

RTD-240

# A Community Health Needs Assessment of San Joaquin County

Conducted on behalf of:

The San Joaquin County Community Health Assessment Collaborative (SJC<sub>2</sub>HAC)

March 2013

Conducted by:

Valley Vision Inc.

## Acknowledgements

The community health assessment research team would like to thank all those that contributed to the community health assessment described herein. First, we are deeply grateful for the many key informants who gave of their time and expertise to inform both the direction and outcomes of the study. Additionally, many community residents volunteered their time as focus group participants to give our research team a first-hand perspective of living in the communities of San Joaquin County with limited access to basic healthcare services. Lastly, we are very grateful to all members of the San Joaquin County Community Health Assessment Collaborative (SJC<sub>2</sub>HAC). These members have and continue to volunteer their time to improve the health and wellbeing of our community's most vulnerable residents:

Community Medical Centers, Inc.  
Dameron Hospital  
First 5 San Joaquin  
Health Plan of San Joaquin  
Kaiser Permanente  
Lodi Memorial Hospital  
San Joaquin County Public Health  
St. Joseph's Behavioral Health Center  
St. Joseph's Medical Center  
Sutter Tracy Community Hospital

## Executive Summary

Every three years nonprofit hospitals are required to conduct community health needs assessments (CHNA) and use the results to develop community health improvement implementation plans. These assessments are required of virtually all nonprofit hospitals by both state and federal laws.

Between June 2012 and February 2013, Valley Vision, Inc., conducted an assessment of the health needs of residents living in San Joaquin County. 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 clinical factor, as well as more upstream social economic factors, that impact health.”

The objective of the CHNA is:

*To provide necessary information for participating members of the San Joaquin County Community Health Assessment Collaborative (SJC<sub>2</sub>HAC) to create implementation plans, identify communities and specific groups within these communities which are 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, which included both primary and secondary data. Primary data collection included input from more than 180 members of the hospital service area (HSA), expert interviews with 45 key informants, and focus group interviews with 137 community members. Further input was gathered at meetings of the Healthier Community Coalition and the annual Community Health Forum, held in November 2012. In addition, a community health assets assessment collected data on more than 300 assets in the greater San Joaquin County area. Secondary data 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 the 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 10 specific Communities of Concern living with a high burden of disease in San Joaquin County. These 10 communities had consistently high rates of negative health outcomes that frequently exceeded county, state, and Healthy People 2020 benchmarks. They were confirmed by experts as areas prone to

experiencing poorer health outcomes relative to other communities in the HSA. These Communities of Concern are noted in Figure 1 below.

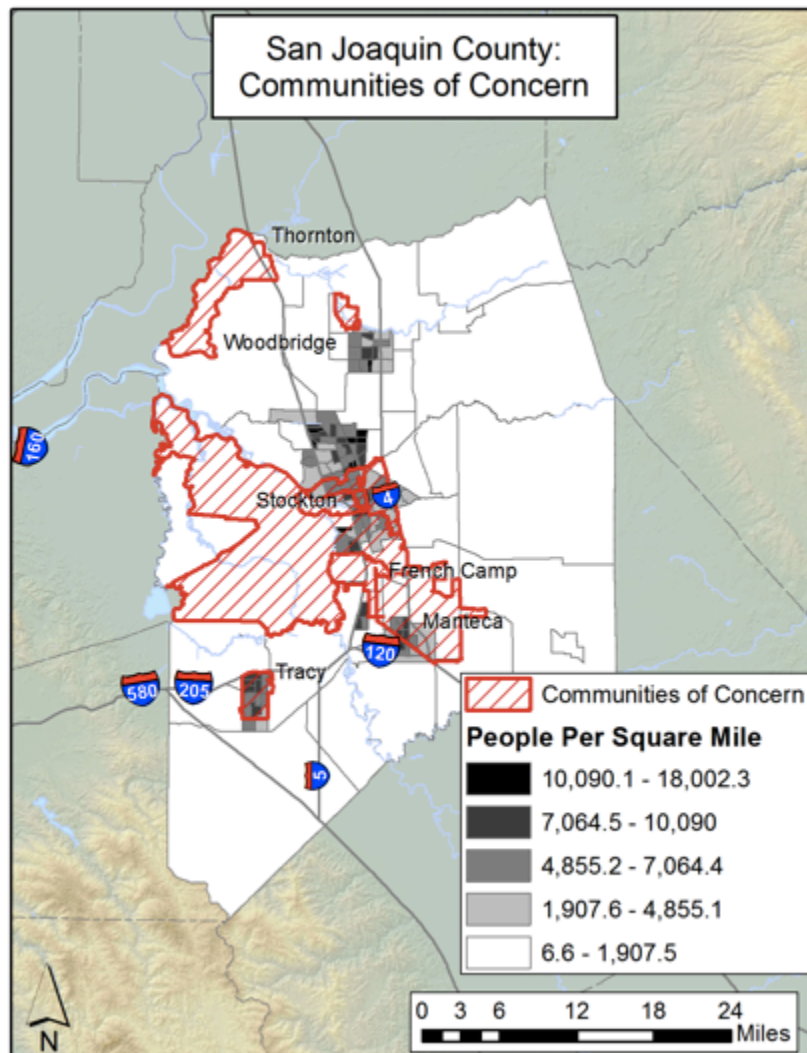


Figure 1: Map of San Joaquin County Communities of Concern

### Health Outcome Indicators

Age-adjusted rates of ED visits and hospitalizations due to heart disease, diabetes, stroke, and hypertension were consistently higher in these ZIP codes compared to others 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 crime rates and a traffic climate unfriendly to bicyclists and pedestrians. Furthermore, these communities frequently

had higher percentages of residents who were obese or overweight. Access to healthy food outlets was limited, while the concentration of fast food and convenience stores was high. Analysis of the health behaviors of these residents also showed many behaviors that correlate to poor health, such as having a diet that is limited in fruit and vegetable consumption.

A list of priority health needs, which were identified through an analysis of both quantitative and qualitative data, is included below. All needs are noted as a “health driver,” or a condition or situation that contributed to poor health outcomes. The complete priority health needs table can be found in Appendix G.

Priority health needs for San Joaquin County HSA:

1. Access to primary and preventative care services
2. Lack of or limited access to health education
3. Lack of or limited access to dental care
4. Limited cultural competence in health and related systems
5. Limited or no nutrition literacy/access to healthy and nutritious foods, food security
6. Limited transportation options
7. Lack of safe and affordable places to be active

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## Introduction

In 1994, the California legislature passed SB697, legislation that states that hospitals, in exchange for their tax-exempt status, "assume a social obligation to provide community benefits in the public interest."<sup>1</sup> The bill requires 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.

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. Hospital community benefit departments use the results of these assessments to develop community health improvement implementation plans. Nonprofit hospitals are required to submit these annually as part of their Internal Revenue 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)."<sup>2</sup>

In accordance with these legislative requirements, The San Joaquin County Community Health Needs Assessment Collaborative conducted an assessment of San Joaquin County. The CHNA was conducted over an eight-month period through a participatory process, and was led by Valley Vision, Inc., a community benefit organization dedicated to improving the quality of life in the Sacramento region.

### Assessment Collaboration and Assessment Team

A collaboration of nonprofit hospitals and community organizations serving all or portions of San Joaquin County collaborated to sponsor and to participate in the CHNA. This collaborative retained Valley Vision, Inc., to lead the assessment process. Valley Vision, Inc. ([www.valleyvision.org](http://www.valleyvision.org)) is a non-profit [501 (c) (3)] consulting firm serving a broad range of

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<sup>1</sup> *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>

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

communities across Northern California. The organization’s mission is to improve quality of life through the delivery of high-quality research on important topics such as healthcare, economic development, and sustainable environmental practices. Using a community-based participatory approach 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 Needs” and Objectives of the Assessment**

The CHNA was anchored and guided by the following objective:

*To provide necessary information for participating members of the San Joaquin County Community Health Assessment Collaborative (SJC<sub>2</sub>HAC) to create implementation plans, identify communities and specific groups within these communities which are 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.”<sup>3</sup> Building on this and the definitions compiled by Kaiser Permanente<sup>4</sup>, the CHNA used the following definitions for health *need* and *driver*:

*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 as follows: first, the methodology used to conduct the needs assessment is described. Here, the hospital service area (HAS) 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

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

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

description of the methodology, including descriptions and definitions, is contained in the appendices.

Next, the study findings are provided, beginning with identified geographical areas, described as Communities of Concern, that were identified within an HSA with poor health outcomes and socio-demographic characteristics, often referred to as the “social determinants of health,” which contribute to poor health. Each community of concern is described in terms of health outcomes and population characteristics residing in these communities, 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 is included 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 CHNA workgroup and the community members for whom the assessment was conducted. Including participants in the process allows for a deeper understanding of the results.<sup>5</sup>

### **Unit of Analysis and Study Area**

The study area of the assessment was San Joaquin County. A key focus was to show specific communities (defined geographically) experiencing disparities as they 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

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<sup>5</sup> 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.

county level. Some indicators (demographic, behavioral and environmental) were included in the assessment at the census tract level, the census block, or point prevalence, which allowed for deeper community level examination.

### Identifying Hospital Service Areas (HSA)

Many hospitals define the community as the geographic area served by the hospital, considered its primary service area. This is based on a percentage of hospital discharges and is also used in various other departments of the system and hospital, including strategy and planning. The HSA was determined by analyzing patient discharge data from each of the participating hospitals, and taking into account the interest among several organizations to collaborate on this needs assessment. The HSA determined to be the focus of the needs assessment is depicted in Figure 2.

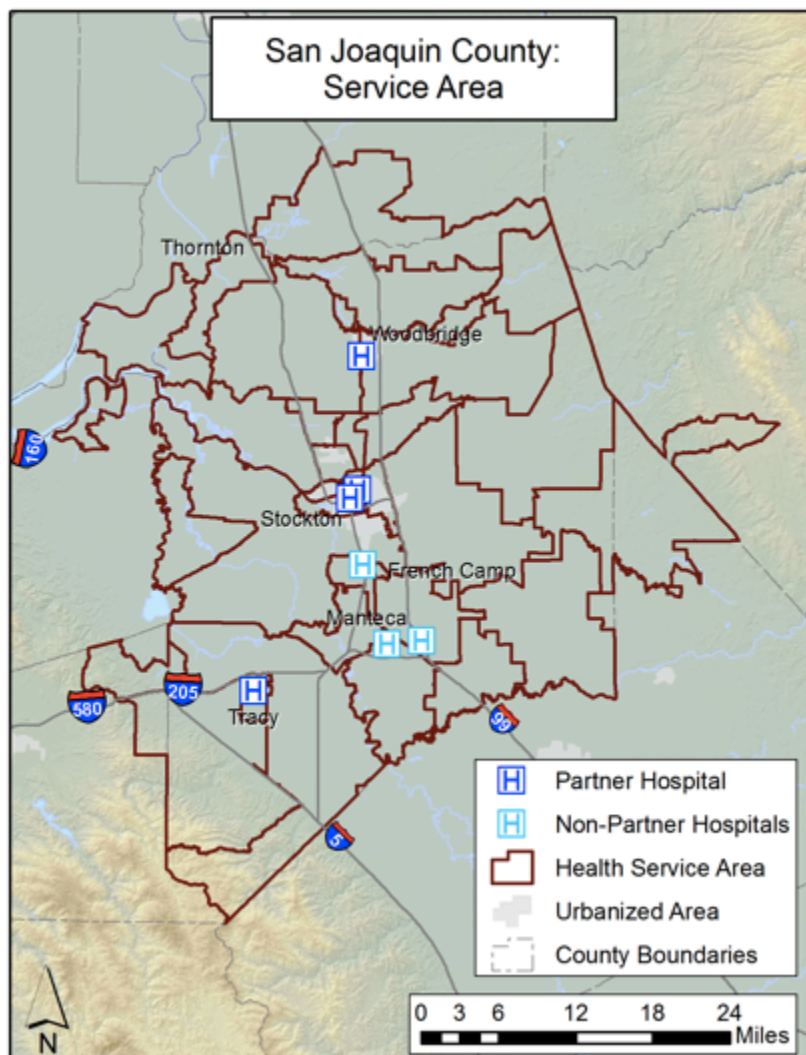


Figure 2: Map of San Joaquin County service area

## **Primary Data: The Community Voice**

Primary data collection included qualitative data gathered in four ways:

1. Meetings with the CHNA workgroup and the Healthier San Joaquin Needs Assessment Collaborative
2. Key informant interviews with area health and community experts
3. Focus groups with area community members
4. Community health asset collection via phone interviews and website analyses

## **CHNA Workgroup and Coalition Meetings**

The CHNA core workgroup, comprised of representatives from Community Medical Centers, Inc., Dameron Hospital, Kaiser Permanente, Health Plan of San Joaquin, San Joaquin County Public Health, St. Joseph's Medical Center, and Sutter Tracy Community Hospital, actively contributed to the qualitative data collection and the overall assessment. Using the previously described CBPR approach, monthly meetings were held with the workgroup at each critical stage in the assessment process. 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 specific populations and geographic areas within in the HSA. To gain a deeper understanding of the health issues pertaining to chronic disease and the populations living in these vulnerable communities 45 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 identify communities in which focus groups should be conducted. A list of all key informants interviewed, including name, professional title, date of interview, and description of knowledge and experience is detailed in Appendix C.

## **Focus Groups**

Members of the community representing demographic 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 lived experience of these community members as it relates to health disparities and chronic disease. In all, a total of eight focus groups were conducted (for a complete list of focus groups 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 was collected on health programs and support services within the HSA and the specific Communities of Concern. The first step involved compiling a list of existing resource directories. Next, additional assets identified through internet and related searches were added to the master list. Detailed information for each asset was then gathered through review 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 in Appendix I.

## 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 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. 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 hospitalizations for heart disease, diabetes, hypertension, and stroke were 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, hospitalizations, and mortality

ED and Hospitalization <sup>6</sup>		Mortality <sup>7</sup>	
Accidents	Hypertension*	All-Cause Mortality*	Infant Mortality (per 1,000 live births)
Asthma	Mental Health	Alzheimer's Disease	Injuries
Assault	Substance Abuse	Cancer	Life Expectancy at Birth
Cancer	Stroke*	Chronic Lower Respiratory Disease	Liver Disease
Chronic Obstructive Pulmonary Disease	Unintentional Injuries	Diabetes	Renal Disease

<sup>6</sup> Office of Statewide Health Planning and Development: ED visits and hospitalizations, 2011

<sup>7</sup> California Department of Public Health: Deaths by cause, 2010

Diabetes*	Self-Inflicted Injury	Heart Disease	Stroke
Heart Disease*		Hypertension	Suicide
STI/Teen Births <sup>8</sup>			

\*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 style="text-align: center;">Safety Profile</p> <ul style="list-style-type: none"> <li>• Major Crime</li> <li>• Assault</li> <li>• Unintentional Injury</li> <li>• Fatal Traffic Accidents</li> <li>• Accidents</li> </ul>	<p style="text-align: center;">Food Environment Profile</p> <ul style="list-style-type: none"> <li>• Percent Obese/Percent Overweight</li> <li>• Fruit and Vegetable Consumption (≥5/day)</li> <li>• Farmers' Market Location</li> <li>• Food Deserts</li> <li>• Modified Retail Food Environment Index (mRFEI)</li> </ul>
<p style="text-align: center;">Active Living Profile</p> <ul style="list-style-type: none"> <li>• Park Access</li> </ul>	<p style="text-align: center;">Physical Wellbeing Profile</p> <ul style="list-style-type: none"> <li>• Age-adjusted Overall Mortality</li> <li>• Life Expectancy at Birth</li> <li>• Infant Mortality</li> <li>• Health Professional Shortage Areas</li> <li>• Health Assets</li> </ul>

## 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 negative or unwanted health outcomes than others in the HSA, if it had higher: 1) percent Hispanic or non-White population; 2) percent single parent headed households; 3)

<sup>8</sup> San Joaquin County Department of Public Health, Sexually Transmitted Disease Morbidity data, 2006-2010



percent population below 125% of the poverty level; 4) percent population under five years old and 5) percent population over 65 years of age living in the census tract. This information was used in combination with input from the CHNA workgroup to identify prioritized areas from which key informants would be sought. The map below depicts the vulnerability index for San Joaquin County.

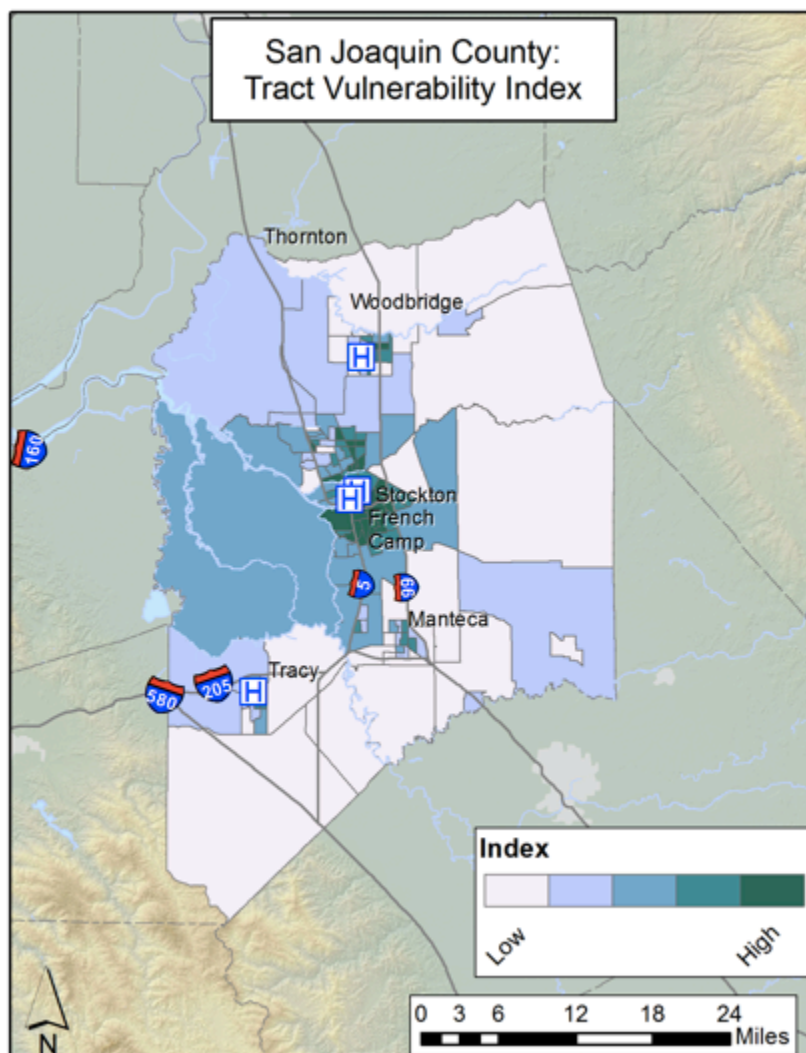


Figure 3: San Joaquin County HSA map of vulnerability

### ***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 visits, hospitalizations, and mortality rates) that pointed to disease severity. Key informants were asked to identify populations 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 exceeded established state and county

benchmarks, as well as Healthy People 2020 targets. 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 a 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, hospitalizations, and mortality were considered. ZIP codes that consistently fell in the top 20% highest rates were noted and then triangulated with primary and socio-demographic data to identify specific Communities of Concern. This analytical framework is depicted in the Figure 4.

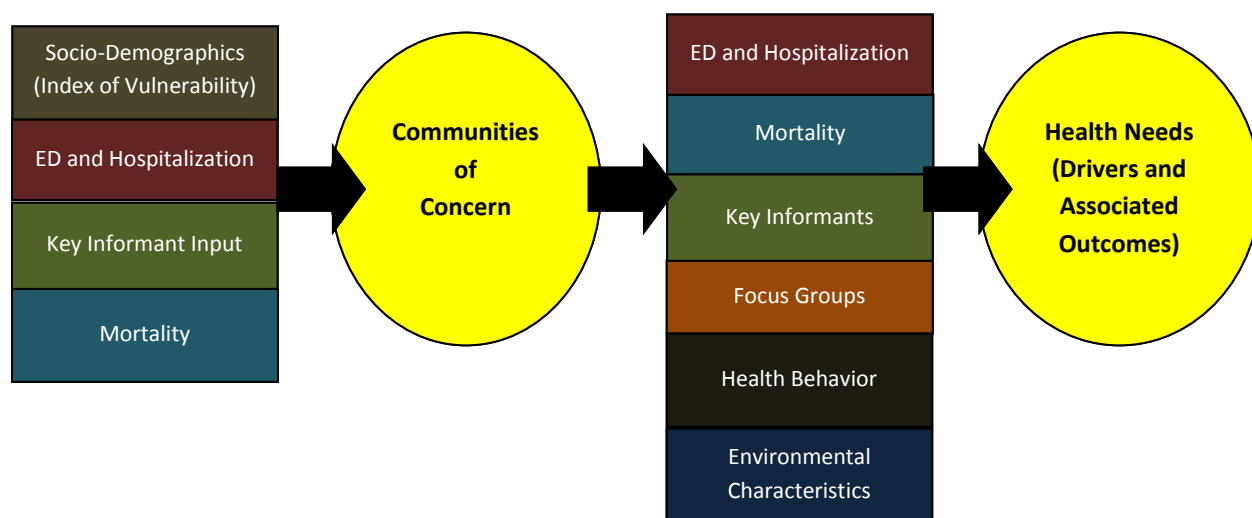


Figure 4: Analytical framework for determination of Communities of Concern and health needs

### ***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 of these communities, which included socio-economic status, race and ethnicity, educational attainment, status as homeowner or renter, 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 by 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 exceeding established quantitative benchmarks or was consistently mentioned in the qualitative data.

## Findings

### San Joaquin HSA Communities of Concern

The Communities of Concern for San Joaquin HSA are displayed in Table 3.

Table 3: San Joaquin HSA Communities of Concern

Communities of Concern			
<i>ZIP Code</i>	<i>Community/Area</i>	<i>County</i>	<i>Population*</i>
95202	Stockton/Downtown	San Joaquin	6,934
95203	Stockton/Downtown	San Joaquin	17,137
95204	Stockton/Central	San Joaquin	27,786
95205	Stockton/Southeast	San Joaquin	38,069
95206	Stockton/Southwest	San Joaquin	65,004
95231	French Camp	San Joaquin	4,374
95258	Woodbridge	San Joaquin	4,018
95336	Manteca	San Joaquin	42,675
95376	Tracy	San Joaquin	49,859
95686	Thornton	San Joaquin	1,405
Total Communities of Concern Population			257,261

(Source: US Census Bureau, 2010)

The 10 Communities of Concern in San Joaquin County, listed in the table above, are home to more than 257,000 county residents. The areas consist of ZIP codes occupying all areas of San Joaquin County. The ZIP code Communities of Concern in Stockton, Manteca, and Tracy are more densely populated urban areas. The ZIP code communities in French Camp, Thornton, and Woodbridge all have lower populations and represent rural communities.

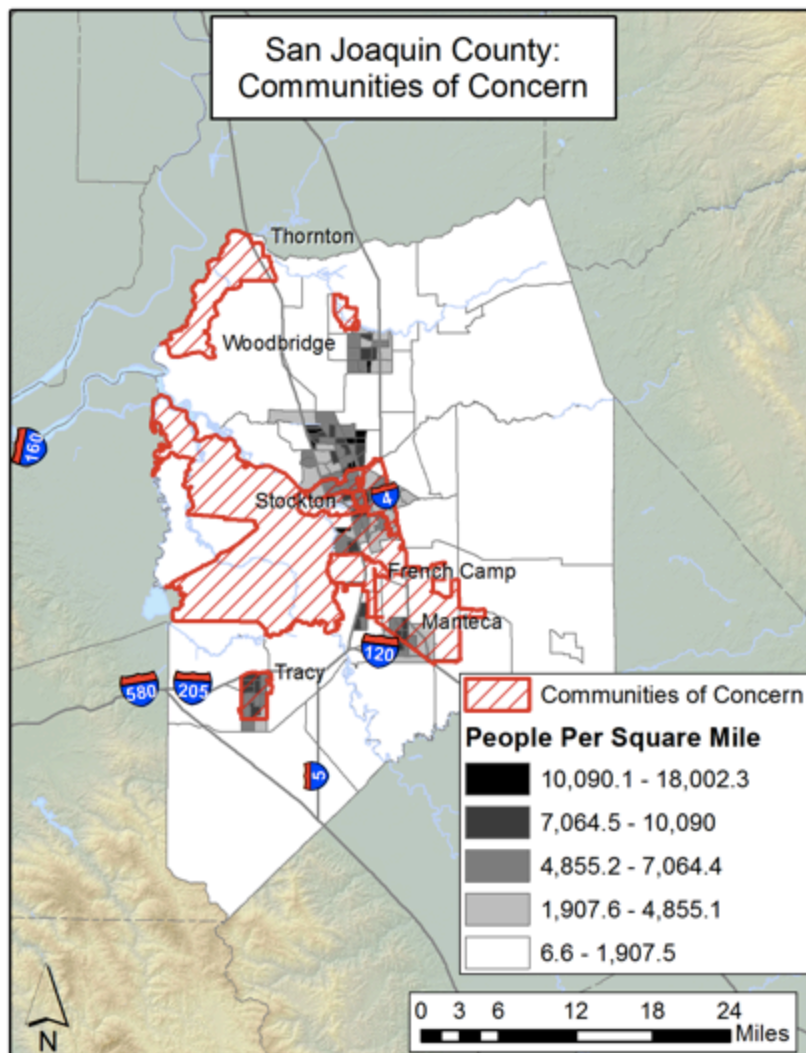


Figure 5: Communities of Concern map for San Joaquin County HSA

### Socio-demographic profile of Communities of Concern

Socio-demographic conditions, often referred to as social determinants of health, help predict which communities in a broad geographic area are most susceptible to poor health outcomes. Table 4 below describes the socio-demographic profile of each community of concern for the San Joaquin HSA. For all tables included in the Findings section, the values in bold are those which meet or exceed any of the reported benchmarks or comparison rates.

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 Hispanic	% pop over age 5 with limited Eng	% Unemployed	% No health insurance	% Residents Renting
95202	<b>31.8</b>	<b>56.2</b>	<b>69.7</b>	<b>50.9</b>	85.3	<b>21.3</b>	<b>32.8</b>	<b>45.5</b>	93.9
95203	<b>19.6</b>	<b>30.9</b>	<b>44.4</b>	<b>35.3</b>	78.0	<b>15.8</b>	<b>17.9</b>	<b>40.6</b>	57.4
95204	<b>11.8</b>	<b>21.1</b>	<b>41.8</b>	<b>18.3</b>	60.2	5.0	<b>12.4</b>	<b>29.2</b>	42.8
95205	<b>13.7</b>	<b>34.3</b>	<b>53.9</b>	<b>51.6</b>	86.3	<b>19.0</b>	<b>23.7</b>	<b>41.6</b>	49.0
95206	<b>16.2</b>	<b>25.5</b>	<b>46.9</b>	<b>36.4</b>	88.3	<b>16.5</b>	<b>22.9</b>	<b>25.8</b>	31.2
95231	<b>15.0</b>	<b>37.5</b>	27.4	<b>44.7</b>	70.2	<b>10.9</b>	<b>37.2</b>	<b>34.0</b>	46.6
95258	7.0	6.2	12.9	<b>17.6</b>	34.6	4.4	<b>8.5</b>	<b>16.3</b>	22.8
95336	4.7	8.8	21.5	<b>18.6</b>	48.7	3.7	<b>9.7</b>	16.1	36.9
95376	<b>12.0</b>	6.8	19.1	<b>17.0</b>	62.0	6.5	<b>8.2</b>	13.8	31.0
95686	-	-	-	-	-	-	-	-	-
State	-	-	-	19.4 <sup>9</sup>	-	-	9.8 <sup>10</sup>	21.6 <sup>11</sup>	-
National	8.7 <sup>12</sup>	15.1 <sup>13</sup>	31.2 <sup>14</sup>	12.9 <sup>15</sup>	-	8.7 <sup>16</sup>	7.9 <sup>17</sup>	16.3 <sup>18</sup>	-

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

As shown in Table 4, these 10 ZIP codes are home to more than one-quarter million residents. Data indicated that these areas of the HSA were highly diverse and included numerous areas with high rates of poverty, low educational attainment, high unemployment, high rates of uninsured, and a high number of residents renting versus owning their homes.

<sup>9</sup> 2010 Educational Attainment by Selected Characteristics. US Census Bureau, Unpublished Data. Retrieved from: [http://www.census.gov/compendia/statab/cats/education/educational\\_attainment.html](http://www.census.gov/compendia/statab/cats/education/educational_attainment.html)

<sup>10</sup> 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>

<sup>11</sup> 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>

<sup>12</sup> 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.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> 2010 Educational Attainment by Selected Characteristics. US Census Bureau, Unpublished Data. Retrieved from: [http://www.census.gov/compendia/statab/cats/education/educational\\_attainment.html](http://www.census.gov/compendia/statab/cats/education/educational_attainment.html)

<sup>16</sup> 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

<sup>17</sup> 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>

<sup>18</sup> 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

Nine of the ZIP codes had rates of residents identifying as either Hispanic or non-White of at least 33%. In seven of the area ZIP codes at least 50% of residents were Hispanic or non-White. The percent of residents over the age of five with limited English proficiency ranged from 5% in ZIP code 95204 to 21.3% in 95202.

Several of the Communities of Concern had a percent of poverty exceeding the national benchmark by as much as two to three times. There were five ZIP codes with a higher percent of single female-headed households living in poverty than the national average at 31.2%. Seven of the Communities of Concern had a higher percent of residents over the age of 65 living in poverty compared to the national benchmark, and the percent of families with children living in poverty was higher than the national percent at 15.1% in six ZIP codes. The rates for residents over age 65 living in poverty and families living with children in poverty in 95202 were three times the national average.

Five out of 10 of the area ZIP codes have a higher percent of residents over the age of 25 years living without a high school diploma than the state average, with more than 50% of residents in 95202 and 95205 lacking diplomas. Four of the ZIP codes have unemployment two times or higher than the state rate, and six ZIP codes have a much higher percent uninsured compared to the national rate at 16.3%. The percentage of residents in a ZIP code who rent versus own their place of residence gives insight into a community's health and financial stability. The percent of residents who rent in the 10 HSA Communities of Concern ranged from 22.8% 95258 to as high as 93.9% in 95202.

### **Priority Health Needs for San Joaquin County**

A list of priority health needs, which were identified through an analysis of both quantitative and qualitative data, is included below. All needs are noted as a "health driver," or a condition or situation that contributed to poor health outcomes. The complete priority health needs table can be found in Appendix G.

1. Access to primary and preventative care service
2. Lack of or limited access to health education
3. Lack of or limited access to dental care
4. Limited cultural competence in health care and related systems
5. Limited or no nutrition literacy/access to healthy and nutritious foods, food security
6. Limited transportation options
7. Lack of safe and affordable places to be active

## Health Outcomes

### *Diabetes, Heart Disease, Stroke, and Hypertension*

Diabetes, heart disease, stroke, and hypertension were consistently mentioned in the qualitative data as priority health concerns for residents in the Communities of Concern. An examination of mortality, ED visits, and hospitalizations, showed rates in these ZIP codes were drastically higher than both the established Health People 2020 benchmarks and the county and state comparison rates. Subgroup rates for each ZIP code were also examined, although that data is not shown in the tables.

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

	ZIP Code	Mortality	ED Visits	Hospitalization
Diabetes	95202	<b>2.1</b>	<b>985.2</b>	<b>393.4</b>
	95203	<b>2.9</b>	<b>510.4</b>	<b>261.8</b>
	95204	<b>5.1</b>	<b>283.7</b>	<b>233.2</b>
	95205	<b>2.8</b>	<b>477.6</b>	<b>313.0</b>
	95206	<b>2.6</b>	<b>419.6</b>	<b>281.7</b>
	95231	<b>1.9</b>	<b>413.5</b>	<b>191.9</b>
	95258	0.0	<b>233.9</b>	179.5
	95336	<b>2.3</b>	<b>447.9</b>	<b>235.1</b>
	95376	<b>2.0</b>	<b>457.0</b>	<b>253.4</b>
	95686	0.0	<b>196.3</b>	147.0
	<i>San Joaquin County</i>	2.5	<i>282.4</i>	<i>197.7</i>
	<i>CA State</i>	1.8	<i>188.4</i>	<i>190.9</i>
	<i>Healthy People 2020</i>	6.6	--	--

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

All of the Communities of Concern exceeded the state benchmark for ED visits related to diabetes. ED visit and hospitalization rates related to diabetes were higher than both the county and state benchmarks in seven of the 10 ZIP codes. Examination of diabetes rates by ZIP code and race and ethnicity revealed that Blacks consistently had rates drastically higher than any other population group, and were as high as five times the county and state rates (consider ZIP code 95202 at 1,818.0 visits per 10,000). Qualitative data consistently identified diabetes as a significant health issue in all Communities of Concern.

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)

Heart Disease	ZIP Code	Mortality	ED Visits	Hospitalizations
	95202	<b>25.6</b>	<b>387.1</b>	<b>377.7</b>
	95203	<b>20.1</b>	<b>238.2</b>	<b>268.5</b>
	95204	<b>26.7</b>	<b>143.6</b>	<b>243.1</b>
	95205	<b>16.2</b>	<b>213.7</b>	<b>302.9</b>
	95206	10.0	<b>174.3</b>	<b>251.9</b>
	95231	<b>15.8</b>	<b>175.2</b>	206.5
	95258	<b>13.8</b>	<b>161.7</b>	<b>270.0</b>
	95336	<b>25.9</b>	<b>262.9</b>	<b>300.5</b>
	95376	<b>13.2</b>	<b>222.9</b>	<b>265.8</b>
	95686	<b>15.1</b>	<b>121.4</b>	169.9
	<i>San Joaquin County</i>	<i>12.4</i>	<i>167.4</i>	<i>244.5</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)

ZIP codes 95202, 95204, and 95336 had mortality rates more than two times the Healthy People 2020 benchmark of 10.1 deaths per 10,000. ED visits and hospitalization rates related to heart disease were above both the county and state benchmarks in six of the 10 ZIP codes. Examination of ED visits and hospitalizations by race and ethnicity revealed that Whites and Blacks, respectively, consistently had the highest rates compared to the other groups. For example, in ZIP code 95202, rates for ED visits due to heart disease were 781.1 visits per 10,000 for Blacks, and 671.0 visits per 10,000 for Whites. Community experts and focus groups consistently identified heart disease as a major health issue.

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
	95202	<b>5.0</b>	<b>26.2</b>	<b>58.9</b>
	95203	<b>3.7</b>	<b>29.2</b>	<b>63.9</b>
	95204	<b>5.3</b>	<b>22.4</b>	<b>64.2</b>
	95205	2.5	<b>24.4</b>	<b>67.2</b>
	95206	2.0	<b>25.6</b>	<b>60.0</b>
	95231	0.0	<b>21.4</b>	35.0
	95258	<b>3.9</b>	<b>19.8</b>	46.6
	95336	<b>3.7</b>	<b>34.0</b>	<b>58.9</b>
	95376	3.1	<b>23.8</b>	<b>60.5</b>



	95686	<b>4.0</b>	8.5	41.2
	<i>San Joaquin County</i>	3.7	25.8	56.2
	<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 heart disease, six Communities of Concern had mortality rates above the Healthy People 2020 benchmark of 3.4, with the highest in ZIP code 95204 at 5.3 deaths per 10,000. In addition, seven of the ZIP codes had ED visits and hospitalizations related to stroke above state benchmarks. Blacks and Whites had similar rates of hospitalization and stroke related ED visits.

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

	ZIP Code	ED Visits	Hospitalizations
Hypertension	95202	<b>1748.9</b>	<b>722.5</b>
	95203	<b>866.4</b>	<b>461.6</b>
	95204	<b>555.8</b>	<b>449.6</b>
	95205	<b>749.9</b>	<b>519.2</b>
	95206	<b>734.4</b>	<b>447.1</b>
	95231	<b>715.3</b>	349.8
	95258	<b>451.9</b>	<b>441.8</b>
	95336	<b>857.6</b>	<b>475.6</b>
	95376	<b>909.4</b>	<b>464.5</b>
	95686	<b>389.0</b>	315.9
	<i>San Joaquin County</i>	591.7	419.1
	<i>CA State</i>	365.6	380.9

(Source: OSHPD, 2011)

Nearly all of the Communities of Concern had ED visit and hospitalization rates related to hypertension above the state benchmarks. Specifically, ZIP code 95202 had highest rates in the HSA for both ED visits and hospitalizations. Examination of ED visits and hospitalizations by race and ethnicity revealed that Blacks consistently had the highest rates compared to the other groups. For example, in ZIP code 95202, rates for ED visits due to hypertension were 3,954.4 visits per 10,000 for Blacks. At 2,474.1 visits per 10,000, rates for ED visits due to hypertension among Whites in 95202 also exceeded state and county benchmarks. While lower than Whites and Blacks, ED visits for Hispanics were also well above state and county benchmarks at 945.3 visits per 10,000.

## ***Mental Health, Substance Abuse, and Self Inflicted Injury***

### ***Mental Health***

Area experts and community members consistently reported the immense struggle that 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 needed inpatient treatment. Table 9 provides data on ED visits and hospitalizations related to mental illness.

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

	ZIP Code	ED Visits	Hospitalizations
Mental Health (overall)	95202	<b>819.2</b>	<b>554.3</b>
	95203	<b>278.2</b>	<b>185.2</b>
	95204	<b>227.7</b>	<b>243.0</b>
	95205	<b>148.7</b>	<b>159.6</b>
	95206	110.4	99.7
	95231	<b>142.1</b>	143.8
	95258	<b>192.3</b>	<b>199.9</b>
	95336	<b>274.1</b>	<b>181.3</b>
	95376	<b>159.2</b>	154.2
	95686	111.6	82.7
	<i>San Joaquin County</i>	<i>166.6</i>	<i>155.4</i>
	<i>CA State</i>	<i>130.9</i>	<i>182.0</i>

(Source: OSHPD, 2011)

Five Communities of Concern had rates of both ED visits and hospitalizations due to mental health illness that were above the state benchmarks. The rate in ZIP code 95202 was more than four times the county benchmark for ED visits related to mental health, and more than three times the state benchmark for hospitalizations. Whites, followed by Blacks, had the highest rates for ED visits related to mental health than any other race or ethnic group, and Whites had the highest hospitalization rates overall. In ZIP code 95202, rates for mental health related ED visits were 1,513.1 visits per 10,000 for Blacks and 1,384.1 visits per 10,000 for Whites. Community experts and focus groups consistently identified lack of or limited access to mental health services as a major challenge in the community.

### ***Substance Abuse***

As Table 10 shows, rates of substance abuse related ED visits and hospitalizations were clearly elevated in several of the Communities of Concern. Five of the Communities of Concern exceeded both state and county benchmarks of ED visits and hospitalizations related to

substance abuse. ZIP code 95202 was the highest in the HSA with a rate for ED visits that was six times the overall county rate and 18 times the state rate. Community experts reported that many vulnerable populations encounter challenges in accessing substance abuse treatment programs, largely due to lack of availability.

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

Substance Abuse (overall)	ZIP Code	ED Visits	Hospitalizations
	95202	<b>2443.4</b>	<b>726.6</b>
	95203	<b>1189.6</b>	<b>305.1</b>
	95204	<b>596.3</b>	<b>265.1</b>
	95205	<b>570.8</b>	<b>236.5</b>
	95206	<b>423.3</b>	141.7
	95231	<b>718.8</b>	<b>194.4</b>
	95258	<b>260.1</b>	<b>194.2</b>
	95336	<b>487.0</b>	<b>161.6</b>
	95376	<b>503.9</b>	141.0
	95686	<b>225.5</b>	136.2
	<i>San Joaquin County</i>	<i>397.5</i>	<i>156.8</i>
	<i>CA State</i>	<i>130.9</i>	<i>182.0</i>

(Source: OSHPD, 2011)

### ***Self-Inflicted Injury***

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

Self Inflicted Injury	ZIP Code	ED Visits	Hospitalization
	95202	<b>37.5</b>	<b>4.9</b>
	95203	<b>18.6</b>	<b>3.6</b>
	95204	<b>12.6</b>	<b>4.1</b>
	95205	<b>9.7</b>	<b>3.4</b>
	95206	<b>10.7</b>	2.4
	95231	<b>10.7</b>	<b>3.6</b>
	95258	7.0	<b>3.2</b>
	95336	<b>11.4</b>	<b>3.6</b>
	95376	<b>17.9</b>	2.1
	95686	<b>13.3</b>	0.0
	<i>San Joaquin County</i>	<i>10.6</i>	<i>3.1</i>
	<i>CA State</i>	<i>7.9</i>	<i>4.3</i>

(Source: OSHPD, 2011)

Rates for ED visits due to self-inflicted injury were above the state average in nine of the 10 ZIP codes. ZIP code 95202 reported more than twice the county rate at 37.5 visits per

10,000. Six of the ZIP codes had hospitalization rates related to self-inflicted injury above the county rate.

### 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.

Community members and health professionals identified high smoking rates as one of the challenges faced by the community in achieving and maintaining health. In an effort to understand the impact of tobacco use and respiratory illness in the Communities of Concern, rates of ED visits and hospitalizations related to COPD, asthma, and bronchitis were examined and are displayed in Table 12. Rates of ED visits and hospitalizations 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)

	ZIP Code	ED Visits	Hospitalization
COPD, Asthma, and Bronchitis	95202	<b>1121.1</b>	<b>419.3</b>
	95203	<b>654.1</b>	<b>227.2</b>
	95204	<b>353.5</b>	<b>245.5</b>
	95205	<b>367.5</b>	<b>185.2</b>
	95206	<b>293.5</b>	113.9
	95231	<b>307.9</b>	<b>170.4</b>
	95258	184.5	<b>221.2</b>
	95336	<b>501.6</b>	<b>242.6</b>
	95376	<b>398.0</b>	<b>174.4</b>
	95686	192.4	115.9
	<i>San Joaquin County</i>	<i>298.7</i>	<i>169.2</i>
	<i>CA State</i>	<i>202.3</i>	<i>156.8</i>

(Source: OSHPD, 2011)

Most Communities of Concern had ED and hospitalization rates related to COPD, asthma, and bronchitis above the county and state benchmarks. In ZIP code 95202, rates of ED visits for Blacks (2,164.8 visits per 10,000) and for Whites (1,939.2 visits per 10,000) were more than three times the county rate. Hospitalization rates related to COPD, asthma, and bronchitis were highest in Whites, followed by Blacks. In ZIP code 95205, hospitalization rates related to COPD, asthma, and bronchitis were 645.4 visits per 10,000 for Whites and 350.1 visits per 10,000 for Blacks.

Many community members and health professionals mentioned asthma as a health condition that significantly affected area residents. Focus groups reported that proximity to agricultural operations and poor overall air quality contributed to asthma and other respiratory

illnesses, and that many children are unable to play outside on days when air quality appears to be especially poor.

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	Hospitalizations
	95202	<b>676.5</b>	<b>176.5</b>
	95203	<b>474.3</b>	<b>96.7</b>
	95204	<b>209.0</b>	<b>94.3</b>
	95205	<b>242.5</b>	<b>90.5</b>
	95206	<b>224.5</b>	63.2
	95231	<b>238.4</b>	<b>88.1</b>
	95258	112.8	<b>76.1</b>
	95336	<b>360.2</b>	<b>99.5</b>
	95376	<b>304.7</b>	<b>97.2</b>
	95686	90.4	53.4
	<i>San Joaquin County</i>	<i>206.2</i>	<i>76.9</i>
	<i>CA State</i>	<i>135.0</i>	<i>70.5</i>

(Source: OSHPD, 2011)

ED visits and hospitalizations related to asthma were far above state and county benchmarks in most of the Communities of Concern. Blacks had the highest rates of all races and ethnic groups at more than twice the amount as Whites. For example, Blacks in ZIP code 95203 had a rate of 1,465.5 ED visits per 10,000 due to asthma, compared to 612.2 visits per 10,000 for Whites.

## 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, and qualitative data from all areas of the county indicated that the perception of community safety is a significant issue throughout the entire HSA. Examination of safety indicators included looking at local law enforcement data for San Joaquin County as reported by the San Joaquin County Sheriff's Department and law enforcement agencies for local jurisdictions and municipalities. In addition, outcome safety indicators of ED visits and hospitalizations due to assault and unintentional injury were examined.

### Crime Rates

Figure 6 shows major crimes by municipality as reported by various jurisdictions. Darker colored areas denote higher rates of major crime, including homicide, forcible rape, robbery, aggravated assault, burglary, motor vehicle theft, larceny, and arson.

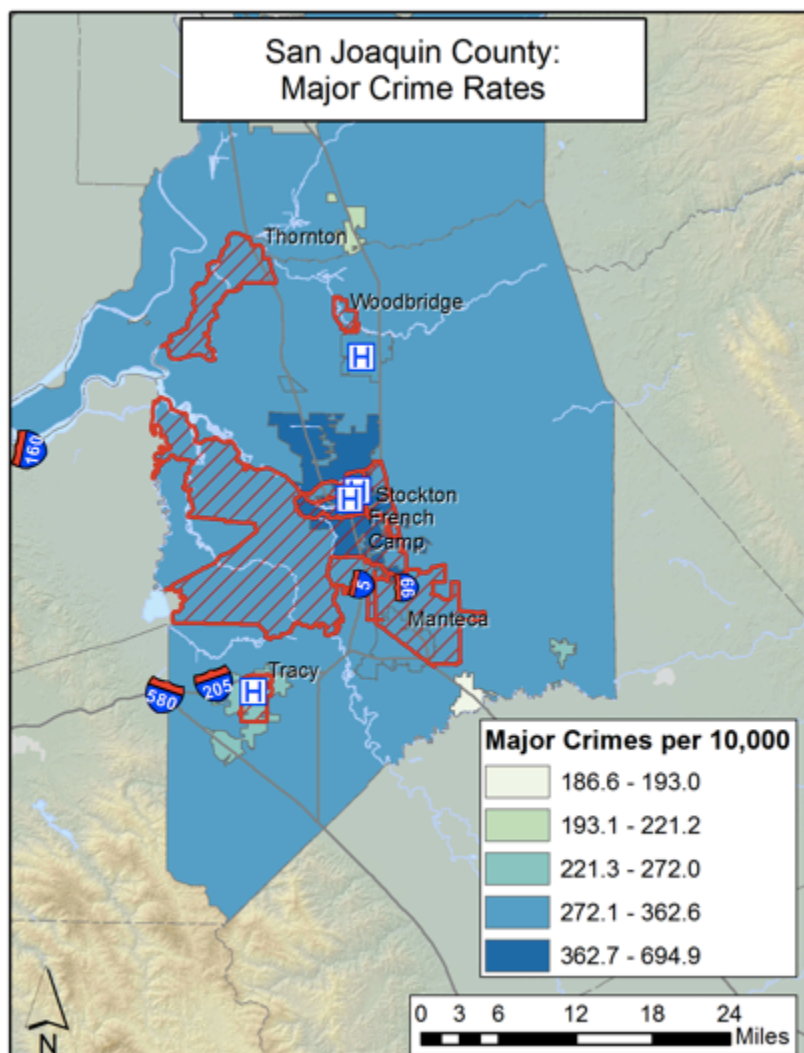


Figure 6: Major crimes by municipality as reported by California Attorney General's Office, 2010

Significant portions of the HSA Communities of Concern (95202, 95203, 95204, 95205, 95206, and 95231) are located in the City of Stockton, which had a major crimes rate of 694.9 crimes per 10,000 residents. Some of these ZIP codes (95203, 95204, 95205, 95206, and 95231) also have portions of their geographical areas in San Joaquin County, with a major crimes rate of 323.7 crimes per 10,000 residents.

Data from the San Joaquin County Sheriff for Woodbridge and Thornton showed both areas had a major crimes rate of 323.7 crimes per 10,000 residents. With a major crimes rate of

317.9 and 271.9 crimes per 10,000 residents respectively, the City of Manteca and the City of Tracy were the lowest in the HSA.

### ***Assault***

More than half of the Communities of Concern had ED visits and hospitalizations for assault that clearly exceeded the county and state benchmarks. As Table 14 indicates, ED visits for assault were more than six times the county rate in ZIP code 95202 and more than twice the county rate in ZIP codes 95203 and 95231. ZIP code 95202 had a rate of 259.3 visits per 10,000, the highest in the HSA. Hospitalizations related to assault were more than twice the county rate in 95202, 95203 and 95205. Community experts and focus groups consistently reported that fear of crime, assault, and gang-related violence were common and cited it as a barrier to using community parks, exercising outdoors, walking to and from school, accessing local food outlets, and using public transportation.

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

	ZIP Code	ED Visits	Hospitalization
Assault	95202	<b>259.3</b>	<b>11.3</b>
	95203	<b>109.0</b>	<b>10.2</b>
	95204	<b>55.5</b>	<b>6.4</b>
	95205	<b>66.9</b>	<b>9.1</b>
	95206	<b>57.4</b>	<b>7.3</b>
	95231	<b>114.2</b>	<b>5.5</b>
	95258	19.4	<b>4.6</b>
	95336	<b>43.5</b>	3.6
	95376	<b>42.3</b>	<b>3.9</b>
	95686	<b>36.3</b>	0.0
	<i>San Joaquin County</i>	<i>41.1</i>	<i>4.5</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, nearly all of the ZIP codes were clearly above the state benchmarks for mortality, ED visits, and hospitalizations, and the majority also exceeded the county and Healthy People 2020 benchmarks. The mortality rate for ZIP code 95202 was more than double the state rate, and the ED visit rate for 95202 was three times the county rate.

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

Unintentional Injury	ZIP Code	Mortality	ED Visits	Hospitalizations
	95202	<b>7.7</b>	<b>2243.2</b>	<b>276.7</b>
	95203	<b>5.1</b>	<b>1146.6</b>	<b>152.2</b>
	95204	<b>4.1</b>	<b>809.4</b>	<b>187.5</b>
	95205	<b>4.6</b>	<b>912.7</b>	<b>146.1</b>
	95206	<b>3.5</b>	<b>776.3</b>	122.5
	95231	<b>3.2</b>	<b>942.3</b>	<b>161.1</b>
	95258	<b>3.9</b>	650.3	<b>178.1</b>
	95336	<b>3.3</b>	<b>1078.4</b>	<b>183.8</b>
	95376	<b>4.9</b>	<b>1002.6</b>	142.9
	95686	0.0	534.7	82.4
	<i>San Joaquin County</i>	<i>3.8</i>	<i>744.2</i>	<i>144.1</i>
	<i>CA State</i>	<i>2.7</i>	<i>651.84</i>	<i>154.57</i>
	<i>Healthy People 2020</i>	<i>3.4</i>	--	--

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

### ***Fatality/Traffic accidents***

Figure 7 examines traffic accidents in the HSA that resulted in a fatality and Table 16 examines bicycle accidents and accidents involving a motor vehicle versus a pedestrian or bicyclist. Accidents resulting in a fatality contribute to residents' perception of safety when traveling through their community, especially for area residents who rely on public, pedestrian, and/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 sporadically available local public transportation. Most of the fatal traffic accidents occurred in and around Stockton, which is a densely populated urban area. In rural areas, qualitative data identified safety concerns related to lack of sidewalks, inadequate lighting, and people traveling at high rates of speed on narrow and winding roads.



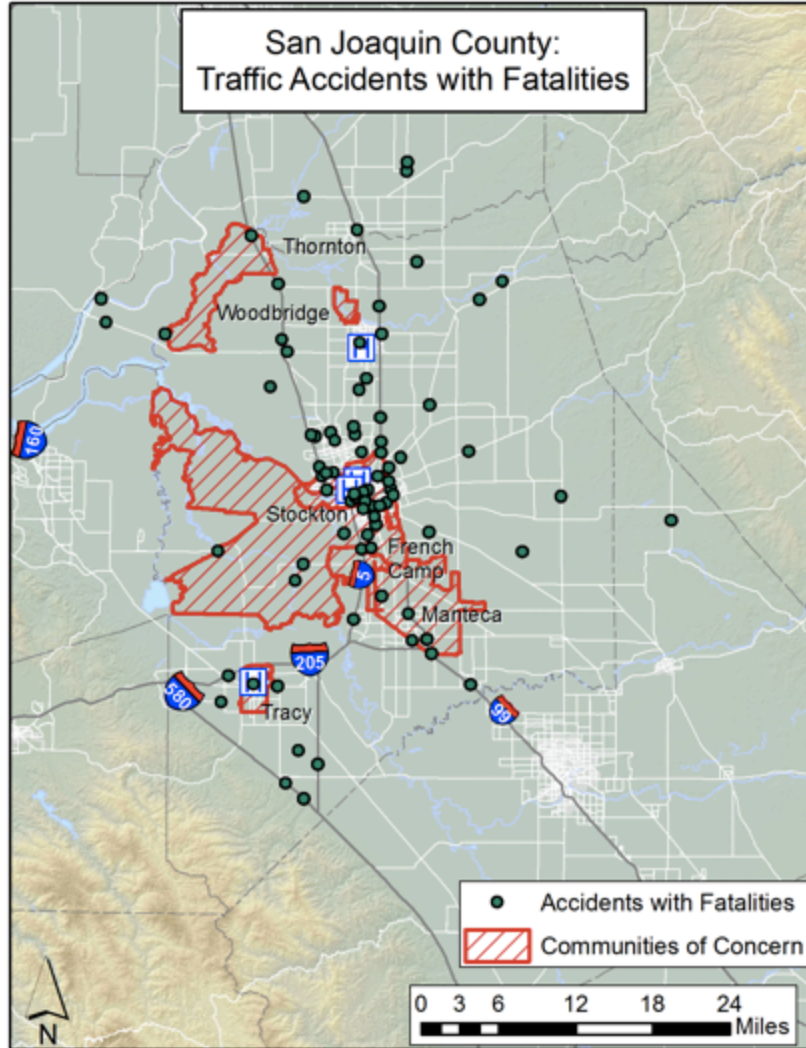


Figure 7: Traffic accidents with fatalities as reported by National Highway Transportation Safety Administration, 2010

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

	ZIP Code	ED Visits	Hospitalization
Accidents (Bike and Car Versus Bike/Pedestrian)	95202	<b>38.9</b>	<b>3.4</b>
	95203	<b>24.1</b>	<b>2.1</b>
	95204	<b>18.5</b>	1.0
	95205	<b>20.0</b>	1.6
	95206	<b>17.1</b>	1.2
	95231	11.0	1.3
	95258	13.0	1.3
	95336	<b>20.6</b>	1.3
	95376	<b>16.9</b>	0.7
	95686	<b>18.4</b>	1.5

	<i>San Joaquin County</i>	<i>14.7</i>	<i>1.8</i>
	<i>CA State</i>	<i>15.6</i>	<i>2.0</i>

(Source: OSHPD, 2011)

ED visits for pedestrian and bike accidents were above the county rates in most of the Communities of Concern, with ZIP code 95202 at more than two times the county and state rates. The table also shows that accidents involving bikes and pedestrians occurred at rates above the county and state benchmarks in 95686, which is located within a rural area.

### **Food Environment**

An examination of the food environment in the Communities of Concern showed that approximately 30% of residents in each ZIP code are obese and approximately 30% 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. Three ZIP codes, 95205, 95206, and 95231, have federally designated food desert tracts located within their boundaries. The federal government designates these areas 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. None of these ZIP codes with designated food deserts have a farmers' market located within the ZIP code boundary.

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 farmers' markets by ZIP code

ZIP Code	% Obese	% Overweight	% not eating 5-a-day	Food Desert	Farmers' Market
95202	<b>31.3</b>	32.8	57.4	-	3
95203	<b>30.7</b>	31.9	57.6	-	0
95204	<b>28.8</b>	30.4	57.8	-	0
95205	<b>31.8</b>	32.4	57.7	x	0
95206	<b>26.7</b>	34.0	59	x	0
95231	<b>27.6</b>	33.7	57.2	x	0
95258	<b>25.0</b>	32.6	58.8	-	0
95336	<b>27.7</b>	33.4	59	-	1
95376	<b>26.7</b>	33.4	58.9	-	1
95686	<b>30.3</b>	35.2	58.5	-	0
<i>CA State</i>	<i>24.8<sup>19</sup></i>	--	--		

(Sources: % Obese & overweight, fruit & vegetable consumption: *Healthy City* (www.healthycity.org), 2003-2005; Food deserts: Kaiser Permanente CHNA Data Platform/US Dept. of Agriculture, 2011; Farmers' markets: California Federation of Certified Farmers' Markets, 2012)

<sup>19</sup> Levi, J. (2012). "F" as in Fat: How obesity threatens America's future. Retrieved from: <http://healthyamericans.org/assets/files/TFAH2012FasInFatEnlRv.pdf>

The data displayed below provide information about the availability of healthy foods in the HSA. Figure 8 shows the Modified Retail Food Environment Index (mRFEI), which is the proportion of healthy food outlets to all available food outlets by census tract. Lighter areas indicate greater access to healthy foods and the darkest areas indicate no access to healthy foods.

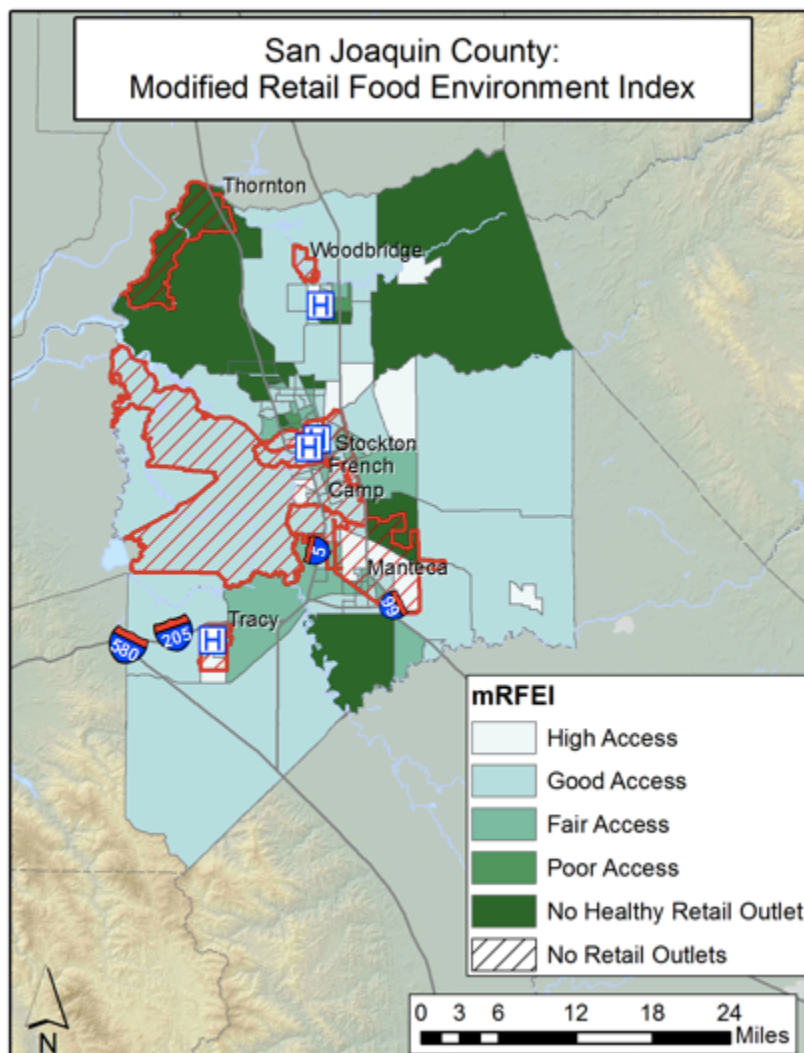


Figure 8: Modified Retail Food Environment Index (mRFEI) by census tracts in Communities of Concern for San Joaquin County

The above data indicate that most of the Communities of Concern contained census tracts with no or poor access to healthy foods, specifically the ZIP code areas of 95202, 95203, and 95686. Challenges related to healthy food access were consistently mentioned in the qualitative data, specifically the lack of grocery stores in rural areas. In addition, focus group participants reported fruits and vegetables were often more expensive than fast food or food with little nutritional value.

## Active Living

One of the largest barriers to engagement in physical activity is access to a recreational area. Figure 9 profiles the percent of the population in census tracts in the Communities of Concern located within one-half mile of a recreational park.

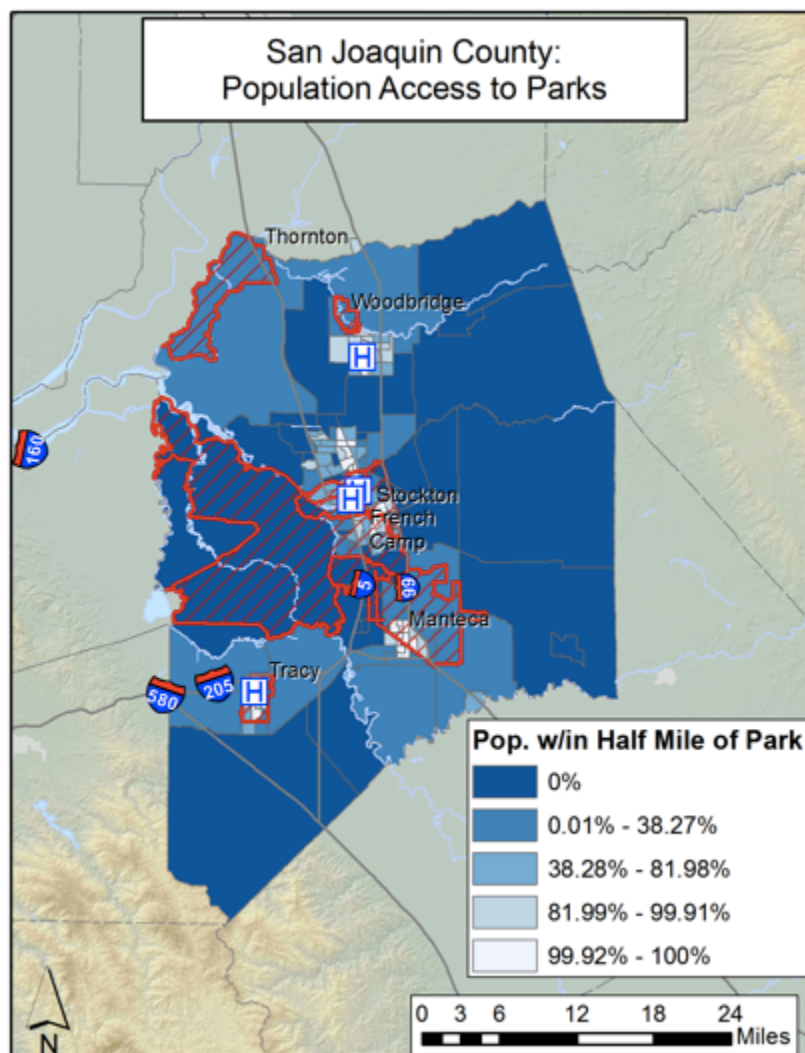


Figure 9: Percent population living in census tract within one-half mile of park space (per 10,000)

With the exception of 95231 and 95686, which represent rural areas of the county, the map indicates that most residents of the Communities of Concern are located within one-half mile of a park. However, concerns about encountering gang activity and illegal drug use were universally cited as reasons why most people do not use their local parks for recreation and socialization. One focus group member reported finding drugs and guns hidden by gang members in the sand near play structures at her local park. Lack of adequate restroom facilities was also cited as barriers to park use.

## Physical Wellbeing

Age-adjusted all-cause mortality rates are a major indicator of the health of a community. The ZIP code 95202 had the highest age-adjusted overall mortality rate in San Joaquin County at 84.3 deaths per 10,000. Life expectancy data showed that five of the Communities of Concern had lower life expectancies at birth than the county and state benchmarks.

Infant mortality is a leading health status indicator of a community. ZIP code 95206 had the highest rate of infant mortality in San Joaquin County with a rate of 6.4 deaths per 1,000 live births. This is above the county rate of 6.0, the state rate of 5.2, and the Healthy People 2020 target of 6.0 deaths per 1,000 live births.

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

ZIP Code	Age-Adjusted All-Cause Mortality	Life Expectancy	Infant Mortality
95202	<b>84.3</b>	<b>72.7</b>	<b>5.6</b>
95203	<b>81.8</b>	<b>75.3</b>	<b>5.4</b>
95204	<b>81.7</b>	<b>76.5</b>	<b>5.7</b>
95205	<b>76.7</b>	<b>74.7</b>	<b>5.3</b>
95206	<b>71.6</b>	<b>77.9</b>	<b>6.4</b>
95231	55.0	<b>80.4</b>	<b>5.5</b>
95258	60.2	<b>80.3</b>	0.0
95336	<b>73.2</b>	<b>78.6</b>	<b>5.5</b>
95376	<b>73.5</b>	<b>79.2</b>	<b>5.2</b>
95686	57.9	80.8	0.0
<i>San Joaquin County</i>	75.2	--	6.1
<i>CA State</i>	63.3	80.4 <sup>20</sup>	5.2
<i>National</i>	--	78.6 <sup>21</sup>	--
<i>Healthy People 2020</i>	--	--	6.0

(Sources: 2010 CDPH and 2010 Census; rates calculated)

<sup>20</sup> Henry J. Kaiser Family Foundation *State Health Facts*, 2007. Retrieved from: <http://www.statehealthfacts.org/profileind.jsp?ind=784&cat=2&rgn=6>

<sup>21</sup> *Ibid.*

## Additional Findings

### *Chlamydia, Gonorrhea, and Teen Births*

Sexually transmitted diseases and teen births were consistently mentioned in the qualitative data as conditions many residents in the identified Communities of Concern were experiencing. The data presented below, provided by the San Joaquin County Public Health Department, shows that rates in these ZIP codes were significantly higher than the established county benchmark.

Table 19: Chlamydia rates compared to county rate (rates listed per 10,000)

Chlamydia	ZIP Code	Rate per/10,000
	95202	<b>1285.1</b>
	95203	<b>680.4</b>
	95204	<b>508.9</b>
	95205	<b>668.8</b>
	95206	<b>645.5</b>
	95231	<b>1815.3</b>
	95258	238.9
	95336	333.7
	95376	412.8
	95686	213.5
	<i>San Joaquin County</i>	<i>496.3</i>

(Source: San Joaquin County STD Morbidity data, 2006-2010; Denominator data from 2010 Census Summary File 1)

More than half of the Communities of Concern had rates of chlamydia above the county benchmark. At 1,815.3 cases per 10,000 and 1,285.1 cases per 10,000 respectively, ZIP codes 95231 and 95202 were the highest in the HSA.

Table 20: Gonorrhea rates compared to county rate (rates listed per 10,000)

Gonorrhea	ZIP Code	Rate per/10,000
	95202	<b>460.1</b>
	95203	<b>202.6</b>
	95204	103.6
	95205	<b>166.0</b>
	95206	<b>146.1</b>
	95231	<b>425.2</b>
	95258	64.7
	95336	77.8

	95376	63.0
	95686	56.9
	<i>San Joaquin County</i>	<i>107.7</i>

(Source: San Joaquin County STD Morbidity data, 2006-2010; Denominator data from 2010 Census Summary File 1)

Five of the Communities of Concern had rates of gonorrhea above the county benchmark. At 460.1 cases per 10,000 and 425.2 cases per 10,000, ZIP codes 95202 and 95231 were the highest in the HSA, having rates four times higher than the county benchmark.

Table 21: Teen birth rates compared to county rate (rates listed per 10,000)

	ZIP Code	Rate per/10,000	
Teen Births	95202	<b>157.4</b>	
	95203	<b>79.3</b>	
	95204	<b>58.3</b>	
	95205	<b>92.2</b>	
	95206	<b>62.2</b>	
	95231	<b>47.7</b>	
	95258	20.3	
	95336	40.2	
	95376	35.5	
	95686	18.2	
		<i>San Joaquin County</i>	<i>43.6</i>

(Source: San Joaquin County Birth Statistical Master Files, 2006-2010; Denominator data from 2010 Census Summary File 1)

The table above provides information about teen births in ZIP codes identified as Communities of Concern as compared to the county rate. More than half of the Communities of Concern had teen birth rates above the county benchmark, with rates in some areas two or three times higher than the benchmark. At 157.4 births per 10,000, ZIP code 95202 was the highest in the HSA.



## 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. A profile of these assets for the San Joaquin County Communities of Concern is offered below.

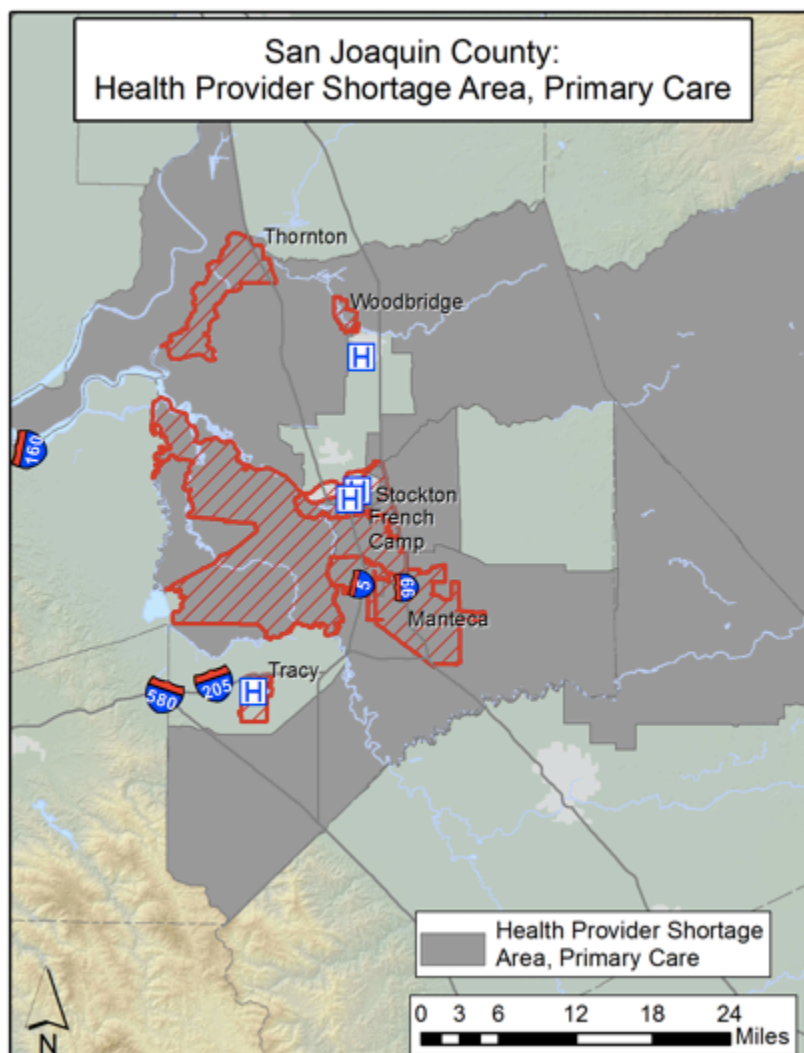


Figure 10: Federally defined primary care health professional shortage areas as reported by Health Resources and Services Administration, 2011

Health Professional Shortage Areas (HPSAs) are designated by the US Health Resources and Services Administration (HRSA) as having a shortage of primary medical care, dental, or mental health providers; these 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). Figure 10 reveals that health care professional shortage areas are found in 7 out of 10 Communities of Concern. ZIP codes 95206, 95231, 95336, and 95686



are designated shortage areas, while 95202, 95203, 95205, and 95838 have substantial areas with shortages of health care professionals. Community experts and focus groups consistently reported challenges related to accessing primary and specialty care, especially in rural areas.

Further analysis indicates that almost 300 distinct health assets are located in the San Joaquin County Communities of Concern or in adjacent ZIP codes. 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 pantries, and homeless shelters among others (a complete list of these services is provided in Appendix H). The presence of these organizations presents San Joaquin County with a unique opportunity to enhance community health through increased collaboration and coordination of services.

### **Community Input**

Community members who participated in focus groups and key informants provided several recommendations for changes or actions they believed would improve the health of their communities. Many believed that the first step is to increase the number of sites where residents can obtain affordable medical care, including the uninsured and undocumented. This was especially important to community members living in rural areas of the county, and those with limited access to transportation. The need for more treatment and support services for people experiencing challenges related to mental health and substance abuse was also mentioned frequently. In addition, focus groups consistently expressed the desire for additional education about topics including maintaining health, purchasing and preparing nutritious foods, chronic disease management, and physical activity. Finally, community members stressed the importance of having safe places to engage in both physical and social activities. A summary of key findings from the qualitative data gathered for this report is included in Appendix A.

### **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 level 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, where 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 wary of providing 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 systematic 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.

Anyone living and working in San Joaquin County 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 and the specific conditions and health outcomes experienced by residents of the area's most vulnerable communities, organizations and individuals working to improve the overall health of the community can develop plans to address the underlying contributors of negative health outcomes.

## Appendix A

### Summary of qualitative findings from key informant interviews and focus groups

Theme/Topic	Supporting Information
<b>What are the biggest health issues your community struggles with?</b>	
Chronic diseases and disease management; obesity	<ul style="list-style-type: none"> <li>• Key informants and focus groups consistently identified chronic diseases (diabetes, hypertension, heart disease) and obesity as significant health issues.</li> <li>• Key informants and focus groups reported lack of resources and financial challenges related to managing chronic conditions</li> <li>• Key informants consistently reported seeing frequent co-morbidity of chronic health conditions</li> </ul>
Mental health – depression, anxiety, stress associated with being poor	<ul style="list-style-type: none"> <li>• Key informants and focus groups spoke about the stress caused by job loss, mental health issues, financial issues, and the prevalence of gang related violence.</li> <li>• Key informants and focus groups noted that the stress of being poor and struggling to “just get by” made it difficult to make health a priority.</li> </ul>
COPD, asthma, allergies, bronchitis	<ul style="list-style-type: none"> <li>• Several focus group participants identified respiratory issues as common, and indicated that they or members of their family developed allergies after moving to the area.</li> </ul>
Substance abuse	<ul style="list-style-type: none"> <li>• Key informants and focus groups noted an increase in substance use and abuse as a method for coping with stress</li> <li>• Key informants consistently cited prevalent drug abuse in their communities.</li> </ul>
Dental	<ul style="list-style-type: none"> <li>• Key informants and focus groups cited challenges around accessing dental care. Many issues go untreated, leading to chronic pain, infection, and tooth loss.</li> </ul>
Food insecurity, poor nutrition	<ul style="list-style-type: none"> <li>• Key informants and focus groups consistently identified challenges related to purchasing and preparing fresh, healthy foods.</li> </ul>
<b>Who within your community appears to struggle with these issues the most?</b>	
Low income populations, minorities, homeless	<ul style="list-style-type: none"> <li>• Key informants identified African American, Latino, Southeast Asian, and South Asian populations.</li> <li>• Key informants identified low-income populations of all races, especially those that do not qualify for public assistance programs.</li> <li>• Key informants identified the homeless population.</li> </ul>
Immigrants, including undocumented	<ul style="list-style-type: none"> <li>• Key informants and focus groups identified recently arrived immigrants and undocumented populations.</li> </ul>

Newly unemployed and uninsured	<ul style="list-style-type: none"> <li>• Key informants and focus groups identified individuals and families new to applying for and using public assistance services.</li> <li>• Key informants and focus groups identified individuals and families without insurance.</li> </ul>
Rural communities	<ul style="list-style-type: none"> <li>• Key informants and focus groups identified individuals and families living in rural communities.</li> </ul>
Elderly	<ul style="list-style-type: none"> <li>• Key informants and focus groups identified the elderly, especially those living alone or in rural communities.</li> </ul>
<b>Do you think there are things about where you live that contribute to some of the health outcomes you've described?</b>	
Exposure to chemicals and hormones	<ul style="list-style-type: none"> <li>• Focus group participants in rural areas reported that the chemicals (pesticides) that are used in the fields get on workers' clothing and is brought home, exposing not just the worker but his family to potential adverse health effects and respiratory problems.</li> <li>• Several focus group members expressed a concern that the chemicals and hormones used in meat might contribute to health problems.</li> </ul>
Poor water quality	<ul style="list-style-type: none"> <li>• Focus groups reported that many community members purchase bottled water, even at significant expense, due to beliefs that tap water in the area is not safe to drink.</li> </ul>
Lack of community safety	<ul style="list-style-type: none"> <li>• Key informants and focus groups reported that gang violence and drug use is common in both urban and rural areas. Focus groups expressed concern about children who are seeing violence and shootings, and the effect it will have in the future.</li> <li>• In urban areas, focus group participants identified loose dogs and fear of being bitten as a serious concern.</li> <li>• Many parents in the focus groups noted that they don't let children play outside or walk to school because of safety concerns, mostly related to gang activity or traffic safety.</li> <li>• Key informants and focus groups reported a pervasive feeling that gang related violence could happen anywhere, at any time. People are afraid to use public parks or socialize with neighbors in front of their homes.</li> <li>• A focus group participant noted it is very easy to access a gun, that guns frequently are stolen and even young children have access to guns.</li> </ul>
Built environment not conducive to physical lifestyle	<ul style="list-style-type: none"> <li>• Focus group participants in rural areas noted the lack of walking paths, sidewalks, and lighting as barriers to physical activity. Focus group participants in urban areas reported that parks, sidewalks, and streetlights are not well maintained.</li> </ul>
The economy	<ul style="list-style-type: none"> <li>• Key informants and focus groups consistently identified economic challenges like job loss, foreclosures, and loss of health care benefits. The stress of being poor and struggling to "just get by" making it difficult to prioritize health was universally cited in focus groups and key informant interviews.</li> <li>• Key informants and focus groups reported high unemployment rates in cities and limited job opportunities in rural communities. As a result, many people commute a long way to work, leaving no time to cook or</li> </ul>

	exercise.
<b>What are some challenges you and/or your community faces in staying healthy?</b>	
Access to primary and preventive care	<ul style="list-style-type: none"> <li>• Key informants and focus groups discussed challenges around the hours of operation for community clinics. When clinics are closed, people without insurance have no choice but to go to the ER.</li> <li>• Difficulty learning about services was reported by key informants and focus groups. People must search for available providers and services or rely on word of mouth.</li> <li>• Key informants and focus groups reported that many rural communities frequently do not have pharmacies, drug stores, or medical offices.</li> <li>• Key informants noted a physician shortage, especially in rural areas and among providers serving the poor.</li> <li>• Key informants and focus group participants noted that many insurance plans do not cover preventive care services and that it is difficult or impossible to pay out of pocket.</li> </ul>
Language and cultural barriers	<ul style="list-style-type: none"> <li>• Key informants discussed the need for multilingual staff in all levels of the medical profession, and the importance of having providers who understand cultural aspects of health and treatments. This is especially important when there are cultural stigmas about asking for help and discussing medical issues, especially mental health.</li> <li>• Key informants and focus groups discussed the need for culturally specific and targeted health education, and for materials in other languages to be accurate and easy to understand.</li> <li>• Key informants and focus groups stated that there is a need for more providers of different races in health care, especially since many groups have disproportionately high rates of some health conditions.</li> </ul>
Lack of providers taking Medi-Cal	<ul style="list-style-type: none"> <li>• Key informants and focus groups reported long wait times to get an appointment at a community clinic, and then spending a long time in the waiting room. Sometimes it can take months to find an open appointment.</li> <li>• Focus groups in all areas shared experiences of having to look for a new doctor because the provider they've seen in the past no longer took Medi-Cal patients.</li> <li>• Several key informants expressed concerns about provider shortages and the region's ability to meet demand for care when ACA is implemented.</li> </ul>
Lack of specialty care, especially for low income	<ul style="list-style-type: none"> <li>• Key informants and focus groups stated that there are few specialists, and people often have to leave the county or go without services. Referral to specialists of all kinds is difficult even for those with insurance.</li> <li>• Key informants noted that referrals for pain management, cancer treatment, physical therapy, and other services are all challenging. Conditions that need monitoring and follow up worsen without proper management.</li> <li>• Often initial tests are done but no long-term follow up is provided (such as physical therapy).</li> </ul>
Lack of insurance coverage	<ul style="list-style-type: none"> <li>• Key informants and focus groups described "people in the middle" have a hard time getting coverage that is affordable or accessing services.</li> </ul>

for many adults	
Poor quality of care	<ul style="list-style-type: none"> <li>• Focus group participants stated that doctors tend to prescribe medications and offer no more advice or information. Appointments are very brief, and physicians sometimes misdiagnose, perhaps because they're in a hurry.</li> <li>• Focus group participants reported that medical personnel are sometimes rude to patients and facilities are not welcoming, clean, or updated.</li> <li>• Focus group participants noted that Medi-Cal approval seems to depend on how much the social worker likes you.</li> </ul>
Navigating the system	<ul style="list-style-type: none"> <li>• Focus groups reported that because many entry points for services are in Stockton, it is a challenge for people who live far away to sign up for available programs. Some reported initiating the process but not following through because they could not make another all day trip to finish their application.</li> <li>• A key informant stated that more people need to learn how to be advocates in their health care (but not all are comfortable doing so). Navigating the system can be difficult, and benefit programs are difficult to understand.</li> </ul>
Cost of care	<ul style="list-style-type: none"> <li>• Focus groups described feeling “stuck in the middle.” People who own property, have jobs, and are not senior citizens can't afford to see a doctor or pay for medications, even with insurance.</li> <li>• Key informants and focus groups noted that is common for families to choose between paying rent, buying food, or going to the doctor.</li> <li>• Several focus group participants shared anecdotes about being afraid to go to the hospital because they know someone who did and the cost was significant.</li> </ul>
Lack of mental health and substance abuse services	<ul style="list-style-type: none"> <li>• Key informants and focus groups noted an increase in substance use and abuse as a method for coping with stress, and that people who wanted help did not know where to go</li> <li>• Key informants and focus groups reported an increase in stress and overall anxiety due to loss of jobs and homes.</li> </ul>
Avoid care—then end up in the ED	<ul style="list-style-type: none"> <li>• Focus groups reported fear of going to the doctor and preferring to take care of illness and injury at home, only seeking care if something is very serious. Many undocumented immigrants do not seek care for fear of deportation or getting fired for missing work.</li> <li>• Focus groups reported that people get information about health via word of mouth and often try home remedies or traditional medicine instead of going to the doctor, with conditions sometimes worsening as a result</li> </ul>
Nutrition and food access	<ul style="list-style-type: none"> <li>• Key informants and focus groups noted that people do not make health eating a priority or know how to prepare healthy meals.</li> <li>• Key informants and focus groups stated that many neighborhoods do not have a grocery store or place to</li> </ul>

	<p>buy healthy food, but the corner store sells alcohol, cigarettes, and candy.</p> <ul style="list-style-type: none"> <li>• Key informants and focus groups stated that healthy food is expensive and not always available at nearest store. It is often easier and less expensive to feed a family with fast food than to go shopping and cook a meal.</li> <li>• Focus groups in rural areas reported that many communities do not have a grocery store and if there is one, produce is expensive and of poor quality.</li> </ul>
Lack of exercise	<ul style="list-style-type: none"> <li>• Key informants and focus groups identified lack of motivation as a barrier to regular physical activity.</li> <li>• Focus groups reported that their communities did not have affordable gyms or free, safe places to be active.</li> <li>• Key informants and focus group participants stated that poor air quality means some kids can't play outside on certain days, and that many kids prefer video games and staying inside.</li> <li>•</li> </ul>
Transportation challenges	<ul style="list-style-type: none"> <li>• Key informants and focus groups noted that many services are located in and around population centers, and the cost of gas makes it difficult for people who live in rural areas or other cities to access care.</li> <li>• Key informants identified challenges with isolation and access to care for elderly who do not drive and live in rural areas.</li> </ul>
Health literacy and education	<ul style="list-style-type: none"> <li>• Key informants stated that a lot of people do not make the connection between lifestyle habits and health outcomes, making it difficult to help them feel empowered to make changes.</li> <li>• Focus group participants reported that many people, especially recent immigrants, do not realize their diets and home remedies may be detrimental to their health.</li> <li>• Key informants and focus groups stated that more investment in education and prevention is needed, with a focus on delivering information in a manner that is relatable and understandable.</li> </ul>
Lack of dental care	<ul style="list-style-type: none"> <li>• A focus group participant drove from Lodi to Stockton with several others to be in line for free dental services by 5:00 AM.</li> <li>• A key informant stated that adults without insurance often go without care for years and then just have teeth pulled when the pain becomes unbearable.</li> </ul>
<b>What is the biggest thing needed to improve the health of your community?</b>	
French Camp, migrant workers	<ul style="list-style-type: none"> <li>• Nutrition classes, health education classes, and healthy cooking demonstrations</li> <li>• Physicians who are thorough and spend more time with patients</li> <li>• More Spanish speaking medical personnel</li> <li>• Affordable insurance options for adults (medical, dental, vision)</li> </ul>
CPFSJ Stockton	<ul style="list-style-type: none"> <li>• Longer appointments at clinics so people can ask questions and better understand how to take care of themselves</li> <li>• Opportunities for community/neighborhood gatherings so people can meet each other, socialize, and</li> </ul>

	<p>exercise together</p> <ul style="list-style-type: none"> <li>• Expanded hours for clinics with options for evening and weekend appointments: “Health does not run on work time.”</li> <li>• Be sensitive to the fact that different neighborhoods and communities have different needs</li> </ul>
Manteca, Head Start parents	<ul style="list-style-type: none"> <li>• Nutrition and cooking classes, health education, health fairs</li> <li>• Affordable, safe activities for children and families</li> <li>• More doctors and nicer places to get care, including the local hospitals</li> <li>• More providers who speak Spanish and other languages</li> </ul>
Tracy, Head Start parents	<ul style="list-style-type: none"> <li>• Classes to teach healthy habits, patient advocacy, nutrition and cooking so we can share that information with others</li> <li>• Provide Healthy Families for other affordable health coverage for adults</li> <li>• Stronger pesticide and environmental regulations</li> <li>• Recreation programs, safe places to walk and ride bikes</li> </ul>
Stockton, St. Mary’s diabetes support group	<ul style="list-style-type: none"> <li>• More classes and support groups</li> <li>• Reinstate free medicine and equipment for diabetes management</li> <li>• Improve safety in the community</li> </ul>
Thornton	<ul style="list-style-type: none"> <li>• Provide a directory of available services and information</li> <li>• Bring health and nutrition education classes or a health fair to the community</li> <li>• Provide free or inexpensive transportation to Lodi and Stockton for people who need medical care</li> <li>• More activities for young people, especially sports and physical activity</li> </ul>
Lao Khmu, Stockton	<ul style="list-style-type: none"> <li>• Need walking trails or safe places to exercise</li> <li>• More social workers and home visits, especially for seniors</li> <li>• Support for people who would like to plant their own gardens</li> <li>• Access to dental coverage and services</li> </ul>
NAACP, Stockton	<ul style="list-style-type: none"> <li>• Address the importance of lifestyle and prevention</li> <li>• More community forums to talk about health</li> <li>• Fresh food needs to be available in grocery stores &amp; affordable</li> <li>• Education should be focused on continuous, sustainable programs, not one-time classes or events</li> <li>• Involve elected officials in the discussion about community health</li> </ul>



## Appendix B

# Data Dictionary and Processing

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### Introduction

The secondary data supporting the 2013 Community Health Needs Assessment was collected from a variety of sources, and was processed in varying levels before it was used in our analysis. This document details those various steps. 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 common 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 based on 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 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, 95201 is a PO Box located in Stockton. 95201 is not represented by a ZCTA, but could include reported patient outcome variables. Through the process identified above, it was found that

95201 is located within 95202, which does have an associated ZCTA. Any health outcome data for ZIP codes 95201 and 95202 were therefore assigned to ZCTA 95202, 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 X1 below lists demographic variables collected from the US Census Bureau, and lists the geographic level at which they were collected. Table X2 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
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

Variable Name	Definition	Geographic Level	Source
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
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,	Total Male and Female Population by Age Group	ZCTA, State	2010 Census Summary File 1 Table PCT12

Variable Name	Definition	Geographic Level	Source
15-24, 25-34,45-54, 55-64, 65-74, 75- 84, and 85 and over			
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 (OSHDP). Table X3 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 <sup>22</sup>	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 X4. 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 X4 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
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<sup>22</sup> 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)

Total Deaths		2010
Male Deaths		2010
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 X5 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	<a href="http://www.cafarmersmarkets.com/">http://www.cafarmersmarkets.com/</a>
	Parks	2010	U.S. Parks, includes local, county, regional, state, and national parks and forests		Esri
	Walkscore	2012	Score based on walking routes and distances to amenities; road connectivity metrics; scores for individual amenity categories	ZIP Code	<a href="http://www.walkscore.com/">http://www.walkscore.com/</a>
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 ( <a href="http://oag.ca.gov/crime/cjs-c-stats/2010/table11">http://oag.ca.gov/crime/cjs-c-stats/2010/table11</a> )

Category	Variable	Year	Definition	Reporting Unit	Data Source
	Traffic Accidents Resulting in Fatalities	2010	Locations of traffic accidents resulting in fatalities	Location	National Highway Transportation Safety Administration
Other Indicators	Health Professional Shortage Areas (Primary Care)	2011	Federally designated primary care health professional shortage areas, which may be defined based on geographic areas or distributions of people in specific demographic groups		Kaiser Permanente CHNA 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 difference is indicated in the datasets accompanying this report by the prefix used in naming a given variable: a prefix of “ebr” is used for variables for which empirical bayes smoothing was conducted, and an “r” is used for variables that are reported as raw rates. 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 (Datashier, 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 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**  
List of Key Informant Interviews for San Joaquin County Needs Assessment

<b>Name &amp; Title</b>	<b>Agency</b>	<b>Area of Expertise</b>	<b>Date</b>
	Healthier San Joaquin Coalition	Community health, social services	Ongoing input
Caroline Thibodeau, Director of Health Services	Manteca Unified School, District	Community health, children and families	9/7/12
Bill Mitchell, Director Dr. Karen Furst, Health Officer	San Joaquin County Public Health	Community health, public health	9/21/12
Ana Rodriguez Iris Rodriguez Patricia Alvarez-Palma	Sutter Tracy Community Resource Center	Community health, social services	10/8/12
Breastfeeding Initiative	San Joaquin County Public Health	Community health, social services, children and families	10/9/12
Dr. Marietta Sumaqual, Clinic Manager	Lodi-Woodbridge Medical Group	Community health, pediatrics	10/15/12
Carolyn Sanders, Community Outreach and Education Nurse	Dameron Hospital	Community health	10/16/12
Cindy Edmiston, Health Services Manager	Tracy Unified School District	Community health, children and families	10/17/12
Dr. Thomas Mahoney, Clinic Director	Community Medical Centers, Inc.	Community health, social services	10/19/12
San Joaquin County Office of Education Staff	Early Childhood Education Department	Rural communities, health education, children and families	10/22/12
Clinic Staff	Planned Parenthood, Tracy	Community health, reproductive health, health education	10/22/12
Raquel Moreno, Health Education Manager	Kaiser Permanente	Community health	10/23/12
Public Health Committee	San Joaquin Medical Society	Public health, community health	10/25/12
Vic Singh Jean Anderson Kerrie Melton Doris Cody	San Joaquin County Behavioral Health	Behavioral and mental health	10/30/12
	San Joaquin Community Health Forum	Community leaders representing business, community health, education	11/7/12

**Appendix D**  
Key Informant Interview Guide  
CHNA 2013

**Introductory language for the 2013 CHNA and the role of key informants:**

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 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]. Begin by stating the project's objective.....

**Project Objective**

*In order to provide necessary information for sponsoring hospital's community benefit plans and the Healthier San Joaquin 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 predominate 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 that struggle with them the most (those subgroups identified above)?**

**Objective #2: 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 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*
- *[for specific KIs] Policies, laws, and/or regulations that can be updated, nullified, amended, or enacted*

Questions #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?

### Appendix E

#### Focus Group Locations, Dates, and Demographic Information of Participants

<b>Location</b>	<b>Date</b>	<b>Age</b>	<b>Demographic Information</b>	<b>Insurance</b>
French Camp Migrant Center <i>17 participants</i>	9/21/12	30s- 40s	Latino, rural, low income	Uninsured
St. Mary's Dining Room <i>9 participants</i>	10/1/12	40s- 60s	Latino, low income	Medi-Cal, uninsured
Thornton Community Center <i>22 participants</i>	10/18/12	30s- 60s	Caucasian, Latino, low income, rural	Medi-Cal, Medi-Care, uninsured, private
First 5: North School, Tracy <i>12 participants</i>	10/24/12	20s- 30s	Caucasian, Latino, low income	Medi-Cal, uninsured
First 5: Neil Hafley School, Manteca <i>12 participants</i>	10/25/12	20s- 30s	Caucasian, Latino, low income	Medi-Cal, uninsured
Dorothy L. Jones Family Resource Center <i>10 participants</i>	11/8/12	20s- 60s	African American, Latino, low income	Medi-Cal, Medi-Care, uninsured, private
Lao Khmu Family <i>26 participants</i>	11/15/12	30s- 60s	Asian	Medi-Cal, Medi-Care, uninsured, private
Stockton NAACP <i>20 participants</i>	11/17/12	30s- 60s	African American	Medi-Cal, Medi-Care, private

**Appendix F**  
Focus Group Interview Guide  
CHNA 2013

**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. 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 predominate 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 live healthier lives in the HAS**

**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*

Questions #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 G

#### Health Needs with Drivers within the Communities of Concern

Health Driver	Clarifying Information	Supporting Data	Vulnerable Populations
<b>Access to Care</b>			
Limited access to primary and preventive care	<ul style="list-style-type: none"> <li>• Cost of co-pays</li> <li>• Lack of providers who accept Medi-Cal (possibly due to reimbursement rate)</li> <li>• Clinics located mainly in population centers and not in rural areas</li> <li>• Long wait times to schedule an appointment or be seen</li> <li>• People only seek treatment for acute conditions or injuries</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative</li> <li>• Health assets</li> <li>• Designated HP shortage area</li> <li>• ED visits and hospitalization rates of ambulatory care sensitive conditions (asthma, COPD, diabetes, hypertension)</li> </ul>	<ul style="list-style-type: none"> <li>• Low income</li> <li>• Overall area</li> <li>• Uninsured</li> <li>• Undocumented immigrants</li> </ul>
Limited access to follow-up treatment and specialty care	<ul style="list-style-type: none"> <li>• Extreme difficulty getting referrals for specialty care</li> <li>• Long wait times for appointments</li> <li>• Specialists not located in rural areas</li> </ul>	<ul style="list-style-type: none"> <li>• Health assets</li> <li>• % of uninsured</li> <li>• Qualitative</li> </ul>	<ul style="list-style-type: none"> <li>• Low income</li> <li>• Overall area</li> <li>• Uninsured</li> <li>• Undocumented immigrants</li> </ul>
Limited access to prescription medications and medical equipment	<ul style="list-style-type: none"> <li>• Cost of prescriptions, medications, and equipment to manage chronic conditions</li> <li>• Individuals forced to choose between food, rent or medication</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative</li> <li>• ED visits and hospitalization rates of ambulatory care sensitive</li> </ul>	<ul style="list-style-type: none"> <li>• Overall area</li> <li>• Rural communities</li> <li>• Undocumented immigrants</li> </ul>

Health Driver	Clarifying Information	Supporting Data	Vulnerable Populations
	<ul style="list-style-type: none"> <li>No pharmacies in some rural areas</li> </ul>	conditions (asthma, COPD, diabetes, hypertension)	
Lack of mental health services	<ul style="list-style-type: none"> <li>Limited services available, especially for uninsured</li> <li>Most services located in Stockton</li> <li>Few providers in rural areas</li> <li>Many programs and services have been cut due to lack of funding</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Health assets</li> <li>ED and hospitalization rates for suicide, self-injury, mental health</li> <li>% of uninsured</li> </ul>	<ul style="list-style-type: none"> <li>Overall area</li> <li>Uninsured</li> </ul>
Lack of substance abuse treatment and rehabilitation, both inpatient and outpatient	<ul style="list-style-type: none"> <li>Limited services available, especially for uninsured</li> <li>Behavioral health issues exacerbated by lack of residential treatment options</li> </ul>	<ul style="list-style-type: none"> <li>Health assets</li> <li>Qualitative</li> <li>ED and hospitalization rates for substance abuse related mental health visits</li> <li>% of uninsured</li> </ul>	<ul style="list-style-type: none"> <li>Overall area</li> <li>Uninsured</li> </ul>
Lack of affordable health insurance and medical coverage	<ul style="list-style-type: none"> <li>Private health insurance is too expensive for many individuals</li> <li>People may be eligible for public programs</li> <li>Many adults go without care except for emergencies</li> </ul>	<ul style="list-style-type: none"> <li>% of uninsured</li> <li>Qualitative</li> </ul>	<ul style="list-style-type: none"> <li>Overall area</li> <li>Adults</li> <li>Recently unemployed</li> </ul>
Lack of or limited access to vision services	<ul style="list-style-type: none"> <li>Free vision screening is offered infrequently and glasses are costly</li> <li>Vision issues are often diabetes related</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Health assets</li> </ul>	<ul style="list-style-type: none"> <li>Uninsured</li> <li>Stockton, Thornton</li> </ul>



Health Driver	Clarifying Information	Supporting Data	Vulnerable Populations
Difficulty navigating the healthcare and social services system	<ul style="list-style-type: none"> <li>Applying for and understanding healthcare and social services is complex and can be confusing</li> <li>Most entry points are located in Stockton</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Asset assessment</li> </ul>	<ul style="list-style-type: none"> <li>Recently uninsured</li> <li>Rural communities</li> <li>Elderly</li> <li>Non-English speakers</li> </ul>
<b>Transportation</b>			
Limited transportation options	<ul style="list-style-type: none"> <li>Public transit routes not linked to healthcare or social service delivery points</li> <li>May take all day to reach services</li> <li>Urban transit is perceived to be unsafe</li> <li>Rural areas may not have any public transit options</li> <li>Cost of gas prohibitive to accessing services</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>ED visits and hospitalization rates of ambulatory care sensitive conditions (asthma, COPD, diabetes, hypertension)</li> </ul>	<ul style="list-style-type: none"> <li>Rural communities</li> <li>Low income</li> <li>Elderly</li> </ul>
<b>Health Education</b>			
Lack of or limited access to health education	<ul style="list-style-type: none"> <li>Need for more education about maintaining health and/or managing chronic health conditions</li> <li>Need for education around healthy lifestyle choices</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Health assets</li> <li>ED visits and hospitalization rates of ambulatory care sensitive conditions (asthma, COPD, diabetes, hypertension)</li> </ul>	<ul style="list-style-type: none"> <li>Overall area, especially rural communities</li> </ul>
Lack of or limited access to nutrition education	<ul style="list-style-type: none"> <li>People do not know how to read food labels or use fresh foods to</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Health assets</li> </ul>	<ul style="list-style-type: none"> <li>Overall area, especially rural</li> </ul>

Health Driver	Clarifying Information	Supporting Data	Vulnerable Populations
	<ul style="list-style-type: none"> <li>prepare healthy meals</li> <li>Cultural beliefs and diets may not support positive health outcomes</li> </ul>	<ul style="list-style-type: none"> <li>% consuming fruits and vegetables</li> <li>% overweight or obese</li> </ul>	<ul style="list-style-type: none"> <li>communities</li> </ul>
<b>Physical Activity</b>			
Lack of safe places to be active	<ul style="list-style-type: none"> <li>Gang activities and illicit drug use in urban parks and neighborhoods</li> <li>Some parks do not have restroom facilities</li> <li>Rural areas lack sidewalks and adequate lighting</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Accident and homicide ED visits and hospitalization data</li> <li>Crime rates</li> <li>Health assets</li> </ul>	<ul style="list-style-type: none"> <li>Overall area</li> </ul>
Lack of affordable options for physical activity	<ul style="list-style-type: none"> <li>Classes, gyms and youth sports are too expensive</li> <li>Community facilities limited or have restricted hours due to budget cuts</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>% overweight or obese</li> <li>Health assets</li> </ul>	<ul style="list-style-type: none"> <li>Overall area</li> </ul>
<b>Access to Healthy Food</b>			
Lack of access to healthy foods	<ul style="list-style-type: none"> <li>Abundance of fast food in urban areas</li> <li>Available produce is often expensive or of poor quality</li> <li>Farmers' markets are infrequent and expensive</li> <li>People in rural areas must travel several miles to get to a grocery store</li> </ul>	<ul style="list-style-type: none"> <li>mRFEI</li> <li>Fruit and vegetable consumption</li> <li>% of overweight or obese</li> <li>Qualitative</li> </ul>	<ul style="list-style-type: none"> <li>Overall area</li> </ul>
<b>Dental Care</b>			
Lack of access to dental care and preventive services	<ul style="list-style-type: none"> <li>No Medi-Cal coverage for adults; many go without insurance</li> <li>Extraction often the only option</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative</li> <li>Health assets</li> <li>% of uninsured</li> </ul>	<ul style="list-style-type: none"> <li>Low income</li> <li>Overall area</li> <li>Uninsured</li> </ul>

Health Driver	Clarifying Information	Supporting Data	Vulnerable Populations
	<ul style="list-style-type: none"> <li>• Long wait times or travel out of area for pediatric dental services</li> <li>• Lack of providers in rural area</li> <li>• Demand exceeds number of providers</li> <li>• Increased risk for disease</li> </ul>		<ul style="list-style-type: none"> <li>• Undocumented immigrants</li> </ul>
<b>Culturally Competent Care</b>			
Lack of linguistic services for non-English speakers	<ul style="list-style-type: none"> <li>• Difficulty communicating about health issues and understanding verbal and written instructions</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative</li> </ul>	<ul style="list-style-type: none"> <li>• Non-English speakers</li> <li>• Overall area</li> </ul>
Lack of culturally competent care	<ul style="list-style-type: none"> <li>• Lack of understanding about cultural contributors to behavior</li> <li>• Stigma about asking for help</li> <li>• Fear of being “scolded”</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative</li> </ul>	<ul style="list-style-type: none"> <li>• All races and ethnicities</li> </ul>
<b>Other</b>			
Exposure to poor air quality, environmental toxins and pesticides	<ul style="list-style-type: none"> <li>• Pesticide exposure from living or working in agricultural areas</li> <li>• Poor air quality</li> <li>• Poor water quality in rural areas and older urban neighborhoods</li> <li>• Organic fruits, vegetables, and meat are costly</li> </ul>	<ul style="list-style-type: none"> <li>• ED visits and hospitalization rates for asthma and cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Overall area</li> <li>• Migrant workers</li> </ul>

## Appendix H

### Health Assets – San Joaquin County Communities of Concern

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

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Apantli	95202						C					
Associated Filipino Organizations of San Joaquin County, Inc.	95202										Social services	
Boys & Girls Club of Stockton: Club Impact Community Center	95202										Recreation, education	
Boys & Girls Club of Stockton: Peyton School	95202										Recreation, education	
Catholic Charities	95202					P			I, R			
Child Abuse Prevention Council	95202				I, R				I, R			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Community Medical Centers: Channel	95202				P	C, P			S, E, I, R, P			
Community Medical Centers: SJ Valley Dental Group	95202											Yes
Community Medical Centers: WIC	95202					E, P			I, R			
Community of Caring	95202				C						education programs for mothers/fathers	
El Concilio: Health Access	95202								R		Transportation	
Family and Youth Services of San Joaquin	95202				C						Emergency shelter, case management	
First 5 of San Joaquin	95202				A				A			
Healthy Beginnings Program	95202			S		E, P			S, P			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
HSA	95202									Human Services	Advocacy, CalWorks	
Lao Khmu Association, Inc.	95202				I, CM	P			E, I, CM		Culturally competent	
Mary Magdalene Community Services	95202				C, R, P							
NAMI	95202				E, C, R				E, R			
San Joaquin County Behavioral Health Services	95202				R, P						Culturally competent	
San Joaquin County Behavioral Health Services	95202						P					
San Joaquin County Behavioral Health Services: Allies Program	95202				P		P					
San Joaquin County Behavioral Health Services: Behavioral Wellness	95202				E, P					CalWorks Participants		

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin County Behavioral Health Services: Homeless Youth Services	95202				CM, P							
San Joaquin County Behavioral Health Services: Martin Gipson Center	95202				C, A, P							
San Joaquin County Behavioral Health Services: Multicultural Outreach	95202				C, P						Culturally competent	
San Joaquin County Department of Aging and Community Services	95202					P				Seniors	Emergency cell phone distribution	
San Joaquin County Health and Human Services: Minor Consent Services	95202				C, P		C, P					

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin Valley Dental Group	95202											Yes
Women, Infants and Children Supplemental Nutrition Program (WIC)	95202					E, P			E, R			
Women, Infants and Children Supplemental Nutrition Program (WIC)	95202					E, P			E, R			
Women's Center-YFS: Stockton	95202				C						Emergency shelter, culturally competent	
Women's Center-YFS: Stockton	95202				C						Emergency shelter, culturally competent	
City of Stockton Community Services Department: After School Recreation Program	95202										Recreation	



Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
City of Stockton Community Services Department: Youth Sports and Recreation Program	95202										Recreation	
San Joaquin County Behavioral Health Services: Gaining Older Adult Life Skills (GOALS)	95202				E, I, CM, C, R, A, P							
San Joaquin County Behavioral Health Services: Older Adult Services (OAS)	95202				I, CM, C, R, P							
San Joaquin County In- Home Supportive Services: Registry Services	95202					P						
San Joaquin Regional Transit District: San Joaquin General Public Dial-A-Ride	95202									Rural residents	Transportation	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin Regional Transit District: Metro Hopper	95202									ADA	Transportation	
San Joaquin Regional Transit District: American with Disabilities Act Dial-A-Ride	95202									ADA	Transportation	
San Joaquin County Human Services Agency	95202					P			P	CalFresh, Medi-Cal		
San Joaquin County Human Services Agency: Independent Living Program	95202				CM, E, I	CM, E, I			CM, E, I			
Washoe Tribe of Nevada and California: Native TANF	95202									Tribal services	Culturally competent emergency services, transportation	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin County Behavioral Health Services: Adolescent Co-occurring Treatment	95202						P					
San Joaquin County Behavioral Health Services: Prevention Services	95202						P	P				
San Joaquin County Human Services Agency: Minor Consent Services	95202								S, I, R, A			
San Joaquin County Office of Substance Abuse	95202						S, R					
San Joaquin County Office of Substance Abuse: Chemical Dependency Counseling Center	95202						C, P					

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
National Alliance on Mental Illness of San Joaquin (NAMI)	95202				C							
San Joaquin County Behavioral Health Services: Parent Support Group	95202				C							
Women's Center of San Joaquin County: Sexual Assault and Domestic Violence Services	95202				C, P						Culturally competent	
Women's Center of San Joaquin County: Women Molested as Children Support Group, "A Toolbox for Healing"	95202				C, P						Culturally competent	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin Council of Governments: Commute Connection	95202										Transportation	
San Joaquin Regional Transit District	95202										Transportation	
San Joaquin County Behavioral Health Services: San Joaquin Friday Night Live Partnership	95202						E					
San Joaquin Behavioral Health Services: Students in Prevention (SIP)	95202						E					
San Joaquin County Children and Youth Services	95202				E, I, CM, C, P							
Boggs Tract Center	95203				I, R	P	I, R		I, R		Culturally competent	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Boys & Girls Club of Stockton: Victory School	95203										Recreation, education	
Boys & Girls Club of Stockton: Washington School	95203										Recreation, education	
Community Medical Centers: CareLink Gleason House	95203				E, I, R				S, E, I, R,			
Dameron Hospital	95203					E			S, E, I, R, P	Full service hospital		
El Concilio: Stockton	95203				R	P			R, A		Culturally competent	
Emergency Food Bank and Family Services of San Joaquin	95203					E, I, P						
Family Resource and Referral Center	95203				I, R				I, R		FRC	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Family Resource and Referral Center	95203				I, R				I, R		FRC	
Gospel Center Rescue Mission/New Hope Family Shelter and Emergency Lodging and Addiction Treatment	95203					E, P	P				Emergency housing, clothing	
St. Mary's Interfaith Services	95203				C	P			P	Homeless population	Showers/hygiene, School for homeless children	Yes
Stockton Homeless Shelter	95203				CM	CM, P					Emergency shelter, clothing	
Transitional Learning Center (TLC) School	95203				P	P			P			Yes
Jene Wah, Inc.	95203					E, P					Transportation, culturally competent	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin County Department of Aging and Community Services: Boggs Tract Community Center	95203					P				Seniors		
Gospel Center Rescue Mission: New Life Program	95203					P	C, P				Housing, clothing, education	
(APSARA) Asian Pacific Self-Development and Residential Association	95204				E, CM	P						
Boys & Girls Club of Stockton: Tyler School	95204										Recreation, education	
Bread of Life	95204					P						
Hospice of San Joaquin	95204				C, R, P					Bereavement support		
Oak Park Senior Center	95204								E, I	Seniors		



Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
St. Joseph's Medical Center	95204		E, C						S, M, E, I, P			
City of Stockton Community Services Department: Oak Park Senior Center	95204								I	Seniors	Recreation	
Hospice of San Joaquin	95204				C							
Asian Pacific Self- Development and Residential Association: Social Service Program	95204				P	P						
Delta Intergroup of Alcoholics Anonymous	95204						I					
American Cancer Society: Cancer Support Groups	95204	C			C							
Cocaine Anonymous	95204						C, P					

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Empty Arms Support Group	95204				C							
St. Joseph's Medical Center: St. Joseph's Regional Cancer Support Group	95204	C			C							
Take Off Pounds Sensibly (TOPS)	95204				C					Weight loss		
Northeast Center	95205					P						
Youth for Christ/Point Break Adolescent Resources	95205				E, C		E					
Boys & Girls Club of Stockton	95205										Recreation, education	
Boys & Girls Club of Stockton: August School	95205										Recreation, education	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Boys & Girls Club of Stockton: Fillmore School	95205										Recreation, education	
Boys & Girls Club of Stockton: Fremont School	95205										Recreation, education	
Boys & Girls Club of Stockton: King School	95205										Recreation, education	
Boys & Girls Club of Stockton: Roosevelt School	95205										Recreation, education	
Children's Home of Stockton	95205				S, CM, C, P							
Community Medical Centers: King School	95205					C, P			S, E, I, R, P			
Community Medical Centers: Mariposa	95205					C, P			S, E, I, R, P			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Dream Center	95205				E, C	P						
Planned Parenthood	95205				C				S, M, E, I, C, R, A, P	Family planning		
San Joaquin County PHS: Stockton Health Center	95205								S, P			
San Joaquin County Public Health	95205								S, M, E, I, CM, R, P	Medi-Cal		
San Joaquin County Public Health services	95205				P	P			P	Eligible populations		
Stockton Medical Clinic	95205								P			
Stockton Salvation Army	95205					P					Emergency shelter, domestic violence	
Stockton Unified School District: California School Age Families Education	95205				C, R	E			E, R			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
<b>Stribley Community Center</b>	95205			S		P					Recreation	
<b>Northeast Community Center</b>	95205					P					Clothing	
<b>City of Stockton Community Services Department: Stribley Community Center</b>	95205					P					Recreation	
<b>San Joaquin County Department of Aging and Community Services: Northeast Community Center</b>	95205					P				Seniors		
<b>San Joaquin County Office of Education: One Choice</b>	95205									Child Development, parenting education		
<b>Stockton Unified School District: Early Childhood Education/School Readiness Department</b>	95205				E, R, P							

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
<b>Stockton Unified School District: Families in Transition (FIT)</b>	95205				CM, R	P			R	Homeless families	Transportation	
<b>San Joaquin County Public Health Services: Adolescent Family Life Program</b>	95205				E, I, CM, R				E, I, CM, R			
<b>San Joaquin County Public Health Services: Sudden Infant Death Syndrome (SIDS)</b>	95205				C					SIDS		
<b>Wide Smiles</b>	95205				C					Cleft lip/palate		
<b>Boys &amp; Girls Club of Stockton</b>	95205										Recreation, education	
<b>Good Samaritan Service Center</b>	95205				R	I, P					Clothing	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
<b>CPFSJ: Dorothy L. Jones Family Resource Center</b>	95206				E, C	E, P				FRC	Culturally competent	
<b>Kennedy Center</b>	95206					P						
<b>Taft Center</b>	95206					P						
<b>Boys &amp; Girls Club of Stockton: Huerta School</b>	95206										Recreation, education	
<b>Boys &amp; Girls Club of Stockton: McKinley School</b>	95206										Recreation, education	
<b>Boys &amp; Girls Club of Stockton: Monroe School</b>	95206										Recreation, education	
<b>Boys &amp; Girls Club of Stockton: Nightingale School</b>	95206										Recreation, education	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Boys & Girls Club of Stockton: Sierra Vista Community Center	95206										Recreation, education	
Boys & Girls Club of Stockton: St. George School	95206										Recreation, education	
Boys & Girls Club of Stockton: Taft School	95206										Recreation, education	
Boys & Girls Club of Stockton: Taylor School	95206										Recreation, education	
Boys & Girls Club of Stockton: Van Buren School	95206										Recreation, education	



Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Central California Regional Obesity Prevention Program (CROPP)	95206					E, I, A						
Delta Health Care: Edison Health Center	95206				S, C, R				S, C, R, P			
San Joaquin County Behavioral Health Services: Grant House	95206				P							
UC Cooperative Extension of San Joaquin	95206					E						
Van Buskirk Community Center	95206										Recreation	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Women, Infants and Children Supplemental Nutrition Program (WIC)	95206					E, P			E, R			
Women, Infants and Children Supplemental Nutrition Program (WIC)	95206					E, P			E, R			
City of Stockton Community Services Department: Van Buskirk Community Center	95206										Recreation, education	
San Joaquin County Office of Education: School Readiness Rural Home Visitation	95206										Home visits, rural education	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin County Department of Aging and Community Services: Taft Community Center	95206					P				Seniors	Clothing, housing, finance	
Haven of Peace	95231				E, I, CM, C, R, P	E, P	E, C, P			Domestic violence prevention		
Health Plan of San Joaquin	95231											
Healthy Beginnings Program	95231			P		P			P			
San Joaquin County Behavioral Health Services: Bright House	95231				CM, C, P							
San Joaquin General Hospital	95231	P	I, E	P	P	I, E	P		S, M, E, R, P			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
San Joaquin County Human Services Agency: Kortzeborn Child Advocacy Center	95231				S, E, I, CM, C, R, A, P				P	Child abuse/ Sexual assault		
San Joaquin County Human Services Agency: Mary Graham's Children's Shelter	95231				E, C, P				P			Yes
San Joaquin County Office of Substance Abuse: Family Ties	95231				C		S, E, CM, C, R, P		R		Transportation	
San Joaquin County Office of Substance Abuse	95231						CM, C, P					
Boys & Girls Club of Manteca/Lathrop	95336										Recreation, education	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Community Medical Centers: Manteca	95336					E, C			S, M, E, I, P	Family practice		
Doctors Hospital of Manteca	95336								E, P			
Manteca Pregnancy Help Center	95336				C	P			S, R			
Planned Parenthood	95336				C				S, E, I, C, R, P	Family planning		
San Joaquin County PHS: Manteca Health Center	95336								S, P			
Valley Community Counseling	95336				E, CM, C, R, P							
Women, Infants and Children Supplemental Nutrition Program (WIC)	95336					E, I, R, P			R			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
<b>Native Directions, Inc.: Three Rivers Indian Lodge</b>	95336				E, CM, C, P					Native American men		
<b>Boys &amp; Girls Club of Manteca/Lathrop</b>	95336										Recreation, education	
<b>Boys and Girls Club of Tracy: Central School</b>	95376										Recreation, education	
<b>Boys and Girls Club of Tracy: Lowell</b>	95376										Recreation, education	
<b>Boys and Girls Club of Tracy: North School</b>	95376										Recreation, education	
<b>Boys and Girls Club of Tracy: South/West Park School</b>	95376										Recreation, education	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Boys and Girls Club of Tracy: Villalovoz School	95376										Recreation, education	
City of Tracy Parks and Community Services	95376										Recreation	
Community Medical Centers: Tracy Family Practice	95376				P	C, P			S, E, I, C, R, P	Family practice		
El Concilio: Tracy	95376				R	P			R, A		Culturally competent	
Healthy Connections Resource Center	95376								E, I	Family support services		
Larch Clover Community Center	95376					P				Youth/Seniors	Head Start	
McHenry House for the Homeless	95376				C, R, P	P			R		Clothing, shelter	

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Nutrition and Diabetes Care Center	95376		M, E, P									
Planned Parenthood	95376				C				S, M, E, I, CM, R, A, P			
Pregnancy Resource Center	95376					E			S, R, P			
San Joaquin County Behavioral Health Services: Tracy Adult Outpatient Clinic	95376				S, E, I, C, P							
Lolly Hansen Senior Center	95376									Seniors	Recreation	
Sutter Tracy Community Hospital	95376								S, E, I, R, P			



Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Sutter Tracy Healthy Connections Resource Center	95376	M, P			E, I, C, R, P				I, R			
Tracy Free Clinic	95376		S	S					S, I, R			
Tracy Interfaith Ministries	95376					P					Clothing, financial	
Tracy Salvation Army	95376					P					Transportation/ hotel vouchers	
Tracy Unified School District: STEPS	95376				C						Child care, transportation	
Valley Community Counseling	95376				S, E, I, CM, C, R, P							
Women, Infants and Children Supplemental Nutrition Program (WIC)	95376					E, I, P			I, R			

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
Women's Center-YFS: Tracy	95376				E, C						Emergency shelter	
YMCA of San Joaquin County	95376										Recreation, education	
City of Tracy Parks and Community Services	95376										Transportation, education, recreation	
Astoria Gardens: Alzheimer's Caregiver Support Group	95376				C							
City of Tracy: Paratransit Subsidized Taxi Program	95376									Seniors	Subsidized transportation	
City of Tracy Parks and Community Services: Lolly Hansen Senior Center	95376					E, P						

Name	Zip Code	Asthma/ Lung Disease	Diabetes	Hypertension	Mental Health	Nutrition	Substance Abuse	Tobacco	Medical Services	Specialty	Other	Dental
State of California Department of Corrections Deuel Vocational Institution: Friends Outside Gathering Place	95376					P					Shelter, clothing, childcare	
Sutter Tracy Community Hospital: Bereavement and Grief Support Group	95376				C							
Sutter Tracy Community Hospital: Stroke Support	95376				C							
Sutter Tracy Healthy Connections: Tracy Cancer Support Services	95376	C			C							
MV Transportation	95376									Seniors/ ADA	Transportation	
Boys & Girls Club of Tracy	95376										Recreation, education	