Sutter Health
We Plus You

Sutter Roseville Medical Center and Sutter Auburn-Faith Hospital

2016 Community Health Needs Assessment

Acknowledgements

This report was prepared by Valley Vision on behalf of Sutter Roseville Medical Center and Sutter Auburn Faith Hospital and the Sacramento Region Community Health Needs Assessment (CHNA) Collaborative. Through the course of the CHNA project, many organizations and individuals contributed input on the health issues and conditions impacting their communities or the communities they serve. We gratefully acknowledge the contributions of these participants, many of whom shared deeply personal challenges and experiences with us. We hope that the contents of this report serve to accurately represent their voices.

- **Primary Author:** Giovanna Forno, BS, CHES
- **Secondary Authors:** Heather Diaz, DrPH, Amelia Lawless, CHES, ASW, MPH, Mathew C. Schmidtlein, PhD, Katie Strautman, MSW, Anna Rosenbaum, MSW, MPH, and Jenny Wagner, MPH(c)

Table of Contents

EXECUTIVE SUMMARY 8
ASSESSMENT PURPOSE AND ORGANIZATIONAL COMMITMENT 11
Purpose for the Community Health Needs Assessment (CHNA) 12
Organizational Commitment 12
Organization of the Report 12
DEFINITION OF COMMUNITY SERVED 13
Community Definition 13
Demographics of the Hospital Service Area (HSA) 13
Community Health Vulnerability Index and Focus Communities 18
ASSESSMENT PROCESSES AND METHODS 22
Process Overview 22
Secondary Data Collection – Processing and Analyzing 24
Primary Data Collection 25
Information Gaps/Limitations 27
CHNA Collaborative 28
Consultants Used to Help Conduct the CHNA 28
ASSESSMENT DATA AND FINDINGS 29
Mortality and Morbidity in the SRMC/SAFH HSA Focus Communities 29
Overall Health Status – Rates of Age-adjusted All-Cause Mortality, Infant Mortality and Life Expectancy at Birth 29
Chronic Diseases – Diabetes, Heart Disease, Stroke, Hypertension and Kidney Disease 30
Cancer – Incidence, ED Visit, Hospitalization, Mortality and Screening Rates by Specific Cause of Cancer 36
Respiratory Health – Chronic Obstructive Pulmonary Disease (COPD), Asthma, and Tuberculosis 39
Mental Health 42
Dental Health 44
Injury – Intentional (Suicide and Self- Inflicted Injury) and Unintentional 45
Risk Behaviors and Living Conditions in the SRMC/SAFH HSA 46
Risk Behaviors – Substance Abuse, Poor Nutrition, Physical Inactivity, and Risky Sexual Behavior 46
Risky Sexual Behavior – Teen Birth Rate and Sexually Transmitted Infections (Chlamydia, Gonorrhea, and HIV/AIDS) 55
Living Conditions – Physical Environment, Social Environment, Economic/Work Environment and Service Environment 59
PRIORITIZED DESCRIPTION OF SIGNFICANT COMMUNITY HEALTH NEEDS 84
Process and Methods for Prioritizing Significant Health Needs (SHN) 84
Potential Health Need (PHN) categories 84

Quantitative/Qualitative Analysis on PHN Categories 84
Thresholds for Significant Health Needs (SHNs) 84
Prioritized Significant Health Need Identification Process 84
Prioritized Significant Health Needs for SRMC/SAFH 85
RESOURCES POTENTIALLY AVAILABLE TO MEET SIGNIFICANT HEALTH NEEDS 93
IMPACT OF ACTIONS TAKEN SINCE PREVIOUS CHNA 93
CONCLUSION 977
APPENDICES 988
Appendix B: Secondary Data Dictionary and Processing 988
Appendix C: Detailed Analytic Methodology including SHN Categorization 1243
Appendix D: Informed Consent 1365
Appendix E: Key Informant and Focus Group Interview Documents 1398
Appendix F: List of Key Informants 15150
Appendix G: List of Focus Groups 1554
Appendix H: Resources Potentially Available to Meet Identified Health Needs 1565

List of Tables

Table 1: Census Population Counts, Range of Median Age and Median Income for ZIP Codes in the SRMC/SAFH HSA, Compared to the County and State 14
Table 2: Percent Living Below 100% Federal Poverty Level, Percent Uninsured and Percent Minority for ZIP Codes in the SRMC/SAFH HSA Compared to the County and State 16
Table 3: Indicators Included in the CHVI 19
Table 4: Social Inequities Indicators to Determine Focus Communities 20
Table 5: Nine Identified Focus Communities for the SRMC/SAFH HSA 21
Table 6: Overall Health Status Indicators: Age-Adjusted All-Cause Mortality, Infant Mortality, and Life Expectancy at Birth 30
Table 7: Mortality, ED Visits, and Hospitalization Rates for Diabetes Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population) 31
Table 8: Mortality, ED Visits and Hospitalization Rates for Heart Disease Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population) 32
Table 9: Mortality, ED Visit and Hospitalization Rates for Stroke Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population) 33
Table 10: Mortality, ED Visit and Hospitalization Rates for Hypertension Compared to County and State Benchmarks (Rates per 10,000 Population) 34
Table 11: Mortality, ED Visit and Hospitalization Rates for Kidney Disease Compared to County and State Benchmarks (Rates per 10,000 Population) 35
Table 12: Cancer Incidence (New Cases) for Female Breast Cancer, Colorectal Cancer, Lung Cancer and Prostate Cancer (Rates per 10,000 Population) 36
Table 13: Mortality Rates for All-Cause Cancer, and ED Visits and Hospitalization Rates for Lung Cancer Compared To County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population) 37
Table 14: Rates of ED Visits and Hospitalizations for Female Breast Cancer, Colorectal Cancer, and Prostate Cancer (Rates per 10,000 population) 38
Table 15: Mortality Rates due to Chronic Lower Respiratory Disease, ED Visits and Hospitalization Rates due to COPD Compared To County, State, and Healthy People Benchmarks (Rates per 10,000 Population) 40
Table 16: ED Visit and Hospitalization Rates due to Asthma 41
Table 17: ED Visit and Hospitalization Rates due to Tuberculosis Compared to County and State Benchmarks (Rates per 10,000 Population) 42
Table 18: ED Visit and Hospitalization Rates due to Mental Health Issues Compared to County and State Benchmarks (Rates per 10,000 Population) 43
Table 19: ED Visit and Hospitalization Rates due to Dental Issues Compared to County and State Benchmarks (Rates per 10,000 Population) 44
Table 20: Mortality Rates due to Suicide and ED Visits and Hospitalization Rates due to Self-Inflicted Injury Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population) 45
Table 21: Mortality, ED Visit and Hospitalization Rates due to Unintentional Injury Compared to County and State Benchmarks (Rates per 10,000 Population) 46
Table 22: ED Visit and Hospitalization Rates due to Substance Abuse Compared to County and State Benchmarks (Rates per 10,000 Population) 47
Table 23: Percent Overweight and Obese among Youth Grades 5th, 7th and 9th as Measured by the Fitnessgram by County in the SRMC/SAFH HSA 48
Table 24: Chlamydia and Gonorrhea (New Cases) Compared to County Benchmark (Rates per 10,000 Population) 57
Table 25: ED Visit and Hospitalization Rates due to STIs and HIV/AIDS Compared to County Benchmarks (Rates per 10,000 Population) 58

Table 26: Percent Housing Vacancy, People per Housing Unit, and Renting 65
Table 27: Major Crime, Violent Crime, Property Crime, Arson and Domestic Violence per 10,000 Population by Police Jurisdiction 70
Table 28: Percent Unemployed and Median Income by ZIP Code 73
Table 29: Percent Populations Living in Poverty, Percent Families with Children in Poverty, Percent Single FHH in Poverty, and Percent Elderly Households in Poverty 74
Table 30: Percent of Live Births with the Mother Receiving Prenatal Care in the First Trimester and Percent of Births with Low Birth Weight (per 1,000 Births) 78
Table 31: Prioritization of Significant Health Needs with Data Scoring and Ranked by Importance 85
Table 32: Number of Resources for Each Significant Health Need in Prioritized Order 93
Table 33: Demographic Variables Collected from the US Census Bureau 100
Table 34: Census Variables Used for Mortality and Morbidity Rate Calculations[3,] 105
Table 35: 2011 – 2013 OSHPD Hospitalization and Emergency Department Discharge Data 107
Table 36: CDPH Birth and Mortality Data by ZIP Code 108
Table 37: Remaining Secondary Variables 109
Table 38: Potential Health Needs 124
Table 39: Indicators, Health Needs, and Benchmarks 125
Table 40: Primary Indicators Associated with Potential Health Needs 132

List of Figures

Figure 1: Sutter Roseville Medical Center and Sutter Auburn Faith Hospital Combined Service Area 13
Figure 2: Population Demographics for SRMC/SAFH HSA - Race/Ethnicity 18
Figure 3: Community Health Vulnerability Index for SRMC/SAFH HSA 19
Figure 4: Focus Communities for the SRMC/SAFH HSA 21
Figure 5: CHNA Process Model 23
Figure 6: Bay Area Regional Health Inequities Initiative (BARHII) Model 24
Figure 7: Focus Group Participant Racial Demographics 27
Figure 8: Screening Rates in Adults for Mammograms, Pap Test and Sigmoidoscopy/Colonoscopy (Age-Adjusted) 39
Figure 9: USDA Defined Food Deserts 50
Figure 10: Percent Food Insecure and Percent Receiving SNAP 51
Figure 11: Modified Retail Food Environment Index (mRFEI) 52
Figure 12: Fast Food Restaurants and Grocery Stores per 100,000 Population 53
Figure 13: Percent of Population within ZIP Code that Live within One-Half Mile of a Park 54
Figure 14: Teen Birth Rate for 15-19 Year Olds per 1,000 Live Births 56
Figure 15: Locations in the HSA within One-Half Mile of a Transit Stop 60
Figure 16: Percent Households with No Vehicle 61
Figure 17: Percent Workers with Commutes of 1+ Hour 62
Figure 18: Percent of Workers Commuting to Work Alone and Walking or Biking to Work 63
Figure 19: Rate of Fatal Accidents Overall and Involving a Pedestrian 64
Figure 20: Percent of Residents by ZIP Code with a Mortgage Payment Above 30% of Their Household Income 67
Figure 21: Percent of Residents by ZIP Code with Housing Rental Payments Above 30% of Their Household Income 68
Figure 22: Pollution Burden Score by Census Tracts in the SRMC/SAFH HSA 69
Figure 23: ED Visits Related to Assault 71
Figure 24: Hospitalization Related to Assault 72
Figure 25: Percent Uninsured by ZIP Code in the HSA 75
Figure 26: Health Professional Shortage Area- Primary Care 77
Figure 27: Health Professional Shortage Area- Mental Health 79
Figure 28: Percent over 25 Years Old with No High School Diploma 80
Figure 29: Percent of Population on Public Health Insurance 82
Figure 30: Percent of Population Receiving Public Assistance 83

EXECUTIVE SUMMARY

CHNA Background/Purpose Statement

The purpose of this Community Health Needs Assessment (CHNA) is to identify and prioritize significant health needs of the community served by Sutter Roseville Medical Center and Sutter Auburn Faith Hospital (SRMC/SAFH). The priorities identified in this report help to guide the hospital's community health improvement programs and community benefit activities, as well as its collaborative efforts with other organizations that share a mission to improve health. This CHNA report meets requirements of the Patient Protection and Affordable Care Act (and California Senate Bill 697) that not-for-profit hospitals conduct a community health needs assessment at least once every three years.

This report documents the processes, methods, and findings of the CHNA conducted in partnership with Sutter Roseville Medical Center located at 1 Medical Plaza Drive in Roseville, California and Sutter Auburn Faith Hospital located at 11815 Education Street in Auburn, California. Building on federal and state requirements, the objective of the 2016 CHNA was:

> *To identify and prioritize community health needs and identify resources available to address those health needs, with the goal of improving the health status of the community at large and for specific locations and/or populations experiencing health disparities.*

Community Definition

The community or hospital service area (HSA) is defined as the geographic area (by ZIP code) in which the hospital receives its top 80% of discharges.

Assessment Process and Methods

The CHNA was completed as a collaboration of the four major health systems in the Greater Sacramento region: Dignity Health, Kaiser Permanente, Sutter Health and UC Davis Health System. Together, the CHNA Collaborative represented 15 hospitals in the Sacramento Region. The CHNA Collaborative project was conducted over a period of eighteen months, beginning in January 2015 and concluding in June 2016.

The following research questions were used to guide the 2016 CHNA:

1. What is the community or hospital service area (HSA) served by each hospital in the CHNA Collaborative?
2. What specific geographic locations within the community are experiencing social inequities that may result in health disparities?
3. What is the health status of the community at large as well as of particular locations or populations experiencing health disparities?
4. What factors are driving the health of the community?
5. What are the significant and prioritized health needs of the community and requisites for the improvement or maintenance of health status?
6. What are the potential resources available in the community to address the significant health needs?

To meet the project objectives, a defined set of data collection and analytic stages were developed. Data collected and analyzed included both primary or qualitative data, and secondary or quantitative data. To determine geographic locations affected by social inequities, data were compiled and analyzed at the

census tract and ZIP code levels as well as mapped by GIS systems. From this analysis as well as an initial preview of the primary data, Focus Communities were identified within the HSA. These were defined as geographic areas (ZIP codes) within the SRMC/SAFH HSA that had the greatest concentration of social inequities that may result in poor health outcomes. Focus Communities were important to the overall CHNA methodology because they allowed for a place-based lens with which to consider health disparities in the HSA.

To assess overall health status and disparities in health outcomes, indicators were developed from a variety of secondary data sources (see Appendix B). These "downstream" health outcome indicators included measures of both mortality and morbidity such as mortality rates, emergency department visit and hospitalization rates. They also included risk behaviors such as smoking, poor nutrition and physical activity. Health drivers/conditions or "upstream" health indicators included measures of living conditions spanning the physical environment, social environment, economic and work environment, and service environment. This also included the indicators on social inequities that were used for the determination of Focus Communities. Overall, more than 170 indicators were included in the CHNA.

Community input and primary data on health needs were obtained via interviews with service providers and community key informants and through focus groups with medically underserved, low-income, and minority populations. Transcripts and notes from interviews and focus groups were analyzed to look for themes and to determine if a health need was identified as significant and/or a priority to address. Primary data for SRMC/SAFH included 38 key informant interviews with 58 participants and 11 focus groups conducted with 88 participants including community members and service providers. A complete list of key informant interview data sources is available in Appendix F and a complete list of focus group data is available in Appendix G.

Process and Criteria to Identify and Prioritize Significant Health Needs

In order to identify and prioritize the significant health needs, the quantitative and qualitative data were synthesized and analyzed according to established criteria outlined later in this report. This included identifying eight potential health need categories based upon the needs identified in the previously conducted CHNA, the grouping of indicators in the Kaiser Permanente Community Commons Data Platform (CCDP) and a preliminary review of primary data. Indicators within these categories were flagged if they compared unfavorably to state benchmarks or demonstrated racial/ethnic disparities according to a set of established criteria. Eight potential health needs were validated as significant health needs for the service area. The data supporting the identified significant health needs can be found in the Prioritized Description of Significant Health Needs section of this report. The resources available to address the significant health needs span several counties and were compiled by using the resources listed in the 2013 CHNA reports as a foundation then verifying and expanding these resources to include those referenced through community input. Additional information regarding resources is found below in the Resources section and a comprehensive list of potential resources to address health needs is located in Appendix H.

List of Prioritized Significant Health Needs

The following is a list of eight significant health needs for the SRMC/SAFH HSA in prioritized order:

1. Access to Behavioral Health Services

This category encompasses access to mental health and substance abuse prevention and treatment services including tobacco education, prevention and cessation services, mental health services, social engagement opportunities for youth and seniors and suicide prevention. This category also includes health behaviors (e.g. substance abuse), associated health outcomes (e.g. COPD) and aspects of the social and physical environment (e.g. social support and access to liquor stores).

2. Access to High Quality Health Care and Services
This category encompasses access to primary and specialty care, dental care and maternal and infant care. Additionally, this category includes health education and literacy, continuity of care, care coordination and patient navigation including linguistically and culturally competent services. This category also includes health behaviors that are associated with access to care (e.g. cancer screening), health outcomes that are associated with access to care/lack of access to care (e.g. low birth weight) and aspects of the service environment (e.g. health professional shortage area). The category does not include access to mental health providers, which is a component of the Access to Behavioral Health Services category.

3. Active Living and Healthy Eating
This category includes all components of healthy eating and active living including health behaviors (e.g. fruit and vegetable consumption), associated health outcomes (e.g. diabetes) and aspects of the physical environment/living conditions (e.g. food deserts). The category does not include food security, which is a component of the Basic Needs category.

4. Disease Prevention, Management and Treatment
This category encompasses health outcomes that require disease prevention and/or management and treatment including: cancer (breast, cervical, colorectal, lung and prostate), Cardiovascular Disease /stroke (heart disease, hypertension and renal disease) and HIV/AIDS/STDs (chlamydia and gonorrhea) and asthma. This category also includes health behaviors that are associated with chronic and communicable disease (e.g., fruit/vegetable consumption, screening), health outcomes that are associated with these diseases or conditions (e.g. overweight/obesity), and associated aspects of the physical environment (e.g. food deserts).

5. Safe, Crime and Violence Free Communities
This category includes safety from violence and crime including violent crime, property crimes and domestic violence. This category includes health behaviors (e.g. assault), associated health outcomes (e.g. mortality - homicide) and aspects of the physical environment (e.g. access to liquor stores). In addition, this category includes factors associated with unsafe communities such as substance abuse and lack of physical activity opportunities, and unintentional injury such as motor vehicle accidents.

***6. Basic Needs* (Food Security, Housing, Economic Security, Education)**
This category encompasses economic security (income, employment and benefits), food security/insecurity, housing (affordable housing, substandard housing), education (reading proficiency, high school graduation rates) and homelessness.

7. *Affordable and Accessible Transportation*

This category includes the need for public or personal transportation options, transportation to health services and options for persons with disabilities.

8. Pollution-Free Living and Work Environments
This category includes measures of pollution such as air and water pollution levels. This category includes health behaviors associated with pollution in communities (e.g. physical inactivity), associated health outcomes (e.g. COPD) and aspects of the physical environment (e.g. road network density). In addition, this category includes tobacco usage as a pollutant. The category does not include climate related factors such as drought and heat stress.

Resources Available

An extensive process was used to identify the resources available to address the significant health needs and catalog them for inclusion in the final CHNA report. First, all resources identified in the 2013 CHNA report were included for consideration in a working comprehensive list of resources. Secondly, qualitative data from key informant interviews and focus groups were analyzed to include the resources identified by community input. Resources from community input were added to the list and all resources were then verified to assure that they were current and actively available. Once all resources on the list had been confirmed, each resource was considered in relation to the significant health needs for the HSA. As accurately as possible, each resource was assessed to determine which of the health needs it most closely addressed.

Through this process, 187 resources were identified pertaining to the significant health needs for Sutter Roseville Medical Center located at 1 Medical Plaza Drive in Roseville, California and Sutter Auburn Faith Hospital located at 11815 Education Street in Auburn, California. The final list of health resources is available in Appendix H.

Report Adoption, Availability, and Comments

This CHNA was adopted by the Sutter Medical Center, Sacramento and Sutter Center for Psychiatry Community Board in June 2016.

This CHNA was adopted by the Sutter Health Valley Area Board of Directors in November of 2016. This report was widely available to the public on the Sutter Health web site, and a paper copy is available for inspection by requesting one from Kelly Brenk at 916-541-0519 or brenkkm@sutterhealth.org. Written comments on this report can be submitted by email to brenkkm@sutterhealth.org.

ASSESSMENT PURPOSE AND ORGANIZATIONAL COMMITMENT

Purpose for the Community Health Needs Assessment (CHNA)

The purpose of this Community Health Needs Assessment (CHNA) is to identify and prioritize significant health needs of the community served by Sutter Roseville Medical Center and Sutter Auburn Faith Hospital (SRMC/SAFH). The priorities identified in this report help to guide the hospital's community health improvement programs and community benefit activities, as well as its collaborative efforts with other organizations that share a mission to improve health. This CHNA report meets requirements of the Patient Protection and Affordable Care Act (and California Senate Bill 697) that not-for-profit hospitals conduct a community health needs assessment at least once every three years.

This report documents the processes, methods, and findings of the CHNA conducted on behalf of Sutter Roseville Medical Center located at 1 Medical Plaza Drive in Roseville, California and Sutter Auburn Faith Hospital located at 11815 Education Street in Auburn, California. Building on federal and state requirements, the objective of the 2016 CHNA was:

> *To identify and prioritize community health needs and identify resources available to address those health needs, with the goal of improving the health status of the community at large and for specific locations and/or populations experiencing health disparities.*

Organizational Commitment

Organization of the Report

The remainder of this report is organized in accordance with recommended/required components detailed from the other collaborative health system partners. The report continues with the description of the hospital service area (HSA) including a description of geographical areas of the SRMC/SAFH HSA where low income, underserved, and diverse populations reside. The report then details the CHNA process and methods, including both the process model used for the CHNA and the theoretical model used in the assessment for determination of quantitative indicators to be included. Primary data collection methods, participant demographics and methods are also detailed. Assessment findings are provided in accordance with the theoretical model used for the SRMC/SAFH CHNA in the following categories: morbidity and mortality, risk behaviors, and living conditions. A detailed description of the prioritized significant health needs is provided with the corresponding secondary indicators and qualitative findings, followed by a summary of available resources, a conclusion, and corresponding appendices. The report then closes with a summary of available resources, a conclusion, and corresponding appendices.

DEFINITION OF COMMUNITY SERVED

Community Definition

The community or hospital service area (HSA) is defined as the geographic area (by ZIP code) in which the hospital receives its top 80% of discharges. Figure 1 shows the SRMC/SAFH HSA which is comprised of 41 ZIP codes across El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba Counties in California.

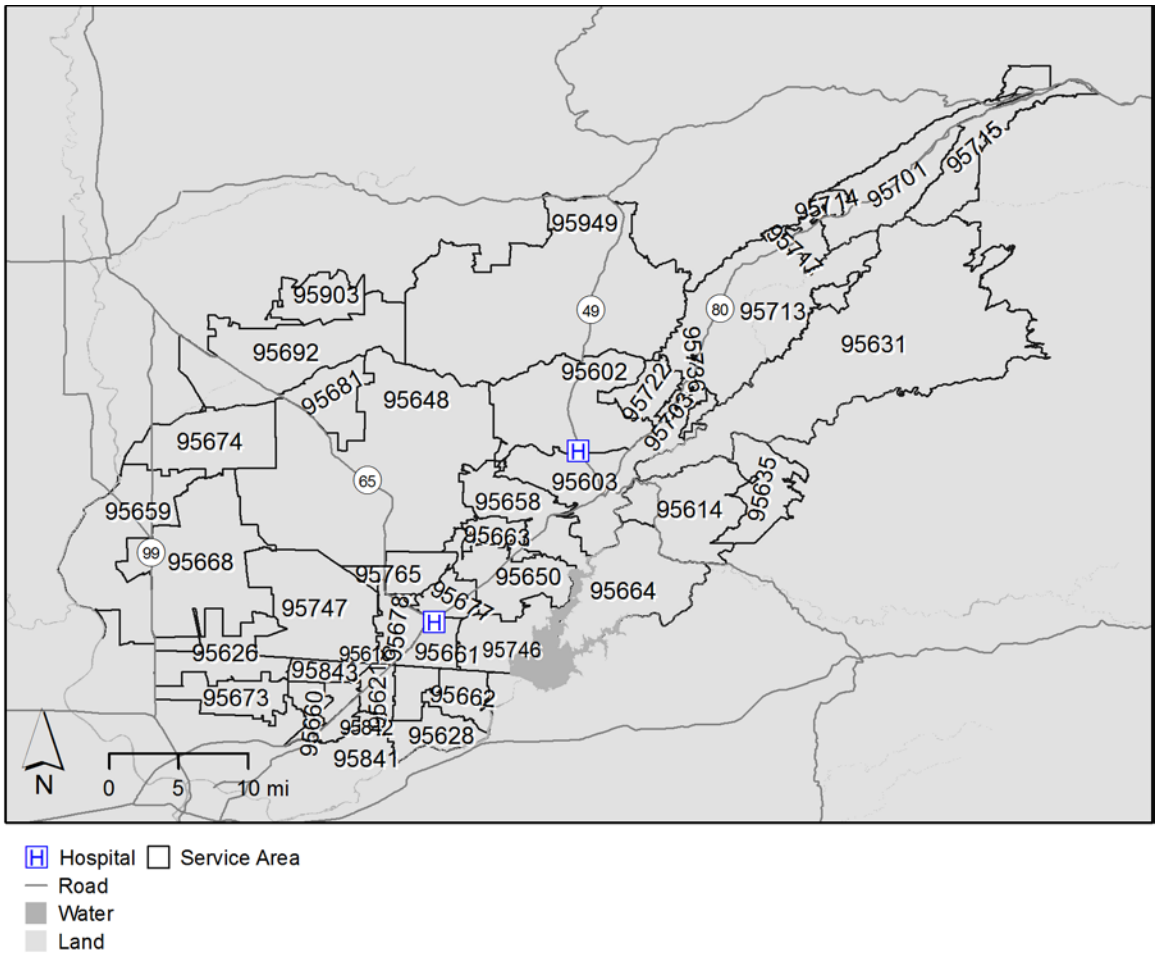

Figure 1: Sutter Roseville Medical Center and Sutter Auburn Faith Hospital Combined Hospital Service Area

Demographics of the Hospital Service Area (HSA)

The Sutter Roseville Medical Center /Sutter Auburn Faith Hospital HSA is located in Northern California and has nearly 700,000 residents. As Tables 1 and 2 show, the area is diverse in population, economic stability (income and poverty), and insurance status. Table 1 shows the total population count, the median age and the median income of all 41 ZIP codes in the SRMC/SAFH HSA compared to the state and county benchmarks. Table 2 provides information on the presence of medically underserved, low income, and minority residents in all 41 ZIP codes in the SRMC/SAFH HSA compared to the state and county benchmarks.

Population Characteristics

Table 1: Census Population Counts, Range of Median Age and Median Income for ZIP Codes in the SRMC/SAFH HSA, Compared to the County and State

ZIP Code	Community/Area	Population	Median Age (Years)	Median Income
95614	Cool	4,341	41.1	$92,721
95635	Greenwood	921	52.9	$43,542
95664	Pilot Hill	1,095	47.6	$89,141
El Dorado County	--	180,982	44.1	$69,297
95949	Alta Sierra	19,999	51.5	$62,224
Nevada County	--	98,509	48.5	$57,353
95602	North Auburn	18,049	49.6	$64,329
95603	Auburn	28,054	46.6	$57,779
95631	Foresthill	5,874	49.2	$62,976
95648	Lincoln	48,243	41.8	$71,713
95650	Loomis/Granite Bay	11,741	44.6	$79,743
95658	Newcastle	6,522	51.1	$64,821
95661	Roseville	30,269	42.1	$69,703
95663	Penryn	2,332	45.4	$125,303
95677	Rocklin	22,675	38.8	$68,160
95678	Roseville	42,606	32.7	$60,513
95681	Sheridan	992	44.7	$73,229
95701	Alta	759	50.3	$55,682
95703	Applegate	1,055	45	$75,217
95713	Colfax	9,645	48.8	$60,025
95714	Dutch Flat	271	62.4	$52,679
95715	Emigrant Gap	88	49.9	$40,313
95717	Gold Run	188	60.5	$38,375
95722	Meadow Vista	4,583	51.6	$69,231
95736	Weimar	278	21.5	$43,375
95746	Granite Bay	24,012	44.7	$127,736
95747	Roseville	53,452	37.7	$86,595
95765	Rocklin	35,914	34.8	$84,417
Placer County	--	355,924	40.4	$72,725
95610	Foothill Farms/ North Highlands	43,333	36.4	$50,928
95621	Citrus Heights /Orangeville	41,573	37.4	$53,134
95626	Citrus Heights /Antelope	5,979	37	$58,333
95628	Elverta	40,921	44.2	$73,720
95660	Fair Oaks/Carmichael	32,835	31.3	$41,036
95662	North Highlands	31,411	41.9	$64,991
95673	Orangevale	15,430	36.4	$53,429
95841	Rio Linda	18,612	33.3	$36,967
95842	North Highlands	31,689	31.2	$45,537
95843	Antelope	46,775	32.5	$65,779
Sacramento County	--	1,435,207	35.1 years	$55,064
95659	Nicolaus	760	38.4	$42,109

ZIP Code	Community/Area	Population	Median Age (Years)	Median Income
95668	Pleasant Grove	844	45.7	$72,422
95674	Rio Oso	739	43.2	$78,929
Sutter County	--	94,787	34.8	$50,408
95903	Beale Air Force Base	1,981	22.4	$40,000
95692	Wheatland	4,992	33.4	$61,627
Yuba County	--	72,574	31.9	$44,902
SRMC/SAFH HSA	--	691,832	Range: 21.5 yrs. (95736) to 62.4 yrs. (95714)	Range: $36,967 (95841) to $127,736 (95746)
CA State	--	37,659,181	35.4 years	$61, 094

Source: Census, 2013

The population of the SRMC/SAFH HSA makes up nearly 2% of all residents in the State of California. The majority of the population count for the SRMC/SAFH HSA comes from residents living in Placer County. Twenty-two of the 41 ZIP codes that make up the SRMC/SAFH HSA are located in Placer County; ten ZIP codes are located in Sacramento County, three ZIP codes are located in El Dorado County, two ZIP codes are located in Yuba County and one ZIP code is located in Nevada County. Population counts at the ZIP code level varied from 88 residents in ZIP code 95715 (Emigrant Gap) to 53,452 residents in ZIP code 95747 (Roseville).

The median age of the SRMC/SAFH HSA at the ZIP code level ranged from 21.5 years in 95736 (Weimar) to 62.4 years in 95714 (Dutch Flat). The median income by ZIP code for the SRMC/SAFH HSA ranged significantly from approximately $36,967in 95841 (North Highlands) to $127,736 in 95746 (Granite Bay), a range of almost $90,000 dollars a year.

In an attempt to understand the extent of and location of the medically underserved, low income and minority populations living in the SRMC/SAFH HSA, specific indicators were examined. Table 2 below describes these indicators for the entire SRMC/SAFH HSA.

Table 2: Percent Living Below 100% Federal Poverty Level, Percent Uninsured and Percent Minority for ZIP Codes in the SRMC/SAFH HSA Compared to the County and State

ZIP Code	Percent Below Federal Poverty Level (less than or equal to 100% FPL)	Percent Uninsured	Percent Minority (Hispanic or non-White)
95614	3.6%	5.6%	3.9%
95635	6.3%	27%	4.5%
95664	10.2%	4.8%	15.2%
El Dorado County	9.0%	10.2%	20.3%
95949	7.0%	11.7%	7.9%
Nevada County	11.97%	14.8%	13.72%
95602	11.8%	11.2%	15.9%
95603	10.9%	11.7%	16.6%
95631	15.1%	10.4%	11.6%
95648	9.6%	9.4%	27.2%
95650	2.8%	7.1%	13.4%
95658	10.9%	4.6%	13.7%
95661	8.0%	9.8%	25.0%
95663	7.6%	9.7%	19.6%
95677	9.0%	10.4%	21.0%
95678	10.6%	13.4%	32.2%
95681	16.3%	23.6%	16.9%
95701	14.9%	10.7%	4.9%
95703	7.1%	5.8%	18.3%
95713	14.0%	11.2%	10.0%
95714	0.0%	15.9%	1.1%
95715	0.0%	0%	0.0%
95717	12.8%	14.9%	12.8%
95722	2.9%	5%	9.9%
95736	18.9%	36.3%	48.9%
95746	3.6%	6.2%	20.0%
95747	6.8%	5.7%	28.7%
95765	7.5%	6.6%	31.5%
Placer County	1.9%	9.9%	24.6%
95610	14.9%	18.4%	28.3%
95621	14.9%	13.3%	27.3%
95626	11.4%	16.8%	26.7%
95628	10.2%	9.7%	21.2%
95660	22.9%	19.6%	46.0%
95662	7.6%	12.2%	16.9%
95673	14.7%	15.6%	34.1%
95841	27.9%	21.3%	35.5%

ZIP Code	Percent Below Federal Poverty Level (less than or equal to 100% FPL)	Percent Uninsured	Percent Minority (Hispanic or non-White)
95842	25.7%	17.7%	44.8%
95843	12.1%	15.7%	43.4%
Sacramento County	17.6%	14.6%	52.1%
95659	4.5%	9.8%	33.7%
95668	6.9%	13.9%	18.1%
95674	12.2%	13.3%	27.9%
Sutter County	16.67%	18.9%	50.2%
95903	9.7%	1.2%	35.0%
95692	17.0%	13.6%	34.3%
Yuba County	21.6%	16.6%	42.1%
SRMC/SAFH HSA	11.8%	12.1%	27.4%
CA State	15.9%	17.8%	60.3%

Source: Census, 2013

The percent of population living in poverty for the SRMC/SAFH HSA was 11.8%, much greater than the Placer County benchmark, but lower than both the Sacramento County benchmark and state benchmark. The ZIP code in the SRMC/SAFH HSA with the highest percent of population in poverty was 95841 (North Highlands) with 27.9% of its population living below 100% Federal Poverty Level, compared to the lowest percent of population in poverty in 95714 (Dutch Flat) and 95715 (Emigrant Gap), both with 0% of their populations living in poverty. The percent of residents uninsured in the SRMC/SAFH HSA was 12.1%, higher that the percent uninsured in Placer County, but lower than both the state and Sacramento County percentages. The ZIP code with the highest percent uninsured was 95736 (Weimar) with 36.3%, while ZIP code 95715 (Emigrant Gap) had 0% of its population in poverty. The percent of minority residents in the SRMC/SAFH HSA was 27.4%, which is higher than the Placer County percent minority, but lower than the Sacramento County and state percentages of minority. An examination of the ZIP codes in the SRMC/SAFH HSA revealed a large variation in the degree of diversity, or percent minority. The highest percent minority in the SRMC/SAFH HSA was found in 95736 (Weimar) with 48.9% and the lowest percent minority in the SRMC/SAFH HSA was found in 95715 (Emigrant Gap), with 0% of its population classified as minority.

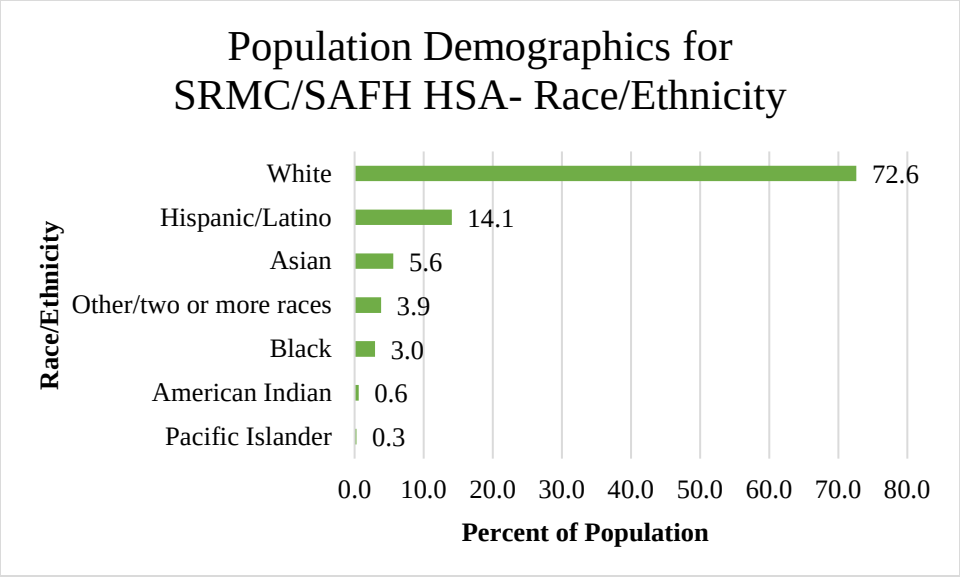

Figure 2: Population Demographics for SRMC/SAFH HSA - Race/Ethnicity

Figure 2 shows the population demographics of race/ethnicity for the SRMC/SAFH HSA. Census data showed that Whites make up the highest percent of residents in the SRMC/SAFH HSA, followed by Hispanics, Asians, other or two or more races, and Blacks. Demographics for focus group participants are displayed later in the report, in Figure 7.

Community Health Vulnerability Index and Focus Communities

To further examine medically underserved, low income and diverse populations in the SRMC/SAFH HSA, two tools were developed. This assessment used a Community Health Vulnerability Index (CHVI) to help identify census tracts within ZIP codes in the SRMC/SAFH HSA where such populations may reside geographically. Also, Focus Communities at the ZIP code level were identified used to provide a place-based lens within the HSA of the greatest concentration of health inequities resulting in poor health outcomes. Both the CHVI and the Focus Communities are described in the following passages.

Community Health Vulnerability Index – Overview

The CHVI assisted in the identification of geographical areas in the SRMC/SAFH HSA ZIP codes that may experience health disparities using socio-economic drivers of poor health outcomes. The CHVI is based on the Community Need Index (CNI), created and made publically available by Dignity Health and Truven Health Analytics (for further description of the CNI see Appendix B). The CHVI was also used to help focus primary data collection and in the further determination of Focus Communities, which is discussed next. The indicators used to create the CHVI index were collected at the census tract level and are presented in Table 3 and detailed in Appendix C, Detailed Analytic Methodology including SHN Categorization. The CHVI results for the SRMC/SAFH HSA are presented in Figure 3.

Table 3: Indicators Included in the CHVI

Percent Minority (Hispanic or non-White)	Percent Families with Children in Poverty
Population 5 Years or Older who speak Limited English	Percent Households 65 years or Older in Poverty
Percent 25 or Older Without a High School Diploma	Percent Single Female-Headed Households in Poverty
Percent Unemployed	Percent Renter-Occupied Housing Units
Percent Uninsured	

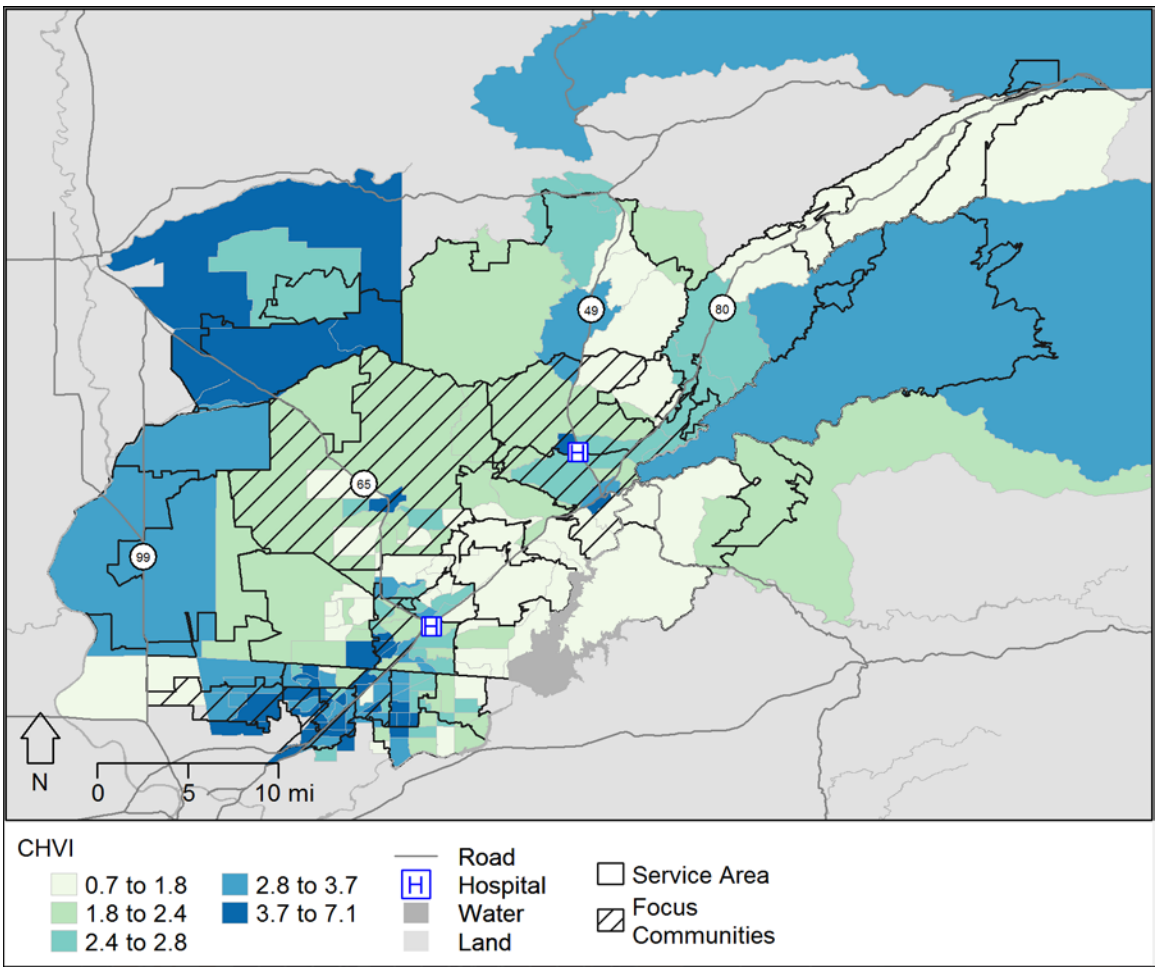

Figure 3: Community Health Vulnerability Index for the SRMC/SAFH HSA

Focus Communities – Overview

Focus Communities were used to provide a place-based lens of areas within the SRMC/SAFH HSA that have the greatest concentration of health inequities resulting in poor health outcomes. The Focus Communities were defined using four components: 1) preliminary analysis of indicators of social determinants of health and inequities (e.g., poverty and educational attainment) at the ZIP code level, 2) census tract values from the CHVI, 3) initial input from area wide service providers and 4) consideration of ZIP codes that were identified as Focus Communities (previously referred to as Communities of Concern) in the SRMC/SAFH 2013 CHNA. These inputs provided a unique perspective on social determinants within the SRMC/SAFH HSA and were considered both separately and collectively when selecting Focus Communities.

The social inequities dataset included 22 indicators (presented in Table 4) that were analyzed at the ZIP code level to identify and flag the top 20% of ZIP codes with the highest rates of social inequities compared to county and state benchmarks. For the CHVI, ZIP codes were flagged if they intersected a census tract in which the CHVI value fell within the top 20% of the SRMC/SAFH HSA, values 3.9 to 6.0. In addition to quantitative measures, Focus Communities were further verified through analysis of input from initial service area wide key informant interviews. Input on vulnerable locations within the SRMC/SAFH HSA was considered from interviews with public health experts and area service providers. Locations identified as vulnerable were then cross-referenced with the ZIP codes that were flagged in the CHVI and social inequities data, as well as with ZIP codes that were identified as Focus Communities in 2013. This was included to allow greater continuity between CHNA round and to reflect the work of the hospitals oriented to serve these disadvantaged communities.

Table 4: Social Inequities Indicators to Determine Focus Communities

Median income	Percent Non-White or Hispanic population
GINNI coefficient (measure of income inequality)	Foreign born population
Population in poverty (under 100% Federal Poverty Level)	Citizenship status
Percent with public assistance	Population 5 years or older who speak limited English
Percent households 65 years or older in poverty	Single female-headed households
Percent families with children in poverty	Percent homeowners with housing expenses greater than 30% of income (homes with mortgages)
Percent single female headed households in poverty	Percent homeowners with housing expenses greater than 30% of income (homes without mortgages)
Percent unemployed	Percent renters with housing expenses greater than 30% of income
Uninsured population	Population over 18 that are civilian veterans
Population with public insurance	Percent renter occupied housing units
Population with any disability	Percent population 25 or older without a high school diploma

The Focus Communities for SRMC/SAFH are found in Figure 4 and listed in Table 5. Figure 4 displays nine Focus Community ZIP codes denoted in red. The specific ZIP codes and area names are provided in Table 5, with the census population for each.

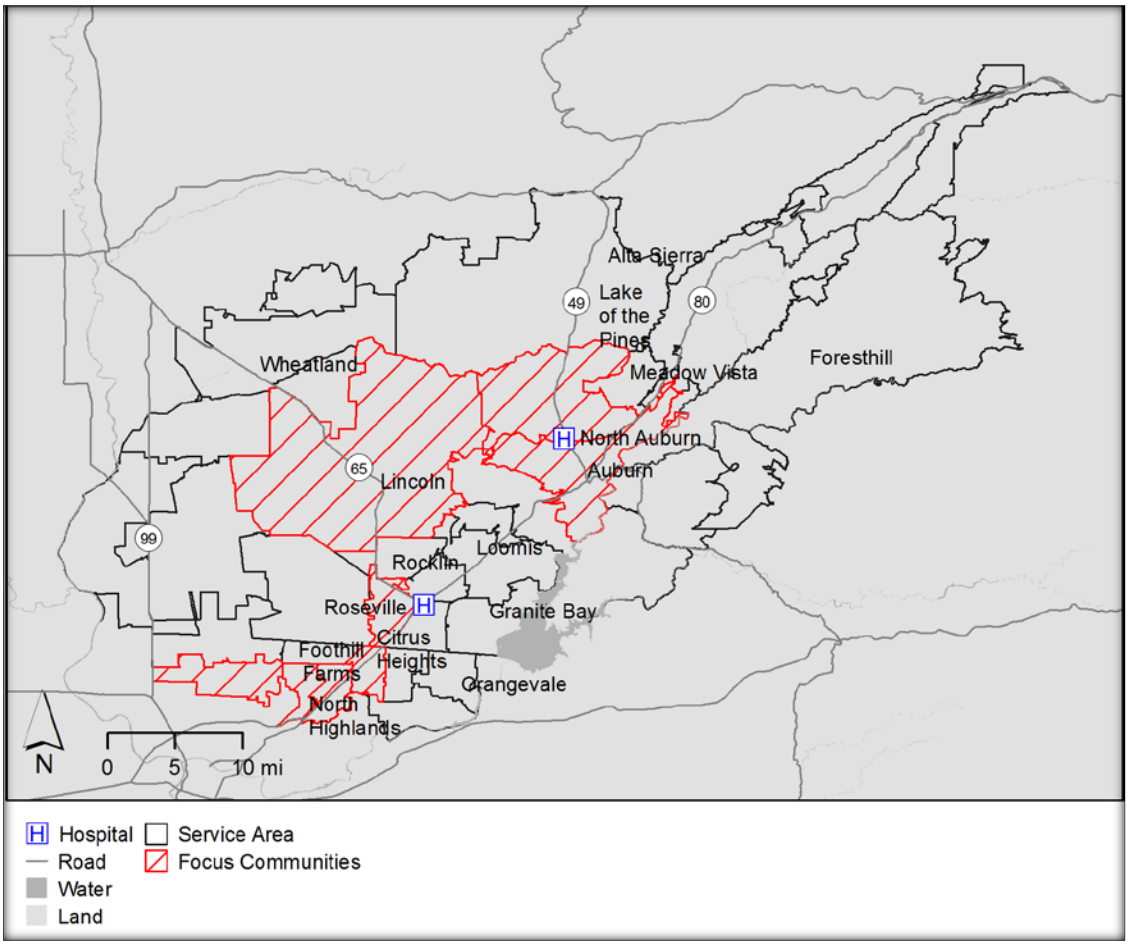

Figure 4: Focus Communities for the SRMC/SAFH HSA

Table 5: Nine Identified Focus Communities for the SRMC/SAFH HSA

ZIP Code	Community/Area*	Population
95621	Citrus Heights/Antelope	41,573
95660	North Highlands	32,835
95673	Rio Linda	15,430
95841	North Highlands	18,612
95842	Foothill Farms/North Highlands	31,689
95602	North Auburn	18,049
95603	Auburn	28,054
95648	Lincoln	48,243
95678	Central Roseville	42,606
Total Population in the Focus Communities		*277,091*
Total Population in the HSA		*691,832*
Percent of the HSA in the Focus Communities		*40.1%*

Source: Census, 2013

* ZIP code and community area name is approximate here and throughout the report.

Primary data collected in this assessment confirmed the location of vulnerable populations in the SRMC/SAFH HSA that were identified in the previously mentioned Focus Communities. During primary data collection, key informants and community members were asked to identify geographical areas and populations in the SRMC/SAFH HSA that were experiencing health inequities. Their response indicated that specific geographic areas like Antelope, Auburn, Citrus Heights, Lincoln, North Auburn, North Highlands, Placerville, Rio Linda, Roseville and Sheldon were areas of concern. In terms of population groups, data indicated that Middle Eastern Refugees, Russians, Ukrainians, Blacks, Hispanics, Asians and Whites were among the most mentioned as populations in need of improved health. A major determination for the above mentioned groups was directly related to the absence or presence of poverty in these populations. Poverty appeared to be the biggest influence in determining vulnerability to poor health, a finding detailed later in this report.

ASSESSMENT PROCESSES AND METHODS

Process Overview

Sacramento Region Collaborative Process Model

The CHNA collaborative project was conducted over a period of 18 months, beginning in January 2015, and concluding in June 2016. The project was conducted using a series of data collection and analytical phases. The CHNA process began with the collection and analysis of secondary data indicators of social inequities and proceeded with collection of both “upstream” and “downstream” health indicators. Primary data collection began with interviews of area health experts such as public health and social service representatives. The first stage of data analysis resulted in the identification of vulnerable communities (e.g., low-income, medically underserved and minority populations), which then guided further primary data collection including community member focus groups. These data were considered together with the data in the Kaiser Permanente Community Commons Data Platform (CCDP) to develop potential health need categories that provided an organizational structure to integrate these numerous inputs, analyze the data and identify the significant health needs for the SRMC/SAFH HSA. The significant health needs were then prioritized using established criteria and resources available to address the identified needs and were compiled for the final report. The overall process to conduct the CHNAs is depicted in the CHNA Process Model (Figure 5).

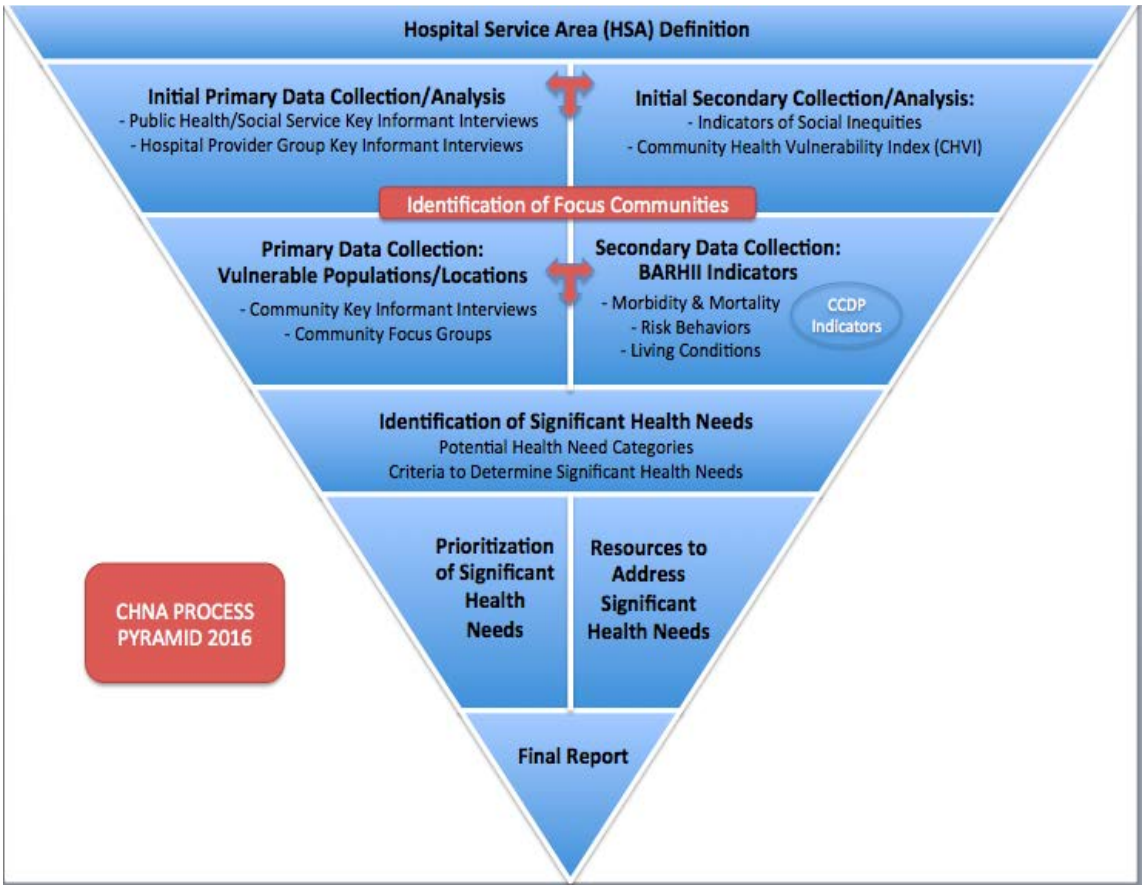

Figure 5: CHNA Process Model

BARHII Model

Quantitative indicators used in this assessment were guided by a conceptual framework developed by the Bay Area Regional Health Inequities Initiative (BARHII) (Figure 6). The BARHII Framework demonstrates the connection between social inequalities and health and focuses attention on measures that had not characteristically been within the scope of public health departments. Valley Vision used the BARHII framework to organize quantitative indicators, as well as frame the primary data collection tool, to capture both "upstream" and "downstream" factors influencing health in the SRMC/SAFH HSA. The BARHII framework was also used in the organization of this report, beginning in the "Findings" section. The most "downstream factors" like mortality and morbidity are outlined, followed by risk behaviors and living conditions. Social inequities data is spread throughout the body of the report.

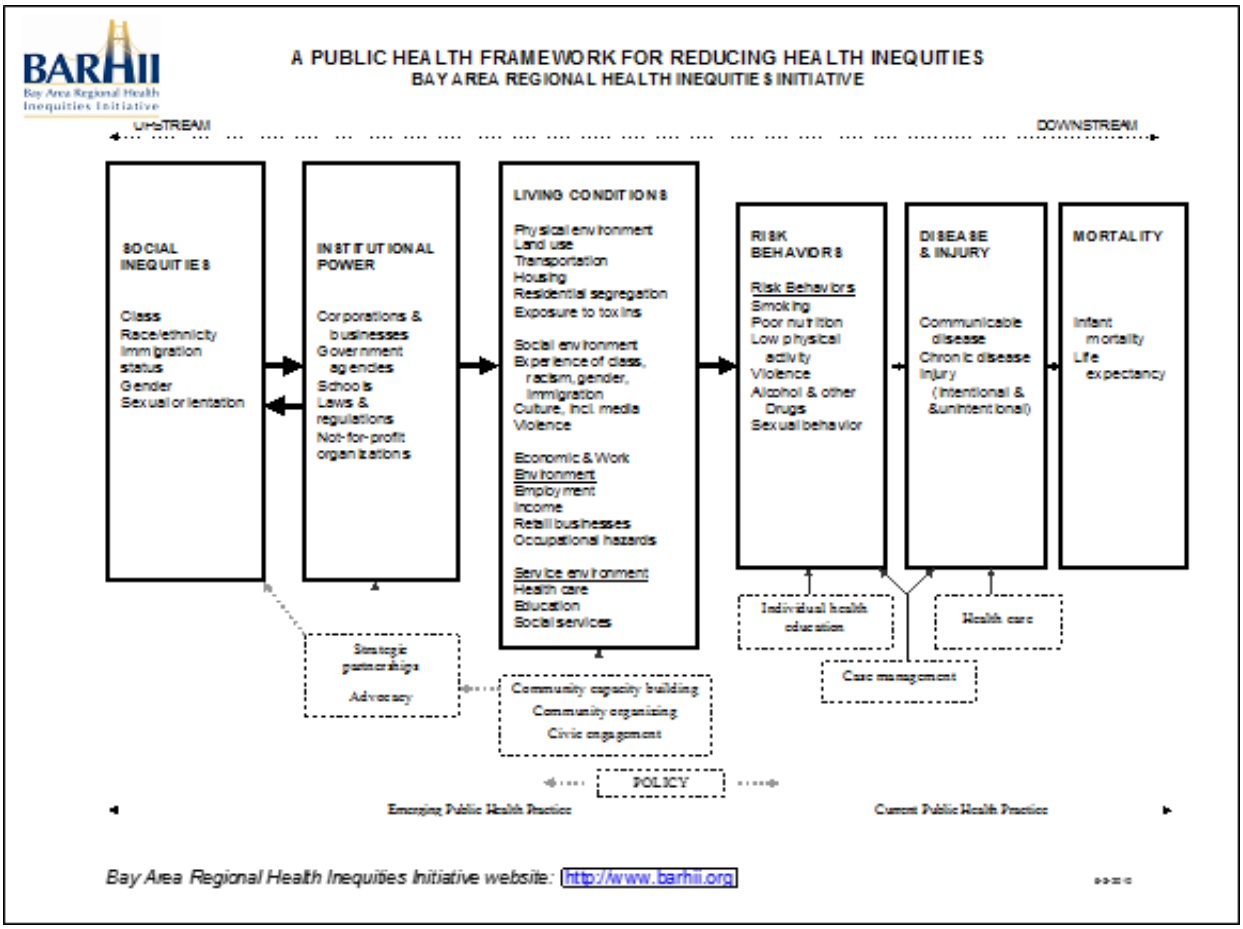

Figure 6: Bay Area Regional Health Inequities Initiative (BARHII) Model*1*

Secondary Data Collection – Processing and Analyzing

Data Collection: Overview

This section serves to provide a brief overview of the secondary data collection, processing and analysis approaches used to support the CHNA. For additional detail, including detailed project methodology, please refer to Appendices B and C.

The secondary data supporting the CHNA was collected from a variety of sources, and was processed in multiple stages before it was used for analysis. The selection of secondary data indicators was guided by the BARHII Framework previously illustrated in Figure 6. Specific secondary data indicators were selected to represent the concepts organized in the six categories in the BARHII model that reflect both "upstream" and "downstream" factors influencing health. A number of general principles guided the selection of secondary data indicators to represent these concepts. First, only indicators associated with concepts in the BARHII framework were included in the analysis. Second, indicators available at a sub-county level (such as at a ZIP code or smaller level) were preferred for their utility in revealing variations within the HSA. Finally, indicators were only collected from data sources deemed reliable and reputable, with a preference for indicators that were more current than those used in the 2013 CHNA report.

1 Bay Area Health Inequities Initiative (BARHII). BARHII Framework. Available at: http://barhii.org/framework/. Accessed Jan 20, 2016.

Mortality data were primarily obtained from CDPH and morbidity data were primarily obtained from OSHPD. These input data were processed using methods described in detail in Appendix B to result in a set of indicators for risk behaviors, disease/injury, and mortality. Input CDPH data were used to develop mortality rates and broader measures of health status for each ZIP code in the SRMC/SAFH HSA. Input OSHPD data were used to develop hospitalization (H) and emergency department (ED) discharge rates for each ZIP code in the SRMC/SAFH HSA. The majority of indicators pertaining to living conditions and other "upstream" factors in the report were obtained from the US Census Bureau. These indicators primarily focus on the socio-demographic characteristics of the population within the HSA, and are also listed in Appendix B. Health outcome and health behaviors were also collected from the Kaiser Permanente Community Commons Data Platform (CCDP) to compliment the indicators already collected from additional sources. Indicators in the CCDP platform were only selected for final analysis and inclusion if they did not duplicate indicators that were pulled from other sources. A detailed list of indicators collected for the 2016 CHNA is in Appendix B, Data Dictionary and Processing.

The secondary data was processed in multiple stages before it was analyzed. The three basic processing steps include rate smoothing, age-adjustment, and obtaining benchmark rates. A detailed description of this process is outlined in Appendix B, Data Dictionary and Processing.

Primary Data Collection

Overview of Primary Data Collection

Community input was provided by a broad range of community members through the use of key informant interviews and focus groups. Individuals with the knowledge, information, and expertise relevant to the health needs of the community were consulted. These individuals included representatives from the local public health department as well as leaders, representatives, and members of medically underserved, low-income, and minority populations. When applicable, other individuals with expertise of local health needs were consulted. For a complete list of individuals who provided input, see Appendices F and G.

Methodology for Collection and Interpretation

Primary data were collected from May 2015-November 2015. Instruments used in primary data collection included a participant informed consent form, a demographic questionnaire, the interview question guide and a project summary sheet. All participants were given an informed consent form prior to their participation that provided information about the project, asked for permission to record the interview, and listed the potential benefits and risks for involvement in the interview (Appendix D). Participants were also asked to complete a voluntary questionnaire that was used to compile the demographics on all key informant and focus group participants (Appendix E). The same interview guide was used for key informant interviews and community focus groups with slight modifications for focus groups conducted in Spanish and focus groups with youth or low-literacy populations. In brief, the guide prompted participants to share: (1) the quality of life in their communities; (2) the health issues they see and experience in their communities; (3) the most urgent or priority health needs of their communities; and (4) the resources available to help address health needs (see Appendix E for full interview guide). A project summary sheet (Appendix E) was also given to all participants to provide them with information about the project as well as contact information for the CHNA staff leading the interviews.

Key Informant Interviews

Key informant interviews were conducted with area health experts and service providers familiar with health issues and places and populations experiencing health disparities within the SRMC/SAFH HSA. Primary data collection began with group key informant interviews of hospital service providers including nursing managers, medical directors, social workers, case managers, patient coordinators/navigators, Emergency Department providers, and administrative leadership. Early interviews were also conducted with county Public Health Officers and other public health and social service experts of the corresponding counties within the SRMC/SAFH HSA. Input from the initial set of group key informant and service provider interviews solicited expert opinion on vulnerable locations and populations within the SRMC/SAFH HSA. This information was used to conduct additional key informant interviews with service providers in low-income, medically underserved and minority communities.

A total of 38 key informant interviews were completed for the SRMC/SAFH HSA which included 58 participants, which are listed in Appendix F. Key informant interviewees represented the following sectors: academic research (2%), community based organizations (47%), health care (37%), public health (11%), and social services (16%), with many interviewees representing multiple sectors. These 60 key informants reported working with the following populations: low-income (93%), medically underserved (91%), and racial or ethnic minorities (79%). The racial and ethnic minority groups specified by interviewees included: Hispanic, Black, Asian, Pacific Islander, American Indian, East Indian, Middle Eastern, Slavic and refugees from former the Soviet Union. In addition, key informants specified working with the following vulnerable sub-populations: individuals experiencing homelessness, individuals diagnosed with a developmental disability, individuals who are undocumented, serious mental illness and/or substance abuse disorders, pregnant women, teen parents, single parents, undocumented individuals, those with language barriers, individuals identifying as lesbian, gay, bisexual or transgender (LGBT), children and seniors who have experienced abuse and/or neglect, and those utilizing public assistance programs.

Community Focus Groups

Focus group interviews were conducted with community members representing vulnerable populations and locations identified through the initial analysis of key informant input. Recruitment consisted of referrals from designated service providers as well as direct outreach from the Valley Vision CHNA Team to acquire input from medically underserved, minority and low-income populations and/or community members living in vulnerable locations.

Within the SRMC/SAFH HSA, 11 focus groups were conducted with a total of 88 participants who were medically underserved, impoverished, socially and/or linguistically isolated and/or those who had chronic conditions. Of the approximately 79 people who completed demographic data cards, the median age was 51, 78% identified as female, 15% as male, and 7% as other. In addition, 7% indicated they were not high

school graduates, 10% indicated they were not covered by health insurance, and 45% received some form of public assistance. The self-reported racial breakdown of focus group participants is as follows:

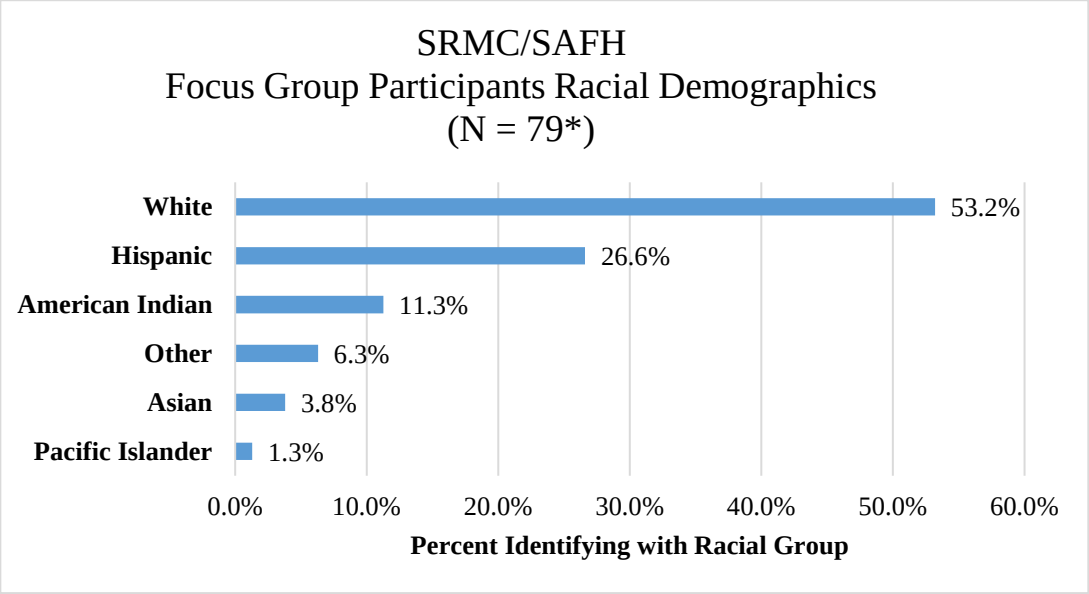

Figure 7: Focus Group Participant Racial Demographics
*Please note: demographic surveys were not completed by all participants

Processing Primary Data

After each interview or focus group was completed, the recording and any notes were uploaded to a secure server for future analysis. A significant portion of key informant interviews and focus group recordings were sent to a transcription service, with a smaller portion transcribed by Valley Vision staff or converted into notes corresponding to the order of questions in the interview guides.

Content analysis was done on the key informant and focus group transcripts utilizing NVivo 10/11 Qualitative Analytical Software. This analysis was completed in a two-phase approach. In the first phase of analysis the qualitative data were coded based on the Bay Area Regional Health Inequities Initiative (BARHII) Framework categories and other organically arising thematic areas. Further analysis was then conducted with thematic coding to the eight potential health need categories with additional codes for vulnerable populations and locations and resource identification.

Information Gaps/Limitations

Information gaps that limit the ability of this CHNA to assess the community's health needs included limited data on specific populations and access to key informants and focus groups participants.

Some data were only available at a county level, making an assessment of health needs at a neighborhood level challenging. Furthermore, disaggregated data around age, ethnicity, race, and gender are not available for all data indicators, which limited the ability to examine disparities of health within the community. Lastly, data are not always collected on a yearly basis, meaning that some data are several years old.

For primary data collection, it was a challenge to gain access to participants in communities that disproportionately experience health disparities. Measures were taken to reach out to vulnerable populations and locations through the process of Focus Community identification and following recommendations of early key informants. However, recruitment was variable and several key contacts

expressed the issue of research fatigue from repeated needs assessments. Community members also frequently mentioned distrust of the research process or concerns that their input would not lead to changes in their communities. As best as possible, the research team attempted to address these concerns and to be open and transparent about the full CHNA process. All participants were given contact information of the staff that conducted their interviews and were encouraged to reach out with any additional questions; key informants were also assured that they would receive notification once the CHNA reports become available.

Another challenge was reconciling the secondary and primary data. The quantitative data used for the identification of significant health needs was examined at the Hospital Service Area (HSA) level. Alternately, a large share of the qualitative data was deliberately sourced from low-income, minority and medically underserved populations or their representatives. Owing to this discrepancy, certain health need categories were validated by either the quantitative or the qualitative data, rather than by both of these data sources.

CHNA Collaborative

The 2016 CHNA for Sutter Roseville Medical Center and Sutter Auburn Faith Hospital was completed as part of a collaboration of the four major health systems in the Greater Sacramento region: Dignity Health, Kaiser Permanente, Sutter Health and UC Davis Health System. The CHNA Collaborative served to collectively conduct the 2016 CHNA and to support a coordinated approach to community benefit planning for 15 hospitals in the Sacramento Region including:

- **Dignity Health**: Mercy General Hospital, Mercy Hospital of Folsom, Mercy Hospital of Folsom, Methodist Hospital of Sacramento, Sierra Nevada Memorial Hospital, Woodland Memorial Hospital
- **Kaiser Permanente of Greater Sacramento**: Kaiser Permanente Roseville, Kaiser Permanente Sacramento, Kaiser Permanente South Sacramento
- **Sutter Health Valley Area:** Sutter Auburn Faith Hospital, Sutter Center for Psychiatry, Sutter Davis Hospital, Sutter Medical Center, Sacramento, Sutter Roseville Medical Center
- **UC Davis Health System**: UC Davis Medical Center

Consultants Used to Help Conduct the CHNA

The 2016 CHNA was completed by Valley Vision, a regional leadership organization committed to making the Sacramento region a great place to live, work and recreate. The CHNA Collaborative contracted with Valley Vision in 2016 and 2013 to conduct their CHNA and in 2010 and 2007 for the statewide CNA. The collaborative process has built and strengthened partnerships between hospitals and other stakeholders, providing a coordinated approach to identifying priority health needs as well as developing plans to improve the health of the Sacramento region.

Valley Vision was selected to conduct the 2016 CHNAs in the Sacramento Region given its history of working with the CHNA Collaborative, mixed methods research skills and strong commitment to drawing attention to critical unmet health needs. Valley Vision has been a leading social enterprise and nonprofit consultancy for the Sacramento region since 1994 with the ability to deliver trusted research, design and drive multi-stakeholder initiatives and access a set of powerful leadership networks across the region. The Valley Vision team consisted of Giovanna

Forno, BS, CHES, Alan Lange, MPA, Amelia Lawless, CHES, ASW, MPH, Anna Rosenbaum, MSW, MPH, Katie Strautman, MSW, Sarah Underwood, MPH, and Jenny Wagner, MPH(c). The CHNA team brought a rich skill-set from years of experience working in public health, health care, social service and other public sectors.

The Valley Vision team conducted primary qualitative data collection, analyzed primary and secondary data, synthesized these data to determine the significant and prioritized health needs, documented findings and wrote the draft and final CHNA reports. Valley Vision also contracted with Dr. Heather Diaz, Dr. Mathew C. Schmidtlein and Dr. Dale Ainsworth of Community Health Insights who assisted with project design, research methodology, data processing and GIS mapping for the CHNA. Community Health Insights is a Sacramento based research-oriented consulting firm dedicated to improving the health and wellbeing of communities across Northern California.

ASSESSMENT DATA AND FINDINGS

The main findings of this assessment are organized in accordance to the BARHII model beginning with the most downstream factors (mortality and morbidity) and moving backwards to the upstream factors (risk behaviors and living conditions).

Mortality and Morbidity in the SRMC/SAFH HSA Focus Communities

Examination of health outcomes for the assessment included measures of illness (morbidity) and death (mortality) including communicable and non-communicable diseases, and injuries. The conditions examined included: Chronic disease, cancer, respiratory health, mental health, substance abuse, sexually transmitted infections (including HIV/AIDS), tuberculosis, and dental health, along with unintentional and self-inflicted injuries. This section begins with an examination of overall health indicators including age-adjusted all-cause mortality, infant mortality, and life expectancy at birth.

Overall Health Status – Rates of Age-adjusted All-Cause Mortality, Infant Mortality and Life Expectancy at Birth

The overall health status indicators provide information about what it is like to live in a SRMC/SAFH Focus Community on an everyday basis. Though specific measures of mortality show how communities suffer from specific conditions, overall health status indicators communicate length of life, quality of life, socioeconomic factors and the intersection of the environment and personal behaviors. Table 6 examines three common overall health status indicators: age-adjusted all-cause mortality, infant mortality, and life expectancy at birth for the nine Focus Communities within the SRMC/SAFH HSA. Values in blue are those that fall above or below the desired direction in comparison to Sacramento County or Placer County benchmarks. Values and cells marked with a dash indicate that data was not provided due to small cell counts (less than 5) or that it was missing or unavailable for that ZIP code. When county rates were unavailable, state and national benchmarks were used as comparison.

Table 6: Overall Health Status Indicators: Age-Adjusted All-Cause Mortality, Infant Mortality, and Life Expectancy at Birth (years), Compared to County, State, and Healthy People 2020 Benchmarks

	ZIP Code	Age-Adjusted All-Cause Mortality (per 10,000 pop)	Infant Mortality Rate (per 1,000 live births)	Life Expectancy at Birth (years)
Overall Health Status Indicators	95621	74.83	4.20	79.09
	95660	77.98	4.88	76.70
	95673	89.48	4.67	75.34
	95841	93.48	4.56	75.65
	95842	72.27	5.39	79.45
	Sacramento County	*72.75*	*5.40*	*78.74*
	95602	58.96	4.48	81.10
	95603	82.51	4.61	78.32
	95648	50.45	4.50	84.02
	95678	66.37	4.17	79.99
	Placer County	*63.93*	*4.30*	*80.63*
	SRMC/SAFH HSA	*69.52*	*4.86*	*79.75*
	CA State	*64.59*	*4.90*	*80.53*
	National 2013	--	--	*78.802*
	Healthy People 2020 Target	--	*6.003*	--

Source: CDPH, 2010-2012

All five of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had age-adjusted all-cause mortality rates that exceeded the respective county benchmarks. Age-adjusted all-cause mortality rates in Sacramento County were highest in the Focus Community 95841 (North Highlands), while the highest age-adjusted all-cause mortality rate in Placer County was found in the Focus Community 95603 (Auburn). None of the Focus Communities in Sacramento County had an infant mortality rate that exceeded the county benchmark rate of 5.40 infant deaths per 1,000 live births, however 95842 (Foothill Farms/ North Highlands) had an infant mortality rate that exceeded the state benchmark of 4.90 deaths per 1,000 live births. Two of the four Focus Communities in Placer County had infant mortality rates that exceeded the county benchmark rate of 4.30 deaths per 1,000. The two ZIP codes were 95602 (North Auburn) and 95648 (Lincoln). In Sacramento County, 95842 (Foothill Farms/North Highlands) and 95621(Citrus Heights/Antelope) had lower life expectancies at birth than the county life expectancy of 78.74 years. In Placer County, the Focus Communities 95678 (Roseville) and 95603 (Auburn) had lower life expectancies at birth than the county life expectancy of 80.63 years.

Chronic Diseases – Diabetes, Heart Disease, Stroke, Hypertension and Kidney Disease

Both primary and secondary data indicated that most chronic illnesses are common in the SRMC/SAFH HSA. Key informant interviews and community members specifically stated challenges with diabetes, hypertension, heart disease and stroke, coupled with many residents living with co-morbidities. Primary

2 Centers for Disease Control and Prevention. (2015). *Deaths: Final data for 2013*. Retrieved from: http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf

3 Office of Disease Prevention and Health Promotion. (2014). *Maternal, Infant and Child Health*. Retrieved from: https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/data

data showed that participants recognized these chronic conditions to be an outcome of a lack of other behavioral and environmental factors.

Diabetes

Diabetes was the seventh leading cause of death nationally in 20134. Diabetes is listed first in this CHNA as it was a commonly mentioned health issue for community residents, and quantitative findings show clear geographic health disparities across the SRMC/SAFH HSA. Table 7 displays rates of mortality, ED visits, and hospitalizations due to diabetes for each Focus Community in the SRMC/SAFH HSA.

Rates – Mortality, ED Visits and Hospitalizations due to Diabetes

Table 7: Mortality, ED Visits, and Hospitalization Rates for Diabetes C Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits	Hospitalizations
Diabetes	95621	2.15	257.64	190.70
	95660	2.63	429.43	305.55
	95673	2.55	320.76	228.82
	95841	2.41	350.03	270.24
	95842	2.13	362.07	262.70
	Sacramento County	*2.26*	*281.27*	*200.65*
	95602	2.58	143.02	96.51
	95603	2.11	171.17	131.60
	95648	1.60	142.78	117.30
	95678	1.69	253.08	170.30
	Placer County	*1.97*	*158.14*	*120.16*
	SRMC/SAFH HSA	*2.18*	*198.26*	*149.79*
	CA State	*2.11*	*209.15*	*192.30*
	Healthy People 2020 Target	*6.60*	--	--

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013

Three of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had mortality rates due to diabetes that were above the county benchmark. The Focus Community with the highest mortality rate due to diabetes in Sacramento County and across all Focus Communities was 95660 (North Highlands) while the Focus Community with the highest mortality rate due to diabetes in Placer County was 95602 (North Auburn). Examination of ED visit and hospitalization rates due to diabetes proved that four of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had elevated rates in comparison to the respective county benchmarks. 95660 (North Highlands) had the highest rates of ED visits and hospitalizations due to diabetes among the Focus Communities in Sacramento County while 95678 (Roseville) had the highest rates of ED visits and hospitalizations due to diabetes among the Focus Communities in Placer County. It is important to note that all five of the Focus Communities in Sacramento County had ED visit and hospitalization rates that exceeded the state benchmarks. Overall, rates related to diabetes for Sacramento County were higher than for Placer County.

Percent – Adults Over 20 Years with Diabetes

Reported by the National Center for Chronic Disease Prevention and Health Promotion for the year 2012, the percent of adults over the age of 20 in Sacramento County that have ever been told by a doctor that

4 Centers for Disease Control and Prevention. (2015). *Leading Causes of Death*. Retrieved from: http://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm

they have diabetes was 8%, equal to the state percent. Meanwhile, Placer County showed that 6% of adults over the age of 20 had been told by a doctor that they have diabetes. Please note that Sacramento and Placer County rates were used when data was not available at the ZIP code or HSA levels.

Percent – Medicare Patients with Diabetes who received an hA1c Exam

Preventive screening for diabetes is important. Lack of screening and follow up care for diabetes was mentioned in the primary data as a big concern for area residents. According to the Dartmouth College Institute for Health Policy & Clinical Practice in 2012, the percent of Medicare patients with diabetes which report having had an hA1c exam to monitor their diabetes diagnosis was 80% in Sacramento County, 84% in Placer County, and 82% for the state of California

Heart Disease

Heart disease is the leading cause of death in the nation for individuals under the age of 85; it includes a number of different types of heart-related conditions, with coronary heart disease the most common and a major cause of heart attacks. More than 600,000 people die of heart disease each year. [5] Table 8 examines rates for mortality, ED visits, and hospitalizations due to heart disease.

Rates – Mortality, ED Visits and Hospitalizations due to Heart Disease

Table 8: Mortality, ED Visits and Hospitalization Rates for Heart Disease Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits	Hospitalizations
Heart Disease	95621	21.55	212.75	255.67
	95660	16.74	252.35	331.49
	95673	22.90	227.15	315.89
	95841	21.89	221.50	310.93
	95842	10.28	247.40	287.87
	Sacramento County	*16.75*	*185.73*	*245.05*
	95602	20.07	99.05	140.98
	95603	26.75	139.35	191.19
	95648	20.95	123.55	169.78
	95678	17.64	182.00	222.34
	Placer County	*19.34*	*144.08*	*183.51*
	SRMC/SAFH HSA	*18.65*	*161.90*	*210.34*
	CA State	*15.82*	*112.64*	*222.00*
	Healthy People 2020 Target	*10.10*	--	--

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013

Examination of mortality due to heart disease revealed that three of the Focus Communities in Sacramento County and three of the Focus Communities in Placer County had elevated rates compared to the respective county benchmarks. In addition, all but one of the Focus Communities in the SRMC/SAFH HSA had mortality rates due to heart disease that exceed the state rate of 15.82 deaths per 10,000 population and all of the Focus Communities in the SRMC/SAFH HSA exceeded the Healthy People 2020 Target of 10.10 deaths per 10,000. All of the Focus Communities in Sacramento County had ED visits and hospitalization rates due to heart disease that were above the county benchmarks. The Focus Community with the highest rate of ED visits and hospitalizations due to heart disease was 95660 (North Highlands). One of the Focus Communities in Placer County, 95678 (Roseville), had an elevated rate of

[5] Centers for Disease Control and Prevention. (2015). *Heart Disease Facts*. Retrieved from: http://www.cdc.gov/heartdisease/facts.htm

ED visits due to heart disease when compared to the county benchmark. In fact, 95678 (Roseville) not only exceeded the county benchmark, but the SRMC/SAFH HSA and state benchmark as well. The Placer County Focus Communities 95678 (Roseville) and 95603 (Auburn) had hospitalization rates due to heart disease that exceeded the county benchmark of 183.51 hospitalizations per 10,000 population.

Percent – Adults over 18 Years with Heart disease

The California Health Interview Survey for 2011-2012 indicated that the percent of adults over the age of 18 that have ever been told by a doctor they have heart disease was 5.2% for Sacramento County, lower than the state percent of 6.3%. Alternatively, Placer County showed a heart disease prevalence of 8.3%, exceeding both the Sacramento County and state benchmarks.

Stroke, Hypertension and Kidney Disease

The fifth leading cause of death nationally is stroke.[6] Approximately 800,000 people have a stroke each year, with the most common type causing restriction of blood flow to the brain.[7] Tobacco smoking and hypertension drastically increase risk for stroke. Hypertension is common in approximately one out of every 3 adults.[8] Hypertension also increases risk for kidney diseases, along with heart disease and diabetes. Stroke, hypertension, and kidney disease are discussed together in this section. Tables 9, 10, and 11 examine mortality, ED visits, and hospitalizations related to stroke, hypertension, and kidney disease.

Rates – Mortality, ED Visits and Hospitalizations due to Stroke

Table 9: Mortality, ED Visit and Hospitalization Rates for Stroke Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits	Hospitalizations
Stroke	95621	4.34	33.71	65.03
	95660	4.98	33.76	76.39
	95673	4.46	30.50	67.59
	95841	4.00	27.70	75.25
	95842	3.28	33.04	62.49
	Sacramento County	4.14	*30.85*	*61.32*
	95602	6.40	20.72	38.48
	95603	3.79	28.75	48.64
	95648	2.82	22.44	39.87
	95678	2.71	31.74	52.53
	Placer County	3.94	*27.19*	*45.08*
	SRMC/SAFH HSA	4.20	*28.39*	*51.11*
	CA State	*3.60*	*18.55*	*52.23*
	Healthy People 2020 Target	*3.40*	--	--

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013

Mortality rates due to stroke were high in three of the five Focus Communities in Sacramento County when compared to the county benchmark as well as the state and Healthy People 2020 benchmarks. Of the three Focus communities with elevated rates, 95660 (North Highlands) had the highest rate of

[6] Centers for Disease Control and Prevention. (2015). *Leading Causes of Death*. Retrieved from: http://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm

[7] Centers for Disease Control and Prevention. (2015). *Stroke Facts*. Retrieved from: http://www.cdc.gov/stroke/facts.htm

[8] Centers for Disease Control and Prevention. (2015). *Blood Pressure Facts*. Retrieved from: http://www.cdc.gov/bloodpressure/facts.htm

mortality due to stroke, followed by 95673 (Rio Linda) and 95621 (Citrus Heights/Antelope). In Placer County, only one of the four Focus Communities had an elevated rate compared to the county, however taking a closer look, 95602 (North Auburn) proved to have the highest mortality rate due to stroke among the nine Focus Communities in the SRMC/SAFH HSA with a rate of 6.40 deaths per 10,000 population—almost double the county, state and Healthy People 2020 Target rates. Examination of ED visits due to stroke showed that three of the five Focus Communities in Sacramento County and two of the four Focus Communities in Placer County had elevated rates compared to their respective county rates. 95660 (North Highlands had the highest rate of ED visits due to stroke among the Focus Communities in Sacramento County, while 95678 (Roseville) had the highest rate of ED visits due to stroke among the Focus Communities in Placer County. Hospitalization rates due to stroke were high in all five of the Focus Communities in Sacramento County and two of the four Focus Communities in Placer County compared to the respective county rates. The Focus Community in Sacramento County with the highest rate of hospitalizations due to stroke was 95841 (North Highlands), while the Focus Community in Placer County with the highest rate of hospitalizations due to stroke was 95678 (Roseville).

Rates – Mortality, ED Visits and Hospitalizations due to Hypertension

Table 10: Mortality, ED Visit and Hospitalization Rates for Hypertension Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits	Hospitalizations
Hypertension	95621	1.54	563.27	419.12
	95660	1.10	780.79	540.72
	95673	1.39	582.72	471.49
	95841	1.17	688.13	546.81
	95842	0.97	663.70	470.48
	Sacramento County	--	*555.90*	*398.66*
	95602	1.03	332.43	257.32
	95603	1.79	391.52	317.28
	95648	1.24	368.78	292.15
	95678	1.08	549.62	367.21
	Placer County	--	*399.00*	*302.64*
	SRMC/SAFH HSA	*1.22*	*453.38*	*345.03*
	CA State	*1.21*	*408.99*	*383.74*

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013

Mortality rates due to kidney disease were elevated in four of the nine Focus Communities the SRMC/SAFH HSA when compared to the state rate of 1.22 deaths due to hypertension per 10,000 population, with the highest mortality rate having occurred in 95603 (Auburn). All five of the Focus Communities in Sacramento County had elevated rates for both ED visits and hospitalizations due to hypertension. 95660 (North Highlands) had the highest rate of ED visits due to hypertension and the second highest hospitalization rate among the Focus Communities in Sacramento County, while 95841 (North Highlands) had the highest rate of hospitalizations due to hypertension among the Focus Communities in Sacramento County. Examination of ED visits and hospitalizations due to hypertension in Placer County showed that 95678 (Roseville) had the highest rate of ED visits and hospitalizations due to hypertension in comparison to the county rate.

Primary data showed that many sources specifically mentioned high blood pressure as a challenging issue for area residents. Accessing medication refills for blood pressure management was noted as an area challenge with many residents, especially low income, using the emergency room as an avenue to get their medication refills. As one community member stated:

A lot of high blood pressure, cholesterol, is something that we see people come in to the ER…. come in to the ER for a refill on their high blood pressure medication because they are not able to get in to see their doctor to get that refill soon enough. (FG_1)

Percent – Adults with Hypertension Not Taking Medication

The Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey results for 2006-2010 indicated that the percentage of adults who did not take medication for their hypertension was 24.2% in Placer County and 25.6% in Sacramento County which were both below the state percent of 30.3%.

Rates – Mortality, ED Visits and Hospitalizations due to Kidney Disease

Table 11: Mortality, ED Visit and Hospitalization Rates for Kidney Disease Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits**	Hospitalizations**
Kidney Disease	95621	0.63	120.74	170.64
	95660	0.59	139.53	234.65
	95673	0.00	124.30	209.61
	95841	0.80	112.56	220.93
	95842	0.59	141.70	219.12
	Sacramento County	--	*110.76*	*180.68*
	95602	0.81	45.33	109.15
	95603	0.93	50.93	143.14
	95648	0.87	67.12	115.68
	95678	0.63	109.25	164.53
	Placer County	--	*73.22*	*129.48*
	SRMC/SAFH HSA	*0.73*	*85.31*	*146.06*
	CA State	*0.73*	*57.09*	*160.01*

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013
**OSHPD Data Includes Data for Nephritis, Nephrotic Syndrome, and Nephrosis.

Mortality rates due to kidney disease were elevated in four of the nine Focus Communities across the SRMC/SAFH HSA when compared to the state rate of 0.73 deaths per 10,000 population. The highest mortality rate occurred in 95603 (Auburn). Examination of ED visits due to kidney disease showed that all five of the Focus Communities in Sacramento County and one of the Focus Communities in Placer County had rates that exceeded the respective county benchmarks. 95842 (Foothill Farms/North Highlands) had the highest rate of ED visits due to kidney disease among the Focus Communities in Sacramento County, while 95678 (Roseville) had the highest rate of ED visits due to kidney disease among the Focus Communities in Placer County. Examination of hospitalizations due to kidney disease showed that four of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had rates that exceeded the respective county benchmarks. 95660 (North Highlands) had the highest rate of hospitalizations due to kidney disease among the Focus Communities in Sacramento County, while 95678 (Roseville) had the highest rate of hospitalizations due to kidney disease among the Focus Communities in Placer County.

Cancer – Incidence, ED Visit, Hospitalization, Mortality and Screening Rates by Specific Cause of Cancer

Cancer is one of the leading causes of death in the nation, with more than 8% of the population receiving a cancer diagnosis at least once in their lifetime[9]. In an attempt to gain a better understanding of how Focus Communities within the SRMC/SAFH HSA are affected by cancer, the assessment included the examination of cancer incidence for female breast, colorectal, lung and prostate cancers at the ZIP code level. All-cause cancer mortality, ED visits and hospitalizations for specific causes of cancer are also examined by ZIP code and included lung cancer, colorectal cancer, prostate cancer, and female breast cancer. These specific cancers were chosen for this assessment because they are among the leading causes of new cases and/or of deaths of cancer among Americans today. Screening rates for breast cancer, cervical cancer and colorectal cancer were also examined at the SRMC/SAFH HSA Focus Community level.

Rates – Breast (female), Colorectal, Lung, and Prostate Cancer Incidence

Cancer incidence communicates risk for cancer within a given area. Table 12 shows incidence rates for female breast, colorectal, lung and prostate cancers for each of the Focus Communities within the SRMC/SAFH HSA. Rates for each Focus Community ZIP Code are compared to the state rate.

Table 12: Cancer Incidence (New Cases) for Female Breast Cancer, Colorectal Cancer, Lung Cancer and Prostate Cancer (Rates per 10,000 Population)

	ZIP Code	Breast-Female	Colorectal	Lung	Prostate
Cancer Incidence	95621	22.59	4.90	9.24	14.78
	95660	13.73	4.11	7.28	11.60
	95673	22.64	4.48	8.54	14.53
	95841	15.25	4.58	7.88	11.45
	95842	15.14	4.26	4.70	8.40
	95602	24.82	6.19	5.98	20.70
	95603	26.57	4.73	5.31	16.09
	95648	29.07	4.73	7.69	26.53
	95678	19.20	3.41	4.94	9.43
	SRMC/SAFH HSA	21.44	4.26	6.24	15.31
	CA State	*13.16*	*3.88*	*4.54*	*11.61*

Source: California Cancer Registry, 2010-2012

The aggregated SRMC/SAFH HSA rates were exceedingly high for all cancers listed in Table 12 when compared to the state rates. All nine Focus Communities within the SRMC/SAFH HSA had elevated rates of breast cancer compared to the state rate of 13.16 new cases per 10,000 population and five of the Focus Communities had rates above the HSA benchmark of 21.44 new cases per 10,000 population. The Focus Community with the highest rate of breast cancer incidences was 95648 (Lincoln) with a rate of 29.07 new cases per 10,000 population. When looking at colorectal cancer incidence rates, eight of the nine Focus Communities had elevated rates compared to the state benchmark and six of the Focus Communities exceeded the HSA rate. The ZIP code with the highest rate of colorectal cancer incidence was 95602 (North Auburn) with 6.19 new cases per 10,000 population—almost double the state rate. When examining lung cancer incidence rates all nine of the Focus Communities within the HSA had rates that exceeded the state benchmark and five of the Focus Communities exceeded the HSA rate. The

[9] Centers for Disease Control and Prevention. (2015). *Cancer*. Retrieved from: http://www.cdc.gov/nchs/fastats/cancer.htm

highest rate of lung cancer incidence appeared in 95621 (Citrus Heights/Antelope) with a rate of 9.24 per 10,000 population. Five of the nine Focus Communities within the SRMC/SAFH HSA had rates of prostate cancer incidence that exceeded the state and HSA rate. The highest incidence rate for prostate cancer was seen in 95648 (Lincoln) with 26.53 new cases per 10,000 population—more than double the state rate.

Rates – All-cause Cancer Mortality and Lung Cancer ED Visits and Hospitalizations

An all-cause cancer mortality rate shows the overall effect of cancer as an illness in the HSA. Unfortunately, mortality data due to specific cancers is not available at the sub county level, and therefore is not included in this assessment. However, ED visits and hospitalization rates due to lung cancer for the SRMC/SAFH HSA Focus Communities are reported in Table 13, followed by rates for colorectal, prostate and female breast cancer in Table 14.

Table 13: Mortality Rates for All-Cause Cancer, and ED Visits and Hospitalization Rates for Lung Cancer Compared To County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population)

	ZIP Code	**Mortality All-Cause Cancer**	**ED Visits Lung Cancer**	**Hospitalizations Lung Cancer**
Lung Cancer	95621	22.16	6.03	14.29
	95660	16.63	4.49	11.03
	95673	19.14	5.73	10.15
	95841	21.77	4.46	19.19
	95842	13.16	2.42	9.69
	Sacramento County	*17.24*	*3.63*	*8.35*
	95602	26.66	5.37	11.79
	95603	24.32	5.07	10.04
	95648	26.12	5.57	12.59
	95678	14.56	3.43	7.91
	Placer County	*20.20*	*4.19*	*9.44*
	SRMC/SAFH HSA	*19.54*	*4.05*	*10.18*
	CA State	*15.41*	*2.68*	*7.95*
	Healthy People 2020	*16.10*	--	--

Source: Mortality: CDPH, 2012; ED visits: OSHPD, 2011-2013

When examining mortality rates due to all-cause cancer, Sacramento and Placer County both had rates above the state and Healthy People 2020 benchmarks. Three of the Focus Communities in Sacramento County and three of the Focus Communities in Placer County had elevated mortality rates due to all-cause cancer compared to the respective county rates. The Focus Community with the highest mortality rate in Placer County was 95602 (North Auburn) and 95621 (Citrus Heights/Antelope) in Sacramento County. Four of the five Focus Communities in Sacramento County and three of the Focus communities in Placer County had rates of ED visits due to lung cancer that exceeded the respective county benchmarks. The Focus Community in Placer County with the highest rates of ED visits due to lung cancer was 95648 (Lincoln) and the Focus Community in Sacramento County with the highest rates of ED visits due to lung cancer was 95621 (Citrus Heights/Antelope). Examination of hospitalization rates due to lung cancer indicated that all five of the Focus Communities in Sacramento County and three of the four Focus Communities in Placer County had elevated rates in comparison to the respective county benchmark. The Focus Community with the highest hospitalization rate due to lung cancer in Sacramento County was 95841 (North Highlands) with a rate more than double the Sacramento County and state benchmark. The Focus Community with the highest hospitalizations rate due to lung cancer in Placer County was 95648 (Lincoln).

Rates – Female Breast, Colorectal and Prostate Cancer ED Visits and Hospitalizations

A lack of access to primary health care greatly affects the risk for late diagnosis of cancer, especially those cancers for which early diagnosis and prevention are important in order to reduce further related morbidity and mortality. Table 14 examines ED visits and hospitalizations related to female breast cancer, colorectal cancer (male and female) and prostate cancer.

Table 14: Rates of ED Visits and Hospitalizations for Female Breast Cancer, Colorectal Cancer, and Prostate Cancer (Rates per 10,000 population)

ZIP Code	ED visits Female Breast Cancer	Hospitalization Female Breast Cancer	ED visits Colorectal Cancer	Hospitalization Colorectal Cancer	ED visits Prostate Cancer	Hospitalization Prostate Cancer
95621	12.78	15.24	3.47	9.59	12.43	15.90
95660	9.68	12.72	3.08	6.84	7.47	7.89
95673	9.49	11.71	1.83	6.02	9.31	15.88
95841	10.63	13.72	1.41	5.65	6.54	10.39
95842	9.34	7.08	3.49	8.14	8.09	8.52
Sacramento County	*8.67*	*10.88*	*2.36*	*6.25*	*7.84*	*10.80*
95602	5.79	15.80	2.02	8.75	18.16	17.54
95603	7.62	11.83	2.79	7.56	10.20	15.34
95648	11.16	16.43	1.78	6.67	12.54	17.17
95678	11.14	12.01	3.02	6.26	6.71	9.48
Placer County	*10.61*	*12.97*	*2.25*	*6.26*	*10.80*	*14.54*
SRMC/SAFH HSA	*10.44*	*12.33*	*2.44*	*6.67*	*9.94*	*13.63*
CA State	*6.59*	*11.07*	*1.85*	*6.43*	*5.79*	*12.37*

Source: OSHPD, 2011-2013

Examination of ED visits related to breast cancer in females revealed that all of the five Focus Communities in Sacramento County and two of the Focus Communities in Placer County had rates above the respective county benchmarks. The Focus Community in Sacramento with the highest rate was 95621 (Citrus Heights/Antelope) while the Focus Community in Placer County with the highest rate was 95648 (Lincoln). Four of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had elevated hospitalization rates related to breast cancer in females when compared to the respective county rates. The Focus Community with the highest rate of hospitalizations related to female breast cancer in Sacramento County was again, 95621 (Citrus Heights/Antelope) and 95602 (North Auburn) in Placer County. Two of the Focus Communities in both Sacramento County and Placer County had elevated rates of ED visits due to colorectal cancer when compared to the respective county rate. The Focus Community in Sacramento County with the highest rate of ED visits due to colorectal cancer was again, 95621 (Citrus Heights/Antelope) and 95603 (Auburn) in Placer County. Examination of hospitalization rates due to colorectal cancer revealed that three of the Focus Communities in Sacramento County and all four of the Focus Communities in Placer County had elevated rates when compared to the respective county benchmarks. The Focus Community with the highest rate of hospitalizations due to colorectal cancer was 95602 (North Auburn) in Placer County with a rate three times the state and almost double the county rate. The Focus Community with the highest rate of hospitalizations due to colorectal

cancer in Sacramento County was 95621(Citrus Heights/Antelope). Two of the Focus Communities in Sacramento County and three of the Focus Communities in Placer County had elevated rates of hospitalizations related to prostate cancer when compared to the respective county rates, with 95602 (North Auburn) again having the highest rate among the Focus Communities in Placer County and 95621 (Citrus Heights/Antelope) having the highest rate among the Focus Communities in Sacramento County.

Screening Rates – Breast (Mammogram), Cervical (Pap) and Colorectal (Sigmoid/Colonoscopy) Cancer (Age-Adjusted)

Data on the percent of Medicare enrollees aged 67-69 or older seen in Figure 8 shows that the percent of enrollees who reported having received a mammogram within the last two years was the same for Sacramento County and the state of California, but higher in Placer County. The percent of female adults over the age of 18 that reported having had a pap test in the last three years was lower for Sacramento County than in Placer County and the state of California. However, more 50 year olds in Sacramento and Placer County reported having had a sigmoidoscopy or colonoscopy at least once, compared to the state percent.

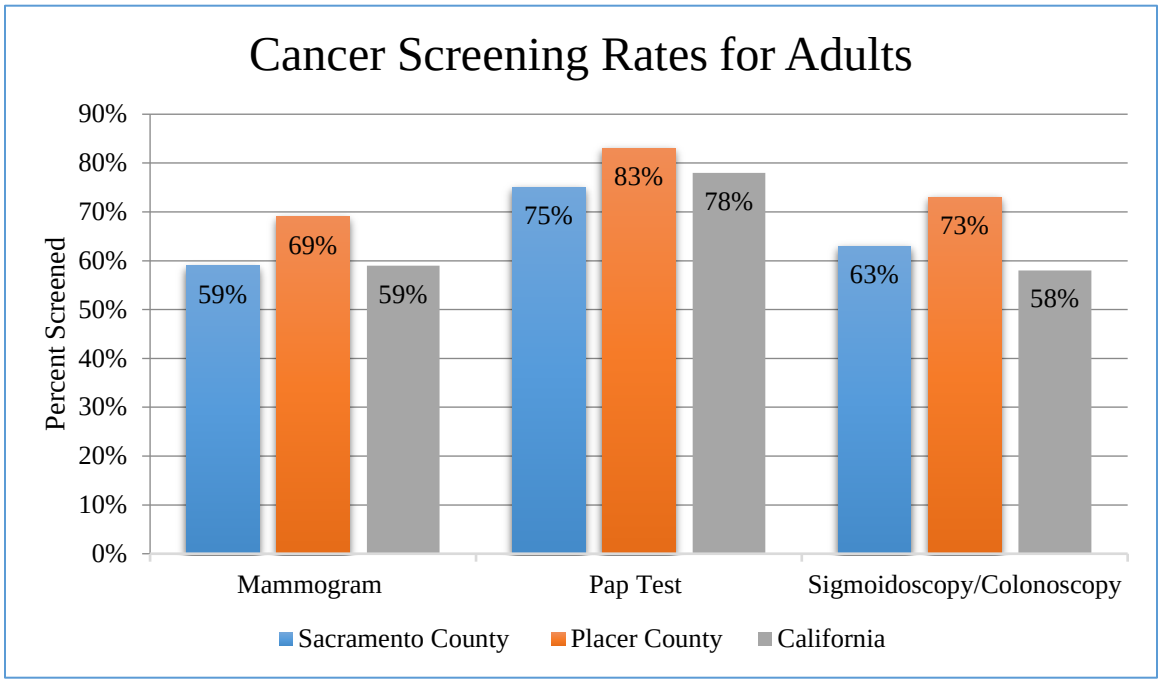

Figure 8: Screening Rates in Adults for Mammograms, Pap Test and Sigmoidoscopy/Colonoscopy (Age-Adjusted)

Respiratory Health – Chronic Obstructive Pulmonary Disease (COPD), Asthma, and Tuberculosis

COPD is a progressive lung disease that makes it very hard to breathe and refers to the two main conditions of emphysema and chronic bronchitis.[10] Tobacco smoking is the biggest risk factor for COPD. As many as 6.8 million people have COPD at the national level. Tuberculosis is a respiratory condition caused by a bacterium called Mycobacterium tuberculosis. In 2014 there were a total of 2.96 cases of TB per 100,000 population in the United States.[11] In an effort to understand the impact of respiratory illness in the SRMC/SAFH HSA, mortality rates for chronic lower respiratory disease (CLRD) are presented in

[10] National Heart, Lung and Blood Institute. (2013). *What is COPD?* Retrieved from: http://www.nhlbi.nih.gov/health/health-topics/topics/copd

[11] Centers for Disease Control and Prevention. (2014). Tuberculosis. Retrieved from: http://www.cdc.gov/tb/statistics/default.htm

Table 15 along with rates of ED visits and hospitalizations related to COPD. Rates of ED visits and hospitalization due specifically to asthma are examined independently in Table 16.

Rates – Mortality, ED Visits and Hospitalizations due to Chronic Obstructive Pulmonary Disease (COPD)

Table 15: Mortality Rates due to Chronic Lower Respiratory Disease, ED Visits and Hospitalization Rates due to COPD Compared To County, State, and Healthy People Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality CLRD	ED Visits COPD	Hospitalizations COPD
Chronic Lower Respiratory Disease (CLRD) & Chronic Obstructive Pulmonary Disease (COPD)	95621	6.24	421.81	260.42
	95660	5.96	566.20	311.39
	95673	5.53	427.92	255.44
	95841	3.71	537.31	293.48
	95842	3.44	455.94	202.78
	Sacramento County	*3.88*	*340.36*	*195.19*
	95602	6.03	310.95	223.13
	95603	7.84	311.59	235.43
	95648	3.77	261.40	181.93
	95678	3.34	316.27	179.52
	Placer County	*4.40*	*268.49*	*174.21*
	SRMC/SAFH HSA	*4.50*	*319.45*	*194.24*
	CA State	*3.46*	*218.30*	*154.44*
	Healthy People 2020	--	*56.80*	*50.10*

Source: Mortality: CDPH, 2012; ED Visits: OSHPD, 2011-2013

Three of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had mortality rates due to CLRD above the respective county benchmarks. The Focus Communities with the highest rates of mortality due to CLRD in Placer County was 95621 (Citrus Heights/Antelope) and 95603 (Auburn). Examination of ED visits and Hospitalizations due to COPD showed that all of the Focus Communities in Sacramento County had rates that exceeded the county benchmarks. Three of the four Focus Communities in Placer County had elevated ED visit rates due to COPD and all four of the Focus Communities had elevated rate of hospitalizations due to COPD when compared to the county rates. The Focus Community with the highest rate of ED visits and hospitalizations due to COPD in Sacramento County was 95660 (North Highlands). The Focus Community with the highest rate of ED visits in Placer County was 95678 (Roseville) while the Focus Community with the highest rate of hospitalizations due to COPD was 95603 (Auburn).

Rates – ED Visits and Hospitalizations due to Asthma

Asthma is one of the leading health issues in the U.S. National data indicates that one in 12 adults and one in 11 children have asthma.[12] Table 16 examines ED visits and hospitalizations due to asthma (all ages) across the SRMC/SRAF Focus Communities.

[12] Centers for Disease Control and Prevention. (n.d.) *Asthma Fact Sheet*. Retrieved from: http://www.cdc.gov/asthma/impacts_nation/asthmafactsheet.pdf

Table 16: ED Visit and Hospitalization Rates due to Asthma Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	ED Visits	Hospitalizations
Asthma	95621	274.73	118.95
	95660	381.80	142.17
	95673	272.78	115.94
	95841	378.33	136.24
	95842	325.39	102.44
	Sacramento County	*235.95*	*101.20*
	95602	148.51	86.26
	95603	155.43	99.90
	95648	172.72	82.71
	95678	205.86	89.43
	Placer County	*166.81*	*79.21*
	SRMC/SAFH HSA	*209.84*	*89.92*
	CA State	*148.86*	*70.55*

Source: OSHPD, 2011-2013

All five of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had elevated rates of ED visits due to asthma compared to the respective county rates. The Focus Community with the highest rate of ED visits due to Asthma in Sacramento County was 95660 (North Highlands)—with a rate more than double that of the state. The Focus Community with the highest rate of ED visits due to Asthma in Placer County was 95678 (Roseville). Examination of hospitalization rates due to Asthma shows that all nine of the Focus Communities in the SRMC/SRAF HSA had elevated rates compared to the respective county benchmark. The Focus Community with the highest rate of hospitalizations due to asthma in Sacramento County was 95660 (North Highlands) with a rate double the state rate. The Focus Community with the highest rate of hospitalizations due to asthma in Placer County was 95603 (Auburn). Overall, Sacramento had higher rates of asthma than the state and Placer County.

Key informants and community members mentioned asthma as a major issue for area residents. Managing asthma in both the school and home built environment were mentioned as big areas of need. As one key informant expert stated

> *Asthma awareness, how do you mitigate some of those things for families within their own environments, keeping things clean and diet and behavior, what smoking does for folks? I think that's also a huge part of the reason why there's such a huge problems with asthma and advocacy around kind of built spaces and all that. (KI_1)*

Percent – Adults Over 18 years with Asthma

As reported by the Centers for Disease Control and Prevention from the Behavioral Risk Factor Surveillance System survey, the percent of adults over the age of 18 that have ever been told by a doctor that they have asthma was 18.4% for Sacramento County, 14.6% for Placer County and 14.2% for the state of California in 2011-2012.

Rates – ED Visits and Hospitalizations due to Tuberculosis

Table 17: ED Visit and Hospitalization Rates due to Tuberculosis Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	ED Visits	Hospitalizations
Tuberculosis	95621	0.00	0.38
	95660	0.13	0.57
	95673	0.00	0.37
	95841	0.00	0.00
	95842	0.13	0.38
	Sacramento County	*0.15*	*0.52*
	95602	0.17	0.00
	95603	0.00	0.22
	95648	0.15	0.00
	95678	0.16	0.65
	Placer County	*0.08*	*0.26*
	SRMC/SAFH HSA	*0.09*	*0.23*
	CA State	*0.15*	*0.82*

Source: OSHPD, 2011-2013

None of the Focus Communities in Sacramento County had ED visit rates due to tuberculosis that were above the county benchmarks, however three of the four Focus Communities in Placer County had elevated rates for ED visits due to tuberculosis, with 95602 (North Auburn) having the highest rate. Examination of the hospitalization rates across the SRMC/SAFH Focus Communities showed that both 95660 (North Highlands) and 95678 (Roseville) had high rates compared to the respective county rates. Overall, Sacramento County and Placer County had better rates than those of the state.

Mental Health

Mental illness is defined as "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning."13 Depression is the most common type of mental illness in the United States and by 2020 is expected to be the second leading cause of disability worldwide. Mental illness is strongly correlated with many risk factors for chronic diseases such as physical inactivity, smoking, excessive drinking, and insufficient sleep.14 Mental health data at the sub-county level is difficult to obtain. Rates of ED visits and hospitalizations related to mental health conditions are provided in Table 18 as a way of examining mental health in the SRMC/SAFH Focus Communities.

13Centers for Disease Control and Prevention. (2013). Mental Health Basics. Retrieved from: http://www.cdc.gov/mentalhealth/basics.htm
14 Ibid.

Rates – ED Visits and Hospitalizations due to Mental Health

Table 18: ED Visit and Hospitalization Rates due to Mental Health Issues Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	ED Visits	Hospitalizations
Mental Health	95621	332.21	259.23
	95660	364.34	296.22
	95673	288.36	259.13
	95841	415.25	364.79
	95842	282.15	220.67
	Sacramento County	*271.38*	*227.04*
	95602	273.41	238.72
	95603	319.93	284.28
	95648	214.45	195.35
	95678	278.68	206.68
	Placer County	*238.01*	*201.97*
	SRMC/SAFH HSA	*256.85*	*218.01*
	CA State	*149.93*	*186.92*

Source: OSHPD, 2011-2013

Examination of ED visits related to mental health indicated that all five of the Focus Communities in Sacramento County and three of the four Focus Communities in Placer County had elevated rates relative to the respective county benchmarks. Hospitalization rates due to mental health across the SRMC/SAFH Focus Communities showed that four of the focus communities in Sacramento County and three of the Focus Communities in Placer County had rates that exceeded the respective county benchmarks.
The Focus Community with the highest rate of ED visits and hospitalizations related to mental health in Sacramento County was a 95841 (North Highlands), with rates double the state benchmarks. The Focus Community with the highest rate of ED visits and hospitalizations related to mental health in Placer County was 95603 (Auburn). Overall, both Sacramento and Placer County had rates exceeding those of the state.

One of the major findings of the primary data was the high frequency of mental illness in the SRMC/SAFH HSA and the need for mental health services and psychiatric emergency services. Changes in the mental health provider network in the last few years have resulted in many residents going untreated for mental illness. As one service provider included in the primary data collection process stated,

> *We just looked recently what the most dominant diagnoses are and it's always depression and anxiety that's right up there at the top of the list of why we are seeing our patients. That's very telling for quality of life. (KI_2)*

Another group of the participants included in the primary data collection process discussed the severity of mental illnesses among aging population within the SRMC/SAFH HSA, specifically dementia and the lack services and resources available. One participant stated,

> *Yeah, the dementia, with our aging population…they don't fit in a mental health bracket because the mental health providers are going to look at them and say, that's organic. So they are not going to help them yet, and we have nothing to offer them. We struggle with dementia… it's really hard to give them what they need. (KI_3)*

Participants also spoke about mental illness in the homeless populations of the county, stating the majority of the homeless population suffers from mental illness. As one provider stated:

> *So I definitely see that there are a lot of challenges and again we do see a very high number of these patients we have 29 beds in the ER that I work in and the majority of the time more than half of them are filled with either homeless or mental health patients (FG_1).*

Percent – Adults Reporting Insufficient Social and Emotional Support

Aggregated data from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey for 2006-2012 showed that 12.7 % of respondents in Placer County and 21.0% of respondents in Sacramento County, over the age of 18, indicated that they receive insufficient social and emotional support most of the time. Both these percentages were lower than the state percentage of 25.0%, however Sacramento County had a percentage significantly higher than Placer County.

Dental Health

Oral health is important to overall quality of life. The data used in this assessment to examine the status of oral health in the SRMC/SAFH Focus Communities was ED visits and hospitalizations due to dental conditions. This data is dated from 2011 – 2013, before the reinstatement of dental coverage under the state Medicaid (Medi-Cal) program. Additional examination of data on dental health is included in later sections of the report in the "Access to Care" section.

Rates – ED Visits and Hospitalizations due to Dental Health

Table 19: ED Visit and Hospitalization Rates due to Dental Issues Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	ED Visits	Hospitalizations
Dental Health	95621	68.09	10.50
	95660	141.24	12.39
	95673	94.94	10.59
	95841	137.86	12.58
	95842	113.90	8.87
	Sacramento County	*72.66*	*9.77*
	95602	59.24	9.67
	95603	53.30	10.50
	95648	29.47	8.83
	95678	48.63	8.64
	Placer County	*36.32*	*8.19*
	SRMC/SAFH HSA	*55.10*	*9.10*
	CA State	*41.34*	*7.81*

Source: OSHPD, 2011-2013

In Sacramento County, four of the Focus Communities had high rates of ED visits related to dental health issues compared to the county rate, while three of the Focus Communities in Placer County had elevated rates compared to the county benchmark. The Focus Community with the highest rates of ED visits related to dental health in Sacramento County was 95660 (North Highlands) and 95602 (North Auburn) in Placer County. When examining hospitalization rates due to dental health across the SRMC/SAFH Focus Communities, four of the Focus Communities in Sacramento County and all four of the Focus Communities in Placer County had elevated rates when compared to the respective county rates. The Focus Community in Sacramento County with the highest rate of hospitalizations due to dental health was 95660 (North Highlands) while the Focus Community in Placer County with the highest rate of

hospitalizations due to dental health was 95603 (Auburn). Overall, Sacramento County had the highest rates of ED visits and hospitalizations due to dental health.

Injury – Intentional (Suicide and Self- Inflicted Injury) and Unintentional

In 2013, suicide was the 10th leading cause of death nationally, and the second leading cause of death for Americans 15-34 years of age.15 Unintentional injury was the third leading cause of death overall but the first leading cause of death for Americans 1-44 years of age.

Rates – Mortality, ED Visits and Hospitalizations due to Suicide and Self-Inflicted Injury

Table 20: Mortality Rates due to Suicide and ED Visits and Hospitalization Rates due to Self-Inflicted Injury Compared to County, State, and Healthy People 2020 Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits	Hospitalizations
Suicide/Self-Inflicted Injury	95621	1.28	15.88	6.41
	95660	1.47	15.85	7.59
	95673	1.79	12.65	7.83
	95841	1.66	23.26	8.57
	95842	1.14	8.94	7.19
	Sacramento County	*1.28*	*12.72*	*4.75*
	95602	1.06	11.48	3.35
	95603	1.38	12.75	2.76
	95648	0.79	6.51	3.60
	95678	0.98	13.55	3.76
	Placer County	*1.23*	*9.39*	*3.80*
	SRMC/SAFH HSA	*1.44*	*10.91*	*4.79*
	CA State	*1.04*	*8.18*	*4.40*
	Healthy People 2020	*1.00*	--	--

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013

In Sacramento County, three of the five Focus Communities had elevated mortality rates due to suicide and one of the four Focus Communities in Placer County had a high rate of suicide when compared to the respective county benchmarks. The Focus Community in Sacramento County with the highest suicide rate was 95673 (Rio Linda) and 95603 (Auburn) in Placer County. Examination of ED visits due to self-inflicted injury showed that three of the Focus Communities in Sacramento and three of the Focus Communities in Placer County had rates exceeding the respective county benchmarks. 95841 (North Highlands) proved to have the highest rate of ED visits due to self-inflicted injuries across the Focus Communities in Sacramento County, with a rate almost double the Sacramento County benchmark and almost three times the state benchmark. Meanwhile, the Focus Community in Placer county with the highest rate of ED visits due to self-inflicted injury was 95678 (Roseville). Hospitalization rates due to self-inflicted injury demonstrated that all five of the Focus Communities in Sacramento County and none of the Focus Communities in Placer County had elevated rates when compared to the respective county rates. The Focus Community in Sacramento County with the highest rate was once again 95841 (North Highlands).

15 Centers of Disease Control and Prevention. (2015). Ten leading causes of death by age group – 2013. Retrieved from: http://www.cdc.gov/injury/wisqars/leadingcauses.html

Rates – Mortality, ED Visits and Hospitalizations due to Unintentional Injury

Table 21: Mortality, ED Visit and Hospitalization Rates due to Unintentional Injury Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	Mortality	ED Visits	Hospitalizations
Unintentional Injury	95621	3.28	811.30	224.45
	95660	3.08	1045.87	238.89
	95673	3.50	954.55	241.39
	95841	4.99	1038.23	248.30
	95842	2.82	876.85	187.93
	Sacramento County	*3.38*	*761.56*	*176.40*
	95602	5.08	858.22	207.71
	95603	3.57	860.19	218.94
	95648	2.46	660.34	213.70
	95678	2.49	759.85	156.08
	Placer County	*3.29*	*718.98*	*186.36*
	SRMC/SAFH HSA	*3.37*	*755.42*	*193.29*
	CA State	*2.88*	*666.38*	*154.85*
	Healthy People 2020	*3.40*	--	--

Sources: Mortality: CDPH, 2012; ED Visits and Hospitalizations: OSHPD, 2011-2013

Mortality rates due to unintentional injuries showed that two of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had elevated rates when compared to the respective county benchmarks. The Focus Community in Sacramento County with the highest rate was 95841 (North Highlands), while the Focus Community in Placer County with the highest rate was 95602 (North Auburn). Rates for ED visits and hospitalizations due to unintentional injury exceeded the county rate in all five of the SRMC/SAFH Focus Communities in Sacramento County. The Focus Community in Sacramento with the highest rate of ED visits due to unintentional injury was 95660 (North Highlands), while the Focus Community with the highest rate of hospitalizations due to unintentional injury was 95841 (North Highlands). In Placer County, three Focus Communities had elevated rates of ED visits and hospitalizations due to unintentional injury in comparison to the county benchmark. The Focus Community with the highest rates of ED visits and Hospitalizations due to unintentional injury in Placer County was 95603 (Auburn).

Risk Behaviors and Living Conditions in the SRMC/SAFH HSA

Risk behaviors contribute to increased risk for morbidity and mortality of most health conditions in a community and are often the focus of community-based health promotion efforts. These risk behaviors include smoking, poor nutrition, physical inactivity, violent behavior, alcohol and drug usage, and risky sexual behaviors. In order to gain a clear understanding of reasons behind why individuals engage in risky behavior, it is equally important to consider the conditions in which they live. These living conditions include the physical, social, economic/work, and service environment.

Risk Behaviors – Substance Abuse, Poor Nutrition, Physical Inactivity, and Risky Sexual Behavior

This section of the report will detail all indicators used in the assessment to examine the various risk behaviors in the SRMC/SAFH HSA.

Substance Abuse

Substance abuse, specifically the use of alcohol and drugs, is a leading preventable cause of death in the United States, costing states millions of dollars each year in treatment costs.[16] Alcohol impaired driving is the cause of 33% of all fatal car accidents.[17] This assessment included examination of multiple indicators addressing substance abuse. The indicators presented here include rates of ED visits and hospitalizations by Focus Community ZIP code related to substance abuse, alcohol and tobacco smoking prevalence, liquor store access and percent of household expenditures for alcohol and tobacco. Prescription drug abuse has also become a major problem for adults nationally.[18]

Rates – ED Visits and Hospitalizations due to Substance Abuse

Table 22: ED Visit and Hospitalization Rates due to Substance Abuse Compared to County and State Benchmarks (Rates per 10,000 Population)

	ZIP Code	ED Visits	Hospitalizations
Substance Abuse**	95621	445.45	229.61
	95660	697.69	348.50
	95673	548.65	277.44
	95841	649.87	357.05
	95842	527.76	244.66
	Sacramento County	*438.58*	*196.37*
	95602	349.15	172.91
	95603	392.40	198.96
	95648	220.83	117.81
	95678	452.53	180.56
	Placer County	*299.45*	*138.86*
	SRMC/SAFH HSA	*366.67*	*176.70*
	CA State	*253.80*	*145.00*

Source: OSHPD, 2011-2013
coded under **Mental Health codes

Examination of rates for ED visits and hospitalizations related to substance abuse indicated that all five of the Focus Communities in Sacramento County had rates exceeding the county benchmarks. The Focus Communities in Sacramento County with the highest rate of ED visits due to substance abuse was 95660 (North Highlands) while 95841 (North Highlands) had the highest rate of hospitalizations due to substance abuse. In Placer County, three of the five Focus Communities experienced elevated rates of hospitalizations and ED visit related to substance abuse in comparison to the county benchmark. 95678 (Roseville) had the highest rate of ED visits due to substance abuse, while 95603 (Auburn) had the highest rate of hospitalizations due to substance abuse. Overall, Sacramento County rates exceeded those of the state and Placer County for ED visits and hospitalizations due to substance abuse.

Primary data participants also spoke about the need for more inpatient substance abuse treatment facilities in the county, saying that the current infrastructure for care is broken. Many residents seek episodic care in the emergency departments and community clinics in their neighborhoods. However, such lack of consistent intensive care results in a revolving door for many residents struggling with substance abuse. As one provider stated, "*You know, all these things that we don't manage well and so they keep going*

[16] Centers for Disease Control and Prevention. (2015.) *Alcohol and Drug Use*. Retrieved from: http://www.cdc.gov/stltpublichealth/didyouknow/topic/alcohol.html
[17] Ibid.
[18] Ibid.

through a system that's not set up to help them escape that, so it's the wrong system"(KI_1). Key Informants also mentioned substance and mental health issues abuse as major issues in the SRMC/SAFH especially in the rural areas. One of the participants stated, *"I think substance abuse disorders is the biggest challenge we face as a society and especially in these rural communities" (KI_4).*

Percent – Adults Reporting Excessive Alcohol Consumption

Results of the national Center for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey indicated that approximately 18% of respondents in Sacramento County reported engaging in excessive alcohol consumption (more than 2 drinks per day for males and more than 1 per day for females), slightly higher than the Placer County percent and state percent of 17.2%

.

Rate – Liquor Store Access per 100,000 Population

Data on liquor stores from the US Census Bureau for 2012 revealed that Sacramento County had 8.11 and Placer County had 5.17 liquor stores per 100,000 people, both of which are less than the state rate of 10.02 liquor stores per 100,000 population.

Percent – Home Expenditures Spent on Alcohol

Alcohol expenditure data from Nielsen showed the percent of at home expenditures on alcohol at the census tract level. Data for 2014 aggregated to the SRMC/SAFH HSA level showed that the percent of expenditures was at 14.9%, above the state percent of 12.9%.

Percent – Prevalence of Tobacco Usage

Data taken from the California Health Interview Survey for 2014 showed that the percent adults and teens smoking in Sacramento County was 14.3% which exceeds both state benchmark of 10.8% and the Placer County benchmark of 2.6%.

Percent – Home Expenditures Spent on Tobacco

Tobacco expenditure data from Nielsen indicated the percent of home expenditures on tobacco at the census tract level. This indicator aggregated to the SRMC/SAFH HSA level revealed that the percent of expenditures for tobacco was 1.3%, slightly higher than the state percent of 1.0% for 2014.

Poor Nutrition and Physical Inactivity

Consideration of diet and exercise data for this health assessment also includes an examination of obesity data. Though obesity is a clear outcome of poor dietary choices and a lack of adequate exercise, it is also a contributor to most of the morbidity and mortality health conditions mentioned in the previous sections of the report. Many factors contribute to high rates of obesity, poor nutrition, lack of physical activity and chronic disease in the SRMC/SAFH HSA. These factors include conditions of poverty, access to health care and healthy foods, pollution in a community, and education to name a few. One key informant described the challenge that area service providers have in addressing the multitude of needs in the SRMC/SAFH HSA. The key informant stated, *"It is just trying to bail the ocean with a teacup" (KI_5).*

Percent – Overweight and Obesity among Youth

Table 23: Percent Overweight and Obese among Youth Grades 5th, 7th and 9th as Measured by the FitnessGram by County in the SRMC/SAFH HSA

	Percent Youth Overweight	**Percent Youth Obese**
Sacramento County	19.4%	17.5%
Placer County	14.9%	11.0%
CA State	*19.3%*	*19.0%*

Source: California Department of Education, 2013-2014

As the data presented in Table 23 indicates, Sacramento County has a slightly higher percent of overweight youth compared to the state benchmark, yet has a lower percent of obese youth than the state. The percentages of overweight and obese youth in Placer County are substantially lower than the state benchmarks.

Additionally, data by race and ethnicity for Sacramento County indicated that the percent overweight for White students was 17.6% compared to Black students at 21.7% and Hispanic students at 21.4%. In Placer County, the percent overweight for White students was 13.9% compared to Black students at 17.3% and for Hispanic students at 17.6%. Unfortunately, overweight and obesity data is seldom available at the sub-county level in order to examine how rates compare within the counties.

Percent – Mothers Reporting Breastfeeding

Research indicates that when a child is breastfed the risk for negative health conditions decreases; specifically, there is a reduction in the risk of infant mortality. According to data from the California Department of Public Health for 2012, the percent of mothers who reported breastfeeding their infants at birth was slightly lower for Sacramento County at 91.7% compared to the state percent at 93.0%, yet higher for Placer County with a benchmark of 96.1%. Data by race and ethnicity for Sacramento County revealed that while 95.3% of Whites reported breastfeeding, only 87.3% of Blacks, 93.5% of Hispanic/Latinos, 87.7% of Asians, and 92.3% of Native American/Alaskan Natives reported breastfeeding. Data by race and ethnicity for Placer County revealed that 96.4% of Whites, 85.7% of African-Americans, 96.5% of Hispanic/Latinos, and 96.7% of Asians reported breastfeeding. No data was available for Native Americans/Alaskan Natives who reported breastfeeding in Placer County.

Area – USDA Defined Food Desert

The USDA defines a food desert as: "urban neighborhoods and rural towns without ready access to fresh, healthy, and affordable food. Instead of supermarkets and grocery stores, these communities may have no food access or are served only by fast food restaurants and convenience stores that offer few healthy, affordable food options."[19] The lack of access to healthy food results in a poor diet and can lead to higher levels of obesity and other diet-related diseases, such as diabetes and heart disease. The USDA further describes a food desert as "a census tract with a substantial share of residents who live in low-income areas that have low levels of access to a grocery store or healthy, affordable food retail outlet."[20] Figure 9 identifies the food deserts for the SRMC/SAFH HSA.

[19] US Department of Agriculture. (n.d.) *Food Deserts*. Retrieved from: https://apps.ams.usda.gov/fooddeserts/fooddeserts.aspx
[20] Ibid.

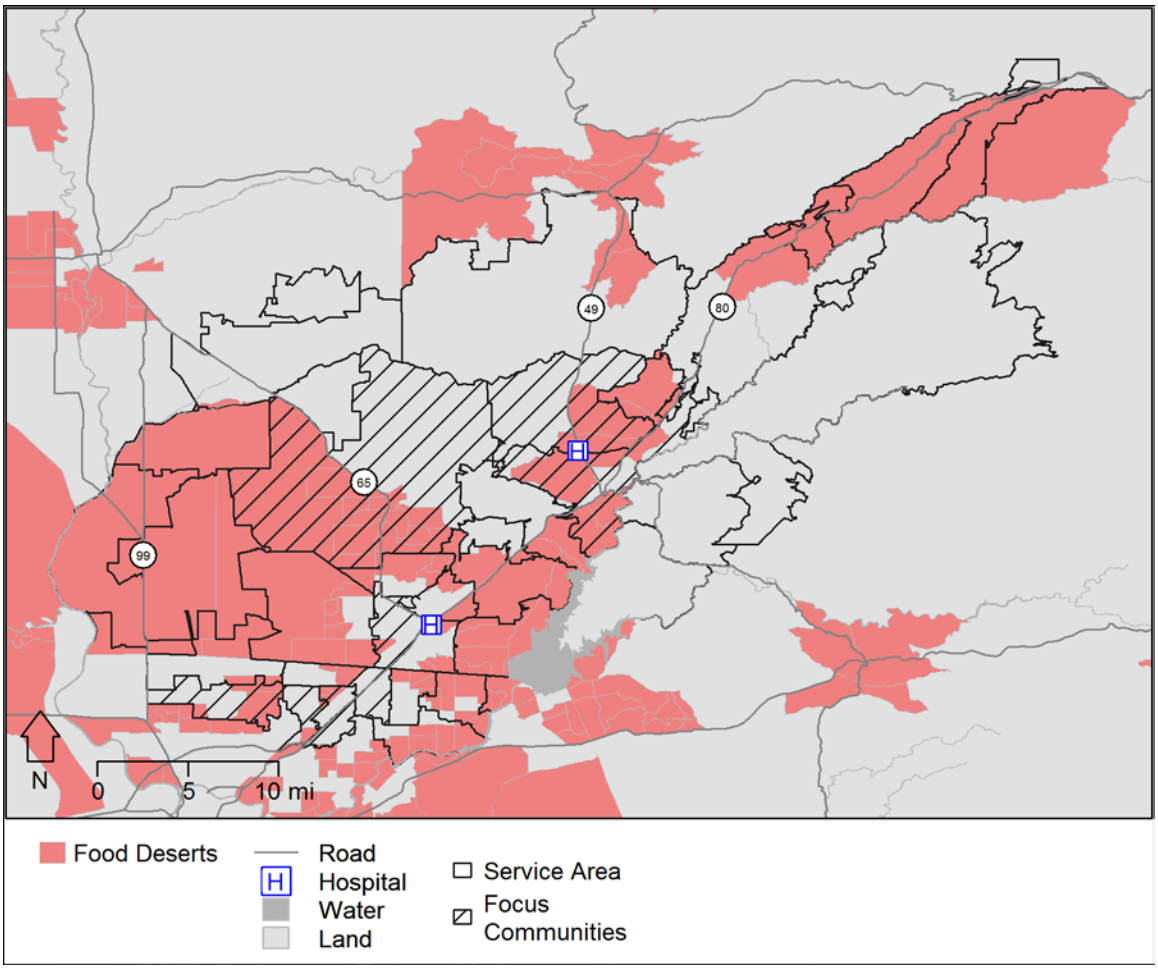

Figure 9: USDA Defined Food Deserts

As shown in Figure 9, 16 of the 41 ZIP codes in the SRMC/SAFH HSA were designated USDA defined food deserts. Half of the 16 ZIP codes designated as food deserts were Focus Communities: 95621 (Citrus Heights/Antelope), 95660 (North Highlands), 95673 (Rio Linda), 95841 (North Highlands), 95842 (Foothill Farms/North Highlands), 95602 (North Auburn), 95603 (Auburn), and 95648 (Lincoln). The remaining eight ZIP codes in the SRMC/SAFH HSA that were designated as USDA defined food deserts were 95610 (Citrus Heights/Orangeville), 95628 (Fair Oaks/Carmichael), 95631 (Foresthill), 95659 (Nicolaus), 95661 (Roseville), 95703 (Applegate), 95722 (Meadow Vista) and 95949 (Alta Sierra).

Percent – Population with Food Insecurity and Receiving Supplementary Nutrition Assistance Program

According to Feeding America, the percentage of population with food insecurity in 2013 was higher for Sacramento County and lower for Placer County relative to the state benchmark. Also, the percent receiving SNAP (Supplementary Nutrition Assistance Program) in 2011 was highest for Sacramento County compared to the state and Placer County benchmarks, as displayed in Figure 10.

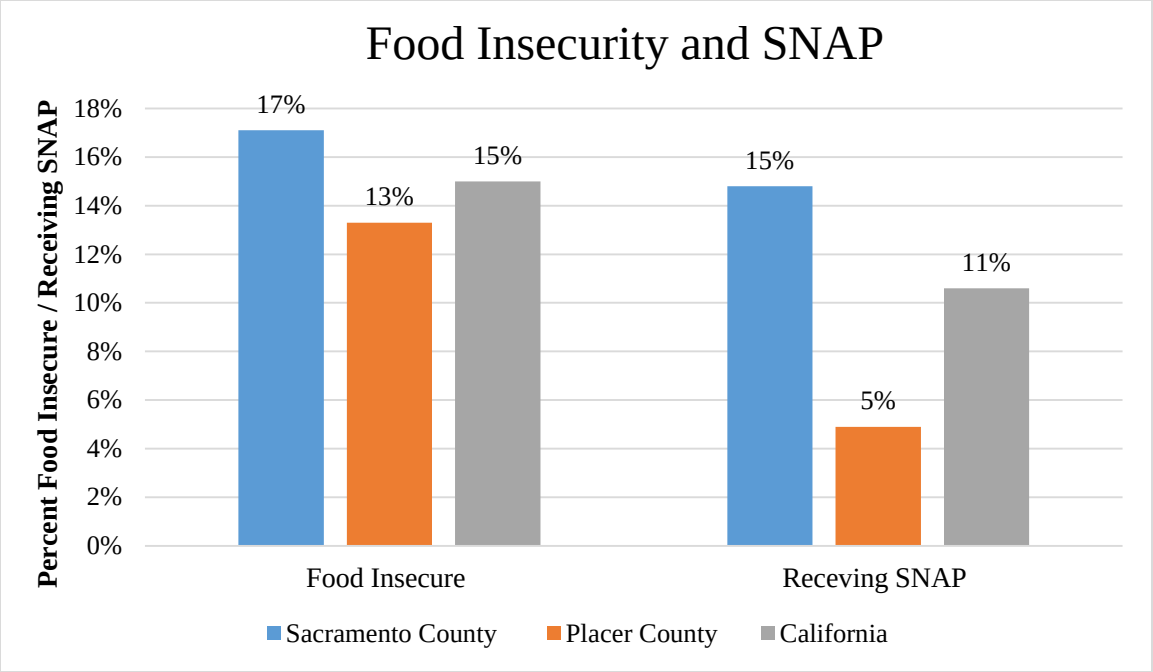

Figure 10: Percent Food Insecure and Percent Receiving SNAP

Index – Modified Retail Food Environment Index (MRFEI)

The modified Retail Food Environment Index (mRFEI) consists of two aspects of food availability: the presence of food outlets within a ZIP code and the relative abundance of healthier food outlets. Negative mRFEI values occur in areas with no food outlets. All other values report the percentage of healthier food outlets, among all food outlets, in the ZIP code. Figure 11 shows the mRFEI for the SRMC/SAFH HSA, including the Focus Communities. Lighter areas indicate poor or no access to healthy food outlets and darker areas indicate greater access to healthy food outlets.

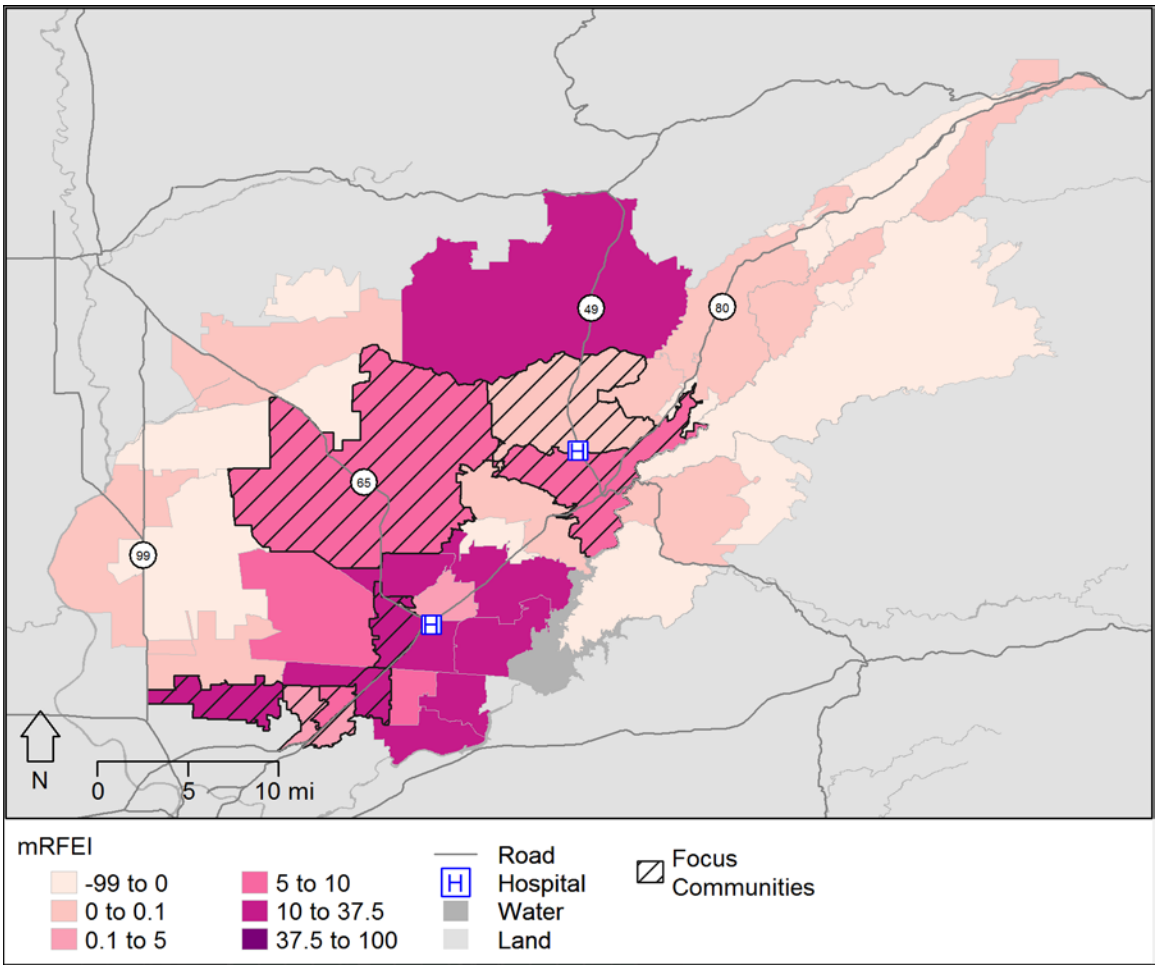

Figure 11: Modified Retail Food Environment Index (mRFEI)

As shown in Figure 11, 22 of the 41 ZIP Codes –more than half of the entire SRMC/SAFH HSA—had an mRFEI index value of -99 to 0 while the remaining ZIP codes had values that ranged from 1 to 25. Looking at the Focus Communities, 95602 (North Auburn) had the lowest mRFEI value of zero, while 95660 (North Highlands) and 95841 (North Highlands) had a value of three. Focus Communities 95842 (Foothill Farms/North Highlands), 95603 (Auburn) and 95648 (Lincoln) had a value of nine, 95678 (Roseville) had a value of 10, (95673) Rio Linda had a value of 12, and (Citrus Heights/Antelope) had a value of 21.

Rate – Fast Food Restaurants and Grocery Stores per 100,000 Population

According to business data reported by the U.S. Census Bureau, the rate of fast food restaurants for the SRMC/SAFH HSA fell slightly below the state rate with 71.30 fast food restaurants per 100,000 population. However, the rate of grocery stores in the SRMC/SAFH HSA was lower than the state with only 16.79 grocery stores per 100,000 population. Figure 12 below depicts the findings.

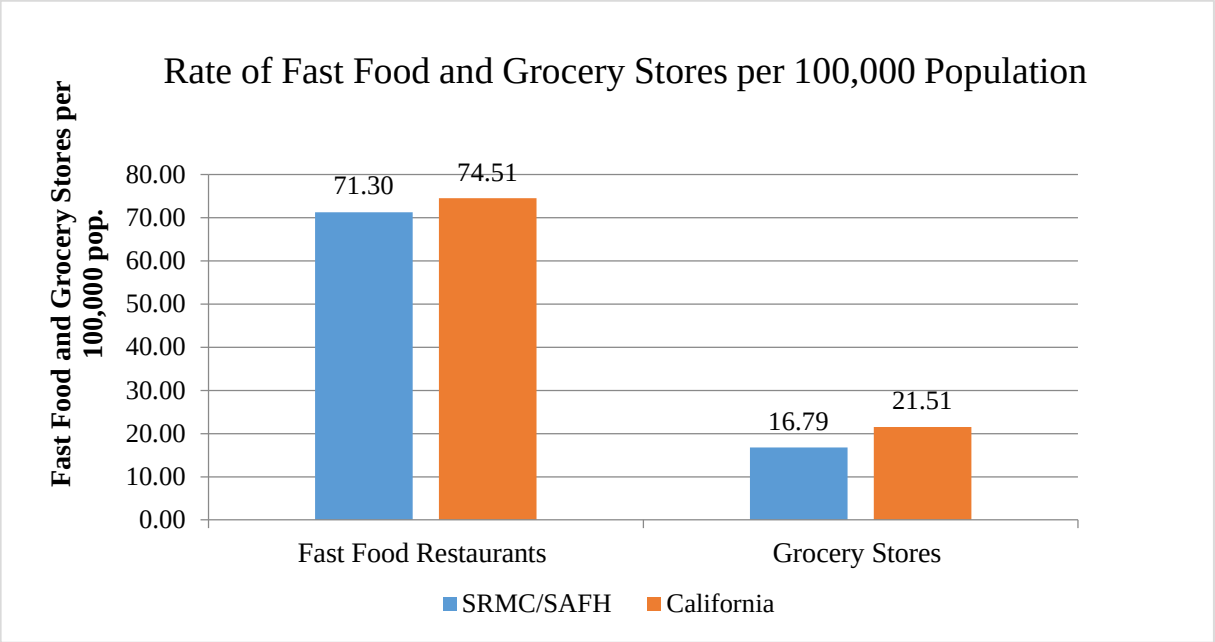

Figure 12: Fast Food Restaurants and Grocery Stores per 100,000 Population

Percent – Youth Eating Less Than Five Servings of Fruits and Vegetables a Day

Data from the 2011-2012 California Health Interview Survey indicated that 35.5% of youth in Placer County reported easting less than five servings of fruits and vegetables daily, while 48% of youth in Sacramento County reported eating less than five servings of fruits and vegetables daily, exceeding the state benchmark of 47.40%. Data examined by race and ethnicity in Sacramento County showed that 43.5% of White and 43.0% of Hispanic/Latino youth reported eating less than five servings a day compared to 36.2% of Black youth who reported eating less than five servings a day. In Placer County, 47.1% of Hispanic/Latino youth report eating less than five servings a day, compared to the 34% of White youth who reported eating less than five servings a day in Placer County. No data were available for the Black population in Placer County.

Percent – Home Expenditures Spent on Fruits and Vegetables and Soda

Results for the percent of at-home food expenditures on fruits and vegetables, as well as soda were notable for the SRMC/SAFH HSA. Data from Nielsen for 2014 showed that the percent spent for fruits and vegetables for the SRMC/SAFH HSA was 13.1%, lower than the state percent at 14.1%. However, the inverse is true for soda expenditures; the soda expenditure percent for the SRMC/SAFH HSA was 3.9%, above the state percent at 3.6%.

Percent – Physical Inactivity for Adults and Youth

Indicators that examine physical activity at the HSA level are very hard to find. However, in 2012 the Centers for Disease Control (CDC) reported that the percent of adults over the age of 20 that indicated they perform no regular physical activity was 16.8% for Sacramento County, slightly higher than the state benchmark of 16.6%. Meanwhile, 13.3% of adults over the age of 20 in Placer County indicated that they perform no regular physical activity, less than Sacramento County and the state.

Examination of physical inactivity among youth in grades 5, 7, and 9 who participated in the FitnessGram Physical Fitness Test indicated that 35.3% of Sacramento youth were classified as physically inactive. In Placer County, fewer youth proved to be as physically inactive, with 22.6% of youth classified as physically inactive through the FitnessGram Physical Fitness Test. Both Placer and Sacramento County percentages fell below the state benchmark of 35.9%. Examination of physical inactivity by race and ethnicity for Sacramento County revealed that 30.5% of White, 31.4%, 36.6% of non-Hispanic/multiple race of Asian, 42.3% of Black and 44.6% of Hispanic/Latino youth in Sacramento County were classified as physically inactive. In Placer County 21.2% of Asian, 22.9% of White, 33.5% of Black and 35.9% of Hispanic/Latino youth were classified as physically inactive.

Percent of Population Living within One-Half Mile of a Park

Having access to recreational areas contributes to opportunities for physical activity. Figure 13 shows the percent of population in the SRMC/SAFH HSA by ZIP code living within one-half mile of a recreational park. The lighter colors denote fewer residents with nearby park access and darker colors show more residents living within one-half mile of a park.

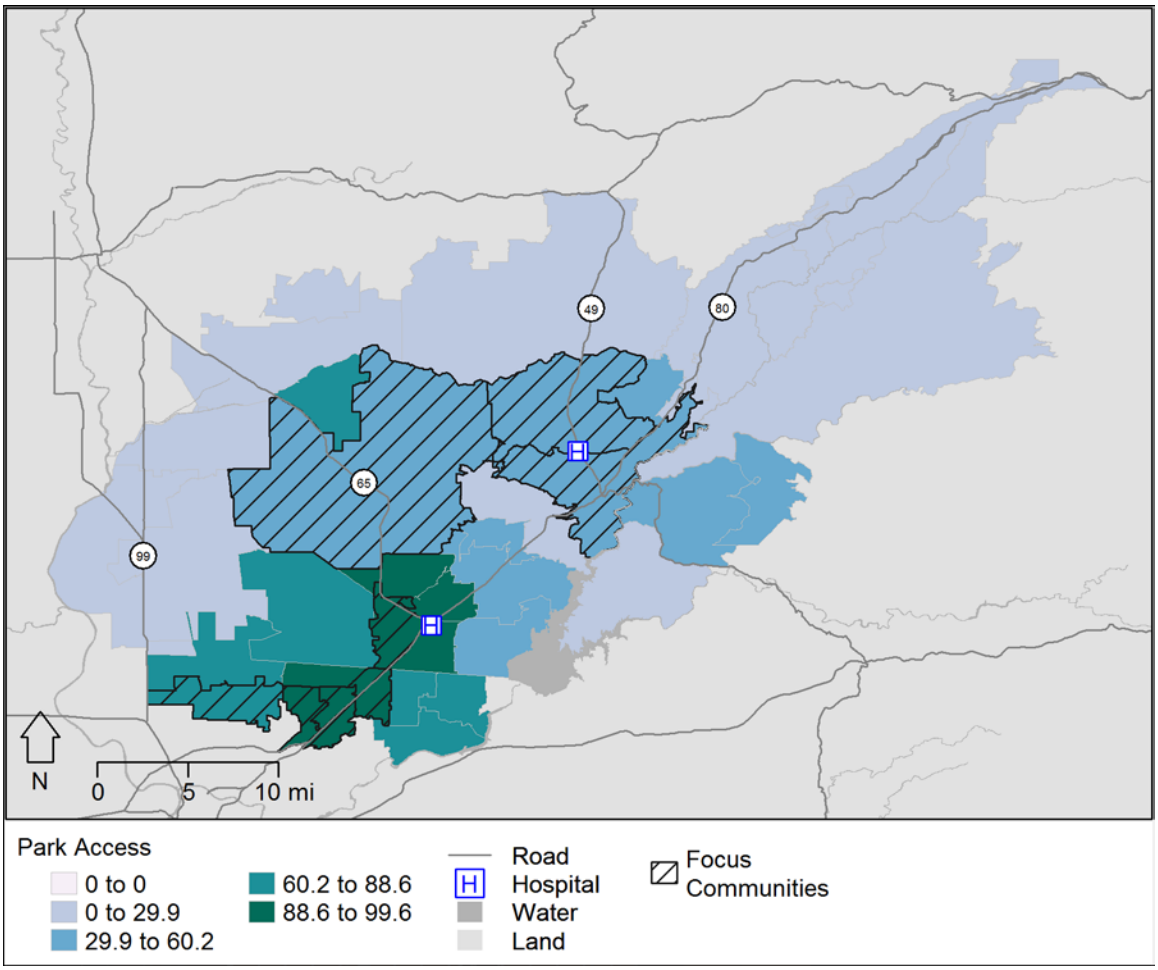

Figure 13: Percent of Population within ZIP Code that Live within One-Half Mile of a Park

As displayed in Figure 13, accessibility to a park varied throughout the SRMC/SAFH HSA. Ten of the 41 ZIP codes in the SRMC/SAFH HSA had zero percent of the population living within one-half mile of a park, which included 95692 (Wheatland), 95717 (Gold Run), 95674 (Rio Oso), 95903 (Beale AFB), 95714 (Dutch Flat), 95668 (Pleasant Grove), 95701 (Alta), 95736 (Weimar), 95659 (Nicolaus) and 95715

(Emigrant Gap). Seven ZIP codes had 1.6 to 29.9 percent of the population living within one-half mile of a park while the remaining 24 ZIP codes in the SRMC/SAFH HSA had 29.9 to 99.6 percent of the population living within one-half mile of a park.

Key informants and community members stated that community parks are lacking in the HSA. Additionally, where parks do exist there are concerns of safety and many residents are hesitant to play in the parks or engage in physical activity in the neighborhoods.

> *The geographic location, or closeness also are barriers. I say this and I'll provide a little bit of explanation about the way that the person feels in their community. Their safety. If a family doesn't feel safe that they can go to the park and let their kids play, it's difficult for them to make sure that their children are getting enough exercise that they're outdoors and that even in small ways contributes to health benefits. (KI_6)*

Risky Sexual Behavior – Teen Birth Rate and Sexually Transmitted Infections (Chlamydia, Gonorrhea, and HIV/AIDS)

Rate – Teen Births to Women under the Age of 20 years

The teen birth rate (births to women under the age of 20) is an indicator used in this assessment to examine sexual behavior throughout the SRMC/SAFH HSA. Data from 2013 indicates that the national rate for teen births (age 15-19) sits at 26.5 per 1,000 live births.[21] Figure 14 shows the teen birth rate for the SRMC/SAFH HSA.

[21] Centers for Disease Control and Prevention. (2015). *Teen Births*. Retrieved from: http://www.cdc.gov/nchs/fastats/teen-births.htm

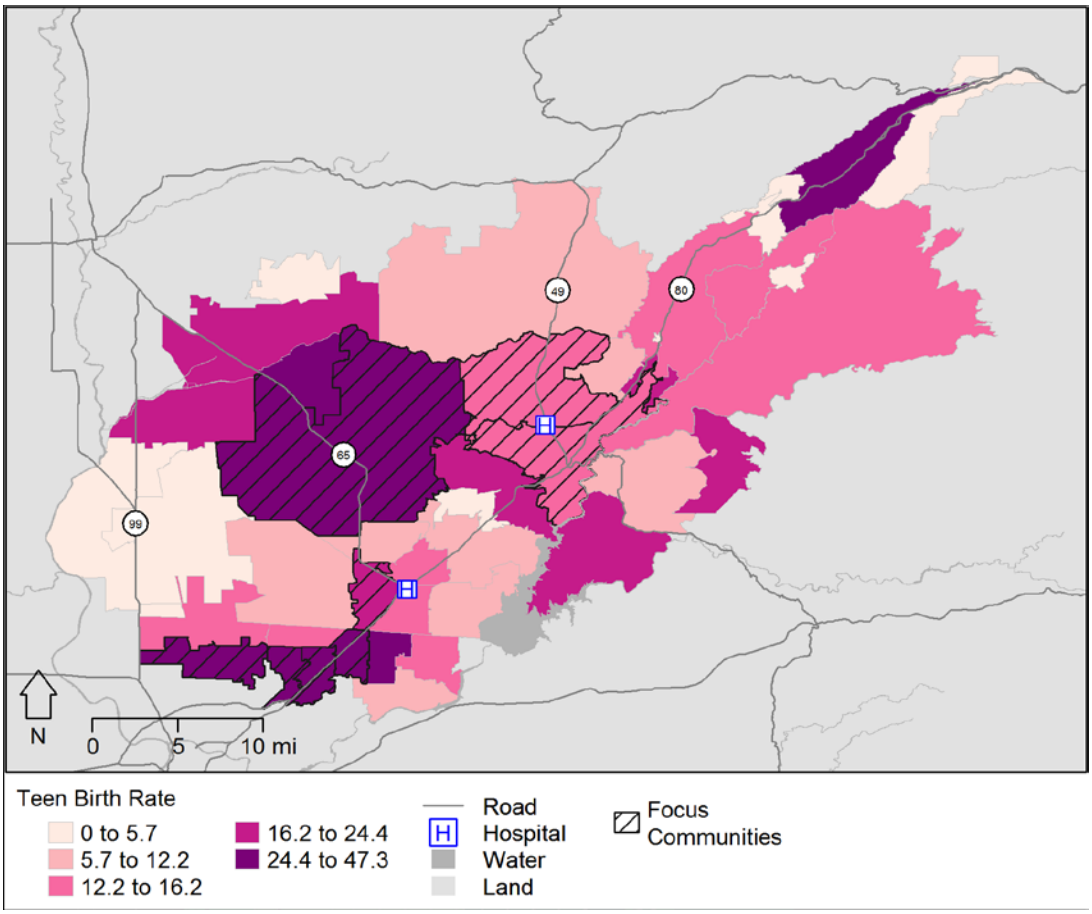

Figure 14: Teen Birth Rate for 15-19 Year Olds per 1,000 Live Births

The rate of teen births was highest in Sacramento County with 28.40 teen births per 1,000 live births, followed by the state of California with 28.30 teen births per 1,000 live births and Placer County with 11.60 teen births per 1,000 live births. Four of the 41 ZIP codes in the SRMC/SAFH has, three of which were Focus Communities, had teen birth rates that exceeded the state benchmark. 95841 (North Highlands) had a rate of 34.91 teen births per 1,000 live births, 95610 (Citrus Heights/Orangevale) had a rate of 35.34 teen births per 1,000 live births, 95842 (Foothill Farms/North Highlands) had a rate of 39.79 teen births per 1,000 live births and ZIP code 95660 (North Highlands) had the highest rate with 47.28 teen births per 1,000 live births.

Sexually Transmitted Infections (STI) – Chlamydia, Gonorrhea, and HIV/AIDS

Rates of STIs, including chlamydia, gonorrhea, and HIV illustrate the presence of risky sexual behavior in the SRMC/SAFH HSA. Since STIs are largely preventable, knowledge of where community members are infected by STIs helps to target interventions for treatment and prevention. Table 24 displays incidence rates for chlamydia and gonorrhea by ZIP code for 2014 compared to county and state benchmarks. Incidence rates are a measure or risk for a condition. Table 25 shows ED visits and hospitalizations related to STIs, as well as those specific to HIV/AIDS.

Rates – Chlamydia and Gonorrhea Incidence

Table 24: Chlamydia and Gonorrhea (New Cases) Compared to County Benchmark (Rates per 10,000 Population)

	ZIP Code	Chlamydia Incidence	Gonorrhea Incidence
STI Incidence	95621	35.84	9.38
	95660	59.69	18.27
	95673	44.72	10.37
	95841	66.09	23.64
	95842	68.16	23.98
	Sacramento County	47.07	12.51
	95602	14.96	3.88
	95603	28.87	6.42
	95648	17.41	5.18
	95678	35.91	4.69
	Placer County	23.59	3.89
	CA State	*45.34*	*11.68*

Source: Sacramento County Public Health, 2014

Incidence rates for chlamydia across the SRMC/SAFH HSA Focus Communities indicated that three of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had elevated chlamydia rates in comparison to the respective county benchmarks. The highest rate of chlamydia incidence among the Focus Communities in Sacramento County appeared in 95842 (Foothill Farms/North Highlands), while the highest rate of chlamydia incidence among the Focus Communities in Placer County appeared in 95678 (Roseville). Examination of gonorrhea incidence rates revealed that three of the Focus Communities in Sacramento and three of the Focus Communities in Placer County had rates exceeding the respective county benchmark. Once again, 95842 (Foothill Farms/North Highlands) had the highest rate across the Focus Communities in Sacramento, with a rate almost double the Sacramento County benchmark. The Focus Community in Placer County with the highest gonorrhea incidence rate was 95603 (Auburn) —with a rate double that of the county. Incidence rates for chlamydia and gonorrhea proved to be much higher in Sacramento County than in Placer County the state of California.

Rates – ED Visits and Hospitalization due to STIs and HIV/AIDS

Table 25: ED Visit and Hospitalization Rates due to STIs and HIV/AIDS Compared to County Benchmarks (Rates per 10,000 Population)

	ZIP Code	ED visits STIs	Hospitalizations STIs	ED visits HIV/AIDS**	Hospitalizations HIV/AIDS**
Sexually Transmitted Infections	95621	3.99	2.47	1.96	1.32
	95660	6.74	4.35	2.54	2.97
	95673	2.74	3.66	0.94	1.85
	95841	7.96	5.65	2.01	3.84
	95842	3.75	3.14	0.95	2.10
	Sacramento County	*5.53*	*3.95*	*2.23*	*2.78*
	95602	0.80	0.82	0.22	0.61
	95603	2.38	2.28	1.20	0.85
	95648	1.44	0.95	0.86	0.16
	95678	1.52	1.45	0.41	0.49
	Placer County	*1.39*	*1.23*	*0.50*	*0.50*
	SRMC/SAFH HSA	*2.50*	*1.95*	*0.90*	*1.00*
	CA State	*3.20*	*4.58*	*1.95*	*3.36*

Source: OSHPD, 2011-2013

**HIV/AIDS is considered a subcategory of STIs in the ICD 9 diagnostic codes.

As is indicated in Table 25, rates of ED visits due to STIs were elevated in two of the Focus Communities in Sacramento County and three of the Focus Communities in Placer County when compared to the respective county benchmarks. The Focus Community with the highest rate of ED visits due to STIs in Sacramento County was 95841 (North Highlands) and the Focus Community with the highest rate of ED visits due to STIs in Placer County was 95603 (Auburn). Hospitalization rates due to STIs across the Focus Communities indicated two of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County exceeded the respective county benchmarks. The Focus Community with the highest rate of hospitalizations due to STIs in Sacramento County was once again 95841 (North Highlands) and 95603 (Auburn) in Placer County. ED and hospitalization rates due to HIV/AIDS across the SRMC/SAFH HSA Focus Communities indicated that one of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had elevated rates for ED visits due to HIV/AIDs compared to the respective county rates, while two of the Focus Communities in Sacramento County and two in Placer County elevated hospitalization rates due to HIV/AIDs when compared to the respective county rates. The Focus Community with highest rate of ED visits due to HIV/AIDs in Sacramento County was 95660 (North Highlands) while the highest rate of hospitalizations due to HIV/AIDs was found in 95841 (North Highlands). The Focus Community in Placer county with the highest rate of ED visits and hospitalizations due to HIV/AIDs was 95660 (North Highlands). Overall, Sacramento County rates exceeded those of Placer County and the state.

Rate – Prevalence of HIV/AIDS per 100,000 Population

The CDC reported that for 2010, the prevalence of HIV/AIDS in the SRMC/SAFH HSA was 272.4 cases per 100,000 population, lower than the state rate of 363.0 cases per 100,000. Data by race and ethnicity for Sacramento County showed that Hispanic/Latinos had a rate of 229.7 and Whites had a rate of 289.12 cases per 100,000, both much lower compared to Blacks who had a rate of 670.03 cases per 100,000. Placer County showed that Whites had a rate of 54.99 cases per 100,000 population, Hispanics/Latinos

had a higher rate of 122.96 cases per 100,000 population and Blacks had a rate of 111.58 cases per 100,000 population.

Percent – Adults Never Screened for HIV

Data from the national Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System survey for 2011-2012 indicated that as many as 61% of respondents between 18-70 years of age in Sacramento County reported never being screened for HIV, equal to the state percent. While 63.8% of respondents in Placer County reported never being screened for HIV—slightly higher than the Sacramento County and state benchmark.

Living Conditions – Physical Environment, Social Environment, Economic/Work Environment and Service Environment

This section of the report will examine various indicators which help to illuminate the daily living conditions of residents within the SRMC/SAFH HSA. The indicators are organized in accordance to the BARHII model, discussed previously, in the sections: physical environment, social environment, economic/work environment, and service environment.

Physical Environment

Examination of the physical environment of the SRMC/SAFH HSA includes analyzing indicators of transportation, traffic accidents, housing, and pollution.

Area – Population Living One-Half Mile near a Transit Stop

There are limits to distances community members will travel to access public transportation services. These distances are documented in research and vary due to a number of factors including climate, attractiveness of the area, and the amount of traffic on streets.[22] Most research finds that individuals will travel no more than one-fourth to one-third of a mile to access public transportation. Identifying areas in the SRMC/SAFH HSA that are at least one-half mile from a transit station helps to understand transportation availability in the area. Figure 15 shows areas of the SRMC/SAFH HSA that are within one-half mile from a transit stop.

[22] *Building Transit-Friendly Communities: A design and development strategy for the Tri-State Metropolitan Region* (1997). Regional Plan Association. Retrieved from: http://ntl.bts.gov/DOCS/GL.html

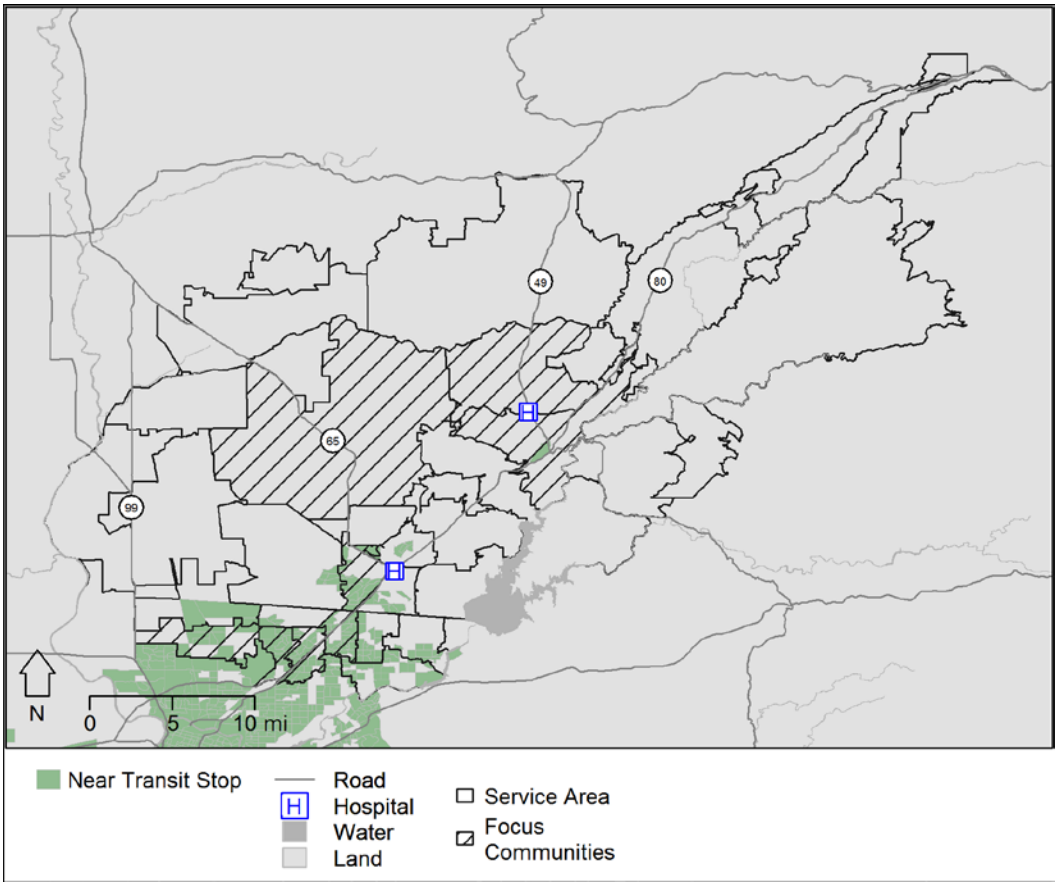

Figure 15: Locations in the HSA within One-Half Mile of a Transit Stop

In Figure 15, grey shaded portions of the map are locations that are more than a half-mile from a transit stop. As the figure displays, 26 of the 41 ZIP codes in the SRMC/SAFH HSA do not have a transit stop within one-half mile within residential areas. Transportation is particularly limited in Placer County, where a majority of the ZIP codes within have transit stops further than one-half mile from residential areas.

Percent – Households with No Vehicle

Having access to a vehicle is an important factor in the determination of a person's ability to access the things they need to stay healthy. A working vehicle means the ability to get to work, to the grocery store, to school, and to access health care. Figure 16 shows the percent of households with no vehicle in the SRMC/SAFH HSA.

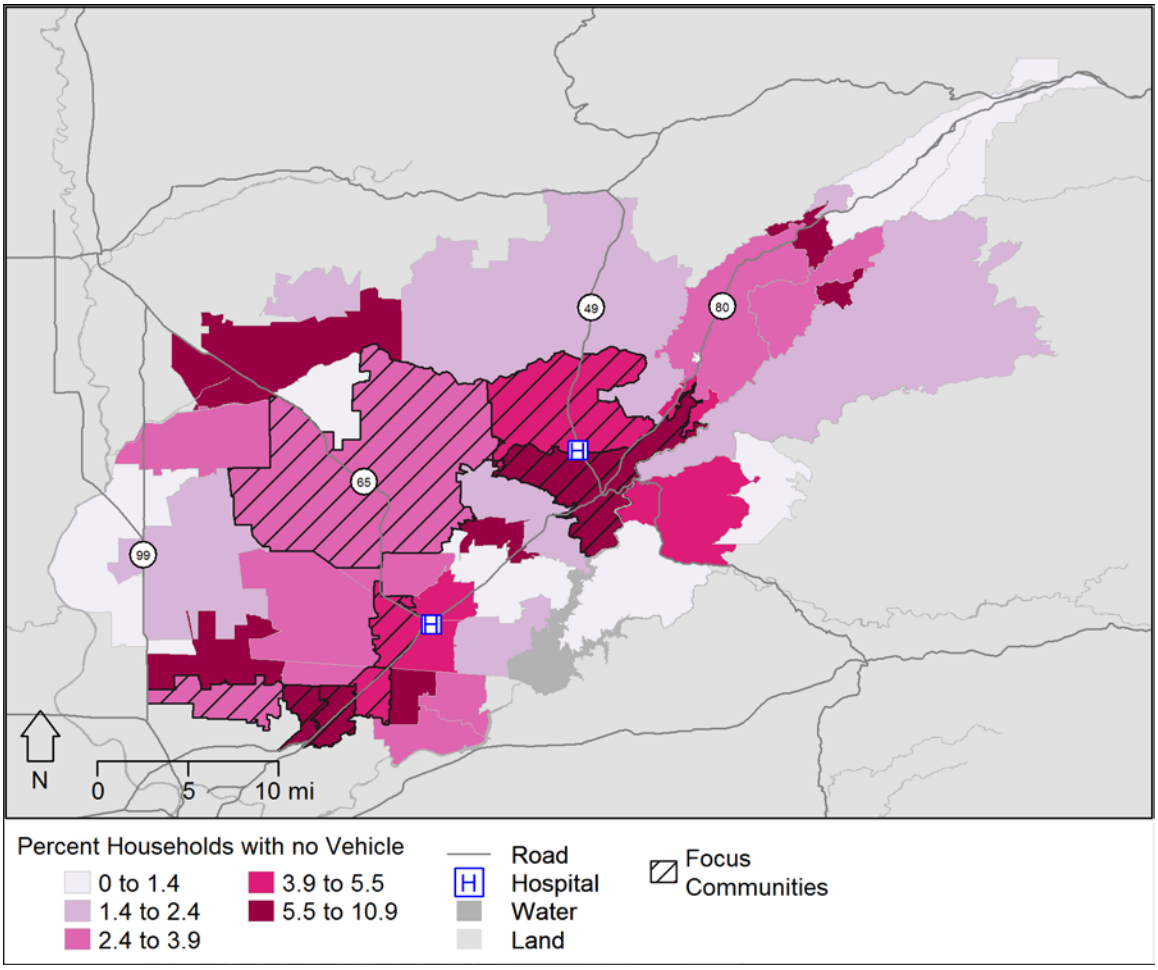

Figure 16: Percent Households with No Vehicle

The percent of households with no vehicle was 7.8% for the state, 7.6% for Sacramento County, and 3.8% for Placer County. Only one of the 41 ZIP codes in the SRMC/SAFH HSA had more than 7.8% of households with no vehicle, which was 95841 (North Highlands) with 10.9% of households without a vehicle.

Lack of safe and affordable transportation was mentioned as a significant barrier for SRMC/SAFH HSA residents, given the remote nature of some of the communities. Transportation was mentioned as a barrier to accessing health care, healthy foods, employment, and education. Participants mentioned that it is very hard to get around without reliable transportation within the SRMC/SAFH HSA; as on participant put it, *"this is a car- driven community" (KI_3).* Another participant spoke about transportation as a major barrier to accessing health care services stating, *"I am going to go back to the two that I think are having such a huge impact…it is the transportation thing again; it seems so unrelated to healthcare, but it is enormous" (KI_6).* Participants spoke about many transportation options associated with various health providers, but that the ability to access these services was complicated. The lack of transportation and the time that it takes to get to resources can be very challenging and add unnecessary stress to resident's daily

lives. One key informant spoke about barriers to access in care related to transportation for the elderly and stated:

> *Because we are a little bit of an older county, we also have a very large chronic disease population and they require a lot of care, frequent care, and sometimes the access to specialty care is more difficult to get and their transportation needs again are more significant (KI_7).*

Percent – Workers That Commute More than 60 Minutes to Work

Long commute times are associated with increased likelihood of being overweight, having higher blood pressure, having increased stress and neck pain, increasing exposure to pollution, and having other negative health effects.[23] Figure 17 displays the percent of workers in each ZIP code which commute more than 60 minutes to work.

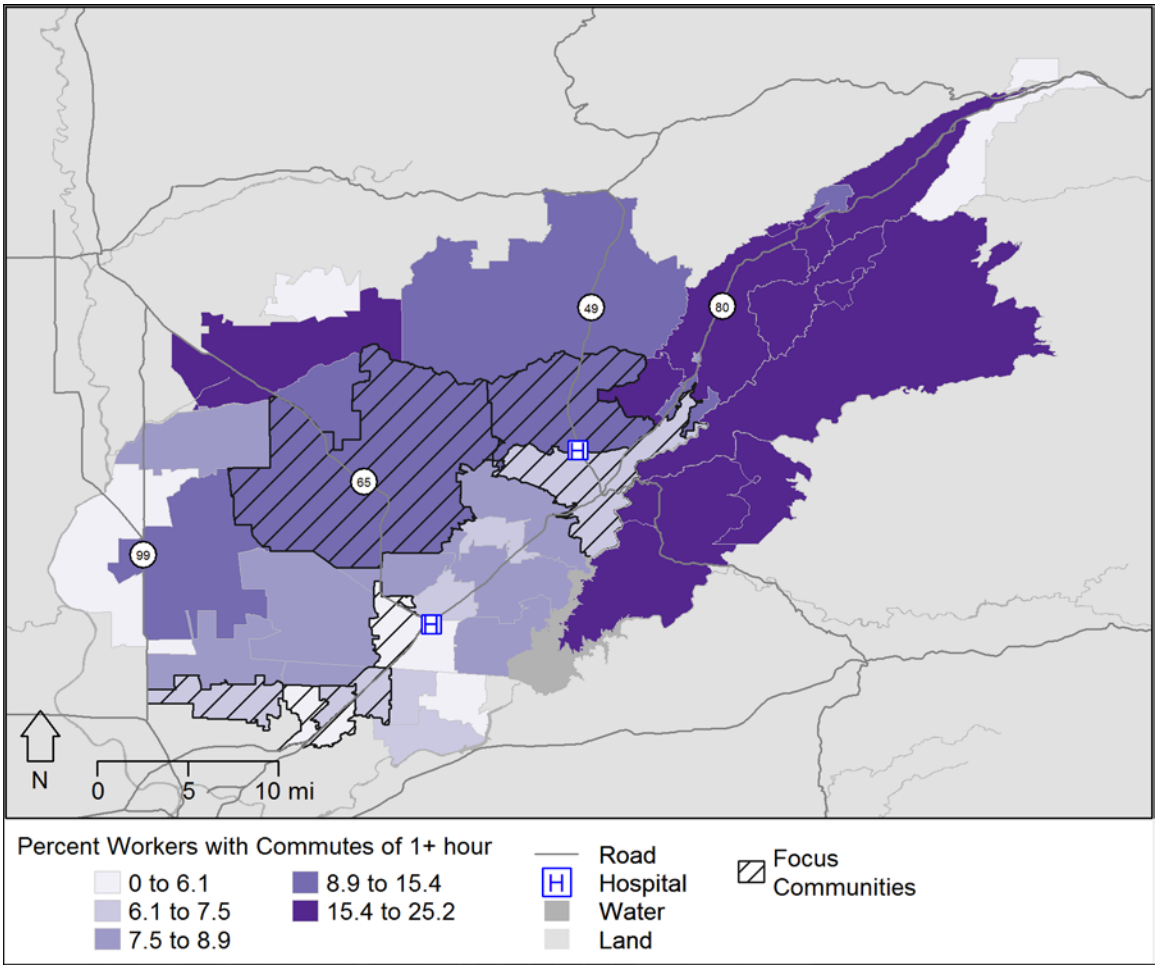

Figure 17: Percent Workers with Commutes of 1+ Hour

The percent of workers who commute more than 60 minutes to work was 6.6% in Sacramento County, 8.1% in Placer County and 10.1% for the state of California. Fourteen of the 41 ZIP codes in the SRMC/SAFH has, only one of which was a Focus Community, had a higher percent of workers commuting more than 60 minutes than the state. Six ZIP codes had a percentage between 10.1% and 15.4% including 95668 (Pleasant Grove), 95681 (Sheridan), 95703 (Applegate), 95714 (Dutch Flat),

[23] MacMillan, A. (2015). Five ways your commute is hurting your health. Retrieved from: http://news.health.com/2015/03/31/5-ways-your-commute-is-hurting-your-health/

95602 (North Auburn) and 95614 (Cool). The remaining eight ZIP codes had a percentage between 15.5% and 25.2%: 95713 (Colfax), 95664 (Pilot Hill), 95722 (Meadow Vista), 95635 (Greenwood), 95631 (Foresthill), 95692 (Wheatland), 95717 (Gold Run) and 95701 (Alta).

Percent – Workers Reporting Commuting Alone and Walking/Biking to Work

As displayed in Figure 18, data from the U.S. Census Bureau indicted that 77.5% of respondents in the SRMC/SAFH HSA over the age of 16 years reported commuting to work alone, higher than the state percent at 73.2%. The Census data also indicated that 2.4% of respondents the SRMC/SAFH HSA stated that they walk or bike to work, below the state percent of 3.8%.

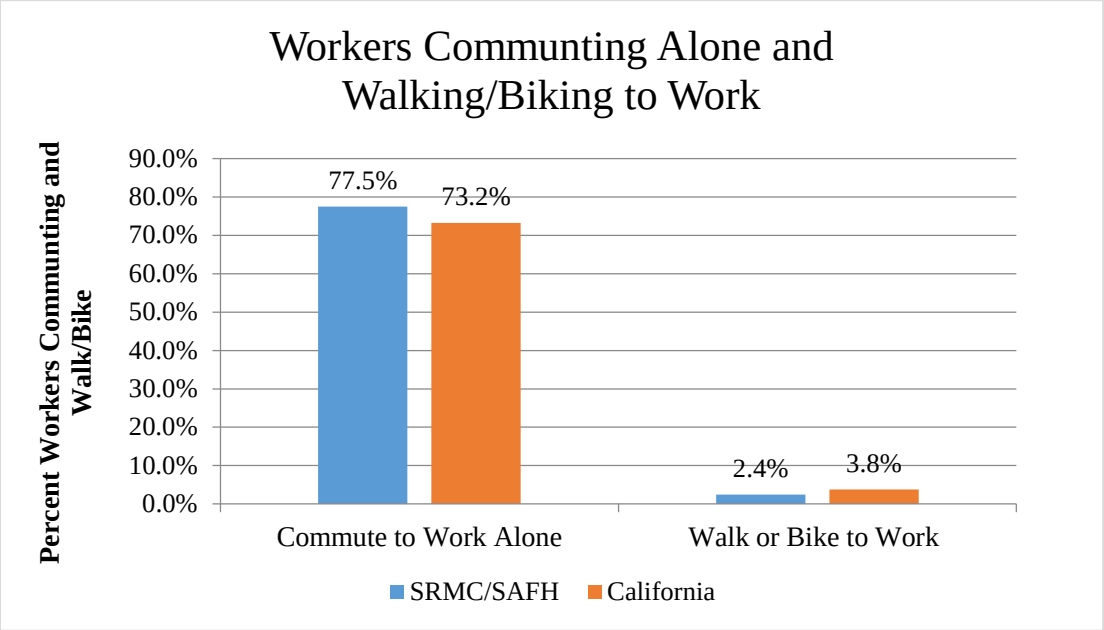

Figure 18: Percent of Workers Commuting to Work Alone and Walking or Biking to Work

Rate – Road Density Network per Square Mile

Examination of road network density revealed that the SRMC/SAFH HSA has more roads per square mile than the state, with 6.04 roads per square mile in the HSA compared to 2.02 roads per square miles for the state of California. Increased road density is related to increased exposure to vehicle emissions and other environmental pollutants which negatively impact health.

Area – Fatal Traffic Accidents

Within the SRMC/SAFH HSA, 21 of the 41 ZIP codes had at least one fatal traffic accident. The ZIP codes with the highest number of fatal traffic accidents were 95628 (Fair Oaks/Carmichael) with five fatal traffic accidents and 95842 (Foothill Farms/North Highlands) with four fatal traffic accidents. Though it can be expected that fatal traffic accidents are more likely to occur on major highways, fatal traffic accidents in residential communities help to illuminate safety issues in the area.

Rate – Fatal Accidents per 100,000 Population Involving a Motor Vehicle and/or Pedestrian

The rate of fatal motor vehicle accidents for 2010-2012, as reported by the California Department of Public Health, showed that the SRMC/SAFH HSA rate of fatal accidents involving a motor vehicle and/or pedestrians was below the state rate, displayed below in Figure 19.

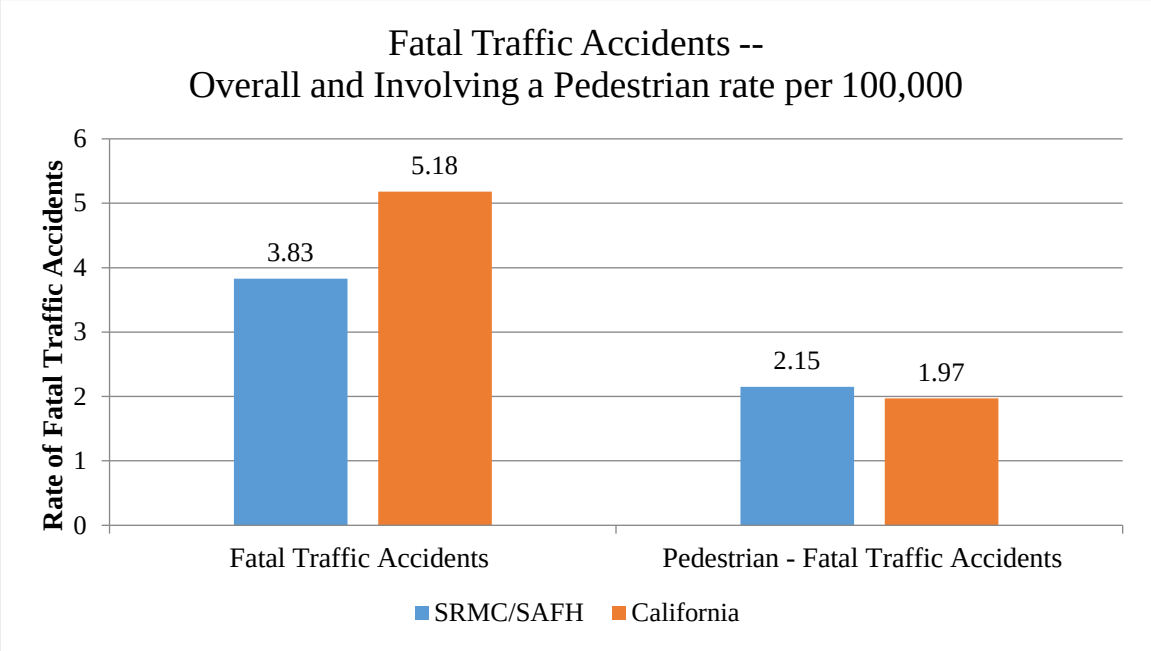

Figure 19: Rate of Fatal Accidents Overall and Involving a Pedestrian

Housing Stability – Percent Housing Vacancy, People per Housing Unit and Percent Renting

Stable, clean and affordable housing is an essential public health need. The lack of a stable place to live can have negative health effects on individuals and families, making it hard to manage daily life responsibilities.[24] Table 26 shows rates for various housing indicators by Focus Community for the SRMC/SAFH HSA as an indicator of housing stability.

[24] John Hopkins University. (2016). Stable Housing. Retrieved from: http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-to-eliminate-cardiovascular-health-disparities/about/influences_on_health/stable_housing.html

Table 26: Percent Housing Vacancy, People per Housing Unit, and Renting

ZIP Code	Percent Housing Vacancy	People per Housing Unit	Percent Renting
95621	5.7%	2.6	37.7%
95660	7.1%	3.1	44.4%
95673	7.2%	3.17	25.4%
95841	12.7%	2.43	62.2%
95842	6.3%	2.78	45.7%
Sacramento County	*7.2%*	*2.72*	*43.3%*
95602	8.4%	2.53	25.3%
95603	7.5%	2.38	35.2%
95648	6%	2.63	21%
95678	6.7%	2.67	46%
Placer County	*13.8%*	*2.66*	*29.4%*
CA State	*8.6%*	*2.94*	*44.7%*

Source: Census, 2013

The percent housing vacancy was highest in Placer County, followed by the state of California and Sacramento County. Placer County showed to have 13.8% housing vacancy, compared to 8.6% housing vacancy in the state of California and 7.2% in Sacramento County. The Focus Community with the highest percent housing vacancy was 95841 (North Highlands) with 12.7% housing vacancy—which exceeded the Sacramento County percent and the state percent. The number of people per housing unit varied across the Focus Communities; three of the Focus Communities in Sacramento County and one of the Focus Communities in Placer County had an elevated number of people per housing unit when compared to the respective county benchmarks. The Focus Community with the highest number of people per housing unit in Sacramento County was 95673 (Rio Linda) and 95678 (Roseville) in Placer County. Three of the Focus Communities in Sacramento County and two of the Focus Communities in Placer County had a percentage of renters that exceeded that of the respective county benchmark. The Focus Community with the highest percent renters in Sacramento County was 95841(North Highlands) and 95678 (Roseville) in Placer County.

Primary data participants spoke about housing insecurity and the high cost of housing in areas throughout the SRMC/SAFH HSA. Participants also talked about the challenges in accessing housing and how it has created many challenges for community residents who are recovering from substance abuse, transitioning to a more stable lifestyle, or just trying to maintain their health. As one participants stated:

> *Housing is a big challenge and I think that because housing prices aren't that low and the rental market is fairly competitive that people often are going home to very unhealthy and unsafe environments where it's hard to maintain their path to recovery. (KI_4)*
>
> *We are confronted daily with huge housing crisis in our region and it feels we feel powerless to be able to help people with all the things that we may be able to help them with. We and creative and also consider the intersections of where folks come from" (FG may be able to get them enrolled in Medi-Cal and we may be able to try to help them navigate those systems or see if we can help with medications but you can't make it over to the pharmacy or get to an appointment with a psychiatrist if you slept in the bushes last night or if looked at through a health lens and we need to have sustainable solutions that are innovative you're looking at a housing situation that's dangerous to your health so housing is a huge problem in our region that has to be (FG_2).*

Rate – Households that are HUD Households per 10,000 Housing Units

The United States Department of Housing and Urban Development (HUD) reported in 2013 that the total number of HUD-funded housing units in Sacramento County was 357.08 units per 10,000 housing units, which fell below the state rate of 368.32 units per 10,000. Placer County had a much lower rate of 106.06 units per 10,000 housing units. This is an important indicator as access to affordable housing impacts a person's economic stability and ability to access other basic needs such as health care, affordable healthy foods, and places to be physically active.

Percent – Households with at least One Substandard Housing Condition

HUD also reported that in 2013 the percent of households defined as substandard was 44.8% in Sacramento County, which was higher than the Placer County benchmark of 40.1%, but lower than the state benchmark of 48.4% of households.

Housing Costs – Households with Mortgage Costs Greater than 30% and Households with Rental Costs Greater Than 30% of Household Income

The high cost of housing can be a barrier for community members to maintain stable housing and optimal health. Data on the cost of housing for the SRMC/SAFH HSA included the examination of two indicators: mortgage payments greater than 30% of the household's income and rental housing payments greater than 30 % of the household's income. Figures 20 and 21 show the two indicators across the SRMC/SAFH HSA.

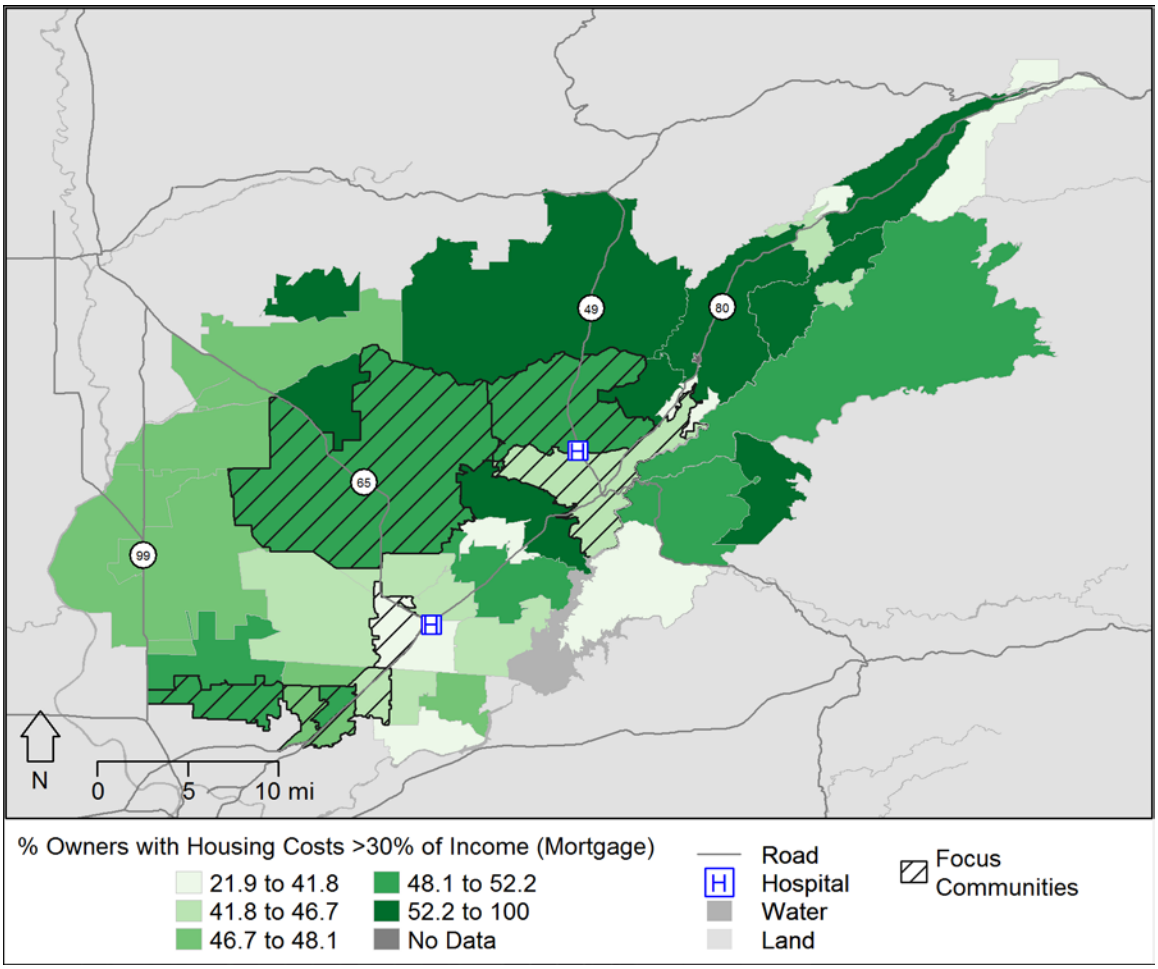

Figure 20: Percent of Residents by ZIP Code with a Mortgage Payment Above 30% of Their Household Income

The percent of residents with a housing mortgage cost greater than 30% percent of their household income for the state was 48.1%, 45.9% for Placer County and 43.9% for Sacramento County. Fifteen of the 41 ZIP Codes within the SRMC/SAFH HSA, four of which were Focus Communities, had more than 48.1% of residents with a housing mortgage cost of greater than 30% percent of their household income. Eight ZIP codes had a percentage between 48.1% and 52.2% including 95842 (Foothill Farms/North Highlands), 95602 (North Auburn), 95650 (Loomis/Granite Bay), 95614 (Cool), 95626 (Elverta), 95631 (Foresthill), 95673 (Rio Linda) and 95648 (Lincoln). Eight ZIP codes had a percentage between 52.2% and 100% which included 95658 (Newcastle), 95713 (Colfax), 95949 (Alta Sierra), 95681 (Sheridan), 95701 (Alta), 95722 (Meadow Vista) and the highest found in 95635 (Greenwood) where 76.9% of residents were found living with a housing mortgage cost greater than 30% percent of their household income.

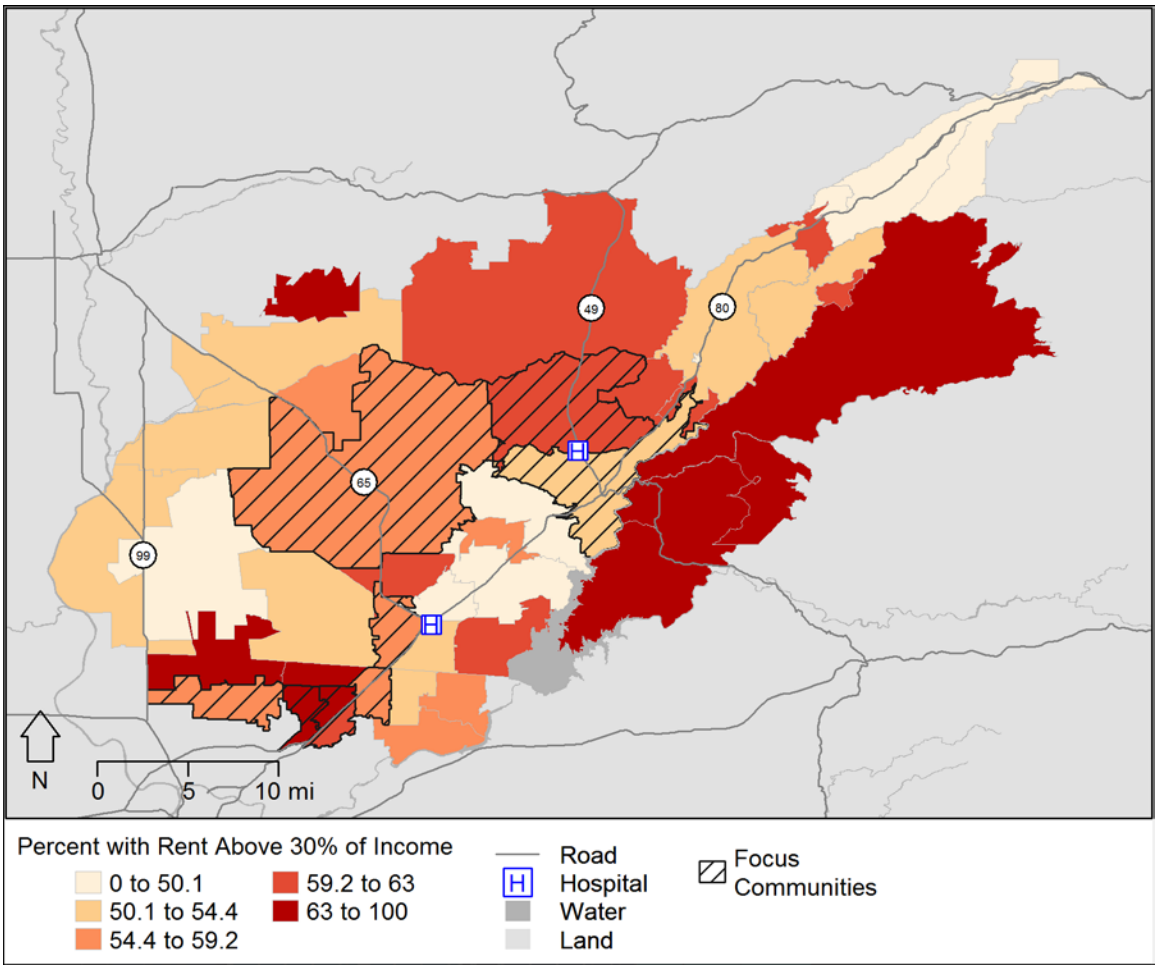

Figure 21: Percent of Residents by ZIP Code with Housing Rental Payments Above 30% of Their Household Income

The percent of residents with rental costs above 30% of their income was 57.5% for Sacramento County, 56.9% for the state and 55.3% for Placer County. Twenty-two of the 41 ZIP codes in the SRMC/SAFH HSA, six of which were Focus Communities, had more than 56.9% of residents with rental costs above 30% of their household income. Six ZIP codes had a percentage between 56.9% and 59.2% including 95673 (Rio Linda), 94648 (Lincoln), 95681 (Sheridan), 95663 (Penryn), 95628 (Fair Oaks/Carmichael) and 95746 (Granite Bay). Eight of the ZIP codes had a percentage between 59.2% and 63% which included 95765 (Rocklin), 95703 (Applegate), 95722 (Meadow Vista), 95949 (Alta Sierra), 95841 (North Highlands), 95602 (North Auburn), 95717 (Gold Run) and 95842 (Foothill Farms/North Highlands). The last eight ZIP codes had a percentage between 63% and 100% and included 95843 (Antelope), 95903 (Beale Air Force Base), 95660 (North Highlands), 95626 (Elverta), 95614 (Cool), 95664 (Pilot Hill), 95631 (Foresthill) and the highest percentage seen in 95635 (Greenwood) where 100% of residents have rental costs above 30% of their household income.

Index – Pollution Burden Score

The California Environmental Protection Agency and the Office of Environmental Health Hazard Assessment developed the *California Communities Environmental Health Screening Tool, Version 2.0*.[25] This tool was designed to identify California communities that are disproportionately burdened by

[25] *California Communities Environmental Health Screening Tool, Version 2.0 (CalEnviroScreen 2.0). Guidance and Screen Tool*. October 2014. Retrieved from: http://oehha.ca.gov/ej/pdf/CES20FinalReportUpdateOct2014.pdf

multiple sources of pollution. The tool combines 13 types of pollution and environmental factors to produce a "pollution burden" score for each census tract in the state ranging between a minimum of 0 and a maximum of 100, with higher scores indicating a greater pollution burden. The pollution factors included ozone and PM 2.5 concentrations, diesel PM emissions, pesticide use, toxic releases from facilities, traffic density, drinking water contaminants, cleanup sites, impaired water bodies, groundwater threats, hazardous wastes facilities and generators, and solid waste sites and facilities.

A pollution burden score was identified for each census tract in the SRMC/SAFH HSA and is displayed in Figure 22. Each census tract's pollution burden score ranged from 0 to 100 and was assigned to a quintile, displayed in the figure using color gradation. In Figure 22 census tracts with darker colors have higher pollution burden scores.

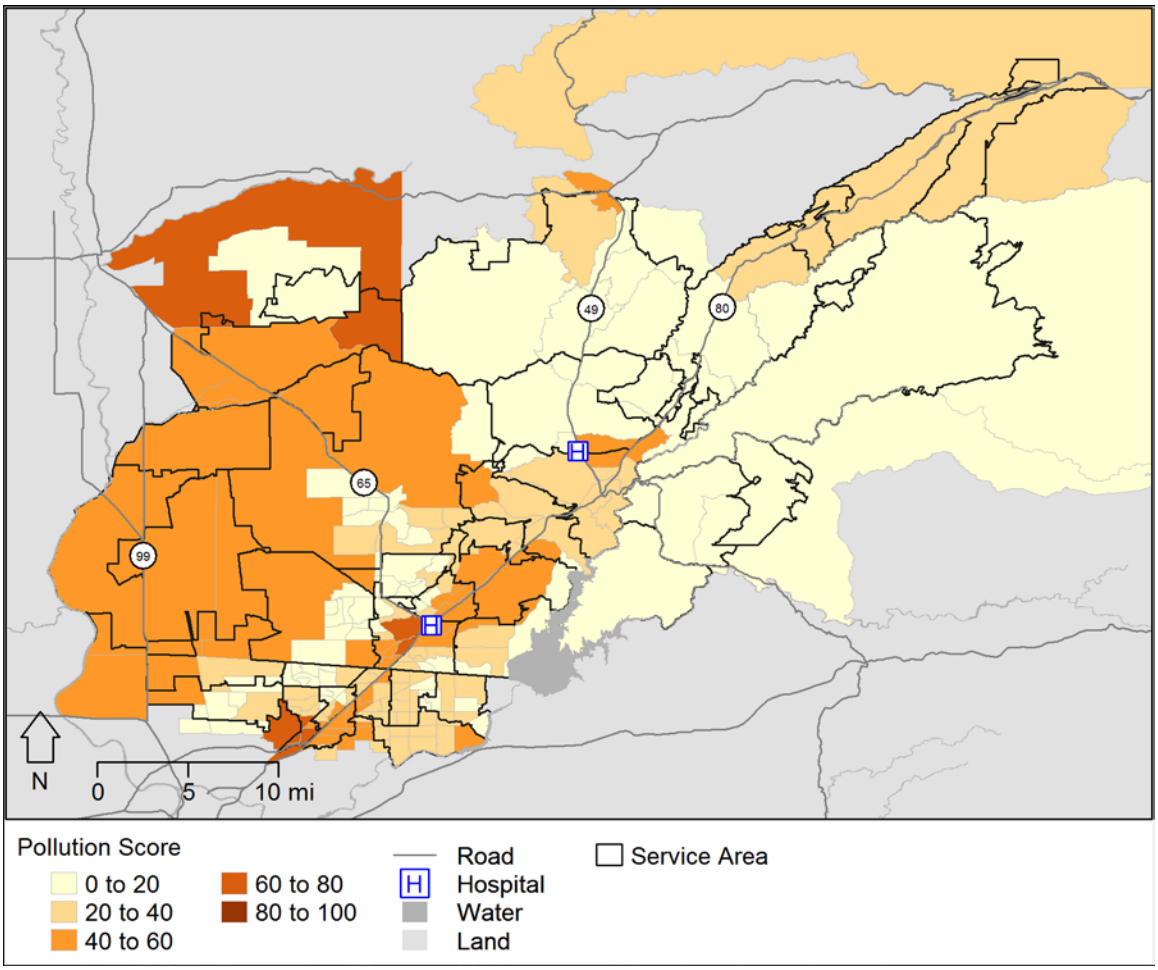

Figure 22: Pollution Burden Score by Census Tracts in the SRMC/SAFH HAS

Figure 22 shows that a portions of 95692 (Wheatland), 95678 (Roseville), and 95660 (North Highlands) had a pollution burden score in the highest quintile, 80-100. The effect of exposure to pollution contributes to the high rates of respiratory illness mentioned previously in this report.

Social Environment

This assessment included indicators for crime, assault and homicide in the SRMC/SAFH HSA. Crime data included major crimes, violent crime, property crime, arson and domestic violence.

Rates – Major Crime, Violent Crime, Property Crime, Arson and Domestic Violence

Criminal activity in a community has a strong effect on a community's actual and perceived safety. Data on major crimes reported to the California Department of Justice are provided for the law enforcement jurisdictions in the SRMC/SAFH HSA and are compared to an estimated county benchmark.

Table 27: Major Crime, Violent Crime, Property Crime, Arson and Domestic Violence per 10,000 Population by Police Jurisdiction

Police Municipality	Major Crimes*	Violent Crime	Property Crime	Arson	Domestic Violence
Citrus Heights	354.67	38.00	315.02	1.66	127.17
Elk Grove	221.63	30.19	190.73	0.71	19.05
Folsom	199.38	13.53	184.47	1.38	45.84
Galt	243.36	26.25	215.44	1.67	22.50
Isleton	789.10	129.12	659.97	0.00	57.39
Rancho Cordova	387.11	53.31	333.50	0.30	37.11
Sacramento City	460.40	66.66	390.24	3.50	32.98
Sacramento County Sheriff	344.68	54.56	288.94	1.18	35.44
Sacramento County	344.68	54.56	288.94	1.18	35.44
Auburn	263.76	36.10	222.50	5.16	12.52
Lincoln	134.58	5.75	127.22	1.61	7.82
Rocklin	185.97	10.69	174.25	1.03	26.89
Roseville	296.71	21.39	273.93	1.39	20.16
Placer County Sheriff	191.21	22.13	168.31	0.76	20.28
Placer County	222.38	18.54	202.54	1.29	19.50

Source: California Department of Justice, 2013
*Combination of violent crimes, property crimes, and arson

Table 27 indicates Sacramento County had higher crime rates than Placer County, except for arson, where Placer County had a higher rate. Isleton and Sacramento City jurisdictions had the highest major crime, violent crime and property crime rates among all the Sacramento Police Jurisdictions when compared to the Sacramento county benchmark. Within the Placer County Police Jurisdictions, Placerville and South Lake Tahoe jurisdictions had noticeably higher major crime, violent crime, and property crime rates compared to county benchmarks, while the South Lake Tahoe jurisdiction had the highest arson rate, 0.93 per 10,000 population. Domestic violence rates within the Citrus Heights jurisdiction were the highest among all nine Focus Communities within the SRMC/SAFH HSA, with a rate of 127.17 per 10,000 population—more than four times the Sacramento County benchmark.

Rates – ED Visits and Hospitalizations due to Assault per 10,000 Population

Understanding safety in the SRMC/SAFH HSA requires the examination of both crime rates, as shown above, as well as incidents of intentional harm, such as rates of assault. Rates of assault (intentionally harming another person) are included in this assessment to gain an understanding of violence in the SRMC/SAFH HSA. Figure 23 and 24 show ED visits and hospitalizations related to assaults in the area.

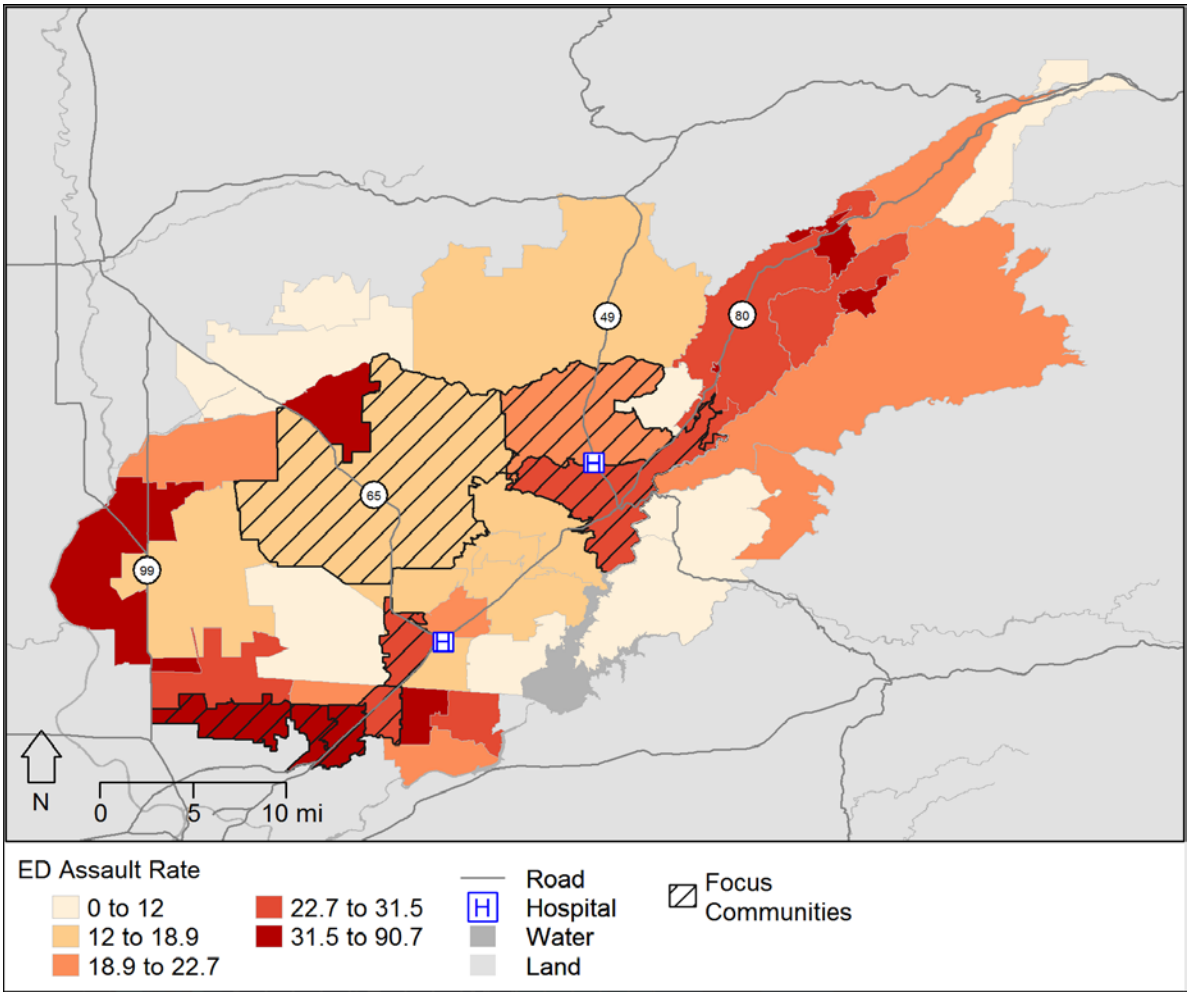

Figure 23: ED Visits Related to Assault

Rates for ED visits related to assault were highest in Sacramento County with 39.09 visits per 10,000 population, followed by the state with 30.36 visits per 10,000 population and Placer County with 17.10 visits per 10,000 population. Ten of the 41 ZIP codes in the SRMC/SAFH HSA, five of which were Focus Communities, had rates of ED visits related to assault that exceeded the state benchmark of 30.36 visits per 10,000 population. The ten ZIP codes included 95621 (Citrus Heights/Antelope), 95610 (Citrus Heights/Orangeville), 95659 (Nicolaus), 95681 (Sheridan), 95717 (Gold Run), 95673(Rio Linda), 94582 (Foothill Farms/ North Highlands), 95660 (North Highlands), 95841 (North Highlands), 95736 (Weimar). The highest rates of ED visits related to assault were seen in 95736 (Weimar) with 90.60 visits per 10,000 population (roughly three times the state rate), followed by 95841 (North Highlands) with 66.12 visits per 10,000 population, 95660 (North Highlands) with 57.11 visits per 10,000 population and 95842 (Foothill Farms/North Highlands) with 48.92 visits per 10,000 population.

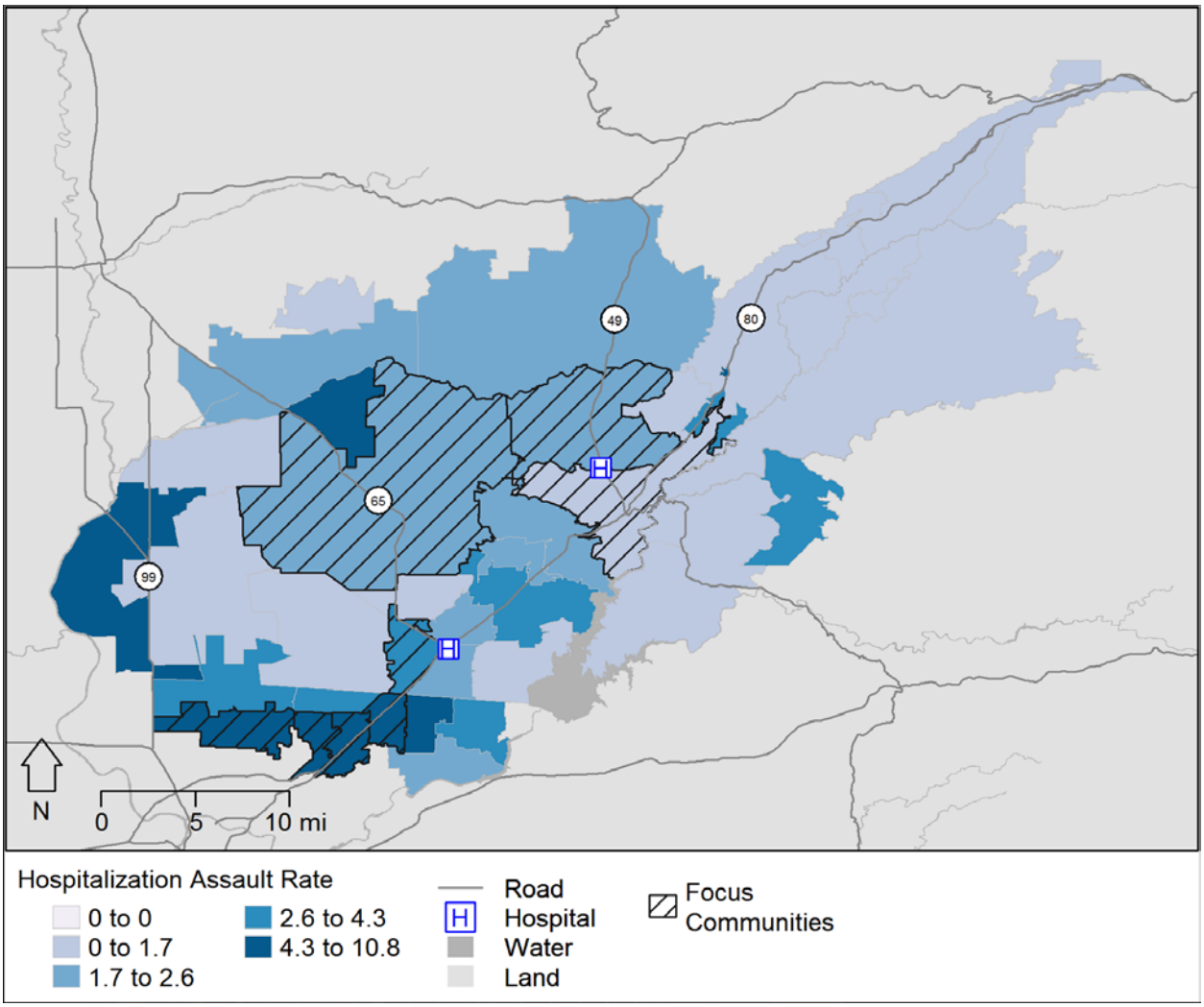

Figure 24: Hospitalization Related to Assault

Rates for hospitalizations related to assault were highest in Sacramento County with 5.78 hospitalizations per 10,000 population, followed by the state with 3.88 hospitalizations per 10,000 population and Placer County with 1.48 hospitalizations per 10,000 population. As Figure 24 shows, the geographic pattern seen for hospitalizations due to assault across the SRMC/SAFH HSA is similar to that of ED visits. Nine of the 41 ZIP codes in the SRMC/SAFH HSA, five of which are Focus Communities, had hospitalization rates related to assault that exceeded the state benchmark of 3.88 hospitalizations per 10,000 population. The nine ZIP codes included 95610 (Citrus Heights/Orangeville), 95621 (Citrus Heights/Antelope), 95681 (Sheridan), 95673 (Rio Linda), 95659 (Nicolaus), 95842 (Foothill Farms/North Highlands), 95736 (Weimar), 95841(North Highlands) and 95660 (North Highlands). The four highest hospitalization rates related to assault were 10.74 hospitalizations in 95660 (North Highlands), 9.63 hospitalizations in 95841(North Highlands), 9.19 hospitalizations in 95673 (Rio Linda) and 7.42hospitalizations in 95842 (Foothill Farms/North Highlands).

Rate – Mortality due to Homicide

Data from the California Department of Public Health on the mortality rate due to homicide for 2010-2012 revealed that the SRMC/SAFH HSA had a lower rate of mortality due to homicide, with a rate of 3.37 deaths per 100,000 population relative to the state rate of 5.15 deaths per 100,000 population.

Economic and Work Environment

Economic stability is crucial to overall health and wellbeing. Community members that struggle to pay for basic needs like stable housing, adequate food, and health care are at greater risk of negative health outcomes. This assessment examined indicators related to lack of employment, income, poverty and insurance status.

Percent -- Unemployed and Median Income by ZIP code

Table 28: Percent Unemployed and Median Income by ZIP Code

	ZIP Code	Percent Unemployed	Median Income
Economic Stability	95621	15.2%	$53,134
	95660	12%	$41,036
	95673	13.3%	$53,429
	95841	15%	$36,967
	95842	14.5%	$45,537
	Sacramento County	*13.7%*	*$55,064*
	95602	11.2%	$64,329
	95603	11.5%	$57,779
	95648	10.7%	$71,713
	95678	10.9%	$60,513
	Placer County	*10%*	*$72,725*
	CA State	*11.5%*	*$61,094*

Source: Census, 2013

As Table 28 shows, the percent of unemployment among residents was highest in Sacramento County, followed by the state and Placer County. Three of the Focus Communities in Sacramento County and all four Focus Communities in Placer County had elevated unemployment rates when compared to the respective county benchmark. The Focus Community with the highest unemployment rate in Sacramento County was 95621 (Citrus Heights/Antelope) and 95603 (Auburn) in Placer County. When looking at median income, Placer County had the highest median income followed by the state and Sacramento County. All nine of the Focus Communities in the SRMC/SAFH HSA had a median income lower than their respective county median income. The Focus Community with the lowest median income in Sacramento County was 95841 (North Highlands) and 95603 (Auburn) in Placer County.

Percent – Population Living in Poverty (Total Population, Families with Children, Single Female-Headed Households, and Elderly Households)

Table 29: Percent Populations Living in Poverty, Percent Families with Children in Poverty, Percent Single FHH in Poverty, and Percent Elderly Households in Poverty

	ZIP Code	Percent Below 100% Federal Poverty Level	Percent Families with Children in Poverty	Percent Single Female Headed Households (FHH) in Poverty	Percent Elderly Households in Poverty
Poverty	95621	14.9%	19.9%	34.2%	1.7%
	95660	22.9%	26.5%	43.3%	3.0%
	95673	14.7%	14%	31.7%	1.3%
	95841	27.9%	34.5%	51.3%	2.7%
	95842	25.7%	31.1%	53.1%	1.5%
	Sacramento County	*17.6%*	*20.1%*	*37.6%*	*1.9%*
	95602	11.8%	16.4%	31.7%	2.5%
	95603	10.9%	9.9%	19.7%	3.0%
	95648	9.6%	12%	34.4%	2.1%
	95678	10.6%	10.7%	29.3%	1.5%
	Placer County	*8.7%*	*9.4%*	*26.4%*	*1.9%*
	CA State	*15.9%*	*17.8%*	*36.8%*	*2.3%*

Source: Census, 2013

Sacramento County was found to have the highest percent population living below the 100% Federal Poverty Level and the highest percent of families with children in poverty, followed by the state percent and the Placer County percent. Three of the Focus Communities in Sacramento County and all four of the Focus Communities in Placer County had a percent population living below the 100% Federal Poverty Level and a percent of families with children in poverty that exceeded the respective county percentages. The Focus Community with the highest percent of its population living below the 100% Federal Poverty Level and families with children in poverty in Sacramento County was 95841(North Highlands) while the Focus Community with the highest percent of its population living below the 100% Federal Poverty Level and families with children in poverty in Placer County was 95602 (North Auburn). Sacramento County had the highest percent of single female-headed households living in poverty followed by the state and Placer County. Three of the Focus Communities in Sacramento County and Three of the Focus Communities in Placer County had a percent of single female-headed households living in poverty that exceeded the respective county benchmark. The Focus Community with the highest percent of single female-headed households living in poverty in Sacramento County was 95842 (Foothill Farms/North Highlands) while the Focus Community with the highest percent of its population living below the 100% Federal Poverty Level and families with children in poverty in Placer County was 95648 (Lincoln). The percent of elderly households living in poverty was highest for the state followed by Sacramento and Placer Counties, both of which share an equal value. Two of the Focus Communities in Sacramento County and three of the Focus Communities in Placer County had a percent of elderly households living in poverty that exceeded the respective county benchmark. The Focus Community with the highest percent of elderly households living in poverty in Sacramento County was 95660 (North Highlands)

while the Focus Community with the highest percent of elderly households living in poverty in Placer County was 95603 (Auburn).

Many key informants and community members spoke about poverty and its influence in many areas of healthy living, effecting access to quality health care, healthy foods, transportation, stable housing etc. As one key informant clearly stated, *"Poverty does not discriminate" (KI_8).* This key informant elaborated:

> *Poverty in itself would indicate a less than satisfactory quality of life. It's not always true, but when you can't put food on the table to feed your family, or you're staying with relatives and moving around from one relative to another, because you don't have a stable place to live, I mean that makes for a really challenging quality of life. (KI_8)*

Community members living in the SRMC/SAFH HSA also discussed the issue of poverty among the aging population and how it impacts their health. One focus group participant shared:

> *I know where I live…there's a lot of elderly that I know have to choose sometimes between whether to eat or take their prescriptions, that's an issue. A lot of them are homebound too, transportation to get to the doctors and stuff is very hard for them. (FG_3)*

Percent – Population Uninsured

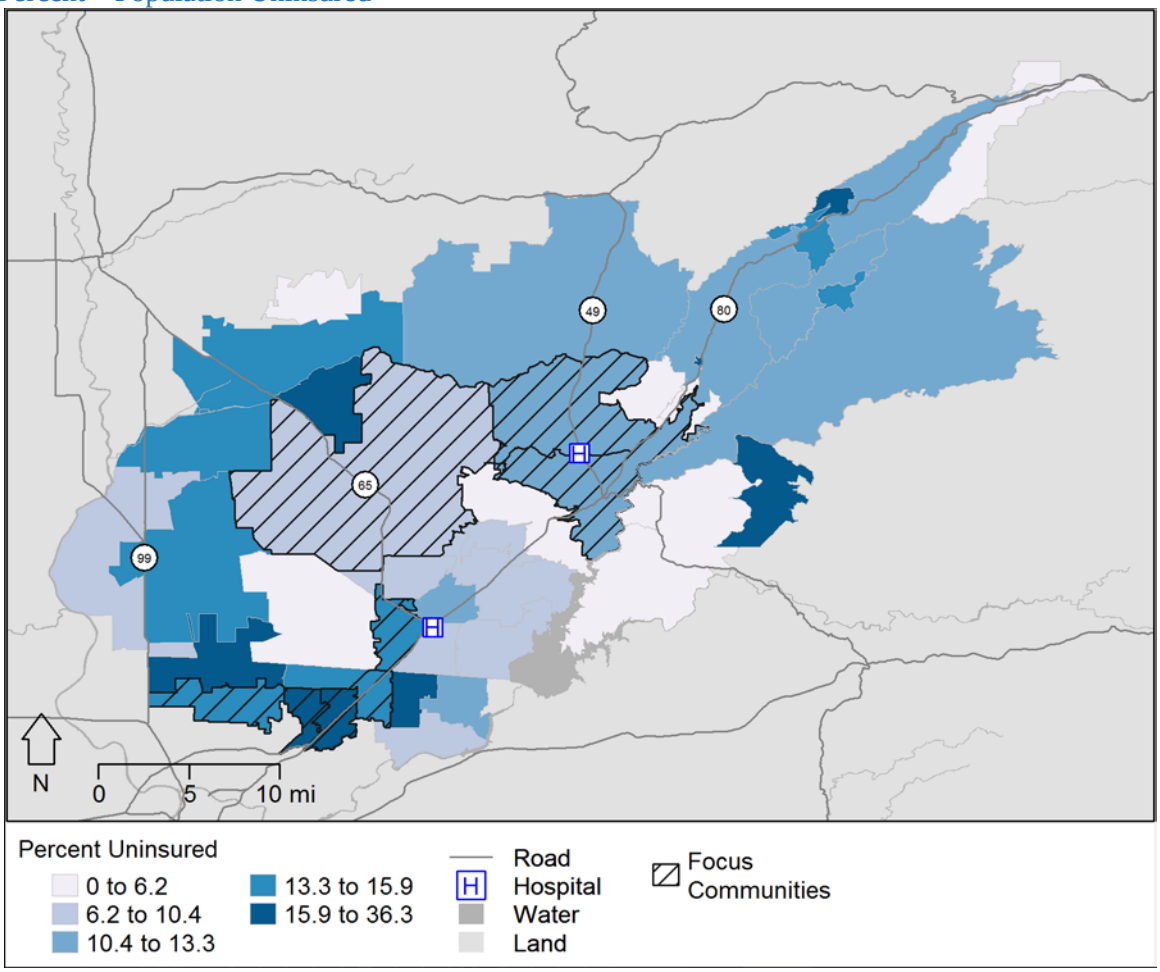

Figure 25: Percent Uninsured by ZIP Code in the HSA

Insurance rates were highest for the state of California with 17.8% of the state's population uninsured followed by Sacramento County 14.6% uninsured and Placer County with 9.9% uninsured. As Figure 25 shows, only a handful of the ZIP codes within the SRMC/SAFH HSA had a percent uninsured higher than the state. Six of the 41 ZIP codes in the SRMC/SAFH HSA, two of which were Focus Communities, had more than 17.8% of its population uninsured. The six ZIP codes were 95610 (Citrus Heights/Orangeville), 956660 (North Highlands), 95841(North Highlands), 95681 (Sheridan), 95635 (Greenwood) and 95736 (Weimar), with Weimar having the highest percent uninsured at 36.3%, followed by Greenwood at 27% and Sheridan at 23.6%.

Service Environment

This assessment examined measures of access to care and education in order to better understand the service environment for the SRMC/SAFH HSA. Information in this section of the report examines access to care for primary care, mental health care and dental health care.

Access to Care (Primary Care, Mental Health, and Dental)

Rate – Primary care physicians per 100,000 population

Data from the US Department of Health and Human Services reveals that the rate of primary care physicians was 79.2 per 100,000 populations in Sacramento County in 2012, and 115.8 per 100,000 populations in Placer County, with both counties at an advantage compared to the state rate of 77.2 primary care physicians per 100,000.

Area – Health Professional Shortage Area – Primary Care

Health Professional Shortage Areas (HPSAs) are designated by the US Government Health Resources and Services Administration (HRSA) as having shortages of primary medical, dental, or mental health providers; these shortages may be geographic (e.g., a county or service area), demographic (e.g., a low income population) or institutional (e.g., comprehensive health center, federally qualified health center, or other public facility).[26]

[26] Health Resources and Services Administration. (n.d.). *Primary Medical Care HPSA: Designation Overview*. Retrieved from: http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/primarycarehpsaoverview.html

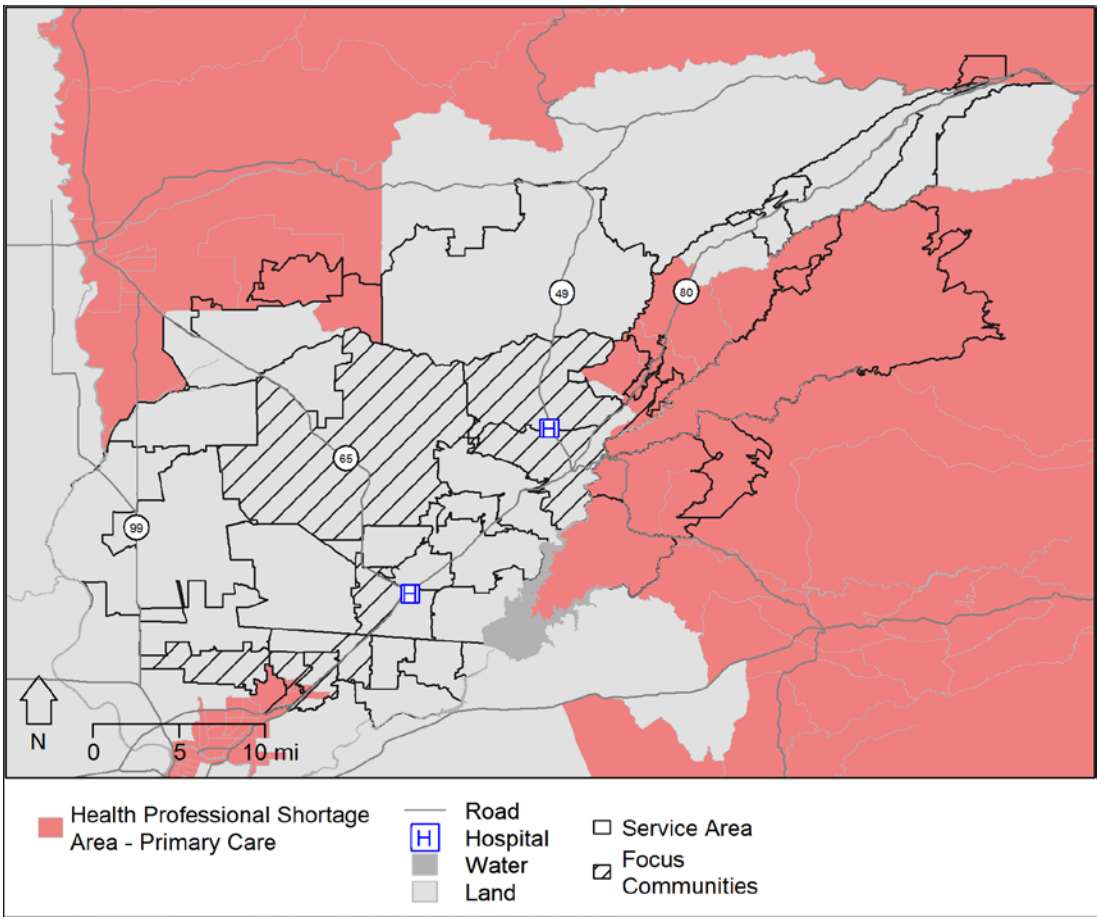

Figure 26: Health Professional Shortage Area- Primary Care

As represented in Figure 26, 15 of the 41 ZIP codes in the SRMC/SAFH HSA, four of which were Focus Communities, were designated HPSAs for primary care. The 15 ZIP Codes included 9584 (North Highlands), 95842 (Foothill Farms/ North Highlands), 95903(Beale AFB), 95692 (Wheatland), 95703 (Applegate), 95713(Colfax), 95717 (Gold Run), 95722 (Meadow Vista), 95603 (Auburn), 95614 (Cool), 95631 (Foresthill), 95635 (Greenwood), 95660 (North Highlands) and 95664 (Pilot Hill).

One of the biggest findings in the primary data was the need for increased access to primary care for residents of Focus Communities, and is the third highest prioritized health need for the SRMC/SAFH HSA. Additionally, though insurance coverage for residents in the HSA has increased as a result of the Affordable Care Act, key informant and community members consistently mentioned a lack of providers in the Focus Communities, especially Medi-Cal providers, and the need for residents to have a medical home. One community member stated "*I feel that with the patients being assigned doctors that are not accepting new patients, it's extremely common*" (FG_1). A key informant spoke about healthcare in Sacramento County *"We are at the end of the line in terms of 58 counties in the state in terms of service delivery for healthcare" (KI_9).* As one provider stated about Affordable Care coverage:

> *…I think that's because people don't know where to go for primary care. That also brings another point of clinic expansion not keeping up with the insured population and now there's a lot of people who have access to care or should be able to have access to care but they don't because of appointments are too far out there are too many people trying to fit into that appointment slot. And I think that's a big impact of the Affordable Care act. Not enough doctors, not enough clinics (FG_1).*

Primary data indicated that many community residents are experiencing long wait times till they are able to see a provider. As one key informant stated *"The wait time is shorter in the ED than scheduling an appointment with a PCP (Primary Care Provider)" (KI_10).*

Percent – Prenatal Care in the First Trimester and Low Birth Weight

Table 30: Percent of Live Births with the Mother Receiving Prenatal Care in the First Trimester and Percent of Births with Low Birth Weight (per 1,000 Births)

	ZIP Code	Percent of Live Births with Prenatal Care in First Trimester	Percent of Births with Low Birth Weight
Prenatal Health	95621	79.9%	6.2%
	95660	70.3%	6.6%
	95673	73.2%	6.6%
	95841	74.8%	6.5%
	95842	72.2%	5.8%
	Sacramento County	*81.4%*	*6.9%*
	95602	75.1%	6.4%
	95603	76.9%	6.2%
	95648	86.4%	5.8%
	95678	84.4%	5.9%
	Placer County	*85.3%*	*5.9%*
	SRMC/SAFH HSA	*80.3%*	*5.8%*
	CA State	*83.6%*	*6.8%*

Source: CDPH, 2010-2012

Data revealed that fewer mothers receive prenatal care in the first trimester in Sacramento County than in the state and Placer County. All five of the Focus Communities in Sacramento County and three of the Focus Communities in Placer County had a lower percent of mothers receive prenatal care in the first trimester than their respective county benchmark. The Focus Community with the lowest percent of mothers receive prenatal care in the first trimester in Sacramento County was 95660 (North Highlands) and 95602 (North Auburn) in Placer County. The percent of births with low-weight babies was highest in Sacramento County followed by the state and Placer County. None of the Focus Communities in Sacramento County had a percent of low-weight births that exceeded the Sacramento County benchmark, however two of the Focus Communities in Placer County had a percent of low-weight births that exceeded the county benchmark of 5.9% of low-weight births per 1,000 births. The Focus Community with the highest percent of low-weight births was 95660 (North Highlands) in Sacramento County and 95602 (Auburn) in Placer County.

Rate – Federally Qualified Health Centers per 100,000 population

Data from the US Department Health and Human Services for 2015 indicated that the rate of Federally Qualified Health Centers (FQHC) in the SRMC/SAFH HSA was 0.59 FQHCs per 100,000 population, which was below the state rate of 1.97 centers per 100,000 population.

Rate – Preventable Hospital Events per 10,000 population

The rate of preventable hospitalizations reported by the Office of Statewide Health Planning and Development for 2011 was 58.67 for Placer County, 80.23 for Sacramento County, and 83.17 for the state of California. Preventable hospital events are ambulatory care-sensitive conditions which could have been prevented if adequate access to primary care was available and utilized by the community.

Area – Health Professional Shortage Area – Mental Health

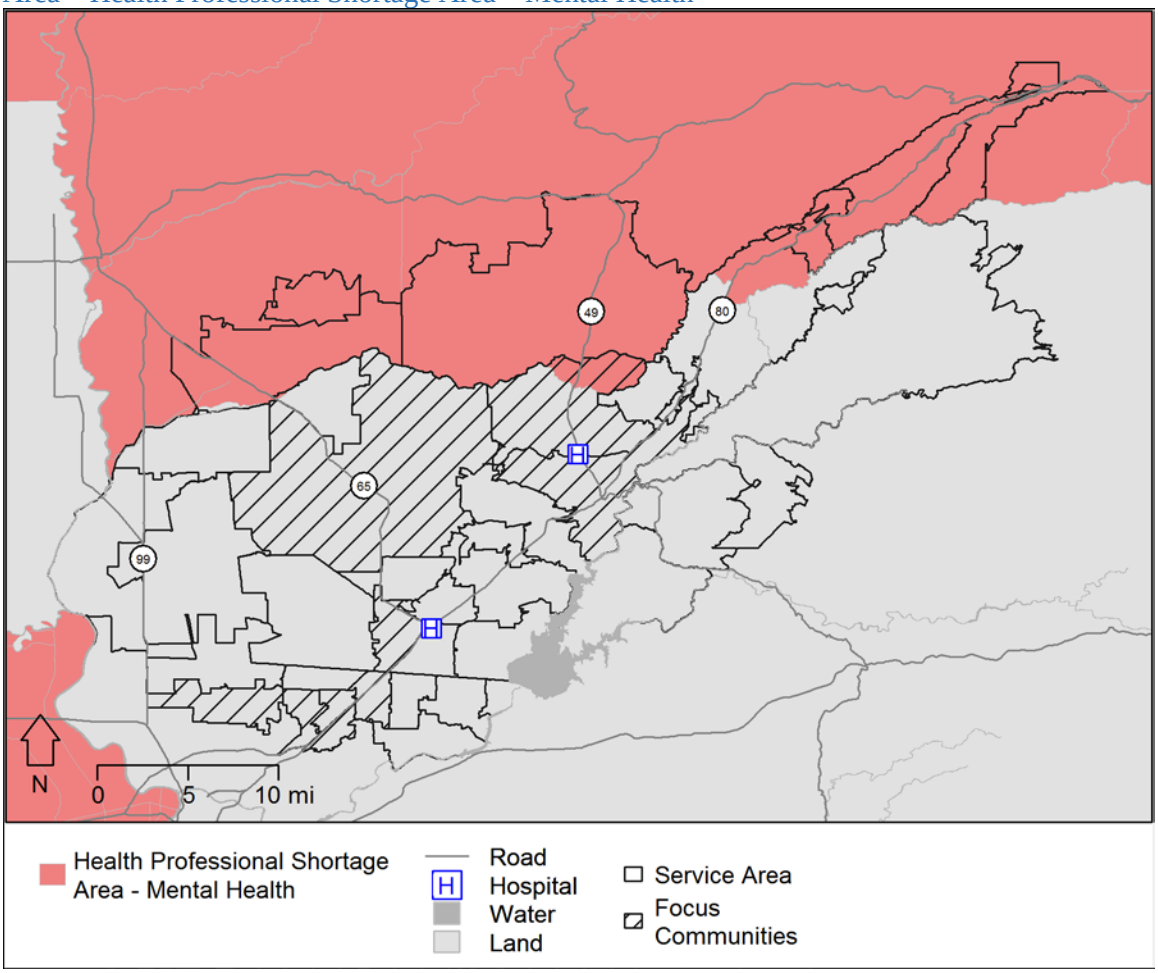

Figure 27: Health Professional Shortage Area- Mental Health

Data from the U.S. Department of Health and Human Services for 2015 revealed that the rate of mental health providers was 117.4 per 100,000 population for SRMC/SAFH HSA, fewer mental health providers than the state rate of 157.0 per 100,000 population. As shown in Figure 27, only one of the 41 ZIP codes in the SRMC/SAFH HSA was designated a HPSA for mental health which was that of 95949 (Alta Sierra).

Rate – Dental Health Providers per 100,000 population

Data from the US Department of Health and Human Services for 2015 revealed that the rate of dental health providers was 98.3 per 100,000 population for Placer County and 71.9 per 100,000 population for Sacramento County, compared to the state rate of 77.5 per 100,000 population.

Area – Health Professional Shortage Area- Dental Health

There were no federally designated HPSAs for dental care in Sacramento County or El Dorado County. However, key informants and community members mentioned dental issues as a health concern, especially for children and among the Latino/Hispanic populations. Many participants did not have dental insurance and mentioned the need for access to dental, and vision care, for many adults in need of restoration services. Many community members live without a full mouth of teeth, providing a barrier to eating adequate crunchy fruits and vegetables, effecting employability and overall quality of life.

Education

Educational attainment is important for overall health and wellbeing. Education is positively associated with health status.

Percent – High School Students Graduating in Four Years

The California Department of Education reports the graduation rate as the percent of high school students receiving their high school diploma in four years. The high school graduation rate in 2013 for Sacramento County was 79.4%, slightly below the state percent of 80.4%, while the Placer County graduation rate was 90.5%, above the state percent. Rates for Sacramento County by race and ethnicity showed that 84.1% of Whites graduate in four years compared to 68.3 % of Blacks, 72.9% of Hispanic/Latinos, 89.7% of Asians and 80.7% of non-Hispanic others. In Placer County, 91.4% of White and 96.9% of Asian students graduate in four years compared to 79.1 % of Blacks, 85.9% of Hispanic/Latinos and 92.3% of non-Hispanic others. Both key informants and community members stressed the importance of access to quality education for residents of SRMC/SAFH HSA.

Percent – Adults over the Age of 25 with No High School Diploma

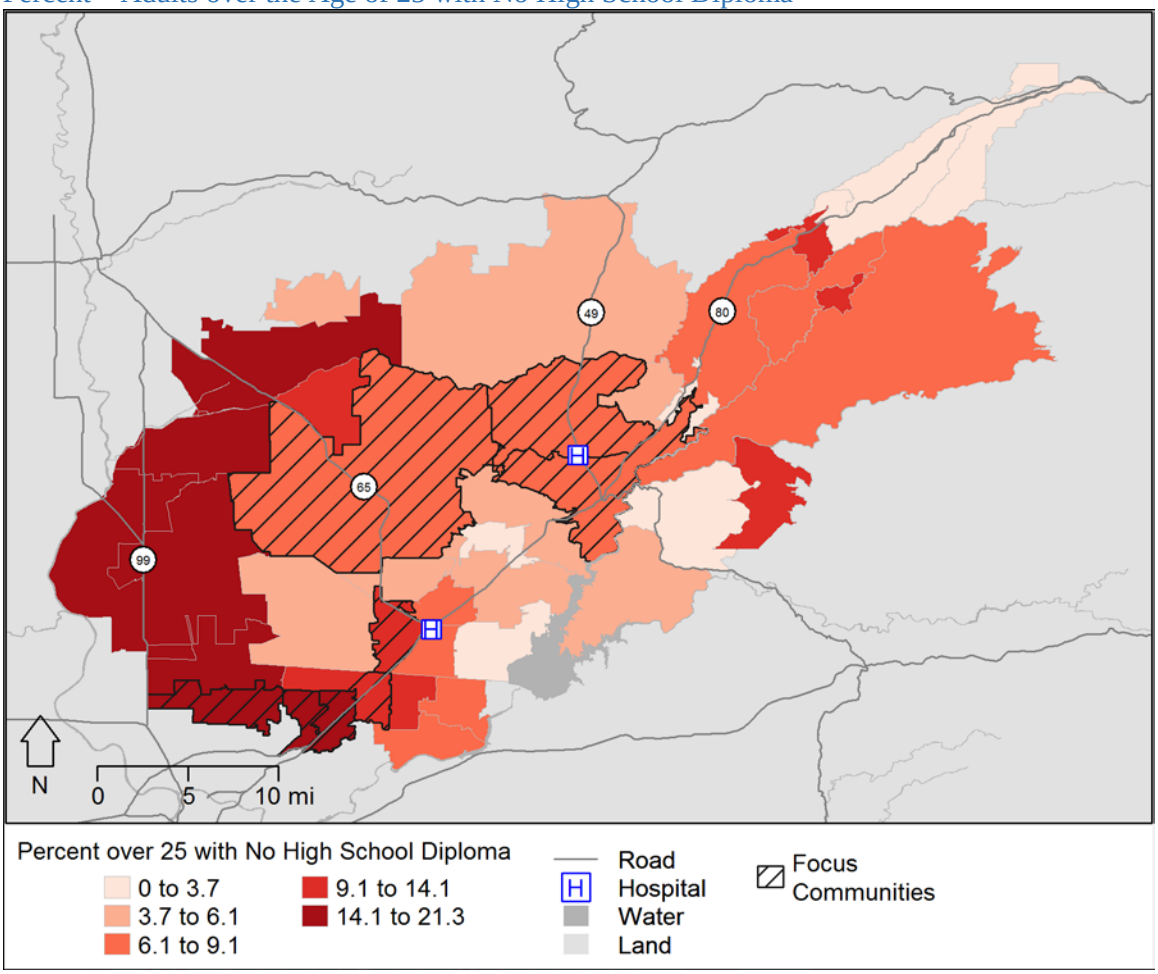

Figure 28: Percent over 25 Years Old with No High School Diploma

The percent of residents with no high school diploma was 18.8% in the state of California, 14.1% in Sacramento County and 6.4% in Placer County. Eight of the 41 ZIP codes within the SRMC/SAFH HSA, four which were Focus Communities, had a higher percentage of residents without a diploma than the

Sacramento county benchmark. The Zip codes with the highest percentage of residents without a diploma in order were 95668 (Pleasant Grove), 95659 (Nicolaus), 95673 (Rio Linda), 95660 (North Highlands), 95841 (North Highlands), 95842 (Foothill Farms/North Highlands), 95626 (Elverta) and 95692 (Wheatland).

Percent – Non-Proficient Reading Level in Fourth Grade

Data from the California Department of Education for 2012-2014 indicated that 38% of 4th graders in Sacramento County are not proficient in reading at the 4th grade level, slightly above the state benchmark of 36%. The Placer County rates indicated that fewer students read below the 4th grade proficient reading level than in Sacramento County, with a rate of 22%. Reading proficiency in 4th grade is important because it is linked to poverty, unemployment and barriers to healthcare access. Percent of reading proficiency differs significantly by race and ethnicity. While 27% of White students in Sacramento County were not proficient, 53% of Black students, 49% of Hispanic/Latino students, 50% of Native American/Alaskan Native students, 47% of Native Hawaiian/Pacific Islander students, and 30% of Asian students were not proficient in 4th grade reading level. In Placer County, 19% of White, 11.11% of Asian students were not proficient in the 4th grade reading level, while 31.7% of Black, 33.3% of Native American/Alaskan Native students, 27.8% of Native Hawaiian/Pacific Islander students and 36% of Hispanic/Latino students were not proficient in 4th grade reading level

Percent – 3 and 4 year olds Enrolled in Preschool

Data from the U.S. Census Bureau for 2009-2013 indicated that 48.7% of 3 and 4 year olds in the SRMC/SAFH HSA are in preschool, slightly less than the state benchmark of 49%. This data is important since access to early education is a social determinant of health.

Rate – Suspensions per 100 students

The rate of suspensions as reported by the California Department of Education for Sacramento County was 6.72 per 100 students, above the state rate of 4.04 per 100 students, while Placer fell below the state with a rate of 3.11 suspensions per 100 students. This is an important health indicator because it is related to educational attainment and crime in the community as an adult.

Social Services

Indicators used in this assessment to examine social services included data on the percent of population receiving services, including public insurance, Medicaid, public assistance, and percent of families eligible for free and reduced price lunch.

Percent – Population on Public Health Insurance

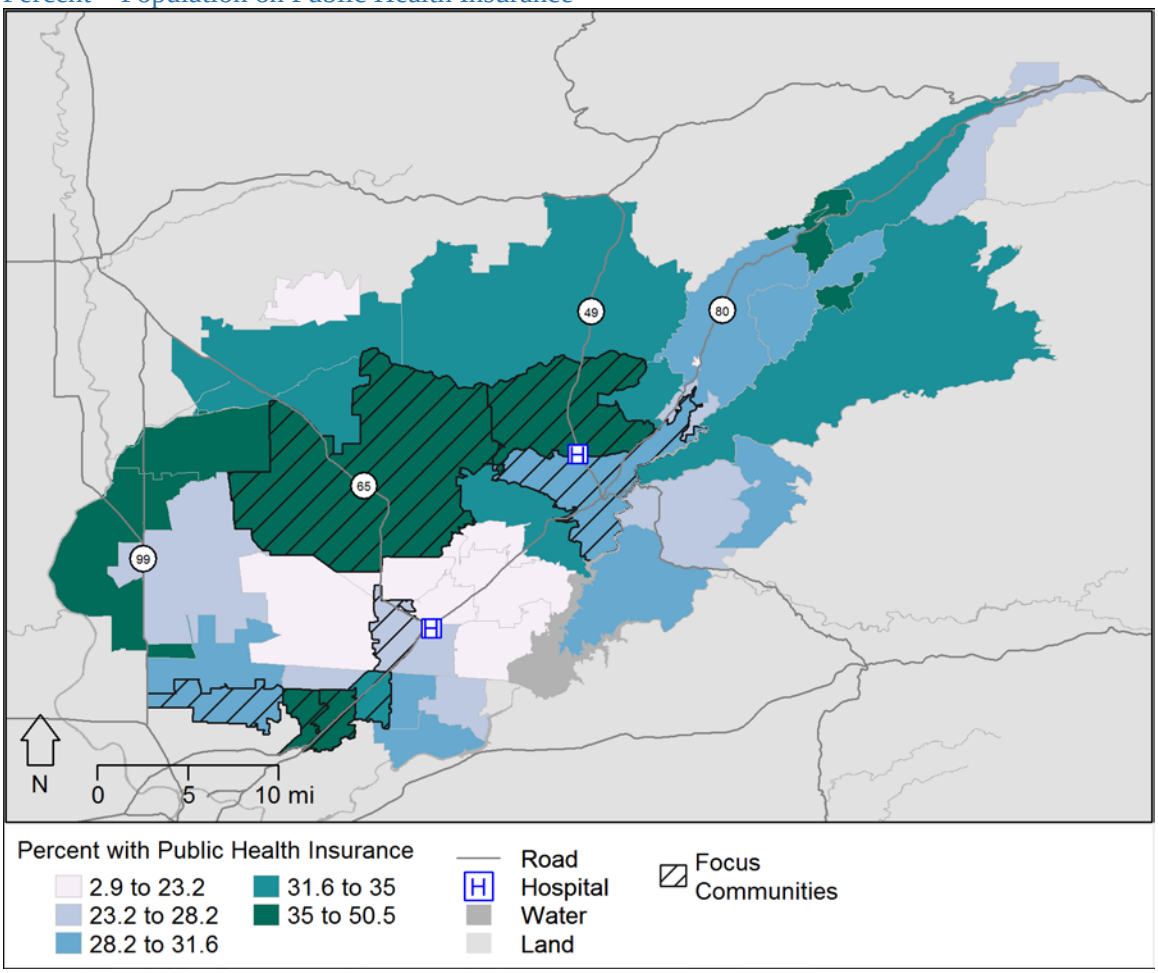

Figure 29: Percent of Population on Public Health Insurance

The percent of population on public health insurance was 32.5% in Sacramento County, 29.5% for the state and 25.2% in Placer County. Data presented in Figure 29 shows the percent of residents with public insurance across the SRMC/SAFH HSA. Twenty-nine of the 41 ZIP codes in the SRMC/SAFH HSA had more than 25.2% of its population on public health insurance. In addition, thirteen of the 41 ZIP codes—six of which were Focus Communities—had a higher percentage of its population on public health insurance than the Sacramento County percentage of 32.5%. The 13 ZIP codes with the highest percent population on public health insurance were 95717 (Gold Run), 95660 (North Highlands), 95659 (Nicolaus), 95714 (Dutch Flat), 95842 (Foothill Farms/North Highlands), 95841 (North Highlands), 95674 (Rio Oso), 95602 (North Auburn), 95648 (Lincoln), 95701 (Alta), 95621 (Citrus Heights/Antelope), 95692 (Wheatland), and 95631 (Foresthill), with the highest percent in Gold Run at 50.5% and the second highest percent in North Highlands (95660) at 46.5%.

Percent – Population Receiving Medicaid (Medi-Cal)

Though the above data provides information on the percent of population on all sources of public health insurance, the U.S. Census Bureau reports the percent of population receiving Medicaid specifically. The SRMC/SAFH HSA had 17.1% of residents receiving Medicaid, which is less than the state percent of 23.4%.

Percent – Population Receiving Public Assistance

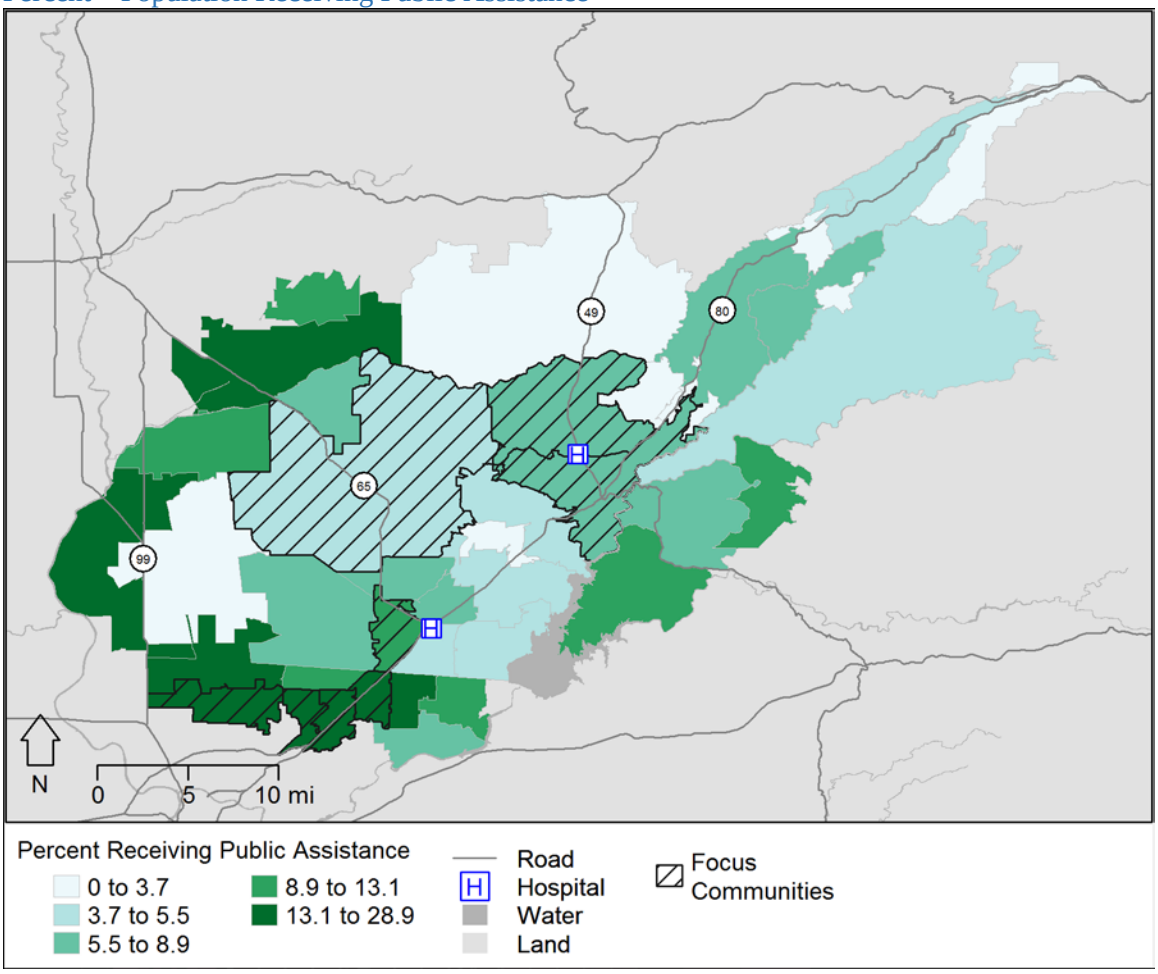

Figure 30: Percent of Population Receiving Public Assistance

The percent of population receiving public assistance was highest in Sacramento County with 17.1%, followed by the state with 12.1% of the population receiving public assistance and Placer County with 6.1% of the population receiving public assistance. Nine of the 41 ZIP in the SRMC/SAFH HSA, five of which were Focus Communities, had more than 12.1% of the population receiving public assistance. The nine ZIP codes included 95659 (Nicolaus), 95621 (Citrus Heights/Antelope), 95610 (Citrus Heights/Orangeville), 95673 (Rio Linda), 95626 (Elverta), 95692(Wheatland), 95841 (North Highlands), 95660 (North Highlands) and 95842 (Foothill Farms/North Highlands). 95842 (Foothill Farms/North Highlands) had the highest percentage across the SRMC/SAFH HSA, with 28.9% of its population receiving public assistance followed by 95660 (North Highlands) with 26.8% of its population receiving public assistance and 95841 (North Highlands) with 25.2% of its population receiving public assistance.

Percent – Students Eligible for Free and Reduced-Priced Lunch in Schools

Data from the National Center for Education Statistics in 2013-2014 indicated that 41% of school age children in the SRMC/SAFH HSA are eligible for Free and Reduced Priced Lunch, which is less than the state percent of 58%. This indicator is important because it identifies service needs associated with poverty which is a social indicator of health status in a community.

PRIORITIZED DESCRIPTION OF SIGNFICANT COMMUNITY HEALTH NEEDS

The following is a list of eight significant health needs for the SRMC/SAFH HSA in prioritized order. The process and method for the determination of significant health needs and the prioritization criteria follows. Each prioritized significant health needs is then detailed further with the quantitative and qualitative data that supports its inclusion.

1. Access to Behavioral Health Services
2. Access to High Quality Health Care and Services
3. Active Living and Healthy Eating
4. Disease Prevention, Management and Treatment
5. Safe, Crime and Violence Free Communities
6. Basic Needs (Food Security, Housing, Economic Security, Education)
7. Affordable and Accessible Transportation
8. Pollution-Free Living and Work Environments

Process and Methods for Prioritizing Significant Health Needs (SHN)

Potential Health Need (PHN) categories

Significant health needs were identified through an integration of both qualitative and quantitative data. The process began by generating a list of eight broad potential health needs (PHN) categories that could exist within the SRMC/SAFH HSA as well as subcategories of these broad needs as applicable. The PHN categories and subcategories were identified through consideration of the following inputs: the health needs identified in the 2013 CHNA process; the categories in the Kaiser Permanente Community Commons Data Platform (CCDP) preliminary health needs identification tool; and a preliminary review of primary data. This resulted in a list of eight PHNs for the SRMC/SAFH HSA.

Quantitative/Qualitative Analysis on PHN Categories

Once the PHN categories were created, quantitative and qualitative indicators associated with each category and subcategory were identified in a crosswalk table. The potential health need categories, subcategories and associated indicators were then vetted and finalized by members of the CHNA Collaborative prior to identification of the significant health needs. A full list of the secondary indicators and primary data concepts associated with each PHN category is displayed in Appendix C.

Thresholds for Significant Health Needs (SHNs)

While all potential health needs exist within the SRMC/SAFH HSA to a greater or lesser extent, the purpose was to identify those that were most significant. A health need was determined to be significant through extensive analysis of the secondary and primary data for the HSA.

For the secondary (quantitative) data, indicators were flagged that compared unfavorably in size and scope of the problem to state benchmarks, or had evident disparities among racial/ethnic groups. Indicators from the CHNA-DP were flagged if: (a) the HSA value performed poorly (>2% or 2 percentage point difference) or moderately (between 1-2% or 1-2 percentage point difference) compared to the state benchmark. Indicators sourced by Valley Vision were flagged if they compared unfavorably to benchmark by any amount as presented in Appendix C.

Prioritized Significant Health Need Identification Process

Once significant health needs were identified, they were prioritized through the following process. First, health needs were given a score based upon the degree to which they met the criteria outlined above.

Health needs that met or exceeded the thresholds for both the primary (75%) and secondary data (50%) categories were given a score of two (2 points); health needs that met or exceeded the thresholds for only one of the categories were given a score of one (1 point). The health needs were then ranked so that those with two points were put into a higher tier for prioritization than those with one point.

Secondly, health needs were further ranked within their tiers based upon additional analysis of the primary data. As previously mentioned, the interview guide for primary data collection prompted participants to identify the health issues in their communities that were salient to them and most urgent/important to address. Thematic analysis was conducted on the responses to this question and matched with the significant health need categories. The percentage of sources referring to each health need as a priority was calculated from this analysis, and then used for further prioritization of the health needs within tiers. Health needs with a higher percentage of sources were ranked above those with a lower percentage of sources identifying that health need as a priority.

Prioritized Significant Health Needs for SRMC/SAFH

Table 31 displays the full results of data synthesis to identify and prioritize the significant health needs for SRMC/SAFH. Each prioritized health need is listed with the corresponding secondary and primary data which led to its determination as a need.

Table 31: Prioritization of Significant Health Needs with Data Scoring and Ranked by Importance

Sutter Roseville Medical Center/Sutter Auburn Faith Hospital (N=47)					
	RANK	**Significant Health Needs**	**QUANT**	**QUAL**	**IMPORTANCE**
			50%	75%	
Tier 2	1	Behavioral Health	92%	98%	66%
	2	Access to Care	52%	100%	47%
	3	Active Living and Healthy Eating	72%	96%	38%
	4	Disease Prevention/Management	75%	83%	26%
	5	Safe Communities	75%	89%	13%
Tier 1	6	Basic Needs	33%	98%	15%
	7	Transport	67%	64%	6%
	8	Pollution Free Communities	83%	45%	0%

Tier 2 signifies that a health need met BOTH the quantitative and qualitative thresholds. The health needs in tier 2 were then sorted by % importance.

Tier 1 signifies that a health need met ONE of the quantitative or qualitative thresholds. The health needs in tier 1 were then sorted by % importance

1. Access to Behavioral Health Services

This category encompasses the following needs related to behavioral health:

- Access to mental health and substance abuse prevention and treatment services
- Tobacco education, prevention and cessation services
- Social engagement opportunities (especially for youth and seniors)
- Suicide prevention

This category includes health behaviors (e.g. substance abuse), associated health outcomes (e.g. COPD) and aspects of the social and physical environment (e.g. social support and access to liquor stores). In addition, this category includes life expectancy since persons with severe mental health issues may have a lower life expectancy.

Quantitative Indicators	Qualitative Themes
• Access to mental health providers • Alcohol consumption • Alcohol expenditures • Tobacco expenditures • Liquor store access • Alzheimer's disease – mortality • Smoking Prevalence • Lung Cancer – ED visits • Lung Cancer incidence • Substance abuse – ED visits • Substance abuse – Hospitalizations • CLRD – mortality • COPD – ED visits • COPD – hospitalizations • Life expectancy at birth • Poor mental health days • Mental health – ED visits • Mental health – hospitalizations • Self-Inflicted Injury – ED visits • Self-Inflicted Injury – Hospitalizations • Suicide – mortality • Health Professional Shortage Area-mental health	• Substance Use Including: o Tobacco and e-cigarette use o High rates of opiate prescription drug use (used by individuals other than who the drugs were prescribed for and/or used at higher doses than prescribed) o Alcohol, Marijuana, Methamphetamines • Those with mental health issues may use substances to cope with mental health symptoms-discussion that there may be a connection between mental health and substance use issues • There is a need for social engagement and support for those with mental health and substance use issues especially for the isolated older adults in Placer County • Serious mental illness and chronic mental health issues such as depression, anxiety and dementia were discussed as being significant in this SRMC/SAFH HSA • There are limited resources for trauma informed pediatric mental health care that considers adverse childhood experiences o There are limited mental health services and providers. When services are available, the wait is very long • Daily stress creates significant challenges • There is a need for culturally sensitive mental health and substance use care • There are limited mental health services and/or limited capacity of mental health providers • Homelessness was discussed as a significant issue in this SRMC/SAFH HSA. It was suggested that mental health and substance use issues may be connected to homelessness • Elderly mental health was discussed related to Alzheimer's, dementia and isolation • Those struggling with mental health and substance use

	issues have challenges meeting basic needs such as housing, gainful employment, food and safety • Individuals seek mental health services/treatment from ED which causes capacity issues.

2. Access to High Quality Health Care and Services

This category encompasses the following needs related to access to care:

- Access to Primary and Specialty Care
- Access to Dental Care
- Access to Maternal and Infant Care
- Health Education & Literacy
- Continuity of Care, Care Coordination & Patient Navigation
- Linguistically & Culturally Competent Services

This category includes health behaviors that are associated with access to care (e.g. cancer screening), health outcomes that are associated with access to care/lack of access to care (e.g. low birth weight) and aspects of the service environment (e.g. health professional shortage area). The category does not include access to mental health providers, which is a component of the Access to Behavioral Health Services category.

Quantitative Indicators	Qualitative Themes
• Cancer screening – Mammogram • Cancer screening – Pap • Percent breastfeeding • Soda expenditures • Access to dentists • School enrollment age 3-4years • Federally Qualified Health Centers • Dental Issues – ED visits • Dental Issues – hospitalizations • HPSA – Primary Care • Percent receiving prenatal care	• Access to a provider is hard for low SES communities especially related to primary, specialty care, maternal and child health care and oral health care • The Affordable Care Act insured low income communities but coverage hasn't provided access to care. • Medi-Cal providers are hard to find and retain • Specialty care is hard to access from the rural areas of Placer County • There are limited providers and long wait times to see primary care providers, especially in low income communities. It is not uncommon for those waiting to utilize the ED multiple times while waiting weeks/months to see primary care providers • Language barriers between provider and patient create significant, especially within the Latino communities in Placer County • Prescription drugs and certain prescribed treatments are cost prohibitive • Undocumented residents experience severe barriers in accessing care, especially prenatal care • Coordinated care is important especially related to transportation to health care services, the ability to access multiple services in one location and the ability to access culturally sensitive care • Transportation to health care is challenging for many individuals • Dental and vision care are difficult to access for low SES communities and undocumented communities

3. Active Living and Healthy Eating

This category includes all components of healthy eating and active living including health behaviors (e.g. fruit and vegetable consumption), associated health outcomes (e.g. diabetes) and aspects of the physical environment/living conditions (e.g. food deserts). The category does not include food security, which is a component of the Basic Needs category.

Quantitative Indicators	Qualitative Themes

• Physical Inactivity – adults
• Physical Inactivity – youth
• Heart disease – ED visits
• Hypertension – ED visits
• Diabetes management
• Diabetes prevalence
• Diabetes mortality
• Fruit and vegetable expenditures
• Percent overweight among youth
• Percent obesity among youth
• Colorectal cancer – ED visits
• Colorectal cancer – Hospitalization
• Colorectal cancer – incidence
• USDA defined food desert
• Commuting to work – walking
• Percent breastfeeding
• Soda expenditures
• Osteoporosis – ED visits
• Osteoporosis – hospitalizations
• Low fruit and vegetable consumption among youth
• Grocery stores per population
	• Lack of access to healthy affordable foods in the community
	• Food deserts in low SES communities
	  o lack of grocery stores with quality fruits and vegetables, especially in rural, remote foothills
	  o abundance of unhealthy food options
	• Need for health education related to physical exercise and healthy eating
	• Healthy eating is perceived to be cost prohibitive, especially when working parents need to feed a family
	• Need for more walkable communities including safer sidewalks, bike lands and improved urban design/built environment when planning new communities
	• Barriers related to healthy eating include:
	  o Lack of time for buying and preparing nutritionally dense food
	  o Differences in cultural food practices
	  o Lack of motivation related to competing priorities
	• Barriers related to active living include:
	  o Lack of trees and heat
	  o Use of technology/screen time
	  o Lack of transportation to gyms and recreation facilities
	  o Lack of time
	  o Lack of motivation to exercise considering daily stressors
	  o Poor road/sidewalk conditions

4. Disease Prevention, Management and Treatment

This category encompasses the following health outcomes that require disease prevention and/or management measures as a requisite to improve health status:

- Cancer: Breast, Cervical, Colorectal, Lung, Prostate
- CVD/Stroke: Heart Disease, Hypertension, Renal Disease, Stroke
- HIV/AIDS/STDS: Chlamydia, Gonorrhea; HIV/AIDS
- Asthma

This category includes health behaviors that are associated with chronic and communicable disease (e.g., fruit/vegetable consumption, screening), health outcomes that are associated with these diseases or conditions (e.g. overweight/obesity), and associated aspects of the physical environment (e.g. food deserts).

Quantitative Indicators	Qualitative Themes
• Physical Inactivity—adults • Physical Inactivity—youth • Alcohol consumption • Alcohol expenditures • Liquor Store Access • Cancer screening – Mammogram • Cancer screening – Pap • Tobacco expenditures • Smoking prevalence • Heart disease – ED visits • Heart disease prevalence • Asthma prevalence • Asthma – ED visits • Asthma – hospitalizations • All cause cancer – mortality • Lung cancer – ED visits • Lung cancer – incidence • Diabetes Management • Diabetes Prevalence • Fruit and vegetable expenditures • Percent overweight among youth • Percent obesity among youth • Colorectal cancer – ED visits • Colorectal cancer-hospitalization • Colorectal cancer – incidence • USDA defined food desert • Hypertension – ED visits • Cervical cancer incidence • Breast cancer – ED visits • Breast cancer – hospitalizations • Breast cancer – incidence • Stroke – mortality • Hypertension mortality	• There were high rates of asthma and respiratory issues in the SRMC/SAFH HSA • There were significant concerns with smoking and the use of other tobacco products, especially related to asthma. • Breast, stomach, lung, skin, prostate, leukemia and cervical cancers were discussed. Residents were concerned about environmental toxins being related to the development of cancer. Certain residents had been previously exposed to toxins through Chernobyl. • Sexually transmitted infections (STI) were discussed including HIV/AIDS, Hepatitis C and syphilis. There is concern about the stigma associated with contracting and/or living with an STI. • Substance abuse issues within the SRMC/SAFH HSA plays a role in the presence of Hepatitis C among needle-users. • Transportation was discussed as a significant barrier related to all conditions presented above, especially for those living in rural areas.

- Heart disease mortality
- Chlamydia – incidence
- Gonorrhea – incidence
- No HIV Screening
- Lung cancer – hospitalizations
- Prostate cancer – ED visits
- Prostate cancer – incidence
- Prostate cancer – incidence - hospitalizations
- Stroke – ED visits
- Substance Abuse – ED visits

5. Safe, Crime and Violence Free Communities

This category includes safety from violence and crime including violent crime, property crimes and domestic violence. This category includes health behaviors (e.g. assault), associated health outcomes (e.g. mortality - homicide) and aspects of the physical environment (e.g. access to liquor stores). In addition, this category includes factors associated with unsafe communities such as substance abuse and lack of physical activity opportunities, and unintentional injury such as motor vehicle accidents.

Quantitative Indicators	Qualitative Themes
● Physical Inactivity—adults ● Physical Inactivity—youth ● Alcohol consumption ● Alcohol expenditures ● Liquor store access ● Substance Abuse – ED visits ● Substance Abuse – hospitalizations ● Domestic violence rates ● Major crime rates ● Unintentional injuries – ED visits ● Unintentional injuries – hospitalizations ● Mortality—pedestrian accidents	● Gang violence including shootings, high speed chases, drug sales and robberies were discussed, especially in the Foothill Farms/ North Highlands communities. ● Domestic violence and sexual assault were discussed as being prevalent in and Citrus Heights and North Highlands. ● Alcohol and other substance abuse affect the community and contribute to crime, violence and mental health issues. ● Child abuse and trauma as a result of substance abuse disorders, especially in rural areas of Placer County. ● A lot of mention around isolated older adults and elderly abuse, especially in rural areas in Placer County. ● Tension with the police have created challenges for residents in feeling comfortable accessing law enforcement services, especially in low socioeconomic and/or rural communities

***6. Basic Needs* (Food Security, Housing, Economic Security, Education)**

This category encompasses the following basic needs:

- Economic security (income, employment, benefits)
- Food security/insecurity
- Housing (affordable housing, substandard housing)
- Education (reading proficiency, high school graduation rates)
- Homelessness

Quantitative Indicators	Qualitative Themes
• School enrollment age 3-4 years • Life expectancy at birth • High school graduation rate • Reading Proficiency • Food Insecurity • Population with SNAP • School suspensions	• There are challenges in accessing affordable housing. Homelessness is of significant concern, especially related homeless individuals accessing health services for substance use and mental health issues • The need for coordinated service delivery of basic needs for impoverished residents was discussed • There is a great desire for smoke-free rental housing • Many residents struggle with accessing food, especially homeless individuals. Residents struggle with the affordability of healthy food, especially in food deserts • Residents desire additional grocery stores, especially in lower socioeconomic areas • With Placer COunty being a high income area, there is very little affordable housing or low-income housing, making it very difficult for low-income populations to thrive • Homelessness is more of a challenge in the rural area of Placer County because of the harsh conditions and the remote locations

7. Affordable and Accessible Transportation

This category includes the need for public or personal transportation options, transportation to health services and options for persons with disabilities.

Quantitative Indicators	Qualitative Themes
• Population living near a transit stop • Commuting to work by walking • Commuting to work alone • Population with a disability	• Public transportation is expensive, difficult to access and not always reliable • Residents do not always feel safe on public transportation. • Rural areas struggle significantly with access to public transportation • Many residents live far from their jobs and may not have access to cars • Residents struggle with transportation to medical appointments and procedures. • Social services and grocery stores are not always located near public transportation

	• Transportation services are needed and essential in the rural communities of Placer County because a car is needed for everything

8. Pollution-Free Living and Work Environments

This category includes measures of pollution such as air and water pollution levels. This category includes health behaviors associated with pollution in communities (e.g. physical inactivity), associated health outcomes (e.g. COPD) and aspects of the physical environment (e.g. road network density). In addition, this category includes tobacco usage as a pollutant. The category does not include climate related factors such as drought and heat stress.

Quantitative Indicators	Qualitative Themes
• Physical Inactivity—adults • Physical Inactivity—youth • Tobacco expenditures • Smoking prevalence • Heart disease – ED visits • Asthma – prevalence • Asthma – ED visits • Asthma – hospitalizations • Cancer – mortality • Road Density • Population living near a transit stop • CRLD – Mortality • COPD – ED visits • COPD – hospitalizations	• Asthma, COPD and respiratory allergies are major issues for area residents • There is concern for tobacco and marijuana creating pollutants in the environment • Pests, including cockroaches, mice, rats, lice, fleas, bedbugs, and ringworm, create health issues and allergic reactions • Residents are concerned about the consumption of tobacco and marijuana in communal living environments • Residents are concerned about the health impacts of pesticide spraying in their neighborhoods • Cigarette smoke was a concern for those living in apartments

RESOURCES POTENTIALLY AVAILABLE TO MEET SIGNIFICANT HEALTH NEEDS

One hundred and eighty-seven resources were identified in the SRMC/SAFH HSA. The method included starting with the list of resources from the 2013 SRMC/SAFH CHNA, verification that the resource still existed, and adding newly identified resources in the primary data for the 2016 SRMC/SAFH CHNA report. Examination of the resources revealed the following numbers of resources for each significant health need:

Table 32: Number of Resources for Each Significant Health Need in Prioritized Order

Significant Health Need (in priority order)	**Number of resources**
1. Access to Behavioral Health Services	88
2. Access to High Quality Health Care and Services	81
3. Active Living and Healthy Eating	47
4. Disease Prevention, Management and Treatment	34
5. Safe, Crime and Violence Free Communities	40
6. Basic Needs (Food Security, Housing, Economic Security, Education)	92
7. Affordable and Accessible Transportation	7
8. Pollution-Free Living and Work Environments	5

For more specific examination of resources by significant health need and by geographic locations, see the full list in Appendix H.

IMPACT OF ACTIONS TAKEN SINCE PREVIOUS CHNA

The final regulations issued by the Department of Treasury on December 29, 2014 regarding nonprofit hospitals conducting CHNAs require that each hospital's CHNA report include: "… an evaluation of the impact of any actions that were taken since the hospital facility finished conducting its immediately preceding CHNA to address the significant health needs identified in the hospital facility's prior CHNA(s) (p. 78969)."[27] Similarly, the State of California requires all non-government nonprofit hospitals licensed by the state to submit a "Community Benefits Plan" to OSHPD annually. The plan must include: "…a description of the activities that the hospital has undertaken in order to address identified community needs within its mission and financial capacity…" (p. 1).[28] OHSPD makes each hospital's community benefit plan available to the general public through its website or by request. The following descriptions of the impact of actions taken by both SRMC and SAFH were partially taken from each hospital's annual Community Benefit Plan.

[27] *Federal Register*, Vol. 79, No. 250, (Wednesday, December 31, 2014). Department of the Treasury, Internal Revenue Service.

[28] Hospital Community Benefit Plans (n.d.). *SB697 (Chapter 812, Statutes of 1994)*. The Office of Statewide Health Planning and Development. Retrieved April 27, 2016 from: http://www.oshpd.ca.gov/HID/CommunityBenefit/SB697CommBenefits.pdf

Sutter Auburn Faith Hospital and Sutter Roseville Medical Center

Prior to this CHNA, SAFH and SRMC conducted their most recent CHNA in 2013. The 2013 CHNA identified 10 specific health needs. Working within its mission and capabilities, SRMC and SAFH identified the following needs to address in its community benefit implementation strategy: 1) Lack of access to primary and preventative services 2) Acculturation/limited cultural competence in health and related systems and 3) Inability to exercise and be active. SRMC and SAFH developed plans to address these health needs. Specific outcomes of these efforts are described below.

Lack of access to primary and preventative services

T3 Foothills:

- 140 new patients were enrolled in T3 Foothills in 2014, with 138 active clients at the end of 2014. Patients showed an 88% reduction in inpatient stays post-T3 Foothills and a 38% reduction in non-urgent ED visits post-T3 Foothills. Between the Placer and Sacramento T3 programs, 12,411 referrals to various health and behavioral health appointments, housing, transportation and community resources were provided in 2014.

- In 2015, T3 Foothills served an average of approximately 85 active clients per quarter. Patients showed a 77% reduction in inpatient stays, an 83% reduction in bed days used and 58% reduction in overall hospital usage, post-T3 Foothills. 42% of the patients who worked with the SRMC ED Navigator were successfully enrolled in T3 Foothills. At the end of 2015, T3 Foothills had 75 active clients. Between the Placer and Sacramento T3 programs (which collectively had more than 260 patients at the end of 2015 and served more than 700 people overall), patients received more than 7,000 referrals to services including primary and mental health care, community resources, food banks, transportation, housing, insurance, income and many other social services.

ICP:

- The ICP served a total of 34 patients in 2014. Patients show a 67% reduction in inpatient stays and a 57% reduction in ED visits, post ICP. Total hospital bed days decreased by 83%, post ICP.

- The ICP served a total of 34 patients in 2015. 25 of those patients were connected to a Primary Care Provider and the average length of stay before successful discharge from the program was between 16-18 days. Nearly 100 different referrals were provided to various health and social services. In addition, 32 patients were successfully connected with insurance.

ED Navigator:

- In 2014, SRMC Navigators connected with 314 patients. Between the SRMC and SMCS ED Navigator programs, ED Navigators provided 3,828 health and community related referrals to the underserved population.

- In 2015, SRMC Navigators connected with 376 patients, providing all of them with health and community related referrals and services. 145 of those patients were successfully referred to the T3 program. Between the SRMC and SMCS ED Navigator programs, ED Navigators provided 1,062 referrals to primary and mental health appointments, transportation, social services, food banks, insurance and other vital resources to the underserved population,

- An ED Navigator program at SAFH launched in Q1 of 2016, therefore, there is no 2014 or 2015 data to report.

Free Mammography Screening:

- Throughout the month of October, Sutter Diagnostic Imaging centers across the region provided uninsured/underinsured women the opportunity to receive free digital mammograms. As a result of these collaborative events, we were able to screen more than 400 uninsured women. In 2014, we had Insurance Enrollment Specialists from Covered California attend some of the screening events to educate, connect and enroll patients who need it, in health insurance. As a result, the Covered CA team made many great connections with hundreds of women and will be following up with many of the women to help enroll them in insurance. In addition, we are integrated our ED Navigators into some of the screening events, to provide onsite primary and mental health care referrals and other community resources to the women.

- Throughout the month of October, Sutter Diagnostic Imaging centers across the region provided uninsured/underinsured women the opportunity to receive free digital mammograms. As a result of these collaborative events, we were able to screen 502 uninsured women in 2015. We have insurance Enrollment Specialists from Covered California attend some of the screening events to educate, connect and enroll patients who need it, in health insurance. In addition, we have integrated our ED Navigators and FQHC partners into some of the screening events, to provide onsite primary and mental health care referrals and other community resources to the women.

Clinic Investments:

- Auburn Renewal Center

    - In 2014, with despite only seeing patients two days a week, the Auburn Renewal Center served 247 separate patients and provided more than 900 appointments. ARC provided primary care, behavioral health, optometry, chiropractic and counseling services/appointments, serving primarily homeless and undocumented clients.

    - The number of appointments ARC provided in a year nearly doubled, from 900 appointments in 2014 to 1753 appointments in 2015, with ARC managing charts for 783 individual patients. The clinic now provides sports exams (needed for school) for children over 8, TB testing and regular medical services to both the staff and guests of the new homeless shelter in Auburn, flu shot clinics, in addition to the primary care, dental, chiropractic services, optometry services and mental health care that was already provided.

- WellSpace Health

    - WellSpace Health saw about 32,000 patients in 2014, with nearly 7,500 of those visits at the Roseville Health Clinic located at MOB 5. This is approximately an 84% increase in patients served at WellSpace Health clinics since 2011.

    - WellSpace Health saw about 44,000 patients in 2015 across their entire network of community health clinics. At the Roseville clinic, SRMC staff made appointments for more than 1,051 patients and another 322 patients utilized the open access hours. M-F

Open Access hours at the J St and Roseville locations, helped reduce non-urgent ED visits by 20% during the Open Access hours.

Recreation and Respite:

- In 2014, Recreation and Respite served an average of 30 to 40 people each day (split between two locations) 5 days a week.
- In 2015, more than 200 people participated in the Recreation and Respite program. The R&R program serves an average of 30 to 40 people each day (split between two locations) 5 days a week.

Health Express:

- Health Express provides more than 700 rides each month, for a total of approximately 9,000 rides in 2014

- Health Express provides more than 700 rides each month, for a total of approximately 9,000 rides in 2015.

Acculturation/limited cultural competence in health and related systems

Promotoras:

- In 2014, the Promotoras served 34 Spanish speaking patients with case management, by providing them with culturally sensitive care and connecting them to needed health and community resources. In addition, the LLC provided local health screenings that served nearly 300 Latinos in Placer County.

- In 2015, the Promotoras served 35 Spanish speaking patients with case management, by providing them with culturally sensitive care and connecting them to needed health and community resources including, primary care, mental health services, transportation and other unique needs (sometimes for the whole family) required to help these patients live a healthier, more successful life.

Inability to exercise and be active

Go Noodle:

- In 2014, we had 66 participating schools, more than 420 participating teachers and nearly 10,000 students reached.

- In 2015, Go Noodle achieved over 4.5 million minutes of student physical activity in Placer County, with 100% of the 63 sponsored schools actively engaged in GoNoodle. During this time over 75,000 GoNoodle physical activity breaks (energizing/calming) were played. The highpoint of 2015 came during back to school in September where nearly 17,000 students participated in 11,000 physical activity breaks, resulting in 600,000 student minutes of movement.

CONCLUSION

Nonprofit hospitals play an important role in the lives of the communities they serve. CHNAs help nonprofit hospitals, as well as other community organizations, in determining where to focus community benefit and improvement efforts, including geographic locations and specific populations living in their service areas. The intention of the CHNA is to assist in improving the lives of hospital service area residents, and the larger geographical area served. Results provided in this assessment will help inform efforts with work towards improving the health of a community and better addressing specific target populations with significant health and health-related disparities.

Appendix B: Secondary Data Dictionary and Processing

Introduction

The secondary data supporting the 2016 Community Health Needs Assessment was collected from a variety of sources, and was processed in multiple stages before it was used for analysis. This document details those various stages. Approaches used to define ZIP code boundaries, and the approaches that were used to integrate records reported for PO boxes into the analysis are described. General data sources are listed, followed by a description of the basic processing steps applied to most variables and concluding with detail on additional specific processing steps used to generate a subset of more complicated indicators.

ZIP Code Definitions

All morbidity and mortality variables collected in this analysis are reported by patient mailing ZIP codes. ZIP codes are defined by the US Postal Service as a single 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, and do not match the approach of the US Census Bureau, which is the main source of population and demographic information in the US. Instead of measuring the population along a collection of roads, the Census reports population figures for distinct, contiguous areas. In an attempt to support the analysis of ZIP code data, the Census Bureau created ZIP Code Tabulation Areas (ZCTAs). ZCTAs are created by identifying the dominant ZIP code for addresses in a given Census 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 morbidity and mortality data reported at the ZIP code level, allow for the calculation of rates for each ZCTA. 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. However, residents whose mailing addresses correspond to these ZIP codes will still show up in reported morbidity and mortality 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[29] were compared to ZCTA boundaries[30]. Because various morbidity and mortality data sources were available in different years, this comparison was made between the ZCTA boundaries and the point locations of ZIP codes in April of the year (or the final year in the case of variables aggregated over multiple years) for which the morbidity and mortality variables were reported. 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. Morbidity and mortality information associated with these PO Box or unique ZIP codes were then assigned added to the ZCTAs to which they were assigned.

---

[29] Datasheer, L.L.C. (2015, April 15). *ZIP Code Database DELUXE BUSINESS.* Retrieved from Zip-Codes.com: http://www.Zip-Codes.com

[30] U.S. Census Bureau. (2015). *TIGER/Line® Shapefiles and TIGER/Line® Files.* Retrieved August 31, 2011, from http://www.census.gov/geo/maps-data/data/tiger-line.html

Data Sources

The majority of mortality, morbidity, and socio-economic variables were collected from three main data sources: the US Census Bureau (Census), the California Office of Statewide Health Planning and Development (OSHPD), and the California Department of Public Health (CDPH). Census data was collected to provide both descriptions of population characteristics for the study area, and to calculate rates for morbidity and mortality variables. Table 33 below lists the 2013 population characteristic variables and sources. Table 34 below lists sources for variables used to calculate morbidity and mortality rates, which were collected for 2012, 2013, and 2014. These demographic variables were collected variously at the Census blocks and tracts, ZCTA, county, and state levels. In urban areas, Census blocks are roughly equivalent to a city block, and tracts to a neighborhood. Health outcome and health behavior indicators were also collected from the Kaiser Permanente Community Commons Data Platform (CCDP) to compliment the indicators already collected from other sources.

Kaiser Permanente Community Commons Data Platform (CCDP)

The CCDP is a web-based platform designed to assist hospitals, non-profit organizations, state and local health departments, financial institutions and other organizations seeking to better understand the needs and assets of their communities. The CCDP was used to collect additional indicators, including indicators by race and ethnicity, in order to better understand the drivers of health in the community and prioritize issues that require the most urgent attention. The list of CCDP indicators used is detailed below in Table 37, Remaining Secondary Indicators.

Table 33: Demographic Variables Collected from the US Census Bureau[31]

Derived Variable Name	Source Variable Names	Source
Percent Minority (Hispanic or non-Caucasian)	Total Population - Not Hispanic or Latino: - Caucasian alone	2013 American Community Survey 5-year Estimate Table B03002
Population 5 Years or Older who speak Limited English	For age groups 5 to 17; 18 to 64; and 65 years and over: Speak Spanish: - Speak English "not well"; Speak Spanish: - Speak English "not at all"; Speak other Indo-European languages: - Speak English "not well"; Speak other Indo-European languages: - Speak English "not at all"; Speak Asian and Pacific Island languages: - Speak English "not well"; Speak Asian and Pacific Island languages: - Speak English "not at all"; Speak other languages: - Speak English "not well"; Speak other languages: - Speak English "not at all"	2013 American Community Survey 5-year Estimate Table B16004
Percent Households 65 years or Older in Poverty	Income in the past 12 months below poverty level: - Family households: - Married-couple family: - Householder 65 years and over; Income in the past 12 months below poverty level: - Family households: - Other family: - Male householder, no wife present: - Householder 65 years and over; Income in the past 12 months below poverty level: - Family households: - Other family: - Female householder, no husband present: - Householder 65 years and over; Income in the past 12 months below poverty level: - Nonfamily households: - Male householder: - Householder 65 years and over; Income in the past 12 months below poverty level: - Nonfamily households: - Female householder: - Householder 65 years and over; Total Households	2013 American Community Survey 5-year Estimate Table B17017
Median income	Estimate; Median household income in the past 12 months (in 2013 inflation-adjusted dollars)	2013 American Community Survey 5-year Estimate Table B19013
GINI Coefficient	Gini Index	2013 American Community Survey 5-year Estimate Table B19083

[31] U.S. Census Bureau. (2015). *2013 American Community Survey 5-year estimates; 2012 American Community Survey 5-year estimates; 2011 American Community Survey 5-year estimates.*. Retrieved February 14, 2015, from American Fact Finder: http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

Derived Variable Name	Source Variable Names	Source
Average Population per Housing Unit	Total population in occupied housing units	2013 American Community Survey 5-year Estimate Table B25008
Percent with Income Less Then Federal Poverty Level	Total: - Under .50; Total: - .50 to .99	2013 American Community Survey 5-year Estimate Table C17002
Percent Foreign Born	Total population - Foreign born	2013 American Community Survey 5-year Estimate Table DP02
Percent Non-Citizen	Foreign-born population - Not a U.S. citizen	2013 American Community Survey 5-year Estimate Table DP02
Percent Over 18 that are Civilian Veterans	VETERAN STATUS - Civilian population 18 years and over - Civilian veterans	2013 American Community Survey 5-year Estimate Table DP02
Percent Civilian Noninstitutionalized Population with a Disability	DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION - Total Civilian Noninstitutionalized Population	2013 American Community Survey 5-year Estimate Table DP02
Percent with Public Assistance	INCOME AND BENEFITS (IN 2013 INFLATION-ADJUSTED DOLLARS) - With cash public assistance income	2013 American Community Survey 5-year Estimate Table DP03
Percent with Public Insurance	HEALTH INSURANCE COVERAGE - Civilian noninstitutionalized population - With health insurance coverage - With public coverage	2013 American Community Survey 5-year Estimate Table DP03
Percent Renter Occupied Households	Occupied housing units - Renter-occupied	2013 American Community Survey 5-year Estimate Table DP04
Percent Vacant Housing Units	Total housing units - Vacant housing units	2013 American Community Survey 5-year Estimate Table DP04
Percent Households with No Vehicle	Occupied housing units - No vehicles available	2013 American Community Survey 5-year Estimate Table DP04
Percent Households with Commute Times to work 60 minutes or more	Workers with travel times 60 to 89 minutes; workers with travel times 90 minutes or more; Total workers 16 years and over who did not work at home;	2013 American Community Survey 5-Year Estimate Table B08012
Total Population	Total population	2013 American Community Survey 5-

Derived Variable Name	Source Variable Names	Source
		year Estimate Table DP05
Percent Asian (not Hispanic)	Total population - Not Hispanic or Latino - Asian alone	2013 American Community Survey 5-year Estimate Table DP05
Percent Black (not Hispanic)	Total population - Not Hispanic or Latino - Black or African American alone	2013 American Community Survey 5-year Estimate Table DP05
Percent Hispanic (any race)	Total population - Hispanic or Latino (of any race)	2013 American Community Survey 5-year Estimate Table DP05
Percent American Indian (not Hispanic)	Total population - Not Hispanic or Latino - American Indian and Alaska Native alone	2013 American Community Survey 5-year Estimate Table DP05
Percent Pacific Islander (not Hispanic)	Total population - Not Hispanic or Latino - Native Hawaiian and Other Pacific Islander alone	2013 American Community Survey 5-year Estimate Table DP05
Percent Caucasian (not Hispanic)	Total population - Not Hispanic or Latino - Caucasian alone	2013 American Community Survey 5-year Estimate Table DP05
Percent Other or Two or More Races (not Hispanic)	Total population - Not Hispanic or Latino - Some other race alone; Total population - Not Hispanic or Latino - Two or more races	2013 American Community Survey 5-year Estimate Table DP05
Percent Female	Total population - Female	2013 American Community Survey 5-year Estimate Table DP05
Percent Male	Total population - Male	2013 American Community Survey 5-year Estimate Table DP05
Median Age	Median age (years)	2013 American Community Survey 5-year Estimate Table DP05

Derived Variable Name	Source Variable Names	Source
Population by Age Group	Under 5 years; 5 to 9 years; 10 to 14 years; 10 to 14 years; 20 to 24 years; 25 to 34 years; 35 to 44 years; 5 to 54 years; 55 to 59 years; 60 to 64 years; 65 to 74 years; 75 to 84 years; 85 years and over	2013 American Community Survey 5-year Estimate Table DP05
Percent Single Female Headed Households	Female householder, no husband present, family household	2013 American Community Survey 5-year Estimate Table S1101
Percent 25 or Older Without a High School Diploma	100 - Percent high school graduate or higher	2013 American Community Survey 5-year Estimate Table S1501
Percent Families with Children in Poverty	All families - Percent below poverty level; Estimate; With related children under 18 years	2013 American Community Survey 5-year Estimate Table S1702
Percent Single Female Headed Households in Poverty	Female householder, no husband present - Percent below poverty level; Estimate; With related children under 18 years	2013 American Community Survey 5-year Estimate Table S1702
Percent Unemployed	Unemployment rate; Estimate; Population 16 years and over	2013 American Community Survey 5-year Estimate Table S2301
Percent Uninsured	Percent Uninsured; Estimate; Total civilian noninstitutionalized population	2013 American Community Survey 5-year Estimate Table S2701
Percent of Homeowners with Mortgage with Housing Costs above 30% of Income	Percent; SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI) - Housing units with a mortgage (excluding units where SMOCAPI cannot be computed) - 30.0 to 34.9 percent; Percent; SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI) - Housing units with a mortgage (excluding units where SMOCAPI cannot be computed) - 35.0 percent or more	2013 American Community Survey 5-year Estimate Table DP04
Percent of Homeowners with no Mortgage with	Percent; SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI) - Housing unit without a mortgage	2013 American Community Survey 5-

Derived Variable Name	Source Variable Names	Source
Housing Costs above 30% of Income	(excluding units where SMOCAPI cannot be computed) - 30.0 to 34.9 percent; Percent; SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI) - Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed) - 35.0 percent or more	year Estimate Table DP04
Percent of Renters with Rent above 30% of Income	Percent; GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) - Occupied units paying rent (excluding units where GRAPI cannot be computed) - 30.0 to 34.9 percent; Percent; GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) - Occupied units paying rent (excluding units where GRAPI cannot be computed) - 35.0 percent or more	2013 American Community Survey 5-year Estimate Table DP04
Percent of All Housing Units with Housing Costs above 30% of Income	Percent; SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI) - Housing units with a mortgage (excluding units where SMOCAPI cannot be computed) - 30.0 to 34.9 percent; Percent; SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI) - Housing units with a mortgage (excluding units where SMOCAPI cannot be computed) - 35.0 percent or more; Percent; GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) - Occupied units paying rent (excluding units where GRAPI cannot be computed) - 30.0 to 34.9 percent; Percent; GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) - Occupied units paying rent (excluding units where GRAPI cannot be computed) - 35.0 percent or more; Percent; GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) - Occupied units paying rent (excluding units where GRAPI cannot be computed) - 30.0 to 34.9 percent; Percent; GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) - Occupied units paying rent (excluding units where GRAPI cannot be computed) - 35.0 percent or more; Housing units with a mortgage (excluding units where SMOCAPI cannot be computed); Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed);Occupied units paying rent (excluding units where GRAPI cannot be computed)	2013 American Community Survey 5-year Estimate Table DP04

Table 34: Census Variables Used for Mortality and Morbidity Rate Calculations[3,32]

Derived Variable Name	Source Variable Names	Source
Total Population	Total Population	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014) 2010 Decennial Census Summary File 1
Female	Female	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Male	Male	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age Under 1	DP05: Under 5 years PCT12: Male and Female, ages under 1, 1, 2, 3, and 4	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014); 2010 Decennial Census Summary File 1 Table PCT12
Age 1 to 4	DP05: Under 5 years PCT12: Male and Female, ages under 1, 1, 2, 3, and 4	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014); 2010 Decennial Census Summary File 1 Table PCT12
Age 5 to 14	5 to 9 years; 10 to 14 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 15 to 24	15 to 19 years; 20 to 24 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 25 to 34	25 to 34 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 35 to 44	35 to 44 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 45 to 54	45 to 54 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 55 to 64	55 to 59 years; 60 to 64 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 65 to 74	65 to 74 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Age 75 to 84	75 to 84 years	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)

[32] U.S. Census Bureau. (2013). *2010 Census Summary File 1*. Retrieved February 14, 2013, from American Fact Finder: http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

Derived Variable Name	Source Variable Names	Source
Age 85 and over	85 years and over	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Caucasian	HISPANIC OR LATINO AND RACE - Total population - Not Hispanic or Latino - Caucasian alone	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Black	HISPANIC OR LATINO AND RACE - Total population - Not Hispanic or Latino - Black or African American alone	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Hispanic	HISPANIC OR LATINO AND RACE - Total population - Hispanic or Latino (of any race)	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Native American	HISPANIC OR LATINO AND RACE - Total population - Not Hispanic or Latino - American Indian and Alaska Native alone	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
Asian/Pacific Islander	HISPANIC OR LATINO AND RACE - Total population - Not Hispanic or Latino - Asian alone; HISPANIC OR LATINO AND RACE - Total population - Not Hispanic or Latino - Native Hawaiian and Other Pacific Islander alone	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)

Collected morbidity and mortality data included the number of emergency department (ED) discharges, hospital (H) discharges, and mortalities associated with a number of conditions, as well as various cancer and STI incidence rates. Aggregated 2011 – 2013 ED and H discharge data were obtained from the Office of Statewide Health Planning and Development (OSHPD). Table 35 lists the specific variables collected by ZIP code and county. 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/county, 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, 75 to 84 years, and 85 years or older), and normalized race and ethnicity (Hispanic of any race, non-Hispanic Caucasian, non-Hispanic Black, non-Hispanic Asian or Pacific Islander, non-Hispanic Native American.

Table 35: 2011 – 2013 OSHPD Hospitalization and Emergency Department Discharge Data

Category	Variable Name	ICD9/E-Codes
Cancer	Breast Cancer	174, 175
	Colorectal Cancer	153, 154
	Lung Cancer	162, 163
	Prostate Cancer	185
Chronic Disease	Diabetes	250
	Hypertension	401-405
	Heart Disease	410-417, 428, 440, 443, 444, 445, 452
	Chronic Kidney Disease	580-589
	Stroke	430-436, 438
Infectious Disease	HIV/AIDS	042-044
	STIs	042-044, 090-099, 054.1, 079.4
	Tuberculosis	010-018, 137
Injuries[33]	Assault	E960-E969, E999.1
	Self-Inflicted Injury	E950-E959
	Unintentional Injury	E800-E869, E880-E929
Mental Health	Mental Health	290, 293-298, 301,311
	Mental Health: Substance Abuse	291-292, 303-305
Respiratory	Asthma	493-494
	Chronic Obstructive Pulmonary Disease (COPD)	490-496
Other	Hip Fractures	820
	Oral cavity/Dental	520-529
	Osteoporosis	733

Mortality data, along with some birth data, for each ZIP code in 2010, 2011, and 2012 were collected from the California Department of Public Health (CDPH). The specific variables collected are defined in Table 36. The majority of these variables were used to calculate specific rates of mortality for 2012. A smaller number of them were used to calculate more complex derived indicators. To increase the stability of these derived indicators, rates were calculated using data from 2010 to 2012. These variables include the total number of live births, total number of infant deaths (ages under 1 year), all-cause mortality by age, births with low infant birthweight, and births with mother's age at delivery under 20. Table 36 consequently also lists the years for which each variable was collected.

[33] E-code definitions for injury variables derived from CDC. (2011). *Matrix of E-code Groupings.* Retrieved March 4, 2013, from Injury Prevention & Control: Data & Statistics(WISQARS): http://www.cdc.gov/injury/wisqars/ecode_matrix.html

Table 36: CDPH Birth and Mortality Data by ZIP Code

Variable Name	ICD10 Code	Years Collected
Total Deaths		2012
Male Deaths		2012
Female Deaths		2012
Deaths 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		2010 - 2012
Diseases of the Heart	I00-I09, I11, I13, I20-I51	2012
Malignant Neoplasms (Cancer)	C00-C97	2012
Cerebrovascular Disease (Stroke)	I60-I69	2012
Chronic Lower Respiratory Disease	J40-J47	2012
Alzheimer's Disease	G30	2012
Unintentional Injuries (Accidents)	V01-X59, Y85-Y86	2012
Diabetes Mellitus	E10-E14	2012
Influenza and Pneumonia	J09-J18	2012
Chronic Liver Disease and Cirrhosis	K70, K73-K74	2012
Intentional Self Harm (Suicide)	U03, X60-X84, Y87.0	2012
Essential Hypertension & Hypertensive Renal Disease	I10, I12, I15	2012
Nephritis, Nephrotic Syndrome and Nephrosis	N00-N07, N17-N19, N25-N27	2012
All Other Causes	Residual Codes	2012
Total Births		2010 - 2012
Births with Infant Birthweight Under 1500 Grams, 1500-2499 Grams		2010 - 2012
Births with Mother's Age at Delivery Under 20		2010 - 2012

Cancer incidence data were obtained from the California Cancer Registry for each ZIP code. The data reported the total aggregated incidence of cancers from 2010 – 2012 for breast, colorectal, lung, and prostate cancers. ZIP codes with more than zero but fewer than three cases were masked. For processing purposes, these masked values were treated as zeros.

Chlamydia and gonorrhea incidence data for 2014 were obtained from the County Public Health offices in El Dorado, Placer, Sacramento, and Yolo counties. The incidence data were reported by 2014 ZCTA per 10,000 population. A number of steps were taken to process these variables due to differences in reporting geography and data provided. First, some counties provided pre-calculated rates, while others provided raw counts by ZIP code. Second, some counties provided data for all ZIP codes, while others provided only data for those with reported cases exceeding a certain masking standard. Finally, because ZIP codes can cross county boundaries, each county health office provided only information on the cases that occurred in ZIP codes within their respective counties.

The following approaches were applied to address these irregularities. First, pre-calculated rates were only used for those counties for which raw counts were not reported. Second, a consistent standard to mask rates for ZIP codes with 5 or fewer cases was applied across all counties reporting raw counts, and for counties only reporting rates for a subset of ZIP codes (i.e. Sacramento County), it was assumed that

counties for which data was not reported had 0 incidence rates. For ZIP codes that fell within multiple counties providing data, these cases were simply totaled for the given ZIP code. For ZIP codes that fall partially outside of the counties reporting data, the calculated rates are based only on cases occurring within the reporting counties.

The remaining secondary variables were collected from a variety of sources, and at various geographic levels. Table 37 lists the sources of these variables, and lists the geographic level at which they were reported.

Table 37: Remaining Secondary Variables

Variable	Year	Definition	Reporting Unit	Data Source
Current Smokers	2014	Current Smoking Status - Adults and Teens	County	2014 California Health Interview Survey http://ask.chis.ucla.edu/AskCHIS/tools/_layouts/AskChisTool/home.aspx#/geography (last accessed 9 Oct 2015)
Food Deserts	2010	USDA Defined Food Desert; Low Access 1 mile Urban 10 Mile rural	Tract	USDA http://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data.aspx (Last Accessed 9 Oct 2015)
Modified Retail Food Environment Index (mRFEI)	2013	Table 00CZ2 for the following NAICS codes: 445120, 722513, 445230, 452910, 445110	ZCTA	US Census Bureau 2013 County Business Patterns
Park Access	2010	Percent of 2010 ZCTA Population in blocks located within 1/2 mile of a park	ZCTA	2010 Decennial Census SF1; ESRI U.S. Parks 2014, park_dtl.gdb Series Name Data and Maps for ArcGIS® Issue 2014 - World, Europe, and United States
Health Professional Shortage Areas (Primary Care, Dental, Mental Health)	2015	Current Primary Care, Dental Health, and Mental Health Health Provider Shortage Areas	Shortage Areas (non-point locations)	US Department of Health & Human Services Health Resources and Services Administration; http://datawarehouse.hrsa.gov/data/datadownload/hpsadownload.aspx (last accessed 29 Aug 2015)
Major Crime Rate	2013	Major Crimes (combination of violent crimes, property crimes, and arson)	Law enforcement jurisdiction	California Attorney General - Criminal Justice Statistics Center: Crimes and Clearances http://oag.ca.gov/crime/cjsc/stats/crimes-clearances (last accessed 3 Sep 2015)

Variable	Year	Definition	Reporting Unit	Data Source
Domestic Violence Rate	2013	Domestic Violence-Related Calls for Assistance	Law enforcement jurisdiction	California Attorney General – Criminal Justice Statistics Center: Domestic Violence-Related Calls for Assistance http://oag.ca.gov/crime/cjsc/stats/domestic-violence (last access 30 Oct 2015)
Traffic Accidents Resulting in Fatalities	2013	Traffic Accidents Resulting in Fatalities	Point locations	National Highway Traffic Safety Administration Fatality Analysis Reporting System (FARS) ftp://ftp.nhtsa.dot.gov/fars/2013/DBF/ (lass accessed 8 Sep 2015)
Pollution Burden	2014	Cal EnviroScreen Pollution Burden Scores indicator (based on ozone and PM2.5 concentrations, diesel PM emissions, drinking water contaminants, pesticide use, toxic releases from facilities, traffic density, cleanup sites, impaired water bodies, groundwater threats, hazardous waste facilities and generators, and solid waste sites and facilities)	Tract	California Office of Environmental Health Hazard Assessment CalEnviroScreen Version 2.0 http://oehha.ca.gov/ej/ces2.html
Population Living Near a Transit Stop	2012	Population weighted centroid distance to the closest fixed public transit stop	Census Block Group	US EPA Smart Location Database https://edg.epa.gov/data/Public/OP/SLD/SmartLocationDb.zip (last accessed 29 Aug 2015)
Access to Dentists	2013	Dentists, Rate per 100,000 Population	County	US Department of Health and Human Services, Health Resources and Services Administration, Areas Health Resource File http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Access to Mental Health Providers	2014	Mental Health Care Provider, Rate per 100,000 Population	County	University of Wisconsin Population Health Institute, County Health Ranking http://www.communitycommons.org/groups/community-health-needs-assessment-chna

Variable	Year	Definition	Reporting Unit	Data Source
Access to Primary Care	2012	Primary Care Physicians, Rate per 100,000 Population	County	US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Alcohol – Excessive Consumption	2006 – 2012	Estimated Adults Drinking Excessively (Age-Adjusted Percentage)	County	Center for Disease Control and Prevention, Behaivoral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. U.S. Department of Health and Human Services, Health Indicators Warehouse http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Alcohol – Expenditures	2014	Alcoholic Beverage Expenditures, Percentage of Total Food-At-Home Expenditures	Tract	Nielsen, Nielsen SiteReports http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Asthma – Prevalence	2011 – 2012	Percent Adults with Asthma	County	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Breastfeeding (Any)	2012	Percentage of Mothers Breastfeeding (Any)	County	California Department of Public Health (CDPH) – Breastfeeding Statistics http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Cancer Incidence (Cervical)	2010 – 2012	Annual Cervical Cancer Incidence, Rate per 100,000 Population	County	National Institute of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results Program. State Cancer Provides, 2008-2012 http://www.communitycommons.org/groups/community-health-needs-assessment-chna

Variable	Year	Definition	Reporting Unit	Data Source
Cancer Screening - Mammogram	2008 - 2012	Annual Cervical Cancer Incidence, Rate per 100,00 Population	County	National Institutes of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results Program. State Cancer Profiles http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Cancer Screening – Pap Test	2012	Percent Adults Females Age 18+ with Regular Pap Test (Age Adjusted)	County	Dartmouth College Institute for Health Policy & Practice, Dartmouth Atlas of Health Care http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Cancer Screening – Sigmoid/Colonoscopy	2006 – 2012	Percent Adults Screened for Colon Cancer (Age Adjusted)	County	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Children Eligible for Free/Reduced Price Lunch	2013 - 2014	Percent Students Eligible for Free or Reduced Price Lunch	Address	National Center for Education Statistics, NCES – Common Core of Data http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Commute to Work – Alone in Car	2009 – 2013	Percentage of Workers Commuting by Car, Alone	Tract	US Census Bureau, American Community Survey http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Commute to Work – Walking/Biking	2009 - 2013	Percentage Walking or Biking/Work	Tract	US Census Bureau, American Community Survey http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Diabetes Management	2012	Percent Medicare Enrollees with Diabetes with Annual Exam	County	Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of

Variable	Year	Definition	Reporting Unit	Data Source
(Hemoglobin A1c Test)				Health Care http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Diabetes Prevalence	2012	Percent Adults with Diagnosed Diabetes (Age Adjusted)	County	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Economic Security – Commute Over 60 Minutes	2009 - 2013	Percent of Workers Communities More than 60 Minutes	Tract	US Census Bureau, American Community Survey http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Education – High School Graduation Rate	2013	Cohort Graduation Rate	County	California, Department of Education http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Education – Reading Below Proficiency	2012 – 2013	Percentage of Grade 4 ELA Test Score Not Proficient	County	California, Department of Education http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Education – School Enrollment Age 3-4	2009 - 2013	Percentage Population Age 3-4 Enrolled in School	Tract	US Census Bureau, American Community Survey http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Federally Qualified Health Centers	2015	Federally Qualitied Health Centers, Rate per 100,000 Population	Address	U.S. Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File - Sept. 2015. http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Food Environment – Fast Food Restaurants	2011	Fast Food Restaurants, Rate per 100,000 Population	Tract	U.S. Census Bureau, County of Business Patterns. Additional data analysis by CARES http://www.communitycommons.org/groups/community-health-needs-assessment-chna

Variable	Year	Definition	Reporting Unit	Data Source
Food Environment – Grocery Stores	2011	Grocery Stores, Rate per 100,000 Population	Tract	U.S. Census Bureau, County of Business Patterns. Additional data analysis by CARES http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Food Security – Food Insecurity Rate	2013	Percentage of the Population with Food Insecurity	County	Feeding America http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Food Security – Population Receiving SNAP	2011	Percent Population Receiving SNAP Benefits	County	U.S. Census Bureau, Small Area Income & Poverty Estimates. http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Fruit/Vegetable Expenditures	2014	Fruit / Vegetable Expenditures, Percentage of Total Food-At-Home Expenditures	Tract	Nielsen, Nielsen SiteReports http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Heart Disease Prevalence	2011 – 2012	Percent Adults with Heart Disease	County (Grouping)	University of California Center for Health Policy Research, California Health Interview Survey http://www.communitycommons.org/groups/community-health-needs-assessment-chna
High Blood Pressure - Unmanaged	2006 - 2010	Percent Adults with High Blood Pressure	County	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Housing – Assisted Housing	2013	HUD – Assisted Units, Rate per 10,000 Housing Units (2010)	County	U.S. Department of Housing and Urban Development http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Housing – Substandard Housing	2009 – 2013	Percent Occupied Housing Units with One or More Substandard Conditions	County	U.S. Census Bureau, American Community Survey http://www.communitycommons.org/groups/communit

Variable	Year	Definition	Reporting Unit	Data Source
				y-health-needs-assessment-chna
Insurance – Population Receiving Medicaid	2009 – 2013	Percent of Insured Population Receiving Medicaid	Tract	U.S. Census Bureau, American Community Survey http://www.community commons.org/groups/community-health-needs-assessment-chna
Lack of Social or Emotional Support	2006 – 2012	Percent Adult Without Adequate Social / Emotional Support (Age-Adjusted)	County	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse http://www.community commons.org/groups/community-health-needs-assessment-chna
Liquor Store Access	2012	Liquor Stores, Rate per 100,000 Population	County	U.S. Census Bureau, County Business Patterns. Additional data analysis by CARES http://www.community commons.org/groups/community-health-needs-assessment-chna
Low Fruit/Vegetable Consumption (Youth)	2011 - 2012	Percent Population Age 2-13 with Inadequate Fruit/Vegetable Consumption	County (Grouping)	University of California Center for Health Policy Research, California Health Interview Survey http://www.community commons.org/groups/community-health-needs-assessment-chna
Mental Health – Poor Mental Health Days	2006 - 2012	Average Number of Mentally Unhealthy Days per Month	County	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse http://www.community commons.org/groups/community-health-needs-assessment-chna
Mortality – Homicide	2010 - 2012	Homicide, Age-Adjusted Mortality, Rate per 100,000 Population	ZIP Code	University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death

Variable	Year	Definition	Reporting Unit	Data Source
Mortality – Motor Vehicle Accident	2010 - 2012	Motor Vehicle Accident, Age Adjusted Mortality, Rate per 100,000 Population	ZIP Code	Public Use Data http://www.communitycommons.org/groups/community-health-needs-assessment-chna University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Mortality – Pedestrian Accident	2010 - 2012	Pedestrian Accident – Age Adjusted Mortality, Rate per 100,000 Population	ZIP Code	University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, CDPH - Death Public Use Data http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Obesity (Youth)	2013 - 2014	Percent Obese	County	California Department of Education, FITNESSGRAM® Physical Fitness Testing http://www.community commons.org/groups/community-health-needs-assessment-chna
Overweight (Youth)	2013 - 2014	Percent Overweight	County	California Department of Education, FITNESSGRAM® Physical Fitness Testing http://www.community commons.org/groups/community-health-needs-assessment-chna
Physical Inactivity (Adult)	2012	Percent Population with no Leisure Time Physical Activity	County	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Physical Inactivity (Youth)	2013 - 2014	Percent Physically Inactive	County	California Department of Education, FITNESSGRAM® Physical Fitness Testing http://www.community

Variable	Year	Definition	Reporting Unit	Data Source
				commons.org/groups/community-health-needs-assessment-chna
Preventable Hospital Service Days	2011	Age-Adjusted Discharge, Rate per 10,000 Population	County	California Office of Statewide Health Planning and Development, OSHPD Patient Discharge Data. Additional data analysis by CARES http://www.community commons.org/groups/community-health-needs-assessment-chna
Soft Drink Expenditures	2014	Soda Expenditures, Percentage of Total Food-At-Home Expenditures	Tract	Nielsen, Nielsen Site Reports http://www.community commons.org/groups/community-health-needs-assessment-chna
STD – HIV Hospitalizations	2011	Age-Adjusted Discharge, Rate per 10,000 Population	County	California Office of Statewide Health Planning and Development, OSHPD Patient Discharge Data. Additional data analysis by CARES http://www.community commons.org/groups/community-health-needs-assessment-chna
STD – HIV Prevalence	2010	Population with HIV/AIDS, Rate by 100,000 Population	County	US Department of Health & Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention http://www.community commons.org/groups/community-health-needs-assessment-chna
STD – No HIV Screening	2011 - 2012	Percent Adults Never Screened for HIV/AIDS	County	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES http://www.community commons.org/groups/community-health-needs-assessment-chna
Tobacco Expenditures	2014	Cigarette Expenditures, Percentage of Total Household Expenditures	Tract	Nielsen, Nielsen SiteReports http://www.community commons.org/groups/comm

Variable	Year	Definition	Reporting Unit	Data Source
				unity-health-needs-assessment-chna
Transit – Road Network Density	2011	Total Road Network Density (Road Miles per Acre)	County	Environmental Protection Agency, EPA Smart Location Database http://www.communitycommons.org/groups/community-health-needs-assessment-chna
Violence – School Suspensions	2013 - 2014	Suspension Rate	County	California Department of Education. 2013-2014 school year http://www.communitycommons.org/groups/community-health-needs-assessment-chna

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. When consolidating ZIP codes into ZCTAs, any ZIP code with no value reported was treated as having a value of 0. If a two or more ZIP codes were combined into a single ZCTA, and at least one of those ZIP codes had a value reported, all other ZIP codes with a masked value were treated as having values of 0. Thus ZCTA values were recorded as NA only if all ZIP codes contributing values to them had masked values reported for all associated ZIP codes.

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[34]. 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 American Community Survey 5-year estimate tables: 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. In cases where multiple years of data were aggregated, populations for the central year were used and multiplied by the number of years of data to calculate rates. For OSHPD data, 2012 population data was used. For multi-year CDPH variables (2010 – 2012), 2011 data was used. Population data from 2012 was used to calculate single-year CDPH variables.

ZCTAs with NA values recorded were treated as having a value of 0 when calculating the overall expected rates for a state as a whole, but were kept as NA when smoothing the value for the individual ZCTA. This meant that smoothed rates could be calculated for each variable in each area, but if a given ZCTA had a value of NA for a given variable, it retained that NA value after smoothing.

EBR were attempted for every overall variable, but could not be calculated for certain variables. In these cases, raw rates were used instead. The final rates in either case for H, ED, and the basic mortality variables were then multiplied by 10,000, so that the final rates represent H or ED discharges, or deaths, per 10,000 people.

[34] Anselin, L. (2003). *Rate Maps and Smoothing.* Retrieved February 16, 2013, from http://www.dpi.inpe.br/gi

Age Adjustment

The additional step of age adjustment[35] was performed on the all-cause mortality variables. 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. Because estimates of age under 1 and from 1 to 4 were not available in the American Community Survey datasets used in this analysis, the proportion of the population under age 5 that was also under age 1 was calculated using 2010 decennial Census data for each geographic area. These proportions were then compared to the age under 5 variables from the American Community Survey datasets for each geographic area to estimate the values for the population under 1 and from 1 to 4. These estimated values were then used to calculate age stratified rates. 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.

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. HSA rates were calculated by first summing the total number of cases and relevant populations for each variable across all ZCTAs in the HSA. ZCTAs with NA values were treated at this stage as having a value of 0. Smoothed EBR rates were then calculated for each HSA using a broader set of HSAs.

County benchmark rates were calculated as raw rates for each county, or in the case of small counties, group of counties, using the relevant population variables. State rates were calculated as raw rates by first summing all county level values (treating and NA value as a 0), and then dividing these values by the relevant population value.

HSA, county, and state benchmark rates were also provided for CDPH data. HSA benchmarks were calculated in a process similar to that described above for OSHPD HSA benchmarks: the total number of cases and relevant populations were summed for each variable across all ZCTAs in the HSA, and used to calculate smoothed EBR rates using a broader set of HSAs.

County and state benchmark rates were either calculated using CDPH data reported at the county and state level[36,37], or else obtained from the County Health Status Profiles 2014[38]. The resulting benchmark values for CDPH and OSHPD variable were all reported as rates per 10,000 unless the original variable was reported using some other standard as described below.

---

[35] Klein, R. J., & Schoenborn, C. A. (2001). *Age adjustment using the 2000 projected U.S. population. Healthy People Statistical Notes, no. 20.* Hyattsville, Maryland: National Center for Health Statistics.

[36] California Department of Public Health. (2010, 2011, 2012). *Ten Leading Causes of Death, California Counties and Selected City Health Departments*. Retrieved July 7, 2015, from http://www.cdph.ca.gov/data/statistics/Documents/VSC-2012-0520.pdf; http://www.cdph.ca.gov/data/statistics/Documents/VSC-2011-0520.pdf; http://www.cdph.ca.gov/data/statistics/Documents/VSC-2010-0520.pdf;

[37] California Department of Public Health. (2015a, July 17). Retrieved from Center for Health Statistics and Informatics: Vital Statistics Query System.: http://www.apps.cdph.ca.gov/vsq/

[38] California Department of Public Health. (2015b, July 2). Retrieved from County Health Status Profiles 2014: http://www.cdph.ca.gov/programs/ohir/Documents/OHIRProfiles2014.pd

Processing for Specific Variables

Additional processing was needed to create the Community Health Vulnerability Index (CHVI), the CDPH related variables, and as well as some of the other variables. The process used to calculate these variables are described in this section below.

Community Health Vulnerability Index (CHVI)

The CHVI is a health care disparity index based in largely based on the Community Need Index (CNI) developed by Dignity Health[39]. The CHVI uses the same basic set of demographic variables to address health care disparity as outlined in the CNI, but these variables are aggregated in a different manner to create the CHVI. For this report, the following nine variables were obtained from the 2013 American Community Survey 5-year Estimate dataset at the census tract level:

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

All census tracts that crossed ZCTAs within the HSA were included in the analysis. Each variable was scaled using a min-max stretch, so that the tract with the maximum value for a given variable within the study area received a value of 1, and the tract with the minimum value for that same variable within the study area received a 0. All scaled variables were then summed to form the final CHVI. Areas with higher CHV values therefore represent locations with higher concentrations of the target index populations, and are likely experiencing poorer health care disparities.

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 2010 - 2012 by the total number of live births for the same time period (using smoothed EBR), and multiplying the result by 1,000.

Teen Pregnancy Rate

Teen Pregnancy Rate reports the number of live births to mothers under the age of 20 per 1,000 females between the ages of 15 and 19. It was calculated by dividing the number of live births to mothers whose age at delivery was under 20 reported in 2010 – 2012 by three times the total population of females from ages 15 to 19 in 2011 (using smoothed EBR), and multiplying the result by 1,000.

Life Expectancy at Birth

Life expectancy at birth values are reported in years, and were derived from period life tables created in the statistical software program R[40] using the Human Ecology, Evolution, and Health Lab's[41] example period life table function. This function was modified to calculate life tables for each ZCTA, and to allow

---

[39] Barsi, E. L., & Roth, R. (2005). The "Community Need Index". *Health Progress, 86*(4), 32-38. Retrieved from https://www.chausa.org/docs/default-source/health-progress/the-community-need-index-pdf.pdf?sfvrsn=2

[40] R Development Core Team. (2015). R: A language and environment for statistial computing. Vienna, Austria: . R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL http://www.R-project.org.

[41] Human Ecology, Evolution, and Health Lab. (2009, March 2). *Life tables and R programming: Period Life Table Construction*. Retrieved February 16, 2013, from Formal Demogrpahy Workshops, 2006 Workshop Labs: http://www.stanford.edu/group/heeh/cgi-bin/web/node/75

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 2010 - 2012 by three times the ZCTA population for that age group in 2010 (smoothed to EBR). The age group population was multiplied by three to match the three years of mortality data that were used to derive the rates. Multiple years were used to increase the stability of the estimates.

Years Potential Life Lost (75)

Years Potential Life Lost (75) is a metric that can be used to compare health status across populations that better accounts for premature loss of life than many other metrics[42]. It was calculated here following the method described by Dranger and Remington[9]. In brief, this involved calculating EBR smoothed age stratified death rates using CDPH data from 2010 – 2011. For each age stratification group under 75 years of age, the midpoint age of the group was subtracted from 75, and the resulting value was multiplied by the smoothed age stratified rate. The resulting values for each age stratification were then age adjusted using a 2010 California base population. These values were then individually multiplied by 10,000 and summed across all age groups to estimate the years of potential life lost before 75 out of 10,000 people.

Diversity Index

The diversity index was calculated to measure the racial and ethnic diversity of geographic regions within the HSA. It was calculated using concepts from Iceland[43], but using the Shannon's eveness index (Beals, Gross, & Harrell, 2000) rather than the specific methodology described therein. The diversity index represents how evenly population within a given geographic unit is divided between the following seven racial/ethnic groups (described previously): Asian, Black, Hispanic, American Indian, Pacific Islander, White, Other or Two or More Races. Diversity index values range between 0 and 1, with a value of 0 in areas where the entire population belongs to just one racial/ethnic group and a value of 1 in areas with population evenly divided between the seven groups. Readers interested in the specifics of index calculation are referred to the previously listed sources.

Major Crime and Domestic Violence Rates

Major crimes and domestic violence related calls for assistance reported in the State of California Department of Justices' Crime Data reports are listed by reporting police agency. In order to estimate major crime and domestic violence rates, these values need to be associated with particular geographic areas, and then divided by those area populations. This was done for this report by comparing the names of police agencies to populations reported for "places" (including both incorporated and unincorporated areas) by the US Census. Both crime and population data were obtained for 2013.

Many reporting agencies, such as those associated with hospitals, transit and freight rail lines, university campuses, and state and federal agencies, did not correspond to a specific census place. Internet searches were used to identify the Census places they were associated with, and their cases were added to those places. For example, the crimes or calls for assistance reported by a University police department were added to the city or county that the university campus was located in. For areas where this was unclear based on the name alone, internet searches were conducted to determine the place an agency fell inside of. Because reported crimes or calls for agencies were organized by county, if the crimes for an agency could

---

[42] Dranger, E., & Remington, P. (2004). YPPL: A Summary Measure of Preamture Mortality Used in Measuring the Health of Communities. *Wisconsin Public Health & Health Policy Institute Issue Brief, 5*(7), 1-2. Retrieved May 27, 2015, from http://uwphi.pophealth.wisc.edu/publications/issue-briefs/issueBriefv05n07.pdf

[43] Iceland, J. (2004). *The Multigroup Entropy Index (Also Known as Theil's H or the Information Theory Index).* US Census Bureau. Retrieved June 20, 2015, from http://www.census.gov/housing/patterns/about/multigroup_entropy.pdf

not be associated with any specific place, its reported crimes were grouped together with those for the county sheriff's department.

To calculate rates, the total number of crimes or calls for assistance for each Census place resulting from the process described above were was divided by the population of that place and multiplied by 10,000 to report the number of crimes per 10,000 in that place. For crimes reported for (or grouped with) the county sheriff's department, the county population was modified by subtracting the total population of all Census places with reported crimes. This meant that the major crime rate reported for the county was reporting not the total county's crime rate, but the rate of crimes occurring in those portions of the county that were not otherwise covered by another reporting agency.

Overall county major crime rates and domestic violence related calls for assistance were, however, calculated for benchmarking purposes by summing the total number of major crimes reported by any agency within the county, dividing that by the total population of the county, and multiplying the result by 10,000. For further detail as to which specific crimes are covered within the "major crime" category, interested readers are referred to the State of California Department of Justices' Crime Data reports, available online at: http://oag.ca.gov/crime.

Park Access

The park access variable reports the percent of the 2010 population residing within each ZCTA that lives in a Census block that intersects a ½ mile buffer around the closest park. ESRI's U.S. Parks data set[44], which includes the location of local, county, regional, state, and national parks and forests, was used to determine park locations.

Modified Retail Food Environment Index (mRFEI)

The Modified Retail Food Environment Index (mRFEI) variable reports the percentage of the total food outlets in a ZCTA that are considered healthy food outlets. Values below 0 are given for ZCTAs with no food outlets. The mRFEI variable was calculated using a modification of the methods described by the National Center for Chronic Disease Prevention and Health Promotion[45] using ZIP code level data obtained from the US Census Bureau's 2013 County Business Pattern datasets. Healthy food retailers were defined based on North American Industrial Classification Codes (NAICS), and included:

- Large grocery stores: NAICS code 445110, with 50 or more employees
- Fruit and vegetable markets: NAICS 445230
- Warehouse clubs: NAICS 452910

Food retailers that were considered less healthy included:

- Small grocery stores: NAICS code 445110, with 1 – 4 employees
- Limited-service restaurants: 722513
- Convenience stores: 445120

To calculate the mRFEI, ZIP code values were converted to ZCTAs using previously described processes. The total number of health food retailers was then divided by the total number of healthy and less healthy food retailers for each ZCTA, and the result was multiplied by 100 to calculate the final mRFEI value for the ZCTA. HSA mRFEI benchmark values were calculated by first summing the total number of each type of food retailer that fell within the HSA, and then by following the same approach.

[44] ESRI. (2010). U.S. and Canada Detailed Streets. *ESRI Data & Maps: StreetMap* (10 edition)

[45] National Center for Chronic Disease Prevention and Health Promotion. (2011). *Census Tract Level State Maps of the Modified Retail Food Environment Index (mRFEI).* Centers for Disease Control. Retrieved Jan 11, 2016, from http://ftp.cdc.gov/pub/Publications/dnpao/census-tract-level-state-maps-mrfei_TAG508.pdf

Appendix C: Detailed Analytic Methodology including SHN Categorization

Significant Health Need Identification Process

The Significant Health Need identification process began with a review of significant health needs identified in the Community Health Need Assessment reports conducted by Valley Vision, Inc. during the 2013 CHNA round. This list of significant health needs was compared to preliminary secondary data, health needs associated with the Kaiser Permanente Community Commons Data Platform (CCDP), and to input from health systems participating in the Sacramento Region 2016 collaborative CHNA process. This culminated in the final set of 8 potential health needs for the 2016 CHNA shown in Table 38 below.

Table 38: Potential Health Needs

Table 38: Overview of Potential Health Need (PHN) Categories	
Potential Health Need Category	**Abbreviation**
Access to High Quality Health Care and Services *(i.e., Access to Care, Oral Health, Maternal and Infant Health)*	Access to Care
Access to Behavioral Health Services *(i.e., Mental Health, Substance Abuse)*	Behavioral Health
Affordable and Accessible Transportation	Transportation
Basic Needs *(i.e., Food, Housing, Employment, Education)*	Basic Needs
Disease Prevention, Management and Treatment *(i.e., Cancer, Asthma, CVD/Stroke, HIV/AIDS/STIs)*	Disease Prevention
Active Living and Healthy Eating	ALHE
Pollution Free Living and Work Environments	Pollutant Free
Safe, Crime and Violence-Free Communities	Safe Communities

The next step in the significant health need identification process was to identify those secondary indicators associated with each of these significant health needs. Values for these indicators were then calculated for each hospital service area, and then compared to relevant state benchmarks. The percentage of indicators comparing poorly to state benchmarks for each health need was then calculated. Table 39 below shows the indicator/health need cross walk table, shows which variables were collected directly by Valley Vision and which were obtained through the Kaiser Permanente CHNA Data Platform (CCDP). It finally gives a general description of the type of value calculated for the HSA for each variable, as well as the direction of comparison to the state benchmark.

Table 39: Indicators, Health Needs, and Benchmarks

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
Breastfeeding (Any)	Yes		Yes						County Rate	Below State Benchmark	CCDP
Soft Drink Expenditures	Yes		Yes						Calculated HSA Rate	Exceeds State Benchmark	CCDP
Economic Security - Commute Over 60 Minutes	Yes			Yes			Yes		Kaiser Rate	Exceeds State Benchmark	CCDP
Physical Inactivity (Adult)	Yes				Yes	Yes		Yes	Maximum Rate for Associated County	Exceeds State Benchmark	CCDP
Physical Inactivity (Youth)	Yes				Yes	Yes		Yes	Maximum Rate for Associated County	Exceeds State Benchmark	CCDP
Obesity (Youth)	Yes				Yes			Yes	Maximum Rate for Associated County	Exceeds State Benchmark	CCDP
Heart Disease (ED)	Yes				Yes			Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Heart Disease (H)	Yes				Yes			Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Commute to Work - Walking/Biking	Yes						Yes		Calculated HSA Rate	Below State Benchmark	CCDP
Diabetes Management (Hemoglobin A1c Test)	Yes							Yes	Calculated HSA Rate	Below State Benchmark	CCDP
Diabetes Prevalence	Yes							Yes	County Rate	Exceeds State Benchmark	CCDP
Fruit/Vegetable Expenditures	Yes							Yes	Calculated HSA Rate	Below State Benchmark	CCDP
Overweight (Youth)	Yes							Yes	Maximum Rate for Associated County	Exceeds State Benchmark	CCDP
Colorectal Cancer (ED)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Colorectal Cancer (H)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Colorectal Cancer (Incidence)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Diabetes (ED)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Diabetes (H)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Food Deserts	Yes							Yes	HSA Intersects Food Desert	Exceeds 25% of ZCTAs	VV

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
Hypertension (ED)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Hypertension (H)	Yes							Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Park Access	Yes							Yes	Calculated HSA Rate	Below State Benchmark	VV
Food Environment - Fast Food Restaurants	Yes								Calculated HSA Rate	Exceeds State Benchmark	CCDP
Food Environment - Grocery Stores	Yes								Calculated HSA Rate	Below State Benchmark	CCDP
Low Fruit/Vegetable Consumption (Youth)	Yes								Maximum Rate for Associated County	Exceeds State Benchmark	CCDP
Diabetes Mellitus – MORT	Yes								Calculated HSA Rate	Exceeds State Benchmark	VV
Modified Retail Food Environment Index (MRFEI)	Yes								Calculated HSA Rate	Below State Benchmark	VV
Osteoporosis (ED)	Yes								Calculated HSA Rate	Exceeds State Benchmark	VV
Osteoporosis (H)	Yes								Calculated HSA Rate	Exceeds State Benchmark	VV
Life Expectancy at Birth		Yes		Yes					Calculated HSA Rate	Below State Benchmark	VV
Tobacco Expenditures		Yes			Yes			Yes	Calculated HSA Rate	Exceeds State Benchmark	CCDP
Tobacco Usage (Adults and Teens)		Yes			Yes			Yes	Maximum Rate for Associated County	Exceeds State Benchmark	VV
Chronic Lower Respiratory Disease – MORT		Yes			Yes				Calculated HSA Rate	Exceeds State Benchmark	VV
COPD (ED)		Yes			Yes				Calculated HSA Rate	Exceeds State Benchmark	VV
COPD (H)		Yes			Yes				Calculated HSA Rate	Exceeds State Benchmark	VV
Alcohol - Excessive Consumption		Yes				Yes		Yes	County Rate	Exceeds State Benchmark	CCDP
Alcohol – Expenditures		Yes				Yes		Yes	Calculated HSA Rate	Exceeds State Benchmark	CCDP
Liquor Store Access		Yes				Yes		Yes	Maximum Rate for Associated County	Exceeds State Benchmark	CCDP
Substance Abuse (ED)		Yes				Yes			Calculated HSA Rate	Exceeds State Benchmark	VV
Substance Abuse (H)		Yes				Yes			Calculated HSA Rate	Exceeds State Benchmark	VV

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
Lung Cancer (ED)		Yes						Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Lung Cancer (Incidence)		Yes						Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Access to Mental Health Providers		Yes							County Rate	Below State Benchmark	CCDP
Lack of Social or Emotional Support		Yes							County Rate	Exceeds State Benchmark	CCDP
Mental Health - Poor Mental Health Days		Yes							County Rate	Exceeds State Benchmark	CCDP
Alzheimer's Disease		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Chronic Liver Disease and Cirrhosis – MORT		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Health Professional Shortage Area - Mental Health		Yes							HSA Intersects Mental Health Shortage Area	Intersects HPSA	VV
Intentional Self Harm (Suicide) - MORT		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Mental Health (ED)		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Mental Health (H)		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Self-Inflicted Injuries (ED)		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Self-Inflicted Injuries (H)		Yes							Calculated HSA Rate	Exceeds State Benchmark	VV
Education - School Enrollment Age 3-4			Yes	Yes					Calculated HSA Rate	Below State Benchmark	CCDP
Insurance - Population Receiving Medicaid			Yes	Yes					Calculated HSA Rate	Exceeds State Benchmark	CCDP
Population with Public Insurance			Yes	Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Uninsured Population			Yes	Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Low Birth Weight			Yes		Yes				Calculated HSA Rate	Exceeds State Benchmark	VV
Cancer Screening – Mammogram			Yes					Yes	County Rate	Below State Benchmark	CCDP
Cancer Screening - Pap Test			Yes					Yes	County Rate	Below State Benchmark	CCDP

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
Cancer Screening - Sigmoid/Colonoscopy			Yes					Yes	County Rate	Below State Benchmark	CCDP
Access to Dentists			Yes						County Rate	Below State Benchmark	CCDP
Access to Primary Care			Yes						County Rate	Below State Benchmark	CCDP
Federally Qualified Health Centers			Yes						HSA Calculated Rate	Below State Benchmark	CCDP
Preventable Hospital Events			Yes						County Rate	Exceeds State Benchmark	CCDP
Dental/Oral Diseases (ED)			Yes						Calculated HSA Rate	Exceeds State Benchmark	VV
Dental/Oral Diseases (H)			Yes						Calculated HSA Rate	Exceeds State Benchmark	VV
Health Professional Shortage Area – Dental			Yes						HSA Intersects Dental Shortage Area	Intersects HPSA	VV
Health Professional Shortage Area - Primary Care			Yes						HSA Intersects Primary Care Shortage Area	Intersects HPSA	VV
Infant Mortality Rate			Yes						Calculated HSA Rate	Exceeds State Benchmark	VV
Prenatal Care			Yes						Calculated HSA Rate	Below State Benchmark	VV
Teen Births			Yes						Calculated HSA Rate	Exceeds State Benchmark	VV
Households with No Vehicle				Yes			Yes		Calculated HSA Rate	Exceeds State Benchmark	VV
Children Eligible for Free/Reduced Price Lunch				Yes					Calculated HSA Rate	Exceeds State Benchmark	CCDP
Education – High School Graduation Rate				Yes					County Rate	Below State Benchmark	CCDP
Education - Reading Below Proficiency				Yes					County Rate	Exceeds State Benchmark	CCDP
Food Security - Food Insecurity Rate				Yes					County Rate	Exceeds State Benchmark	CCDP
Food Security - Population Receiving SNAP				Yes					County Rate	Exceeds State Benchmark	CCDP
Housing - Assisted Housing--HUD units				Yes					County Rate	Exceeds State Benchmark	CCDP
Housing - Substandard Housing				Yes					County Rate	Exceeds State Benchmark	CCDP

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
Violence - School Suspensions				Yes					County Rate	Exceeds State Benchmark	CCDP
Households with housing costs greater than 30% of income				Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Housing Vacancy Rate				Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Percent Population 25 or Older Without a High School Diploma				Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Percent Unemployed				Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Population 5 Years or Older who speak Limited English				Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Population in Poverty (Under 100% Federal Poverty Level)				Yes					Calculated HSA Rate	Exceeds State Benchmark	VV
Population Living Near a Transit Stop					Yes		Yes		Percent of HSA ZCTAs that intersect census blocks with centroids greater than abt. 1/2 mile from public transit stops	Exceeds 25% of ZCTAs	VV
Asthma - Prevalence					Yes			Yes	County Rate	Exceeds State Benchmark	CCDP
Asthma (ED)					Yes			Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Asthma (H)					Yes			Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Malignant Neoplasms (Cancer) - MORT					Yes			Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Pollution Burden Score					Yes			Yes	Percent of HSA ZCTAs that intersect census tract within the top 20% of pollution burden	Exceeds 25% of ZCTAs	VV

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
									scores in the state		
Transit - Road Network Density					Yes				County Rate	Exceeds State Benchmark	CCDP
Mortality - Homicide						Yes			Calculated HSA Rate	Exceeds State Benchmark	CCDP
Mortality - Motor Vehicle Accident						Yes			Calculated HSA Rate	Exceeds State Benchmark	CCDP
Mortality - Pedestrian Accident						Yes			Calculated HSA Rate	Exceeds State Benchmark	CCDP
Assault (ED)						Yes			Calculated HSA Rate	Exceeds State Benchmark	VV
Assault (H)						Yes			Calculated HSA Rate	Exceeds State Benchmark	VV
Domestic violence/intimate partner violence						Yes			Maximum Rate for Associated Agencies	Exceeds State Benchmark	VV
Major Crimes (Violent Crimes, Property Crimes, Larceny/Theft, Arson)						Yes			Maximum Rate for Associated Agencies	Exceeds State Benchmark	VV
Unintentional Injury (ED)						Yes			Calculated HSA Rate	Exceeds State Benchmark	VV
Unintentional Injury (H)						Yes			Calculated HSA Rate	Exceeds State Benchmark	VV
Commute to Work - Alone in Car							Yes		Calculated HSA Rate	Exceeds State Benchmark	CCDP
Population with Any Disability							Yes		Calculated HSA Rate	Exceeds State Benchmark	VV
Cancer Incidence – Cervical								Yes	County Rate	Exceeds State Benchmark	CCDP
Heart Disease Prevalence								Yes	County Rate	Exceeds State Benchmark	CCDP
High Blood Pressure – Unmanaged								Yes	County Rate	Exceeds State Benchmark	CCDP
STD - HIV Hospitalizations								Yes	County Rate	Exceeds State Benchmark	CCDP
STD - HIV Prevalence								Yes	County Rate	Exceeds State Benchmark	CCDP
STD - No HIV Screening								Yes	County Rate	Exceeds State Benchmark	CCDP
Breast Cancer (ED)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV

Name	ALHE	MH_SA	ACT	BASIC NEEDS	POLL	VIOL	TRANSIT	DIS PREV	HSA Value	Benchmark Comparison	Source
Breast Cancer (H)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Breast Cancer (Incidence)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Cerebrovascular Disease (Stroke) – MORT								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Chlamydia – Incidence								Yes	Maximum Rate for Associated County	Exceeds State Benchmark	VV
Essential Hypertension & Hypertensive Renal Disease – MORT								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Gonorrhea – Incidence								Yes	Maximum Rate for Associated County	Exceeds State Benchmark	VV
Heart Disease – MORT								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
HIV/AIDS (ED)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Lung Cancer (H)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Prostate Cancer (ED)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Prostate Cancer (H)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Prostate Cancer (Incidence)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
STIs (ED)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
STIs (H)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Stroke (ED)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV
Stroke (H)								Yes	Calculated HSA Rate	Exceeds State Benchmark	VV

The qualitative indicators associated with each potential health need category were identified in a crosswalk table. The transcripts from the key informant and community focus group interviews were coded to the qualitative indicators or themes in order to get a better understanding of the specific health issues within the communities that were interviewed. A full list of the qualitative indicators with each potential health need category is displayed below in Table 40.

Table 40: Qualitative Indicators Associated with Potential Health Needs

Potential Health Need Category	Qualitative Indicators
Access to High Quality Health Care and Services	• Continuity of care/coordinated care • Cost of care/prescription cost/copays • Culturally sensitive care • Delayed care • Dental/oral health • Distance/transport to care • ER overwhelm/ overutilization • Health care for the undocumented • Health education/ health literacy • Insurance restrictions/ coverage gaps • Language barriers • Long wait times/limited providers/impacted system • Maternal infant health • Medi-Cal access • Pain management • Patient navigation/referral • Prevention services/preventative care • Primary care • Senior care services • Specialty care
Access to Behavioral Health Services	<u>Mental Health</u> • Comorbidity • Depression-anxiety • Desire for alternative treatment • Elderly-Alzheimer's-dementia • ER/ Hospital • Homelessness • Limited services-lack of capacity • Mental health/substance abuse • Need for culturally sensitive care • Serious mental Illness • Stigma/discrimination • Stress • Suicide • Trauma and/or ACEs <u>Substance Abuse</u> • Alcohol and other drugs • Barriers to accessing services • Co-morbidity • Criminalization of drugs • Geographic-safety concerns • Homelessness • Limited resources/capacity • Methamphetamines-cocaine • Mental health/substance abuse

Potential Health Need Category	Qualitative Indicators
	• Opiates • Outreach and education • Parental and pre-natal use • Transition aged youth • Tobacco-E cigs
Affordable and Accessible Transportation	• Lack of transport as a barrier to access health care services • Lack of transport as a barrier to access healthy foods • Long distance and difficulty accessing health care services • No active transport infrastructure • Personal transportation barriers • Public transportation barriers
Basic Needs	<u>Housing</u> • Gentrification/displacement • Housing discrimination • Homelessness/shelter crisis • Lack of affordable housing • Role of public housing agencies • Seniors/aging in place • Substandard housing <u>Food Security</u> • Cost of living/poverty • Food banks, pantries, closets • Lack of quantity and quality of school food • Safety net programs (CalFresh, WIC, Meals on Wheels) • Transportation barriers <u>Economic Security</u> • Loss of safety net benefits • Need for job training resources • Safety net benefits (TANF, CalFresh, WIC) • Stigma/shame of poverty • Unemployment/lack of jobs <u>Education</u> • Differences in K-12 opportunity • Educational attainment (dropouts, GED, higher Ed) • Financial education and literacy • Health education and literacy • High cost of education • Need for cultural sensitivity • School discipline issues
Disease Prevention, Management and Treatment	<u>Asthma</u> • Air pollution/contamination • Anti-smoking laws and regulations • Cost of asthma medications • Environmental triggers (dust, mites, cockroaches, mold) • Secondhand smoke (cigarettes/marijuana) • Smoke shops

Potential Health Need Category	Qualitative Indicators
	<u>Cancer</u> • Air pollution exposure • Breast cancer • Cancer screening programs • Cervical cancer • Colorectal cancer • Early detection • Lack of healthy eating and active living opportunities • Lung cancer • Oncology/oncologists • Pesticide exposure • Prevention and education • Prostate cancer • Stomach cancer <u>CVD/Stroke</u> • Congestive heart failure (CHF) • Cost of medication • CVD/Stroke • Diagnosis, management, and treatment • Lack of healthy eating and active living opportunities • Hypertension • Stroke <u>HIV/AIDS/STDs</u> • Diagnosis, management, and treatment of STIs • Incidence/prevalence • Lack of continuity between health systems and public health • Need for reproductive health education • Stigma/discrimination • Vulnerable populations
Active Living and Healthy Eating	• Biking • CalFresh (EBT) and WIC • Community gardens • Cost barriers • Cost of healthy food • Cultural barriers • Need for education and classes • Farmers markets • Food access issues • Food deserts • Food distribution • Gyms • Lack of motivation • Lack of sidewalks or bike lanes • Lack of time • Lack of transportation • Natural environment (trails and rivers)

Potential Health Need Category	Qualitative Indicators
	• Perishability of fresh foods • Public parks/pools • Recreation opportunities • Safety • School physical activity • Technology and screen time • Unhealthy food options • Walking and walkability
Pollution-Free Living and Work Environments	• Air quality • Environmental hazards/toxins (cockroaches, mold, mildew, asbestos) • Respiratory conditions (asthma, COPD, infections, allergies) • Second hand smoke (tobacco and marijuana) • Transportation
Safe, Crime and Violence-Free Communities	• Alcohol abuse • Bullying • Child abuse and trauma • Child Protective Services • Domestic Violence • Drug dealing • Gang violence • Gun and knife violence • Hate crimes • Homicide • Human Trafficking • Motor vehicle accidents • Pedestrian accidents • Prostitution • Rape and sexual assault • Substance Use • Tension with police • Theft

Appendix D: Informed Consent

VALLEY VISION

Connect. Partner. Impact.

Informed Consent

Gathering Information for a Community Health Assessment

Purpose:

You have been invited to participate in a community health assessment. This assessment will help to inform area leaders on the specific needs of the communities which they serve. We will focus our questions on two main topics: 1) the health status of the community at large, and 2) the factors that help or prevent community members from living a healthy life. The information we gather from you will be combined with that of other interviews and focus groups. We will summarize these findings and report these to local leaders in your area.

Procedures:

The interview will capture your own experiences and opinions about community health issues. Completion of the questionnaire and the interview will take about 1 hour. We will also record and later transcribe the session. All identifying information will be removed from the transcripts and at the end of the project the recording will be destroyed.

Potential Risks or Benefits:

Some of the interview questions may be emotionally charged; otherwise there are no risks that we are aware of to answering the questions presented. There are no direct benefits to participating in this interview.

Participant's Rights:

Both completion of a short questionnaire and participation in this interview are completely voluntary; you may choose to not participate and terminate your involvement at any time.

Confidentiality and Anonymity:

Should you choose to participate, you will receive a copy of this consent form. The information you provide and anything you share with us will be kept in the strictest confidence. We will list your organization and or job title in the final report and may use quotes from the transcript of your interview; however, these *will not* be associated with your name directly. These forms and any information you provide will be kept in a secure location and there will be no link between the information we collect and this document.

How to obtain Additional Information:

If you have any questions or comments regarding this document, interview or final report please contact: **Anna Rosenbaum,** Health Equity Manager at **Valley Vision** (www.valleyvision.org) 916-325-1630.

I hereby agree to participate in this interview, understand that I will be provided a copy of this consent form for my own records, and acknowledge that my responses will be recorded.

Participant Name (Print)	Interviewer Name (Print)
Participant Signature Date	Interviewer Signature Date

VALLEY VISION

Connect. Partner. Impact.

Informed Consent

Gathering Information for a Community Health Assessment

Purpose:
You have been invited to participate in a focus group for a community health needs assessment. This assessment will help to inform area leaders on the specific needs of the communities which they serve. We will focus our questions on two main topics: 1) the general health of the community, and 2) the factors that help or prevent community members from living a healthy life. The information we gather from you will be combined with that of other interviews and focus groups. We will summarize these findings and report these to local leaders in your area.

Procedures:
The focus group will capture your own experiences and opinions about community health issues. Completion of the questionnaire and the focus group will take about 90 minutes. We will also record and later transcribe the session. All identifying information will be removed from the transcripts and at the end of the project the recording will be destroyed.

Potential Risks or Benefits:
Some of the focus group questions may be emotionally charged otherwise there are no risks that we are aware of to answering the questions presented. Benefits include contributing to an important health assessment, along with compensation outlined below.

Participant's Rights:
Both completion of a short questionnaire and participation in this focus group are completely voluntary; you may choose to not participate and terminate your involvement at any time.

Compensation:
For your participation in the focus group you will be given a $10 gift card to a local retail outlet. Gifts cards will be distributed after completion of the focus group. If you are not able to complete the focus group you will not receive a gift card.

Confidentiality and Anonymity:
Should you choose to participate, you will receive a copy of this consent form. The information you provide and anything you share with us will be kept in the strictest confidence. We may use quotes from the focus group transcript; however they will not be associated with your name directly. These forms and any information you provide will be in a secure location and there will be no link between the information we collect and this document.

How to obtain Additional Information:
If you have any questions or comments regarding this document, the questionnaire, focus group, or final report please contact: **Anna Rosenbaum,** Data Manager at **Valley Vision** (www.valleyvision.org) 916-325-1630 (office).

I hereby agree to participate in this focus group, understand that I will be provided a copy of this consent form for my own records, and acknowledge that my responses will be recorded.

Participant Name Print	Interviewer Name Print
Participant Signature Date	Interviewer Signature Date

VALLEY VISION

Connect. Partner. Impact.

Consentimiento Informado

Acumulando Información para conducir una Evaluación de las Necesidades de Salud de la Comunidad

Objetivo:
Usted ha sido invitado a participar en un grupo de enfoque para la evaluación de las necesidades de la salud de la comunidad. Esta evaluación le ayudará a informar a los líderes de la zona en las necesidades específicas de las comunidades a las que sirven. Nuestras preguntas se concentraran en dos temas principales: 1) la salud general de la comunidad, y 2) los factores que ayudan o que impiden a los miembros de la comunidad vivir una vida saludable. La información que juntamos de usted será combinada con los resultados de otras entrevistas y grupos de enfoque. Vamos a resumir estas conclusiones y reportar éstos resultados a los líderes de su área.

Procedimientos:
El grupo de enfoque captura tus propias experiencias y opiniones sobre temas de la salud de la comunidad Realización de un cuestionario y el grupo de enfoque tomara aproximada mente un hora y media (1 ½). Nos gustaría grabar la sesión y luego transcribir la. Toda la información de identificación será borrada de las transcripciones y al final del proyecto, la grabación será destruida.

Riesgos Potenciales o Beneficios:
Algunas preguntas pueden ser emocionalmente cargadas, a lo contrario, no hay ningún riesgo que estemos consciente al contestar las preguntas presentadas. Los beneficios por su participación en este grupo de enfoque incluye la oportunidad de participar en una evaluación importante y una tarjeta de regalo de 10 dólares (más detalles abajo).

Los Derechos del Participante:
La participación en este grupo de enfoque y en el cuestionario es completamente voluntaria, usted puede decidir a no participar y puede terminar su participación en cualquier momento que usted desea.

Compensación
Recibirá una tarjeta de regalo de $10 para una tienda local por participar en el grupo de enfoque. Después de completar el grupo de enfoque, le daremos la tarjeta de regalo. Si no eres capaz de completar el grupo de enfoque no recibirá tarjeta de regalo.

Confidencialidad y Anonimato
Si usted decide participar, usted recibirá una copia de esta forma de consentimiento. La información que usted nos dará será mantenida con la confidencialidad más estricta. Usted no será identificado en ninguna manera, su nombre no aparecerá en ningún documento y sólo el investigador tendrá el acceso a estos documentos. Estas formas y cualquier información coleccionada serán guardadas en una ubicación segura y no habrá ningún enlace entre la información que coleccionamos y este documento.

Como obtener más Información:
Si tienes preguntas en par de esta forma, el cuestionario, el grupo de enfoque o el reporte final, póngase en contacto con **Giovanna Forno,** de **Valley Vision** (www.valleyvision.org) 916-325-1630 (oficina).

Por este medio consiento en participar en el grupo de enfoque y reconozco que mis repuestas serán grabadas. También entiendo que me van a dar una copia de esta forma de consentimiento para mis propios archivos.

Nombre del Participante	Nombre del Entrevistador
Firma del Participante Fecha	Firma del Entrevistador Fecha

Appendix E: Key Informant and Focus Group Interview Documents

VALLEY VISION

Key Informant Questionnaire

Please complete this short questionnaire, which will give us more information about your professional experience, role and expertise working with special populations. Your answers to these questions will be combined with that of other key informants and cannot be used to identify you individually.

1. What sector do you work in? (Choose only one)

- ☐ Academic/Research
- ☐ Community Based Organization
- ☐ Health Care - Department/Division: _____
- ☐ Public Health - Department/Division: _____
- ☐ Social Services - Department/Division: _____
- ☐ Other (define): _____

2. What is your primary job classification? (Choose all that apply)

- ☐ Administrative or clerical personnel
- ☐ Community Health Worker/Promotora
- ☐ Community Organizer/Advocate
- ☐ Epidemiologist
- ☐ Environmental health worker
- ☐ Health Educator
- ☐ Medical Assistant
- ☐ Nurse
- ☐ Nutritionist
- ☐ Patient Navigator
- ☐ Physician
- ☐ Program Manager/Coordinator
- ☐ Senior Leadership/Upper Management
- ☐ Social Worker/Case Manager
- ☐ Other (define): _____

3. How would you define the geographic area served by your organization?

_____

_____

4. Do you work with any of the following vulnerable populations? (Choose all that apply)

- ☐ Low-Income
- ☐ Medically underserved
- ☐ Racial or ethnic minority (specify): _____
- ☐ Other (specify): _____
- ☐ Other (specify): _____

Thank you for your participation!

VALLEY VISION

Connect. Partner. Impact.

Self-Report Demographic Data Card

Gathering Information for a Community Health Assessment

Please share…
Tell us a little about you….

This questionnaire helps us to gain more information about our community participants. Your answers to the following questions will be confidential and anonymous and cannot be used to identify you personally. Please note completion of this questionnaire is completely voluntary.

For each of the following, please choose ONE that describes you best:

1. **What is your gender identity (example: male, female, transman, transwoman, please specify)?**

   _____

2. **What is your ethnicity?**

   ☐Hispanic/Latino ☐Not Hispanic/Latino

3. **Please check ONE or MORE racial group(s) that describe you:**

   ☐African American/Black
   ☐Asian
   ☐Hawaiian Native/Pacific Islander
   ☐Hispanic/Latino only
   ☐Native American/Alaska Native
   ☐White/Caucasian
   ☐Other (Specify):_____

4. **What year were you born?** _____

5. **Please check the highest level of school you have completed.**

   ☐ High school graduate (diploma or the equivalent, for example, GED)
   ☐ NOT a high school graduate (diploma or the equivalent, for example, GED)

6. **What is your ZIP code of residence (where you live)?** _____

7. **Do you currently participate in any of the following programs? Choose ALL that apply.**

   ☐ CalFresh (Food Stamps, SNAP, EBT)
   ☐ CalWORKS (TANF)
   ☐ Head Start
   ☐ Medi-Cal
   ☐ Reduced Price School Meal
   ☐ Section 8 Public Housing
   ☐ Supplemental Security Income (SSI)
   ☐ Women, Infants, & Children (WIC Program)

8. **Are you CURRENTLY covered by any type of health insurance?**

   ☐Yes ☐No

Thank you for your participation!

VALLEY VISION

Tarjeta de Datos Demográficos

Acumulando Información para conducir una Evaluación de las Necesidades de Salud de la Comunidad

Cuéntanos un poco acerca de usted…

Este cuestionario nos ayudará a obtener más información acerca de nuestros participantes de la comunidad. Tus respuestas serán confidenciales y anónimas y no se pueden utilizar para identificarte. Tu participación en este cuestionario es voluntaria.

Por cada pregunta, por favor elije UNO que te describe mejor:

1. ¿Con cuál genero identificas? (ejemplo: femenino, masculino, transexual, otro)

_____

2. ¿Cuál es tu raza?

☐ Latino/Hispano ☐ No Latino/ Hispano

3. Por favor marca UNO o MÁS grupos raciales que te describe:

☐ Afroamericano/Negro
☐ Asiático
☐ Nativo de Hawái/Isleño del Pacifico
☐ Solamente Latino/Hispano
☐ Nativo Americano/Nativo de Alaska
☐ Caucásico/Blanco
☐ Otro (especifica):_____

4. ¿En qué año naciste? _____

5. Por favor marca el nivel más alto de la escuela que haya completado:

☐ Graduado de la escuela segundaria, (diploma o el equivalente, por ejemplo, el GED)

☐ No un graduado de la escuela secundaria, (diploma o el equivalente, por ejemplo, el GED)

6. ¿Cuál es tu código postal de residencia (donde usted vive)?_____

7. ¿Participa en alguno de los siguientes programas? Elija TODOS que correspondan:

☐ CalFresh (Cupones De Alimentos, SNAP, EBT)
☐ CalWORKS (TANF)
☐ Head Start
☐ Medi-Cal
☐ Comidas escolares gratis y reducido de precio
☐ Vivienda interés social
☐ Seguridad de ingreso suplementario (SSI)
☐ Programa Mujeres, bebes y niños (WIC)

8. ¿Está usted cubierto por algún tipo de seguranza de salud?

☐ Sí ☐ No

¡Gracias por participar!

VALLEY VISION

Connect. Partner. Impact.

Key Informant Interview Guide - Questions

1. **Please, tell me (us) about the community you serve.**
    - *Follow up*: What are the specific geographic areas and/or populations served?

2. **How would you describe the quality of life in the community you serve?**

3. **Please describe the health of the community you serve.**
    - *Follow up:* What are the biggest health issues and/or conditions that your community struggles with?

4. **Of the health issues you've mentioned, which would you say are the most important or urgent to address?**
    - *Follow up:* How would you rank these health issues in terms of importance?

5. **What specific locations struggle with health issues the most?**
    - *Follow up*: What specific groups in the community struggle with these health issues the most?

6. **What are the challenges to being healthy for the community you serve?**

7. **What policies, laws, or regulations prevent the community from living healthy lives?**

8. **What resources exist in the community to help people live healthy lives?**

9. **What would you say has been the impact of the Affordable Care Act** [may also be known as Covered California, Obamacare] **on the community you serve?**

10. **What is** [or *who* is] **needed to improve the health of your community?**

11. **Can you recommend 1 or 2 additional people, groups or organizations you think would be most important to speak to about the health of the community?**

12. **Is there anything else you would like to share with our team about the health of your community** [that hasn't already been addressed]**?**

VALLEY VISION

Connect. Partner. Impact.

Focus Group Guide- Questions

1. **Please, tell us about the community you live in.**
    - Follow Up: What are the specific neighborhoods?
    - Follow Up: What types of people live there (race, age, legal status)?

2. **How would you describe the quality of life in your community?**

3. **How would you describe the health of the community where you live?**

4. **Of the health issues you've mentioned, which would you say are the most important or urgent to address?**
    - Follow up: How would you rank these health issues in terms of importance?

5. **What specific neighborhoods or places in your community struggle with health issues the most?**
    - Follow up: What specific groups in the community struggle with these health issues the most?

6. **What are the challenges to being healthy in your community?**

7. **What rules or laws prevent your community from being healthy?**

8. **What resources exist in your community to help people live healthy lives?**

9. **What would you say has been the impact of universal health care coverage** [may also be known as Covered California, Obamacare, ACA] **on your community?**

10. **What is needed to improve the health of your community?**

11. **Is there anything else you would like to share with our team about the health of your community [that hasn't already been addressed]?**

VALLEY VISION

Connect. Partner. Impact.

Focus Group Guide- Youth

1. **Please, tell us generally about the community you live in.**
    - What are the specific neighborhoods? What types of people live there?
    - How would you describe your neighborhood to someone who has never been there?
    - How would you describe the physical environment?

2. **Is life easy or difficult for most people? Why?**
    - What does everyday life look like for most people?

3. **What are the biggest health issues that people in your community struggle with?**
    - What health issues do you see or hear about from friends and family?

4. **What specific groups of people in your community struggle with health issues the most?**
    - Do you see any differences in health by age, race, gender, sexual orientation, legal status?
    - Where do these groups live?

5. **What are the challenges to being healthy in your community?**
    - Do people engage in healthy or unhealthy behavior where you live?
    - Is it easy or hard to make healthy choices in your neighborhood? (e.g. access to healthy foods, places to exercise, access to health care)
    - Is your neighborhood supportive of health? (e.g. sidewalks, safe streets, safe places to exercise, social supports)

6. **Of the health issues we've talked about, which would you say are the most important or urgent to address?**
    - How would you rank these health issues in terms of importance?

7. **What resources exist in your community to help people live healthy lives?**
    - What are the barriers to accessing these resources?
    - What are gaps in these resources? What resources are missing?

8. **What is needed to improve the health of your community?**

VALLEY VISION

Connect. Partner. Impact.

Guía de Grupo de Enfoque

Acumulando Información para conducir una Evaluación de las Necesidades de Salud de la Comunidad

1. **Por favor, díganme de la comunidad adonde ustedes viven.**
   - **Seguimiento:** ¿Cuáles son los barrios específicamente?
   - **Seguimiento**: ¿Qué tipos de personas viven allí? (edad, raza, genero, estatus legal)

2. **¿Cómo es la vida en la comunidad adonde ustedes viven?**

3. **Por favor, describen la salud de la comunidad adonde ustedes viven**

4. **¿De los problemas de salud que han comentado, cuales son los más importantes de resolver?**
   - **Seguimiento**: ¿Estos son los problemas de salud que han dijeron… cuales son los más importantes/urgentes de resolver?

5. **¿Qué grupos específicos (*tipos de gente por edad, raza, genero, estatus legal*) en tu comunidad luchan lo más con estos problemas de salud?**
   - **Seguimiento**: **¿Qué áreas o barrios específicos luchan con problemas de salud lo más?**

6. **¿Cuáles son las barreras para vivir saludable en la comunidad adonde ustedes viven?**

7. **¿Qué tipos de leyes, reglas, o prácticas impiden tu comunidad de vivir saludable?**

8. **¿Qué recursos existen en tu comunidad para ayudar las personas vivir saludable?**

9. **¿El Affordable Care Act ha impactado la comunidad adonde ustedes viven?** [también se conoce como Covered California, Obamacare]

10. **¿Qué es necesario para mejorar la salud de tu comunidad?**
    - **Seguimiento: ¿Hay algún tipo de persona que podría ayudar mejorar la salud de la comunidad?**

11. **¿Hay algo más que les gustaría compartir con nosotros la salud de la comunidad?**
    - **Seguimiento: ¿Hay preguntas?**

2016 Community Health Needs Assessment – Greater Sacramento Region

Project Summary

January 2015 – June 2016

Project Management:

Valley Vision - www.valleyvision.org, (916) 325-1630
2320 Broadway, Sacramento, CA 95818

- **Anna Rosenbaum, MSW, MPH** Senior Project Manager, anna.rosenbaum@valleyvision.org
- **Amelia Lawless, MSW, MPH** Project manager, amelia.lawless@valleyvision.org
- **Giovanna Forno, BA** Project Fellow, giovanna.forno@valleyvision.org
- **Sarah Underwood, MPH** Project Manager, sarah.underwood@valleyvision.org

Organization Information:

Valley Vision is a social enterprise that tackles economic, environmental and social issues. Our vision is a prosperous and sustainable region for all generations. Founded in 1994, Valley Vision provides research, collaboration, and leadership services to make the greater Sacramento Region prosperous and sustainable. We have conducted CHNAs for the four hospital systems the region since 2007.

Project Overview:

The 2016 Community Health Needs Assessment (CHNA) is a collaborative project that assesses the health status of communities in the Sacramento region. Nonprofit hospitals are required to conduct CHNAs every three years and to adopt implementation plans that address the community health needs identified through the assessment. CHNAs collect input from broad interests across the community, including hospitals, public health, residents and other stakeholders. The findings help hospitals to understand the health status and needs of the communities they serve, and to direct their community benefits programs and activities accordingly. The 2013 CHNA reports are available online at www.healthylivingmap.com, and the 2016 reports will be available in the spring of 2016.

Key Deliverables:

Each CHNA report will:

- Describe the health status of the community served by a hospital facility;
- Identify significant health issues that exist within the community and the factors that contribute to those health issues;
- Determine priority areas and actions for health improvement; and
- Identify potential resources that can be leveraged to improve community health.

Strategic Partners:

Lead project consultation:

Dr. Heather Diaz
Associate Professor, Community Health Education
Dept of Kinesiology & Health Sciences
CSU Sacramento

Data collection, analysis and GIS mapping:

Dr. Mathew C. Schmidtlein
Assistant Professor
Dept of Geography
CSU Sacramento

Transcription and translation services:

Cherie Yure
Southern California Transcription Services

Project Orientation:

Health status indicators will be compiled in a database and analyzed to identify geographic areas in each hospital service area (HSA) where socio-economic and demographic factors result in health disparities. Interviews with health service providers and community key informants will be conducted to better understand the health needs of the communities served by each hospital facility. Focus groups will be conducted with medically underserved, low-income, and minority populations to understand their unique and specific health needs and barriers to care. The health needs identified within each HSA will be categorized and organized to identify the significant health needs within each HSA and to prioritize these significant health needs. All findings will be compiled into a comprehensive report that will inform the healthcare systems in creating implementation plans to direct their community benefit programs and activities.

Project Sponsors:

VALLEY VISION

Connect. Partner. Impact.

2016 Community Health Needs Assessment (CHNA)

About the CHNA Project

About the CHNA

The 2016 Community Health Needs Assessment (CHNA) is a collaborative project that looks at the health of the Sacramento region. The four nonprofit hospital systems in the region (Sutter, UC Davis, Kaiser and Dignity) work together to conduct health assessments of the communities they serve. The assessments are then used by the hospital systems to develop plans to improve the health of these communities.

The CHNA Reports

Each CHNA report includes:

- A description of the health of the community served by a hospital facility;
- The health issues within the community and the factors contributing to those health issues;
- The areas and communities that are most affected by these health issues;
- The health needs that are most important to improve overall health for the community;
- Potential resources and services that are available to improve community health.

Previous CHNA reports are available online at http://www.healthylivingmap.com (see 2013 CHNA Reports), and the 2016 reports will be available in the Fall of 2016.

How the Project Works

To get information about the health of the community, we talk to many different groups of people including medical providers, public health workers, community organizations, and residents. We ask people to share information with us about: (1) the health issues they see and experience in their communities; (2) the challenges and opportunities to be healthy in their communities; and (3) the resources that may or may not be available to help people live healthy lives. We then look for patterns or themes in what we hear from the community and identify the priority health needs to be included in the CHNA reports. The reports are then used to help the hospital systems decide which community services and programs to support.

About Us

Valley Vision is an organization that works on economic, environmental and social issues. Our vision is to help create a healthy region for all generations through learning about the community, working with other organizations and helping to lead teams of people. We have worked with the four hospital systems in the Sacramento region on this project since 2007.

The Team

Valley Vision - www.valleyvision.org, (916) 325-1630
2320 Broadway, Sacramento, CA 95818

- **Anna Rosenbaum**, Senior Project Manager, anna.rosenbaum@valleyvision.org
- **Amelia Lawless**, Project Manager: amelia.lawless@valleyvision.org
- **Sarah Underwood**, Project Manager: sarah.underwood@valleyvision.org
- **Giovanna Forno**, Project Fellow: giovanna.forno@valleyvision.org

Project Sponsors

Dignity Health · KAISER PERMANENTE® · Sutter Health We Plus You · UCDAVIS HEALTH SYSTEM

VALLEY VISION

Connect. Partner. Impact.

Evaluación de las necesidades de salud de la comunidad- 2016

Acerca de la evaluación

Acerca de la evaluación

La evaluación de las necesidades de salud de la comunidad del año 2016 es un proyecto colaborativo que analiza la salud de la región de Sacramento. Los cuatro sistemas de hospitales sin fin de lucros en la región (Sutter, UC Davis, Kaiser y Dignity) trabajan juntos para conducir evaluaciones de la salud de las comunidades que ellos sirven. Los resultados de las evoluciones son usados por los sistemas de hospitales para desarrollar planes para mejorar la salud de estas comunidades.

Que incluye la evaluación

Cada evaluación incluye:

- Una descripción de la salud de la comunidad atendida por un centro hospitalario
- Los problemas de salud en la comunidad y los factores que contribuyen a esos problemas de salud
- Las zonas y comunidades que son las más afectadas por estos problemas de salud
- Las necesidades de salud que son las más importante de mejorar para la salud general de la comunidad
- Los recursos y servicios potenciales que están disponibles para mejorar la salud de la comunidad

Evaluaciones anteriores están disponibles por la página http://www.healthylivingmap.com (vea 2013 CHNA Reports), y los reportes de 2016 serán disponibles en el otoño de 2016.

Como se conduce la evaluación

Para obtener información de la salud de la comunidad, hablamos con muchos diferentes grupos de gente incluyendo proveedores médicos, trabajadores de salud pública, organizaciones comunitarias y residentes. Pedimos que personas comparten información con nosotros acerca de (1) los problemas de salud que ellos ven y experiencia en sus comunidades, (2) los desafíos y oportunidades para vivir saludable en sus comunidades y (3) los recursos potenciales que son disponibles para ayudar personas vivir saludable. Después, buscamos patrones o temas en lo que escuchamos de la comunidad para identificar las necesidades de salud prioritarios que serán incluidos en el reporte final. Los reportes son usados para ayudar los sistemas de hospitales decidir cuales servicios y programas comunitarias apoyar.

Acerca de Valley Vision

Valley Vision es una organización que trabaja en problemas económicos, ambientes y sociales. Nuestra visión es ayudar creer una región saludable para todas generaciones atreves de aprender de nuestra comunidad, trabajar con otras organizaciones y ayudar a liderar equipos de gente. Hemos trabajado con los cuatro sistemas de hospitales en la región de Sacramento en este proyecto desde el año 2007.

Nuestro Equipo

Valley Vision - www.valleyvision.org, (916) 325-1630
2320 Broadway, Sacramento, CA 95818

- **Anna Rosenbaum**, Senior Project Manager, anna.rosenbaum@valleyvision.org
- **Amelia Lawless**, Project Manager: amelia.lawless@valleyvision.org
- **Sarah Underwood**, Project Manager: sarah.underwood@valleyvision.org
- **Giovanna Forno**, Project Fellow: giovanna.forno@valleyvision.org

Patrocinadores del proyecto

Dignity Health · KAISER PERMANENTE® · Sutter Health We Plus You · UCDAVIS HEALTH SYSTEM

You're invited to a group conversation!

Please join us for a 1 ½ hour discussion about the health and wellness of your community. We would like your thoughts

Date:
Time:
Location:

We will provide food and a $10 gift card to those who come.

Thanks for helping us learn about the health needs of your community!

Questions? Contact (PM) at Valley Vision, 916.325.1630

¡Usted está invitado a un grupo de enfoque!

Por favor acompáñenos a platicar sobre la salud y bienestar de su comunidad. Nos gustaría saber su opinión sobre los problemas de salud donde usted vive.

¿Cuando?
¿A Qué hora?
¿Donde?

¡Vamos a servir almuerzo y regalar una tarjeta de regalo a cada participante!

Agradecemos su participación en la evaluación de las necesidades de salud en la región de Sacramento del año 2016

¿Preguntas? Llame a Giovanna Forno de Valley Vision, 916.325.1630

Appendix F: List of Key Informants

Organization	Number of Participants	Area of Expertise	Populations Served	Date
Sacramento County Public Health Department	1	Public Health	All residents of Sacramento County; low-income; medically underserved; racial or ethnic minorities	5.19.15
Placer County Public Health	1	Public Health	All residents of Placer County; low-income; medically underserved; racial or ethnic minorities	5.20.15
Mercy Hospital of Folsom; Kaiser Permanente Roseville Medical Center	4	Care coordination; palliative care nursing; continuity of care coordination; social services	All populations living within the designated hospital service area	6.1.15
Kaiser Permanente Sacramento Medical Center; Mercy San Juan Medical Center	4	Social services; service provider; continuity and coordination of care	All populations living within the designated hospital service area	6.2.15
Mercy General Hospital, Sutter General Hospital; Sutter Center for Psychiatry; UC Davis Medical Center	8	Social work; service provider; case management; program management; managed care; clinical management	All populations living within the designated hospital service area	6.3.15
Sutter Roseville Medical Center	2	Social work; case management	All populations living within the designated hospital service area	6.10.15
Chapa-De Indian Health Programs	2	Community Based Organization; Health Care	low-income; medically underserved; racial or ethnic minorities	6.16.15
Center for Community Health and Well-Being; Peach Tree Health	2	Community Based Organization; Health Care	Low-income; medically underserved; racial or ethnic minorities	6.22.15
Sacramento Native American Health Center	1	Federally Qualified Health Center	Low-income; medically underserved; racial or ethnic minorities	6.23.15
WEAVE	1	Residential and crisis response	Victims of domestic violence; low-income; medically underserved; racial or ethnic minorities	6.26.15
Latino Leadership Council	1	Community Based Organization; Advocacy	Low-income; medically underserved; racial or	6.30.15

Organization	Number of Participants	Area of Expertise	Populations Served	Date
			ethnic minorities; Latino Community	
Lighthouse Counseling and Family Resource Center	2	Community Based Organization	Low-income; medically underserved; racial or ethnic minorities	6.30.15
Sacramento County Department of Human Assistance	1	Human assistance; social services	All residents of Sacramento County	7.2.15
Health Education Council	1	Community Based Organization; Public Health	Low-income; medically underserved; racial or ethnic minorities	7.7.15
Community Recovery Resources	1	Community Based Organization; Behavioral Health	Low-income; medically underserved; racial or ethnic minorities	7.8.15
Saint John's Program for Real Change	1	Community Based Organization; Social Services	Low-income; medically underserved; racial or ethnic minorities	7.8.15
TLCS Inc.; Sacramento Steps Forward	2	Community Based Organization	Low-income; medically underserved; racial or ethnic minorities	7.16.15
Slavic Assistance Center	1	Community Based Organization	Low-income; medically underserved; racial or ethnic minorities; refugees from former Soviet Union	7.20.15
Sheriff's Community Impact Program	1	Community Based Organization; Violence Prevention	Low-income; medically underserved; racial or ethnic minorities	7.22.15
WellSpace Health	1	FQHC; Community Based Organization; Behavioral Services	Low-income; medically underserved; racial or ethnic minorities	7.22.15
First 5 Placer	1	Social Services	Low-income; medically underserved; racial or ethnic minorities; children 0-5 years living in Placer County	7.23.15
Sacramento Covered	1	Community Based Organization	Low-income; medically underserved; pregnant women and children ages 0-5; racial or ethnic minorities	7.23.15
Sacramento LGBT Community Center	1	Community Based Organization	LGBT; low-income; medically underserved; racial or ethnic minorities	7.23.15

Organization	Number of Participants	Area of Expertise	Populations Served	Date
Placer County Public Health Nursing	1	Public Health	All residents of Placer County; low-income; medically underserved; racial or ethnic minorities	7.24.15
St. Vincent De Paul Society of Placer County	2	Community Based Organization; Social Services	Low-income; medically underserved; racial or ethnic minorities	7.28.15
Placer County Adult System of Care	1	Social Services; Health Care	Low-income; medically underserved; racial or ethnic minorities	7.29.15
Mercy Housing	1	Community Based Organization; Social Services	Low-income; medically underserved; racial or ethnic minorities	7.29.15
The Gathering Inn	2	Community Based Organization; Social Services; Homeless Services	Low-income; medically underserved; racial or ethnic minorities; homeless	7.29.15
Life Matters	1	Community Based Organization	Low-income; medically underserved; racial or ethnic minorities	8.3.15
Wind Youth Services	1	Community Based Organization	Homeless youth; low-income; medically underserved; racial or ethnic minorities	8.4.15
El Hogar	1	Community Based Organization	Individuals with behavioral health challenges; low-income; medically underserved; racial or ethnic minorities	8.6.15
Eskaton	1	Community Based Organization	Low-income; medically underserved; older adults; racial or ethnic minorities	8.7.15
Child Abuse Prevention Center	1	Community Based Organization	Low-income; medically underserved; older adults; racial or ethnic minorities; vulnerable children	8.10.15
Auburn Renewal Center	1	Community Based Organization	Low-income; medically underserved; older adults; racial or ethnic minorities	8.11.15
Seniors First	1	Community Based Organization	Low-income; medically underserved; older adults; racial or ethnic minorities; elder adults	8.21.15

Organization	Number of Participants	Area of Expertise	Populations Served	Date
Strategies for Change	1	Academic Research; Community Based Organization; Substance Abuse and Mental Health Treatment	African American; Asian Pacific Islander; HIV positive; Latino; LGBT; low-income; medically underserved; racial or ethnic minorities	8.21.15
Turning Point Community Programs	1	Community Based Organization	Low-income; medically underserved; racial or ethnic minorities	8.19.15
Southeast Asian Assistance Center	1	Community Based Organization	Low-income; medically underserved; racial or ethnic minorities; Southeast Asian	8.19.15

Appendix G: List of Focus Groups

Location	Date	Number of Participants	Demographic Information
Gender Health Center	8.21.15	8	Service providers
Placer County Public Health Nursing	8.26.15	10	Public Health Nurses
Sacramento Covered	9.4.15	6	Service providers
Diabetes Prevention Program-Chapa-De Indian Health Programs	9.9.15	9	Diabetic/Pre-diabetic patients
Latino Leadership Council-Roseville	9.15.15	9	Latina mothers/ Latino community
Latino Leadership Council-Lincoln	9.16.15	3	Latino community
Community Recovery Resources- Auburn	10.2.15	9	Mothers in recovery
Valley Oaks Independent Living Facility- Auburn	10.8.15	7	Elderly Peer Group
Respite Care Partnership- Sierra Health Foundation	10.12.15	5	Service providers
Strategies for Change- North Sacramento	10.15.15	14	Community in recovery
The Gathering Inn- Roseville	10.15.15	8	Homeless community

Appendix H: Resources Potentially Available to Meet Identified Health Needs

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
A Community for Peace	Citrus Heights					X			
Acres of hope	Auburn						X		
Agency on Aging- Area 4	Arden-Arcade	X	X		X	X	X		
AIDS Project-Rx Staffing & Home Care	Arden-Arcade	X	X	X	X	X	X	X	
Alchemist Community Development Corporation	Midtown Sacramento			X					
Alternatives Pregnancy Center	Arden-Arcade	X	X						
Alzheimer's Association	North Sacramento	X				X			
American Diabetes Association	North Highlands		X	X	X				
American Heart Association-Sacramento	Midtown Sacramento			X	X				
American Red Cross	North Sacramento		X				X		
Another Choice Another Chance	South Sacramento	X							
Asian Pacific Community Counseling	Tahoe Park	X							

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Asian Resources Inc.	Oak Park, South Sacramento, Citrus Heights						X		
Auburn Interfaith Food Closet	Auburn						X		
Auburn Renewal Center	Auburn	X	X				X		
Auburn Urgent Care Clinic- Sutter Health	Auburn		X						
Bayanihan Clinic	North Sacramento		X						
Birth and Beyond Home Visitation Program- WellSpace Health	North Highlands	X	X				X		
Boys and Girls Clubs of Greater Sacramento	South Sacramento	X		X		X	X		
Breathe California of Sacramento- Emigrant Trails	Downtown Sacramento		X		X				X
Brookdale Citrus Heights (Formerly Emeritus at Citrus Heights)	Citrus Heights					X			

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Building Healthy Communities (BHC)	South Sacramento			X		X			
C.O.R.E Medical Clinic	Midtown Sacramento	X	X						
California Council of the Alzheimer's Association	Mditown Sacramento	X				X			
Casa Willow	Citrus Heights	X					X		
Center for AIDS Research, Education and Services-CARES Community Health	Midtown Sacramento	X	X	X					
Center for Community Health and Well Being Inc. (partnered with Peach Tree Health)	Midtown Sacramento		X						
Central Downtown Food Basket	East Sacramento, Midtown Sacramento			X			X		
Chapa-De Indian Health	Auburn, Grass Valley	X	X	X	X				
Child Abuse Prevention Center	North Highlands					X			

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Child and Family Institute (CFI)	South Sacramento	X							
Children's Receiving Home of Sacramento	Arden-Arcade	X	X	X			X		
Clara's House	Midtown Sacramento		X						
Clean and Sober Homeless Recovery Communities	Downtown Sacramento	X							
Clinica Tepati (located within Wellspace Clinic)	Midtown Sacramento		X						
Community Recovery Resources (CoRR)	Auburn, Grass Valley, Roseville	X							
Crisis Nursery Program-Sacramento Children's Home	Arden-Arcade, South Sacramento	X	X			X			
Cycles 4 Hope	Granite Bay			X			X	X	
Del Oro Caregiver Resource Center	Citrus Heights				X				
Drug Diversion (PC-1000) Program	South Sacramento	X							

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
El Dorado Community Health Center	Cameron Park, Placerville	X	X		X				
El Hogar Community Services Inc.	Downtown Sacramento, North Sacramento	X				X	X		
Elica Health Centers	Arden-Arcade, Midtown Sacramento, West Sacramento	X	X						
Eskaton	Carmichael	X	X			X	X		
Excel Roseville	Roseville						X		
Firehouse Community Center	North Sacramento			X		X			
First 5 Placer	Auburn	X	X	X			X		
First 5 Sacramento Commission	North Sacramento	X	X	X	X	X	X		
Food Bank of El Dorado County	Cameron Park						X		
Forgotten Soldier Program	Auburn	X	X	X					
Francis House	Downtown Sacramento						X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Gender Health Center	Oak Park	X	X			X	X		
Golden Rule Services	South Sacramento		X		X				
Goodwill-Sacramento Valley & Northern Nevada	Rosemont						X		
Greater Sacramento Urban League	North Sacramento						X		
Guest House Homeless Clinic	Downtown Sacramento	X	X						
Harm Reduction Services (HRS)	Oak Park	X	X		X				
Health and Life Organization (HALO Cares)-Sacramento Community Clinic	South Sacramento	X	X						
Health Education Council	West Sacramento			X		X			
Health For All Community Clinics	Downtown Sacramento, North Sacramento, South Sacramento		X				X	X	
Helping Hearts	Rancho Cordova					X	X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Foundation Inc.									
Heritage Oaks Hospital	Arden-Arcade	X	X						
Home Start	Roseville	X					X		
Human Services Coordinating Council (HSCC)	South Sacramento						X		
Interim HealthCare	Arden-Arcade	X	X			X	X		
Johnston Community Center	Arden-Arcade			X		X	X		
Kaiser Permanente Roseville Medical Center	Roseville	X	X	X	X				
Kaiser Permanente Sacramento Medical Center	Arden-Arcade		X						
KidsFirst	Auburn	X				X	X		
Latino Leadership Council	Auburn		X				X		
Legal Services of Northern California-Health Rights	Downtown Sacramento						X		
Life Matters	Foothill Farms						X		
Lighthouse Counseling & Family	Lincoln	X		X			X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Resource Center									
Lilliput Children's Services	Auburn, El Dorado Hills, Citrus Heights, North Sacramento, South Lake Tahoe, South Sacramento,						X		
Loaves and Fishes	Downtown Sacramento	X	X				X		
MAAP (Mexican American Alcoholism Program)	South Sacramento	X							
McClellan VA Clinic	McClellan		X						
Meals on Wheels Sacramento	South Sacramento						X		
Mercy Clinic - Loaves & Fishes	Downtown Sacramento		X						
Mercy General Hospital	East Sacramento		X	X	X				
Mercy Hospital of Folsom	Folsom		X	X	X				
Mercy Housing	South Sacramento						X		
Mercy San Juan Hospital	Carmichael	X	X	X	X				

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Molina Healthcare	North Sacramento, South Sacramento, Citrus Heights		X						
Mutual Assistance Network (MAN)	North Sacramento	X		X			X		
Neil Orchard Senior Activities Center	Rancho Cordova			X					
New Beginnings Health & Wellness Center- Center for Community Health & Well Being	South Sacramento		X						
New Testament Baptist Church	North Highlands	X	X			X	X		
Next Move	Oak Park		X			X	X		
Paratransit, Inc.	South Sacramento							X	
Paul Hom Asian Clinic	East Sacramento		X		X				
PEACE for Families	Auburn, Roseville	X				X	X		
People Reaching Out	North Highlands	X							
Placer County Adult System of Care	Roseville	X	X			X	X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Placer County Dial-A-Ride	Auburn							X	
Placer County Human Services	Auburn						X		
Placer County Mental Health Services	Auburn	X					X		
Placer County Public Health Department	Auburn	X	X	X	X				X
Placer County Public Health Nursing	Auburn		X	X			X		
Placer County Sexual Assault Response Team (SART)	Roseville		X			X			
Placer County Veterans Services	Rocklin	X					X		
Placer County WIC	Auburn		X	X	X				
Placer Food Bank	Roseville			X			X		
Placer Independent Resource Services (PIRS)	Auburn						X		
Placer People of Faith Together	Loomis						X		
Planned Parenthood B Street Health Center	Midtown Sacramento		X		X				

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Planned Parenthood Capitol Plaza Health Center	Downtown Sacramento		X		X				
Planned Parenthood Fruitridge Health Center	South Sacramento		X		X				
Planned Parenthood North Highlands Health Center	North Highlands		X		X				
Planned Parenthood Roseville Health Center	Roseville		X		X				
Powerhouse Ministries	Folsom						X		
PRIDE Industries	North Sacramento, North Highlands, South Sacramento						X		
River City Food Bank	Midtown Sacramento			X					
River Oak Center for Children	North Highlands	X							
River Oak Family Resource Center	Oak Park	X		X					
Roberts Family Development Center	North Sacramento			X		X	X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Sacramento Area Congregations Together (Sacramento ACT)	Rosemont	X					X		
Sacramento Children's Home	South Sacramento	X		X		X	X		
Sacramento Chinese Community Services Center (SCCS)	Downtown Sacramento	X		X					
Sacramento City College-Dental Health Clinic	South Sacramento		X						
Sacramento County Department of Health and Human Services	South Sacramento	X	X	X	X	X			X
Sacramento County Department of Human Assistance	Arden-Arcade, North Sacramento						X		
Sacramento County Public Health Division	South Sacramento		X	X	X				X
Sacramento Covered	Rosemont		X						

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Sacramento Employment and Training Agency (SETA)	North Sacramento						X		
Sacramento Housing and Redevelopment Agency (SHRA)	Downtown Sacramento						X		
Sacramento Junior Giants	South Sacramento			X					
Sacramento LGBT Community Center	Midtown Sacramento					X	X		
Sacramento Life Center (SLC)	Midtown Sacramento		X						
Sacramento Native American Health Center, Inc.	Midtown Sacramento	X	X	X	X	X			
Sacramento Steps Forward	North Sacramento						X		
Sacramento Tree Foundation	Arden-Arcade								X
Sacramento Works Job Center	Galt, Rancho Cordova, South Sacramento, North Sacramento						X		
Saint John's Program for Real Change	South Sacramento	X					X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
SeniorCare PACE	South Sacramento, Downtown Sacramento		X	X	X				
Seniors First	Auburn	X				X	X	X	
SETA Head Start	Carmichael, Citrus Heights, Elk Grove, Fair Oaks, Galt, Mather, North Highlands, North Sacramento, Rancho Cordova, South Sacramento	X		X		X	X		
Sherriff Community Impact Program	Arden-Arcade	X		X		X			
Shiloh Baptist Church	Oak Park						X		
Shingle Springs Tribal TANF Program	Arden-Arcade						X		
Shriner's Hospital for Children-Northern California	Oak Park		X						
Sierra Foothills Outpatient Clinic	Auburn	X							

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Sierra Forever Families-Placer Kids	Auburn						X		
Sierra Health Foundation	North Sacramento	X	X	X	X	X			
Sierra Mental Wellness Group	Auburn	X							
Slavic Assistance Center	Arden-Arcade						X		
Smile Keepers - Dental Health Program	Rosemont		X						
South Placer Residential Treatment	Auburn	X							
Southeast Asian Assistance Center	South Sacramento	X							
St. Vincent de Paul Sacramento Council	Broderick						X		
St. Vincent DePaul Society of Placer County	Roseville						X		
Stand Up Placer	Auburn	X				X	X		
Stanford Settlement	North Sacramento			X			X		
Strategies for Change	North Sacramento, South Sacramento	X				X	X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Su Familia-The National Hispanic Family Health Helpline	Washington, D.C		X						
Sutter Auburn Faith Hospital	Auburn	X	X						
Sutter Roseville Medical Center	Roseville		X		X				
Teens Matter, Inc.	Auburn	X							
Terra Nova Counseling	Citrus Heights, Midtown Sacramento	X							
The Birthing Project Clinic-Center for Community Health and Wellbeing	Midtown Sacramento		X						
The Gathering Inn	Auburn, Roseville	X	X				X		
The Keaton Raphael Memorial	Roseville				X				
The Mental Health Association in California	Midtown Sacramento	X							
The Salt Mine	Lincoln						X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
The Salvation Army- Del Oro Division	Auburn, Colfax, Downtown Sacramento, Grass Valley, Midtown, North Sacramento, Oak Park, Rosemont	X	X				X		
The SOL Project- Saving Our Legacy, African Americans for Smoke-Free Safe Places	Downtown Sacramento	X							
TLCS Inc. (Transitional Living and Community Support)	Arden-Arcade	X	X				X		
Turning Point Community Programs	Rancho Cordova	X					X		
U.S Department of Veterans Affairs- Vet Center	Arden-Arcade, Citrus Heights	X					X		
UC Davis Medical Center	Oak Park	X	X		X				
University of California, Davis	Davis						X		
VA Northern California Health Care System	Mather	X	X				X		

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
Volunteers of America-Northern California & Northern Nevada	Arden-Arcade						X		
WALK Sacramento	Downtown Sacramento			X					
WarmLine Family Resource Center	Downtown Sacramento, Rocklin	X	X				X		
WEAVE	Midtown Sacramento, South Sacramento	X				X	X		
Wellness and Recovery Center-Consumer Self Help	Rancho Cordova, South Sacramento	X							
WellSpace Health	Downtown, Folsom, Midtown, North Highlands, Oak Park, Rancho Cordova, South Sacramento	X	X		X	X			
Wellspring Women's Center	Oak Park	X		X					
Western Career College Dental Clinic	Rosemont		X						
What Would Jesus Do, Inc.	Auburn						X	X	

Resource/ Organization Name	Service Site Location	Access to Behavioral Health Services	Access to High Quality Health Care and Services	Active Living and Healthy Eating	Disease Prevention and Management	Safe, Crime and Violence-Free Communities	Basic Needs	Affordable and Accessible Transportation	Pollution-Free Living and Work Environments
WIC Sacramento	South Sacramento		X	X	X				
Wind Youth Services	Midtown Sacramento	X				X	X		
Women's Empowerment	Midtown Sacramento	X					X		
Women's Health Specialists	Arden-Arcade, Rancho Cordova		X						
YMCA of Superior California	Auburn, Downtown Sacramento			X		X	X		
YWCA	Midtown Sacramento	X			X		X		