Sacramento County Community Health Needs Assessment

THE HEALTHY SACRAMENTO COALITION

SIERRA HEALTH FOUNDATION

2016 Update

Prepared by Valley Vision on behalf of the Healthy Sacramento Coalition and Sierra Health Foundation

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In 2013, Sierra Health Foundation commissioned a community health needs assessment by Valley Vision on behalf of the Healthy Sacramento Coalition. The coalition was established in 2012 to promote health equity in Sacramento County with support from a Community Transformation Grant the foundation received from the Centers for Disease Control and Prevention. At that time, the needs assessment found significant disparities in health outcomes in 15 zip codes in Sacramento County with the highest rates of hospitalizations and emergency department use for chronic disease. Not only did these zip codes have disproportionally poor health outcomes, they were also more likely to have lower high school graduation rates, higher unemployment, more linguistic isolation and other challenges relative to the county overall. The association between poor health status and these social indicators provides support for our focus on the social determinants of health.

The implementation of the Affordable Care Act has changed the health care landscape considerably since 2013. One clear indicator is the increase in the number of Federally Qualified Health Centers in our region. In this context, Sierra Health Foundation commissioned an update to the earlier needs assessment. This report, which presents the most recent analyses conducted by Valley Vision, finds that many of the disparities reported in 2013 have persisted. The 15 zip codes continue to experience high rates of hospitalizations and emergency department use for a variety of health outcomes compared to the rest of the county. Even more disheartening, African American populations experience even higher rates of chronic disease than the general population in these neighborhoods.

The health needs assessment results are concerning. And yet they tell only part of the overall story of health inequity in Sacramento. The research does not take into consideration the populations that do not use hospitals or emergency departments due to immigration status, cultural beliefs or other access issues. They do however represent the "tip of the iceberg" and identify populations where investments in prevention and the social determinants of health could help improve health outcomes and set us on a course to reduce hospitalization and mortality rates.

There are initiatives focused on increasing health equity in Sacramento under way, such as the Reduction of African American Child Deaths initiative, championed by the County Board of Supervisors and the Child Abuse Prevention Center, as well as the Healthy Sacramento Coalition, which has focused its efforts on the 15 zip codes identified in the original health needs assessment. Nonetheless, the 2013 and 2016 reports show a pattern of persistently disproportionate adverse health outcomes and social conditions that calls out for comprehensive, systemic change. Let us use the findings to target the areas of greatest need while improving racial and health equity for all. The next health needs assessment must show real progress.

Chet P. Hewitt
President and CEO
Sierra Health Foundation

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EXECUTIVE SUMMARY

Introduction

This Community Health Needs Assessment (CHNA) was commissioned by Sierra Health Foundation on behalf of the Healthy Sacramento Coalition as a means to identify and prioritize health needs in Sacramento County. The Healthy Sacramento Coalition, originally funded by a Community Transformation Grant from the Centers for Disease Control and Prevention, recently adopted a vision of eliminating health inequities in Sacramento through advocacy. This report serves to update the findings of the CHNA report conducted by Valley Vision in 2013, which identified 15 of Sacramento County's 56 zip codes as experiencing the greatest socioeconomic inequities and the highest rates of disease and mortality in the county. The 15 zip codes were grouped into three Focus Communities: North Sacramento, Downtown Sacramento and South Sacramento. This report highlights persisting disparities in these original 15 zip codes, with a new focus on racial and ethnic disparities and youth populations within the Focus Communities.

This assessment relies exclusively on quantitative, secondary data provided by the Office of Statewide Health Planning and Development (OSHPD), the California Department of Public Health (CDPH), and the U.S. Census Bureau. These data were utilized in describing the socio-demographic characteristics of the Focus Communities, as well as in assessing health outcomes pertaining to chronic disease, communicable disease, mental health, and injury/violence. Health outcome measures consisted of emergency department (ED) visits and hospitalization rates, calculated from data provided by OSHPD, as well as mortality rates calculated from data provided by CDPH. A detailed list of the indicators used in this report is provided in Appendix A, along with a description of methodology and data processing steps.

Results in Brief

With nearly 1.5 million residents, Sacramento County is one of the largest counties in California. Compared to state rates, Sacramento County has higher proportions of households and families living in poverty, higher rates of infant mortality, and substantially reduced life expectancy at birth. Sacramento County residents also experience a greater burden of disease, as indicated by higher rates of ED visits and hospitalizations related to chronic conditions, communicable diseases, mental health issues, and injuries. Relative to state rates, Sacramento County has particularly high rates of ED visits for heart disease, stroke, sexually transmitted infections (STIs), self-inflicted injuries, mental health issues, substance abuse, asthma, and dental/oral disease. For each of these conditions, county rates are more than 50% higher than state rates.

Within the Focus Communities, many of these disparities are experienced at even higher rates than the county as a whole, and residents are at greater risk of adverse health outcomes, largely due to persisting social and economic inequities. The Focus Communities are characterized by high rates of poverty and unemployment, low levels of education, and limited access to health care resources and services. These factors contribute to the growing burden of disease within the Focus Communities, as well as to disparities in racial and ethnic subpopulations. Children, youth, and young-adults also experience health disparities within the Focus Communities, relative to their corresponding age groups at the county level.

While the Focus Communities generally exceed county rates of adverse health outcomes, specific zip codes within these communities experience a disproportionate burden of disease. The most notable geographic disparities are summarized as follows:

- Relative to all other zip codes within the Focus Communities, zip code 95814 in Downtown Sacramento has the highest rates of ED visits for 11 of the 12 observed health outcomes.

- Zip code 95823 in South Sacramento exceeds county rates of ED visits by more than 50% for all 12 health outcomes.
- Zip codes 95814, 95823, and 95832 have highly elevated age-adjusted rates of ED visits related to chronic diseases, particularly for type II diabetes, heart disease, and hypertension.
- Relative to county and state rates, zip codes 95673, 95814, and 95822 have elevated rates of mortality due to diabetes, heart disease, hypertension, and stroke.
- Rates of ED visits related to mental health issues exceed the county rate by more than 50% in zip codes 95821, 95841, 95814, and 95823.
- Rates of ED visits related to substance abuse exceed the county rate by more than 50% in zip codes 95660, 95815, 95821, 95811, 95814, and 95823.

In addition to distinct geographic disparities in health outcomes, data indicated consistent racial and ethnic disparities among residents of the Focus Communities. With few exceptions, African-Americans had the highest rates of ED visits across all zip codes and observed health outcomes, compared to all other racial or ethnic groups. Health disparities among African-American populations within the Focus Communities are summarized as follows:

- Rates of diabetes-related ED visits among African-Americans are more than 50% higher than the overall county rate in all 15 zip codes. The highest rates are in zip codes 95814, 95822, and 95821, where more than 1,000 diabetes-related ED visits occur per 10,000 population.
- Rates of heart disease-related ED visits among African-Americans are more than 50% higher than the overall county rate in 13 zip codes, with the highest rates in 95814, 95822, and 95820.
- Rates of hypertension-related ED visits among African-Americans are more than 50% higher than the overall county rate in 14 zip codes. The highest rates are in zip codes 95814, 95822, and 95821, where rates among this population are more than three times the overall county rate.
- Rates of stroke-related ED visits among African-Americans are more than 50% higher than the overall county rate in 11 zip codes, with the highest rates in 95822, 95821, and 95841.
- Rates of STI-related ED visits among African-Americans are more than 50% higher than the overall county rate in 14 zip codes, with the highest rates in 95814, 95820, and 95821.
- Rates of HIV-related ED visits among African-Americans are more than 50% higher than the overall county rate in 11 zip codes. The highest rate is in zip code 95820, an alarming 10 times the overall county rate and more than three times the rate among African-Americans at the county level.
- Rates of mental health-related ED visits among African-Americans are more than 50% higher than the overall county rate in 13 zip codes. The highest rate is in zip code 95814, where more than 1,800 mental health-related ED visits occur per 10,000 population. Also notable are zip codes 95821 and 95811, where more than 800 mental health-related ED visits occur per 10,000 population.
- Rates of substance abuse-related ED visits among African-Americans are more than 50% higher than the overall county rate in 14 zip codes. In all 14 of these zip codes, rates among this population exceed 1,000 ED visits per 10,000 population. The highest rate is in zip code 95814, where more than 3,700 ED visits occur per 10,000 population.
- Rates of assault-related ED visits among African-Americans are more than 50% higher than the overall county rate in 14 zip codes, with the highest rates in 95814, 95841, and 95821.
- Rates of ED visits related to self-inflicted injury among African-Americans are more than 50% higher than the overall county rate in 12 zip codes, with the highest rates in 95841, 95814, and 95821.

- Rates of asthma-related ED visits among African-Americans are more than 50% higher than the overall county rate in all 15 zip codes. The highest rates are in 95841, 95821, and 95814, where more than 1,000 asthma-related ED visits occur per 10,000 population.
- Rates of ED visits related to dental/oral disease among African-Americans are more than 50% higher than the overall county rate in all 15 zip codes, with the highest rates in 95821, 95841, and 95814.

The most notable changes in health outcomes within the Focus Communities since the analysis conducted for the 2013 CHNA report are summarized as follows:

- The percentage of residents without health insurance has decreased substantially in 14 of the 15 Focus Community zip codes.
- Rates of diabetes-related ED visits have increased substantially in all 15 zip codes. Rates of diabetes-related hospitalizations have increased in 11 zip codes.
- Rates of heart disease-related ED visits have increased in all 15 zip codes. Hospitalization rates have increased in 11 zip codes.
- Rates of hypertension-related ED visits have increased substantially in all 15 zip codes. Hypertension-related hospitalization rates have increased in 13 zip codes.
- Rates of stroke-related ED visits and hospitalizations have increased in 14 zip codes.
- Rates of asthma-related ED visits have increased in 12 zip codes.
- Rates of ED visits related to substance abuse have increased substantially in all 15 zip codes. At the county level, the rate of ED visits related to substance abuse has increased from 324 per 10,000 population in the 2013 analysis to 439 per 10,000 population in the 2016 analysis. Within the Focus Communities, these increases have been far more drastic.

Within Sacramento County, socioeconomic inequities and health disparities are concentrated in the three Focus Communities of North Sacramento, Downtown Sacramento, and South Sacramento. Residents of the Focus Communities are highly diverse and experience high rates of poverty and unemployment, limited educational opportunities, and limited access to necessary health care resources and services. These social determinants of health contribute to higher rates of adverse health outcomes among residents of these communities. The following sections of the CHNA provide details of the persisting socioeconomic inequities and health disparities experienced by residents of the Focus Communities.

INTRODUCTION

This Community Health Needs Assessment (CHNA) was commissioned by Sierra Health Foundation on behalf of the Healthy Sacramento Coalition as a means to identify and prioritize health needs in Sacramento County. The Healthy Sacramento Coalition, originally funded by a Community Transformation Grant from the Centers for Disease Control and Prevention, recently adopted a vision of eliminating health inequities in Sacramento through advocacy. This report serves to update the findings of the CHNA report conducted by Valley Vision in 2013, which identified 15 of Sacramento County's 56 zip codes as experiencing the greatest socioeconomic inequities and the highest rates of disease and mortality in the county. The 15 zip codes were grouped into three Focus Communities: North Sacramento, Downtown Sacramento and South Sacramento. This report highlights persisting disparities in these original 15 zip codes, with a new focus on racial and ethnic disparities and youth populations within the Focus Communities.

Data Sources

This assessment relies exclusively on quantitative, secondary data provided by the Office of Statewide Health Planning and Development (OSHPD), the California Department of Public Health (CDPH), and the U.S. Census Bureau. These data were utilized in describing the socio-demographic characteristics of the Focus Communities, as well as in assessing health outcomes pertaining to chronic disease, communicable disease, mental health, and injury/violence. Health outcome measures consisted of emergency department (ED) visits and hospitalization rates, calculated from data provided by OSHPD, as well as mortality rates calculated from data provided by CDPH. A detailed list of the indicators used in this report is provided in Appendix A, along with a description of methodology and data processing steps.

Overview

With nearly 1.5 million residents, Sacramento County is one of the largest counties in California. Compared to state rates, Sacramento County has higher proportions of households and families living in poverty, higher rates of infant mortality, and substantially reduced life expectancy at birth. Sacramento County residents also experience a greater burden of disease, as indicated by higher rates of ED visits and hospitalizations related to chronic conditions, communicable diseases, mental health issues, and injuries. Relative to state rates, Sacramento County has particularly high rates of ED visits for heart disease, stroke, sexually transmitted infections (STIs), self-inflicted injuries, mental health issues, substance abuse, asthma, and dental/oral disease. For each of these conditions, county rates are more than 50% higher than state rates.

Within the Focus Communities, many of these disparities are experienced at even higher rates than the county as a whole, and residents are at greater risk of adverse health outcomes, largely due to persisting social and economic inequities. The Focus Communities are characterized by high rates of poverty and unemployment, low levels of education, and limited access to health care services. These factors contribute to the growing burden of disease within the Focus Communities, as well as to disparities in racial and ethnic subpopulations. Children, defined as ages 5-14, and youth and young-adults, defined as ages 15-24, also experience health disparities within the Focus Communities, relative to their corresponding age groups at the county level. Zip codes within each of the Focus Communities are listed in Table 1, along with corresponding neighborhood names and county Board of Supervisor (BOS) districts. Figure 1 details the geographic boundaries of each of the three Focus Communities.

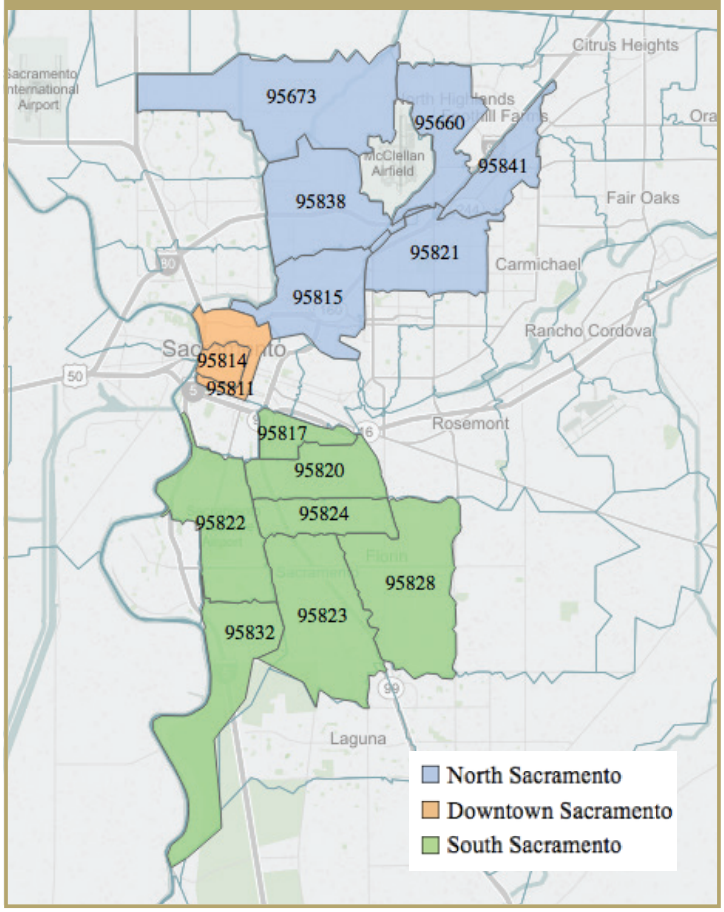
> *Sacramento County rates of ED visits for heart disease, stroke, sexually transmitted infections, self-inflicted injuries, mental health issues, substance abuse, asthma, and dental/oral disease are more than 50% higher than the respective state rates.*

Table I. The Focus Communities

Focus Community	Zip Code	Neighborhoods	BOS District
North Sacramento	95660	North Highlands	1, 3, 4
	95673	Rio Linda	1, 4
	95815	Old North Sacramento/ Woodlake	1
	95821	Del Paso Manor	3
	95838	Del Paso Heights	1
	95841	Belmont Estates	3, 4
Downtown Sacramento	95811	Richards, Alkali Flats, Mansion Flats, Midtown, Richmond Grove, Southside Park	1
	95814	Downtown	1
South Sacramento	95817	Oak Park, Franklin	1
	95820	Elmhurst, Tahoe Park, Oak Park	1
	95822	Land Park	2
	95823	Parkway, Valley Hi/North Laguna	2, 5
	95824	City Farms, Fruitridge Manor	1, 2
	95828	Florin	1, 2
	95832	Meadowview	2, 5

Note: Zip code and neighborhood names are approximate here and throughout the report.

Figure I: Focus Community Boundaries



Report Organization

This report examines social and economic inequities as indicators of vulnerability to adverse health outcomes within each of the Focus Communities. The report begins with a profile of each Focus Community, followed by a description of health outcomes selected by Valley Vision in collaboration with Sierra Health Foundation. The organization and content of this report have been guided by the following project research questions:

1. What are the socio-demographic characteristics of the three Focus Communities?
2. What factors are driving the health of the community?
3. What are the most significant and/or persisting health disparities in the three Focus Communities?

BARHII Framework

A conceptual framework developed by the Bay Area Regional Health Inequities Initiative (BARHII)[1] guided the selection of quantitative indicators and the organization of the report (http://barhii.org/framework/). The BARHII Framework demonstrates the connection between social inequities 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 in order to capture both "upstream" and "downstream" factors influencing health in the Focus Communities. This organization is reflected in the report, with upstream factors related to social and economic inequities presented in the Focus Community Profiles, followed by the more traditional public health measures of morbidity and mortality.

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

FOCUS COMMUNITY PROFILES

The following profiles outline the most disparate socioeconomic inequities experienced by residents of the North Sacramento, Downtown Sacramento and South Sacramento Focus Communities. These sections describe the socio-demographics of each Focus Community, including indicators of racial and ethnic diversity, poverty, level of education, employment, and access to health care services. The proportion of young people, considered those below the age of 25, within each zip code has also been included in the community demographics. Indicators of financial hardship and poverty included median household income, percent of households below the federal poverty level (FPL), percent of families with children living in poverty, and percent of single female-headed households in poverty. In addition to income, employment status and level of education were used as indicators of socioeconomic status among residents of the Focus Communities. Percentage of residents without health insurance, percentage of residents with public insurance, and percentage of pregnant women who received prenatal care in the first trimester serve as indicators of access to care in these communities. Health care resources are listed in Appendix B, detailing the availability of services within the Focus Communities.

North Sacramento

The North Sacramento Focus Community consists of six zip codes and is home to more than 160,000 residents. Neighborhoods within this community are ethnically diverse and are characterized by high rates of poverty, low levels of education, limited access to health care services, and high rates of adverse health outcomes. Demographics of the North Sacramento Focus Community are detailed in Table 2.

> *In zip code 95815, the percentage of single female-headed households with children living in poverty has increased substantially, from 52% to 73%.*

Socioeconomic inequities in the North Sacramento Focus Community are detailed in Table 3, which includes indicators of poverty, employment status, and level of education among residents. All six zip codes within the North Sacramento Focus Community have a median annual income below that of Sacramento County, although certain neighborhoods within this community experience greater socioeconomic disparities than others. In four of these six zip codes, more than 25% of households have income below the federal poverty level, with the highest rates of poverty in 95815 (34%) and 95838 (30%). In addition to having the highest poverty rate within the North Sacramento Focus Community, 95815 has the highest percentage of families with children living in poverty (46%), and the highest percentage of single female-headed households with children living in poverty (73%).

Table 2. Demographics of the North Sacramento Focus Community

Zip Code	Total Population	Young People (< 25 years)	Asian	Black	Hispanic	Native American	Pacific Islander	White	Other/Multiple Races
95660	32835	40.7%	6.3%	10.6%	24.3%	0.4%	0.2%	54.0%	4.3%
95673	15430	35.9%	8.9%	3.9%	17.4%	0.3%	0.3%	65.9%	3.3%
95815	25627	38.5%	9.8%	11.6%	38.7%	0.6%	1.6%	33.9%	3.7%
95821	33190	31.2%	3.9%	9.9%	19.9%	0.7%	0.7%	61.9%	3.1%
95838	35584	43.9%	16.8%	14.9%	33.3%	1.0%	2.6%	27.0%	4.3%
95841	18612	36.8%	3.8%	8.2%	19.9%	0.6%	0.1%	64.5%	3.0%
North Sacramento	161278	38.2%	8.6%	10.6%	26.5%	0.6%	1.1%	48.8%	3.7%

Source: U.S. Census Bureau American Community Survey (2009-2013).
Note: Demographics of 'North Sacramento' are aggregates of the six zip codes that make up this Focus Community.

Since the 2013 analysis, the percentage of single female-headed households with children living in poverty has increased substantially, from 52% to 73%.

Poverty rates in the North Sacramento Focus Community correlate strongly with rates of unemployment among residents. The four zip codes with the highest rates of poverty are also those with the highest rates of unemployment. However, while these four zip codes have unemployment rates higher than the county, 95815 has the highest unemployment rate of any zip code within the three Focus Communities. Although Sacramento County unemployment rates have been falling gradually since 2011 (U.S. Bureau of Labor Statistics), 24% of the 95815 population is unemployed, nearly double the county rate.

Relative to the county, the North Sacramento Focus Community has higher percentages of adults without a high school diploma in five of the six zip codes. The highest percentages of non-graduates are in 95838 and 95815, where more than 30% of adults over the age of 25 are without a high school diploma.

Table 3: Indicators of Socioeconomic Inequities in the North Sacramento Focus Community

Zip Code	Median Income	Households in Poverty	Single Female-Headed Households in Poverty	Families with Children in Poverty	Unemployment Rate	Adults Without High School Diploma
95660	$41,036	23%	43%	27%	12%	17%
95673	$53,429	15%	32%	14%	13%	20%
95815	$31,274	34%	73%	46%	24%	31%
95821	$38,750	25%	54%	34%	19%	14%
95838	$38,271	30%	55%	35%	17%	30%
95841	$36,967	28%	51%	35%	15%	16%
Sacramento County	$55,064	18%	38%	20%	14%	14%
California	$61,094	16%	37%	18%	12%	19%

Source: U.S. Census Bureau American Community Survey (2009-2013).
Note: Shaded cells are above the county rate, aside from median income, for which shaded cells are below that of the county.

Access to care is another source of inequity in the North Sacramento Focus Community. Relative to county rates, all six zip codes within the North Sacramento Focus Community have higher proportions of residents without health insurance. More than 20% of residents are uninsured in 95815, 95838, and 95841. However, the percent of residents without health insurance has decreased in all six zip codes since the 2013 CHNA report was published. In five of the six zip codes, more than 40% of those with health insurance utilize government-subsidized public insurance programs. While these public insurance programs help to improve access to care among low-income communities, barriers to health care access are apparent in considering utilization of prenatal care services. Relative to the county, a lower percentage of pregnant women received care in their first trimester in all six zip codes within the North Sacramento Focus Community. North Highlands (95660) and Del Paso Heights (95838) have the lowest rates of prenatal care utilization, with only 70% of pregnant women receiving care in their first trimester. Indicators of access to care, including percent of residents without health insurance, percent of residents with public health insurance, and prenatal care utilization, are provided in Table 4.

Table 4: Access to Care in the North Sacramento Focus Community

Zip Code	Residents Without Health Insurance	Residents With Public Insurance	Prenatal Care Utilization
95660	20%	47%	70%
95673	16%	30%	73%
95815	20%	46%	73%
95821	16%	41%	75%
95838	20%	45%	70%
95841	21%	41%	75%
Sacramento County	15%	33%	81%
California	18%	30%	84%

Source: U.S. Census Bureau American Community Survey (2009-2013); CDPH (2012).
Note: Shaded cells are above county rates, aside from prenatal care utilization, for which shaded cells are below the county rate.

Downtown Sacramento

The Downtown Sacramento Focus Community consists of two zip codes and is home to approximately 17,000 residents. Detailed demographics of the Downtown Sacramento Focus Community are provided in Table 5.

Neighborhoods within this community are characterized by high rates of household poverty, single female-headed households, and families with children. In both 95811 and

Table 5: Demographics of the Downtown Sacramento Focus Community

Zip Code	Total Population	Young People (< 25 years)	Asian	Black	Hispanic	Native American	Pacific Islander	White	Other/Multiple Races
95811	7370	21.1%	7.2%	10.5%	20.9%	0.6%	0.0%	53.3%	7.5%
95814	9802	19.7%	11.6%	13.4%	21.1%	0.6%	0.3%	50.4%	2.6%
Downtown Sacramento	17172	20.3%	9.7%	12.2%	21.0%	0.6%	0.2%	51.6%	4.7%

Source: U.S. Census Bureau American Community Survey (2009-2013).
Note: Demographics of 'Downtown Sacramento' are aggregates of the two zip codes that make up this Focus Community.

95814, more than 25% of households have annual income below the federal poverty level, with the highest rate of poverty in 95811 (31%). More than 70% of single female-headed households and more than 50% of families with children are living in poverty. Since the 2013 analysis, poverty rates among single female-headed households have increased from 46% to 70% in 95811 and 36% to 78% in 95814.

Neighborhoods within 95811 have higher rates of unemployment and higher proportions of residents without health insurance coverage relative to county rates. While 95814 has lower percentages of unemployed and uninsured residents, a higher proportion of residents have a low level of education, with 18% of adults over the age of 25 without a high school diploma. However, since the 2013 CHNA report was published, the percent of adults without a high school diploma has decreased substantially in both 95811 and 95814, from 25% and 26% to 13% and 18%, respectively. Additionally, the percentages of residents without health insurance in 95811 and 95814 have decreased from 44% and 39% in 2013 to 21% and 14% in 2016, respectively. More than 30% of residents in 95811 and more than 40% of residents in 95814 utilize public insurance programs.

In 95811 and 95814, approximately 80% of pregnant women received care during the first trimester of their pregnancies. These rates of prenatal care utilization are slightly below the county rate (81%), although substantially higher than zip codes in the other Focus Communities. Details of socioeconomic inequities in the Downtown Sacramento Focus Community are provided in Table 6, which includes indicators of poverty, employment status, and level of education. Indicators of access to care, including percent of residents without health insurance, percent of residents with public health insurance, and prenatal care utilization, are provided in Table 7.

> *More than 30% of residents in the Downtown Sacramento Focus Community utilize public insurance programs.*

Table 6: Indicators of Socioeconomic Inequities in the Downtown Sacramento Focus Community

Zip Code	Median Income	Households in Poverty	Single Female-Headed Households in Poverty	Families with Children in Poverty	Unemployment Rate	Adults Without High School Diploma
95811	$36,421	31%	70%	50%	15%	13%
95814	$34,085	29%	78%	59%	9%	18%
Sacramento County	$55,064	18%	38%	20%	14%	14%
California	$61,094	16%	37%	18%	12%	19%

Source: U.S. Census Bureau American Community Survey (2009-2013).
Note: Shaded cells are above the county rate, aside from median income, for which shaded cells are below that of the county.

Table 7: Access to Care in the Downtown Sacramento Focus Community

Zip Code	Residents Without Health Insurance	Residents With Public Insurance	Prenatal Care Utilization
95811	21%	34%	81%
95814	14%	40%	80%
Sacramento County	15%	33%	81%
California	18%	30%	84%

Source: U.S. Census Bureau American Community Survey (2009-2013); CDPH (2012).
Note: Shaded cells are above county rates, aside from prenatal care utilization, for which shaded cells are below the county rate.

Table 8: Demographics of the South Sacramento Focus Community

Zip Code	Total Population	Young People (< 25 years)	Asian	Black	Hispanic	Native American	Pacific Islander	White	Other/Multiple Races
95817	14377	34.3%	8.4%	19.6%	22.0%	1.5%	0.8%	41.1%	6.6%
95820	33967	14.2%	10.2%	9.4%	42.3%	0.7%	0.9%	31.0%	5.5%
95822	43024	35.1%	19.2%	14.5%	29.9%	0.3%	2.3%	28.5%	5.3%
95823	74154	41.9%	21.2%	22.4%	33.6%	0.3%	1.8%	15.8%	4.9%
95824	29344	41.6%	28.3%	10.7%	37.9%	0.4%	1.5%	18.3%	2.9%
95828	60993	40.5%	31.7%	14.1%	26.2%	0.6%	1.8%	19.8%	5.9%
95832	12051	47.4%	29.2%	18.2%	24.0%	0.4%	7.5%	14.4%	6.3%
South Sacramento	267910	36.8%	22.3%	16.0%	31.8%	0.5%	1.9%	22.2%	5.2%

Source: U.S. Census Bureau American Community Survey (2009-2013).
Note: Demographics of 'South Sacramento' are aggregates of the seven zip codes that make up this Focus Community.

South Sacramento

The South Sacramento Focus Community consists of seven zip codes and is home to nearly 270,000 residents. South Sacramento is the largest of the Focus Communities and has the highest percentage of minority residents. Detailed demographics of the South Sacramento Focus Community are provided in Table 8.

> *Compared to Sacramento County overall, the zip codes in the South Sacramento Focus Community experience lower median incomes and higher rates of households in poverty, families with children in poverty, unemployment and adults without a high school diploma.*

The South Sacramento Focus Community is characterized by high rates of poverty and unemployment, low levels of education, and limited access to health care services. All seven zip codes in this community have a median annual income below that of the county. In six of the seven South Sacramento zip codes, more than 25% of households have income below the federal poverty level. In these same six zip codes, more than 30% of families with children are living in poverty. Neighborhoods within 95824 have the highest rates of household poverty (37%) and families with children in poverty (40%). In 95817, 95823, and 95832, more than 50% of single female-headed households are living in poverty.

Relative to the county, unemployment rates are higher in all seven zip codes within the South Sacramento Focus Community. The highest rates of unemployment are in 95824 and 95832, where more than 20% of residents are unemployed.

In five of the seven South Sacramento zip codes, more than 25% of adults do not have a high school diploma. In three of the seven zip codes, more than 20% of residents do not have health insurance. Neighborhoods within 95824 and 95832 have the highest percentages of adults without a high school diploma (39% and 36%, respectively) and the highest percentages of residents without health insurance (25% and 24%, respectively). The lowest rates of prenatal care utilization among pregnant women are in 95824 (72%) and 95823 (74%). Details of the socioeconomic inequities experienced by residents of the South Sacramento Focus Community are provided in Table 9, which includes indicators of poverty, employment status, and level of education. Indicators of access to care are provided in Table 10.

Table 9: Indicators of Socioeconomic Inequities in the South Sacramento Focus Community

Zip Code	Median Income	Households in Poverty	Single Female-Headed Households in Poverty	Families with Children in Poverty	Unemployment Rate	Adults Without High School Diploma
95817	$34,990	36%	55%	40%	17%	18%
95820	$39,295	26%	31%	30%	18%	26%
95822	$43,624	25%	42%	32%	16%	23%
95823	$37,931	30%	51%	37%	19%	26%
95824	$29,771	37%	40%	40%	20%	39%
95828	$46,820	22%	33%	24%	18%	28%
95832	$39,735	31%	60%	35%	21%	36%
Sacramento County	$55,064	18%	38%	20%	14%	14%
California	$61,094	16%	37%	18%	12%	19%

Source: U.S. Census Bureau American Community Survey (2009-2013).
Note: Shaded cells are above the county rate, aside from median income, for which shaded cells are below that of the county.

Table 10: Access to Care in the South Sacramento Focus Community

Zip Code	Residents Without Health Insurance	Residents With Public Insurance	Prenatal Care Utilization
95817	17%	33%	76%
95820	18%	43%	76%
95822	15%	45%	76%
95823	19%	47%	74%
95824	25%	51%	72%
95828	20%	39%	77%
95832	24%	43%	75%
Sacramento County	15%	33%	81%
California	18%	30%	84%

Source: U.S. Census Bureau American Community Survey (2009-2013); CDPH (2012).
Note: Shaded cells are above county rates, aside from prenatal care utilization, for which shaded cells are below the county rate.

OVERALL COMMUNITY HEALTH

Measures of the overall health of a community include infant mortality, age-adjusted all-cause mortality, years of potential life lost (YPLL), and life expectancy at birth. This section utilizes these indicators to describe the overall health of neighborhoods within the Focus Communities (Table 11).

As discussed previously in the Focus Community profiles, social and economic inequities predispose communities to adverse health outcomes and subsequently reduced life expectancies at birth. These patterns are apparent within the Focus Communities, where 14 of the 15 zip codes have lower life expectancies than the county. The lowest life expectancies are in 95815, 95838, and 95814, where residents, on average, do not live past the age of 75. Life expectancies in these neighborhoods are more than four years below the life expectancy of Sacramento County. On average, North Sacramento has the lowest life expectancy of the Focus Communities.

> *On average, relative to the other Focus Communities, life expectancy is lowest in North Sacramento, and infant mortality rates are highest in South Sacramento. However, the rate of infant mortality has dropped substantially in Del Paso Heights (95838), which had the highest rate of infant mortality when the 2013 CHNA report was published.*

Relative to the county, infant mortality rates are higher in 95838, 95823, and 95824. On average, infant mortality rates are highest in South Sacramento, relative to the other Focus Communities. Del Paso Heights (95838) had the highest rate of infant mortality when the 2013 CHNA report was published, but the rate has since decreased substantially, from 6.7 to 5.5 infant deaths per 1,000 live births.

Age-adjusted all-cause mortality rates are higher than the county in 11 of the 15 Focus Community zip codes. North Sacramento has the highest rate of all-cause mortality, on average, relative to the other Focus Communities. All-cause mortality rates correlate strongly with YPLL, which better accounts for premature loss of life. YPLL estimates the years of potential life lost before the age of 75, per 10,000 population. The highest YPLL rates are in 95815 and 95814, where more than 1,000 potential life years are lost per 10,000 population. On average, the highest YPLL rates are in the North Sacramento Focus Community.

Table 11: Indicators of Overall Community Health

Focus Community	Zip Code	Infant Mortality	All-Cause Mortality	Years of Potential Life Lost	Life Expectancy
North Sacramento	95660	4.9	78.0	841.7	76.7
	95673	4.7	89.5	776.1	75.3
	95815	4.5	89.0	1010.3	74.4
	95821	5.0	73.6	759.3	77.7
	95838	5.5	90.1	885.5	74.6
	95841	4.6	93.5	833.3	75.6
Downtown Sacramento	95811	0.0	75.6	484.3	79.9
	95814	4.7	86.0	1026.1	74.3
South Sacramento	95817	4.8	66.8	833.5	77.2
	95820	5.2	78.4	844.2	76.8
	95822	4.8	69.3	703.8	78.7
	95823	6.1	80.9	769.5	78.1
	95824	5.6	71.5	781.3	77.9
	95828	4.8	74.6	686.0	77.5
	95832	4.6	70.8	662.4	78.4
Sacramento County		5.4	72.7	635.4	78.7
California		4.9	64.6	527.8	80.5

Source: CDPH (2012).
Note: Infant mortality is per 1,000 live births. Age-adjusted all-cause mortality and YPLL are per 10,000 population. Shaded rates are above or below the desired direction relative to the county.

HEALTH OUTCOMES AND DISPARITIES

The following sections utilize emergency department and hospitalization data to describe health outcomes and identify the greatest disparities in health outcomes within the Focus Communities. These sections include 12 indicators related to chronic disease, communicable disease, mental health, and injury/violence. Specifically, conditions examined in these sections include diabetes, heart disease, hypertension, stroke, sexually transmitted infections, HIV, mental health issues, substance abuse, assault, self-inflicted injury and suicide, dental/oral disease, and asthma. While rates of ED visits and hospitalizations are not direct proxies for prevalence, these measures provide insight to differences between racial and ethnic groups as well as changes over recent years. These sections highlight racial and ethnic disparities in health, with a focus on African-Americans within the Focus Communities.

Chronic Disease

Diabetes

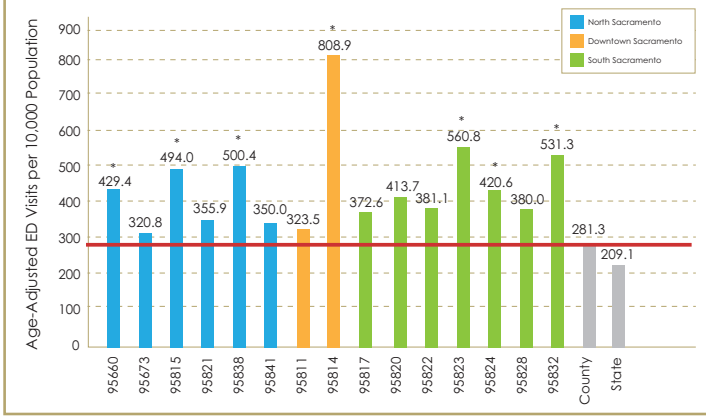
Type II diabetes has become increasingly problematic for Americans over the last decade. The Centers for Disease Control and Prevention estimate that one in 11 people have diabetes and that one in four of these people do not know they have diabetes.[2] Type II diabetes can be controlled with medication and reliable access to primary care. High rates of ED visits and hospitalizations for diabetes are not only indicative of poor health outcomes, but also of limited access to primary care services. Where primary care services are available, residents may not use them because of barriers created by language, culture, undocumented status, lack of familiarity with primary care among the newly insured, and other challenges.

> *Since the 2013 CHNA report was published, rates of diabetes-related ED visits have increased notably in all 15 zip codes. Moreover, rates of diabetes-related ED visits among African-Americans are more than 50% higher than the overall county rate in all 15 Focus Community zip codes.*

Relative to the state, Sacramento County has higher rates of diabetes-related ED visits for every respective age category and ethnic group. Age-adjusted rates of diabetes-related ED visits and hospitalizations are even higher than county rates in all 15 zip codes within the Focus Communities. Seven of these zip codes have age-adjusted rates that are more than 50% higher than county rates (Figures 2 and 3). Furthermore, rates of diabetes-related ED visits have increased notably in all 15 zip codes since the 2013 CHNA report was published.

While the Focus Communities have disproportionately high rates of diabetes-related ED visits and hospitalizations, racial and ethnic subpopulations within these neighborhoods experience significant disparities. In 14 of the 15 zip codes, African-Americans have the highest rates of diabetes-related ED visits compared to all other racial and ethnic groups. Rates of diabetes-related ED visits among African-Americans are more than 50% higher than the overall county rate in all 15 Focus Community zip codes. Table 12 details rates of diabetes-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

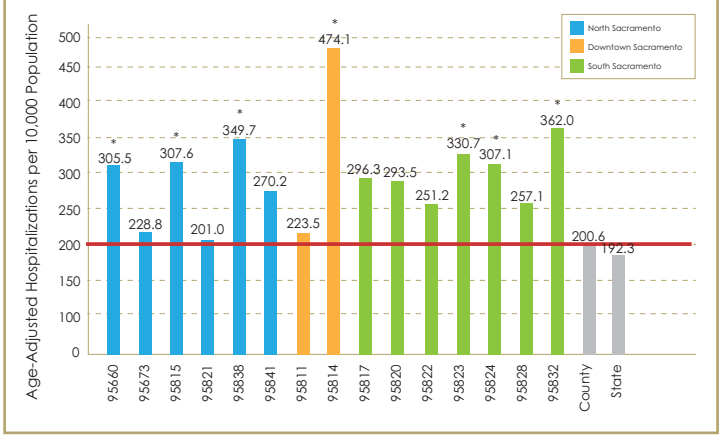
Figure 2: Diabetes-Related ED Visits



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

[2] Centers for Disease Control and Prevention. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: US Department of Health and Human Services; 2014.

Figure 3: Diabetes-Related Hospitalizations



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Table 12: Diabetes-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	453.4	695.4	193.0	694.3	235.9	397.1
	95673	389.4	501.6	235.8	529.7	103.9	341.2
	95815	602.4	805.8	230.4	270.8	212.4	436.7
	95821	364.3	1048.2	265.8	453.8	376.7	404.0
	95838	515.7	911.2	221.8	109.0	136.0	398.8
	95841	363.7	798.9	209.0	46.8	138.1	346.8
Downtown Sacramento	95811	207.7	604.7	320.1	268.7	70.9	270.4
	95814	704.9	1789.1	659.6	1103.5	218.4	839.4
South Sacramento	95817	202.3	828.9	265.5	175.4	148.0	356.1
	95820	401.3	927.9	334.5	313.5	168.1	401.0
	95822	353.8	1076.6	331.2	591.7	157.9	417.1
	95823	693.8	833.1	272.0	533.7	210.6	482.1
	95824	580.9	698.2	290.5	94.9	141.4	358.3
	95828	556.1	700.1	208.5	185.0	166.7	355.8
	95832	477.4	924.6	369.4	0.0	125.8	403.1
Sacramento County		275.0	629.5	211.2	280.6	147.1	280.5
California		201.8	487.9	201.0	239.2	99.9	209.8

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate. 'Overall' rates are not age-adjusted.

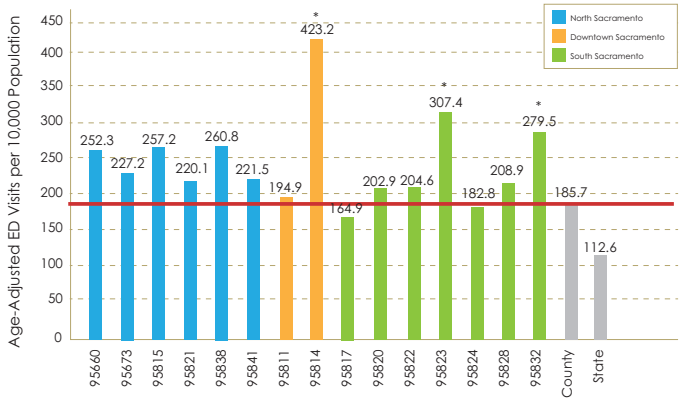
Heart Disease

Heart disease is one of the leading causes of death in Sacramento County. Compared to state rates, Sacramento County has higher rates of ED visits, hospitalizations, and mortality related to diseases of the heart. Residents of the Focus Communities are at even greater risk and experience significant geographic and ethnic disparities. Relative to the county, age-adjusted rates of ED visits and hospitalizations for heart disease are higher in 13 and 15 of the Focus Community zip codes, respectively. Age-adjusted rates of ED visits for heart disease are more than 50% higher than the county rate in 95814, 95823, and 95832 (Figure 4). Age-adjusted hospitalization rates are more than 50% higher than the county rate in 95838 and 95814 (Figure 5). Rates of ED visits related to diseases of the heart have increased substantially in all 15 Focus Community zip codes since the 2013 CHNA report was published. The 95814 neighborhood has continued to have the highest rates of ED visits and hospitalizations related to heart disease.

Compared to all other racial and ethnic groups, African-Americans have the highest rates of ED visits for heart disease in 10 of the 15 Focus Community zip codes. Among African-Americans, rates of ED visits for heart disease are more than 50% higher than the overall county rate in 13 of the 15 Focus Community zip codes. Table 13 details the rates of heart disease-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

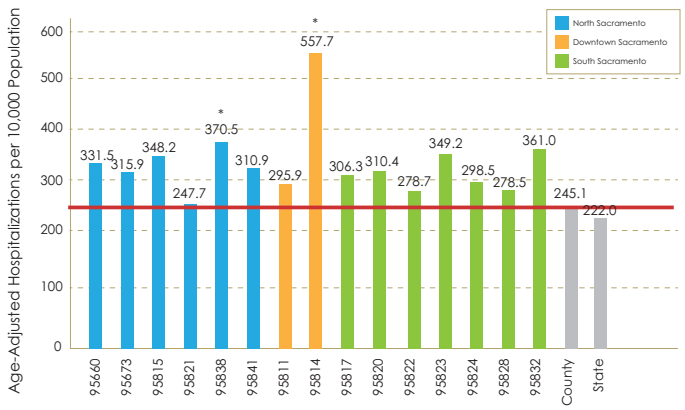
> *Heart disease is more than 50% higher than the county rate in three of the 15 zip codes; however, African-Americans have rates of heart disease greater than 50% of the county rate in all 15 zip codes.*

Figure 4: Heart Disease-Related ED Visits



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Figure 5: Heart Disease-Related Hospitalizations



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Table 13: Heart Disease-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	325.1	384.5	63.5	819.0	77.8	247.1
	95673	302.5	201.3	82.1	279.8	54.9	234.0
	95815	379.2	421.9	58.6	228.3	71.3	217.2
	95821	334.6	433.6	83.7	110.0	191.4	281.6
	95838	319.5	454.0	59.8	144.5	56.3	190.5
	95841	269.2	348.0	60.0	55.7	86.3	221.6
Downtown Sacramento	95811	130.0	205.4	117.4	74.0	45.7	128.4
	95814	546.8	699.1	271.5	366.7	164.4	477.3
South Sacramento	95817	128.1	384.0	82.0	34.9	47.1	161.4
	95820	312.5	486.8	106.9	55.9	47.7	202.5
	95822	351.4	559.6	132.6	247.6	98.5	253.1
	95823	600.8	421.5	94.5	327.3	84.9	260.3
	95824	404.9	370.0	72.8	111.2	37.2	154.2
	95828	439.4	337.8	63.7	162.9	74.1	192.0
	95832	370.5	458.6	113.1	0.0	61.4	199.5
Sacramento County		248.2	314.7	77.6	159.6	74.8	186.1
California		170.1	241.7	51.9	101.9	50.5	113.2

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.
'Overall' rates are not age-adjusted.

Hypertension

Hypertension, or high blood pressure, is one of the most common chronic conditions across the country. The Centers for Disease Control and Prevention estimate that more than 30% of adults ages 20 and over are hypertensive or taking antihypertensive medication.[3] Compared to state rates, Sacramento County has higher rates of ED visits and hospitalizations related to hypertension.

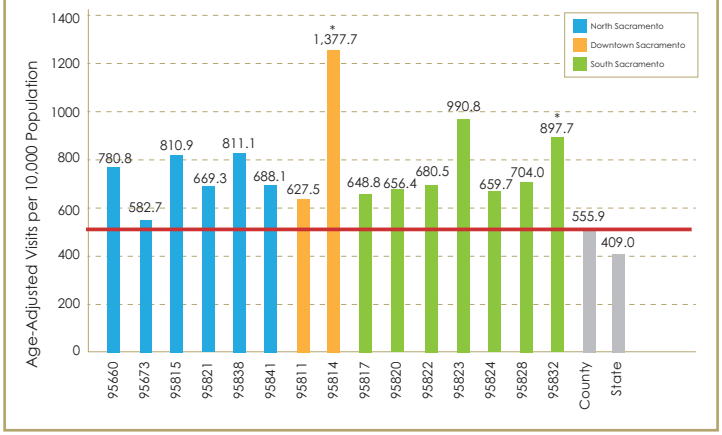
[3] Centers for Disease Control and Prevention. (2015). Blood Pressure Facts. Retrieved from: http://www.cdc.gov/bloodpressure/facts.htm

Relative to the county, all 15 zip codes within the Focus Communities have higher rates of ED visits and hospitalizations related to hypertension. The highest age-adjusted rates of ED visits for hypertension are in 95814, 95823, and 95832, where the rates are more than 50% higher than the county rate (Figure 6). Additionally, 95814 has the highest age-adjusted hospitalization rate for hypertension, with more than double the county rate (Figure 7). Since the 2013 CHNA report was published, rates of ED visits for hypertension have increased in all 15 Focus Community zip codes.

At the county level, African-Americans have the highest rate of ED visits for hypertension. The rate of hypertension-related ED visits among African-Americans is nearly twice as high as any other racial or ethnic group. This same pattern is apparent within the Focus Communities. African-Americans have the highest rates of ED visits for hypertension in 14 of the 15 Focus Community zip codes, relative to all other racial and ethnic groups. Among African-Americans, rates of hypertension-related ED visits are more than 50% higher than the county rate in 14 of the 15 zip codes. Table 14 details rates of hypertension-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

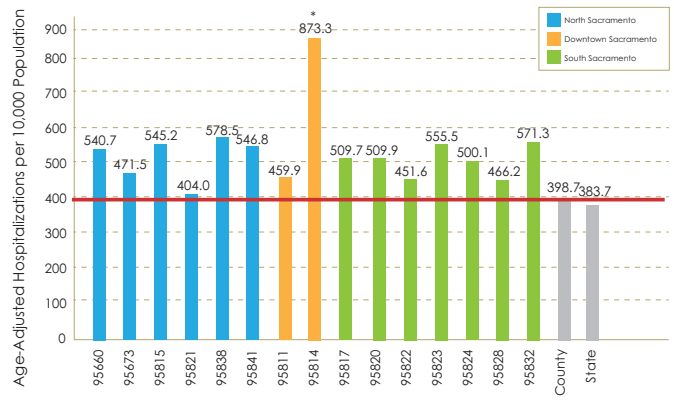
> *Rates of hypertension-related ED visits for African Americans are more than 50% higher than the county rate in 14 of the 15 zip codes.*

Figure 6: Hypertension-Related ED Visits



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Figure 7: Hypertension-Related Hospitalizations



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Table 14: Hypertension-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	845.4	1444.4	270.8	1240.6	423.2	728.1
	95673	754.6	724.7	276.4	838.4	205.1	611.2
	95815	1062.6	1556.8	290.8	414.8	262.3	706.6
	95821	810.2	1872.7	339.4	493.3	572.3	785.4
	95838	870.9	1707.0	265.0	138.7	180.2	632.3
	95841	726.4	1682.9	282.4	100.9	366.3	677.4
Downtown Sacramento	95811	459.6	1351.5	337.7	340.0	139.2	508.0
	95814	1477.0	2993.5	851.2	676.3	432.7	1465.4
South Sacramento	95817	449.5	1484.7	394.9	223.7	204.2	623.7
	95820	800.3	1597.8	419.8	315.2	272.8	641.6
	95822	853.6	1989.8	473.3	849.2	305.7	769.9
	95823	1346.1	1615.3	389.3	689.7	334.0	843.8
	95824	1130.1	1288.9	350.8	400.8	199.0	558.0
	95828	1108.9	1421.1	293.9	291.3	296.1	650.5
	95832	987.0	1684.1	463.8	373.7	205.8	670.0
Sacramento County		630.6	1249.1	296.0	402.6	262.9	555.4
California		488.5	1072.1	277.1	339.0	204.8	410.4

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.
'Overall' rates are not age-adjusted.

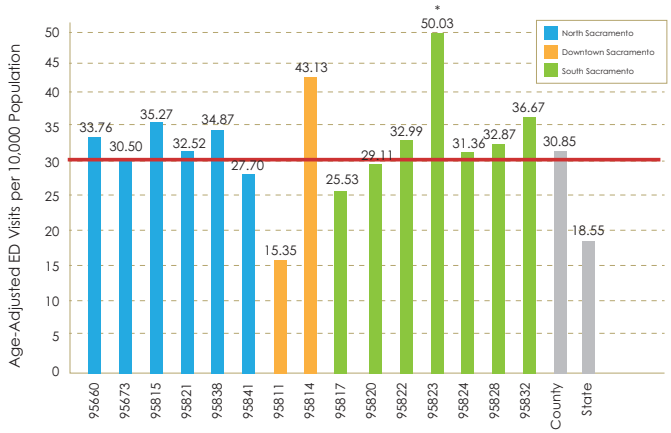
Stroke

Stroke is one of the leading causes of death in Sacramento County, behind only heart disease and all types of cancer. Compared to state rates, Sacramento County has substantially higher rates of ED visits and hospitalizations related to stroke. Within the Focus Communities, age-adjusted rates of ED visits and hospitalizations for stroke are higher than county rates in 10 and 13 of the 15 zip codes, respectively. The highest age-adjusted rate of stroke-related ED visits is in 95823, while the highest rates of hospitalization for stroke are in 95838 and 95814. In each of these zip codes, age-adjusted rates are more than 50% higher than the respective county rates. Age-adjusted rates of ED visits and hospitalizations for stroke are provided in Figures 8 and 9.

Rates of stroke-related ED visits differ widely between racial and ethnic groups at the county level and within the Focus Communities. African-Americans have the highest rates of stroke-related ED visits in 10 of the 15 Focus Community zip codes, compared to all other racial and ethnic groups. Among African-Americans, rates of ED visits for stroke are more than 50% higher than the county rate in 11 of the 15 zip codes. In 95841, the rate among African-Americans is more than double the rate of any other group. Table 15 details rates of stroke-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

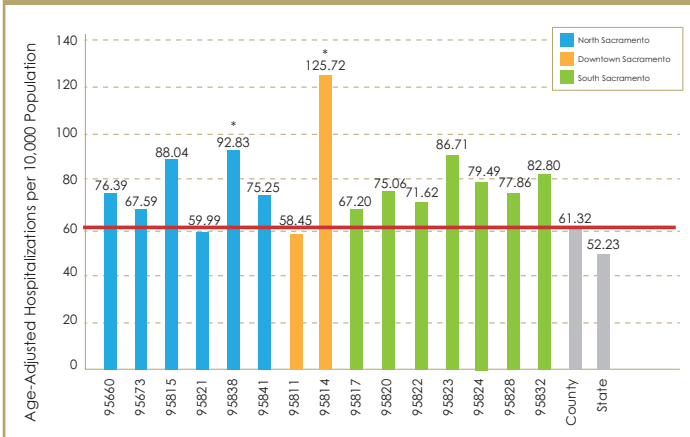
> *Among African-Americans, rates of ED visits for stroke are more than 50% higher than the county rate in 11 of the 15 zip codes.*

Figure 8: Stroke-Related ED Visits



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Figure 9: Stroke-Related Hospitalizations



Source: OSHPD (2011-2013). Note: Rates are age-adjusted and per 10,000 population.
*Indicates rate >50% higher than county rate, shown by the red line.

Table 15: Stroke-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	43.1	70.2	10.2	18.9	17.0	35.2
	95673	42.0	50.5	6.1	163.7	8.5	33.2
	95815	48.9	69.9	9.9	0.0	11.3	31.0
	95821	46.0	84.3	19.1	0.0	16.6	42.0
	95838	37.0	57.8	10.8	0.0	10.9	25.8
	95841	29.3	80.3	13.6	0.0	12.8	29.4
Downtown Sacramento	95811	9.3	25.3	6.5	0.0	0.0	8.9
	95814	49.2	65.9	32.9	0.0	23.0	52.0
South Sacramento	95817	30.3	45.0	5.6	30.2	13.2	25.5
	95820	47.0	60.9	16.3	0.0	7.7	29.7
	95822	51.6	101.3	18.7	99.8	21.1	42.1
	95823	87.7	80.0	13.8	23.4	18.8	43.5
	95824	51.8	36.5	18.3	0.0	17.8	27.3
	95828	62.2	44.0	11.0	19.2	21.5	30.9
	95832	74.6	63.3	8.0	0.0	11.3	29.4
Sacramento County		40.1	52.9	12.6	17.3	16.0	30.9
California		26.1	41.9	9.4	16.7	10.8	18.7

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate. 'Overall' rates are not age-adjusted.

Chronic Disease Mortality

Mortality rates for complications related to diabetes, heart disease, hypertension and stroke are provided in Table 16. Shaded rates are higher than county rates, aside from hypertension, for which shaded rates are higher than the state rate. In 95673, 95814, and 95822, mortality rates are higher than those of the county and state for all four of these chronic conditions.

Since the 2013 analysis, diabetes-related mortality rates have increased in nine zip codes: 95660, 95673, 95838, 95841, 95811, 95822, 95824, 95828, and 95832. Previously, Downtown (95814) and Oak Park (95817) had the highest rates of diabetes-related mortality, but rates have since decreased substantially in these neighborhoods. The highest mortality rates for diabetes are now in 95838 and 95822.

Mortality rates for diseases of the heart have increased since the 2013 report in six zip codes: 95660, 95673, 95841, 95814, 95820, and 95832. Promisingly, heart disease-related mortality rates have decreased in nine of the Focus Community zip codes. Oak Park (95817) has experienced the most notable decrease, from 18.6 to 11.7 deaths per 10,000 population. Conversely, the most notable increase in heart disease mortality has occurred in 95841, where the rate increased from 16.0 to 21.9 deaths per 10,000 population.

Since the 2013 analysis, hypertension-related mortality rates have increased in seven zip codes: 95673, 95821, 95838, 95841, 95811, 95814, and 95832. Stroke-related mortality rates have increased in five zip codes: 95660, 95673, 95815, 95814, and 95820. The most notable increase in stroke-related mortality occurred in 95673, where the rate increased from 2.88 to 4.5 deaths per 10,000 population. However, stroke-related mortality rates have decreased in 10 of the 15 Focus Community zip codes. The most notable decrease occurred in 95822, where the rate dropped from 7.96 to 5.3 deaths per 10,000 population. Although eight of the Focus Community zip codes have stroke-related mortality rates higher than the county, these decreases show potential evidence of progress in these neighborhoods.

> *Since the 2013 CHNA was published, diabetes-related mortality rates have increased in nine zip codes, and heart disease mortality rates have increased in six zip codes. At the same time, diabetes mortality rates have decreased substantially in two neighborhoods, and heart disease mortality rates have decreased in nine zip codes.*

Table 16: Chronic Disease Mortality – Diabetes, Heart Disease, Hypertension and Stroke

Focus Community	Zip Code	Diabetes	Heart Disease	Hypertension	Stroke
North Sacramento	95660	2.6	16.7	1.1	5.0
	95673	2.5	22.9	1.4	4.5
	95815	2.1	15.7	1.2	5.2
	95821	2.2	24.8	1.3	5.3
	95838	3.0	14.6	1.9	3.2
	95841	2.4	21.9	1.2	4.0
Downtown Sacramento	95811	2.0	10.6	1.4	3.7
	95814	2.8	29.5	1.3	5.4
South Sacramento	95817	2.1	11.7	1.1	4.2
	95820	2.3	18.6	1.2	5.4
	95822	2.9	22.7	1.5	5.3
	95823	2.1	13.9	1.4	3.1
	95824	2.2	15.5	1.5	3.6
	95828	2.1	15.9	1.4	3.9
	95832	2.3	12.8	1.1	3.8
Sacramento County		2.3	16.7	--	4.1
California		2.1	15.8	1.2	3.6

Source: CDPH (2012).
Note: Shaded rates are higher than the respective county rates, aside from hypertension, for which shaded rates are higher than the state rate.

Communicable Disease

Sexually Transmitted Infections

The Centers for Disease Control and Prevention estimate that nearly 20 million new cases of sexually transmitted infections occur each year, with approximately half of these new cases affecting people below the age of 25. A majority of these new cases are human papillomavirus (HPV) infections, followed by chlamydia.[4] Rates of sexually transmitted infections (STIs) reported in this section include ED visits and hospitalizations for HPV, chlamydia, syphilis, gonorrhea, genital herpes, and HIV. Rates presented in this section encompass all of the most common STIs, giving an overview of the STI burden in the Focus Communities.

The rate of STI-related ED visits in Sacramento County is more than 70% higher than the state rate. Within the Focus Communities, 14 of the 15 zip codes have rates of ED visits for STIs that are even higher than the county rate. Nine of these zip codes have rates that are more than 50% higher than the county rate. The highest rates of STI-related ED visits and hospitalizations occur in 95814.

In Sacramento County as a whole, the rate of STI-related ED visits among African-Americans is more than five times the rate of any other racial or ethnic group. African-Americans have the highest rates of ED visits for STIs in 14 of the 15 Focus Community zip codes. In these 14 zip codes, rates among African-Americans are more than 50% higher than the overall county rate. The greatest disparities are seen in 95821 and 95820, where rates among African-Americans are at least eight and 11 times higher, respectively, than any other racial or ethnic group. Table 17 details rates of STI-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate. Rates of STI-related ED visits and hospitalizations among young people are discussed later in this report.

> *The rate of STI-related ED visits in Sacramento County is more than 70% higher than the state rate. Within the county, the rate of STI-related ED visits among African-Americans is more than five times the rate of any other racial or ethnic group. Within the Focus Communities, 14 of the 15 zip codes have rates of ED visits for STIs that exceed the county rate.*

Table 17: Sexually Transmitted Infections – ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	4.9	17.4	6.3	0.0	0.0	6.7
	95673	3.7	0.0	1.5	0.0	0.0	2.7
	95815	13.2	32.9	5.5	12.7	1.3	11.6
	95821	5.4	43.5	4.9	0.0	5.4	8.7
	95838	10.4	26.4	2.8	0.0	0.9	8.2
	95841	6.4	32.2	3.6	0.0	0.0	8.0
Downtown Sacramento	95811	15.9	22.2	8.4	0.0	0.0	13.6
	95814	22.3	57.4	5.1	0.0	0.0	23.0
South Sacramento	95817	5.6	26.5	6.0	0.0	2.2	11.5
	95820	4.4	52.2	3.4	0.0	0.0	9.9
	95822	6.6	34.0	2.7	16.9	0.6	8.3
	95823	18.4	33.2	4.0	0.0	0.2	12.6
	95824	15.7	36.7	4.5	0.0	0.0	9.5
	95828	12.6	25.7	2.4	8.1	0.5	7.6
	95832	7.4	37.6	4.4	0.0	0.7	9.9
Sacramento County		4.3	23.8	3.3	1.7	0.5	5.5
California		3.1	18.1	1.9	2.0	0.5	3.2

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate. 'Overall' rates are not age-adjusted.

HIV

The Centers for Disease Control and Prevention (CDC) estimate that more than 1.2 million people in the U.S. are currently infected by human immunodeficiency virus (HIV), with approximately 50,000 new cases diagnosed each year (2012). The CDC estimates that more than 10% of these individuals do not know they have the disease.[5]

The rate of HIV-related ED visits in Sacramento County is slightly higher than the state rate. However, rates of HIV-related ED visits are more than 50% higher than the county rate in nine of the 15 Focus Community zip codes. The highest rates are in 95811 and 95814, where 9.2 and 10.8 ED visits occur per 10,000 population, respectively.

[4] Centers for Disease Control and Prevention. (2015). *Reported STDs in the United States.* Retrieved from: http://www.cdc.gov/std/stats14/std-trends-508.pdf
[5] Centers for Disease Control and Prevention. (2015). *HIV in the United States: At a Glance.* Retrieved from: http://www.cdc.gov/hiv/statistics/overview/ataglance.html

Within Sacramento County, African-Americans have the highest rates of HIV-related ED visits and hospitalizations, compared to all other racial and ethnic groups. The same pattern is apparent within the Focus Communities. In eight of the 15 zip codes, African-Americans have the highest rates of HIV-related ED visits, compared to all other racial and ethnic groups. Among African-Americans, rates of HIV-related ED visits are more than 50% higher than the county in 11 of the 15 Focus Community zip codes. The rate of HIV-related ED visits among African-Americans is alarmingly high in 95820, where 28.6 visits occur per 10,000 population. Table 18 details the rates of HIV-related ED visits by race and ethnicity.

Table 18: HIV-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	2.4	2.2	3.4	0.0	0.0	2.5
	95673	1.4	0.0	0.0	0.0	0.0	0.9
	95815	4.3	7.9	1.2	0.0	0.0	3.0
	95821	3.2	12.3	1.6	0.0	1.3	3.5
	95838	4.4	1.5	0.6	0.0	0.0	1.6
	95841	2.0	7.9	0.0	0.0	0.0	2.0
Downtown Sacramento	95811	10.2	11.2	8.9	0.0	0.0	9.2
	95814	15.0	20.2	1.6	0.0	0.0	10.8
South Sacramento	95817	4.4	2.8	4.4	0.0	0.0	3.8
	95820	2.2	28.6	0.5	0.0	0.0	3.8
	95822	5.8	11.2	0.9	0.0	0.0	3.7
	95823	15.3	11.4	1.5	0.0	0.0	5.6
	95824	10.1	9.1	1.9	0.0	0.0	3.5
	95828	9.2	6.0	0.4	7.9	0.0	3.0
	95832	5.6	9.3	3.6	0.0	0.0	3.4
Sacramento County		2.5	7.3	1.1	0.4	0.1	2.2
California		2.2	10.3	1.1	1.1	0.2	2.0

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

Mental Health and Substance Abuse

Mental Health

The Centers for Disease Control and Prevention estimate that 25% of adults in the U.S. have some form of mental illness and that up to 50% of adults will develop a mental illness at some time in their life.[6] This high prevalence of mental illness is reflected by high rates of ED visits and hospitalizations related to mental health in Sacramento County. Rates of mental health-related ED visits and hospitalizations reported in this section include cases of dementia, organic psychotic conditions, anxiety disorders, schizophrenic disorders, episodic mood disorders, paranoid states, other non-organic psychoses, personality disorders, and depression.[7] The overall rate of mental health-related ED visits in Sacramento County is 80% higher than the state rate.

Rates of mental health-related ED visits differ widely between geographic regions and racial or ethnic subpopulations, and these disparities are apparent within the Focus Communities. Thirteen of the 15 Focus Community zip codes have rates of mental health-related ED visits and hospitalizations that are higher than the county. Rates of ED visits are more than 50% higher than the county rate in zip codes 95821, 95841, 95814, and 95823. The highest rates of mental health-related hospitalizations are in 95841, 95817, and 95814, where 364.8, 384.9, and 827.7 hospitalizations occur, respectively, per 10,000 population, compared to a county rate of 227.0 hospitalizations per 10,000 population.

Within the Focus Communities, African-Americans have the highest rates of mental health-related ED visits in nine of the 15 zip codes. Rates among African-Americans are more than 50% higher than the county rate in 13 of the 15 Focus Community zip codes. The highest rates of mental health-related ED visits among whites, African-Americans, Hispanics, and Asian/Pacific Islanders are in 95814. Table 19 details rates of mental health-related ED visits by race and ethnicity.

> *The overall rate of mental health-related ED visits in Sacramento County is 80% higher than the state rate. In the Focus Communities, rates among African-Americans are more than 50% higher than the county rate in 13 of the 15 Focus Community zip codes.*

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

[7] Note: Data requested from OSHPD for mental health conditions differ from those requested in 2013. Therefore, rates of ED visits and hospitalizations related to mental health conditions cannot be compared between the 2013 and 2016 CHNA reports.

Table 19: Mental Health-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity: White	African-American	Hispanic	Native American	Asian/Pacific Islander	Overall
North Sacramento	95660	456.7	577.2	145.0	134.4	123.7	364.3
	95673	352.2	305.0	144.3	978.1	35.6	288.4
	95815	572.8	546.9	118.6	110.0	78.5	329.7
	95821	470.9	838.1	183.6	253.0	169.5	433.2
	95838	461.9	523.1	112.0	117.2	56.9	266.9
	95841	467.7	797.5	199.6	45.7	147.5	415.3
Downtown Sacramento	95811	394.2	805.0	242.3	195.3	135.2	399.7
	95814	1403.9	1801.6	475.2	627.9	247.7	1323.6
South Sacramento	95817	262.7	379.6	157.3	35.5	61.2	276.3
	95820	431.3	532.8	178.2	215.2	84.6	313.5
	95822	479.1	671.6	179.0	605.9	56.7	313.1
	95823	1084.9	669.4	175.1	470.3	91.8	426.9
	95824	694.9	484.7	138.5	240.8	47.7	263.1
	95828	656.2	560.6	148.0	145.2	76.2	299.9
	95832	741.7	590.3	163.3	159.0	41.8	275.2
Sacramento County		352.3	469.5	136.7	212.7	67.5	271.4
California		222.8	325.4	78.7	140.6	40.5	149.9

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

Substance Abuse

Over the last decade, deaths due to drug overdoses have increased substantially across the U.S. The annual number of deaths due to prescription drug overdoses has increased from below 10,000 in 2001 to more than 25,000 in 2014.[8] During this time, the number of deaths from heroin overdoses has increased from below 2,000 in 2001 to more than 10,000 in 2014. Substance abuse has become an epidemic across the country, although disparities exist between geographic regions and racial and ethnic subpopulations.

Rates of ED visits and hospitalizations related to substance abuse reported in this section include cases of alcoholic psychoses, drug psychoses, alcohol dependence syndrome, drug dependence, and nondependent abuse of drugs. The rate of substance-abuse-related ED visits in Sacramento County is more than 70% higher than the state rate. Rates of substance-abuse-related ED visits are higher than the county in all 15 zip codes within the Focus Communities. Six of these zip codes have rates that are more than 50% higher than the overall county rate. The highest rate of substance-abuse-related ED visits is in 95814, where more than 2,500 visits occur per 10,000 population. The 95814 neighborhood also has the highest rates of ED visits related to substance-abuse among every racial and ethnic subgroup.

Within Sacramento County, the rate of substance-abuse-related ED visits among African-Americans is more than twice as high as any other racial or ethnic group. This disparity is even greater in the Focus Communities, where African-Americans have the highest rates of substance-abuse-related ED visits in 13 of the 15 zip codes. Among African-Americans, rates of ED visits related to substance-abuse are more than 50% higher than the county rate in 14 of the 15 Focus Community zip codes. Table 20 details rates of substance-abuse-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

> *The rate of substance-abuse-related ED visits in Sacramento County is more than 70% higher than the state rate. Rates of substance-abuse-related ED visits are higher than the county in all 15 zip codes within the Focus Communities.*

Table 20: Substance-Abuse-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity: White	African-American	Hispanic	Native American	Asian/Pacific Islander	Overall
North Sacramento	95660	864.7	1182.1	278.5	1283.4	145.3	697.7
	95673	688.0	579.6	259.2	1149.2	66.9	548.6
	95815	1663.0	1839.8	337.9	539.7	209.2	958.2
	95821	741.3	2184.9	386.1	801.3	181.8	764.7
	95838	1131.4	1455.6	264.9	215.2	97.7	643.8
	95841	705.4	1657.5	288.7	132.4	150.9	649.9
Downtown Sacramento	95811	1156.6	1896.6	529.9	404.0	205.6	1001.1
	95814	2868.6	3743.8	1282.3	1737.7	373.6	2504.5
South Sacramento	95817	514.1	1250.5	335.1	161.1	115.9	599.4
	95820	814.2	1466.1	346.1	293.8	125.5	593.3
	95822	647.7	1445.9	353.5	600.8	77.1	529.7
	95823	1356.7	1514.6	337.8	726.5	126.6	739.1
	95824	1286.7	1479.2	289.6	554.3	93.4	550.2
	95828	840.7	1201.2	243.2	415.9	110.9	473.2
	95832	1038.5	1714.9	389.4	273.1	59.9	582.0
Sacramento County		516.4	1055.4	246.4	359.8	84.0	438.6
California		353.1	658.5	149.0	347.7	43.0	253.8

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

[8] Centers for Disease Control and Prevention. (2015). Increases in Drug and Opioid Overdose Deaths — United States, 2000–2014. MMWR 2015; 64;1-5.

Injury and Violence

Assault

ED visits and hospitalizations for assault are being utilized as indicators of violence and safety in the Focus Communities. Other data sources are available for examining crime and violence throughout the county, such as the Sacramento County Sheriff Department, California Department of Justice, and Sacramento City Police Department. However, due to differences in the scope and size of reporting zones, these data sources were not compatible for determining reliable rates of other types of violent crime in the Focus Communities.

Relative to the county, rates of assault-related ED visits and hospitalizations are higher in 14 and 13 of the 15 Focus Community zip codes, respectively. Rates of assault-related ED visits are more than 50% higher than the county rate in nine of the 15 zip codes. The highest rate of assault-related ED visits is in 95814, where 228.6 visits occur per 10,000 population. The 95814 neighborhood also has the highest rate of assault-related hospitalizations; in this neighborhood, 56.7 hospitalizations occur per 10,000 population, compared to the county rate of 5.8 hospitalizations per 10,000 population.

At the county level, the rate of assault-related ED visits is more than three times as high among African-Americans compared to all other racial and ethnic groups. African-Americans have the highest rates of assault-related ED visits in all 15 Focus Community zip codes. In 14 of these 15 zip codes, the rates among African Americans are more than 50% higher than the overall county rate. The highest rates of assault-related ED visits among whites, African-Americans, Hispanics, and Native Americans are in 95814. Table 21 details the rates of assault-related ED visits by race and ethnicity.

> *African-Americans have the highest rates of assault-related ED visits in all 15 Focus Community zip codes. In 14 of these 15 zip codes, the rates among African-Americans are more than 50% higher than the overall county rate.*

Table 21: Assault-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	55.0	127.9	33.6	21.0	19.9	57.1
	95673	42.8	45.0	30.9	0.0	10.8	38.8
	95815	103.9	192.0	43.8	100.5	8.1	87.9
	95821	47.5	238.2	44.1	0.0	22.8	64.4
	95838	74.7	161.1	36.8	29.5	13.1	66.6
	95841	56.9	242.5	41.8	22.6	6.9	66.1
Downtown Sacramento	95811	65.1	215.5	56.4	0.0	16.3	87.7
	95814	184.6	370.9	105.9	106.6	17.2	228.6
South Sacramento	95817	38.8	120.5	40.7	31.9	16.9	69.4
	95820	45.9	147.7	42.3	12.6	17.5	63.8
	95822	38.0	131.1	43.7	54.1	8.8	49.2
	95823	79.7	153.6	44.1	35.9	17.3	72.2
	95824	90.8	147.2	35.3	0.0	9.6	58.6
	95828	53.6	117.8	27.8	56.7	11.3	45.0
	95832	73.4	161.8	37.1	48.7	9.5	54.9
Sacramento County		32.3	111.3	30.5	26.4	9.6	39.1
California		27.2	100.2	29.0	35.2	6.8	30.4

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

Self-Inflicted Injury and Suicide

Rates of ED visits and hospitalizations for self-inflicted injuries reported in this section include suicides, attempted suicides, and other self-inflicted injuries. Completed suicide rates are also reported separately in Figure 10.

The rate of ED visits related to self-inflicted injuries in Sacramento County is more than 50% higher than the state rate. Within the Focus Communities, 13 of the 15 zip codes have rates that are higher than the county rate. Five of these zip codes have rates that are more than 50% higher than the county rate. The highest rate of ED visits related to self-inflicted injuries is in 95814, where 49.0 visits occur per 10,000 population. This rate is more than double the rate of any other Focus Community zip code.

At the county level, African-Americans have the highest rate of ED visits related to self-inflicted injuries, relative to all other racial and ethnic groups. Within the Focus Communities, African-Americans have higher rates than any other group in seven of the 15 zip codes. Among African-Americans, 12 of the 15 zip codes have rates that are more than 50% higher than the overall county rate. Table 22 details the rates of self-inflicted injury-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the county rate.

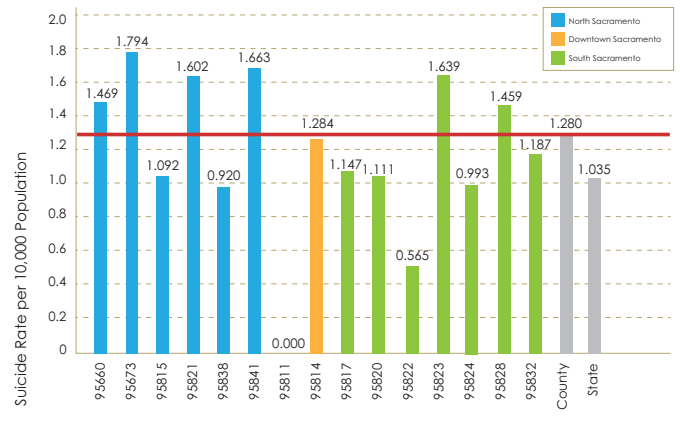
Table 22: Self-Inflicted Injury-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	19.6	26.4	6.9	0.0	3.7	15.9
	95673	14.9	14.2	4.4	42.0	0.0	12.6
	95815	31.7	28.9	7.6	23.8	2.7	20.6
	95821	18.6	33.8	8.3	0.0	2.3	17.1
	95838	21.5	16.5	4.5	9.3	1.9	11.2
	95841	24.0	47.7	11.0	0.0	11.1	23.3
Downtown Sacramento	95811	21.4	27.2	13.0	0.0	11.5	21.3
	95814	46.7	38.9	13.5	23.5	8.2	49.0
South Sacramento	95817	13.3	15.5	7.2	0.0	2.6	16.1
	95820	16.9	20.0	6.1	10.0	6.5	14.3
	95822	16.2	25.5	10.3	42.9	3.1	13.8
	95823	48.8	31.5	13.0	26.4	4.0	22.4
	95824	26.4	21.1	8.2	26.6	2.4	14.0
	95828	26.3	19.9	10.0	16.0	4.1	13.9
	95832	17.7	24.1	11.1	21.8	2.8	12.7
Sacramento County		15.0	20.3	7.9	13.8	3.0	12.7
California		10.8	13.1	6.0	8.2	2.2	8.2

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

Within the Focus Communities, suicide rates are higher than the county in seven of the 15 zip codes. The highest rates of suicide are in 95673, 95841, and 95823, where 1.79, 1.66, and 1.64 suicides occur, respectively, per 10,000 population. Suicide rates for each of the Focus Community zip codes are provided in Figure 10.

Figure 10: Suicide - Mortality Rates



Source: CDPH (2012).
Note: The red line shows the county rate.

Other Conditions

Asthma

Asthma is a chronic condition of the respiratory system that can be controlled with medication and reliable primary care. High rates of ED visits and hospitalizations due to asthma are not only indicative of poor health outcomes, but also of limited access to primary care services.

Rates of asthma-related ED visits and hospitalizations in Sacramento County are 59% and 43% higher than state rates, respectively. Within the Focus Communities, 14 of the 15 zip codes have rates of asthma-related ED visits and hospitalizations that are higher than the respective county rates. Six of these zip codes have rates of ED visits that are more than 50% higher than the overall county rate. The downtown neighborhood (95814) has the highest rates of asthma-related ED visits and hospitalizations.

At the county level, African-Americans have the highest rates of asthma-related ED visits and hospitalizations relative to all other racial and ethnic groups. Within the Focus Communities, African-Americans have the highest rates of ED visits for asthma in 13 of the 15 zip codes. In all 15 zip codes, rates of asthma-related ED visits among African-Americans are more than 50% higher than the overall county rate. Table 23 details rates of asthma-related ED visits by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

Table 23: Asthma-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	380.7	898.0	224.1	987.9	136.6	381.8
	95673	321.4	414.6	161.4	883.6	42.4	272.8
	95815	486.2	758.6	201.6	92.8	117.5	362.6
	95821	321.0	1224.3	262.1	181.7	240.3	379.0
	95838	368.5	846.4	178.1	315.7	88.8	317.4
	95841	357.8	1291.8	207.1	130.0	131.0	378.3
Downtown Sacramento	95811	143.5	568.3	120.0	136.0	40.5	179.9
	95814	453.7	1007.9	306.5	376.8	156.0	486.5
South Sacramento	95817	155.4	555.3	156.2	81.4	31.0	243.6
	95820	247.6	685.1	211.3	98.9	67.3	259.8
	95822	209.0	804.3	225.3	224.5	62.5	273.7
	95823	447.3	871.5	224.9	456.7	80.2	390.3
	95824	366.7	822.5	204.0	197.4	55.8	265.5
	95828	335.9	644.7	191.9	192.2	75.1	254.6
	95832	497.2	929.8	236.4	0.0	51.0	328.7
Sacramento County		226.5	654.3	175.6	217.5	78.0	236.0
California		144.3	492.8	130.0	135.9	48.1	148.9

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

Dental/Oral Disease

The Centers for Disease Control and Prevention estimate that approximately 40% of adults living in poverty have at least one untreated decayed tooth, compared to 16% of those who are not living in poverty.[9] Tooth decay is also one of the most common chronic conditions among children in the U.S. An estimated one-third of Americans below the age of 19 have at least one untreated decayed tooth. This percentage is even higher among children of low-income families.[10] Rates of ED visits and hospitalizations related to dental/oral disease presented in this section include diseases of the oral cavity, salivary glands, and jaws.

In Sacramento County, rates of ED visits and hospitalizations related to dental/oral diseases are 76% and 25% higher than state rates, respectively. Within the Focus Communities, rates of ED visits are higher than the overall county rate in all 15 zip codes. In 10 of these zip codes, rates of ED visits are more than 50% higher than the county rate. Hospitalization rates are higher than the county rate in 12 of the 15 zip codes, with the highest rates in 95815 and 95814. These neighborhoods have rates of 15.4 and 29.2 hospitalizations per 10,000 population, respectively, compared to a county rate of 9.4 hospitalizations per 10,000 population.

Within Sacramento County, the rate of ED visits related to dental/oral disease is more than twice as high among African-Americans compared to all other racial or ethnic groups. The same pattern is apparent in the Focus Communities, where African-Americans have the highest rates of ED visits for dental/oral disease in all 15 zip codes. Rates of ED visits among African-Americans are more than 50% higher than the county rate in all 15 Focus Community zip codes, with the highest rate in 95821. Table 24 details rates of ED visits related to dental/oral disease by race and ethnicity. Shaded rates are more than 50% higher than the overall county rate.

> *In all 15 zip codes, African Americans experience dental/oral disease-related ED visits at a minimum of 50% more than the county as a whole.*

Table 24: Dental/Oral Disease-Related ED Visits by Race/Ethnicity

Focus Community	Zip Code	Race/Ethnicity					Overall
		White	African-American	Hispanic	Native American	Asian/Pacific Islander	
North Sacramento	95660	157.6	273.3	67.2	106.5	25.9	141.2
	95673	112.1	120.4	52.2	119.6	5.7	94.9
	95815	246.8	322.1	82.7	69.2	24.5	164.4
	95821	104.5	510.6	90.2	102.9	43.0	137.2
	95838	180.8	278.3	54.2	30.0	17.5	119.2
	95841	130.4	448.8	82.4	33.2	27.0	137.9
Downtown Sacramento	95811	103.7	258.4	67.4	60.1	12.0	115.0
	95814	194.6	396.1	139.4	109.4	17.5	216.6
South Sacramento	95817	78.7	287.0	100.9	0.0	10.3	136.3
	95820	108.7	280.5	83.1	73.7	13.6	115.6
	95822	59.4	238.0	74.6	176.2	11.6	81.3
	95823	164.1	291.4	74.8	114.0	21.6	132.1
	95824	155.7	270.1	81.9	141.4	14.4	104.8
	95828	117.6	201.8	63.0	11.8	18.5	84.1
	95832	90.0	259.6	80.1	0.0	9.7	89.3
Sacramento County		68.7	206.4	53.9	50.6	14.4	72.7
California		45.4	109.9	35.7	43.4	8.4	41.3

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population. Shaded rates are >50% higher than overall county rate.

CHILDREN, YOUTH AND YOUNG ADULTS

Due to the socioeconomic inequities experienced by residents of the Focus Communities, youth and young adults growing up in these neighborhoods are at increased risk for adverse health outcomes. This section summarizes health outcomes of particular concern among children, ages 5-14, and youth and young adults, ages 15-24. These indicators include assault, asthma, dental/oral disease, diabetes, mental health conditions, substance abuse, and self-inflicted injury. Sexually transmitted infections are also included for young adults, who have the highest rate of STI-related ED visits compared to all other age categories in Sacramento County. Tables 25 and 26 detail rates of ED visits among children, youth and young adults for each of these indicators of interest. Shaded rates are more than 50% higher than rates among the respective age categories at the county level. The most notable findings indicated by these tables are as follows:

- Rates of ED visits among children (ages 5-14) in zip code 95841 are more than 50% higher than respective county rates for every indicator included in Table 25.

[9] Centers for Disease Control and Prevention. (2013). *Adult Oral Health.* Retrieved from: http://www.cdc.gov/oralhealth/publications/factsheets/adult_oral_health/adults.htm
[10] Centers for Disease Control and Prevention (2014). *Children's Oral Health.* Retrieved from: http://www.cdc.gov/oralhealth/children_adults/child.htm

- Rates of ED visits among children in 95821 and 95814 are more than 50% higher than respective county rates for more than half of the indicators.
- Rates of ED visits among youth and young adults (ages 15-24) in zip code 95823 are more than 50% higher than respective county rates for seven of the eight indicators shown in Table 26.
- Rates of ED visits among youth and young adults in zip codes 95815, 95821, 95841, 95814, and 95823 are more than 50% higher than respective county rates for more than half of the indicators of interest.
- The highest rates of ED visits among children (ages 5-14) were due to asthma, while the highest rates of ED visits among youth and young adults (ages 15-24) were related to substance abuse. This pattern is apparent at the county level as well as within all 15 Focus Community zip codes.

Table 25: ED Visits Among Children (Ages 5-14)

Focus Community	Zip Code	Indicator: Assault	Asthma	Dental/ Oral Disease	Diabetes	Mental Health	Substance Abuse	Self-Inflicted Injury
North Sacramento	95660	15.1	234.1	42.5	14.1	29.1	10.0	4.3
	95673	27.2	291.5	34.8	25.3	31.3	13.6	5.2
	95815	14.2	225.6	48.4	11.6	25.4	11.7	6.5
	95821	22.6	316.1	73.1	7.1	36.2	30.7	6.7
	95838	21.8	195.3	38.0	14.0	20.1	9.7	6.5
	95841	30.3	304.1	47.1	15.8	53.2	20.0	10.3
Downtown Sacramento	95811	18.8	211.3	30.5	12.2	29.5	13.1	7.0
	95814	21.9	1066.6	60.4	11.8	50.4	12.7	8.3
South Sacramento	95817	30.8	311.4	36.6	4.4	28.7	12.8	7.7
	95820	16.3	234.7	35.9	15.8	26.4	6.9	4.2
	95822	21.3	225.2	27.0	12.6	24.8	6.0	7.2
	95823	28.4	316.0	42.0	12.9	21.8	10.6	8.9
	95824	16.2	224.4	33.1	3.1	9.4	10.9	2.2
	95828	11.9	199.8	29.7	5.8	10.9	8.4	6.6
	95832	12.0	274.9	23.9	15.8	10.8	6.6	4.6
Sacramento County		13.8	200.1	25.5	9.4	24.7	9.2	6.4
California		10.5	171.8	18.8	7.5	17.3	7.7	4.6

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population ages 5-14. Shaded rates are >50% higher than county rates for ages 5-14.

> *With the exception of self-inflicted injury, all the indicators in Table 25 are found at more than twice the rate of the county rate in at least one of the 15 zip codes. For example, in four zip codes, (95673, 95841, 95817, and 95823), children, ages 5-14, have rates of ED visits for assault more than twice the rate for the same age group in the county as a whole. In 95814, children went to the ED for asthma at rates more than five times as high as the county rate. High rates are also found for youth and young adults.*

Table 26: ED Visits Among Youth and Young Adults (Ages 15-24)

Focus Community	Zip Code	Indicator: Assault	Asthma	Dental/ Oral Disease	Diabetes	Mental Health	Substance Abuse	Self-Inflicted Injury	STI
North Sacramento	95660	117.5	362.2	164.4	45.6	258.0	627.6	26.3	12.4
	95673	82.7	274.7	101.4	40.8	213.9	530.7	26.3	4.4
	95815	187.4	359.0	204.1	69.1	267.0	930.9	31.0	20.5
	95821	136.4	413.3	206.3	57.9	337.3	824.4	31.8	17.2
	95838	134.4	306.5	137.7	37.5	167.0	560.0	21.5	16.4
	95841	123.9	467.6	171.5	44.5	429.3	749.8	48.1	10.4
Downtown Sacramento	95811	58.0	126.5	56.1	40.8	205.8	430.6	16.3	0.0
	95814	323.7	322.5	135.9	90.9	756.0	1338.2	58.6	19.2
South Sacramento	95817	111.5	226.5	146.3	33.1	219.5	392.3	28.6	14.7
	95820	132.7	258.0	177.8	50.6	247.9	567.8	31.5	23.9
	95822	126.9	300.6	101.5	54.5	277.6	528.7	39.6	14.8
	95823	155.1	382.0	163.7	60.0	294.4	747.5	55.4	22.7
	95824	108.2	213.5	108.1	22.8	202.6	479.9	28.4	15.0
	95828	91.9	252.6	109.8	41.9	184.9	467.9	25.6	15.1
	95832	98.0	271.6	76.1	49.5	178.8	481.2	27.2	17.7
Sacramento County		88.2	253.7	94.9	38.7	207.5	472.0	31.0	10.5
California		67.1	154.8	44.3	30.2	112.8	275.4	20.5	3.3

Source: OSHPD (2011-2013).
Note: Rates are per 10,000 population ages 15-24. Shaded rates are >50% higher than county rates for ages 15-24.

CONCLUSION

The information presented in the preceding sections of the report demonstrates the persistence of and connection between socioeconomic inequities and health disparities within the Focus Communities of North Sacramento, Downtown Sacramento, and South Sacramento. While some indicators of health status have improved in certain zip codes since the analysis conducted for the 2013 CHNA, the overall pattern is one of continuing inequity experienced by residents of the Focus Communities, particularly among African-American populations and young people. These data indicate a continued need for collaborative and community-wide efforts to address health disparities within Sacramento County.

APPENDIX A – METHODOLOGY

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 appendix 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 then listed, followed by a description of the basic processing steps applied to most variables. It concludes by detailing additional specific processing steps used to generate a subset of more complicated indicators.

Zip Code Definitions

All morbidity and mortality variables collected in this analysis are reported by patient mailing zip codes. Zip codes are defined by the U.S. 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 U.S. Census Bureau, which is the main source of population and demographic information in the U.S. 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 us to calculate rates for each ZCTA. However, the difference in the definition between mailing zip codes and ZCTAs has two important implications for analyses of zip code 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 result in the creation of a ZCTA. But 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[11] were compared to ZCTA boundaries.[12] 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 added to the ZCTAs to which they were assigned.

All zip code level morbidity and mortality variables given in this report are therefore actually reporting approximate rates for ZCTAs. But for the sake of familiarity of terms, they are presented in the body of the report as zip code rates.

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

[12] 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 U.S. 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 both to provide descriptions of population characteristics for the study area, as well as to calculate rates for morbidity and mortality variables. Table 27 lists the 2013 population characteristic variables and sources.[13] Table 28 lists sources for variables used to calculate morbidity and mortality rates, which were collected for 2011, 2012, 2013, and 2014.[14] 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.

Table 27: Demographic Variables Collected from the U.S. Census Bureau

Derived Variable Name	Source Variable Names	Source
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
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 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
Total Population	Total population	2013 American Community Survey 5-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 White (not Hispanic)	Total population - Not Hispanic or Latino - White 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
Population by Age Group	Under 5 years; 5 to 9 years; 10 to 14 years; 15 to 19 years; 20 to 24 years; 25 to 34 years; 35 to 44 years; 45 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 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

[13] 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

[14] 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

Table 28: Census Variables used for Mortality and Morbidity Rate Calculations

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)
Age 85 and over	85 years and over	American Community Survey 5-year Estimate Table DP05 (2011, 2012, 2013, 2014)
White	HISPANIC OR LATINO AND RACE - Total population - Not Hispanic or Latino - White 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 sexually transmitted infections (STI) incidence rates. Aggregated 2011–2013 ED and H discharge data were obtained from the Office of Statewide Health Planning and Development (OSHPD). Table 29 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 White, non-Hispanic Black, non-Hispanic Asian or Pacific Islander, non-Hispanic Native American).

Table 29: 2011–2013 OSHPD Hospitalization and Emergency Department Discharge Data

Category	Variable Name	ICD9/E-Codes
Chronic Disease	Diabetes Hypertension Heart Disease Stroke	250 401-405 410-417, 428, 440, 443, 444, 445, 452 430-436, 438
Infectious Disease	HIV/AIDS STIs	042-044 042-044, 090-099, 054.1, 079.4
Injuries[15]	Assault Self-Inflicted Injury	E960-E969, E999.1 E950-E959
Mental Health	Mental Health Mental Health: Substance Abuse	290, 293-298, 301,311 291-292, 303-305
Other	Asthma Oral cavity/Dental	493-494 520-529

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 30. 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), and all-cause mortality by age.

Table 30: CDPH Birth and Mortality Data by Zip Code

Variable Name	ICD10 Code	Years Collected
Total 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
Cerebrovascular Disease (Stroke)	I60-I69	2012
Diabetes Mellitus	E10-E14	2012
Intentional Self Harm (Suicide)	U03, X60-X84, Y87.0	2012
Essential Hypertension & Hypertensive Renal Disease	I10, I12, I15	2012
All Other Causes	Residual Codes	2012
Total Births		2010 - 2012

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 were treated as having a value of 0. If 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.[16] 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

[15] 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

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

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.

Age Adjustment

The additional step of age adjustment[17] was performed on the all-cause mortality variable. 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 county and state levels.

County benchmark rates were calculated as raw rates for each county, or in the case of small counties, group of

[17] 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.

counties, using the relevant populations variables. State rates were calculated as raw rates by first summing all county level values (treating an NA value as a 0), and then dividing these values by the relevant population value.

County and state benchmark rates were also provided for CDPH data. County and state benchmark rates were either calculated using CDPH data reported at the county and state level[18] [19], or else obtained from the County Health Status Profiles 2014[20]. The resulting benchmark values for CDPH and OSHPD variables were all reported as rates per 10,000 unless the original variable was reported using some other standard as described below.

Processing for Specific Variables

Additional processing was needed to create infant mortality rates, life expectancy at birth, and years of potential life lost (YPLL). The processes used to calculate these variables are described in the section below.

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.

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[21] using the Human Ecology, Evolution, and Health Lab's[22] example period life table function. This function was modified to calculate life tables for each ZCTA, and to allow the life table to be calculated from submitted age stratified mortality rates. The age stratified mortality rates were calculated for each zip code by dividing the total number of deaths in a given age category from 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. It was calculated here following the method described by Dranger and Remington.[23] 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.

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[18] California Department of Public Health. (2010,2011,2012). T*en 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

[19] 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/

[20] 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

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

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

[23] Dranger, E., & Remington, P. (2004). YPPL: A Summary Measure of Premature 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

APPENDIX B – ACCESS TO CARE

The following tables list health care resources located within the Focus Communities. Organizations that may provide services to these neighborhoods but that are not physically located in the Focus Community zip codes are not included.

Table 31: Health Care Resources – North Sacramento Focus Community

Resource	Zip Code	Services Provided		
		Health Care	Behavioral Health Services	Disease Prevention & Management
American Diabetes Association	95660	X		X
Birth and Beyond Home Visitation Program- WellSpace Health	95660	X	X	
New Testament Baptist Church	95660	X	X	
Planned Parenthood North Highlands Health Center	95660	X		X
MAAP (Mexican American Alcoholism Program)	95660		X	
Alzheimer's Association	95815		X	
American Red Cross	95815	X		
Molina Healthcare	95815	X		
Health and Life Organization (HALO Cares)- Sacramento Community Clinic	95815	X	X	
AIDS Project- Rx Staffing & Home Care	95821	X	X	X
Children's Receiving Home of Sacramento	95821	X	X	
Interim HealthCare	95821	X	X	
Kaiser Permanente Sacramento Medical Center	95821	X	X	
Bayanihan Clinic	95838	X		
Mutual Assistance Network (MAN)	95838		X	
Child and Family Institute (CFI)	95838		X	
WIC Sacramento	95838	X		X
Heritage Oaks Hospital	95841	X	X	
People Reaching Out	95841		X	
River Oak Center for Children	95841		X	
Strategies for Change	95841		X	
The Salvation Army	95815, 95838	X		

Table 32: Health Care Resources – Downtown Sacramento Focus Community

Resource	Zip Code	Services Provided		
		Health Care	Behavioral Health Services	Disease Prevention & Management
Terra Nova Counseling	95811		X	
Clean and Sober Homeless Recovery Communities	95811		X	
Guest House Homeless Clinic	95811	X	X	
Loaves and Fishes	95811	X	X	
Mercy Clinic - Loaves & Fishes	95811	X		
El Hogar Community Services Inc.	95811		X	
WellSpace Health	95811	X	X	X
American Heart Association- Sacramento	95811			X
CARES Community Health	95811	X	X	
Center for Community Health and Well Being Inc. (partnered with Peach Tree Health)	95811	X		
Clinica Tepati (located within Wellspace Clinic)	95811	X		
Sacramento Native American Health Center, Inc.	95811	X	X	X
The Birthing Project Clinic- Center for Community Health and Well Being	95811	X		
Wind Youth Services	95811		X	
Women's Empowerment	95811		X	
YWCA	95811		X	X
WEAVE	95811		X	
New Beginnings Health & Wellness Center- Center for Community Health and Well Being	95811	X		
Breathe California of Sacramento- Emigrant Trails	95814	X		X
Planned Parenthood Capitol Plaza Health Center	95814	X		X
Sacramento Chinese Community Services Center (SCCS)	95814		X	
The Salvation Army- Adult Rehabilitation Center	95814		X	
Alzheimer's Association	95814		X	
The Salvation Army	95811, 95814	X		
The SOL Project- Saving Our Legacy, African Americans for Smoke-Free Safe Places	95811, 95814		X	
The Mental Health Association in California	95811, 95814		X	

Table 33: Health Care Resources – South Sacramento Focus Community

Resource	Zip Code	Services Provided		
		Health Care	Behavioral Health Services	Disease Prevention & Management
The Salvation Army	95817	X		
The Mental Health Association in California	95817		X	
River Oak Center for Children	95817		X	
Gender Health Center	95817	X	X	
Harm Reduction Services (HRS)	95817	X	X	X
Next Move	95817	X		
River Oak Family Resource Center	95817		X	
Shriner's Hospital for Children- Northern California	95817	X		
UC Davis Medical Center	95817	X	X	X
Wellspring Women's Center	95817		X	
Sacramento Children's Home	95820	X	X	
Planned Parenthood Fruitridge Health Center	95820	X		X
Sacramento Children's Home	95820		X	
New Beginnings Health & Wellness Center- Center for Community Health and Well Being	95822	X		
Center for Community Health and Well Being Inc. (partnered with Peach Tree Health)	95822	X		
The Birthing Project Clinic- Center for Community Health and Well Being	95822	X		
Sacramento City College- Dental Health Clinic	95822	X		
Southeast Asian Assistance Center	95822		X	
Kaiser Permanente South Sacramento Medical Center	95823	X		
Eskaton	95823	X	X	
WEAVE	95823		X	
Molina Healthcare	95823	X		
Another Choice Another Chance	95823		X	
Golden Rule Services	95823	X		X
Health and Life Organization (HALO Cares)- Sacramento Community Clinic	95823	X	X	
MAAP (Mexican American Alcoholism Program)	95823		X	
Boys and Girls Clubs of Greater Sacramento	95824		X	
WIC Sacramento	95817, 95822	X		X
Turning Point Community Programs	95823, 95824		X	

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