2022 Community Health Needs Assessment

NorthBay Health Community Benefit
Board of Directors
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NorthBay HEALTH

Welcome to our 2022 Community Health Needs Assessment

At NorthBay Health, our presence as a leader in innovative health care solutions is made possible by a talented team of professionals who enjoy making a difference and a living in the Solano County region. We call our friendly and caring approach "The NorthBay Way." We are deeply committed to reducing inequities and health disparities. This is work that we do collaboratively. The Community Health Needs Assessment (CHNA) is a unique opportunity for us to partner with other health systems, nonprofit organizations, leaders in public health, and residents with the ultimate goal of identifying and prioritizing the significant health needs of our community.

The priorities identified in this report and the needs articulated by the individuals who contributed to its creation help guide our community benefit activities and initiatives to improve community health. In particular, the Implementation Plan that we develop is our roadmap for the next three years – it will help us better invest our resources and position us to more efficiently and innovatively reduce inequities in our communities.

This report focuses on Solano County. However, NorthBay Health's impact extends beyond Solano County and into our neighboring communities that make up our area of interest.

We hope this report engages you and gives you new perspectives on the needs in our communities, while describing the highly meaningful work that we do.

We invite you to read this Community Health Needs Assessment report, reflect on the challenges in our communities and consider opportunities for collaborative improvement. We encourage you to share your feedback with us.

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I. **Executive Summary**

Community Health Needs Assessment Background

The Patient Protection and Affordable Care Act (ACA) of 2010, enacted on March 23, 2010, included requirements for nonprofit healthcare organizations that wish to maintain their tax-exempt status. The provision was subject to regulations, finalized on December 31, 2014, and provides guidance related to section 501(r) of the Internal Revenue Code. These regulations mandate that all nonprofit healthcare organizations must conduct a Community Health Needs Assessment (CHNA) every three years (U.S. Federal Register, 2014).

The Community Health Needs Assessment incorporates input from experts in public health, local health departments and community members. It is a rich source of data for NorthBay Health and partners to understand service area-wide health issues and emerging trends and to inform planning. Community members must include representatives of medically underserved populations, minority groups, and low-income individuals. The CHNA must be completed by the final day of the hospital's taxable year, and the hospital must make the CHNA report widely available to the public.

California Legislative Senate Bill 697, enacted in 1994, stipulates that private nonprofit hospitals submit an annual report to the Department of Health Care Access and Information (HCAI) that shall include, but shall not be limited to, a description of the activities that the hospital has undertaken within its mission and financial capacity to address identified community needs. Furthermore, hospitals shall describe the process by which they involve local government officials and community groups in helping to identify and prioritize the community needs to be addressed.

The 2022 CHNA builds upon the information and understanding that resulted from previous assessments. The CHNA process, completed in fiscal year 2022 and described in this report, will serve as the basis for implementation strategies that are

required to be filed with the IRS as part of the hospital organization's 2022 Form 990, Schedule H.

The 2022 CHNA meets both state (SB 697) and federal (ACA) requirements.

2022 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 six health needs that emerged as top concerns in Solano County are presented in priority order below. The health need profiles presented in the "Prioritized Description of All Community Health Needs" section provide more detailed descriptions of each of the health needs, including additional data, interview quotes, and focus group themes.

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 the percentage or number of residents who have recently had 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.

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 substandard housing conditions and the associated risks. One in three Solano County residents is at risk of 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.

Income & Employment. Intrinsically related to all health issues from housing to behavioral health, income and employment are strong determinants 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.

Mental & Behavioral Health. Mental and behavioral health are 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. Adverse Childhood Experiences (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 reported feelings of depression.

Community Safety. 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.

Transportation. Having access to transportation services to support individual mobility is a necessity of daily life. Without transportation, individuals struggle to meet their basic needs, including those needs that promote and support a healthy life. In the Vacaville service area, 77 percent of workers over the age of 16 drive alone to work via car, truck or van. While this rate is similar to the state average of 74 percent, just 4 percent of workers in the area travel via alternate modes of transportation such as transit, cycling, or walking, compared to 8 percent statewide.

Inadequate transportation infrastructure can prevent people from using more active modes of transportation, and it can also make walking and cycling unsafe for those who do use those modes to get around. Among local workers, 15 percent drive alone with commutes over an hour long – 75 percent worse than the state average of 11 percent. Long commutes are also associated with reduced physical activity and increased body mass index and blood pressure, leading to detrimental health effects.

II. **Introduction**

About NorthBay Health

NorthBay Health opened its first hospital in 1960 and remains as Solano County's only locally based, locally managed nonprofit health care organization. NorthBay Health Medical Center in Fairfield and NorthBay Health VacaValley Hospital in Vacaville are known for providing quality services and access to a host of specialty practices.

Both hospitals offer 24-hour emergency care. Both have maintained accreditation from The Joint Commission on Accreditation of Healthcare Organizations. Both Emergency Departments are certified stroke centers and are approved to care for pediatric patients. Both have helipads and can receive and transport critically ill and injured patients. NorthBay Medical Center's facility is also an accredited Chest Pain Center and Level II Trauma Center.

The 154-bed NorthBay Medical Center is a center of excellence for maternal and child services. Its Newborn Intensive Care Unit provides the most sophisticated services for premature or ill newborns within 50 miles. The hospital has a 24-bed Intensive Care Unit. The campus is home to advanced programs including NorthBay Health Neuroscience, NorthBay Health Women's Services and NorthBay Health Heart & Vascular.

The NorthBay VacaValley Hospital opened in 1987 as a result of a community-wide fundraising effort and as of September 2022, is using 24 of its 50 licensed patient beds. The campus is home to the NorthBay Cancer Center, where a team of hematologist/oncologists, nurse navigators, oncology-certified nurses and a genetic counselor provide cancer patients access to chemotherapy, radiation, biotherapy and infusion treatments. State-of-the-art imaging includes the Varian TruBeam linear accelerator, as well as digital mammography, MRI, ultrasound, 3D mammography, MRI-guided breast biopsy, CT, PET scans and X-ray services.

There are three NorthBay Health Primary Care facilities in in Fairfield, Vacaville and Green Valley. Each location features board-certified family practice physicians, internists and pediatricians. In addition, NorthBay offers a wide array of specialists in convenient locations in Vacaville and Fairfield.

I. Our Vision: Advancing Medicine in Our Community

NorthBay Health brings sophisticated medical services to Solano County by recruiting highly trained physicians and staff who are vital to outstanding patient care. Facilities are equipped with the latest technology to facilitate cutting-edge health care.

II. Our Mission: Compassionate Care, Advanced Medicine, Close to Home

NorthBay Health leads the way in providing advanced medicine to the people of Solano County. The compassion, commitment to excellence, and the depth and breadth of services are a testament to NorthBay Health’s enduring commitment to the local community. NorthBay Health strives to ensure that local residents remain near home for most of the health care services they'll need throughout their lifetimes.

NorthBay Health's Definition of "Community Served"

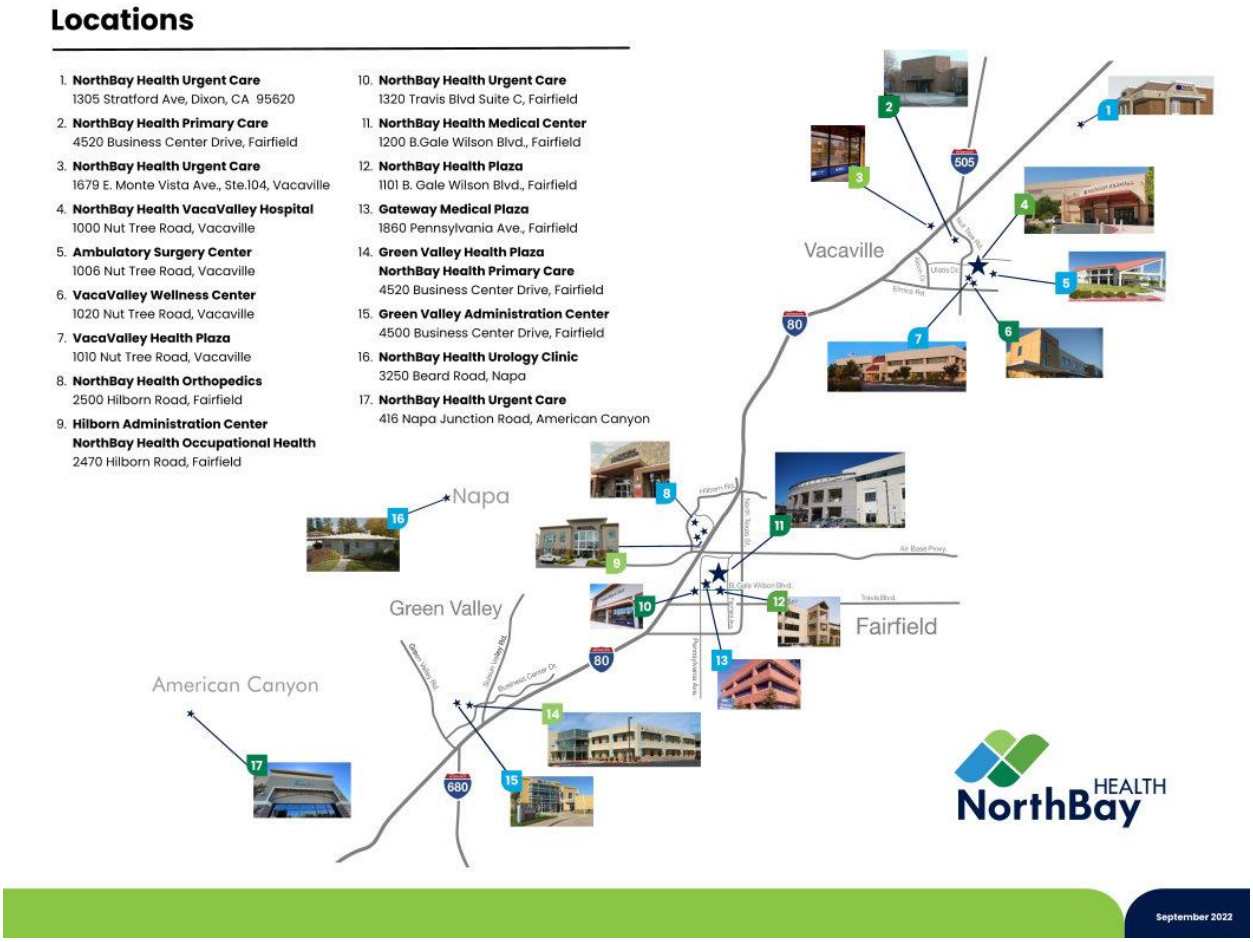
The Internal Revenue Service defines the "community served" as those individuals residing within the hospital's service area. A Hospital Service Area (HAS) includes all residents in a defined geographic area and does not exclude low-income or underserved populations. As noted previously in this report, NorthBay Health serves all residents in Solano County, with a concentration of residents in the Fairfield, Vacaville, and Suisun communities.

I. Solano County

Solano County is located approximately 45 miles southwest of Sacramento and 45 miles northeast of San Francisco. The county's main cities and towns are Benicia, Birds Landing, Dixon, Fairfield, Elmira, Rio Vista, Vacaville, and Vallejo. (*See county map, next page.*) 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 percent for the United states population (Solano County Transit, 2019).

The Kaiser Permanente Community Health Data Platform estimates a population of about 445,432 in Solano County, and nearly 15.3 percent of the population includes people age 65 years and over. The community is highly diverse in socioeconomic status and ethnicity. The two largest ethnic subpopulations countywide are White and Hispanic (36.6% and 27.6%, respectively) (Kaiser Permanente Oakland, 2022).

Figure 1. NorthBay Health's "Community Served"



NorthBay Health's Service Area

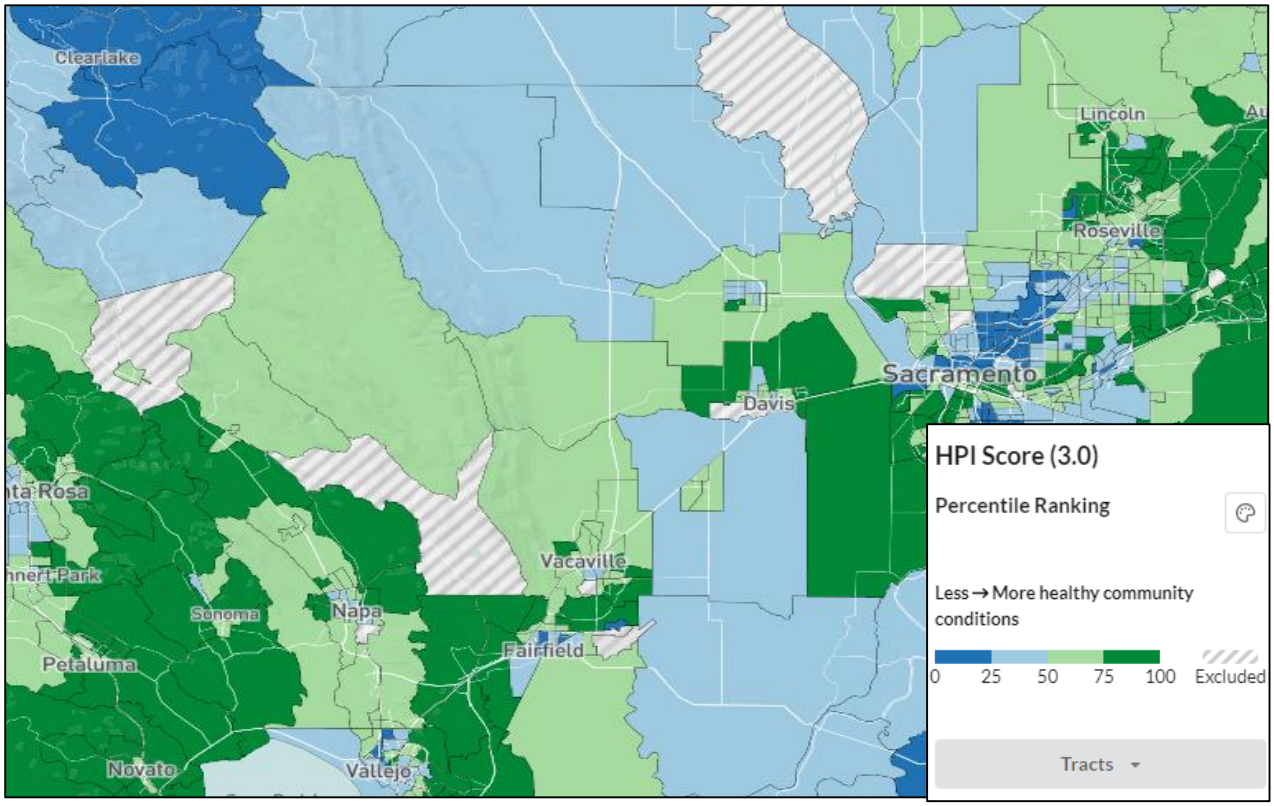
I. Geographic Description of the Community Served

The map represents access to family and community resources, referred to as social determinants of health, within the NorthBay Health service area and surrounding geographic areas. Specifically, "healthy conditions" represent access to factors related to economic, social, and neighborhood resources, as well as a clean environment, education, transportation, housing and health care, as measured in the California Healthy Places Index **(**https://map.healthyplacesindex.org/).

Table 1. NorthBay Health's Service Area Zip Codes and Corresponding Cities

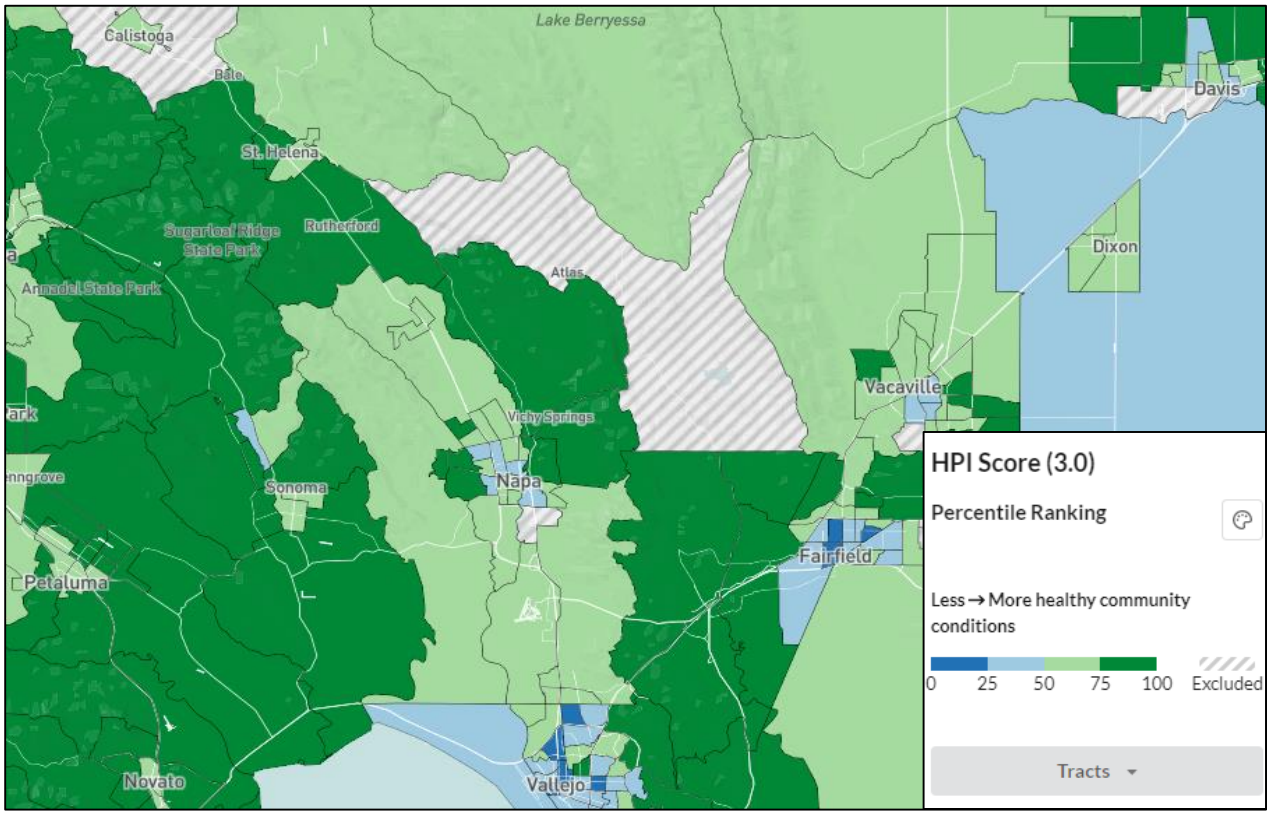
Zip Code	City
94533	Fairfield
95687	Vacaville
95688	Vacaville
94585	Suisun City
94534	Fairfield
95696	P.O. Boxes
94535	Travis Air Force Base
95625	Elmira
94512	Birds Landing
95620	Dixon
95694	Winters
94571	Rio Vista
94590	Vallejo
94591	Vallejo
94589	Vallejo
94510	Benicia
94592	Vallejo

Figure 2. NorthBay Health's Service Area's Access to Family and Community Resources



The map above represents the health outcomes of individuals living within the NorthBay Health service area and surrounding geographic areas. Specifically, the map includes measures related to arthritis, asthma, blood pressure, cancer, heart disease, diabetes, birth weight, life expectancy, obesity, kidney disease, mental and physical health, pedestrian injury, cognitive and physical disabilities, and stroke as measured in the California Healthy Places Index (https://map.healthyplacesindex.org/). The comparison of the two maps presented (i.e., social determinants of health and health outcomes), highlights the correlation between access to family and community resources and health outcomes, such that reduced access to resources is associated with worse health outcomes.

Figure 3. NorthBay Health's Service Area's Health Outcomes



ii. Demographic Profile of the "Community Served"

Demographic Profile: NorthBay Health's Service Area (2022)

Race/Ethnicity	% Population
Total Population	100.0%
White	48.8%
Hispanic	27.1%
Asian	15.7%
African-American	14.5%
Other Race	11.3%
Multi-Race	8.2%
Hawaiian/Pacific Islander	0.8%
American Indian/Alaska Native	0.8%

Data Source: Advisory Board Demographic Profiler Tool

Socioeconomic Data	% Population
Living in poverty (<100% federal poverty level)	7.9%
Children in poverty	10.5%
Unemployment	14.7%
Uninsured population	4.6%
Adults with No High School Diploma	12.3%

Data Source: Kaiser Permanente Community Health Data Platform

III. Identification and Prioritization of the Community's Health Needs

Identifying Community Health Needs

i. Definition of "Health Need"

For the purposes of the CHNA, NorthBay 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 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. Additionally, statistics presented in the health need profiles were not analyzed for statistical significance and should be interpreted in conjunction with qualitative findings. 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:

a. 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.
b. 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.
    i. 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.
    ii. In some cases, multiple indices were merged into one health need if there were cross-cutting statistics or qualitative themes
c. No: high need indicated in only one or fewer sources.

ii. 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 that 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.

Prioritized Description of All Community Health Needs

i. Access to Care

Access to quality health care includes affordable health insurance, use of preventive care and ultimately reduced risk of unnecessary disability and premature death. Importantly, it is also one of the key drivers in achieving health equity. Across many measures of access to care, the NorthBay Health service area is performing better than state and national averages. For example, just 2 percent of children in the area are uninsured, compared to 3 percent statewide and 5 percent nationwide. There are 86.5 primary care physicians per 100,000 people, compared to a state average of 79.8. Furthermore, trailing indicators of access to care such as rates of pre-term (8.2) and low birth weight births (6.7) are similar to the state averages.

Yet these indicators overshadow the fact that there are significant disparities in access to care across Solano County. Infant mortality, at 5.6 deaths per 1,000 live births, is high compared to the state average of 4.0 – but most notably, the mortality rate of Black infants (8.2 per 1,000 live births) is more than twice that of White infants (Solano Public Health, 2022). Just 80 percent of Latino residents have a usual source of care, compared to 88 percent of White residents (Racecounts.org, 2022). Solano County residents are also enrolled in Medicaid and other public health insurance programs at lower rates than the state average (34 percent vs. 38 percent statewide), and there are significant disparities across the service area.

Interviewed community leaders identified access to care as a primary concern in the NorthBay Health service area. While there may be adequate primary care provider coverage in the region, there are insufficient specialty care options for people with autism and those with moderate mental health needs, and too few providers for Medi-Cal and uninsured populations. Health services in the area often have limited hours of operation and are inaccessible via public transportation, which disproportionately impacts residents with lower incomes and those living in rural areas of the service area.

Even with coverage, there can be challenges in accessing appropriate care as evidenced by the health disparities experienced by Black and Latino populations. Interviewees spoke to an urgent need for more linguistically and culturally responsive care and forms of communication (e.g., radio, newspaper, television). As one leader reflected, "Language access … is much greater than translating information. The information needs to be accessible in a format and in a place that people get their information." Another leader shared, "we need doctors that look like us." Relatedly, the community leaders felt that there is need for additional education about the importance of preventive care, enhanced awareness of existing services and support with service navigation to address inequities in access to care.

ii. 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. California has some of the highest cost real estate in the country. A mix of rural and suburban areas, the NorthBay Health service area performs better than the state on many measures of housing affordability. It boasts a better homeownership rate (63 percent vs. 55 percent statewide), a better housing affordability index (119.9 vs. 88.1 statewide), and similar median rental costs ($1,686). Yet housing in the NorthBay Health service area has become increasingly expensive as wages have remained stagnant. This has disproportionate impacts on communities of color and households with lower incomes, including seniors.

More than a third of households (35 percent) experience moderate or worse housing cost burden, defined as housing costs greater than 30 percent of income. An increasing cost of living in the region amid stagnant wages has put particular pressure on low-income workers, who often have to choose whether to prioritize housing, food or health care. The legacy of structural racism means a lack of affordable housing also disproportionately impacts Black, Indigenous, and other communities of color in the region: 62 percent of Black and Native American renters in Solano County are burdened with high housing costs, compared to 48 percent of White renters (Racecounts.org, 2022).

Interviewed community leaders shared that while some new housing is being developed across the NorthBay Health service area, little of it is affordable. They expressed concerns that housing in the area has become increasingly expensive as households with higher incomes are pushed out of housing markets in costlier neighboring counties and that local wages have not kept pace. The high cost of housing has led to the displacement of long-term residents and younger families who can no longer able to afford to live and work in the area. Rising costs and a lack of affordable housing options for seniors suggests that this population is increasingly at risk of experiencing homelessness, particularly in areas such as Winters.

Strategies shared by the community leaders to address housing needs in the NorthBay Health service area include expanding the housing stock to include more low-income, affordable and workforce housing; offering transitional workforce housing to attract physicians and clinicians to the region; and addressing barriers to economic security by increasing wages for nonprofit workers and expanding job training with local companies. The community leaders also expressed the need to strengthen cross-sector collaboration and coordination between health providers and service providers to improve care for people experiencing or at risk of homelessness. Housing affordability is a complex issue, one which the interviewed community leaders felt required cross-sector collaboration and a focus on advocacy and systems change efforts. Fortunately, as one leader shared, the desire to collaborate is a key asset among Solano County community groups: "We have a long tradition [...of] working together. We like working in partnership with one another, and we have built relationships over time that allow us to do that."

iii. Income & Employment

Income and employment are two of the most widely recognized social determinants of health. A stable source of income improves access to needed health care, the ability to secure safe housing, and allows individuals to pursue a fulfilling lifestyle. However, not all members of our communities have equal opportunity to attain the education and training necessary to maintain rewarding employment that supports

a living wage. Racism and unjust market forces dramatically impact economic prospects, and in turn, health.

On several measures of economic prosperity, the NorthBay Health service area performs favorably relative to state and national benchmarks. For instance, just 11 percent of Vacaville children live in poverty, compared to 17 percent of children across the state. The unemployment rate of 15 percent is better than the state average of 16 percent, and 90 percent of residents have access to high-speed internet, slightly better than the state average of 86 percent.

However, there remains substantial room for improvement – particularly given the significant disparities in economic circumstances facing some residents. In rural Rio Vista, 41 percent of children live in poverty. There are substantial geographic disparities across the service area in the percent of public school students eligible for free- or reduced-price lunch. Access to income and employment opportunities are generally uneven across the area – while U.S. Department of Housing and Urban Development's jobs proximity index for Solano County as a whole is comparable to the state average at 47, in the county's more rural areas, it's as low as 23.9 and 33.2. Furthermore, there are significant racial disparities in per capita income, with Black and Latino residents earning $15,000 and $23,000 less than White residents, respectively (Racecounts.org, 2022).

Further, due to the COVID-19 pandemic, illness and social policies limiting which business and services were open to the public negatively impacted employment and wages – especially for those in the service sector. Many families were unable to pay rent or medical bills, lost wealth and accrued household debt. Interviewed community leaders consistently emphasized that the same communities of color that have been historically impacted by redlining and poor job prospects were further disadvantaged during the pandemic.

Interviewed community leaders shared concerns that frontline workers such as migrant seasonal farm workers and those in the hospitality industry have been disproportionately impacted by economic insecurity. An increasing cost of living in the NorthBay Health service area amid stagnant wages has put pressure on workers

with lower incomes, who often have to choose whether to prioritize housing, food, or health care. The community leaders also emphasized that economic insecurity is therefore at the root of more downstream concerns such as poor living conditions and health outcomes.

The community leaders also offered strategies for improving the economic situation in the service area. In particular, they advocated for expanding job training with local companies and expanding the housing stock to include more low-income, affordable and workforce housing. Health care subsidies for families with lower incomes can ease economic pressures. Finally, the interviewees emphasized the need to fund advocacy and systems change efforts to address the root of economic insecurity issues in the region.

iv. Mental & Behavioral Health

Mental and behavioral health is the foundation for healthy living and encompasses mental illness, substance use, overdoses and access to service providers for preventive care and treatment. The NorthBay Health service area is performing worse than the state average across several measures of mental and behavioral health. While the average number of self-reported mentally unhealthy days among adults is on par with the state average at 3.7 days per month, rates of both suicide deaths and deaths of despair (e.g., death due to suicide, alcohol related disease, drug overdoses) per 100,000 populations are higher than state averages (12.4 vs. 10.5 and 17.1 vs. 14.1, respectively). Nearly half of gay, lesbian, and bisexual students in Solano County seriously considered attempting suicide in the past year, compared to 14 percent of straight students (Kidsdata.org, 2022).

Vacaville boasts a greater number of mental health providers per capita than the state (374.3 per 100,000 vs. 352.3 statewide). However, interviewed community leaders stated that there are still insufficient mental health services to meet the needs of the community, including for moderate mental health needs, on-site services, specialty care and services for underinsured people. They also shared that there is an urgent need for more linguistically and culturally responsive services for Black, Latino and Native American communities, where there are high levels of

anxiety and depression due to experiences of discrimination and historical trauma. Black and Native American students are more likely to experience feelings of depression than their peers. The impacts of structural racism within these communities have also led to stigma around mental health concerns and a distrust of providers, especially since there are limited providers who are from the communities they serve and who can speak the various languages of these communities. Just 56 percent of Solano County adults who sought treatment for self-identified mental/emotional or alcohol/drug issues in the past year received help, and this was true for just 46 percent of Latino residents and 36 percent of those who identify with two or more races (Racecounts.org, 2022).

The COVID-19 pandemic has notably impacted the mental health of community members. Interviewees described how the resulting social isolation, stress, and anxiety poses particular concerns for the mental health of frontline workers and seniors. These trends and the nature of the pandemic have also resulted in a need for newer models of service delivery. As one community leader reflected, “we still need more bilingual mental health professionals, but we also need different types of support than we needed before the pandemic. So, a combination of telehealth, in-person support, group support. I really believe that the use of peers is a big, important part of it. I mean, if we've learned anything from COVID, it's the importance of trusted messengers.”

The interviewed community leaders also talked about the specific impacts of isolation and loss experienced by youth due to the COVID-19 pandemic and the ongoing need for youth-specific services. One key resource in the service area has been school-based mental wellness centers that meet the needs of youth where they are. Many community leaders thought that the key to improving the mental health in their community was to apply place-based and community-specific strategies such as having clinicians on site at schools and local service organizations. The community leaders shared the importance of hiring mental health providers who are culturally and linguistically responsive to the communities they serve and encouraged the expanded use of peers and trusted messengers in delivering care.

v. Community Safety

Community safety - including access to safe spaces, freedom from domestic and community violence and a positive law enforcement presence - has significant effects on health and well-being. Conversely, violence-related trauma in particular has long-lasting impacts on health. In the NorthBay Health service area, rates of violent crime are 12 percent worse than the state average and 24 percent worse than the national average. Black, Latino, and Asian communities in particular are disproportionately impacted by violence because of structural racism and socioeconomic disparities such as community trauma, stress, and economic insecurity. In Solano County, these community members are less likely to feel safe in their neighborhoods than White community members (Racecounts.org, 2022).

Community safety in the NorthBay Health service area is a concern for interviewed community leaders, particularly in light of the COVID-19 pandemic. Interviewed community leaders noted a worrying increase in domestic violence since the start of the pandemic and reflected on the unintended impacts job loss and the shift to remote work have had on individuals abused by their partners. They expressed that social isolation poses a safety concern for older adults, who without regular social interaction, are at greater risk for both scams and falls. The interviewed community leaders also shared concern that youth might be vulnerable to gang involvement as they seek social reconnection.

Crime is an ongoing concern for the interviewed community leaders as economic insecurity exacerbated by the pandemic causes desperation among people already struggling to meet their basic needs. Community leaders in rural areas such as Rio Vista noted an increase in housing insecurity and crime as people experiencing homelessness are pushed from more urban areas. While pedestrian accident deaths are lower than the state average, access to safe, well-lit, and walkable spaces is still a need across the NorthBay Health service area, according to the interviewed community leaders.

There is also a growing concern in the area related to police brutality and uneven policing practices that disproportionately target Black communities. In Solano

County, Black youth are 1.8 times more likely to be arrested for status offenses than Latino and White youth and Black civilians are over twice as likely to be injured in law enforcement incidents than White civilians (Racecounts.org, 2022). Furthermore, Black residents are incarcerated at three times the rate of their white and Latino counterparts (Racecounts.org, 2022). This, coupled with the ongoing and public nature of nationwide incidents of police brutality against Black people, impacts the mental health and well-being of Black community members in the NorthBay Health service area.

The interviewed community leaders consistently emphasized the impact of structural racism and systemic inequities on health and the importance of addressing the social determinants of health that affect the safety of communities. Strategies shared by these leaders for addressing community safety included investing in systems that address health needs through a lens of diversity, equity, inclusion, and trauma-informed care; expanding the use of peers and trusted messengers in designing and implementing programs; and focusing on place-based and community-specific strategies already underway in the community.

The NorthBay Health service area has numerous assets at its disposal to improve community safety. The community leaders shared that local service organizations have been effective in fostering a resilient community, including Solano HEALS (Health Equity for African American/Black Lives), local organizations aimed at ending poverty, after-school programs for youth, and a strong County Behavioral Health department.

vi. Transportation

Transportation in the NorthBay Health service area was a concern for interviewed community leaders. They shared that Solano County's public transportation infrastructure is small for the county's size. Reliable and timely access to transportation is a significant factor in a community's ability to access jobs, grocery stores with healthy food options, and health care services. The public transportation system plays an important role in ensuring that those who are unable to drive have access to these critical resources. Local transit is not reliable, according to the

interviewed community leaders, and is available at limited times, resulting in a time-consuming way to get around. As one public health leader shared, "to get from one [town] to the other, it can take our folks up to three hours … on public transportation." The car-dependent nature of the area disproportionately impacts older adults and lower income communities who rely on public transportation.

Solano County's geography and public transit system means that transportation is a challenge for many residents in the NorthBay Health service area, particularly older adults, individuals with disabilities and lower-income households with limited access to private transportation. The community leaders expressed particular concern about the lack of transportation options in remote areas such as Rio Vista and for seniors with mobility problems. This is especially problematic for seniors who may need to visit pharmacies to obtain their medications but are unable to get to a bus stop and have nobody to drive them.

Strategies shared by these community leaders for addressing transportation in the NorthBay Health service area include more frequent buses; more funding for bus passes and gas cards to share with community members in need; and expanding home-visiting programs to bring services directly to house-bound seniors. Telehealth may also offer opportunities to bring care directly to those who need it, but the digital divide may complicate this option for seniors and those with limited technical know-how. The NorthBay Health service area has numerous assets at its disposal to improve local transportation options. The community leaders shared that newer transportation options such as Uber Health and Gogo Grandparents are an asset, as are options offered by Partnership Health Plan for its patients. While there is room for improvement, they acknowledged that the existing transit system does offer a basic level of service to much of the county. As one interviewee shared about Solano Transportation Authority, "They've done a pretty good job of making sure that if you really need to get to some place, that you can for not much money."

Community Resources Available to Respond to the Identified Health Needs

The service area for NorthBay Health contains community-based organizations, government departments and agencies, NorthBay Health and clinic partners, and

other community members and organizations engaged in addressing many of the health needs identified by this assessment.

Examples of community resources available to respond to each community-identified health need, as identified in qualitative data, are indicated in each health need brief found in Appendix C. Health Need Profiles. In addition, a list of community-based organizations and agencies that participated in the CHNA process can be found in Appendix B. Community Input Tracking Form. For a more comprehensive list of community assets and resources, please call 2-1-1 OR 800-273-6222, or reference https://www.211ca.org and enter the topic and/or city of interest.

IV. **Process and Methods Used to Conduct the CHNA**

Secondary data

i. Sources and Dates of Secondary Data used in the Assessment

NorthBay Health used the Kaiser CHNA Data Platform (http://www.chna.org/kp) to review 130 indicators from publicly available data sources.

NorthBay Health also used additional data sources beyond those included in the CHNA Data Platform. Solano County health department partners shared additional data from their internal platforms and studies, and other online sources were referenced (e.g., kidsdata.org, California Healthy Places Index).

For details on specific sources and dates of the data used, please see Appendix A. Secondary Data Sources and Dates.

ii. Methodology for Collection and Analysis of Secondary Data

Kaiser's CHNA Data Platform is a web-based resource provided to our communities as a way 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.
As described, NorthBay Health also leveraged additional data sources beyond those included in the Kaiser CHNA Data Platform.

CHNA partners (e.g., county health departments, service providers, and other stakeholders) provided additional data (e.g., frequency tables, reports, etc.) to be included in the health need profiles (see Appendix A. Secondary Data Sources and Dates for a list of additional data sources).

The Harder+Company team reviewed this additional data and included data points in the health need profiles that provided additional context or more up-to-date statistics to indicators already included in Kaiser's CHNA Data Platform. Each health need profile includes a reference section with a detailed list of all the secondary data sources used in that profile (see Appendix C. Health Need Profiles).

The Harder+Company team did not conduct any additional analysis on secondary data. The CHNA Data Platform provides information about health disparities and data benchmarks, and the additional secondary data that was shared by CHNA partners often disaggregated data by, for example, region and race/ethnicity.

Community Input through Primary, Qualitative Data Collection

i. Description of Who was Consulted

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

These individuals included representatives from health departments, school districts, local nonprofits, and other regional public and private organizations. In addition, we 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). For a complete list of communities and organizations that provided input, see Appendix B. Community Input Tracking Form.

ii. Methodology for Collection and Interpretation

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 the NorthBay Health service area, Harder+Company staff used several methods to identify communities for qualitative data collection activities. First, Harder+Company staff reviewed the participant lists from previous CHNA reports in the same service 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. (For a complete list of participating organizations, see Appendix B. Community Input Tracking Form).

The consulting team developed interview and focus group protocols, which the CHNA Collaborative reviewed (see Appendix E. Key Informant Interview Protocol). 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. They also asked participants to describe any new or emerging health issues and to prioritize the top health concerns in the community. They 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 note taker. When respondents granted permission, they 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 healthcare solutions. At the onset of analysis, three interview transcripts (one from each type of data collection) were coded by all nine

Harder+Company team members to ensure inter-coder reliability and minimize bias. Following the inter-coder reliability check, they 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 was essential for identifying needs that have emerged since the previous CHNA. 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+Company team then had transcribed through an independent transcription service. In the case that 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 from these notes.

Data Limitations and Information Gaps

The KP CHNA data platform includes 130 secondary indicators that provide timely, comprehensive data to identify the broad health needs faced by a community.

However, there are some limitations with regard to these data, as is true with any 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 was available or data was 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 fall below the state average flagged as potential health needs. However, whether a NorthBay Health Hospital Service Area (HSA) indicator is on par with or better than the state average does not necessarily mean that ideal health outcomes or service quality exists.

Extensive qualitative data was also gathered across the HSA 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 making contact with community 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, Harder+Company made efforts to collect data at several community events where individuals gather without directly receiving services. Finally, although focus groups were conducted in English and Spanish, future CHNA processes should consider strategies to include data collection in additional languages that are prevalent in the service area.

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 Health, 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 that functioned as an online version of the same prioritization exercise outlined 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 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 0.25 weight so that together they contributed to half the total rank order. The final third round of online ranking was multiplied by a 0.5 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.

Figure 9. Combining the three rounds of prioritization

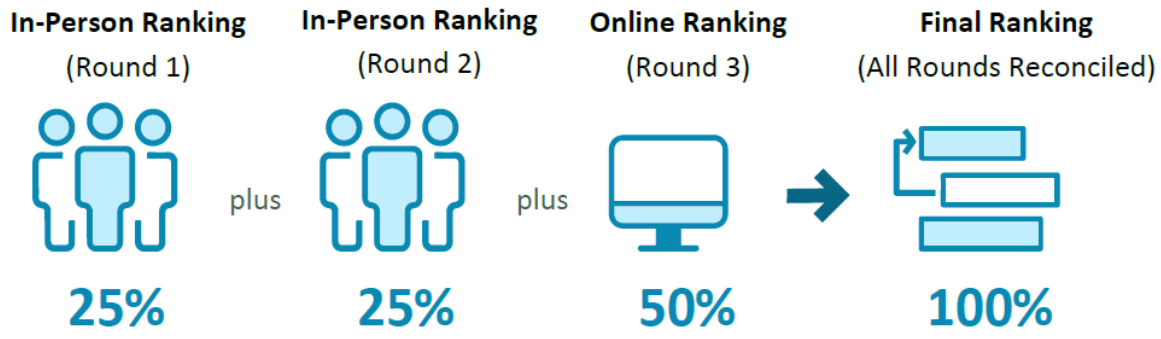


Table 6. Health Need Prioritization Outcomes

Final Rank	Health Need	Weighted Score	Solano Rank	Vacaville Rank	Vallejo Rank
1	Economic Security	3.00	4	1	3
2	Housing	3.25[‡]	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.

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

V. **NorthBay Health Community Benefit Plan 2019**

i. Purpose

Embracing community wellness, NorthBay Health each year partners with nonprofit organizations, educational institutions, public safety agencies, as well as Solano Public Health Department, to conduct activities, to build facilities and to operate programs that directly and indirectly improve the quality of life of local residents. The goal of each of these partnerships is to encourage healthy behavior, and therefore, address the needs identified in the needs assessment.

ii. List of Prioritized Significant Health Needs

The following eight health needs were determined to be significant (in prioritized order):

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

iii. Implementation Results

The following describes the strategy, tactics and approach NorthBay Health committed to address seven of the eight significant health needs identified in the 2016-2019 Community Health Needs Assessment. One of the eight areas identified in the assessment – Pollution-Free Living and Work Environments – was deemed beyond the influence of NorthBay Health.

1. Access to Behavioral Health Services

Initiative, Activity or Program	Address the behavioral health needs of the local homeless population, including patients post-discharge from local medical centers and hospitals.
Measureable Success	In 2019, discussions with Solano County Behavioral Health officials were conducted in the hopes of increasing access for discharged patients in the Beck Avenue Crisis Stabilization Unit in Fairfield. However, capacity issues remained. In 2020, efforts will remain steadfast in seeking behavioral health patient placement.

Initiative, Activity or Program	Maintain an integrated Behavioral Health Team at NorthBay Health.
Measureable Success	In 2019, Dr. Hazel and the inpatient behavioral health team continued to address the needs of patients in the Emergency Departments of the two hospitals and the inpatient wings. In addition, a new design for mental and behavioral health services was created within NorthBay Health, specifically the addition of a team to work with patients in the outpatient setting in the three locations of the Center for Primary Care. Dr. Corinna Press, PsyD, was hired to assemble a team of behavioral health technicians to work directly with the care teams in the ambulatory setting

2. Active Living and Healthy Eating

Initiative, Activity or Program	Create a community grant for Solano County Meals on Wheels program to serve homebound seniors with health meals on a regular basis.
Measureable Success	In 2019, NorthBay Health provided Meals on Wheels Solano a $3,000 grant to support its meal programs for homebound senior citizens. The organization did not complete its program design for home health assessments, but made strides toward creating it in time for implementation in 2020. NorthBay will work with Meals on Wheels in support of that goal.

Initiative, Activity or Program	Solano Land Trust's outdoor programs for children
Measureable Success	In 2019, NorthBay Health awarded a $12,000 community benefit grant to Land Trust, which reported these achievements: • The grant allowed the trust to continue its Marshes Matter Field Trip program and enabled regularly scheduled hikes every Saturday. Kids' hikes, yoga hikes, birding hikes, along with citizen science activities and the wildflower and critter walks were afforded varying age groups outdoors; • The grant funded the annual Kite Festival on May 4, 2019. At this free, family friendly event, 400 attendees were able to take part in activities that included kite flying and hiking; • The trust hosted more than 500 participants at the Lynch Canyon Trail Run and Community Hike; • More than 700 people attended the Rush Ranch Open House; • Altogether, 2,500 youngsters from elementary schools and colleges attended outdoor education programs on open space land (including Watershed Explorers, Patwin Program Field Trip and Tidal Marshes Totally Matter school field trips); • In total, 16,000 visitors were welcomed on the trust's properties in 2019, an increasing public access and offer free and low-cost activities.

Initiative, Activity or Program	Support healthy eating habits and smart food choices for school children
Measureable Success	In 2019, NorthBay Health donated $1,000 to Slow Food Solano, which funded and supported teachers who created school gardens on their campuses. More than 20 school gardens were in bloom in the 2019-20 school year.

Initiative, Activity or Program	End 68 Hours of Hunger
Measureable Success	In 2019, a $10,000 community benefit grant was awarded to the local chapter of End 68 Hours of Hunger, which provided more than 10,000 meals to youngsters at two elementary

	schools in Vacaville – Markham Elementary and Eugene Padan Elementary.

Initiative, Activity or Program	Dr. Chris Cammisa Foundation
Measureable Success	In 2019, the tennis tournament attracted three dozen up-and-coming professional tennis players seeking to elevate to the top-tier professional circuit. Sponsored by the USTA and the Association of Tennis Professionals, the event raised more than $10,000 for the Chris Cammisa Foundation. NorthBay's sponsorship of the tournament, $20,000, assured the foundation would net enough funding to conduct a tennis camp for children held in conjunction with the weeklong professional competition. Youngsters from The Leaven center on Dana Drive, an after-school program supported by NorthBay Health, participated in the camp.

3. Safe, Crime- and Violence-Free Communities

Initiative, Activity or Program	Enhance programs in the after-school program with The Leaven for at-risk children
Measureable Success	In 2019, The Leaven operated the youth center on Dana Drive in Fairfield, adjacent to the campus of NorthBay Medical Center. At this center and 21 others, academic enrichment and mentoring was provided to more than 500 under-resourced children each week. In addition, more than 600 hours of homework help each week was provided. The funding from donors helped launch a state-of-the-art STEAM Academy in The Leaven centers, as well. NorthBay's total contribution to The Leaven in 2019, $29,180, in addition to the in-kind donation of free rent in a NorthBay-owned duplex on Dana Drive.

Initiative, Activity or Program	Jim Capoot 'Charge On' Foundation
Measureable Success	In 2019, NorthBay Health's contribution of $3,000 to the Vacaville PAL directly to support the 'Charge On' Foundation's work to sponsor youth sports programs in Vacaville.

Initiative, Activity or Program	Matt Garcia Youth Center and Fairfield Police Activities League (PAL)
Measureable Success	In 2019, the Matt Garcia Youth Center continued to serve at-risk students in their Fairfield Center. NorthBay Health contributed $2,500 to assist the center's operation. In addition, health educators from NorthBay Trauma Center visited the center's "Career Café" regularly to talk with students about potential careers in the health care field.

Initiative, Activity or Program	Vacaville Neighborhood Boys & Girls Club
Measureable Success	The Boys & Girls Club has served more than 4,000 youngsters in Vacaville since it opened its doors 16 years ago. In 2019, it not only continued its work in the north city neighborhoods, but it opened a second youth center on the south side of the city. In 2019, NorthBay's total contributions to operate programs for at-risk kids totaled $3,900.

Initiative, Activity or Program	Robby Poblete Foundation
Measureable Success	In 2019, NorthBay Health made a $2,000 community benefit award to the Poblete Foundation, which again conducted a successful gun buy-back program at the Solano County Fairgrounds on Saturday, Dec. 14.

4. Disease Prevention, Management and Treatment

Initiative, Activity or Program	Conduct community outreach initiatives to affect the public's behavior in order to reduce the incidence and prevalence of cardiovascular diseases.
Measureable Success	In 2019, NorthBay Health outreach educators attended or conducted 75 public events that attracted more than 1,182 attendees. Staff time committed to public awareness and education totaled 246.5 hours.

Initiative, Activity or Program	OLE Health Partnership
Measureable Success	Utilization of the federally qualified health center operated by OLE Health on the campus of NorthBay Medical Center was 30 percent greater than anticipated. Patient visits

	totaled 2,675. NorthBay's quantifiable financial support, including donated facility rent and other operating expense contributions was $70,587 in 2019.

5. Affordable and Accessible Transportation

Initiative, Activity or Program	Solano Mobility
Measureable Success	In 2019, Solano Mobility created all of the above services. NorthBay Health social workers and case managers worked with transit coordinators, regularly using the services of Solano Mobility.

6. Basic Needs – Housing & Education

Initiative, Activity or Program	Shelter Solano Inc.
Measureable Success	In 2019, Shelter Solano developed its programs to help homeless residents and provide some respite care for discharged patients. Both NorthBay Health patients directly and those enrolled in Partnership Health Plan were served. Both paid for those services on a transactional basis. In 2020, a collaborative grant program is being sought to support the overall work of the shelter.

Initiative, Activity or Program	Transitional Housing & Care for Homeless
Measureable Success	In 2019, NorthBay Health contributed $50,000 to the Solano Coalition for Better Health to help it continue a transitional care program operated in two locations by the Benicia Community Action Council.

Initiative, Activity or Program	Nomadic Winter Sheltering Program
Measureable Success	The year-round nomadic shelter program operated by The Dream Center was supported financially by NorthBay Health in 2019, enabling it to establish a reliable emergency shelter in coordination with a coalition of local churches and faith-based organizations. The homeless public in general, as well as discharged homeless patients from local hospitals was regularly housed in the nomadic shelter throughout the year. The Dream Center served 482 individuals in 2019, providing 5,807 bed nights for the homeless.

	NorthBay's financial contribution to The Dream Center was $48,000 in 2019.

Initiative, Activity or Program	Opportunity House, Vacaville Homeless Shelter
Measureable Success	The year-round homeless shelter in Vacaville grew its capacity in 2019, serving more than 600 adults and children. It developed a more sophisticated case management system, as well as fine-tuned its employment outreach for residents. It began planning a new program to launch in late 2020 or early 2021 to locate and assist homeless teenagers by establishing a "safe" classroom on the campus of one of Vacaville's three high schools. NorthBay's direct financial contribution to Opportunity House in 2019 was $13,350. In-kind donation of drug kits totaled $486.

7. Access to High Quality Health Care and Services

Initiative, Activity or Program	Charity Care
Measureable Success	Charity Care in 2019 totaled $11,112,649, not including the unpaid costs of Medicaid and Medicare.

Initiative, Activity or Program	CDA Cares
Measureable Success	On March 8-9, 2019, more than 1,491 individuals received 8,955 dental treatments at the event in Vallejo. NorthBay Health pharmacists delivered needed non-narcotic pain relief medication to the two-day clinics that was administered by dental professionals on site. Finance Department employees assisted with registration of participants. NorthBay's 15 volunteers were among the 1,295 total work force at the clinic during its two-day run. Total Financial Support: $10,000

Initiative, Activity or Program	Deployment of automated external defibrillators on first responder vehicles in the City of Fairfield.
Measureable Success	In cooperation with the local EMS ambulance provider, every first responder rig in the city of Fairfield was equipped with a LUCAS AED device in 2019. In addition, a dozen public education sessions were conducted to show community

	groups how the device functions and increases heart attack victims' chances of survival. NorthBay Health in March provided a $20,000 community benefit grant to the city's Fire Department to purchase devices for its first-responder fire trucks.

Initiative, Activity or Program	NorthBay Adult Day Center
Measureable Success	In 2019, the Day Center provided 4,572 participant days of care for its clients. In addition, the Day Center staff, families and volunteers participated in the Walk to End Alzheimer's in collaboration with the Alzheimer's Association. NorthBay donated $1,000 to the association to support its awareness activities in Solano County.

Initiative, Activity or Program	Hospice & Bereavement Services
Measureable Success	In 2019, the Hospice & Bereavement met or exceeded four of its five goals. • The number of hospice care days increased more than 5 percent; • The program implemented ongoing monthly training to support, integrate and retain volunteers, as well as expanded its collaboration with NorthBay Volunteer Guild, and deepened volunteer training with a focus on supporting individuals from different cultures and families with challenges. • Other hospice training was established end-of-life vigils. • Two outreach events in the community were held in conjunction with local celebrations. • However, efforts to achieve Level 5 'We Honor Veterans' were curtailed due to staffing issues. In 2020, the goal is to achieve Level 5. Additional activities were launched in 2019, highlighted by the growth of the Bereavement Center, which: • Used ongoing data collection to identify emergency community bereavement needs; • Implemented a new drop-in adult bereavement group;

	• Implemented a seminar focused on using expressive writing for processing grief; • Added two new volunteers trained to support the bereavement program; and • Supported the hospice team's Tree of Memories memorial at Christmas to support and comfort participating families.

Initiative, Activity or Program	Horseplay Therapeutic Riding Center
Measureable Success	Horseplay continued its Solano County program throughout 2019 and sustained its volunteer force and its rider participation. NorthBay's financial contribution to the program was $2,000.

iv. Other Community Involvement and Support

Through donations, sponsorship, community grants and active participation as volunteers and event coordinators, NorthBay Health helps sustain other nonprofit groups, civic service groups and individuals that are working to improve the public health, create a safer community and enhance local educational institutions.

VI. **Appendices**

i. Secondary data sources and dates
    i. KP CHNA Data Platform secondary data sources
    ii. "Other" data platform secondary data sources
ii. Community Input Tracking Form
iii. Health Need Profiles
iv. Prioritization Scoring
v. Key Informant Interview Protocol

Appendix A. Secondary Data Sources and Dates

Secondary data included multiple datasets selected for use in the various stages of the analysis. A combination of mortality and socioeconomic datasets collected at sub-county levels was used to identify portions of the hospital service area with greater concentrations of disadvantaged populations and poor health outcomes. A set of county-level indicators was collected from various sources to help identify and prioritize significant health needs. Additionally, socioeconomic indicators were collected to help describe the overall social conditions within the service area. Health outcome indicators included measures of both mortality (length of life) and morbidity (quality of life). Health factor indicators included measures of 1) health behaviors, such as diet and exercise and tobacco, alcohol, and drug use; 2) clinical care, including access to quality care; 3) social and economic factors such as race/ethnicity, income, educational attainment, employment, and neighborhood safety; and 4) physical environment measures, such as air and water quality, transit and mobility resources, and housing affordability.

i. Secondary Sources from the KP CHNA Data Platform

	Source	Dates
1	HRSA Area Resource File	2016-2020
2	American Community Survey	2015-2019
3	NCI State Cancer Profiles	2013-2017
4	NCI United States Cancer Statistics	2013-2017
5	Behavioral Risk Factor Surveillance System	2020
6	Center for Medicare & Medicaid Services	2017-2018
7	CDC, Interactive Atlas of Heart Disease and Stroke	2016-2018
8	Harvard University Project (UCDA)	2018
9	FEMA National Risk Index	2021
10	EPA National Air Toxics Assessment	2014
11	EPA Smart Location Mapping	2012-2013
12	US Geological Survey; National Land Cover Database	2016
13	NCHS National Vital Statistics System	2015-2020
14	FBI Uniform Crime Reports	2014-2018

	Source	Dates
15	Esri Demographics	2020
16	NCHS US Small-area Life Expectancy Estimates Project	2010-2015
17	UCDA Calculation with ACS Data	2019
18	HUD Policy Development and Research	2014, 2020
19	Dept of Education ED Facts & State Data Sources	Varies
20	USDA Food Environment Atlas	2015-2020
21	Feeding America	2018
22	Esri, Business Analyst	2020
23	National Center for Chronic Disease Prevention and Health Promotion	2018
24	National Center for Education Statistics	2017-2018
25	CMS National Provider Identification	2019
26	Behavioral Risk Factor Surveillance System	2020
27	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2018
28	HRSA Area Resource File	2016-2018
29	NHTSA Fatality Analysis Reporting System	2014-2018

ii. Additional sources

	Source	Dates
1	California Housing Consortium	2008-2014
2	American Community Survey 5-Year Estimates	2011-2015
3	American Community Survey 5-Year Estimates	2012-2016
4	American Community Survey PUMS data analyzed by Bay Area Regional Health Inequities Initiative (BARHII) and Alameda County Public Health	2016
5	Point-In-Time Survey, US Housing and Urban Development	2009-2017
6	Solano County Oral Health Needs Assessment (unpublished)	2018
7	Consolidated Planning/CHAS Data	2011-2015
8	Look InsideKP Northern California	2011-2017
9	California Department of Education	2016-2017

Appendix B. Community input tracking form

	Data Collection Method	Affiliation	Number	Perspectives Represented	Role	Date
1	Key Informant Interview	Aldea Children & Family Services	1	Low-income families, medically underserved, communities of color	Leader	8/11/2021
2	Key Informant Interview	Caminar	1	People experiencing homelessness	Leader	8/30/2021
3	Key Informant Interview	Community Medical Centers	2	Low-income, medically underserved, communities of color	Leaders	8/17/2021
4	Key Informant Interview	Napa Community Health Initiative	1	Low-income, medically underserved, communities of color	Leader	8/12/2021
5	Key Informant Interview	Napa/Solano Area Agency on Aging	1	Seniors	Leader	8/11/2021
6	Key Informant Interview	OLE Health	1	Low-income, medically underserved, communities of color	Leader	8/24/2021
7	Key Informant Interview	Rio Vista CARE	1	Low-income families, children, rural communities	Leader	8/18/2021
8	Key Informant Interview	Solano County Office of Education	1	School-aged youth	Leader	8/2/2021
9	Group Interview	Solano County Public Health	2	Public health	Representatives	8/12/2021 9/1/2021
10	Group Interview	Solano Family Justice Center	1	Low-income, communities of color, domestic violence survivors	Leader	8/18/2021
11	Group Interview	The Leaven	1	Low-income, communities of color, youth, medically underserved	Leader	8/13/2021

Appendix C. Health Need Profiles

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 prioritization meeting. The profiles do not reflect additional knowledge shared by individual stakeholders during that meeting. Additionally, statistics presented in the health need profiles were not analyzed for statistical significance and should be interpreted in conjunction with qualitative findings.

Appendix D. Prioritization Scoring

2021 HEALTH NEEDS PRIORITIZATION SCORES: BREAKDOWN BY CRITERIA

Health Need	Rank 1= Highest Priority	Composite Weighted Score	Weighted Scores of Prioritization Criteria Used by Group		
			Severity	Disparities	Impact
Income and Employment	1	130.5	46.5	60	24
Mental and Behavioral Health	2	118	33	56	29
Access to Care	3	117.5	34.5	62	21
Community Safety	5	112	39	46	27
Housing	6	99	36	44	19

Prioritization Criteria Definitions

Criteria	Definition	Weight used for scoring
Disparities	Health need disproportionately impacts specific geographic, age, or racial/ethnic subpopulations.	2
Severity	Severity of need demonstrated in data and interviews. Potential to cause death or extreme/lasting harm. Data significantly varies from state benchmarks. *(Also considers the magnitude/scale of the need. The magnitude refers to the number of people affected by the health need.)*	1.5
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.	1

Appendix E. Key Informant Interview Protocol

Solano County Service Areas

Introduction + Getting Settled 10 minutes

Hello my name is _____ from Harder+Company Community Research. We are working with several healthcare organizations [Kaiser, Sutter, NorthBay, etc.] to complete their 2019 Community Health Needs Assessments to better understand the health needs in this region. We are also working closely with Solano and Napa County health services partners to coordinate these efforts. We will be using the data collected during interviews as well as quantitative data to inform the report. We are collaborating with Sutter Health's consultant, Community Health Insights (CHI), to conduct primary and secondary data collection. The information from this interview may be shared with CHI research staff.

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 one's 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'd 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.

[Group Interviews only] *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.*

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.

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. They will be shared with CHI and only reviewed by Harder+Company and CHI staff. Is it okay with everyone if I record?

Do you have any questions for me before we start?

Background- 10 minutes (50 minutes left)

1. Briefly, what is your current position and role within your organization?

2. 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'd like you all 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.

3. What does a healthy environment look like?

4. 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?

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

Challenges/Barriers- 10 Minutes (30 minutes left)

We've 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.

6. 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)*

Solutions -10 Minutes (20 minutes left)

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

7. 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 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 CHNA's.*

Priorities- 5 minutes (10 minutes left)

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

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

9. Are these needs that have recently emerged or are long-standing?

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

Resources- 5 Minutes (5 minutes left)

10. 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. PROBE:

        i. Barriers to accessing these resources.

        ii. New resources that have been created since 2016

        iii. New partnerships/projects/funding

11. 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

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