



# 2016 Sonoma County Community Health Needs Assessment

May 2016

# SONOMA COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT

## **Acknowledgements**

Conducting a large-scale community health needs assessment of the size and scope contained in this report would not be possible without the contributions of many members of our community. Sonoma County Community Health Needs Assessment Collaborative wishes to express its gratitude for the contributions made by those who participated in the development of this assessment.

## **Sonoma County Community Health Needs Assessment Steering Committee**

- KFH-Santa Rosa
- Sutter Health, Sonoma County
- St. Joseph Health—Sonoma County
- Sonoma County Department of Health Services

## **District Collaborative Partners**

- North Sonoma County Health Care District
- Palm Drive Health Care District
- Sonoma Valley Health Care District

## **Community Partners**

Convening robust focus groups with community residents was made possible by support from community organizations, including:

- La Luz Center
- Community Action Partnership (CAP) of Sonoma County
- St. Joseph Health—Sonoma County
- Russian River Area Resources and Advocates (RRARA)
- The Petaluma Health Care District and the Community Health Initiative of the Petaluma Area (CHIPA)

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## I. EXECUTIVE SUMMARY

The Sonoma County Community Health Needs Assessment Collaborative (SC CHNA Collaborative) is dedicated to improving the health of our communities with a dual focus on improving care in our health systems and in collaboration with partners to address key determinants of health in our community. The SC CHNA Collaborative also supports community health interventions, with particular focus on health equity and addressing social determinants of health, including educational attainment, economic wellness, and the built environment.

The 2016 Community Health Needs Assessment (CHNA) offers a comprehensive community health profile that encompasses the conditions that impact health in our county. Conducting a triennial Community Health Needs Assessment (CHNA) is a requirement for not-for-profit hospitals as part of the Patient Protection and Affordable Care Act (ACA).

The CHNA process provides a deep exploration of health in Sonoma County, updating and building upon work done in prior years – including the 2014 Portrait of Sonoma County, a report based on the Human Development Index that examines disparities in health, education and income by place and population in Sonoma County, and the 2013 Community Health Needs Assessment – to identify current priority health needs.

Guided by the understanding that health encompasses more than disease or illness, the 2016 CHNA process continues to utilize a comprehensive framework for understanding health that looks at ways a variety of social, environmental, and economic factors—also referred to as “social determinants” — impact health.

### A. Community Health Needs Assessment Background

The goal of the Community Health Needs Assessment is to inform and engage local decision-makers, key stakeholders and the community-at-large in collaborative efforts to improve the health and well-being of all Sonoma County residents. The development of the 2016 CHNA report has been an inclusive and comprehensive process guided by a Core Planning Team and a broadly representative Steering Committee.

Nonprofit hospitals are required to conduct the CHNA in order to maintain their tax exempt status. While many hospitals have conducted CHNAs for many years to identify needs and resources in their communities, these new requirements have provided an opportunity for hospitals to revisit their needs assessment and strategic planning processes with an eye toward enhancing compliance and transparency, and leveraging emerging technologies.

### B. Summary of Prioritized Needs

Although Sonoma County is a healthy and affluent county, especially compared to California as a whole, substantial disparities in socioeconomic status and access to opportunity present challenges for the health of Sonoma County residents.

Consideration of the nine health needs that emerged as top concerns in Sonoma County highlights the significance of social determinants of health in building a healthier and stronger community. These results align closely with county priorities and previous findings from the 2013 CHNA process and the Portrait of Sonoma County. In its entirety, this list of health needs supports the work of Health Action to foster collaboration and action among community partners, including key hospital partners, to identify cross-cutting strategies that address multiple health needs. In descending priority order, the following health needs were identified in Sonoma County; additional information about each health need can be found in Appendix A.

- 1. Early Childhood Development:** Child development includes the rapid emotional, social, and mental growth that occurs during gestation and early years of life. Adversities experienced in early

life threaten appropriate development, and may include exposure to poverty; abuse or violence in the home; limited access to appropriate learning materials and a safe, responsive environment in which to learn; or parental stress due to depression or inadequate social support.<sup>1</sup>

Exposure to early adversity is pervasive in Sonoma County. Among adults in Sonoma and Napa County (combined for stability), 22.0% report having experienced four or more unique adverse childhood experiences (ACEs) before age 18 which may including childhood abuse (emotional, physical, and sexual), neglect (emotional and physical), witnessing domestic violence, parental marital discord, and living with substance abusing, mentally ill, or criminal household members.<sup>2</sup> Key themes among residents and stakeholders included the high cost of living and high cost of child care in Sonoma County, as well as the importance of quality early education and home stability on development among young children.

- 2. Access to Education:** Educational attainment is strongly correlated to health: people with low levels of education are prone to experience poor health outcomes and stress, whereas people with more education are likely to live longer, practice healthy behaviors, experience better health outcomes, and raise healthier children.

In Sonoma County, Kindergarten readiness is used as an early metric to consider disparities in early learning. Third grade reading level is another predictor of later school success; in Sonoma County 43.0% of third grade children are scoring at or above the “Proficient” level on English Language Arts California Standards Test.<sup>3</sup> Although only 13.0% of county residents age 25+ have less than a high school diploma, extreme racial disparities exist. Among residents identifying as American Indian/Alaska Native, African American/Black, Hispanic/Latino, Native Hawaiian/Pacific Islander, and Some Other Race, a higher percentage of individuals have less than a high school diploma compared to the total population and compared to White residents.<sup>4</sup> English Language Learners are also a population of particularly high concern with respect to educational attainment. Only 39.0% of tenth grade English Language Learners passed the California High School Exit Exam in English Language Arts, compared to 86.0% of all tenth grade students in Sonoma County.<sup>5</sup> Only 55.0% of English Language Learners passed in Mathematics, compared to 87.0% of all Sonoma County tenth graders.<sup>6</sup> For all students in the county, stakeholders identified the need to increase investment in early childhood education as a pathway to reducing educational disparities and increasing overall academic success.

- 3. Economic and Housing Insecurity:** Economic resources such as jobs paying a livable wage, stable and affordable housing, as well as access to healthy food, medical care, and safe environments can impact access to opportunities to be healthy.

The high cost of living in Sonoma exacerbates issues related to economic security and stable housing. Among renters, 52.4% spend 30% or more of household income on rent.<sup>7</sup> A lack of affordable housing and a dearth of jobs paying a living wage were identified as key challenges to achieving economic and housing security in the county.

- 4. Oral Health:** Tooth and gum disease can lead to multiple health problems such as oral and facial pain, problems with the heart and other major organs, as well as digestion problems.

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<sup>1</sup> Jack P. Shonkoff and Deborah A. Phillips, eds., “From Neurons to Neighborhoods: The Science of Early Childhood Development,” National Research Council and Institute of Medicine, Committee on Integrating the Science of Early Childhood Development, National Academy Press, 2000.

<sup>2</sup> A Hidden Crisis: Findings on Adverse Childhood Experiences in California, Center for Youth Wellness, 2008-13.

<sup>3</sup> California Department of Education, Standardized Testing and Reporting (STAR) Results, 2013.

<sup>4</sup> US Census Bureau, American Community Survey, 2009-13.

<sup>5</sup> California Department of Education, 2013-14.

<sup>6</sup> California Department of Education, 2013-14.

<sup>7</sup> US Census Bureau, American Community Survey, 2014.

In Sonoma County, oral health is in part affected by lack of access to dental insurance coverage or inadequate utilization of dental care. Among adults, 38.9% do not have dental insurance coverage and may find it difficult to afford dental care.<sup>8</sup> Among adults 65 years and older, 51.8% do not have dental insurance coverage.<sup>9</sup> Among adults, 9.2% have poor dental health.<sup>10</sup> In 2014, 51% of kindergarteners and 3rd graders had tooth decay.<sup>11</sup> Residents and stakeholders highlighted the lack of dental care providers who accept Denti-Cal, as well as the lack of early prevention of oral health problems, in part due to limited access to affordable preventative care.

- 5. Access to Health Care:** Ability to utilize and pay for comprehensive, affordable, quality physical and mental health care is essential in order to maximize the prevention, early intervention, and treatment of health conditions.

With the implementation of the Affordable Care Act (ACA), many adults in Sonoma County are able to obtain insurance coverage and access regular healthcare. However, disparities persist. Specifically, lower income residents have difficulty accessing care, as many remain uninsured due to high premium costs, and those with public insurance face barriers to finding providers who accept MediCal. Foreign-born residents who are not U.S. citizens also face stark barriers in obtaining insurance coverage and accessing care. While only 10.0% of Sonoma County residents are uninsured, 18.7% of residents earning below 138% of the Federal Poverty Level and 34.2% of foreign-born residents who are not U.S. citizens do not have insurance coverage.<sup>12</sup> Among those who do have insurance coverage, primary data identified other barriers to accessing care including that there are not enough primary healthcare providers in Sonoma County to meet the high demand. Others noted difficulties in navigating the care delivery system in an efficient way.

- 6. Mental Health:** Mental health includes emotional, behavioral, and social well-being. Poor mental health, including the presence of chronic toxic stress or psychological conditions such as anxiety, depression or Post-Traumatic Stress Disorder, has profound consequences on health behavior choices and physical health.

Mental health was raised as a high concern for all residents, especially youth and residents experiencing homelessness. Most notably, Sonoma residents have a high risk of suicide. 12.3 per 100,000 county residents die by committing suicide, compared to 9.8 per 100,000 residents on average in California.<sup>13</sup> Depression is also a concern, as 31.3% of youth<sup>14</sup> and 14.1% of Medicare beneficiaries<sup>15</sup> are depressed. Residents and stakeholders noted challenges in obtaining mental health care, including that preventative mental health care and screening is limited and that stigma may prevent individuals from seeking professional treatment.

- 7. Obesity and Diabetes:** Weight that is higher than what is considered a healthy weight for a given height is described as overweight or obese.<sup>16</sup> Overweight and obesity are strongly related to stroke, heart disease, some cancers, and Type 2 diabetes.

In Sonoma County, an estimated 25.4% of adults are obese,<sup>17</sup> and 37.9% are overweight.<sup>18</sup> Among youth, 17.5% are obese and 20.0% are overweight.<sup>19</sup> Busy lifestyles and the high cost of living

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<sup>8</sup> Sonoma County Local Health Department File, California Health Interview Survey, 2013-14.

<sup>9</sup> Ibid.

<sup>10</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES, 2006-10.

<sup>11</sup> Sonoma County Smile Survey, 2014.

<sup>12</sup> US Census Bureau, American Community Survey, 2014.

<sup>13</sup> University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, Death Public Use Data, 2010-12.

<sup>14</sup> California Healthy Kids Survey, 2011-13.

<sup>15</sup> Centers for Medicare and Medicaid Services, 2012.

<sup>16</sup> <http://www.cdc.gov/obesity/adult/defining.html>

<sup>17</sup> California Health Interview Survey, 2014.

<sup>18</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES, 2011-12.

<sup>19</sup> California Department of Education, FITNESSGRAM® Physical Fitness Testing, 2013-14.

compete with purchasing and cooking healthy food. Lack of physical activity was also noted as a driver of obesity and diabetes, in part due to a lack of affordable exercise options.

- 8. Substance Use:** Use or abuse of tobacco, alcohol, prescription drugs, and illegal drugs can have profound health consequences, including increased risk of liver disease, cancer, and death from overdose.<sup>20</sup>

In Sonoma County, substance abuse was identified as a concern, particularly with respect to alcohol consumption. Among adults, 21.3% of residents report heavy alcohol consumption.<sup>21</sup> Youth were noted as a high risk population, and data indicates that in the prior 30 days 13.8% of 11<sup>th</sup> grade students reported using cigarettes, and 28.0% reported using marijuana.<sup>22</sup> Additionally, 24.4% of 11<sup>th</sup> grade students reported ever having driven after drinking.<sup>23</sup>

- 9. Violence and Unintentional Injury:** Violence and injury is a broad topic that covers many issues including motor vehicle accidents, drowning, overdose, and assault or abuse, among others.

In Sonoma County, the data show that the core issues within this health need are related to domestic violence and violent crime. Among adults, 17.1% self-report having experienced sexual or physical violence by an intimate partner during adulthood.<sup>24</sup> The county also has high rates of reported violent crime, including 28.4 incidents of rape per 100,000 population, compared to 21.0 per 100,000 residents on average in California, and 285.7 incidents of assault per 100,000 population, compared to 249.4 per 100,000 in California overall.<sup>25</sup>

### C. Summary of Needs Assessment Methodology and Process

The CHNA process used a mixed-methods approach to collect and compile data to provide a robust assessment of health in Sonoma County. A broad lens in qualitative and quantitative data allowed for the consideration of many potential health needs as well as in-depth analysis. Data sources included:

- Analysis of over 150 health indicators from publicly available data sources such as the California Health Interview Survey, American Community Survey, and the California Healthy Kids Survey. Secondary data were organized by a framework developed from Kaiser Permanente's list of potential health needs, and expanded to include a broad list of needs relevant to Sonoma County.
- Interviews with 21 key stakeholders from the local public health department, as well as leaders, representatives, and members of medically underserved, low-income, minority populations, and those with a chronic disease. Other individuals from various sectors with expertise in local health needs were also consulted.
- Five focus groups were conducted, reaching 64 residents representing different geographic regions in the county, racial/ethnic subpopulations, and age categories.

Data were used to score each health need. Potential health needs were included in the prioritization process if:

- a. At least two distinct indicators reviewed in secondary data demonstrated that the county estimate was greater than 1% "worse" than the benchmark comparison estimate (in most cases, California state average);
- b. Health issue was identified as a key theme in at least eight interviews; and

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<sup>20</sup> <http://www.cdc.gov/drugoverdose/epidemic/index.html>; <http://www.cdc.gov/alcohol/fact-sheets/womens-health.htm>; <http://www.cdc.gov/alcohol/fact-sheets/mens-health.htm>

<sup>21</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse, 2006-12.

<sup>22</sup> California Healthy Kids Survey, 2011-13.

<sup>23</sup> California Healthy Kids Survey, 2011-13. Survey asks question about "respondent or a friend."

<sup>24</sup> California Health Interview Survey, 2009.

<sup>25</sup> Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Inter-university Consortium for Political and Social Research, 2010-12.



- c. Health issue was identified as a key theme in at least two focus groups.

The CHNA Core Planning Team with additional hospital representatives was convened on November 20, 2015, to review the health needs identified, discuss the key findings from CHNA, and prioritize top health issues that need to be addressed in the County. The group utilized the Criteria Weighting Method, which enabled consideration of each health area using four criteria: severity; disparities; impact; and prevention.

The CHNA is an important first step towards taking action to effect positive changes in the health and well-being of county residents. Each hospital will develop an implementation strategy for the priority health needs the hospital will address. These strategies will build on their assets and resources, as well as evidence-based strategies, wherever possible. In alignment with the hospital implementation plans, Health Action will use this report for strategic planning and developing cross-sector approaches to address key health needs.

The CHNA, Health Action strategic plans, and the hospital-specific implementation strategies will provide the impetus for concerted action in a strategic, innovative, and equitable way.

## II. INTRODUCTION/BACKGROUND

The SC CHNA Collaborative is dedicated to improving the health of our communities with a dual focus on improving care in our health systems and in collaboration with partners to address key determinants of health in our community. Within and amongst health system partners, the SC CHNA Collaborative aims to improve health through high quality care and continuous quality improvement and innovation in the care we deliver, clinical research, workforce development, and health promotion. The SC CHNA Collaborative also supports community health interventions, with particular focus on health equity and addressing social determinants of health, including educational attainment, economic wellness, and the built environment.

Our work in the community takes an equity-based, prevention-focused, evidence-based approach to address multiple determinants of health. We recognize that a healthy community encompasses access to high quality healthcare, access to healthy and nutritious food in neighborhood stores, clean air, access to quality educational opportunities and economically stable and mobile jobs, and safe parks, homes and neighborhoods, among many other factors.

The CHNA process provides a deep exploration of health in Sonoma County, updating and building upon work done in prior years – including the 2014 *Portrait of Sonoma County*, a report based on the Human Development Index that examines disparities in health, education and income by place and population in Sonoma County, and the 2013 Community Health Needs Assessment – to identify current priority health needs.

The current CHNA process considers a broad view of health, closely aligning with the previous work of the *Portrait of Sonoma County*. The *Portrait of Sonoma County* provided findings regarding key vulnerable communities within the county, which strongly informed the primary data collection sampling plans for the current CHNA process in order to better understand the needs of these communities. Many of the needs identified in the 2016 CHNA also align with the 2013 Community Health Needs Assessment priority areas. 2013 health needs that remain salient themes in the 2016 CHNA results include: healthy eating and physical fitness; gaps in access to primary care; access to substance use disorder services; access to mental health services; disparities in education attainment; adverse childhood experiences (ACEs); access to health care coverage; tobacco use; and disparities in oral health.

While the leading causes of death in California remain chronic conditions, evidence indicates that addressing and improving social and environmental conditions will have a positive impact on trends in

morbidity and mortality, and diminish disparities in health.<sup>26</sup> Many chronic diseases and conditions are caused in part by preventable factors such as poor diet and physical inactivity, and there is growing awareness of the important link between how communities are structured and the opportunities for people to lead safe, active, and healthy lifestyles. Guided by the understanding that health encompasses more than disease or illness, the 2016 CHNA process continues to utilize a comprehensive framework for understanding health that looks at ways a variety of social, environmental, and economic factors—also referred to as “social determinants”—impact health. Thus, the CHNA process identifies top health needs (including social determinants of health) in the community, and analyzes a broad range of social, economic, environmental, behavioral, and clinical care factors that may act as contributing drivers—or contributing risk factors—of each health need.

In addition to considering a broad definition of county-wide health, this assessment explored the particular impact of identified health issues among vulnerable populations which may bear disproportionate risk across multiple health needs. These populations may be residents of particular geographic areas, or may represent particular races, ethnicities, or age groups. In striving towards health equity, the SC CHNA Collaborative placed strong emphasis on the needs of high-risk populations in the process of identifying health needs and as a criterion for prioritization.

The health needs prioritized in the 2016 Community Health Needs Assessment are:

- Early childhood development
- Access to education
- Economic and housing insecurity
- Oral health
- Access to health care
- Mental health
- Obesity and diabetes
- Substance use
- Violence and unintentional injury

With the passage of the Patient Protection and ACA, completion of a CHNA has been codified into the Internal Revenue Code and required to assure not-for-profit hospitals maintain their 501(c)(3) status. The Code requires the CHNA and subsequent documents to include:

- Data research & prioritization of identified health needs
- Report on findings
- Implementation plan

The Sonoma County Department of Health Services (DHS), along with KFH—Santa Rosa, St. Joseph Health—Sonoma County, and Sutter Health, Sonoma County, form the SC CHNA Collaborative, which worked together with partners at Healdsburg District Hospital, Palm Drive Hospital, and Sonoma Valley Hospital on the 2016 CHNA process. Many of the SC CHNA Collaborative partners are also key leaders of Health Action, Sonoma County’s collective impact effort aimed at improving the health of all residents, for which the Department of Health Services provides backbone support.

In order to identify health needs, the SC CHNA Collaborative utilized a mixed-methods approach, examining existing or secondary data sources, as well as speaking to community leaders and residents, to understand key health issues in Sonoma County. The SC CHNA Collaborative and the consulting team reviewed secondary data available through the Kaiser Permanente CHNA data platform and compiled additional data from national, statewide, and local sources to provide a more complete picture of health in Sonoma County. These data were compared to benchmark data and analyzed to identify potential areas of need. In addition, the consulting team collected and analyzed

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<sup>26</sup> Centers for Disease Control and Prevention (CDC). CDC Health Disparities and Inequalities Report — United States, 2013. MMWR. Morbidity and Mortality Weekly Report Vol. 62, No. 3. Retrieved from <http://www.cdc.gov/mmwr/pdf/other/su6203.pdf>.

primary data about issues that most impact the health of the community, as well as existing resources and new ideas to address those needs, from community members and local experts across sectors (e.g., public health, education, and government). The scored quantitative data and coded qualitative data were triangulated to identify the top health needs in the county. Once these health needs were identified, a cross-sector group of stakeholders reviewed summarized data in health need profiles (see Appendix A) and prioritized the health needs based on criteria identified by the SC CHNA Collaborative. The resulting prioritized community health needs are presented in this report.

### **III. BACKGROUND ON CHNA STEERING COMMITTEE MEMBERS**

The following partner hospitals and organizations have worked closely together throughout the CHNA to ensure the report complied with the requirements of the Affordable Care Act and included data to inform the development of effective implementation strategies.

#### **A. About the Department of Health Services**

The mission of the Sonoma County Department of Health Services is to promote and protect the health and well-being of every member of the community. The Department coordinates and delivers health services and supports the programs and services that promote and protect the health of all residents by providing direct services, building and managing strategic partnerships, and developing and advocating for sound policies that help meet community health needs. The Department works across a Public Health Division, Behavioral Health Division, Health Policy, Planning and Evaluation Division and Administration Unit to deliver high-quality services and support in partnership with community organizations, county and city agencies, residents and others to ensure the health of all Sonoma County residents.

#### **B. About Kaiser Permanente**

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

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

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

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

#### **C. About Kaiser Permanente Community Benefit**

For more than 70 years, Kaiser Permanente has been dedicated to providing high-quality, affordable health care services and to improving the health of their members and the communities they serve. They believe that good health is a fundamental right shared by all and they recognize that good health

extends beyond the doctor's office and the hospital. It begins with healthy environments: fresh fruits and vegetables in neighborhood stores, successful schools, clean air, accessible parks, and safe playgrounds. These are the vital signs of healthy communities. Good health for the entire community, which they call Total Community Health, requires equity as well as social and economic well-being.

Like their approach to medicine, Kaiser Permanente's work in the community takes a prevention-focused, evidence-based approach. They go beyond traditional corporate philanthropy or grantmaking to pair financial resources with medical research, physician expertise, and clinical practices. Historically, they have focused their investments in three areas—Health Access, Healthy Communities, and Health Knowledge—to address critical health issues in our communities.

For many years, they have worked side-by-side with other organizations to address serious public health issues such as obesity, access to care, and violence. They have conducted Community Health Needs Assessments to better understand each community's unique needs and resources. The CHNA process informs their community investments and helps them develop strategies aimed at making long-term, sustainable change—and it allows them to deepen the strong relationships they have with other organizations that are working to improve community health.

#### **D. About Sutter Health, Sonoma County**

The legacy of Sutter Santa Rosa Regional Hospital started in 1867, as a small community hospital on the corner of Humbolt and Cherry streets in Santa Rosa. Heeding cries to move the facility outside of city limits, the County of Sonoma purchased land just north of town and built a hospital on Chanate Road in 1936. A new wing was added to modernize the facility in 1956 and further expansion included a four-story wing, increasing the hospital's capacity. In 1996, Sutter Health agreed to improve the aging County medical center, expand services and ultimately build a modern replacement hospital that met new earthquake safety standards.

Sutter Santa Rosa Regional Hospital fulfills that promise and provides state-of-the-art health care for the region. The new facility—which opened in fall of 2014—is located at 30 Mark West Springs Road and is accredited by the Joint Commission and consistently ranks among the top hospitals in the region according to independent quality rating organizations.

Sutter Santa Rosa Regional Hospital is part of Sutter Health, a not-for-profit network of hospitals, doctors and nurses who share expertise and resources to advance health care quality. Other Sutter affiliates in Sonoma County include Sutter Pacific Medical Foundation, Sutter Care At Home, and Sutter Health Plus (Sutter Health's new insurance plan), all working together to ensure a high quality, patient-centered continuum of care.

Sutter Santa Rosa Regional Hospital is licensed by the State of California Department of Health Services to operate 84 acute care beds and is accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) and the California Medical Association.

Sutter Health is committed to giving back to the community in response to identified health priorities. In 2015, the quantifiable value of the community benefit programs provided or supported by Sutter Santa Rosa Regional Hospital (SSRRH) was \$21,489,285 which includes nearly \$1.7 million in charity care write-offs to uninsured people who receive care in the Emergency Department or hospital and nearly \$8 million in unreimbursed costs of care for patients on public programs.

The most significant community benefit program is their Family Medicine Residency Training Program. This three year program graduates twelve primary care physicians each year, about half of whom stay and practice in their community. Also, about 75% of the local Federally Qualified Health Centers are staffed by graduates of the program.

## **E. About St. Joseph Health—Sonoma County**

St. Joseph Health—Sonoma County (SJH—SC), founded by the Sisters of St. Joseph of Orange, has been serving the healthcare needs of families in the community for more than 60 years. Part of a statewide network of hospitals and clinics known as SJH—SC operates two hospitals, urgent care and community clinics, hospice, home health services, and other facilities for treating the healthcare needs of the community in Sonoma County and the region. Its core facilities are Petaluma Valley Hospital, an 80—bed acute care hospital, and Santa Rosa Memorial Hospital (SRM), a full service 289—bed acute care hospital that includes a Level II trauma center for the coastal region that extends from San Francisco to the Oregon border.

As a values-based organization, St. Joseph Health has a long—standing commitment to the communities it serves. SJH works under the premise of “Value Standards.” SJH Value Standard Seven (Community Benefit) states: “We commit resources to improving the quality of life in the communities we serve, with special emphasis on the needs of the poor and underserved.” Ten percent of the net income is dedicated to community benefit. In Sonoma County, SRM’s Community Benefit Department integrates actions through Strategic Elements that address the political, social, behavioral and physiological determinants of health: Healthy Communities, Community Health and Advocacy. The primary strategies employed to address community needs are community capacity building, improving health outcomes for vulnerable populations, and reducing social isolation of special populations.

Community Benefit programs and clinics include: Neighborhood Care Staff community organizing program, Agents of Change Training in Our Neighborhoods leadership training, Circle of Sisters after-school program, St. Joseph Mobile Health Clinic, House Calls/Home Sweet Home, Promotores de Salud health promotion program, St. Joseph Dental Clinic, Cultivando la Salud Mobile Dental Clinic, and Mighty Mouth dental disease prevention program. Given the changing context for its work, SJH, Petaluma Valley Hospital anticipates the need for a flexible approach in its response to community needs. For example, certain community health needs may become more pronounced and require changes to the initiatives identified by SRM in the Community Benefit Plan/Implementation Strategy.

## **F. About Healdsburg Health District**

Healdsburg District Hospital (HDH) was founded in 1905 and is now operated by the North Sonoma County Healthcare District. The district was formed in 2001 and began operating the hospital in 2002. Governance is by a five-member, publicly elected board, each serving four-year terms. The North Sonoma County Healthcare District and Healdsburg District Hospital continue to enjoy immense community support, with voters in the district twice approving parcel tax measures to fund hospital operations. The North Sonoma County Healthcare District is mainly comprised of Windsor, Healdsburg, Geyserville, Cloverdale and the surrounding areas, totaling approximately 60,000 residents. The hospital currently serves over 10,000 patients a year.

## **G. About Palm Drive Health Care District**

The Palm Drive Health Care District was formed in April 2000 and is a government entity of the State of California. It serves 50,000 people who live in western Sonoma County, including the communities of: Sebastopol, Graton, Forestville, Bodega Bay, Carmet, Salmon Creek, Jenner, Duncan’s Mills, Guerneville, Occidental, Freestone, Rio Nido, Monte Rio, Guerneville Park, Summerhome, and Mirabel Park.

The District’s primary mission is to deliver access to quality, compassionate health services responsive to the needs of the District. The district fulfills this mission through ownership of Sonoma West Medical Center (formerly Palm Drive Hospital), and through partnerships with community-based providers of health and wellness information, classes, services, and other programs. The vision of the district is to improve the health of our diverse west county populations through engagement with these populations. The values that the district holds in pursuing its mission and vision are integrity, leadership, caring and perseverance.

## **H. About Sonoma Valley Hospital**

Sonoma Valley Hospital is a 75-bed, full-service acute care district hospital with an outstanding staff of health care professionals located in the City of Sonoma and serving the entire Sonoma Valley. In 2016, the Sonoma Valley Health Care District is celebrating its 70th anniversary. Recently, the Hospital completed an extensive renovation that included the addition of a new wing housing a state-of-the-art Emergency Department and Surgery Center.

Sonoma Valley Hospital has a strong commitment to the communities they serve. In recent years, they have developed extensive outreach programs, many in partnership with other Sonoma Valley organizations, which reinforce their mission to maintain, improve and restore the health of everyone in their District. They also offer a wellness program that promotes improved health and wellbeing both in the Hospital and the community.

Sonoma Valley Hospital services encompass the whole spectrum of health care needs, and their medical treatment extends to all but the most specialized issues. They are different from many hospitals in that they have a Skilled Nursing Facility and a Skilled Home Health Care service. They also provide Outpatient Rehabilitation and Outpatient Diagnostic services.

## **I. About Health Action**

Health Action is a partnership of local leaders, organizations and individuals committed to creating a healthier community through collective action. The Sonoma County Department of Health Services (DHS) convened Health Action in 2007 as a catalyst to improve the health of the community. Recognizing that large-scale social change would require significant cross-sector coordination and collaboration, Health Action set out with the following goals:

- Engage a broad spectrum of stakeholders to lead a community dialogue about community health issues
- Enrich the collective understanding of local health issues and solutions
- Create a shared vision for community health improvement based on the multiple determinants of health
- Offer leadership to develop and implement initiatives and policies to create a healthy community

Health Action's vision is that, by the year 2020, Sonoma County is a healthy place to live, work and play: a place where people thrive and achieve their life potential. Health Action mobilizes community partnerships and resources to focus on opportunities for action that are most likely to improve health status and health equity.

The goal of the current Health Action Plan (2013-2016) is to foster collaboration and bold action across three broad priorities of educational attainment, economic wellness and health system improvement. A Council of key community leaders, three cross-sector subcommittees focused on the priority areas, and a network of place-based Health Action Chapters are charged with understanding key needs, planning to establish outcomes and strategies to improve health, and directing investments, program strategy and policy toward meeting those outcomes. The three sub-committees are:

- Educational Attainment: New planning and mobilization to increase educational attainment in Sonoma County
- Strengthening Primary Care and Coordination of Care across the continuum of local providers: A continuation and expansion of the work of the Primary Care Workgroup, an ad hoc workgroup of Health Action
- Economic Security: Strategic support of current efforts to assure that community members have sufficient income and the ability to have control of their life situation

## **J. Purpose of the Community Health Needs Assessment Report**

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

## **K. Sonoma County's Approach to Community Health Needs Assessment**

The new federal CHNA requirements have provided an opportunity to revisit our needs assessment and strategic planning processes with an eye toward enhanced compliance and transparency, and leveraging emerging technologies. Our intention is to develop and implement a rigorous, collaborative approach to understanding the needs and assets in our communities.

The SC CHNA Collaborative's approach to the needs assessment includes the use of Kaiser Permanente's free, web-based CHNA data platform that is available to the public. The data platform provides access to a core set of approximately 150 publicly available indicators to understand health through a framework that includes social and economic factors; health behaviors; physical environment; clinical care; and health outcomes.

In addition to reviewing the secondary data available through the Kaiser Permanente CHNA data platform, and other sources of secondary data, the SC CHNA Collaborative collected primary data through key informant interviews and focus groups. Primary data collection consisted of reaching out to local health experts, community leaders, and residents to identify issues that most impacted the health of the community. The CHNA process also included an identification of existing community assets and resources to address the health needs.

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

In conjunction with this report, each hospital will develop an implementation strategy for the priority health needs the hospital will address. These strategies will build on the hospital's assets and resources, as well as on evidence-based strategies, wherever possible. The Implementation Strategy will be filed with the Internal Revenue Service using Form 990 Schedule H. Both the CHNA and the Implementation Strategy, once finalized, will be posted publicly on all hospital websites. In alignment with the hospital implementation plans, Health Action will use this report for strategic planning and developing cross-sector approaches to address key health needs.

## **IV. COMMUNITY SERVED**

In order to determine the health needs of the SC CHNA Collaborative's member hospital service areas, it is first important to understand the communities of interest. The following section describes the service area community by geography, demographics, and socioeconomic indicators, as well as indicators of overall health, and climate and the physical environment.

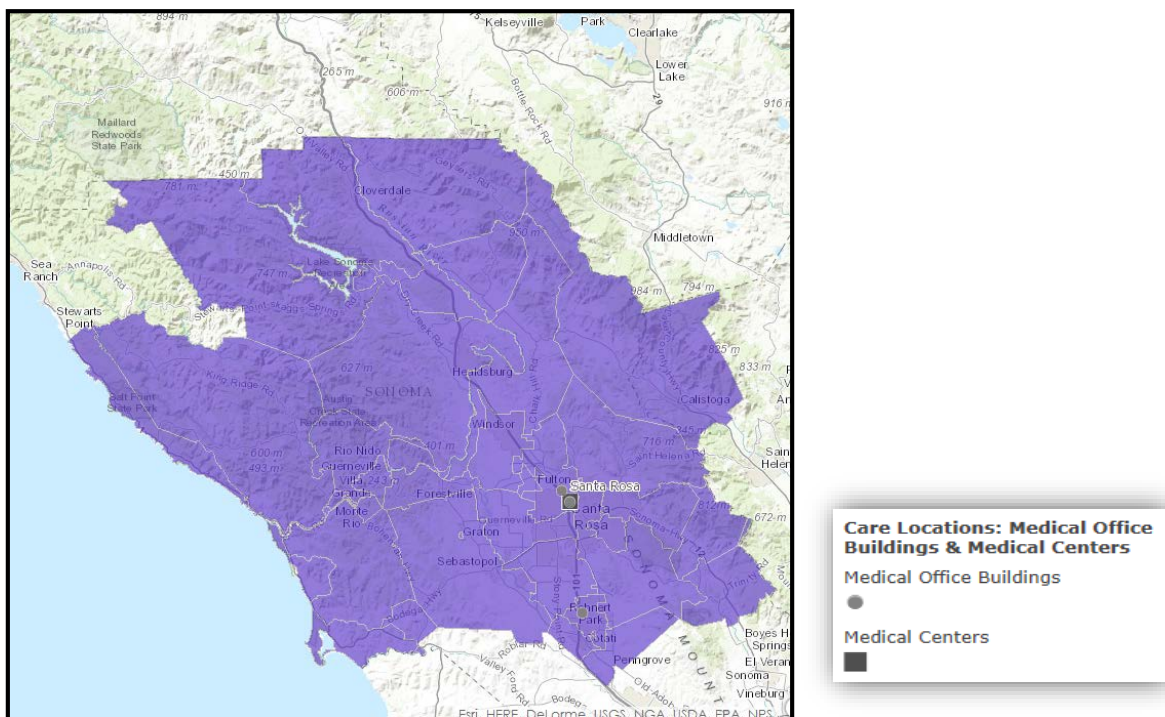
### **A. Definition of Community Served**

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

## B. Map and Description of Community Served

### i. Map

The map below depicts KFH-Santa Rosa's service area.



### ii. Geographic Description of the Communities Served

**Sutter Health, Sonoma County** service area is Sonoma County.

**St. Joseph Health—Sonoma County** primary service area includes the cities of Santa Rosa, Sebastopol, Windsor, Forestville, Rohnert Park, and Cotati/Penngrove. The secondary service area includes all of Sonoma County, Ukiah to the north of Mendocino County, and northern Marin County to the south. The hospital is home to the region's Level II Trauma Center serving the entire Coastal Valleys area, including Sonoma, Napa, Mendocino and Lake Counties, as well as coastal Marin County.

**The KFH—Santa Rosa** service area includes most of Sonoma County, except for a small southern portion of Sonoma County in KFH—San Rafael's service area that includes the city of Petaluma, and a small section of Napa County. Cities in this area include Cloverdale, Cotati, Healdsburg, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, and Windsor.

Using the Kaiser Permanente Data Platform, a comparison was done between Sonoma County and these service areas. No notable differences in health status exist, so for the purpose of this assessment all hospitals in the SC CHNA Collaborative consider the service area to be Sonoma County.

### iii. Demographic Profile



The following data provide an overall picture of the Sonoma County population. Demographic and socioeconomic data present a general profile of residents, while overall health indicators present an assessment of the health of the county. Key drivers of health (e.g., healthcare insurance, education, and poverty) illuminate important upstream conditions that affect the health of Sonoma County today and into the future. Finally, climate and physical environment indicators complement these socioeconomic indicators to provide a comprehensive understanding of the determinants of health in Sonoma County. All indicators include California comparison data as a benchmark to determine disparities between Sonoma County and the state. Healthy People 2020 benchmarks are also included when available.

<b>Sonoma County and California Demographic and Socioeconomic Data<sup>27</sup></b>		
<b>Indicator</b>	<b>Sonoma County</b>	<b>California</b>
<i>Demographic and Socioeconomic Information</i>		
Total Population	487,469	37,659,181
Median Age	40.2 years	35.4 years
Under 18 Years Old	25.3%	24.5%
65 Years and Older	14.7%	11.5%
White	80.0%	62.3%
Hispanic/Latino	25.2%	37.9%
Some Other Race	9.2%	12.9%
Asian	4.0%	13.3%
Multiple Races	3.6%	4.32%
Black	1.6%	6.0%
Native American/ Alaskan Native	1.3%	0.8%
Pacific Islander/ Native Hawaiian	0.4%	0.4%
Median Household Income <sup>28</sup>	\$67,771	\$61,933
Unemployment <sup>29</sup>	5.0%	6.8%
Linguistically Isolated Households	5.6%	10.3%
Renters Spending ≥30% of Household Income on Rent <sup>30</sup>	52.4%	53.8%

Although Sonoma County is a healthy and affluent county, especially compared to California as a whole, substantial disparities in socioeconomic status and access to opportunity present challenges for the health of Sonoma County residents. The *Portrait of Sonoma County* assessed overall health in the county as well as explored notable geographic disparities. For example, the *Portrait of Sonoma County* identified that life expectancies in the top and bottom census tracts vary by an entire decade. The top five tracts are Central Bennett Valley (85.7 years), Sea Ranch/Timber Cove and Jenner/Cazadero (both 84.8 years), Annadel/South Oakmont and North Oakmont/Hood Mountain (both 84.3 years), and West Sebastopol/Graton (84.1 years). Other areas have far lower life expectancies, including Bicentennial Park (77.0 years), Sheppard (76.6 years), Burbank Gardens (76.0 years), Downtown Santa Rosa (75.5 years), and Kenwood/Glen Ellen (75.2 years). Higher life expectancy was correlated with higher educational attainment and enrollment. This and

<sup>27</sup> Unless noted otherwise, all data presented in this table is from the US Census Bureau, 2009-2013 American Community Survey 5-Year Estimate.

<sup>28</sup> US Census Bureau, 2014 American Community Survey.

<sup>29</sup> US Department of Labor, Bureau of Labor Statistics, June 2015.

<sup>30</sup> US Census Bureau, 2014 American Community Survey.

other indications of health disparity in Sonoma County informed areas of high need to be considered most closely in the CHNA process.

Sonoma County and California Health Profile Data <sup>31</sup>			
Indicator	Sonoma County	California	HP 2020 Benchmark <sup>32</sup>
<i>Overall Health</i>			
Diabetes Prevalence (Age-Adjusted) <sup>33</sup>	6.0%	8.1%	—
Adult Asthma Prevalence <sup>34</sup>	19.8%	14.2%	—
Adult Heart Disease Prevalence <sup>35</sup>	7.6%	6.3%	—
Poor Mental Health <sup>36</sup>	15.2%	15.9%	—
Adults with Self-Reported Poor or Fair Health (Age-Adjusted) <sup>37</sup>	22.0%	18.4%	—
Adult Obesity Prevalence (BMI > 30) <sup>38</sup>	25.4%	27.0%	≤ 30.5%
Child Obesity Prevalence (Grades 5, 7, 9) (BMI>30) <sup>39</sup>	17.5%	19.0%	≤ 16.1%
Adults with a Disability <sup>40</sup>	29.6%	28.5%	—
Infant Mortality Rate (per 1,000 births) <sup>41</sup>	4.2	5.0	≤ 6.0
All-Cancer Mortality Rate (Age-Adjusted) (per 100,000 pop.) <sup>42</sup>	159.1	151.0	≤ 161.4
<i>Key Drivers of Health</i>			
Living in Poverty (<200% FPL)	29.3%	35.9%	—
Children in Poverty (<100% FPL) <sup>43</sup>	12.8%	22.7%	—
Age 25+ with No High School Diploma <sup>44</sup>	13.2%	18.5%	—
High School Graduation Rate <sup>45</sup>	81.6	80.4%	≥ 82.4%
3 <sup>rd</sup> Grade Reading Proficiency <sup>46</sup>	43.0%	45.0%	—
Percent of Population Uninsured	14.1%	17.8%	—

<sup>31</sup> Unless noted otherwise, all data presented in this table is from the US Census Bureau, 2009-2013 American Community Survey 5-Year Estimate.

<sup>32</sup> Whenever available, Healthy People 2020 Benchmarks are provided. Healthy People 2020. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.

<sup>33</sup> Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2012.

<sup>34</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional analysis by CARES, 2011-2012.

<sup>35</sup> California Health Interview Survey, 2011-2012.

<sup>36</sup> California Health Interview Survey, 2013-2014; Indicator is adults needing to see a professional because of problems with mental health, emotions, nerves, or use of alcohol or drugs.

<sup>37</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse, 2006-2012.

<sup>38</sup> Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2012.

<sup>39</sup> California Department of Education, FITNESSGRAM® Physical Fitness Testing, 2013-2014.

<sup>40</sup> California Health Interview Survey, 2014.

<sup>41</sup> Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. Centers for Disease Control and Prevention, Wide-Ranging Online Data for Epidemiologic Research, 2006-2010.

<sup>42</sup> California Department of Public Health, 2011-13.

<sup>43</sup> US Census Bureau, 2014 American Community Survey 1-Year Estimate.

<sup>44</sup> US Census Bureau, 2010-2014 American Community Survey 5-Year Estimate.

<sup>45</sup> California Department of Education, 2013.

<sup>46</sup> Standardized Testing and Reporting (STAR) Results, 2010-11 and 2012-13, from California Department of Education, Accessed via kidsdata.org, 2013.

Sonoma County and California Health Profile Data <sup>31</sup>			
Percent of Insured Population Receiving Medi-Cal/Medicaid <sup>47</sup>	18.2%	14.0%	—
<i>Climate and Physical Environment</i>			
Days Exceeding Particulate Matter 2.5 (Pop. Adjusted) <sup>48</sup>	5.6%	4.2%	—
Days Exceeding Ozone Standards (Pop. Adjusted) <sup>49</sup>	0.0%	2.5%	—
Weeks in Drought <sup>50</sup>	92.7%	92.8%	—
Total Road Network Density (Road Miles per Acre) <sup>51</sup>	1.9	4.3	—
Pounds of Pesticides Applied <sup>52</sup>	2,172,032	193,597,806	—
Population within Half Mile of Public Transit <sup>53</sup>	12.1%	15.5%	—

## V. COLLABORATIVE PARTNERS

The Sonoma County CHNA was a collaborative effort that included not only Sonoma’s hospitals but also partner organizations and individuals throughout the community who worked alongside consultants to collect and analyze data and ultimately produce this report.

### A. Institutions That Collaborated on the Assessment

Sonoma County’s primary hospitals (KFH—Santa Rosa, St. Joseph Health—Sonoma County, Sutter Health) worked in collaboration to complete a county-wide CHNA. Representatives from these institutions, joined by representatives from Sonoma County Department of Health Services, formed the 2016 Sonoma County Community Health Needs Assessment Collaborative. The SC CHNA Collaborative was supported by partners from Sonoma County District Hospitals, including Healdsburg Health District, Palm Drive Health Care District, and Sonoma Valley Hospital.

### B. Identity and Qualifications of Consultants Used to Conduct the Assessment

- Harder+Company Community Research:** Harder+Company Community Research (Harder+Company) is a comprehensive social research and planning firm with offices in San Francisco, Sacramento, Los Angeles, and San Diego. Harder+Company works with public sector, nonprofit, and philanthropic clients nationwide to reveal new insights about the nature and impact of their work. Through high-quality, culturally-based evaluation, planning, and consulting services, Harder+Company helps organizations translate data into meaningful action. Since 1986, Harder+Company has worked with health and human service agencies throughout California and the country to plan, evaluate, and improve services for vulnerable populations. The firm’s staff offers deep experience assisting hospitals, health departments, and other health agencies on a variety of efforts – including conducting needs assessments; developing and operationalizing strategic plans; engaging and gathering meaningful input from community members; and using data for program development and implementation. Harder+Company offers considerable expertise in broad community participation

<sup>47</sup> US Census Bureau, 2014 American Community Survey 1-Year Estimate.

<sup>48</sup> Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network, 2008.

<sup>49</sup> Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network, 2008.

<sup>50</sup> US Drought Monitor, 2012-2014.

<sup>51</sup> Environmental Protection Agency, EPA Smart Location Database, 2011.

<sup>52</sup> California Department of Pesticide Regulation (CDPR), 2013.

<sup>53</sup> Environmental Protection Agency, EPA Smart Location Database, 2011.

which is essential to both healthcare reform and the CHNA process in particular. Harder+Company is also the consultant on several other CHNAs throughout the state including in Napa, San Joaquin, and Marin County.

## **VI. PROCESS AND METHODS USED TO CONDUCT THE CHNA**

The SC CHNA Collaborative used a mixed-methods approach to collect and compile data to provide a robust assessment of health in Sonoma County. A broad lens of qualitative and quantitative data allowed for the consideration of many potential health needs as well as in-depth analysis. The following section outlines the data collection and analysis methods used to conduct the CHNA.

### **A. Secondary Data**

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

The SC CHNA Collaborative used the Kaiser Permanente (KP) CHNA Data Platform ([www.chna.org/kp](http://www.chna.org/kp)) to review over 150 indicators from publicly available data sources. Additional secondary data were compiled and reviewed from existing sources including California Health Interview Survey, American Community Survey, and California Healthy Kids Survey, among other sources. Where more recent data were readily available and current estimates were critical to assessing changing landscapes such as health insurance status, Kaiser Permanente CHNA Data Platform information was replaced with new data as it was publicly released, to reflect more recent data. In addition to statewide and national survey data, previous CHNAs and other relevant external reports were reviewed to identify additional existing data on additional indicators at the county level. For details on the specific source and years for each indicator reported, please see Appendix B.

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

Secondary data were considered in broad areas of potential health needs. The list of potential health needs considered in this process was developed from Kaiser Permanente's list of potential health needs, which was based on the most commonly identified health needs from the 2013 CHNA cycle, and expanded to include other needs relevant to Sonoma County. The consulting team and SC CHNA Collaborative finalized this framework in advance of analysis.

Where available, Sonoma County data were considered alongside relevant benchmarks including California state average, Healthy People 2020, and the United States average. Each indicator was compared to a relevant benchmark, most often the California state average. If no appropriate benchmark was available, the indicator could not be considered in criteria to identify health needs, but is presented in the final data book (Appendix B) and was used to provide supplementary information about identified health needs. In areas of particular health concern, data were also collected at smaller geographies, where available, to allow for more in-depth analysis and identification of community health issues. Data on gender and race/ethnicity breakdowns were analyzed for key indicators within each broad health need where subpopulation estimates were available.

### **B. Community Input**

#### **i. Description of the community input process**

Community input was provided by a broad range of community members and leaders through key informant interviews and focus groups.

Individuals identified by the SC CHNA Collaborative as having valuable knowledge, information, and expertise relevant to the health needs of the community were interviewed. Interviewees included representatives from the local public health department, as well as members of medically underserved, low-income, chronically diseased, and minority populations. Other individuals from various sectors with expertise of local health needs were also consulted. A total of 21 key informant interviews were conducted during this needs assessment. For a complete list of individuals who provided input, see Appendix C.

Additionally, five focus groups were conducted throughout Sonoma County, reaching 64 residents. These groups were intentionally sampled to reach residents in specific geographic regions identified as areas of high concern in the *Portrait of Sonoma County* report. These subpopulations included residents in Petaluma, the Boyes Hot Springs in Sonoma Valley, Cloverdale, Roseland in Southwest Santa Rosa, and the Russian River area. Focus groups were monolingual, and the language of facilitation was selected to encourage participation from the target population for each conversation. The SC CHNA Collaborative worked closely with community organizations to ensure that the location and language of facilitation selected was appropriate and convenient for residents in each community. Groups in Cloverdale and the Boyes Hot Springs in Sonoma Valley were conducted in Spanish; all others were conducted in English.

Community partners provided invaluable assistance in recruiting and enrolling focus group participants. Many individuals who participated in focus groups identified as leaders, representatives, or members of medically underserved, low-income, chronically diseased, and minority populations. For more information about specific populations reached in focus groups, see Appendix C.

## **ii. Methodology for collection and interpretation of qualitative data**

Interview and focus group protocols were developed by the consulting team and reviewed by the SC CHNA Collaborative, and were designed to inquire about top health needs in the community, as well as a broad range of social, economic, environmental, behavioral, and clinical care factors that may act as contributing drivers of each health need. For more information about data collection protocols, see Appendix D.

All qualitative data were coded and analyzed using ATLAS.ti software. A codebook with robust definitions was developed to code transcripts for information related to each potential health need, as well as to identify comments related to specific drivers of health needs, subpopulations or geographic regions disproportionately affected, existing assets or resources, and community recommendations for change. At the onset of analysis, one interview transcript and one focus group transcript were coded by the entire analysis team to ensure inter-coder reliability and minimize bias.

Transcripts were analyzed to examine the health needs identified by the interviewee or group participants. Health need identification in qualitative data was based on the number of interviewees or groups who referenced each health need as a concern, regardless of the number of mentions of that particular health need within each transcript.

### C. Written Comments

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

As of the time of this CHNA report development, KFH Santa Rosa had not received written comments about previous CHNA Reports. Kaiser Permanente will continue to track any submitted written comments and ensure that relevant submissions will be considered and addressed by the appropriate Facility staff.

Sutter Health provided the public an opportunity to submit written comments on the facility's previous CHNA Report through *our website* at [http://www.suttersantarosa.org/relations/community\\_benefits.html](http://www.suttersantarosa.org/relations/community_benefits.html). This website will continue to allow for written community input on the facility's most recently conducted CHNA Report.

As of the time of this CHNA report development, Sutter Santa Rosa Regional Hospital had not received written comments about previous CHNA Reports. Sutter will continue to track any submitted written comments and ensure that relevant submissions will be considered and addressed by the appropriate Facility staff.

### D. Data Limitations and Information Gaps

The Kaiser Permanente CHNA data platform includes approximately 150 secondary indicators that provide timely, comprehensive data to identify the broad health needs faced by a community. While changes to the platform are ongoing, the data presented in this report reflect estimates presented on the Kaiser Permanente CHNA data platform on December 2, 2015. Supplementary secondary data were obtained from reliable data platforms including U.S. Census Bureau American FactFinder, AskCHIS, and others. However, as with any secondary data estimates, there are some limitations with regard to this information. With attention to these limitations, the process of identifying health needs was based on triangulating primary data and multiple indicators of secondary data estimates. The following considerations may result in unavoidable bias in the analysis:

- Some relevant drivers of health needs could not be explored in secondary data because information was not available—for example, only limited information was available about the rising cost of housing and increasing pressures of gentrification.
- Many data were available at only a county level, making an assessment of health needs at a neighborhood level challenging. Furthermore, disaggregated data around age, ethnicity, race, and gender are not available for all data indicators, limiting the ability to examine disparities of health within the community. For a more in-depth analysis of sub-county data, please see the *Portrait of Sonoma County* report.
- In all cases where secondary data estimates by race/ethnicity are reported, the categories presented reflect those collected by the original data source, which yields inconsistencies in racial labels within this report.
- For some county level indicators, data are available but reported estimates are statistically unstable; in this case estimates are reported but instability is noted.
- Secondary data are subject to differences in rounding from different data sources: i.e., Kaiser Platform indicators are rounded to the nearest hundredth, whereas other data sources report only to the nearest tenth or whole number.

- Data are not always collected on a yearly basis, meaning that some data estimates are several years old and may not reflect the current health status of the population. In particular, data reported from prior to 2013 should be treated cautiously in planning and decision-making.
- California state averages and, where available, United States national averages and Healthy People 2020 goals are provided for context. No analysis of statistical significance was done to compare county data to a benchmark; thus, these benchmarks are intended to provide contextual guidance and do not intend to imply a statistically significant difference between county and benchmark data.

Primary data collection and the prioritization process are also subject to information gaps and limitations. The following limitations should be considered in assessing validity of the primary data:

- Themes identified during interviews and focus groups were likely subject to the experience of individuals selected to provide input; the SC CHNA Collaborative sought to receive input from a robust and diverse group of stakeholders to minimize this bias.
- The final prioritized list of health needs is also subject to the affiliation and experience of the individuals who attended the Prioritization Day event, and to how those individuals voted on that particular day. The closeness in priority scores suggests that all identified health needs are of importance to stakeholders in Sonoma County. While a priority order has been established during this needs assessment process, narrow differences in the results highlight the importance of directing attention and resources to each identified resource to the extent possible.

In order to minimize the effect of potential biases on the results of this needs assessment, the SC CHNA Collaborative considered data from multiple sources, and triangulated primary and secondary data to identify health needs in Sonoma County and to ensure that the results of this analysis are useful and relevant to Sonoma County planning.

## **VII. IDENTIFICATION AND PRIORITIZATION OF THE COMMUNITY’S HEALTH NEEDS**

### **A. Identifying Community Health Needs**

#### **i. Definition of “health need”**

For the purposes of the CHNA, the SC CHNA Collaborative defines a “health need” as a health outcome and/or the related conditions that contribute to a defined health need. In this context, potential health needs are intended to identify a condition or related set of conditions, rather than a specific population of high need. Within each health need, populations of high risk are explored. For this reason, information about needs of specific at-risk subpopulations such as older adults is included within the context of the health needs. Health needs are identified by the comprehensive identification, interpretation, and analysis of a robust set of primary and secondary data.

A total of 19 potential health needs were examined, as outlined in the table below.



Health Need	Definition
<b>Access to Care</b>	Data related to health insurance, care access, and preventative care utilization for physical, mental, and oral health
<b>Access to Housing</b>	Data related to cost, quality, availability, and access to housing
<b>Access to Education</b>	Data related to educational attainment and academic success, from preschool through post-secondary education
<b>Asthma and COPD</b>	Known drivers of asthma and other respiratory diseases, and health outcomes related to these conditions
<b>Cancers</b>	Known drivers of cancers, and health outcomes related to cancers
<b>Climate and Health</b>	Data related to climate and environment, and related health outcomes
<b>CVD and Stroke</b>	Known drivers of heart disease and stroke, and related cardiovascular health outcomes
<b>Early Child Development</b>	Data related to development of mental and emotional health in young children, particularly age 0-5, including information about early learning and adverse experiences in early childhood
<b>Economic Security</b>	Data related to economic well-being, food insecurity, and drivers of poverty including educational attainment
<b>HIV/AIDS/STD</b>	Known drivers of sexually transmitted infections including HIV, and related STD and AIDS outcomes
<b>Mental Health</b>	Data related to mental health and well-being, access to and utilization of mental health care, and mental health outcomes
<b>Obesity and Diabetes</b>	Data related to healthy eating and food access, physical fitness and active living, overweight/obesity prevalence, and downstream health outcomes including diabetes
<b>Oral Health</b>	Data related to access to oral health care, utilization of oral health preventative services, and oral health disease prevalence
<b>Overall Health</b>	Data related to overall community health including self-rated health and all-cause mortality

Health Need	Definition
<b>Pregnancy and Birth Outcomes</b>	Data related to behaviors, care, and outcomes occurring during gestation, birth, and infancy; includes health status of both mother and infant
<b>Substance Abuse and Tobacco</b>	Data related to all forms of substance abuse including alcohol, marijuana, tobacco, illegal drugs, and prescription drugs
<b>Vaccine-Preventable Infectious Disease</b>	Data related to vaccination rates and prevalence of vaccine-preventable disease
<b>Violence and Injury</b>	Data related to intended and unintended injury such as violent crime, motor vehicle accidents, domestic violence, and child abuse
<b>Youth Growth and Development</b>	Data related to supports and outcomes affecting youth ability to develop to full potential as adults, particularly focused on adolescent youth

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

To identify the list of community health needs for Sonoma County, all secondary data were scored against a benchmark, in most cases the California state estimate, and a score was applied to each potential health need based on the aggregate score of the indicators assigned to that health need. Additionally, content analysis was used to analyze key themes in both the Key Leader Interviews and Focus Groups. Section V contains more information on quantitative and qualitative data analysis.

Potential health needs were identified as a health need in the county if:

- d. At least two distinct indicators reviewed in secondary data demonstrated that the county estimate was greater than 1% “worse” than the benchmark comparison estimate (in most cases, California state average);
- e. Health issue was identified as a key theme in at least eight interviews; and
- f. Health issue was identified as a key theme in at least two focus groups.

If a health need was mentioned overwhelmingly in primary data but did not meet the criteria for secondary data, the analysis team conducted an additional search of secondary data to confirm that all valid and reliable data concurred with the initial secondary data and to examine whether indicators within the health need disproportionately impact specific geographic, age, or racial/ethnic subpopulations. In the few cases where a potential health need demonstrated strong evidence of being an issue in Sonoma County in either qualitative or quantitative data, but not both, the SC CHNA Collaborative discussed and came to consensus about whether or not to include the health need.

Harder+Company summarized the results of this analysis in a matrix, which was then reviewed and discussed by the SC CHNA Collaborative.

Twelve health needs were identified that met the first criteria of having at least two distinct indicators that performed >1% worse than benchmark estimates. Only nine of these health needs met the additional criteria of being identified as a theme in key leader interviews and focus groups. One additional health need, Access to Housing, did not have a high secondary data score but was a significant theme in the majority of interviews and focus groups. Therefore, the SC CHNA Collaborative decided to include data about Access to Housing with Economic Insecurity, as access to safe and affordable housing and economic security are very closely linked. Access to Care did not meet the secondary data criteria, but was a strong theme in primary data. Because of a national focus on increasing access to primary care and the importance of this issue to residents and stakeholders in Sonoma County specifically, the SC CHNA Collaborative decided to include this health need.

**B. Process and Criteria Used for Prioritization of the Health Needs**

The Criteria Weighting Method, a mathematical process whereby participants establish a relevant set of criteria and assign a priority ranking to issues based on how they measure against the criteria, was used to prioritize the nine health needs. This method was selected as it enabled consideration of each health need from different facets, and allowed the Collaborative to weight certain criteria to use a multiplier effect in the final score.

To determine the scoring criteria, SC CHNA Collaborative members reviewed a list of potential criteria and selected a total of four criteria:

Criteria	Definition
<b>Severity</b>	The health need has serious consequences (morbidity, mortality, and/or economic burden) for those affected.
<b>Disparities</b>	The health need disproportionately impacts specific geographic, age, or racial/ethnic subpopulations.
<b>Prevention</b>	Effective and feasible prevention is possible. There is an opportunity to intervene at the prevention level and impact overall health outcomes. Prevention efforts include those that target individuals, communities, and policy efforts.
<b>Leverage</b>	Solution could impact multiple problems. Addressing this issue would impact multiple health issues.

In order to develop a weighted formula to use in prioritization, each member of the SC CHNA Collaborative assigned a weight to each criterion between 1 and 5. A weight of 1 indicated the criterion is not very important in prioritizing health issues whereas a weight of 5 indicated the criterion is extremely important in prioritizing health issues. The average of weights assigned by members of the SC CHNA Collaborative for each criterion were used to develop the formula below to provide a final formula to use in scoring health needs for prioritization.

**Overall Score=** (1\*Severity) + (1.5\*Disparities) + (1.5\*Prevention) + (1\*Leverage)

In order to review and prioritize identified health needs, a half-day prioritization session was held on November 20, 2015, at the First

Presbyterian Church of Santa Rosa. A total of 45 stakeholders representing a breadth of sectors such as health, local government, education, early childhood, public safety, faith-based, and nonprofit leaders attended. The goals of the meeting were to: review health needs identified in Sonoma County; discuss key findings from the CHNA; and prioritize health needs in Sonoma County.

After each health need was reviewed and discussed, participants voted on each health need using the four criteria discussed above. The table below outlines the average score of the voting on each health need.

Health Needs in Priority Order					
Final Results		Unweighted Scores by Criteria			
Health Need	Weighted Score	Severity	Disparities	Prevention	Leverage
1. Early Childhood Development	31.67	6.21	6.41	6.28	6.43
2. Access to Education	30.21	5.74	6.10	6.10	6.20
3. Economic and Housing Insecurity	30.03	6.21	6.55	5.26	6.12
4. Oral Health	29.19	5.41	6.23	6.19	5.16
5. Access to Health Care	29.13	5.76	6.05	5.69	5.76
6. Mental Health	29.09	6.29	5.46	5.66	6.14
7. Obesity and Diabetes	28.44	5.81	5.57	5.82	5.55
8. Substance Use	26.38	5.73	4.61	5.41	5.63
9. Violence and Unintentional Injury	25.29	5.07	4.98	5.23	4.91

### C. Prioritized Description of the Community Health Needs Identified Through the CHNA

In descending priority order, established per the vote at the end of the four-hour community convening, the following health needs were identified in Sonoma County; additional information about each health need can be found in Appendix A.

- 1. Early Childhood Development:** Child development includes the rapid emotional, social, and mental growth that occurs during gestation and early years of life. Adversities experienced in early life threaten appropriate development, and may include exposure to poverty; abuse or violence in the home; limited access to appropriate learning materials and a safe, responsive environment in which to learn; or parental stress due to depression or inadequate social support.<sup>54</sup>

Exposure to early adversity is pervasive in Sonoma County. Among adults in Sonoma and Napa County (combined for stability), 22.0% report having experienced four or more unique adverse childhood experiences (ACEs) before age 18 which may including childhood abuse (emotional, physical, and sexual), neglect (emotional and physical), witnessing domestic violence, parental marital discord, and living with substance abusing, mentally ill, or criminal household members.<sup>55</sup> Key themes among residents and stakeholders included the

<sup>54</sup> Jack P. Shonkoff and Deborah A. Phillips, eds., "From Neurons to Neighborhoods: The Science of Early Childhood Development," National Research Council and Institute of Medicine, Committee on Integrating the Science of Early Childhood Development, National Academy Press, 2000.

<sup>55</sup> A Hidden Crisis: Findings on Adverse Childhood Experiences in California, Center for Youth Wellness, 2008-13.

high cost of living and high cost of child care in Sonoma County, as well as the importance of quality early education and home stability on development among young children.

- 2. Access to Education:** Educational attainment is strongly correlated to health: people with low levels of education are prone to experience poor health outcomes and stress, whereas people with more education are likely to live longer, practice healthy behaviors, experience better health outcomes, and raise healthier children.

In Sonoma County, Kindergarten readiness is used as an early metric to consider disparities in early learning. Third grade reading level is another predictor of later school success; in Sonoma County 43.0% of third grade children are scoring at or above the “Proficient” level on English Language Arts California Standards Test.<sup>56</sup> Although only 13.0% of county residents age 25+ have less than a high school diploma, extreme racial disparities exist. Among residents identifying as American Indian/Alaska Native, African American/Black, Hispanic/Latino, Native Hawaiian/Pacific Islander, and Some Other Race, a higher percentage of individuals have less than a high school diploma compared to the total population and compared to White residents.<sup>57</sup> English Language Learners are also a population of particularly high concern with respect to educational attainment. Only 39.0% of tenth grade English Language Learners passed the California High School Exit Exam in English Language Arts, compared to 86.0% of all tenth grade students in Sonoma County.<sup>58</sup> Only 55.0% of English Language Learners passed in Mathematics, compared to 87.0% of all Sonoma County tenth graders.<sup>59</sup> For all students in the county, stakeholders identified the need to increase investment in early childhood education as a pathway to reducing educational disparities and increasing overall academic success.

- 3. Economic and Housing Insecurity:** Economic resources such as jobs paying a livable wage, stable and affordable housing, as well as access to healthy food, medical care, and safe environments can impact access to opportunities to be healthy.

The high cost of living in Sonoma exacerbates issues related to economic security and stable housing. Among renters, 52.4% spend 30% or more of household income on rent.<sup>60</sup> A lack of affordable housing and a dearth of jobs paying a living wage were identified as key challenges to achieving economic and housing security in the county.

- 4. Oral Health:** Tooth and gum disease can lead to multiple health problems such as oral and facial pain, problems with the heart and other major organs, as well as digestion problems.

In Sonoma County, oral health is in part affected by lack of access to dental insurance coverage or inadequate utilization of dental care. Among adults, 38.9% do not have dental insurance coverage and may find it difficult to afford dental care.<sup>61</sup> Among adults 65 years and

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<sup>56</sup> California Department of Education, Standardized Testing and Reporting (STAR) Results, 2013.

<sup>57</sup> US Census Bureau, American Community Survey, 2009-13.

<sup>58</sup> California Department of Education, 2013-14.

<sup>59</sup> California Department of Education, 2013-14.

<sup>60</sup> US Census Bureau, American Community Survey, 2014.

<sup>61</sup> Sonoma County Local Health Department File, California Health Interview Survey, 2013-14.

older, 51.8% do not have dental insurance coverage.<sup>62</sup> Among adults, 9.2% have poor dental health.<sup>63</sup> In 2014, 51% of kindergarteners and 3rd graders had tooth decay.<sup>64</sup> Residents and stakeholders highlighted the lack of dental care providers who accept Denti-Cal, as well as the lack of early prevention of oral health problems, in part due to limited access to affordable preventative care.

- 5. Access to Health Care:** Ability to utilize and pay for comprehensive, affordable, quality physical and mental health care is essential in order to maximize the prevention, early intervention, and treatment of health conditions.

With the implementation of the Affordable Care Act (ACA), many adults in Sonoma County are able to obtain insurance coverage and access regular healthcare. However, disparities persist. Specifically, lower income residents have difficulty accessing care, as many remain uninsured due to high premium costs and those with public insurance face barriers to finding providers who accept MediCal. Foreign-born residents who are not U.S. citizens also face stark barriers in obtaining insurance coverage and accessing care. While only 10.0% of Sonoma County residents are uninsured, 18.7% of residents earning below 138% of the Federal Poverty Level and 34.2% of foreign-born residents who are not U.S. citizens do not have insurance coverage.<sup>65</sup> Among those who do have insurance coverage, primary data identified other barriers to accessing care including that there are not enough primary healthcare providers in Sonoma County to meet the high demand. Others noted difficulties in navigating the care delivery system in an efficient way.

- 6. Mental Health:** Mental health includes emotional, behavioral, and social well-being. Poor mental health, including the presence of chronic toxic stress or psychological conditions such as anxiety, depression or Post-Traumatic Stress Disorder, has profound consequences on health behavior choices and physical health.

Mental health was raised as a high concern for all residents, especially youth and residents experiencing homelessness. Most notably, Sonoma residents have a high risk of suicide. 12.3 per 100,000 county residents die by committing suicide, compared to 9.8 per 100,000 residents on average in California.<sup>66</sup> Depression is also a concern, as 31.3% of youth<sup>67</sup> and 14.1% of Medicare beneficiaries<sup>68</sup> are depressed. Residents and stakeholders noted challenges in obtaining mental health care, including that preventative mental health care and screening is limited and that stigma may prevent individuals from seeking professional treatment.

- 7. Obesity and Diabetes:** Weight that is higher than what is considered a healthy weight for a given height is described as overweight or obese.<sup>69</sup> Overweight and obesity are strongly related to stroke, heart disease, some cancers, and Type 2 diabetes.

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<sup>62</sup> Ibid.

<sup>63</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES, 2006-10.

<sup>64</sup> Sonoma County Smile Survey, 2014.

<sup>65</sup> US Census Bureau, American Community Survey, 2014.

<sup>66</sup> University of Missouri, Center for Applied Research and Environmental Systems. California Department of Public Health, Death Public Use Data, 2010-12.

<sup>67</sup> California Healthy Kids Survey, 2011-13.

<sup>68</sup> Centers for Medicare and Medicaid Services, 2012.

<sup>69</sup> <http://www.cdc.gov/obesity/adult/defining.html>

In Sonoma County, an estimated 25.4% of adults are obese,<sup>70</sup> and 37.9% are overweight.<sup>71</sup> Among youth, 17.5% are obese and 20.0% are overweight.<sup>72</sup> Busy lifestyles and the high cost of living compete with purchasing and cooking healthy food. Lack of physical activity was also noted as a driver of obesity and diabetes, in part due to a lack of affordable exercise options.

- 8. Substance Use:** Use or abuse of tobacco, alcohol, prescription drugs, and illegal drugs, can have profound health consequences, including increased risk of liver disease, cancer, and death from overdose.<sup>73</sup>

In Sonoma County, substance abuse was identified as a concern, particularly with respect to alcohol consumption. Among adults, 21.3% of residents report heavy alcohol consumption.<sup>74</sup> Youth were noted as a high risk population, and data indicates that in the prior 30 days 13.8% of 11<sup>th</sup> grade students reported using cigarettes, and 28.0% reported using marijuana.<sup>75</sup> Additionally, 24.4% of 11<sup>th</sup> grade students reported ever having driven after drinking.<sup>76</sup>

- 9. Violence and Unintentional Injury:** Violence and injury is a broad topic that covers many issues including motor vehicle accidents, drowning, overdose, and assault or abuse, among others.

In Sonoma County, the data show that the core issues within this health need are related to domestic violence and violent crime. Among adults, 17.1% self-report having experienced sexual or physical violence by an intimate partner during adulthood.<sup>77</sup> The county also has high rates of reported violent crime, including 28.4 incidents of rape per 100,000 population, compared to 21.0 per 100,000 residents on average in California, and 285.7 incidents of assault per 100,000 population, compared to 249.4 per 100,000 in California overall.<sup>78</sup>

Consideration of the nine health needs that emerged as top concerns in Sonoma County highlights the significance of social determinants of health in building a healthier and stronger community. Access to resources including a secure and stable environment for early development, quality education, safe and affordable housing, and economic stability rose to the top of the prioritized list. These results align closely with county priorities and previous findings from the 2013 CHNA process and the *Portrait of Sonoma County*. In its entirety, this list of health needs supports the work of Health Action to foster collaboration and action, including key hospital partners, to identify cross-cutting strategies that address multiple health needs.

In addition to the supporting data presented for each identified health need, several cross-cutting themes emerged in primary data that speak to a broader consideration of community structure and cohesion. In working towards equal opportunities for people to lead safe, active, and healthy lifestyles, Sonoma residents and key stakeholders cited challenges in fostering a sense of community within neighborhoods and across the county. Poor transportation and isolation contribute to this problem, in particular in the lack of connection

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<sup>70</sup> California Health Interview Survey, 2014.

<sup>71</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES, 2011-12.

<sup>72</sup> California Department of Education, FITNESSGRAM® Physical Fitness Testing, 2013-14.

<sup>73</sup> <http://www.cdc.gov/drugoverdose/epidemic/index.html>; <http://www.cdc.gov/alcohol/fact-sheets/womens-health.htm>; <http://www.cdc.gov/alcohol/fact-sheets/mens-health.htm>

<sup>74</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse, 2006-12.

<sup>75</sup> California Healthy Kids Survey, 2011-13.

<sup>76</sup> California Healthy Kids Survey, 2011-13. Survey asks question about “respondent or a friend.”

<sup>77</sup> California Health Interview Survey, 2009.

<sup>78</sup> Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Inter-university Consortium for Political and Social Research, 2010-12.

between Santa Rosa and less centrally-located areas of the county. In specific areas of the county, notably Russian River, residents cited garbage and blight as characteristics of their community that impede strong community vibrancy. Challenges were also identified in cultural integration across the county. In particular, residents noted that there is a strong Latino community in Sonoma County, yet it exists in social isolation from other cultures. Some interviewees and focus group participants felt that the community as a whole has not succeeded in integrating different cultures in part because of segregation in schools.

#### **D. Community Resources Potentially Available to Respond to the Identified Health Needs**

Sonoma County has a rich network of community-based organizations, government departments and agencies, hospital and clinic partners, and other community members and organizations engaged in addressing many of the health needs identified by this assessment. Examples of community resources available to respond to each community identified health need, as identified in qualitative data, are indicated in each health need profile in Appendix A. For a more comprehensive list of community assets and resources, please call 2-1-1 OR 707-565-2108, or reference <http://211sonoma.org/>.

Health Action plans to use the results of this CHNA to develop key strategies to address multiple health needs. These efforts will include a breadth of stakeholders and partners, as well as strategies intended to inform program implementation, policy development, community engagement efforts, and investment decisions. In this way, the resources that are available to respond to the identified health needs will work in collaboration to address cross-cutting drivers of multiple needs simultaneously.



## **VIII. APPENDICES**

- A. Health Need Profiles**
- B. Secondary Data, Sources, and Dates**
- C. Community Input Tracking Form**
- D. Primary Data Collection Protocols**
- E. Prioritization Scoring Matrix**