Solano County Community Health Assessment Report

June 2020

harder + co community research

SOLANO COUNTY

SOLANO PUBLIC HEALTH

Content

Executive Summary 1

Introduction 7

County Overview 9

Process and Methods Used to Conduct the CHA 19

Identification and Prioritization of the Community's Health Needs 26

Priority Health Needs 30

Next Steps 63

Executive Summary

Solano County's approach to Community Health Needs Assessment

Solano Public Health (SPH) and community stakeholders have identified eight priority health needs for inclusion in this Community Health Assessment (CHA). These are: access to care, behavioral health, economic security, education, healthy eating and active living, housing, maternal and infant health, and violence and injury prevention. While these priority health needs touch on many of the major health challenges facing the county and are consistent with SPH's approach to identifying and understanding how social determinants of health affect the population of the county, they do not constitute an exhaustive list of the factors shaping health. Further, SPH and partners worked collaboratively to identify the metrics for each health need which best exemplify the severity of need, disparities across populations, and community assets with the potential to positively impact an issue. However, the qualitative and quantitative data included in this report are not inclusive of all possible data sources.

SPH chose to use three consistent perspectives to inform the selection of metrics for inclusion to describe each health need: racial health inequities as a Public Health Issue, social belonging, and trauma endured over the life course.

- **Racial health inequities as a Public Health Issue** means SPH understands that racism permeates all aspects of life, and that racial health inequities are in large part due to systemic and interpersonal racism. The indicators selected to describe health needs are disaggregated by race whenever possible in order to illustrate racial health inequities[1].

- **Social belonging** means that SPH views interpersonal associations, organizational affiliations, and other forms of social recognition as essential for maintaining sound mental and physical health. Social belonging is a health outcome and a social determinant of health. This perspective is especially important for marginalized communities, youth, and older adults.

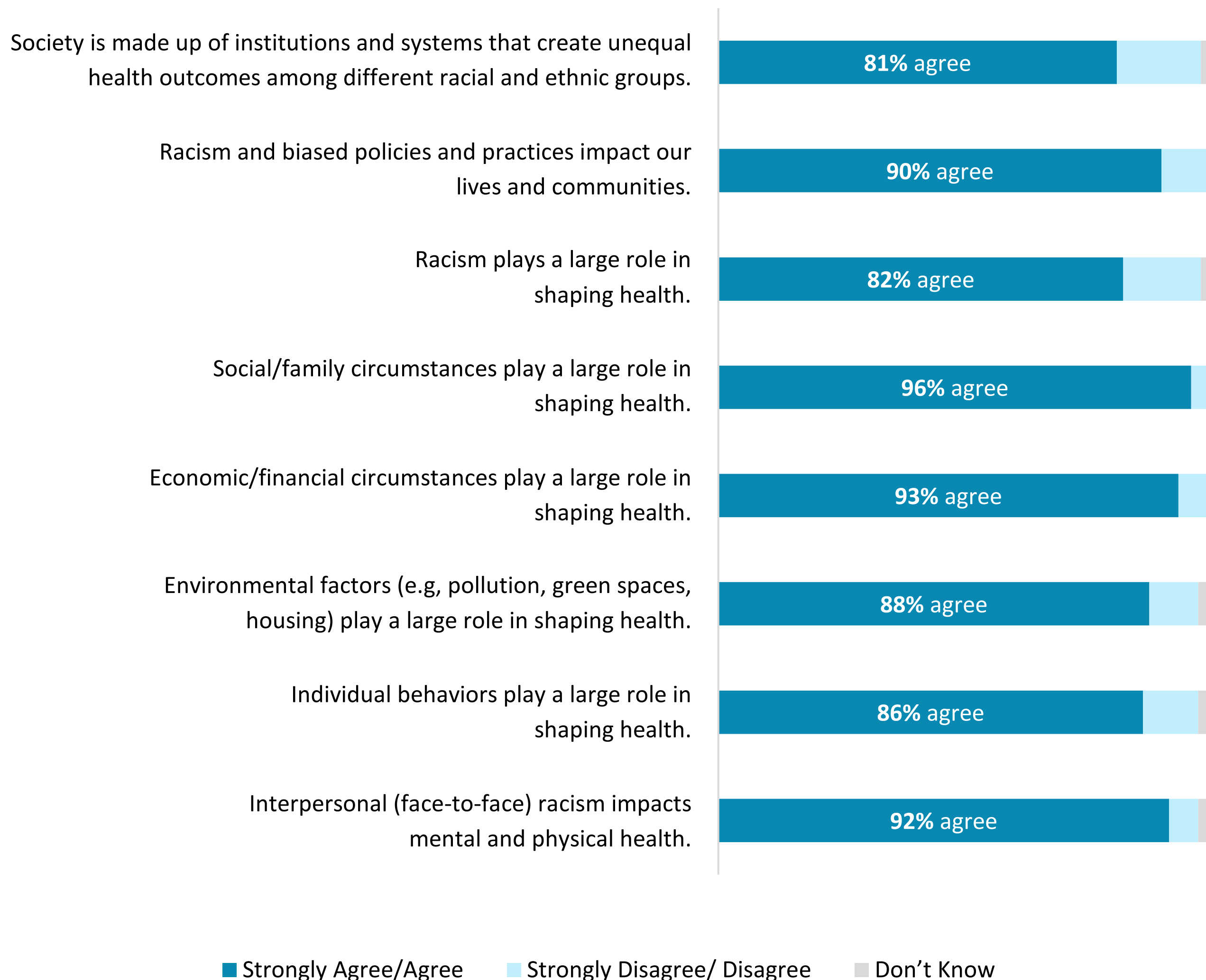
- **Trauma over the life course** means that SPH recognizes the role of trauma in shaping the psychology and life pathways of individuals exposed to harm. Trauma is a health outcome and a social determinant of health. In particular, the enduring effects of Adverse Childhood Experiences (ACEs) are a major source of disparities evident across the selected health needs.

[1] SPH recognizes that the presentation of capitalized racial and ethnic groups may make some readers uncomfortable. Racial and ethnic categories are historically contingent, socially constructed, and flawed. For the purpose of this report, we decided to capitalize all racial and ethnic groups for both grammatical clarity and consistency.

These three perspectives are described more fully in the County Overview section of the report. Importantly, these perspectives are interrelated and overlapping. For instance, toxic stress is one consequential thread connecting these impactful health issues: racism can impact both feelings of social belonging (i.e, recognition or exclusion) and experiences of trauma (e.g., violence, discrimination, and adverse childhood experiences (ACEs)). Each of the eight health needs in this report is described with respect to these perspectives and, collectively, the perspectives informed the community's prioritized ranking of health needs.

To ground the CHA process in these perspectives, SPH wanted to learn more about the importance and impact of social determinants of health among Solano County residents. The online exercise that the county distributed asking residents to prioritize health needs (see process section) inquired about participants' views on racism and other social determinants of health and found strong agreement on health impacts (see Figure 1).

Figure 1. Community Perspectives on Social Determinants of Health (n=152)



Summary of Prioritized Significant Health Needs

Health needs were identified through two pathways. First, a health need could be identified through primary or secondary (quantitative) indicators if there was at least one related indicator that was worse than established benchmarks, showed significant evidence of racial/ethnic disparities, or performed worse than a stated external goal. Second, a health need could be identified through primary or secondary (qualitative) data if it was a theme in key informant interviews, group interviews, and focus groups. Following identification, health needs were prioritized via two rounds of in-person ranking by residents, health officials, and community organizational leaders from the Vacaville and Vallejo Kaiser Foundation Hospital service areas and one round of online ranking exclusively by Solano County stakeholders.

The eight health needs that emerged as top concerns in Solano County are presented in priority order below. The health need profiles presented in the Priority Health Needs section provide more detailed descriptions of each of the health needs, including additional data, interview quotes, and focus group themes.

Economic Security. Intrinsically related to all health issues from housing to behavioral health, economic security is a strong determinant of an individual's health outcomes. Solano County residents encounter many challenges when compared to California residents on the whole, evidenced by food insecurity. Though the unemployment rate in Solano County is more promising in comparison to California as a state, residents face particular disparities and needs, such as commuting out of the county for employment and diversity in employment opportunities. Residents and service providers identified many challenges related to maintaining economic security, such as unrealistic requirements for government assistance, and the need for better pay to be able to make ends meet.

Housing. Access to safe, secure, and affordable housing is an important social determinant of health. Families with fewer financial resources are more likely to experience sub-standard housing conditions and the associated risks. One in three Solano County residents is at risk of or experiencing displacement from gentrification. Between 2000 and 2015, as housing prices rose, historically Black cities and neighborhoods across the Bay area lost thousands of low-income Black households. Increases in low-income Black households were concentrated in Fairfield, Suisun City, and Vallejo's eastern neighborhoods. Additionally, lower incomes in the county mean Solano has a higher portion of cost-burdened households than San Francisco. Lower income individuals, African Americans, Latino Americans, and Asians are particularly cost-burdened. Two-in-five residents do not own their homes, which is an indication of lack of access to credit and fair lending. Focus groups revealed that housing barriers are escalating within the community, and there is a lack of affordable options across

demographics and ages, with many young people experiencing homelessness. The closure of shelters, which provide a much needed safety net for many, and diminishing options for low-income families as well as an influx of residents from other regions (e.g., East Bay) have created additional stressors to housing in the community.

Access to Care. Access to quality healthcare includes affordable health insurance, utilization of preventive care, and ultimately reduced risk of unnecessary disability and premature death. It is also one of the key drivers in achieving health equity. Solano County fares worse than the state across important indicators, such as residents recently having a primary care visit and cancer screenings. Additionally, racial disparities in accessing care are evident in Solano County. For example, Non-Hispanic Blacks are more burdened by cancer deaths in comparison to their White, Asian, Hispanic, and Native American/Alaska Native counterparts. Community members, including service providers, provided context on some of the key gaps in accessing services, such as: specific barriers for those who are undocumented, long wait times, and unique challenges facing the aging population.

Education. Education includes not only one's means to academic achievement but also the support and resources to enhance one's educational development, which is connected to longer-term health outcomes. It is a key driver in achieving both health and economic equity. Solano County fares worse than the state across educational indicators such as reading proficiency, expulsions and suspensions. Racial disparities in educational indicators persist, with Hispanic, Black, Native American/American Indian, and Pacific Islander or Native Hawaiian adults more likely to not have completed high school. Adverse Childhood Experiences (ACEs) are one factor that may contribute to attainment and achievement gaps, as punitive relations to the school system are evident in high suspension and expulsion rates. Community members provided context about educational gaps, and specifically mentioned barriers in transportation and the need for children/youth support programs outside of school.

Violence and Injury Prevention. Direct and indirect exposure to violence and injury, such as domestic and community violence, have significant effects on well-being and health. On average, residents of Solano County have higher rates of domestic violence hospitalizations, injury deaths (intentional and unintentional), and violent crimes compared to the state. Nearly half of seniors in the county experienced a fall in the past year, and African Americans have nearly double the county rate of misdemeanor arrests, which are associated with negative health outcomes such as injury and substance use. While Solano County has a lower rate of impaired driving deaths than Napa, the incidence of violent crimes impacts community safety in many ways. Interviews and focus groups with local stakeholders identified

ACEs, stress from economic insecurity, and a lack of safe spaces as barriers to improving health. While ACEs have decreased in recent years, the county rate is still higher than the state average. Many of these barriers disproportionally affect low-income individuals and People of Color. Restorative justice programs are one approach that community leaders are implementing to address these and other disparities.

Behavioral Health. Behavioral health is the foundation for healthy living, and encompasses mental illness, substance use and overdoses, and access to service providers for preventive care and treatment. Solano County residents face a range of behavioral health-related challenges, including higher rates of the population reporting having seriously considered suicide, making opioid prescription drug claims, and experiencing lung cancer, when compared to the state average. Access to bilingual service providers was a major barrier identified in community focus groups, and a recent report identified Filipino and Latino Americans as underserved with regard to mental health needs. Other barriers included early-age use of substances, decreased social connectedness in their communities, and strong peer pressure among youth. ACEs play a large role in shaping Solano County mental health. While Solano has a similar rate of "resilient" children to the state of California, one in four 9th graders still report experiencing depression-related feelings.

Healthy Eating and Active Living. Healthy Eating and Active Living (HEAL) relates to Solano County residents' ability to shape their health outcomes through nutrition and physical activity. There is a high rate of adult and youth obesity, especially among People of Color. Community members highlighted the barriers to eating healthy, as well as the high monetary costs and behavioral changes necessary to live an active lifestyle. Lack of access to healthy grocery stores and the prevalence of fast food options stands as an important barrier to health, as highlighted by focus group participants. A healthy lifestyle greatly impacts the rates of chronic conditions like cardiovascular disease, stroke, and cancer, but is not equally attainable for all residents.

Maternal and Infant Health. Mothers in Solano County face many barriers related to their own well-being and that of their children. The rate of infant deaths in the county is higher than the California average, and infant mortality disproportionately impacts People of Color. Solano County does have a lower teen birth rate than the California average, which can indicate greater chances for economic security and pregnancy preparedness. However, community stakeholders described inconsistencies in reproductive health care such as discrimination against African American residents. Some potential pathways forward related to maternal and infant health include more work-and community-based childcare options in addition

to improved reproductive health services for teens. Solano County service providers noted that over the last ten years, health officials and community providers have made a concerted effort to increase prenatal care and have seen an increase in rates of prenatal care over time, especially for the Medi-Cal population.

Introduction

About Solano Public Health

At Solano Public Health, we know that health is all about people, where they live, learn, work, and play. From our staff to our clients, we provide people with the tools they need to maintain and improve their health. The services we provide are incredibly diverse and include such activities as conducting public health nurse home visits for moms and babies, providing medical care in our clinics, investigating disease outbreaks, advancing local ordinances to protect residents' health, and planning and preparing for public health emergencies.

Our focus is on providing the highest quality public health services and medical care. We have many partners in the county because we cannot do this important work alone. We depend on our relationships with community-based organizations, hospitals, the media, and other county departments to ensure the wellness of every resident of Solano County. This is especially important when we look at health disparities. It is only by working together with the community and our partners that we will eliminate health disparities in our increasingly diverse county.

Purpose of the Community Health Assessment (CHA) Report

The purpose of this report is to present a Community Health Assessment (CHA) for Solano Public Health. The CHA is a rich source of data for SPH and partners to understand county health issues and emerging trends and to inform planning. The CHA is part of an ongoing broader community health improvement process and is developed in preparation for the Community Health Improvement Plan (CHIP) which will use CHA data to identify priority issues, strategies for action, and measurable indicators of improvement.

Additionally, Solano Public Health is committed to the core tenants of accreditation; namely, transparency, accountability, and continuous quality improvement. In accordance with these tenants, this report shares analyses with residents and community partners, compiles the most current available health metrics SPH aims to improve, and identifies needs to inform a successful CHIP process.

Participation in a Partnership to Conduct a Comprehensive Needs Assessment

In 2018-19, Solano Public health collaborated with non-profit hospital partners in the creation of a Community Health Needs Assessment (CHNA)[2], which included hospital

[2] 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

service areas spanning Solano and parts of Napa and Yolo counties. The data collection and analysis from that process has been updated to reflect the current health needs of Solano County exclusively. As such, the primary data collection in this Community Health Assessment (CHA) was planned and coordinated with representatives from the Vacaville and Vallejo Kaiser Foundation Hospitals, NorthBay Medical Center, and Sutter Health. Since the hospital service areas spanned county lines, health officials from Napa County also participated and contributed to planning. Additionally, two consulting firms, Harder+Company Community Research (Harder+Company) and Community Health Insights were hired by Kaiser Permanente and Sutter Health respectively to conduct the data collection and analysis. Harder+Company was retained by Solano Public Health for the development of this Solano-specific CHA. This collaboration is described more fully in the Process section of the report.

health needs assessment (CHNA) and develop an implementation strategy (IS) every three years.

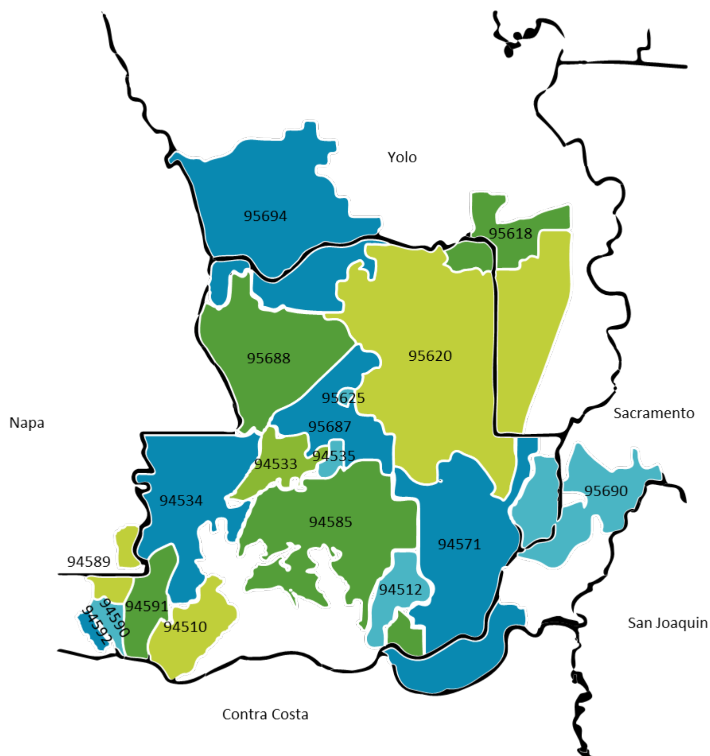
County Overview

Solano County's definition of community served

Solano County, located approximately 45 miles northeast of San Francisco and 45 miles southwest of Sacramento, is home to incredibly diverse and varied communities. With a population of over 447,000 people, all walks of life are represented and more than one-third of the county's residents speak a language other than English at home. This compares to a rate of just 21% for the United states population[3].

In an effort to recognize and respond to its multi-cultural residents, Solano Public Health has elected to highlight racial health inequities as an overarching public health issue in this report. Relatedly, the lenses of "social belonging" and "trauma" are used throughout this section to highlight the unique health needs impacting diverse groups of people in the county. SPH aims to provide access to services, programs, and information to all its residents no matter their economic situation, social circumstances, or geographic location. Figure 2 displays a map of Solano County with its 18 Zip Code Tabulation Areas (ZCTAs).

Figure 2. Solano County



[3] Solano County Transit Title VI Program Report (2019).

Description of community served

For the purposes of this report, the geographic areas and communities under examination all fall within the boundaries of Solano County, California. Solano cities include Vacaville and Dixon in the North, centrally located Fairfield and Suisun, and Vallejo, Benicia, and Rio Vista in the South.

Solano County includes 15 unique zip codes listed in Table 1. Throughout this report, some health indicators are presented with the average at the county level, whereas others are analyzed at the Zip Code Tabulation Area (ZCTAs) to capture geographic variation in health outcomes.

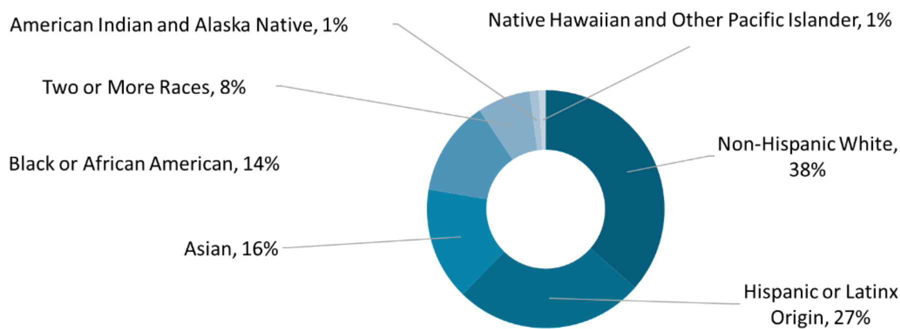
Table 1. Solano County ZIP Codes and Corresponding Areas/Communities

ZIP Code	Community/Area
94510	Benicia
94512	Bird’s Landing
94533	East Fairfield
94534	West Fairfield
94535	Travis AFB
94571	Rio Vista
94585	Suisun City
94589	North Vallejo
94590	South/Central Vallejo
94591	East Vallejo
94592	Mare Island
95620	Dixon
95625	Elmira
95687	East Vacaville
95688	West Vacaville

Demographics of community served[4]

The following section introduces some overview demographics characterizing Solano communities. This information provides important context for interpreting the health need profiles in the Priority Health Needs section. For instance, since racism is one of the overarching perspectives unifying analyses of health issues presented in this CHA, the proportion of individuals within a certain racial/ethnic group experiencing a given health outcome can be compared to the overall county racial/ethnic composition to ascertain whether a certain population is disproportionately impacted.

Figure 3. Race/Ethnicity



In Solano County, 53% of individuals identify as White, making it less White than the state of California (60% White). A much smaller portion, 38% of individuals identify as Non-Hispanic White. Irrespective of the racial group with which an individual identifies, 27% of individuals identify as Hispanic or Latinx origin.

Asian communities are represented in about equal proportions for the county and state at about 16% and 15% respectively. Further, Solano has more than double the percentage of African American/Black residents at 14% compared to 6% for the state. Similarly, people in Solano County are more likely identify as more than one race in Solano (8%) compared to 5% for the state. Solano County also has double the rate of Native Hawaiian or other Pacific Islanders at 1% compared to .5% for the state.

[4] All data in the demographic section pulled from U.S. Census Bureau, American Community Survey (2019).

Figure 4. Education

Of persons age 25 years or older:

88% had graduated from high school or higher

26% had a Bachelor's degree or higher

Figure 4 displays high school graduation rates and adults over the age of 25 with a Bachelor's degree. Solano County performs better than the state of California in high school graduation rates, with 88% of adults over 25 years old having a high school diploma or GED compared to 83% for the state. However, as will be a theme throughout this report, the story is less optimistic when data are compared across racial groups in the health need profiles: American Indian/Alaska Native, Hispanic or Latinx, African American/Black, Native Hawaiian or other Pacific Islander, and multiracial-identified individuals all have significantly lower rates of high school graduation than Whites, Asians, and Filipinos.

With respect to higher education, Solano County actually underperforms compared to the state with only 26% achieving a Bachelor's degree compared to 33% for the state. Again, strong racialized patterns persist on this measure with Hispanic or Latinx individuals graduating college at half the rate of Whites (13% and 27%, respectively).

Education is an important predictor of occupational affiliation and lifetime earnings which impact health outcomes. Related to social belonging, it can also serve as a source of recognition and group association that affords social status and other privileges.

Figure 5. Income and Poverty

$81K was the median household income*

$37K was the per capita income in past 12 months*

9.5% persons were living in poverty

**in 2019 dollars*

Figure 5 displays income and poverty metrics for the county.

Solano County outperforms the state in median household income ($81,000 compared to $75,000 for the state) and the percentage of persons living in poverty (9% compared to 12% for the state). However, the higher household incomes do not account for the cost of living in the expensive Bay Area, as will be evident in the Economic Security and Housing health need profiles. Further, California actually has a higher per capita income ($39,000 compared to $37,000 for the county). This is an indication of the greater degree of inequality in the county.

Economic inequality can lead disadvantaged individuals to experience vicious cycles of deprivation and need that impact their health as they struggle to live in increasingly expensive areas. Related to trauma, factors like the uncertainty of meals when living in food-scarce conditions or the greater risk of violence or injury can cause psychological damage and create environments of toxic stress for people already down on their luck.

Cross-County Demographic Variation

While the above-described demographic indicators provide a high-level overview of economic and social circumstances in the county, As Tables 2 and 3 show, the area is considerably diverse in population, economic stability (income and poverty), and insurance status. Table 2 shows the total population count for the Solano County HSA, the median age of the HSA, and the median income compared to the state benchmarks. Table 3 provides information on the presence of medically underserved, low income, and communities of color in Solano County.

Table 2. Census Population Counts, Median Age, Median Income

Area	Population	Median Age	Median Income
Benicia	28,350	46.1	$103,163
East Fairfield	75,909	33.8	$73,042
West Fairfield	39,239	40.9	$114,537
Travis AFB	3,842	23	$70,230
Rio Vista	10,605	62.7	$68,226
Suisun City	29,525	34.4	$82,848
North Vallejo	31,536	36.4	$68,494
South/Central Vallejo	37,280	37.3	$53,275
East Vallejo	55,157	40.8	$85,311
Mare Island	952	29.3	$127,679
Dixon	21,954	35.1	$82,956
East Vacaville	69,060	37.8	$86,056
West Vacaville	37,260	39.1	$94,863
Solano County	441,829	38.1	$81,472
CA State	39,512,223	36.5	$75,235

The population of Solano County makes up 1% of all residents in the State of California. The three largest population areas are East Fairfield, East Vacaville, and East Vallejo. The median age of the county is similar to the median age of the state. The ZIP code with the youngest median age was 94535 (Travis AFB) with a median age of 23 years, and the ZIP code with the oldest median age was 94571 (Rio Vista) with a median age of 62.7 years. The median income for the county was higher than the state median income, at $81,472. The ZIP code in the HSA with the lowest median household income was 94590 (South/Central Vallejo) at $53,275 per year, over $70,000 less than the highest income area.

Table 3. Percent Living Below Federal Poverty Line, Percent Uninsured and Percent People of Color

Area	Percent Below Federal Poverty (less than or equal to 100% FPL)	Percent Uninsured	Percent People of Color (Hispanic or Non-white)
Benicia	7.0%	2.9%	34.8%
East Fairfield	11.0%	8.7%	73.6%
West Fairfield	3.6%	2.6%	56.8%
Travis AFB	7.9%	0%	46%
Rio Vista	13.2%	5.4%	35%
Suisun City	9.3%	7.6%	73.9%
North Vallejo	11.3%	5.8%	82.5%
South/Central Vallejo	20.4%	10.3%	74%
East Vallejo	8.5%	5.6%	72.8%
Mare Island	15.3%	10.1%	71%
Dixon	10.2%	10.8%	54%
East Vacaville	6.8%	5.9%	51%
West Vacaville	7.7%	7.6%	44.6%
Solano County	9.5%	6.8%	62%
CA State	13.4%	10.6%	62.8%

The percent of population living in poverty was lower in Solano County compared to the

state benchmark. The Solano HSA ZIP code with the highest percent of population in poverty was 94590 (South/Central Vallejo) at 20.4% compared to the lowest percent poverty in ZIP code 94534 (West Fairfield) at 3.6%. The percent of residents uninsured was lower for Solano County compared to the state benchmark. The ZIP code with the highest percent uninsured was 95620 (Dixon) at 10.8% and the lowest was 0% in ZIP code 94535 (Travis AFB). The Solano County percentage of People of Color was 62%, similar the state at 62.8%. An examination of areas throughout the county revealed a large degree of diversity. ZIP code 94589 (North Vallejo) showed 82.5% People of Color, which is drastically different from the Rio Vista and Benicia that both had 35% People of Color.

Racial Health Inequities, Belonging, and Trauma[5]

This section categorizes some of the main findings and data points related to health needs according to the three lenses SPH is using to assess health need in the county: Racial health inequities as a Public Health Issue, social belonging, and trauma over the life course.

Racial health inequities as a Public Health issue

Racism can refer to both interpersonal (face-to-face) acts of discrimination as well as systemic racism which structures institutions and organizations in society. There are myriad ways racism impacts health in the county.

For instance, thousands of Solano residents, who are disproportionately People of Color, live in neighborhoods where a lack of resources and financial investment negatively affect their health. These neighborhoods lack basic necessities such as: access to healthy food; places to safely get outside and be active; access to primary care providers; and adequate housing options.

Solano County is also home to thousands of immigrants, who play an integral role to the social fabric of our communities and have made positive contributions to the general community. Many immigrants who recently migrated to the U.S. may not have health insurance established yet or may live in conditions where housing is shared with multiple families. As confusion over the Public Charge ruling continues, many who do not have health insurance fear that going to a hospital or clinic might ruin their chances of getting a Green Card. For this reason, some immigrant families may be afraid to seek the care that they need, even when services are available.

The following data points highlight just a portion of the many ways outcomes are patterned by race across the identified health needs:

- Access to care: 6.5% of Hispanic or Latinx individuals do not have health insurance compared to just 3.3% of Asian individuals.

[5] All data in this section are taken from Priority Health Needs section. Citations and data sources are found within each corresponding health need profile.

- Behavioral health: Non-Hispanic Whites in the county have a suicide rate of 16.2 per 100,000 which is higher than the state (10.2) and county (11.4) rates.
- Economic Security: 45.2% of Hispanic or Latinx individuals and 37.7% of Black/African American individuals live in households below 100% of the federal poverty line.
- Education: "More attention is needed for screening kids of color with autism. Latino children start in services at a later age, and some missed the chance for interventions." – Key Informant
- Healthy Eating and Active Living: Native Hawaiian and Pacific Islander Youth have physical inactivity rate of 64.8, higher than the county average of 48.2.
- Housing: For Black/African American individuals with children under 5, 75% are spending 30% or more of their income on rent.
- Maternal and Infant Health: 10.4% of Black and African American infants are low birthweight, compared to 5.5% for Whites.
- Violence and Injury prevention: "I think one trend is fear with a lot of the shootings going on. A lot of our immigrant communities are more fearful." – Focus Group Participant

Social Belonging

Social belonging can refer to the prevalence of isolation and associated mental health challenges in addition to group membership and organizational affiliations that provide access to resources in society. Just as with race, there are many ways social belonging impacts health.

For instance, thousands of Solano County residents speak a language other than English. It is part of their identity and their culture and enriches our society as a whole. When our communication is in English only, we leave our non-English speaking community out of accessing valuable information. By offering communication in various languages, we remove barriers to health, safety and stability for all residents.

Also related to inclusion, Solano Public Health wants to establish an expectation in Solano County that everyone can live and grow old with dignity. Findings from the recent Solano Senior Needs Assessment has identified isolation, belonging/inclusion, insufficient advocacy and funding as issues that affect the senior population.

The following data points highlight just a portion of the many ways social belonging shaped outcomes across the identified health needs:

- Access to care: "When English is their second language, it makes it even more difficult because… based on the political climate right now…people are really backing away and not coming to us for help." – Service Provider
- Behavioral health: "There is a lot of bullying that goes on, especially for LGBTQ students." – Community Leader, CBO quoted in the report *LGBTQ Voices: Community Narratives about Mental Health in Solano*

- Economic security: 60% of Solano County residents commute out of the county for work.
- Education: Solano has nearly double the expulsion (.15) and suspension (12) rates per 100,000 enrolled students compared to the state (.08 and 6, respectively).
- Healthy Eating and Active Living: “They’ve had housing developments in Fairfield where lower income folks had no grocery stores, no supermarkets in the community.” – Service Provider
- Housing: 19% of seniors in Solano County need modifications in their bathroom to protect them from a fall which could result in injury and need of assistance.
- Maternal and Infant Health: In Vallejo 41% of children come from single parent households where children are at increased risk for emotional and behavioral problems.
- Violence and Injury: The year 2016 shows a fairly even number of suicides across the three major cities, though in 2014 Vallejo had its highest rate and in 2015 Fairfield had its highest rate in the three-year period.- Solano County Suicide Prevention Strategic Plan

Trauma over the Life Course

The phrase “trauma over the life course” is meant to capture the enduring detrimental effects of trauma and the fact that it can occur at any time in our lives. Trauma can occur over the life course both through adverse childhood experiences (ACEs) and exposure to toxic stress due to occupying a marginalized social position (e.g. racial discrimination). There are many ways trauma impacts health.

For instance, for individuals who are experiencing financial difficulties, high rent and mortgage payments may make it difficult for people to meet their basic needs. The fear of wondering whether another paycheck will come or how one can feed themselves or their children has a lasting impact on life outlook, health, and wellbeing.

Similarly, in certain neighborhoods of Fairfield and Vallejo, higher rates of gang membership and violence expose youth to criminal activity and risk of injury. Both random acts of violence and intimate partner violence are more likely to occur under conditions of financial hardship and duress.

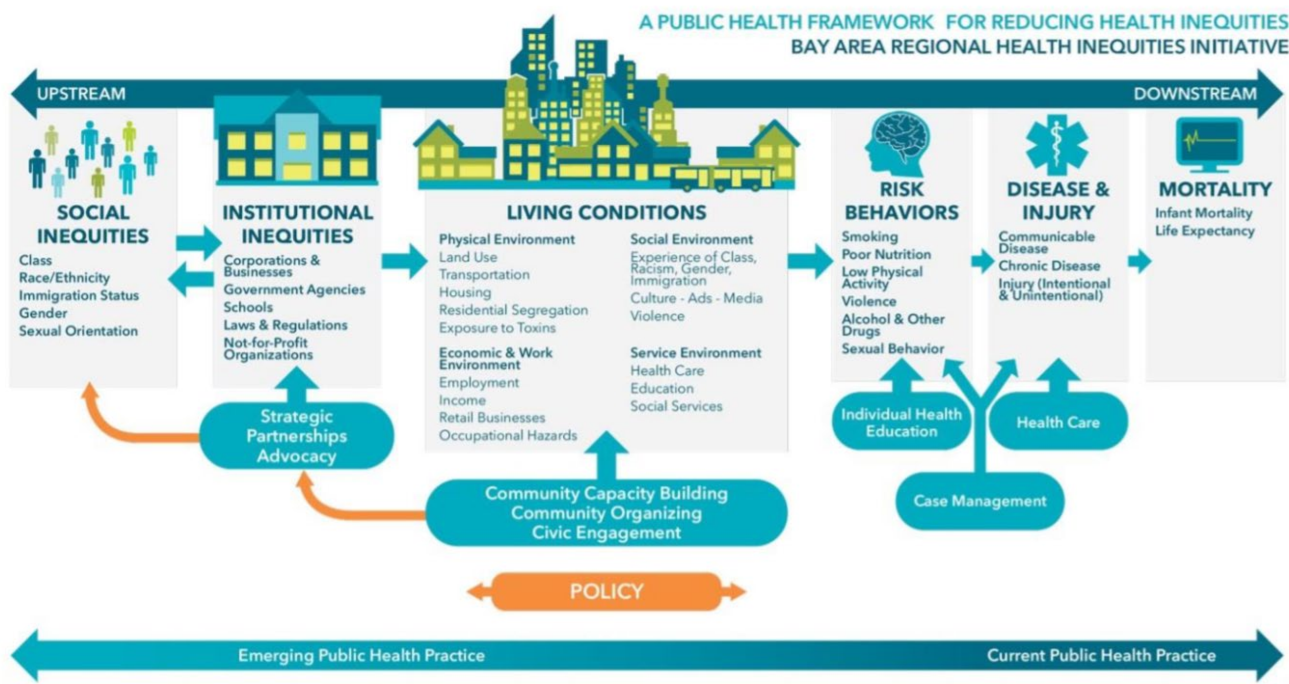
- Access to care: Focus group participants identified a lack of culturally competent care and poor bedside manner as a theme impacting quality of care.
- Behavioral Health: Just 55% of children in Solano County are calm and in control when facing a challenge according to their parents.
- Economic Security: Credit invisibility and a lack of fair lending practices dissuade People of Color from pursuing loans according to focus group participants.

- Education: 42% of Solano 7th graders report being bullied or harassed compared to 34% for the state of California.
- Healthy Eating and Active Living: 13.7% of the population experiences food insecurity in Solano compared to 11.6% for the state.
- Housing: “This [homeless shelter] is basically the last safety net to a lot of folks out there. It’s a free fall, and without this to catch them, I don’t know where you’re going to land.” – Service Provider
- Maternal and Infant Health: “I’m working and I feel like I live paycheck to paycheck, and there are times, I feel like if my baby needs something I won’t be able to pay for it.” – Focus group participant.
- Violence and Injury prevention: 16% of Solano County adults report experiencing four or more ACEs.

Process and Methods Used to Conduct the CHA

The CHA data collection and analysis process was consistent with the conceptual framework developed by the Bay Area Regional Health Inequities Initiative (BARHII). The BARHII Model (see Figure 6) focuses attention on measures that are not characteristically within the scope of public health departments and intentionally connects social inequities and health. The framework identifies how social determinants ultimately impact disease, injury, and mortality. Therefore, both the selection of secondary data sources and the development of primary data collection tools captured both "upstream" and "downstream" factors influencing health.

Figure 6. Bay Area Regional Health Inequities Initiative Framework.



Partner organizations that collaborated on the assessment

Solano Public Health worked with both hospital and other partner organizations with similar service areas in Solano counties to develop a coordinated approach to primary data collection, and then collaborated within the same group to determine the list of significant health needs based on both primary and secondary data.

Collaborative hospital partners:

1. Kaiser Foundation Hospital – Vallejo
2. Kaiser Foundation Hospital – Vacaville
3. NorthBay Medical Center
4. Sutter Health[6]

Additional partners:

1. Napa County Health and Human Services
2. Community Health Insights (CHI)*

Solano Public Health also engaged representatives of the Healthy Solano Collaborative (HSC). HSC is a public-private partnership bringing together representatives from public health, business, government, education, nonprofits, and the broader community.

Identity and qualifications of consultants used to conduct the assessment

Harder+Company Community Research (Harder+Company) is a 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. 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 offer 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 is the consultant on several CHNAs throughout the state, including Kaiser Foundation Hospital service areas in Roseville, Sacramento, San Bernardino, San Rafael, Santa Rosa, and South Sacramento.

Secondary, Quantitative data

Solano Public Health used the Kaiser Permanente CHNA Data Platform (http://www.chna.org/kp) to review 130 indicators from publicly available data sources. Kaiser Permanente's CHNA Data Platform is a web-based resource to support community health needs assessments and community collaboration. This platform includes a focused set of community health indicators that allow users to understand what is driving health outcomes in particular neighborhoods. The platform provides the capacity to view, map and analyze these indicators as well as understand racial/ethnic disparities and compare local indicators with state and national benchmarks.

Representatives from the Solano County Department of Health and Social Services also shared additional data from their local reports, internal platforms and studies, and other

[6] *Sutter Health and their consultant Community Health Insights (CHI) collaborated on the data collection and identification of health needs phases of the assessment, but had a separate process for health need prioritization and reporting.

online sources. For details on specific sources and dates of the data used, please see Table 4.

Table 4. Secondary Data Sources

Source	Dates
American Community Survey	2012-16
American Community Survey	2013-17
American Community Survey	2014-18
American Community Survey	2018
Area Health Resource	2006-10
Baseline Data on Access and Utilization of Mental Health Services (Solano County)	2018
Bureau of Labor Statistics	2017
California Birth and Death Statistical Master Files	2010-12
California Child Welfare Indicators Project Reports, UC Berkeley Center for Social Services Research	2019
California Department of Education, California Healthy Kids Survey	2017
California EpiCenter	2013-14
California Health Interview Survey	2016-17
California Healthy Kids Survey	2015-17
Center for Medicare and Medicaid Services	2016
County Suicide Prevention Plan	2017
DATLAS Dartmouth Atlas of Health Care	2010-15
DATLAS Dartmouth Atlas of Health Care	2015
EPA Smart Location Database	2013
Fatality Analysis Reporting System	2012-16
FBI Uniform Crime Reports	2012-14
Feeding America	2016
FITNESSGRAM® Physical Fitness Testing	2016-17
Food Access Research Atlas	2014
Housing Stability and Family Health: An Issue Brief	2016
Institute for Health Metrics and Evaluation	2014
National Center for Chronic Disease Prevention and Health Promotion	2015
National Survey of Children's Health and the American Community Survey	2019
National Vital Statistics System	2012-16
National Vital Statistics System	2016
Point-In-Time, US Housing and Urban Development, Continuum of Care Assistance Programs	2017
Solano Area Agency on Aging: Health Needs Assessment	2019
Solano County Family Health Services: Community Needs Assessment	2019

Solano County Human Needs Assessment	2017
Solano County Human Needs assessment	2008-13
State Cancer Profiles	2011-15
UC Berkeley Regional Early Warning System for Displacement	2010-15

Community Input through Primary, Qualitative Data Collection

A broad range of community members provided input through key informant interviews, group interviews, and focus groups. In total, the research team consulted 125 unique individuals with knowledge, information, and expertise relevant to the health needs of the community.

125 Total Participants

These individuals included representatives from health departments, school districts, local non-profits, and other regional public and private organizations. In addition, the team gathered input from community leaders, clients of local service providers, and other individuals representing people who are medically underserved, low income, or who face unique barriers to health (e.g., race/ethnic minorities and individuals experiencing homelessness). Figure 7 summarizes the communities and organizations that provided input for the CHA.

Figure 7. Organizations Represented in Qualitative Data Collection.

In an effort to include a wide range of community voices from individuals with diverse perspectives and experiences and those who work with or represent underserved populations and geographic communities within Solano County, Harder+Company staff used several methods to identify communities for qualitative data collection activities (see Figure 8). First, Harder+Company staff reviewed the participant lists from previous CHA reports in the area. Second, they examined reports published by local organizations and agencies (e.g., county and city plans, community-based organizations) to identify additional high-need communities. Finally, staff researched local news stories to identify emerging health needs and social conditions affecting community health that may not yet be indicated in secondary data. Importantly, the inclusion of service providers (through key informants and provider group interviews) and community members (through focus groups) allowed us to identify health needs from the perspectives of service delivery groups and beneficiaries.

Figure 8. Process for Identifying Participants.

The research team developed interview and focus group protocols, which the CHNA Collaborative reviewed. Protocols were designed to inquire about health needs in the community, as well as a broad range of social determinants of health (i.e., social, economic, and environmental), behavioral, and clinical care factors. Some of the identified factors represented barriers to care while others identified solutions or resources to improve community health. The research team also asked participants to describe any new or emerging health issues and to prioritize the top health concerns in their community. For more information about data collection protocols, see Appendix A. Focus Group Protocol and Appendix B. Key Informant Interview and Group Interview Protocol.

Harder+Company conducted key informant interviews over the phone by a single

interviewer, while provider group interviews and community focus groups were in person and completed by both a facilitator and notetaker. When respondents granted permission, the team recorded and transcribed all interviews.

All qualitative data were coded and analyzed using ATLAS.ti software (GmbH, Berlin, version 7.5.18). 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 subpopulations or geographic regions disproportionately affected; barriers to care; existing assets or resources; and community-recommended health care solutions. At the onset of analysis, three interview transcripts (one from each type of data collection) were coded by all nine Harder+Company project team members to ensure inter-coder reliability and minimize bias. Following the inter-coder reliability check, the team finalized the codebook to eliminate redundancies and capture all emerging health issues and associated factors. All transcripts were analyzed according to the finalized codebook to identify health issues mentioned by interview respondents.

In comparison to secondary (i.e., quantitative) data sources, primary qualitative (i.e., community input) data were essential for identifying needs that have emerged since the previous CHA. Health need identification used qualitative data based on the number of interviewees or groups who referenced each health need as a concern, regardless of the number of mentions within each transcript.

For any primary data collection activities conducted in Spanish, bilingual staff from the Harder+Company team facilitated and took notes. All recordings (if granted permission) were then transcribed, but not translated into English. Bilingual staff coded these transcripts and translated any key findings or representative quotes needed for the health need profiles.

Harder+Company also coordinated with Sutter Health's CHNA consultant, Community Health Insights (CHI) for data collection in regions where service areas overlapped. CHI and Harder+Company conducted those activities independently and then shared transcripts (respondents were informed of this information sharing in the protocol). CHI recorded all data collection activities, which the Harder+Co team then had transcribed through an independent transcription service. In cases where participants did not give permission to record, CHI shared their notes from the interview with the Harder+Company team who then coded the notes through the Atlas.ti platform. For the data collection activities that CHI conducted in Spanish, notes were documented in English by the interviewer and therefore no quotations were available.

Data limitations and information gaps

There are some limitations with regard to secondary data. Some data were only available at a county level, making an assessment of health needs at a neighborhood level challenging. Furthermore, disaggregated data around age, ethnicity, race, and gender are not available for all data indicators, which limited the ability to examine

disparities of health within the community. Lastly, data are not always collected on a yearly basis, meaning that some data are several years old.

The limitations discussed above have implications for the identification and prioritization of community health needs. Where only countywide data were available or data were unable to be disaggregated, values represent averages across many communities and may not reflect the unique needs of subpopulations. As is standard, the state average is used as a benchmark when available, with health indicators that perform poorly compared to the state flagged as potential health needs. However, whether a county indicator is on par with or better than the state average does not necessarily mean that ideal health outcomes or service quality exists.

Harder+Company also gathered extensive qualitative data across the county to complement the quantitative data. Qualitative data is ideal for capturing rich descriptions of lived experiences, but it cannot be treated as representative of any population or community. Despite efforts to speak to a broad range of service providers and community members, several limitations to the qualitative data remain. First, although experts in their fields, some service providers expressed hesitation about speaking beyond their expertise areas, limiting their contribution to overall health needs and social determinants. Second, although likely reflective of workforce demographics, People of Color were underrepresented in the service providers who engaged in data collection activities, which may limit perspectives captured. Third, in large part, community-based organizations helped to recruit community members for focus groups. This strategy is necessary for contacting members and for securing interview spaces that make participants feel safe. However, it inherently excludes disconnected individuals (i.e., those not engaged in services). To address this, the team made efforts to collect data at several community events where individuals gather without directly receiving services. Finally, although the team conducted focus groups in English and Spanish, future CHA processes should consider strategies to include data collection in additional languages that are prevalent in the County, including Tagalog.

Identification and Prioritization of the Community's Health Needs

Identifying community health needs

For the purposes of the CHA, Solano Public Health defines a "health need" as a health outcome and/or the related conditions that contribute to a defined health need. Health needs are identified by the comprehensive identification, interpretation, and analysis of a robust set of primary and secondary data. The final process to determine whether each health issue qualified as a CHA health need drew upon both secondary and primary data, as follows:

A health need category was identified as **high need based on secondary data** from the Kaiser CHNA Data Platform if it met *any* of the following conditions:

- *Overall severity:* at least one indicator Z-score for the health need was much worse or worse than benchmark.
- *Disparities:* at least one indicator Z-score for the health need was much worse or worse than benchmark for any defined racial/ethnic group.
- *External benchmark:* indicator value worse than an external goal (e.g., state average, county data, and Healthy People 2020).

1. A health need category was identified as **high need based on primary data** if it was identified as a theme in a majority of each type of qualitative data.
2. Classification of primary and secondary data was combined into the final health need category using the following criteria:

- **Yes**: high need indicated in *both* secondary and across *all types* of primary data. Solano Public Health and CHNA partners then confirmed these health needs.
- **Maybe**: high need indicated only in secondary data and/or some primary data. These health issues were further discussed with Solano Public Health and CHNA partners to determine final status.
  - If a health need was mentioned overwhelmingly in primary data but did not meet the high need criteria for secondary data, the Harder+Company team conducted an additional search for secondary data sources that indicated disparities (e.g., geographic, race/ethnicity, and age) to ensure compliance with both primary and secondary criteria.
  - In some cases, multiple indices were merged into one health need if there were cross-cutting statistics or qualitative themes
- **No**: high need indicated in only one or fewer sources.

Process and criteria used for prioritization of health needs

Prioritization of health needs resulted from compiling three separate rounds of ranking by community members. For the first two rounds of ranking, data on the health needs was presented at an in-person gathering of stakeholders representing the Vacaville and Vallejo Kaiser Foundation Service areas. For the third and final round of ranking, an online prioritization exercise was distributed by Solano Public Health to county residents, County employees, and members of community benefit organizations affiliated with the Healthy Solano Collaborative. Since the results of the first two rounds of scoring reflected participants' beliefs about data in the hospital service areas which overlap broadly but not exactly with county lines, this earlier input incorporated broader perspectives using less accurate health metric values. Therefore, the third round of ranking was essential for assessing participant viewpoints regarding the most current county-specific health metric values.

Process for the First Two Rounds of In-Person Ranking

For each identified community health need, Harder+Company developed a three- to four-page written profile. These health need profiles summarized primary and secondary data, including statistics on sub-indicators, quantitative and qualitative data on regional and demographic disparities, commentary and themes from primary data, contextual information on main drivers and community assets, and suggested solutions. Profiles for all of the identified health needs are included in the Priority Health Needs Section.

Harder+Company then facilitated an in-person prioritization meeting in late 2018 with regional CHNA partners and stakeholders (including service providers, residents, and others) to prioritize the health needs. The organizations with representatives participating in the Vacaville hospital service area prioritization were: Kaiser Permanente, NorthBay Healthcare, Partnership HealthPlan of California, Solano Coalition for Better Health, Solano County Medical Services, and Solano Public Health. The organizations with representatives participating in the Vallejo hospital service area prioritization were: Kaiser Permanente, Community Health Initiative-Napa County, First 5 Solano, Napa County Public Health, Partnership HealthPlan of California and Solano Public Health.

The meeting began with a brief presentation of each health need profile, highlighting major themes and disparities, followed by small-group discussions of the health needs, including the consideration of the following agreed-upon criteria for prioritization:

- **Severity:** Severity of need demonstrated in data and interviews. Potential to cause death or extreme/lasting harm. Data significantly varies from state benchmarks. Magnitude/scale of the need, where magnitude refers to the number of people affected.
- **Clear Disparities or Inequities:** Health need disproportionately impacts specific geographic, age, or racial/ethnic subpopulations.
- **Impact:** The ability to create positive change around this issue, including

potential for prevention, addressing existing health problems, mobilizing community resources, and the ability to affect several health issues simultaneously.

During the small-group discussions, meeting participants referred to the health need profiles as their main source of information while also sharing their individual knowledge and work in that subject area, including additional secondary data.

After small-group discussions, meeting participants discussed key insights for each health need with the larger group and then voted to determine the final ranked list of health needs. Participants voted either individually or as a voting bloc if there were multiple stakeholders from the same organization. Participants ranked the health needs three times, once for each prioritization criteria (i.e., severity, disparities, impact), on a scale from 1-8 (1=lowest priority; 8=highest priority). Ranking required that no two health needs were scored the same within each criterion. Harder+Company tallied the votes after the prioritization meeting and shared the final ranked list of health needs with participants via email.

Process for the Third Round of Online Ranking

Once Harder+Company updated each of the four-page health need profiles with county specific statistics and the profiles only retained qualitative insights from participants representing the county, Solano Public Health distributed a Qualtrics survey which functioned as an online version of the same prioritization exercise above. In this version, participants viewed each of the 8 updated health need profiles (in a randomly generated order to control for order-of-exposure effects) and then rated each of the health needs according to the same three criteria defined above (i.e., severity, disparities, and ability to impact change). Then participants were shown their ratings of each of the health needs across these three criteria and were asked to drag-and-drop the health needs into a rank order informed both by their quantitative criteria-based assessment of the data and drawing from their own experiences. The survey was out in the field for 12 days and was completed by 182 total unique participants. Table 5 shows the break-down of organizational membership among those participants.

Table 5. Organizational membership by survey participants

Organizational Membership	Participant count
Solano County residents	160
Healthy Solano Collaborative member	30
Solano County agency employee	41
Other	13

Figure 9. Combining the three rounds of prioritization

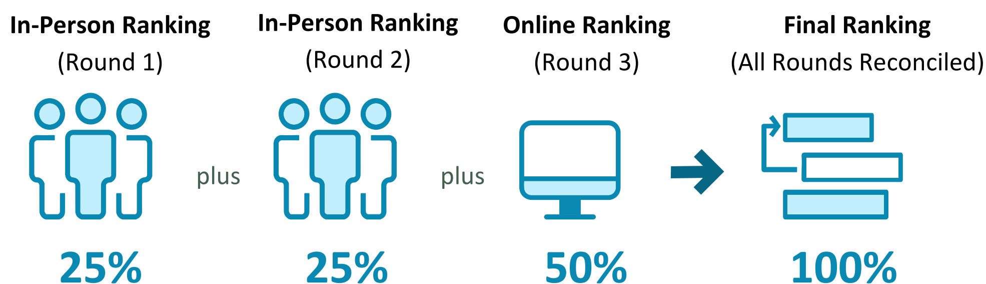


Figure 9 shows how the multiple rounds of ranking were combined to create a final prioritized order. Following the completion of the final round of prioritization ranking, Solano Public Health combined the three distinct ranked results by assigned numeric values to each of the health needs based on their rank order and mathematically calculating a final combined rank order. The two in-person rounds of ranking were each multiplied by a .25 weight so that together they contributed to half the total rank order. The final third round of online ranking was multiplied by a .5 weight so that it constituted half the total rank order itself. The online ranking was given greater weight both because of the more recent health metric data and the more accurate geographic representation of the health need profile indicators. Table 6 shows the rank order from each round of prioritization ranking and the combined, final results.

Table 6. Health Need Prioritization Outcomes

Final Rank	Health Need	Weighted Score	Solano Rank	Vacaville Rank	Vallejo Rank
1	Economic Security	3.00	4	1	3
2	Housing	3.25ǂ	1	6	5
3	Access to Care	3.25	2	3	6
4	Education	4.00	3	8*	2
5	Violence and Injury Prevention	4.50	6	5	1
6	Behavioral Health	4.75	5	2	7
7	Healthy Eating / Active Living	6.00	8	4	4
8	Maternal and Infant Health	7.25	7	7	8

*Since Education was not identified as a health need in the Kaiser Foundation Vacaville service area CHNA, this health need was given the last ranking in order to mathematically determine the combined, final rank.

ǂHousing scored higher than Access to Care in the Solano County Prioritization Exercise (which is weighted more heavily than the service area prioritization).

Priority Health Needs

Health need profiles include primary data (i.e. qualitative findings from focus groups, key informant interviews, and group interviews) and secondary data (regional statistics) and were developed prior to the deployment of the online prioritization exercise. The profiles do not reflect additional knowledge shared by individual stakeholders. Additionally, statistics presented in the health need profiles were not analyzed for statistical significance and should be interpreted in conjunction with qualitative findings.

Each health need profile also includes a “spotlight on equity” section which features community members’, including service providers, concerns in regard to inequities in their communities; examples provided in this section relate to complex and deeply rooted issues, and should be considered within a broader system-level context of historical disinvestment as well as discriminatory policies, practices, and discourse.

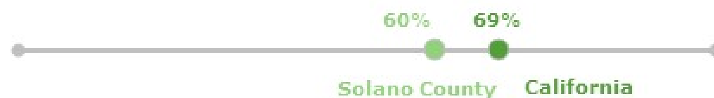
Access to quality health care includes affordable health insurance, utilization of preventive care, and ultimately reduced risk of unnecessary disability and premature death. It is also one of the key drivers in achieving health equity. Solano County fares worse than the state across important indicators, such as residents recently having a primary care visit and cancer rates. Additionally, racial disparities in accessing care are evident in Solano County. For example, Non Hispanic Blacks are more burdened for cancer deaths in comparison to their White, Asian, Hispanic, and Native American/Alaska Native counterparts. Community members, including service providers, provided context on some of the key gaps in accessing services such as: specific barriers for those who are undocumented, long wait times, and unique challenges facing the aging population.

Key Data

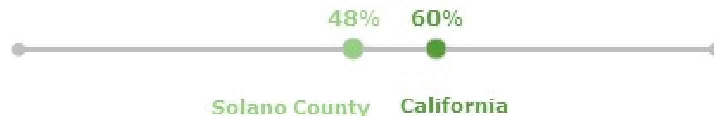
Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator.

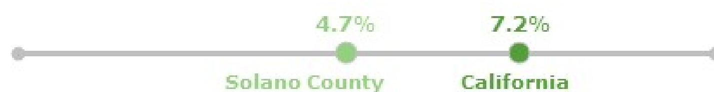
Recent Primary Care Visit[1]



Breast Cancer Screening[2]



Uninsured Population[3]



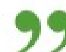
Barriers to Access to Care

Community-Identified Themes

- **Lack of awareness** of services available
- **Long waiting times**, short appointments
- **Lack of culturally competent care** and bedside manner
- **Health systems in siloes** (e.g., primary care and mental health, senior services and hospitals)

We have people that are social workers [who] have been working with somebody; they're hospitalized and the hospital discharge planner sends them to another community, and all the work that everyone's been doing suddenly falls apart because they've been moved to another county. — *Service Provider*

When English is their second language, it makes it even more difficult because people also, based on the political climate right now, are really backing away and not coming to us for help. — *Service Provider*

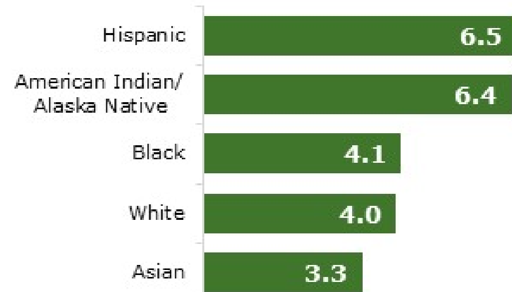


Populations with Greatest Risk

55% of Black adults visited a primary care clinician at least once within the past year[1]

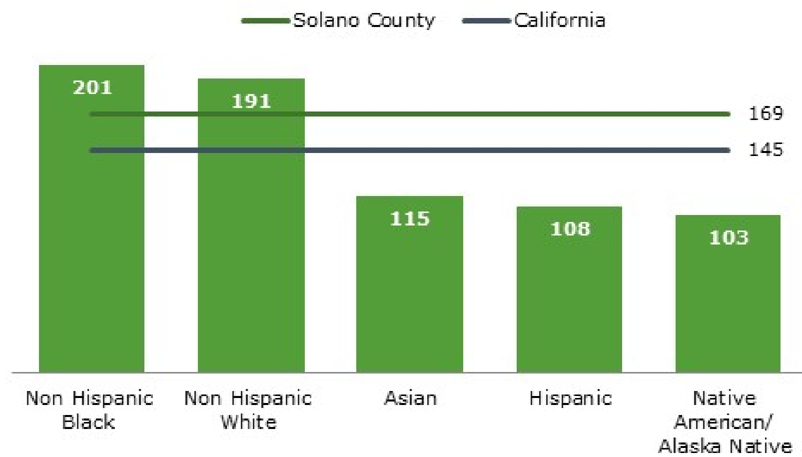
60% of White adults visited a primary care clinician at least once within the past year[1]

Uninsured Population[3] (percent)

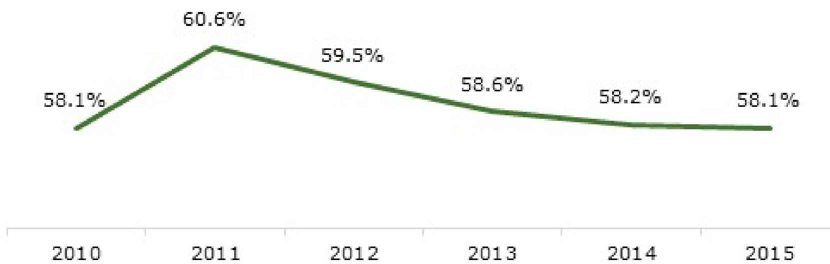


> Services for transgender people, especially, [are] really poor. They send people either to San Francisco or out to Concord to the Rainbow Center. Again, getting there is expensive…again, it's bridge tolls and it's gas.
>
> — *Community Leader, CBO*

Cancer Deaths (per 100,000 population)[4]



Recent Primary Care Visit (2010-15)[5]



> Need a call center that coordinates transportation and triages which clinic they should go to for receiving care; would serve people on Medi-Cal, Medi-Care and private pay.
>
> — *Key Informant Interview*

Geographic Areas with Greatest Risk

Public Transit Stops [6]

Public Transit Stops measures the percentage of the population living within 0.5 miles of a transit stop. Solano County scores at **12.2%**, compared to California at **16.75%**. (Circles represent density of transit stops).

Census	Location	Public Transit Stop
2535	Rio Vista	0.00%
2526.05	N. Fairfield	0.00%
2527.02	Suisun City	0.00%
2527.07	E. Fairfield	0.00%
2510	Vallejo	71.60%
2523.15	NE. Fairfield	72.59%
2534.03	SW. Dixon	79.63%
2527.05	E. Fairfield, N Suisun	81.55%
2526.07	Central Fairfield	100.00%
2528.02	Travis Air Force Base	100.00%

Solano County is home to diverse communities. For population of residents 5 years and older, **6.9%** of households speak Tagalog at home, compared to only 2.2% in the state, and **16.6%** of households speak Spanish at home[7]

"I come from a family that's Haitian and east Indian, and I speak Farsi. So if I didn't grow up and learn English, how many people would be able to talk to me when I walked into a doctor's office. Where I used to work, it would take us up to seven to nine days to hire a translator." - Focus group participant

Spotlight on Equity

Community members discussed the following concerns about equity and discrimination:

- A Solano County service provider noted that providing services for undocumented community members requires significant trust-building, even with Spanish-speaking staff in the case of Hispanic/Latino population. Other service providers added that ICE was arresting people in the region and this has instilled fear in community members.
- A Solano County service provider mentioned that people of color consistently have worse health outcomes, and there needs to be greater focus on social determinants of health such as housing and transportation.
- Vallejo service providers noted a shortage of dental health services specifically for low-income community members, and overall health disparities across populations particularly low-income, Black/African American, Native American, and Hispanic/Latino, additionally noting that the Native American population specifically lacks trust in government services.
- A service provider in Vallejo noted that low-income people who are not eligible for Medi-Cal do not have affordable insurance options, which may lead to self-medication.
- Materials translated in other languages are often poorly translated and unclear.

Assets and Ideas

Examples of Existing Community Assets

In-home support services, boarding care, nursing homes (for older adults)

Increasing focus on social determinants of health, and organizing human-centered and trauma-informed approaches

Co-location of community partners (e.g., health services, counseling, nonprofits)

Continuum of care, integrated services in one place

Health sector partnering with school districts

Ideas from Focus Groups and Interview Participants

- Improve public transit options
- Accessible and interactive health outreach and education in the community (e.g., web apps, health fairs with experts) about preventive care and social determinants of health
- More affordable and accessible clinics including dental care, and clear terms of eligibility
- Create a community center that promotes healthy living
- Tele-health appointments alleviates transportation and child care barriers, easily connects remote residents with urban resources
- Co-located or mobile services such as "pop-up tents with various county workers" to bring service to underserved communities
- Increase wages to address staff shortages and retain staff (e.g., caregivers for older adults)
- Increase co-locating and coordination of services (e.g., schools, health services, child care centers)

References

1. California Health Interview Survey. (2016-17).
2. DATLAS Dartmouth Atlas of Health Care. (2015).
3. US Census, ACS. (2018).
4. NVSS National Vital Statistics System. (2016).
5. DATLAS Dartmouth Atlas of Health Care. (2010-15).
6. EPA Smart Location Database. (2013).
7. US Census, ACS DT5Y B16001. (2018).

Behavioral health is the foundation for healthy living, and encompasses mental illness, substance use and overdoses, and access to service providers for preventive care and treatment. Solano County residents face a range of behavioral health-related challenges, including higher rates of the population reporting having seriously considered suicide, making opioid prescription drug claims, and experiencing lung cancer, when compared to the state average. Access to bilingual service providers was a major barrier identified in community focus groups, and a recent report identified Filipino and Latino Americans as underserved with regard to mental health needs. Other barriers included early-age use of substances, decreased social connectedness in their communities, and strong peer pressure among youth. ACE's play a large role in shaping Solano County mental health. While Solano has a similar rate of "resilient" children to the state of California, one in four 9th graders still report experiencing depression-related feelings.

Key Data

Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator, reflected in the following sections.

Seriously Considered Suicide (Age 18+)[1]

Opioid Prescription Drug Claims[2]

Lung Cancer Incidence (rate per 100,000 population)[3]

Barriers to Behavioral Health

Community-Identified Themes

- **Lack of buy-in** in hospital systems to support crisis stabilization units
- **Gaps** in mental health services for older adults
- **Early-age use and abuse** of substances (e.g., marijuana, alcohol, vaping)
- **Stigma** of care and focus on medication rather than alternative care for mental health
- **Less privacy** and **reduced in-person social connections** due to social media use

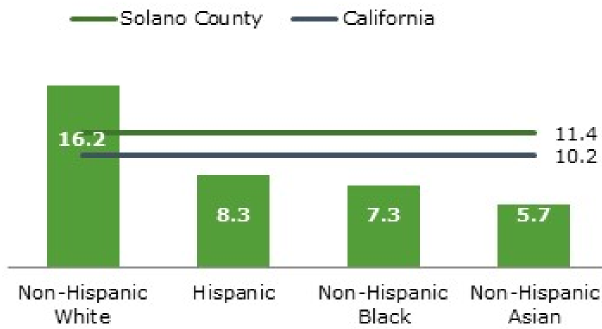
“Access to a provider that is bi-lingual is a huge barrier often. We see some of our families sit on wait lists , particularly for mental health services, for months on end, and when you have a kid in crisis, that just exacerbates it. — *Service Provider*

So, if somebody is in crisis and they're suffering, it takes so long that they might end up doing something drastic like taking their life in the meantime while they are waiting, on a waiting list. — *Focus Group Participant*

There's the chicken or the egg, but usually it's the mental health issue, substance abuse issue that leads to criminal activity, that often leads to homelessness. — *Service Provider*

Populations with Greatest Risk

Suicide Deaths (rate per 100,0000 population)[4]



25% of Solano County 9th Graders reported depression-related feelings[6]

In 2017,

15,234 veterans sought assistance[5]

from Solano County Veterans Services. Mental health related aid includes: Alcoholism and drug treatment programs, Agent Orange programs, state benefits, hospital care, and outpatient medical care.

> Veterans have long-term mental health needs. Veterans can be 20 years old and suffer from PTSD, making it difficult to hold down a job and secure housing. — *Key Informant*

> It used to be do you smoke [marijuana]? Now it's, do you not smoke? Even before legalization it was already increasing.
> — *Youth Focus Group Participant*

Resiliency*: When facing a challenge… [7]

57% of children in **California** are calm and in control

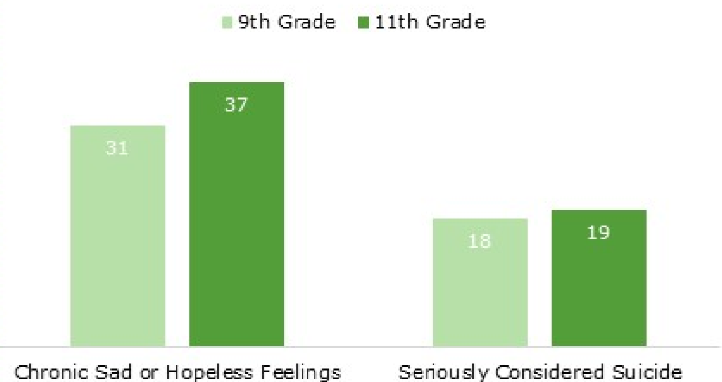
55% of children in **Solano County** are calm and in control

*Estimated percentage of children ages 6-17 who are calm and in control when facing a challenge

LGBTQ Voices: Community Narratives about Mental Health in Solano

> There is a lot of bullying that goes on, especially for LGBTQ students. It doesn't seem like—talking to the teachers, there's really not a big effort going on to reduce the bullying. — *Community Leader, CBO*

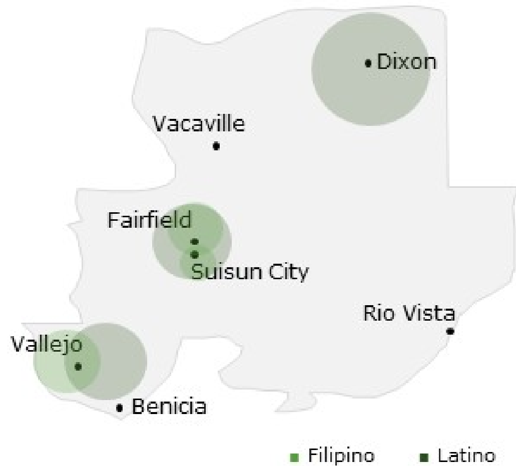
Percent of 9th and 11th Grades Reporting the Following Mental Health Challenges in the past 12 Months[8]



Geographic Areas with Greatest Risk

Geographic Concentration of Filipino and Latino Americans[9]

Filipino and **Latino** Americans represent two underserved populations experiencing equity gaps related to mental health needs according to UC Davis's Center for Reducing Health Disparities study of Baseline Data on Access and Utilization of Mental Health Services[9]. Filipino Americans are make up the highest portion of residents in Vallejo, Suisun City, and Fairfield; while Latino Americans make up the highest portion of residents in Dixon, Fairfield, and Vallejo. (Circle size indicates the regional concentration of these populations).



Region	% Filipino	% Latino
Benicia	6.9	13.2
Dixon	.5	39.0
Fairfield	9.7	25.9
Rio Vista	3.6	8.7
Suisun City	14.2	23.2
Vacaville	3.6	21.8
Vallejo	19.3	25.7

Spotlight on Equity

Community members discussed the following concerns about equity and discrimination:

- Youth respondents mentioned peer pressure that encourages young people to engage in drugs and violence.
- There is a gap in county mental health services for seniors over age 65.
- Solano County service providers noted that a culture shift is needed to create holistic care that underscores the impact of risk factors (e.g., Adverse Childhood Experiences) and how they affect mental and physical health.

"Solano is a few years behind some other counties in terms of how they roll out both addressing health inequities and programming.
— *Service Provider*

Assets and Ideas

Examples of Existing Community Assets

Diversion programs (e.g., drug courts, Prop 47 funds)

Grants through Mental Health Services Act (MHSA)

Extended hours for mental health services

Ideas from Focus Groups and Interview Participants

- Increase focus on preventive measures, particularly for youth (e.g., mentorship, community centers)
- Increase financial support for mental health services across sectors beyond county resources
- Identify and support smoking cessation opportunities
- Provide free, confidential drug testing, and more education on drug use
- Integrate behavioral and physical health care
- Expand mental health services (including for youth and seniors) beyond crisis support
- Better attention to identify ACEs
- Increase number and availability of licensed crisis service providers and counselors, and trauma-informed care providers

References

1. CHIS California Health Interview Survey, http://healthpolicy.ucla.edu/CHIS/Pages/default.aspx. (2016-17).
2. CMS Centers for Medicare and Medicaid Services http://www.cms.gov/. (2016).
3. STCANPRO State Cancer Profiles, http://statecancerprofiles.cancer.gov/. (2011-2015).
4. NVSS National Vital Statistics System http://www.cdc.gov/nchs/nvss.htm/. (2012-16).
5. Veterans Services, Solano County Human Needs Assessment. (2017)
6. California Department of Education, California Healthy Kids Survey. (2017)
7. Population Reference Bureau, analysis of data from the National Survey of Children's Health and the American Community Survey. (2019).
8. California Healthy Kids Survey. (2015-17).
9. Baseline Data on Access and Utilization of Mental Health Services by Filipino American, Latino, and LGBTQ Populations: Results from the County of Solano. (2018).

Intrinsically related to all health issues from housing to behavioral health, economic security is a strong determinant of an individual's health outcomes. Solano County residents encounter many challenges when compared to California residents on the whole, evidenced by food insecurity. Though the unemployment rate in Solano County is more promising in comparison to California as a state, residents face particular disparities and needs particularly in commuting out of the county for employment and diversity in employment opportunities. Residents and service providers identified many challenges related to maintaining economic security, such as unrealistic requirements for government assistance, and the need for better pay to be able to make ends meet.

Key Data

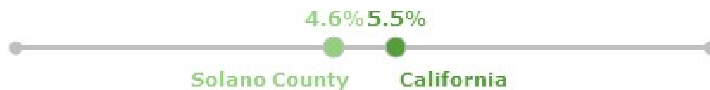
Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator, reflected in the following sections.

Food Insecurity[1]

Young People Not in School and Not Working[2]

Unemployment[3]



Barriers to Economic Security

Community-Identified Themes

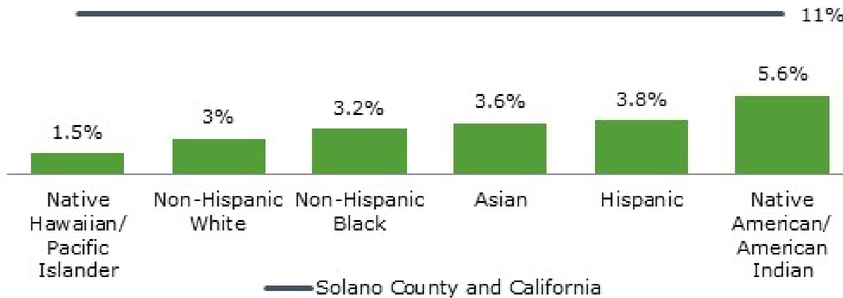
- **Credit invisibility** and **lack of fair lending** practices
- **Income requirements** too low, unrealistic for gov't assistance (e.g., WIC)
- **Lack of private funding** to support nonprofits
- **Difficulty to manage** work, household, and education
- **Salaries below living wage** (e.g., health, education sectors)
- **Lack of employment and job-training** programs

"We lack ordinances such as rent control, fair housing. We need education on the value of ordinances and how they provide a safety net system. — *Service Provider*

It's not a luxury to have a vehicle, it's a necessity at this point. So certain things really need to be counted as an expense when it comes to determining a person's eligibility for resources. — *Focus Group Participant*"

Populations with Greatest Risk

Uninsured Children [4]



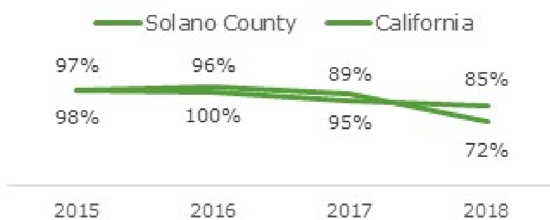
$69,227 Median household income in 2016

White and Native Hawaiian/Pacific Islander households earned **5-7%** more than the median income, while Asian households earned **21% or more** than the median income.

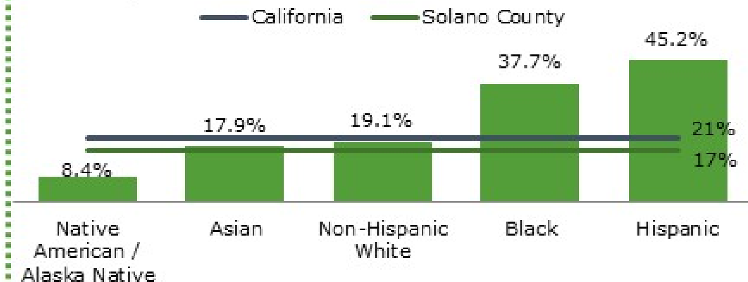
Hispanic or Latino households earned **17% less** than the median income, while African American or Black households earned **25% less** than the median income [5]

~60% of Solano County residents commute out of county for work [7]

Households Participating in SNAP[5]



Children Living in Households Below 100% Federal Poverty Line [8]



Spanish-speaking residents in Fairfield expressed that many families have to choose between **childcare** and work, with one participant noting that they spend **$1,000 monthly** for their three children.

Spotlight on Equity

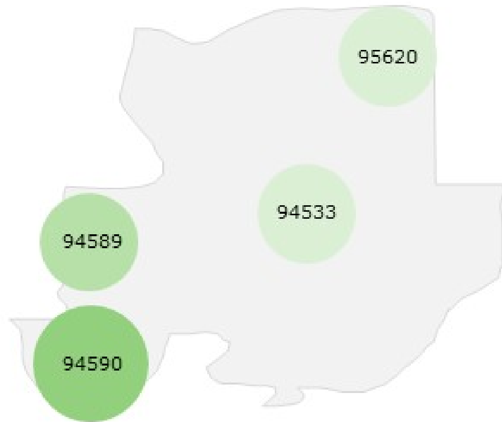
Community members discussed the following concerns in regard to equity and discrimination:

- In Rio Vista, there are an increasing number of children using free and reduced priced lunch (FRPL)—there is some stigma for those who are eligible for that benefit.
- In Fairfield, Hispanic/Latino community members noted that more cultural activities could bring currently segregated community members together.
- Youth identified how even with both parents working, they are still struggling with rent and food.
- Lack of affordable childcare is a barrier to many who otherwise could be working.

“ People in the community are so segregated and in competition with the next person. - *Focus Group participant*

We need to consider seriously economic mechanisms for minimizing the harm to poorer families during gentrification, otherwise, all they do is face displacement. - *Service provider*

Geographic Areas with Greatest Risk

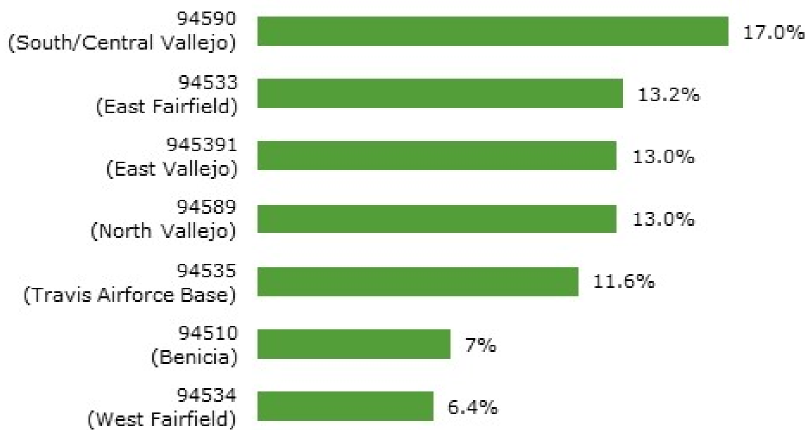


Low-Income Households[9]

Disparities in economic security are seen in pockets across Solano County. (Darker circles represent higher poverty rates in the presented select cities).

Zip Code	Percent of Households Low-Income (below 200% FPL) [9]
94590 (South/Central Vallejo)	43.8%
94589 (North Vallejo)	35.6%
94533 (East Fairfield)	34.9%
95620 (Dixon)	32.1%

Unemployment Rate, by Zip Code[9]



> We have to work to diversify our economic opportunities. There's too heavy a reliance on people commuting to the Bay Area and to Sacramento, so that when the next recession hits, large, large numbers of people are going to be out of work, and that will be problematic. I do think that we need to consider to try to diversify the available range of job types within the county. — *Service Provider*

Median Household Income, by Zip Code[9]

Zip Code	City	Median Income
Solano County	------------	$67,177
94510	Benicia	$88,930
94589	North Vallejo	$56,068
94590	South/Central Vallejo	$41,819
94591	East Vallejo	$73,509
94534	West Fairfield	$92,676
94533	East Fairfield	$55,413
94535	Travis Airforce Base	$50,970

Service providers emphasized the need for a greater focus on economic security *within* the region such as availability of jobs and more local investment for support services.

> Solano County sometimes gets forgotten as the area between the Bay Area and Sacramento, and so for that reason there's not a lot of foundations that focus their giving on Solano county, and so that just leaves a lot of nonprofits...with less funding than most other nonprofits.
> — *Service Provider*

Assets and Ideas

Examples of Existing Community Assets

Rich cultural and ethnic diversity

Partnerships across systems (e.g., workforce development, education sector, and WIC)

New business opportunities to Mare Island

Ideas from Focus Groups and Interview Participants

- Identify and support financial credit building opportunities
- Build more personal connections between service providers and clients
- Continue and increase integrated services models across sectors (e.g., food vouchers and immunizations through WIC)
- More funding for nonprofit organizations, and more partnerships among community groups
- More affordable hosing
- Improve efficiency of public transportation systems (e.g., train, more bus transfers, better sidewalks)
- Increase support provided from corporate organizations in the community
- Review standards that qualify people for public assistance to reduce barriers (e.g., for married couples, based on expenses)
- Identify more employment opportunities and vocational pathways, such as training and education programs for youth, CalWORKs, re-entry
- Affordable and healthy social activities for youth (e.g., sports, open mic night, creative outlets)
- Appropriate support across income brackets such as workforce opportunities for lower income, support of basic needs such as housing and food, etc.

References

1. Feeding America. (2016).
2. American Community Survey. (2013-2017).
3. American Community Survey. (2018).
4. American Community Survey. (2013-2017).
5. American Community Survey. (2012-2016).
6. Solano County Human Needs Assessment. (2017).
7. Bureau of Labor Statistics. (2017).
8. American Community Survey. (2013-2017).
9. Solano County Family Health Services- Community Needs Assessment: UDS Mapper. (2019).
10. Solano County Human Needs Assessment. (2017).

Education includes not only one's means to academic achievement but also the support and resources to enhance one's educational development, which is connected to longer-term health outcomes. It is a key driver in achieving both health and economic equity. Solano County fares worse than the state across educational indicators such as reading proficiency, expulsions and suspensions. Racial disparities in educational indicators persist, with Hispanic, Black, Native American/ American Indian, and Pacific Islander or Native Hawaiian adults more likely to not have completed high school. Adverse Childhood Experiences (ACEs) are one factor that may contribute to attainment and achievement gaps, as punitive relations to the school system are evident in high suspension and expulsion rates. Community members provided context about educational gaps, and specifically mentioned barriers in transportation and the need for children/youth support programs outside of school.

Key Data

Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator, reflected in the following sections.

Reading Proficiency (Grade 4)[1]

Expulsions (K-12, rate per 100 students enrolled)[2]

Suspensions (K-12, rate per 100 students enrolled)[3]

7th Grade Students who were Bullied or Harassed[4]

Barriers to Education

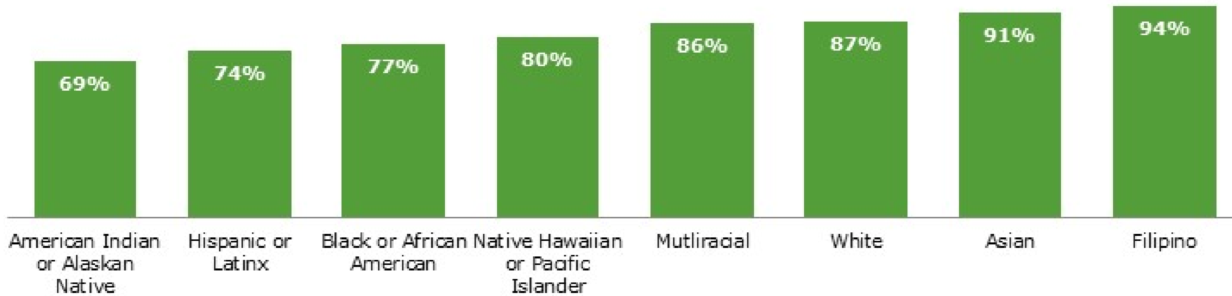
Community-Identified Themes

- **Absenteeism**, and **educators not following up** to check on students
- **Lack of parent involvement** in school and lack of trust between parents, teachers, and students
- **Lack of interpretation / translation services**, and bilingual staff in schools
- Schools' **physical infrastructure** in decay

You have students that aren't going to school, but what are the key factors of why they're not going to school? Like we have to look at these root factors, you know what I mean? It's not relevant to them if it doesn't make sense to them. You're just drilling it in and want them to spew it out for you on a test. That's not fun, and that's not helpful to learn. - *Service provider*

Populations with Greatest Risk

High school graduation rates[5]



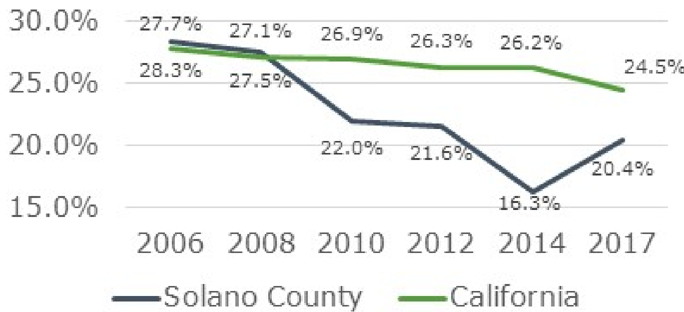
Adults with no high school diploma[5]:

12% of all adults in the state of California have no high school diploma. Within Solano county, **6%** of White adults do not have a high school diploma, compared to **31%** of Hispanic/Latinx adults.

Adults with Bachelor's degree or higher[5]:

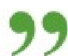
33% of all adults in the state of California have a Bachelor's degree. Within Solano county, **27%** of White adults have a Bachelor's degree, compared to **13%** of Hispanic/Latinx adults.

Children 0-12 with Working Parents for whom Licensed Care or Transitional Kindergarten is available[6]

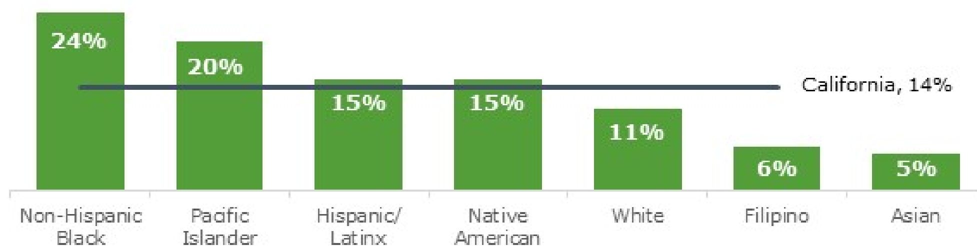


Transportation is needed in Vallejo and Fairfield – **inadequate bus routes take hours** and make it difficult to get to child care, and cuts into time and resources spent caring for children in other ways. – *Key Informant*

Some **parents are too strapped** to support their child's education [...] schools are raising their kids.
– *Key Informant*



Chronic absenteeism[7]



Populations with Greatest Risk

Spotlight on Equity

Community members discussed the following concerns about equity and discrimination:

- Solano County service providers observe racial disparities within the early identification of special needs.

  "More attention is needed for screening kids of color for autism. Latino children start in services at a later age, and some have missed the chance for interventions".- Key Informant

- Support at school is not enough to fill in the gaps for children who are chronically absent.

  "Some kids can miss school 30 days and no one will check on them". - Service provider

- Some children in low income families don't have the same opportunities to participate in enriching after-school activities, or time at home that supports their growth and development.

  "Not everyone can afford to go to the Boys & Girls Club, there are a lot of kids that have parents that are working and they have nothing to do, no one to tell them what to do, or how to do it."- Focus Group participant

- Spanish-speaking residents in Vallejo noted that bilingual high school students are pulled out of class to interpret for school counselors and that there is an overall lack of bilingual staff and services.

Assets and Ideas

Examples of Existing Community Assets

Data-sharing and discussion between service providers and schools

Communication between teachers and parents (in some schools)

Community Educational Research Councils

Schools that address Adverse Childhood Experiences (ACEs)

Ideas from Focus Groups and Interview Participants

- Higher pay for teachers
- Greater awareness, especially by community leaders and policy makers, of the needs across the population for different communities
- Bring more health education to schools
- Support older adults in computer-use and accessing information through the internet
- More oversight for youth from education sector (bus drivers, school, etc.)
- Improve infrastructure of school buildings and create an environment that kids want to come to and learn
- Mentorship programs starting in middle school to get kids exited for college

References

1. California Department of Education. https://www.cde.ca.gov/ds/. (2015-2016).
2. California Department of Education. https://www.cde.ca.gov/ds/. (2016-2017).
3. California Department of Education. https://www.cde.ca.gov/ds/. (2016-2017).
4. WestED. *California Healthy Kids Survey*. https://calschls.org/reports-data/. (2019).
5. American Community Survey 5-year Estimates. http://www.census.gov/acs/www/. (2013-2017).
6. California Resource and Referral Network Child Care Portfolios; American Community Survey. (2008, 2010, 2012, 2014, 2017). Cited in Solano County Human Needs Assessment (2019).
7. California Department of Education, DataQuest. (2017-2018).

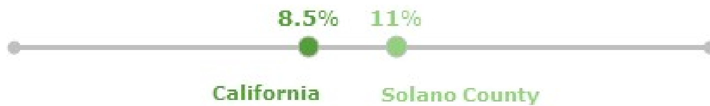
Healthy Eating and Active Living (HEAL) relates to Solano County residents' ability to shape their health outcomes through nutrition and physical activity. There is a high rate of adult and youth obesity, especially among minority populations. Community members highlighted the barriers to eating healthy, as well as the high costs and behavioral change needed to live an active lifestyle. Lack of access to healthy grocery stores and the prevalence of fast food options stands as an important barrier to health, as highlighted by focus group participants. A healthy lifestyle greatly impacts the rates of chronic conditions like cardiovascular disease, stroke, and cancer, but is not equally attainable for all residents.

Key Data

Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator.

Diabetes Prevalence[1]



Healthy Food Stores (Low Access) [2]

Adults Who Are Overweight [3]

Barriers to HEAL

Community-Identified Themes

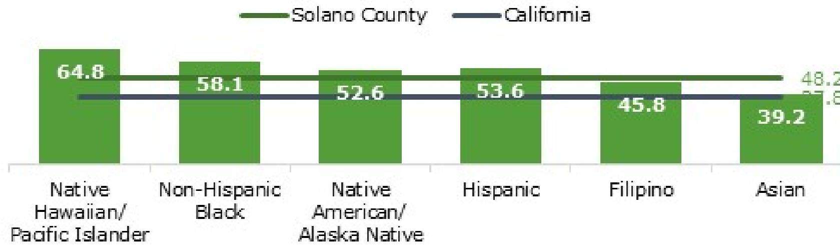
- Translating healthy food education to **behavior change is** challenging
- May not align with **cultural food practices**
- Lack of **affordable healthy food** options
- **Safe exercise opportunities** are scarce, impeding residents' ability to live healthier
- **Healthy eating is not affordable**, especially as cost of other basic needs have increased (utilities, rent, transportation for work, medical care)

“Ultimately I think raising people's ability to purchase food is the better way to go about it. We always talk about wanting to put the food bank out of business because we would prefer people be empowered to make their own purchasing decisions than need food from the food bank. — *Service Provider*

There's nothing for [youth] to do. There's nothing to occupy their time. Where I'm from, we have skating rinks, bowling alleys ... We don't have stuff like that in Vallejo. –Focus Group participant

Populations with Greatest Risk

Physical Inactivity Among Youth[4]

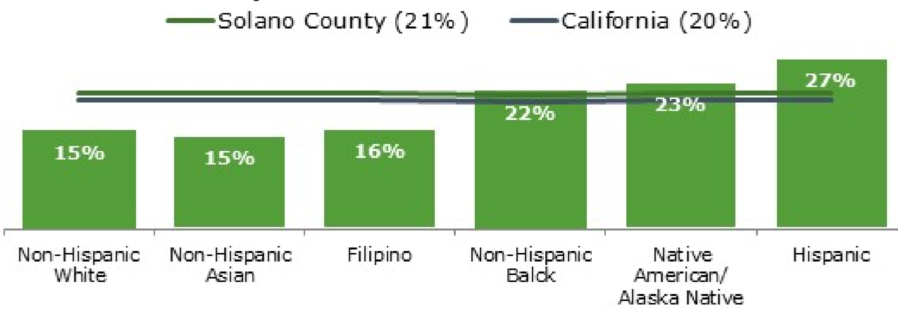


They've had [housing] developments [in Fairfield] where lower income folks had no grocery stores, no supermarkets in the community, and they have to find a way to purchase fresh vegetables and fruits. — *Service provider*

"I think that we need to increase the exercise options for people, but that has to be accompanied by better safety, so we have to address crime at the same time. — *Service provider*

Stroke Deaths (rate per 100,000)[5]

Youth Obesity[6]



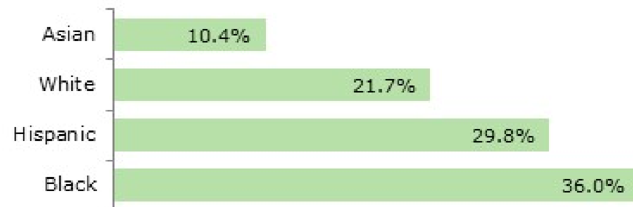
Kids are walking to and from school and there's no sidewalk. They're walking on the shoulder of a road. They're crossing over train tracks. There have been so many pedestrian collisions with trains in Solano County, it just blows my mind when I hear about them. — *Service provider*"

Percent of population who **experience food insecurity**[9]

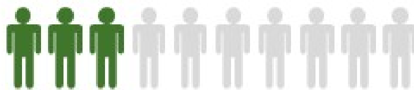
Solano County : California

13.7% : 11.6%

Adult Obesity[7]



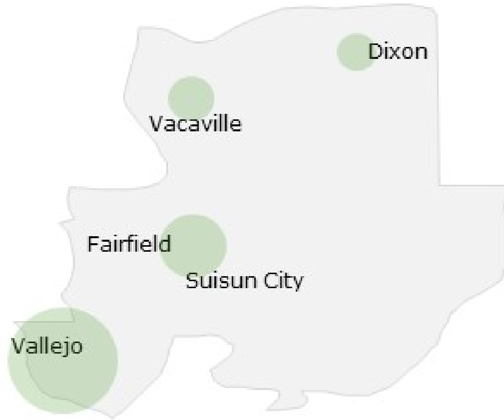
30.7% of adults are obese in **Solano County** compared to 27% in **California**[8]



27.5% of **Solano County** children walk or bike to school

...compared to the **California** average of **37.9%**[10]

Geographic Areas with Greatest Risk



Healthy Food Stores (Low Access)[10]

Some communities in Solano County face more challenges in accessing healthy food retailers (large grocery store or supermarket). The circle size on the map indicates the regional extent of disparities:

- **West Vallejo** (2508.01): 92.6%
- **East Fairfield** (2427.07): 71.0%
- **North Vacaville** (2532.04): 45.9%
- **West Dixon** (2534.03):11.3%
- **Suisun City** (2523.05): 0%
- **Solano County:** 20.2%

“When I'm in **Suisun,** there's the four corners that are all fast food, and you've got Walmart and yeah, they've got some healthy stuff, but most people are not going there for their healthy items. — *Focus Group Participant*

Spotlight on Equity

Community members discussed the following concerns about equity and discrimination:

- In Rio Vista, there are an increasing number of kids using free and reduced priced lunch (FRPL)—and there is some stigma associated with that between those who are or are not eligible for that benefit.
- Spanish-speaking residents noted that maintenance of parks differs between higher and lower income regions, and are less clean and safe (e.g., drug use, trash) in poor communities.
- Solano county senior service providers noted the importance of giving residents choice in food selections (through pantries, food stamps, etc.) so individuals can choose food aligned with their culture.

Wouldn't it be great if we linked with the bus transport services and identified maybe the senior centers that do noon meals or restaurants that want to participate in low senior cost meals and have the bus run around in the neighborhood and pick people up. — *Service Provider*”

Assets and Ideas

Examples of Existing Community Assets

Cross-sector partnerships (e.g., county and health care organizations)

Community health promoters (e.g., provide nutrition education)

Youth Reach Coalition improved local trails

Senior food program sites converted to "choice pantries"

Public officials working to address food desserts (e.g., food pharmacy grants and collaborations with local Indian tribes)

Convenience store "food makeovers" promoting fruits and veggies up front, food banks

Ideas from Focus Groups and Interview Participants

- Increase access and affordability of healthy food
- Cross-sector partnerships to impact policy, systems, and environmental changes
- Continue to cultivate youth-led initiatives and civic engagement
- More role models who promote healthy eating and active living (e.g., Michelle Obama)
- Diminish economic incentives driving the existence of unhealthy food
- Places to exercise, find local champions to give the classes, include options for those with kids (i.e., offer child care), more diverse exercise options (e.g., dance)

References

1. National Center for Chronic Disease Prevention and Health Promotion. (2015).
2. Food Access Research Atlas. (2014).
3. Solano County Family Health Services (2017).
4. FITNESSGRAM® Physical Fitness Testing. (2016-2017).
5. Centers for Medicare and Medicaid Services (2015).
6. FITNESSGRAM® Physical Fitness Testing. (2016-2017).
7. National Center for Chronic Disease Prevention and Health Promotion. (2015).
8. Solano County Family Health Services. (2017).
9. California Health Interview Survey. (2017).
10. NCCDPHP National Center for Chronic Disease Prevention and Health Promotion. (2015).

Access to safe, secure, and affordable housing is an important social determinant of health. Families with fewer financial resources are more likely to experience sub-standard housing conditions and the associated risks. One in three Solano County residents is at risk of or experiencing displacement from gentrification. Between 2000 and 2015, as housing prices rose, historically Black cities and neighborhoods across the Bay area lost thousands of low-income Black households. Increases in low-income Black households were concentrated in Fairfield, Suisun City, and Vallejo's eastern neighborhoods. Additionally, lower incomes in the County mean Solano has a higher portion of cost-burdened households than San Francisco. Lower income individuals, African Americans, Latino Americans, and Asians are particularly cost-burdened. Two-in-five residents do not own their homes, which is an indication of lack of access to credit and fair lending. Focus groups revealed that housing barriers are escalating within the community, and there is a lack of affordable options across demographics and ages, with many young people experiencing homelessness. The closure of shelters, which provide a much needed safety net for many, and diminishing options for low-income families as well as an influx of residents from other regions (e.g., East Bay) have created additional stressors to housing in the community.

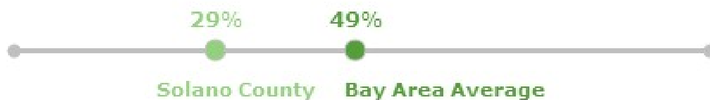
Key Data

Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator, reflected in the following sections.

Cost-burdened Households – spend 30% income or more on housing[1]

Population at Risk or Experiencing Gentrification[2]



Owner Occupied Housing[3]

Barriers to Housing

Community-Identified Themes

- Less affordable and Section 8 housing available due to **influx of East Bay residents** to the region
- Increasing **housing costs**, prevalence of **multi-family housing** arrangements
- Increase in **older adult population** in housing insecurity
- Lack of long term support for people experiencing **homelessness**

" Few new developments, and those that are built are market rate. Developers favor single family homes over affordable housing developments. — *Solano County Human Needs Assessment Interview Participant*

I can't speak for other [homeless] shelters, but this one is basically the last safety net to a lot of the folks out there. It's a free fall, and without this to catch them then, I don't know, where you're going to land. — *Focus Group Participant*

Populations with Greatest Risk

> We did take a look at, statistically, who is being affected by this housing situation, and it is our lower income families, our single parents with children, single moms and children, and our senior citizens; they are the most vulnerable of our community. —*Service provider*
>
> Homelessness is a big problem in Fairfield. I would say it's escalating, —*Service provider*

According to the Solano County Senior needs assessment community survey, seniors requested the following home improvements[4]

- **19%** **bathroom** modifications
- **13%** **medical emergency** response
- **9%** easier **access**
- **8%** improved **lighting**

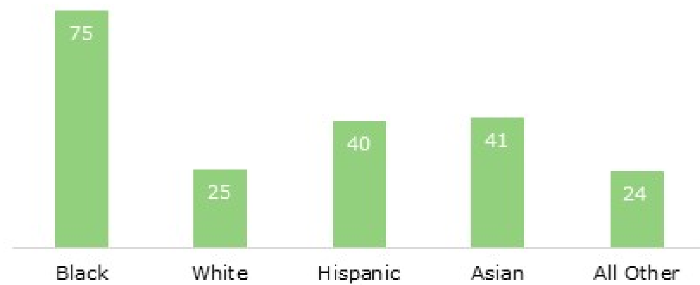
The most common feature that seniors need help adding to their home in both counties is bathroom modifications such as:

- grab bars
- Handrails
- taller toilets
- non-slip tiles

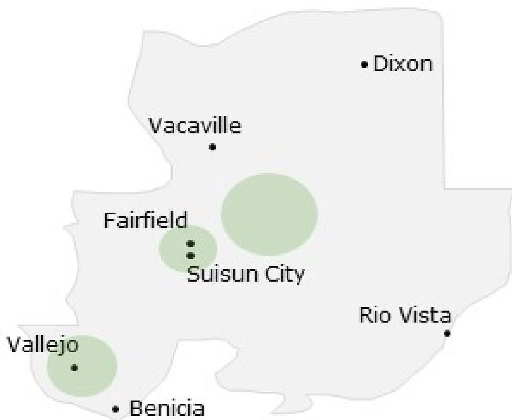
Individuals by income level that spend 30% or more of their income on rent, Solano County[5]

Percent	Income level
11%	$75,000 or More
47%	$50,000 - $75,000
63%	$35,000 - $50,000
78%	$20,000 - $35,000
90%	$20,000 or Less

Families with children under 5 years old, paying more than 30% income on housing[6]



Geographic Areas with Greatest Risk



Cost-burdened households[7]

Nearly 2 in 5 residents spend thirty percent or more of their total household income on housing costs. While this actually fairs better than the state average of 43%—there are several communities in which the **housing cost burden is much worse than the state.**

Over half of residents are cost-burdened in the following census tracts (circle size indicates the regional extent of disparities):

- **Fairfield region:** Between 54-58% of households are cost-burdened.
- **North of Travis Air Force Base:** 64-75% of households are cost-burdened.
- **Vallejo region:** 51-65% of households are cost-burdened.

** Note that Travis Air Force Base region figures may be skewed due to unique income structures of military residents.*

Emerging Needs

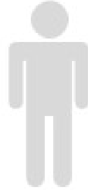
1,232 individuals were counted in the 2017 Point-in-Time count of people experiencing homelessness.

Age at first experience of homelessness, Solano County [8]

58% were 18-24 years old

29% were 17 years or younger

13% were 25 years or older



> We have probably anywhere between **5,000 and 9,000** what I would consider, what our public health officer considers, **situationally homeless.** Meaning they have lost a job, living in a car, couch surfing with relatives, but to me they're still homeless and if you don't tackle *that* population, that chronically homeless population is just **going to grow over the next few years.** Even our staff, we do a lot to assist in terms of rental assistance, finding apartments, or whatever the case may be. Sometimes we have the money, but we don't have units.
> — *Service Provider*

Spotlight on Equity

Community members discussed the following concerns about equity and discrimination:

- In a focus group with WIC recipients, a community member noted the stark differences in housing standards between high and low income housing.
- Influx of East Bay population to Solano county for more affordable housing opportunities has led to many landlords providing fewer Section 8 vouchers to pursue fair market rates.
- Families experiencing homelessness are more likely to live in cars and less likely to accept shelter possibly for fear the family would be separated.
- Increasing rent impacts many residents, including older adults living off of social security benefits.
- Fairfield residents noting that increasing rents have led to the breaking up of their "cute little neighborhood" and impacted their social connections.

> There should be a main [housing] standard for people's health no matter if you have a million dollars, or if you have a hundred.
> — *Focus Group participant*

> There's not enough subsidized housing for the 3,500 mentally ill population... who are hospitalized and then released... 65 slots for supportive housing isn't enough.
> — *Solano County Human Needs Assessment, Interview Participant*

Assets and Ideas

Examples of Existing Community Assets

Commitment of public officials to "Housing First" model (e.g., tiny home/tough shed initiative, shelters accepting pets, women and children only housing)

Task forces with people who have experienced homelessness

Distribution lists for coordinated entry updates & grants dedicated to housing initiatives (e.g., Prop 47)

Ideas from Focus Groups and Interview Participants

- Develop home-sharing programs for older adult population
- Reduce housing application costs to ensure more equitable access
- Facilitate housing access for undocumented families
- Facilitate participatory initiatives that engage community in decision-making
- Partner with churches, including using parts of property for affordable housing or shelters
- Mobile units offering services (e.g., laundry, showers) for people experiencing homelessness
- Continue moving toward a "continuum of housing" model that incorporates housing options for those experiencing mental health or substance abuse issues
- City partnerships with developers to provide affordable or moderate housing, offer tax credits, etc.

References

1. ACS American Community Survey. http://www.census.gov/acs/www/. (2013-17)
2. UC Berkeley REWS.
3. ACS American Community Survey. http://www.census.gov/acs/www/. (2014-18)
4. Napa/Solano Area Agency on Aging: Health Needs Assessment. (2019).
5. U.S. Census Bureau, 2015-17. Cited in Solano County Human Needs Assessment. (2019).
6. Housing Stability and Family Health: An Issue Brief; Bay Area Regional Health Inequities Initiative (BARHII), Federal Reserve Bank of San Francisco; extra analysis by BARHII and Alameda County Public Health of the American Community Survey PUMS data, (2016).
7. American Community Survey. (2012-2016).
8. Point-In-Time, US Housing and Urban Development, Continuum of Care Assistance Programs, Homeless Populations and Subpopulations, CA-518 Vallejo/Solano County CoC.

Mothers in Solano County face many barriers related to their own well-being and that of their children. The rate of infant deaths in the County is higher than the California average, and infant mortality disproportionately impacts people of color. Solano County does have a lower teen birth rate than the California average, which can indicate greater chances for economic security and pregnancy preparedness. However, community stakeholders described inconsistencies in reproductive health care such as discrimination against African American residents. Some potential pathways forward related to maternal and infant health include more work- and community-based childcare options in addition to improved reproductive health services for teens. Solano County service providers noted that over the last ten years, health officials and community providers have made a concerted effort to increase prenatal care and have seen an increase in rates over time, especially for the Medi-Cal population.

Key Data

Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator.

Sudden Infant Death Syndrome (rate per 100,000 population)[1]

Life Expectancy at Birth[2]

Breast Cancer Incidence (rate per 100,000 population)[3]

Infant Deaths (rate per 1,000 Births)[4]

Barriers to Maternal and Infant Health

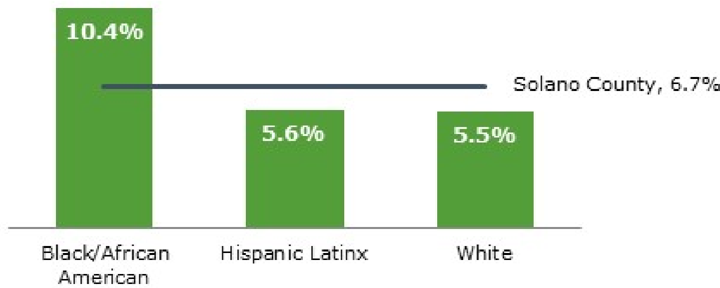
Community-Identified Themes

- **Unhealthy home environment** (substance abuse, domestic violence) and lack of **parent self-sufficiency**
- **Discrimination of pregnant women** (e.g., low-income, history of past drug use) in health settings.
- Lack of **reproductive health care services** including family planning such as Planned Parenthood (esp. for youth)
- Lack of **affordable health care and child care**
- Prevalence of **teen pregnancy** in high school
- Lack of **access to transportation** and **long commutes** for work

I'm working and I feel like I live paycheck to paycheck, and there are times, I feel like if my baby needs something I won't be able to pay for it. You know? Because there's mortgage due, electricity fluctuates…and so that leads back to health issues as well … stress … I'm constantly stressed out. — *Focus Group Participant*

Populations with Greatest Risk

Infants Born at Low Birthweight, by Race/Ethnicity of Mother[5]



> Solano MCAH Bureau supported the activities of Solano HEALS (Health Equity for African American/Black Lives in Solano), an organization whose mission is to promote equity of birth outcomes for Black babies and families in Solano County through its efforts focusing on mental health, race equity training for medical providers, and group prenatal care or Centering Pregnancy. — *MCAH needs assessment respondent*

> So teaching them about good oral health, mental health in addition to that they're taken care of themselves…physical health, and emotional health, and serving the family when they're pregnant so they can continue that when their baby is born. — *Service Provider*
>
> It was something recently that the County was looking into, to figure out what's happening in Vallejo, that they had the highest infant mortality rate, especially amongst women of color. — *Service Provider*

Teen Births

On average, there are lower rates of teen births in Solano county (21%) compared to the sate (24%). However disparities exist by race and ethnicity.[6]

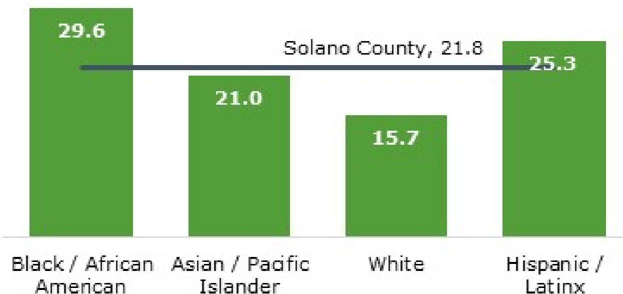
Infant deaths (rate per 1,000 births)[7]

7.7 The infant mortality rate for minority infants

whereas

5.4 The infant mortality rate for White infants

Severe Maternal Morbidity (rate per 100,000)[8]



Geographic Areas with Greatest Risk

Children in single-parent households [9]

Communities **Solano county** have more children living in households with only one parent present compared to **Vallejo**. (Circle size represents portion of children in single-parent households).

- **41.0 %** (**Vallejo**)
- **35.1% (Dixon)**
- **33.3 %** (**Solano County**)
- **30.0 % (Fairfield-Suisun City)**
- **28.9 % (Vacaville)**
- **19.5 % (Rio Vista)**

Children from single-parent households are at increased risk for presenting emotional and behavioral problems, developing depression, using tobacco, alcohol and other substances, and for all-cause morbidity and mortality.

Spotlight on Equity

Community members discussed the following concerns about equity and discrimination:

- Solano service providers noted that medical staff are not always welcoming of patients, and can be insensitive to the needs of patients as well. These negative experiences lead community members to avoid seeking medical care.

  "A client] was recently in the hospital she had gone a couple times and she happened to leave her food on the table and a nurse came to her and said, 'Oh you didn't eat your food. assumed you came so often because you were homeless and wanted to eat'." — Service Provider

- There is a higher prevalence of chronic illnesses in Black women requiring additional supports to increase cultural education related to health issues including diabetes, obesity, and hypertension among others.

  "High blood pressure, diabetes ... I think obesity is a health issue, however, we're [as Black women] on a spectrum as why people start it and end it. We're shaped different. carry different. But what does that look like in terms of obesity [and when pregnant]? — Focus Group Participant

- Service providers shared that many children in the community are raised by other adults in their familial network including grandparents. This is related to the prevalence of substance use and addiction in the community.

  "What I've been hearing too, is you see a lot of grandparents now raising their grandchildren because they'd be sons and daughters that become addicted to some kind of substance; be it methamphetamine, or opiates." — Service Provider

Assets and Ideas

Examples of Existing Community Assets

Support for post-partum depression

Grassroots programs to address disparities in birth outcomes, mental health and increase access to services

Public assistance (e.g., food stamps, cash aid)

Programs create social networks among pregnant women and mothers (e.g., Black Infant Health Solano)

The California Special Supplemental Nutrition Program for Women, Infants, and Children

Ideas from Focus Groups and Interview Participants

- Improve culturally competent care, bedside manner, and recognition of unique context and health needs of different populations
- Increase preventive services such as pre-natal and maternal health supports (e.g., education of mothers early on in pregnancy)
- Increase availability and affordability of reproductive health resources (e.g., free condoms, community clinics, school-based initiatives)
- Better integration of child development services and primary care services to be more convenient for families
- Need after school support systems for low income families
- Integrate more resources into central service facilities such as WIC (e.g., lab work capability to check for anemia)
- More co-location of services and better connections among schools, Head Start services, child care centers
- Prevent inappropriate use of emergency room services by providing more training for young mothers as well as offering non-traditional hours for urgent care
- Need reproductive health services for youth and programs for teen mothers
- Increase school and health sector integration of services, and equitably across
- Offer child care at more community services (e.g., food banks), and employers

References

1. MCAH, California Birth and Death Statistical Master Files. (2010-12).
2. IHME_LE Institute for Health Metrics and Evaluation. (2014).
3. STCANPRO State Cancer Profiles. (2011-15).
4. Area Health Resource file. (2006-10).
5. NVSS_CHR National Vital Statistics System. (2010-16).
6. NVSS_CHR National Vital Statistics System. (2010-16).
7. ARF Area Health Resource file. (2006-2010).
8. Racial and Ethnic Disparities in Severe Maternal Morbidity in Solano County. (2016-17).
9. American Community Survey. (2013-17)

Direct and indirect exposure to violence and injury, such as domestic and community violence, have significant effects on well-being and health. On average, residents of Solano County have higher rates of domestic violence hospitalizations, injury deaths (intentional and unintentional), and violent crimes compared to the state. Nearly half of seniors in the county experienced a fall in the past year, and African Americans have nearly double the County rate of misdemeanor arrests, which are associated with negative health outcomes such as injury an substance use. While Solano County has a lower rate of impaired driving deaths than Napa, the incidence of violent crimes impacts community safety in many ways. Through interviews and focus groups with local stakeholders identified ACEs, stress from economic insecurity, and a lack of safe spaces as barriers to improving health. While ACEs have decreased in recent years, the County rate is still higher than the state average. Many of these barriers disproportionally affect low-income individuals and people of color. Restorative justice programs are one approach that community leaders are implementing to address these and other disparities.

Key Data

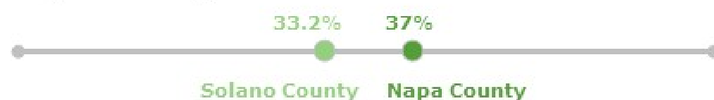
Indicators

Data presented below represent how the County performs relative to the identified benchmark. Indicators performing *better* than the benchmark may still reflect a health need since the benchmark may also be low, indicating a widespread need for improvement, or disparities may exist within the indicator, reflected in the following sections.

Injury Deaths (rate per 100,000 population) [1]

Violent Crimes (rate per 100,000 population) [2]

Impaired Driving Deaths[3]



Domestic Violence Hospitalizations (rate per 100,000 population) [4]

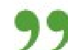
Barriers to Violence/Injury Prevention

Community-Identified Themes

- **Unsafe neighborhoods** as a barrier to accessing services
- Lack of supervision of youth and police protection; leads to **gang-related crime**
- **Criminal activity** outside of **trauma centers** impacts hospital staff
- Service providers lack capacity to support clients who speak **non-English languages**
- Lack of consistent, comprehensive **reproductive health care services** across providers

“ There’s a shortage of everything... there’s not even a local AA chapter in our city and residents don’t have transportation to get to another city. — *Solano County Human Needs Assessment Interview*

I think one trend is fear with a lot of the shootings going on. A lot of our immigrant communities are more fearful. — *Focus Group participant*

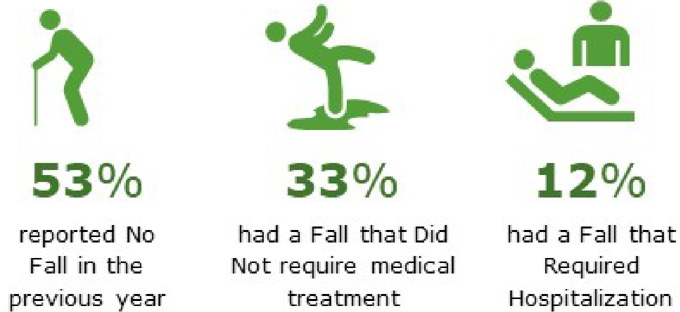


Populations with Greatest Risk

"Even the police say so, 'how can we stop the violence together as a community and people better themselves?' It's gonna have to take someone or something to actually stand up and take the initiative to help better Vallejo.— *Focus Group participant.*

Obviously concentrations of [crime] is in the [Country Club] Crest neighborhood in Vallejo which has a long history of gang related violence. The more rural that you go, I'm not going to say that there's less crime, but I don't think it's more gang oriented than you see in the urban pockets. — *Service Provider*"

Fall History in the Last Year (seniors and disabled)[5]

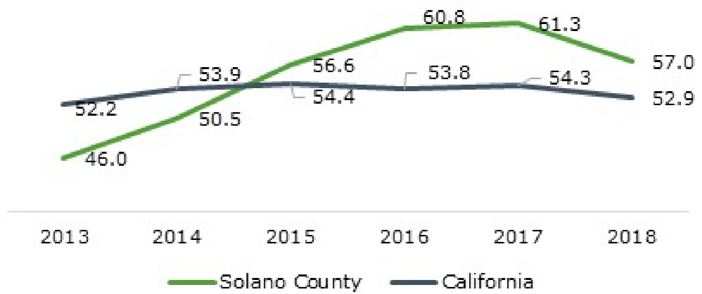


53% reported No Fall in the previous year

33% had a Fall that Did Not require medical treatment

12% had a Fall that Required Hospitalization

Reported Child Abuse or Neglect (rate per 1,000 population)[6]



Adult Misdemeanor Arrest Rate (per 1,000 population)[7]

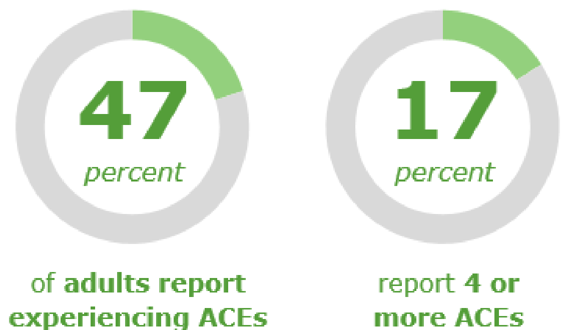
59.9 for **Black/African-American** residents

29.4 **Solano County** average

Individuals who have adverse involvement with the justice system are at **increased risk** for a number of negative long-term outcomes, such as **injury, substance use** and dependency, **dropping out of school**, and **early pregnancy**.

Conditions that increase the likelihood of adverse involvement with the justice system include **family poverty, separation from family members** including parental incarceration, a **history of maltreatment**, and **exposure to violence.**

Adverse Childhood Experiences[8]



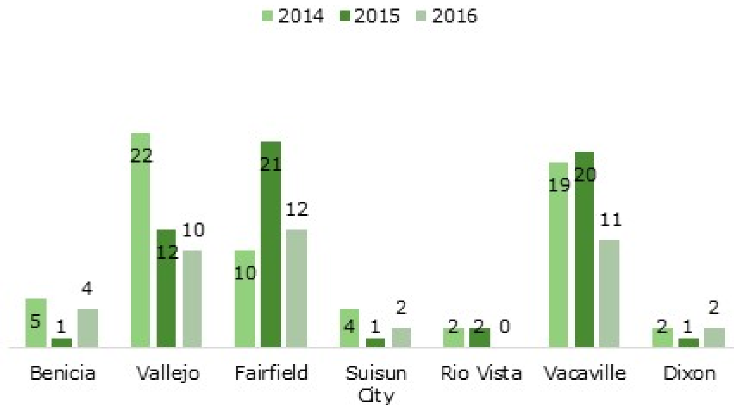
of **adults report experiencing ACEs**

report **4 or more ACEs**

"[From conversations with inmates:] It's who they surround themselves with at a very, very young age that seems to have made a big impact. — *Service Provider*

Geographic Areas with Greatest Risk

Suicide Deaths by City of Residence: 3 years[9]



"The year 2016 shows a fairly even number of suicides across the three major cities, though in 2014 Vallejo had its highest rate and in 2015 Fairfield had its highest rate in the three-year period."
- Solano County Suicide Prevention Strategic Plan

Suicide Deaths by Region[10]

"In Solano County, the largest percentage of suicide deaths occur among residents in the Southern region of the County (Benicia and Vallejo) at 34% (160) with the Northern region (Vacaville and Dixon) experiencing the 2nd largest percentage of suicide deaths at 30% (141)."
– Solano County Suicide Prevention Strategic Plan

Spotlight on Equity

Community members discussed the following concerns in regard to equity and discrimination:

- A Solano County service provider noted that there is a disproportionately high number of youth of color in the region's juvenile hall. They shared that a greater focus on restorative justice programs for both youth and adults can prevent incarceration.
- Service providers noted that many inmates are illiterate and have shared that damaging social connections in school led to them abandoning education which fueled their path toward crime.
- Both service providers and other community members emphasized the negative impacts of economic stress and unhealthy home environments on violence and crime. For example, if child care is unaffordable, children are more likely to be left in adverse environments.

[On the relationship between health and crime:]
It's just the overall vulnerabilities and risk factors of living in a neighborhood that has crime prevalent on some level. — *Service Provider*

Assets and Ideas

Examples of Existing Community Assets

Family Violence Unit that addresses elder abuse, child abuse, sexual assault, and domestic violence—and individual officers that are helpful

Incorporation of restorative justice principles in services for youth and adults (e.g., Center for Positive Change)

Mobile advocates providing care coordination and support to victims (e.g., legal aid, support groups, crisis counseling)

Ideas from Focus Groups and Interview Participants

- More economic and community stability allowing people to take initiative and create change
- Stronger focus on preventive measures (e.g., education, support programs, mentorship, etc.)
- Access to safe parks and gun control/reform
- Need new domestic violence shelters (one recently closed)
- Improve respect and social inclusion of all community members (e.g., from public officials)
- Healthy Families America home visiting program which has been shown to reduce incidences of child abuse and neglect for participating families
- Office of Family Violence Prevention, LIFT 3, and Solano SafeQuest
- The Referral Quality Management Collaborative (now known as Solano Perinatal Network) continued to streamline and improve the referral process for referring at-risk pregnant women to resources and programs

References

1. NVSS_CHR National Vital Statistics System. http://www.cdc.gov/nchs/nvss.htm/. (2012-16).
2. FBI_ICPSR FBI Uniform Crime Reports. http://www.fbi.gov/about-us/cjis/ucr/ucr. (2012-14).
3. FARS_CHR Fatality Analysis Reporting System. http://www.nhtsa.gov/FARS. (2012-16).
4. EPICENTER California EpiCenter. http://epicenter.cdph.ca.gov/. (2013-14).
5. Napa/Solano Area Agency on Aging: Health Needs Assessment. (2019).
6. Webster, D., et al. California Child Welfare Indicators Project Reports, UC Berkeley Center for Social Services Research. (2019).
7. California Department of Education cited in Solano County Human needs assessment. (2008-13).
8. Same as above.
9. Solano County Suicide Prevention Plan. (2017).
10. Same as above.

Next Steps

How the County Plans to Use these Findings

Solano County has a broad range of community-based organizations, government departments and agencies, hospital and clinic partners, and other community groups already engaged in addressing many of the health needs identified by this assessment. Solano Public Health envisions a countywide, population health approach, to further align intervention efforts among stakeholders and address priority health needs together.

Although the CHA process did identify some community resources available to address each prioritized health need, the Community Health Improvement Planning (CHIP) process will further refine strategies for improving health and highlight gaps to be addressed. Solano Public Health will be conducting the Community Health Improvement Planning Process through June 2021. If you are interested in participating in or learning more about this process, please contact Jose Caballero, the Quality Improvement and Accreditation Coordinator at the Solano County Department of Health and Social Services, at JRCaballero@SolanoCounty.com.

Sharing Back with the Community

In accordance with the core tenants of accreditation (transparency, accountability, and continuous quality improvement), Solano Public Health has created a virtual slide deck version of this report to share with community stakeholders. The goal of these presentations will be to inform community members of the CHA process and findings, solicit feedback and questions for discussion, and to introduce the CHIP planning process to begin to identify assets and strategies for tackling health needs. Additionally, the report will be made accessible to the general public through publication in local press, Solano County website hyperlinks, community forums and listening sessions (such as town meetings), and circulation through the Health and Social Services newsletter.

Who to Contact with Questions

If you have questions about this report or comments you would like to share for the public record, you can reach each of the collaborating CHA and CHNA Partners through the following contact methods:

Solano County Health & Social Services
275 Beck Avenue Fairfield, CA 94533
Phone: 707-784-8600

Kaiser Foundation Hospital – Vallejo (Vallejo Medical Center)
Phone: (707) 651-1000
Email: CHNA-communications@kp.org

Kaiser Foundation Hospital – Vacaville (Kaiser Permanente Vacaville Medical Center)
1 Quality Dr, Vacaville, CA 95688
Phone: (707) 624-4000
Email: CHNA-communications@kp.org

NorthBay Medical Center
1200 B Gale Wilson Blvd, Fairfield, CA 94533
Phone: (707) 646-5000
Email: dfowler@northbay.org

Sutter Health – Vallejo (Sutter Solano Medical Center)
300 Hospital Dr, Vallejo, CA 94589
Phone: (707) 624-4000
Email: SHCB@sutterhealth.org

Appendix A: Focus Group Protocol

Solano County

Note to facilitator: Text in red should be updated prior to the start of the focus group.

Introduction + Getting Settled (15 minutes)

Hello, my name is ____________ from Harder+Company Community Research and I will be leading today's discussion. This is ____________ and he/she will be taking notes and tracking time. He/she may jump in with any additional questions as we go along. We want to thank you for agreeing to be a part of this discussion, which will last about an hour and a half.

We are working with the Kaiser Permanente, Sutter Health, and Solano Public Health to help understand the health needs in this area. We will be using the information we collect during discussions like this and data from the health department and census to write our report.

The goal is to understand the health needs of your community. We will talk today about "health", including diseases like asthma and heart diseases, and also things that can influence health, like social, political and environmental situations. These are sometimes called "social determinants of health" and can include thing like how easy it is to get medical care, the economy, safety, and housing. We will also talk about "health equity" in your community, which means how easy or hard it is for everyone to be as healthy as they can be, with no one at a disadvantage because of their position in society.

Before we start, I want to share some guidelines for our discussion:

- We want everyone to have an equal chance to speak.
- There are no right or wrong answers, and we hope that you will be as honest as possible.
- What you say will be confidential, which means that we will not use your name when talking about what we learn from our discussion.
- Please respect everyone's opinions. It is fine to have a different opinion, and we hope that you will feel comfortable sharing your opinion even if it is different from what others have said.
- Please ask questions if you are not sure what something means.
- Because we have a short time together and a lot to talk about, I may interrupt you so that we can hear what everyone has to say about all my questions.

[FACILITATOR ADJUST AS NECESSARY, DEPENDING ON # OF SURVEYS FILLED AT ONSET]
I also have a short survey for you to fill out if you would like to. This will help us learn more about who is joining these conversations. The survey is anonymous, so you do not need to put your name on it and we will only use it in our report all together with everyone else's answers. If you have not filled the survey out and would like to, please do so after we finish the discussion.

If everyone is okay with it, we want to record our discussion. We will only use the recording to make sure we remember what we talked about as we write our report. Again, we will never use your name in anything we write. Is it okay with everyone if I record?

Does anyone have any questions before we start?

[turn on recorder]

Background - 20 minutes (75 minutes left at the *start* of this section)

1. Let's start by introducing ourselves.

    a. Residents: Please tell us your name, the town you live in, and one thing that you are proud of about your community.

    b. Service Providers: Please tell us your name, your current position, and role within your organization.

2. We would like to hear about the community where you live/that you serve.

    a. Residents: Tell us in a few words what you think of as "your community". What it is like to live in your community?

    b. Service Providers: How would you define the communities and populations you serve?

3. Next, we would like to do a short activity.

    Note to facilitator: After participants have answered Question #2, hand out the ladders to everyone.

    Step 1

    We are handing out pieces of paper with ladders on them. On the ladder, you will see numbers. Circle the number that you think best stands for the community that you just described, *in comparison to other communities*. A lower number represents worse off than other communities and a higher number represents better off than other communities. You will not have to share the number you select. It may be helpful to think about how your community compares to other communities by: geographic region, racial or ethnic makeup, or the physical environment.

    Step 2

    Next, please take a minute to write or think about what experiences your community has had that contribute to the number you circled on the ladder. You can write in the box next to the ladder if you would like. For example, how does the description you gave of your community a minute ago relate to the number you chose on the ladder?

    Step 3
    Finally, how do these experiences relate to health in your community?

    Note to facilitator: Remind participants that we define health broadly, including health outcomes such as asthma and heart diseases, as well as all factors that influence health, such as social, political, and environmental surroundings (social determinants of health). These can include access to medical services, economic conditions, safety in your community, and housing, factors influencing health that we refer to as social determinants of health.

Health Issues - 15 Minutes (55 minutes left)

Next, I would like you to think about what a "healthy environment" is, keeping in mind the broad definition of health discussed earlier which includes social, political, environmental, and equity factors.

4. What do you think that a "healthy environment" is?

5. When thinking about your community based on the healthy environment you just described, what are the biggest health needs in your community?

    a. PROMPT: Are needs more prevalent in a certain geographic area, or within a certain group of the community?

6. What issues are coming up lately in the community that may influence health needs?

Challenges and Barriers - 10 Minutes (40 minutes left)

We have talked about what a healthy community looks like and what needs exist in the community. Now I would like to talk about challenges and barriers to healthy living and a healthy community.

7. What are the challenges or barriers to being healthy in your community?

    a. PROMPT: I know [insert from above conversation if applicable] has already been mentioned, what are some other things that act as barriers or challenges?

    Note to Facilitator: Reflect on what you have heard so far, ask about other types of barriers that may not have been mentioned yet, including the following: behaviors, social factors, economic factors, clinical care factors, or the physical environment (e.g., air, water, sound, land).

8. From your perspective, what health services are difficult to access for you and the people you know in your community?

    a. PROMPT: What challenges keep individuals from seeking help?

Solutions - 10 Minutes (30 minutes left)

Now that we have identified barriers and challenges that exist in the community that make health hard to attain, I would like to talk about solutions.

9. What are some solutions that can help solve the barriers and challenges you talked about?

    Note to Facilitator: Reflect on what you have heard so far, ask about other types of barriers that may not have been mentioned yet, including the following: behaviors, social factors, economic factors, clinical care factors, or the physical environment (e.g., air, water, sound, land)

    ** These solutions should not be focused just on Kaiser, or clinical care, but about the factors that holistically impact the community. It is important to note for example that community investment guidance arises from CHNAs.*

Priorities - 15 minutes (25 minutes left)

Now that we have had a chance to discuss the community's health needs from a number of perspectives, I would like to ask you to identify the top needs.

10. Based on what we have discussed so far, what are currently the most important or urgent top 3 health issues or challenges to address to improve the health of the community? [*Note to Facilitator: Go around and have everyone share their top 3 health issues; probe those who don't respond or allow folks to add only 1 or 2 that haven't been mentioned. The group does <u>NOT</u> need to agree on a final top 3.*]

a. PROMPT: These are health issues or challenges you identify in your community and they may be the same or very different from others, we'd like to hear all of your perspectives.

11. Are these needs that have recently come up or have they been around for a long time?

    a. PROMPT: What historical/societal events have occurred since the last assessment (2015) that should be taken into consideration regarding any changes in health needs and inequities?

12. **[TIME PERMITTING]** During the last Community Health Needs Assessment (in 2015), obesity, education, housing, and healthcare access were identified as key needs in this region. What do you think has changed/stayed the same in the community since 2015 that makes these priorities less/more/equally pressing?

2016 CHNA Priorities

1. Obesity and Diabetes
2. Education
3. Economic and Housing Insecurity
4. Access to Healthcare
5. Mental Health
6. Substance Use
7. Oral Health

Resources - 10 Minutes (10 minutes left)

13. What are resources that exist in the community that help your community live healthy lives and address the health issues and inequity we have discussed?

    a. PROMPT:
        i. Barriers to accessing these resources.
        ii. New resources that have been created since 2016
        iii. New partnerships/projects/funding

14. **[TIME PERMITTING: prioritize for <u>initial</u> focus groups]** Are there certain groups or individuals that you think would be helpful to speak with as we go forward with our Community Health Needs Assessment?

    a. PROMPT:
        i. Service providers
        ii. Community leaders
        iii. Community groups

15. Is there anything else you would like to share with our team about the health of the community?

Thank you for your time and sharing these insights with us!

Community Ladder – Background and Directions

Question #3

Purpose

This activity builds on the MacArthur Scale of Subjective Social Status Ladder (https://macses.ucsf.edu/research/psychosocial/subjective.php). The goal is to help focus group participants think about social determinants of health as they discuss health needs, priorities, and challenges.

As part of the materials for the focus group, bring enough copies of the ladder for everyone in the focus group.

Directions below can be read to participants unless indicated as a note to the facilitator.

Directions (Note: these directions are also included above in the FG Script)

Step 1

Note to facilitator: After participants have answered Question #2 and a chance to describe how they describe the community in which they live/or serve, hand out the ladders to everyone.

We are handing out pieces of paper with ladders on them. On the ladder, you will see numbers. Circle the number that you think best represents your community that you just described, in *comparison* to other communities. A lower number represents worse off than other communities and a higher number represents better off than other communities. You can also hold the number in your head. You will not have to share the number you select. It may be helpful to think about the following: specific geographic regions, the racial or ethnic makeup of the community or the physical environment.

Step 2

Next, please take a minute to write or think about what experiences your community has had that contribute to the number you circled on the ladder. You can write in the box next to the ladder if you would like. For example, how does the description you gave of your community a minute ago relate to the number you chose on the ladder?

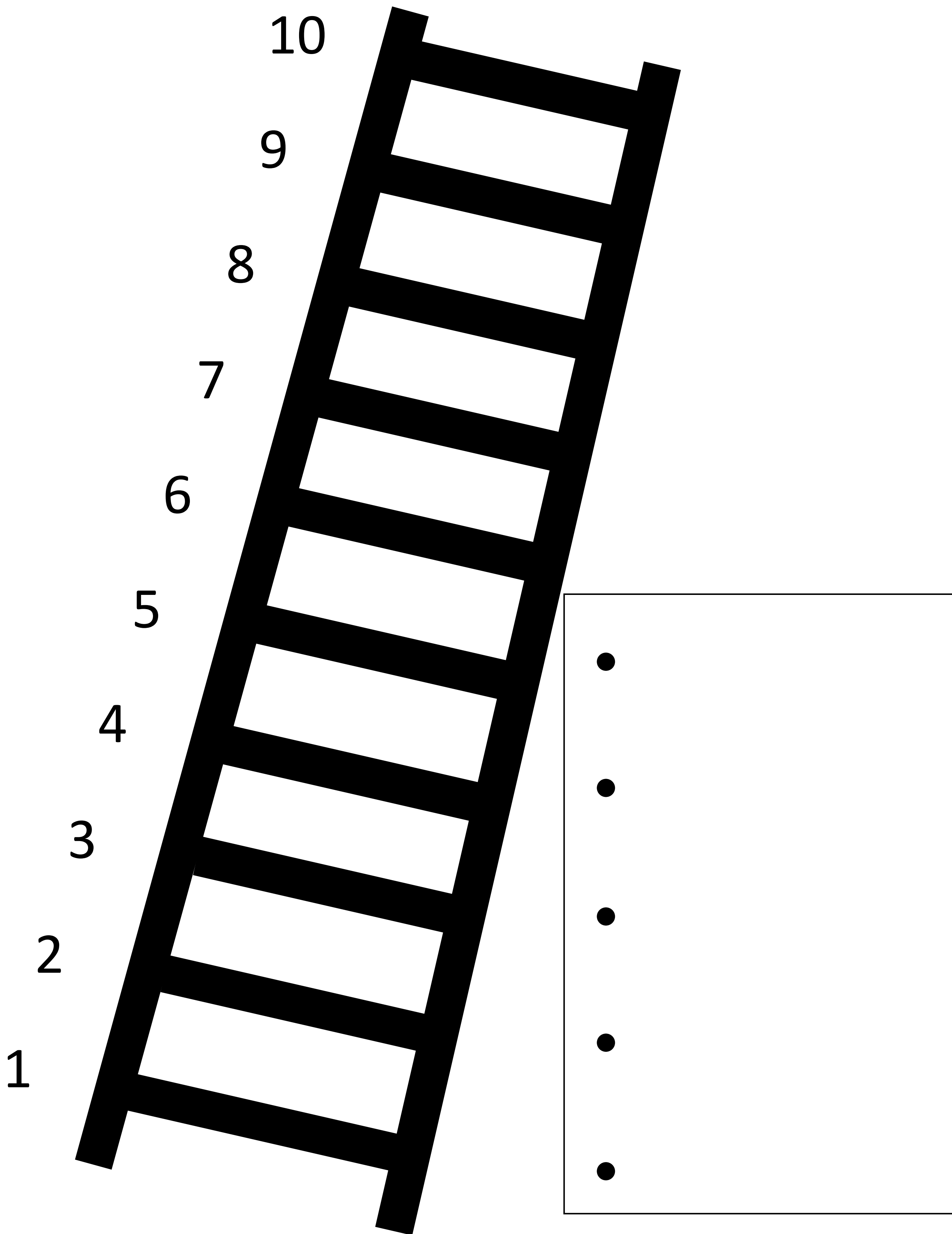
Step 3

Finally, how do these experiences relate to health in your community?

Note to facilitator: Remind participants that we are defining health broadly, including health outcomes such as asthma and heart diseases, as well as all factors that influence health, such as one's social, political, and environmental surroundings, referred to as social determinants of health. These can include access to medical services, economic conditions, safety in your community, and housing, factors influencing health that we refer to as social determinants of health.

Return to protocol

Note to facilitator: Return to the protocol and refer to the concepts discussed throughout the focus group as they relate to subsequent conversations.


10
9
8
7
6
5
4
3
2
1

Appendix B: Key Informant Interview/Group Interview Protocol

Solano County

Introduction (10 minutes)

Hello my name is _______ from Harder+Company Community Research. This is _________, my colleague, who will be taking notes today and jumping in as needed to clarify what was said or keep me on track with time. We are working with Kaiser Permanente, Sutter Health, and Solano Public Health to complete their 2019 Community Health Needs Assessment to better understand the health needs in this region.

The goal of this interview is to understand the priority health needs of the community that you serve. *Health* is to be defined broadly, including health outcomes such as asthma and heart diseases, as well as all factors that influence health such as social, political, and environmental surroundings, referred to as social determinants of health.

We are also interested in understanding health equity and inequity in the community. To make sure we are all on the same page, *health equity* is defined as the opportunity for everyone to attain full health potential where no one is disadvantaged in achieving this potential based on social position or other socially defined circumstances.

Before we begin, I would like you to know that your responses will be confidential, which means that we will not connect your name with anything you say when we report our findings. There are no right or wrong answers, and we encourage you to be as candid as possible.

I also have a voluntary questionnaire for you to fill out that will help us understand your role in your organization and the community you serve. You do not need to fill it out if you do not want to.

[Group Interviews only, when applicable] For this interview, two members of the Kaiser leadership is/are present. I will give them a chance to introduce themselves in a minute. They are here to listen to your perspectives on your community health needs and will not be active participants in this interview. As I mentioned before, we encourage you to be honest and candid so we can truly understand the health needs of the community you serve.

Lastly, if no one objects, we would like to record this conversation. The recording will only be used to ensure that we accurately capture the conversation today. Everything we write in the reports will be about all our interviews together, and not use your name. Is it okay if I record?

Do you have any questions for me before we start?

{turn on recorder}

Background - 10 minutes (50 minutes left)

16. Briefly, what is your current position and role within your organization?
17. How would you define the communities you serve and live in, as well as the population you serve?

a. It may be helpful to think about the following: specific geographic regions, the racial or ethnic makeup of the community or the physical environment

Health Issues – 10 Minutes (40 minutes left)

Next, I would like you to think about what a *healthy environment* is, keeping in mind the broad definition of health discussed earlier, which includes social, political, environmental, and equity factors.

18. What does a healthy environment look like?

19. When thinking about your community in the context of the healthy community you just described, what are the biggest health needs in the community?
    a. PROBE: Are needs more prevalent in a certain geographic area, or within a certain group of the community?

20. What have been some emerging issues in the community that may influence health needs?

Challenges/Barriers - 10 Minutes (30 minutes left)

We have talked about what a healthy community looks like and what needs exist in the community. Now I would like to talk about challenges and barriers to healthy living and a healthy community.

21. What challenges or barriers exist in the community to being healthy?
    a. PROMPT: I know *[insert from above conversation if applicable]* has already been mentioned, what are some other things that act as barriers or challenges?
    b. PROMPT: *Reflect on what you have heard so far, ask about other types of barriers that may not have been mentioned yet, including the following: behaviors, social factors, economic factors, clinical care factors, or the physical environment (e.g., air, water, sound, land)*

       Barriers should not just focus on clinical care, but also on factors that holistically impact the community.

Solutions - 10 Minutes (20 minutes left)

Now that we have identified barriers and challenges that exist in the community that make health hard to attain, I would like to talk about solutions.

22. What are some solutions that can address the barriers and challenges that you have identified?
    a. PROMPT: *Reflect on what you have heard so far, ask about other types of solutions that may not have been mentioned yet, including the following: behaviors, social factors, economic factors, clinical care factors, or the physical environment (e.g., air, water, sound, land)*

       As with the barriers, solutions should not just focus on clinical care, but also on factors that holistically impact the community. It is important to note for example that community investment guidance arises from CHNAs.

Priorities - 5 minutes (10 minutes left)

Now that we have had a chance to discuss the community's health needs, I would like to ask you to identify the top needs.

23. Based on what we have discussed so far, what are currently the *most important* or urgent top 3 health issues or challenges to address to improve the health of the community?

24. Are these needs that have recently emerged recently or are they long-standing?
    a. PROBE: What historical/societal influences have occurred since the last assessment (in 2015) that should be taken into consideration regarding any changes in around health needs and inequities?

Resources - 5 Minutes (5 minutes left)

25. What are resources that help your community live healthy lives and address the health issues and inequity we have discussed?
    a. PROBE:
        - Barriers to accessing these resources.
        - New resources that have been created since 2016
        - New partnerships/projects/funding

26. {IF EARLY IN THE PROCESS AND THIS IS NEEDED} Are there certain groups or individuals that you think would be helpful to speak with as we go forward with our Community Health Needs Assessment?
    a. PROMPT:
        - Service providers
        - Community leaders
        - Community groups

27. Is there anything else you would like to share with our team about the health of the community?

Thank you for your time and sharing these insights with us!

harderco.com

Harder+Company Community Research works with public- and social-sector organizations across the United States to learn about their impact and sharpen their strategies to advance social change. Since 1986, our data-driven, culturally-responsive approach has helped hundreds of organizations contribute to positive social impact for vulnerable communities. Learn more at www.harderco.com.