually absent 	<ul style="list-style-type: none"> ● Obesity ● Mental health ● Dental health ● Cancer risk 	<ul style="list-style-type: none"> ● Qualitative ● Asset assessment

Health Driver	Clarifying Information	Associated Health Outcome(s)	Supporting Data
	<ul style="list-style-type: none"> ● Access to vaccinations/immunizations strained ● Absence of primary prevention efforts for chronic disease and mental health issues ● Dental screenings 		
Lack of culturally sensitive/competent care	<ul style="list-style-type: none"> ● Diverse populations of the area ● Majority of area providers fail to provide care with a degree of cultural sensitivity and competency. 	<ul style="list-style-type: none"> ● Heart disease, diabetes, hypertension ● Mental health ● Cancer risk 	<ul style="list-style-type: none"> ● Qualitative
Lack of access to dental care and preventive services	<ul style="list-style-type: none"> ● Many families go without dental care-greatly affecting overall quality of life ● Risk for disease ● Acquisition of employment ● Dental care for the uninsured is absent 	<ul style="list-style-type: none"> ● Dental health ● Heart disease, diabetes, stroke, hypertension ● Dental related infections 	<ul style="list-style-type: none"> ● Qualitative ● %unemployment ● asset assessment

Appendix H
Health Assets Table

Name	ZIP Code	Asthma/ Lung Disease	Diabetes	Hypertensi on	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Dental
Alchemist Community Development Corp	95811					P					no
American Heart Association	95811			E				E			no
Center for AIDS Research, Ed and Srvs (CARES)	95811	S, M	S, M	S, M	C	E	I, C	E	HIV testing, primary care, pharmacy, gynecology	HIV/AIDS specialty medical care, dermatologist, chiropractor, case mgt	yes
Center for Community Health and Well Being	95811				C	I	R	I	Prenatal and postpartum care, STD testing, gynecological services	Prenatal, family planning & health care to low income women & families, transportation services	no
Central Downtown Food Basket	95811					P					no
Clean and Sober Homeless Recovery Communities	95811				R		P			12 step based residential communities for formerly homeless	no
Clinica Tepati	95811	S, M	S, M	S, M	R				Primary care, diagnostics, prescription drugs, specialty referrals	Dermatology, Women's health, low cost radiology & ophthalmology referrals	no
Loaves and Fishes	95811				C	P				Immunizations (School-aged children)	no
Mercy Clinic - Loaves & Fishes	95811	S, M	S, M	S, M		P	R		Free episodic and urgent care		no
Sacramento Gay and Lesbian Center	95811				R						no

Name	ZIP Code	Asthma/ Lung Disease	Diabetes	Hypertensi on	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Dental
HIV/Communicable Disease Prevention Program											
The Salvation Army - Adult Rehabilitation Center	95814				C		C				no
The SOL project	95814							E			no
WALK Sacramento	95814										no
California Diabetes Program (Dignity Health)	95815		E			E					No
Wellness and Recovery Center	95821				C	E	C				No
Dental Hygiene Clinic	95822										yes
Family Resource Center - Meadowview	95822				P		P			Women's health; provides women & men services	
Health for All, Inc - Adult Day Health Care Center (Meadowview)	95822										
Health for All, Inc - Meadowview Clinic	95822	S, M	S, M	S, M							
Paratransit, Inc.	95822										
South Sacramento Interfaith Emergency Food Closet	95822					P					
Southeast Asian Assistance Center	95822				R		P				
The Gardens, A Family Care Community Center	95822										I, R, P
WIC Sacramento	95822										
Birth & Beyond - Valley Hi	95823				R	E	P	I	R	Women's health; provides women & men services	
Center for Community Health & Well Being	95823		N/A		C	I	R	I	Prenatal & postpartum care, STD testing, gynecological	Prenatal, family planning & health care	

Name	ZIP Code	Asthma/ Lung Disease	Diabetes	Hypertensi on	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Dental
			A								
SCDHHS Public Health Division	95823							P, I			
Strategies for Change	95823				P		P, E				
Turning Point Community Programs	95823				E, I, CM , C, R, P						
Visions Unlimited	95823				C, CM	P, C	C				
Wellness and Recovery Center (South)	95823				C	E	C				
United Lu Mien Community Inc.	95824				P, E						
Youth and Family Resource Centers - SCUSD (need listings for all 19 sites)	95824				C			I			
The Effort - South Valley Community Health Center	95828	S, M	S, M	S, M	C, P, I, R	C, CM	E, C	P	Primary care, pre-and perinatal care, women's health, immunizations		yes
Antioch Progressive Church	95832					P			OB/GYN, pre-natal, health screenings, general exams		
Genesis Missionary Baptist Church	95832					P					
Health for All - TOFA Health and Wellness Program	95832	E, R	E, R	E, R	E, R	E, R					
Bayanihan Clinic	95838			S, M, E	R	E		I	Primary care, lab tests, women's health vaccination	R	No
Birth & Beyond - North Sacramento	95838				R	E	C, P	I	R	Women's Health; provide various for women & men	R
Birth & Beyond -The Firehouse	95838				R	E	C, P	I	R	Women's Health; provide various for	R

Name	ZIP Code	Asthma/ Lung Disease	Diabetes	Hypertensi on	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Dental
										women & men	
Family Resource Center - The Firehouse	95838				P		C, P			Women's Health; provide various for women & men	No
Greater Sacramento Urban League	95838										No
Mercy Clinic - Norwood	95838	S, M	S, M	S, M		I	I, R	I	General/Family Medicine; Child Health & Disability Prevention (CHDP) program; Well Woman Visit		No
Mercy Family Clinic	95838	S, M	S, M	S, M		I	I, R	I	Primary & preventive healthcare, including adult & child physicals, immunizations, chronic disease management, & lab services	Well Women Visits	No
Mutual Assistance Network	95838				R	P	P				No
The Salvation Army - Family Services	95838					P					No
Heritage Oaks Hospital	95841				C, P					Acute inpatient programs, intensive outpatient programs, & partial hospitalization programs	No
People Reaching Out	95841				C, P		P	I, P	C		No
River Oak Center for Children	95841				C, P		I, R	I			No

S=screening services; **M**=disease management services; **E**=education services; **I**=information available; **CM**=case management; **C**=counseling services offered; **R**=referral services offered; **A**=advocacy services; **P**=programs offered