2013
Community Health Needs Assessment

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To provide feedback about this Community Health Needs Assessment, email CHNA-communications@kp.org.
2013 Community Health Needs Assessment

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Significant data for this report were obtained from the Kaiser Permanente CHNA Data Platform available at http://www.chna.org/kp
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Acknowledgements

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The demographic, key indicators, and health outcome data used for this report were made available by Kaiser Permanente’s web-based resource (www.chna.org/kp) which is specifically designed to support community health needs assessments and community collaboration. These materials were an invaluable resource that streamlined data collection and provided a framework to identify priorities and future actions.

Additional financial support for this effort was provided by the United Ways in Fresno, Kings and Tulare Counties to encourage improved community awareness of the health resources in the region. Through its National 211 Collaborative, the United Way seeks to connect community members to resources and support for a wide variety of needs. The opportunities to partner more closely with this valuable resource network will be valuable to hospitals and community groups working on health-related issues.

This report would not have been possible without the input of community members, hospital executives and staff on the front lines of our health care system, and the public health officers who shared their perspectives. Their voices and endorsement of greater coordination of care ring strong, as the community reflects upon, reforms and renews the commitment to meeting the health care needs of our communities.

¹ Members of the Community Benefit Needs Workgroup are: Christine Pickering, Charles Sandefur (Adventist Health); Tim Curley (Children’s Hospital of Central California); John Taylor (Community Medical Centers); Ivonne Der Torosian (Kaiser Permanente Fresno Medical Center); John Tyndal (Kaweah Delta Medical Center); Betty Cates (Madera Community Hospital); Stacy Vaillancourt, Thrupi Jagadish (Saint Agnes Medical Center); and Amy Graybehl (Sierra View District Hospital).
Executive Summary

The San Joaquin Valley continues to face substantial economic, educational and environmental challenges that impact the health of residents and that require new levels of coordinated action among health care providers, facilities, schools, and community nonprofits.

The Patient Protection and Affordable Care Act (ACA), enacted on March 23, 2010, added new requirements, which nonprofit hospital organizations must satisfy to maintain their tax-exempt status under section 501(c)3 of the Internal Revenue Code. One such requirement added by ACA, Section 501(r) of the Code, requires nonprofit hospitals to conduct a community health needs assessment (CHNA) at least once every three years. As part of the CHNA, each hospital is required to collect input from designated individuals in the community, including public health experts as well as members, representatives or leaders of low-income, minority, and medically underserved populations and individuals with chronic conditions.

While Kaiser Permanente has conducted CHNAs for many years to identify needs and resources in our communities and to guide our Community Benefit plans, this new legislation has provided an opportunity to revisit our needs assessment and strategic planning processes with an eye toward enhanced compliance and transparency and leveraging emerging technologies. The CHNA process undertaken in 2013 and described in this report was conducted in compliance with these new federal requirements.

The recommended framework for completing the community needs assessment report includes gathering information about the demographics of the communities served by a hospital; the status of known determinants of health disparity (poverty, poor education, lack of insurance); health outcomes, and key drivers of health outcomes (socio-economic factors, health behaviors, access to healthcare, etc).

This report highlights the health status of four counties located in northern and central California that is home to over 1.6 million diverse residents. A series of community and facility staff focus groups, on-line surveys, and interviews of public health directors and facility executives highlight the continued concern for health conditions that are attributed to the region’s socioeconomic and environmental conditions. This data is not new to those of us who have witnessed the impact of the last four years of economic hardship the region has endured.

Our report also includes the voices of community members, hospital staff and executives who gave further insight on what the data suggests: chronic conditions undermine the wellbeing of the communities we serve and people are facing great challenges accessing health services when they need care and struggle to stay healthy.

A brief summary of the demography of the region points to a significant proportion of the population as young, Latino and with limited access to health insurance. It is also a region with concentrated poverty with approximately one-third of all children in the region living at or below federal poverty levels. Approximately 20% of residents in the region speak a language other than English at home and a third have not completed a high school diploma. These social determinants are known to limit the ability of
patients to navigate the health care system and to establish a strong relationship with a primary care provider.

Our study region spans a total of 14,308 miles and “place matters”– where our residents live in this region matters to their health status and access to care. From one community to another there are variations in hospitalization rates, access to a primary care physician, asthma rates, exposure to ozone, traffic safety, and access to recreational facilities or fitness centers. The large distances between communities and the region’s hospitals poses a unique need for collaborative and coordinated work with the regions Federally Qualified Health Clinics which has yet to be fully realized across all four counties.

As we look at the data on leading health indicators in this study for the Kaiser Permanente Fresno Service Area and all four counties, it is evident that there are high rates of obesity, diabetes, teen pregnancy, self-reported poor health, and limited life expectancy. Asthma is high in all but one of the counties. In addition, community stakeholders and facility staff consistently raised one additional issue as a key challenge: serving the needs of the mentally ill with both short term and long term therapies. While the self-reported days of poor mental health in the region are the same or below the state average, focus group and interview data suggest that the resources available for treatment are simply not enough for the needs that do exist. The net impact for individuals and their families is to cycle in and out of hospital emergency rooms without finding long term treatment or to rely on treatment that is a long distance from home.

The Hospital Council’s Community Benefits Work Group (CBWG) reviewed the community stakeholder comments, summary of interviews, and the status of Healthy People 2010 health indicators, as well as the data on the region’s mortality and morbidity, and the social determinants of health to identify community health needs in the region. The indicators and themes from primary data were ranked using the following criteria:

**Impact:** What are the leading indicators, if improved would make the greatest impact on health, quality of life and health disparities?

**Severity:** Which are the leading indicators associated with the most severe negative health repercussions in the region?

**Resources:** Which are the leading indicators can be addressed with existing resources across the study region?

**Outcome:** Which are the leading indicators, if addressed effectively, would yield the most visible improvement in our mortality and morbidity rates?

Identified health needs ranked by CBWG:

- Access to Health Care
- Physical Activity
- Tobacco Use
- Substance Abuse
- Overweight/Obesity
- Responsible Sexual Behavior
- Mental Health
- Injury and Violence
- Immunization
- Diabetes
Once ranked, the priority indicators and health needs were categorized into top and lower priorities:

**Top Priorities**

- Access to health care
- Physical activity and overweight/obesity (combined into one priority) and
- Mental health
- Diabetes
- Asthma

**Lower Priorities**

- Substance Abuse
- Education
- Tobacco Use
- Responsible Sexual Behavior
- Environmental Quality
- Injury and Violence
- Immunization
- Infant Mortality
- Premature Death

These are perceived as the health indicators and needs that should guide the strategic planning efforts among each facility in order to make substantial changes in health.
Introduction

Purpose of the Community Health Needs Assessment Report (CHNA)
This report was written in order to comply with federal tax law requirements set forth in Internal Revenue Code section 501(r) requiring hospital facilities owned and operated by an organization described in Code section 501(c)(3) to conduct a community health needs assessment at least once every three years. The required written plan of Implementation Strategy is set forth in a separate written document. At the time that hospitals within Kaiser Foundation Hospitals conducted their CHNAs, Notice 2011-52 from the Internal Revenue Service provided the most recent guidance on how to conduct a CHNA. This written plan is intended to satisfy each of the applicable requirements set forth in IRS Notice 2011-52 regarding conducting the CHNA for the hospital facility.

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

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

Kaiser Permanente is an integrated health care delivery system comprised of Kaiser Foundation Hospitals, Kaiser Foundation Health Plan, and physicians in the Permanente Medical Groups. Today we serve more than 9 million members in nine states and the District of Columbia. Our mission is to provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.

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

About Kaiser Permanente Community Benefit
For more than 65 years, Kaiser Permanente has been dedicated to providing high-quality, affordable health care services and to improving the health of our members and the communities we serve. We believe good health is a fundamental right shared by all and we recognize that good health extends beyond the doctor’s office and the hospital. It begins with healthy environments: fresh fruits and vegetables in neighborhood stores, successful schools, clean air, accessible parks, and safe playgrounds. These are the vital signs of healthy communities. Good health for the entire
community, which we call Total Community Health, requires equity and social and economic well-being.

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

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

**Kaiser Permanente’s Approach to Community Health Needs Assessment**

Federal requirements included in the ACA, which was enacted March 23, 2010, stipulate that hospital organizations under 501(c)(3) status must adhere to new regulations, one of which is conducting a CHNA every three years. With regard to the CHNA, the ACA specifically requires nonprofit hospitals to: collect and take into account input from public health experts as well as community leaders and representatives of high need populations—this includes minority groups, low-income individuals, medically underserved populations, and those with chronic conditions; identify and prioritize community health needs; document a separate CHNA for each individual hospital; and make the CHNA report widely available to the public. In addition, each nonprofit hospital must adopt an Implementation Strategy to address the identified community health needs and submit a copy of the Implementation Strategy along with the organization’s annual Form 990.

For many years, Kaiser Permanente hospitals have conducted needs assessments to guide our allocation of Community Benefit resources. In 1994, California legislators passed Senate Bill 697 (SB 697), which requires all private nonprofit hospitals in the state to conduct a CHNA every three years. As part of SB 697 hospitals are also required to annually submit a summary of their Community Benefit contributions, particularly those activities undertaken to address the community needs that arose during the CHNA. Kaiser Permanente has designed a process that will continue to comply with SB 697 and that also meets the new federal CHNA requirements.

Kaiser Permanente Community Benefit staff at the national, regional, and hospital levels worked together to establish an approach for implementing the new federally legislated CHNA. From data collection and analysis to the identification of prioritized needs and the development of an implementation strategy, the intent was to develop a rigorous process that would yield meaningful results.

Kaiser Permanente, in partnership with the Institute for People, Place and Possibility (IP3) and the Center for Applied Research and Environmental Studies (CARES), developed a web-based CHNA data platform to facilitate implementation of the CHNA process. Because data collection, review, and interpretation are the foundation of the CHNA process, each CHNA includes a review of secondary and primary data.
To ensure a minimum level of consistency across the organization, Kaiser Permanente included a list of roughly 100 indicators in the data platform that, when looked at together, help illustrate the health of a community. California data sources were used whenever possible. When California data sources weren’t available, national data sources were used. Once a user explores the data available, the data platform has the ability to generate a report that can be used to guide primary data collection and inform the identification and prioritization of health needs.

In addition to reviewing the secondary data available through the CHNA data platform, and in some cases other local sources, each KP hospital collected primary data through key informant interviews, focus groups, and surveys. They asked local public health experts, community leaders, and residents to identify issues that most impacted the health of the community. They also inventoried existing community assets and resources.

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

In conjunction with this report, Kaiser Permanente will develop an implementation strategy for each health need identified. These strategies will build on Kaiser Permanente’s assets and resources, as well as evidence-based strategies, wherever possible. The Implementation Strategy will be filed with the Internal Revenue Service using Form 990 Schedule H.

For the purpose of this report, Kaiser Permanente Fresno partnered with the Hospital Council to complete 2013 CHNA report. The mission of the Hospital Council of Northern and Central California is to help members provide high quality health care and to improve the health status of the communities they serve. Through a wide range of activities, the Hospital Council brings hospitals together to identify best practices that promote excellent patient care and achieve community health through coordinated activities. To this end, the Hospital Council of Northern and Central California initiated a four-county community needs assessment report for the first time in 2011 (Fresno, Kings, Madera and Tulare Counties), comprising a significant portion of the San Joaquin Valley.

This current report is a continuation of that collaborative effort and emphasizes a stronger focus on gathering additional perspectives on the health needs of the communities and to mobilize action across the region to address targeted health needs.

This needs assessment highlights that much of the economic and environmental conditions that have historically impacted this area of the San Joaquin Valley remain unchanged. Concentrated poverty, poor educational attainment, poor air quality and high rates of uninsured residents continue to play a significant role in health outcomes and health disparities among key populations.

**Demographic Overview of the Region**

Kaiser Permanente defines the community served by a hospital as those individuals residing within its hospital service area. A hospital service area includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations.
**Geographic Description**

The Kaiser Permanente Fresno Service Area includes eastern Fresno County, most of Madera County, northeast Kings County, and northwest Tulare County, and the cities and towns of Ahwahnee, Bass Lake, Big Creek, Biola, Burrel, Cantua Creek, Caruthers, Coarsegold, Del Rey, Dinuba, Five Points, Fowler, Friant, Hanford, Helm, Kerman, Kings Canyon N.P., Kingsburg, Laton, Lemon Cove, Lemoore, Lindsay, Madera, North Fork, Oakhurst, O’Neals, Orange Cove, Parlier, Piedra, Prather, Raisin City, Raymond, Reedley, Riverdale, San Joaquin, Sanger, Selma, Sequoia N.P., Squaw Valley, Sultana, Tollhouse, Tranquility, and Traver.

**Demographic Profile**

In order to understand the health needs of our target region, we begin with a demographic overview of the population looking at age, gender, and languages spoken. One key distinction of the region is the sizable youth population in the Fresno Service Area (Fresno S.A.) and the relatively young age of residents on average. While 6.95% of California’s population is comprised of children aged 0-4 and 18.51% of children aged 5-17, and 10.41% of young adults ages 18-24, the service area included in this assessment has a consistently higher proportion of these age groups as seen in Figures 1 - 3 below.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population</th>
<th>Total Land Area (Square Miles)</th>
<th>Population Density (Per Square Mile)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A.</td>
<td>1,148,651</td>
<td>8,764.71</td>
<td>131.05</td>
</tr>
<tr>
<td>California</td>
<td>56,637,288</td>
<td>155,779.20</td>
<td>235.19</td>
</tr>
</tbody>
</table>

Figure 1: Overall demographics of four counties in service region. *Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates.*

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Children Aged 0-4</th>
<th>Percent of Population</th>
<th>Children Aged 5-17</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A.</td>
<td>97,220</td>
<td>8.46%</td>
<td>246,502</td>
<td>21.44%</td>
</tr>
<tr>
<td>California</td>
<td>2,545,065</td>
<td>6.95%</td>
<td>6,780,264</td>
<td>18.51%</td>
</tr>
</tbody>
</table>

Figure 2: Percent of children aged 0-4 in service region. *Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates.*

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Adult 18-24</th>
<th>Percent of Population</th>
<th>Adults 25-34</th>
<th>Percent of Population</th>
<th>Adults 35-44</th>
<th>Percent of Population</th>
<th>Adults 45-54</th>
<th>Percent of Population</th>
<th>Adults 55-64</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A.</td>
<td>150,129</td>
<td>11.53%</td>
<td>163,436</td>
<td>14.23%</td>
<td>146,074</td>
<td>12.72%</td>
<td>142,377</td>
<td>12.40%</td>
<td>5,314,016</td>
<td>10.41%</td>
</tr>
<tr>
<td>California</td>
<td>5,814,016</td>
<td>10.41%</td>
<td>5,236,909</td>
<td>14.29%</td>
<td>5,288,140</td>
<td>14.43%</td>
<td>5,147,450</td>
<td>14.05%</td>
<td>3,814,016</td>
<td>10.41%</td>
</tr>
</tbody>
</table>

Figure 3 Percent of population in service area age 18 – 54. *Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates.*
The region also possesses tremendous ethnic diversity that links back to early settlements by Native Americans and the early Californianos who farmed this region of the San Joaquin Valley. Historians have documented the many Mexicans who settled in what was then referred to as Alta California and became part of the local economy in the Valley as early as 1849. California is also home to 97 Native American tribes and this study region holds seven different Tribal Lands primarily in Madera, Fresno, and Tulare County. Figures 5 and 6 below illustrate that range of current racial and ethnic diversity in all four counties.

As a whole, the percent of linguistically isolated population in the Fresno Service Area is 1.45% lower than the approximately 20% of Californian’s who are linguistically isolated. County specific data reveals that

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Kings and Tulare counties have a higher percentage of people who are linguistically isolated. This diversity has significant implications for healthcare delivery when we look at the linguistic needs of residents who seek care. According to the U.S. Centers for Disease Control and Prevention, Fresno County has 66 different languages used at home. Figure 7 below highlights that in all four counties a substantial number of linguistically isolated residents exist. These individuals live in a household in which all members 14 years of age or older speak a non-English language and also speak English less than “very well”.

<table>
<thead>
<tr>
<th>County</th>
<th>Total Population (For Whom Linguistic Isolation is Determined)</th>
<th>Total Linguistically Isolated population</th>
<th>Percent Linguistically Isolated Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A</td>
<td>1,051,451</td>
<td>192,382</td>
<td>18.30%</td>
</tr>
<tr>
<td>Fresno</td>
<td>831,261</td>
<td>157,195</td>
<td>18.91%</td>
</tr>
<tr>
<td>Kings</td>
<td>158,520</td>
<td>29,292</td>
<td>21.15%</td>
</tr>
<tr>
<td>Madera</td>
<td>155,784</td>
<td>25,741</td>
<td>18.96%</td>
</tr>
<tr>
<td>Tulare</td>
<td>389,046</td>
<td>90,535</td>
<td>23.27%</td>
</tr>
<tr>
<td>California</td>
<td>34,092,224</td>
<td>24,704,752</td>
<td>19.85%</td>
</tr>
</tbody>
</table>

Figure 7 Percentage of population in each county age 5 and over who speak a language other than English at home and speak English less than “very well”. Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. Source geography: Tract

**Unique Population – Hmong.** Fresno County is home to the second largest concentration of Hmong in the United States. This ethnic group of approximately 5 million originates from Hunan, China but migrated to Laos, Vietnam after a rebellion over taxation. In Laos, the Hmong helped the U.S. during the Vietnam War and thus many were granted asylum in 1975 during political unrest in their country. Almost half of those who sought asylum during this turbulent time came to California and many settled in Fresno.

According to the Hmong American Partnership (HAP), California is home to 91,224 Hmong. It is estimated that the total population of Hmong living in the four county region is 32,000.

As a whole, the Hmong community in the United States is young (56% are under the age of 18 years old), linguistically isolated (35%) and half of the adults have less than a 9th grade education. Their family household size is 6.27 people and 30% receive public assistance and 34.8% of US Hmong live below the poverty level.

The unique culture and language needs of Hmong present some challenges for health care providers. For the Hmong community, particularly immigrants and first generation Hmong, illness is not necessarily seen as biological or physical as much as the product of deeply held spiritual beliefs. Folk healers, or shamans, may be the first point of contact when illnesses occur.

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Unique Needs--Children: As evident in the population summary in this report, our region has a large percentage of youth. In each county, roughly 20% of the population is between the ages of 5-17. As a result additional information was collected from key service providers that address this population. Among those interviews these key themes emerged:

- Access to care is difficult even if the child receives public benefits because there are few pediatric specialists who will accept Medi-Cal.
- Few behavioral health programs and mental health programs exist for children and their families making treatment options very limited.
- The concentrated poverty in communities makes it difficult for families to focus on preventative efforts to stay healthy. The need for housing, food and transportation circumvents their ability to continue with on-going or regular treatment.
- The stress of poverty can lead to fractured family systems leaving children with instability and uncertainty or cycling in and out of various public systems — child welfare, child protective services, health care, etc.
- The large number of migrant families in the region creates unique needs for services that are culturally relevant, easy to navigate, and accessible to the uninsured.

The proportion of children living in poverty, the high rates of hospitalization due to asthma and those who are in contact with child welfare services, suggest that significant gaps in services exist which undermine the wellbeing of children in our study area.

Unique Conditions—Environment. The San Joaquin Valley has several conditions which foster high levels of air pollution. The factors that impact the study region center on the large concentration of pesticides, diesel fuel exhaust, and dust that is the result of farming activities. Recent research conducted in Fresno suggests that the presence of pollution exacerbates asthma in children leading greater likelihood of hospitalization and more long term impact to their immune system. When combined with exposure to second hand smoke, the severity of this detrimental impact increases. The Center for Regional Change at UC Davis identified a total of $6 billion in savings if environmental quality standards were met in the San Joaquin Valley largely attributed to reduced health care costs, missed work and school absentee days, and premature death. Community leaders suggest that greater awareness of where individuals live and their exposure to pollution, especially for children, must become an integral part of assessing and treating asthma.

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6 Nadeau, K., McDonald-Hyman, C., North, E., Pratt, B., Hammond, S., Balmes, J., and Tager, I. Ambient air pollution impairs regulatory T-cell function in asthma. The Journal of Allergy and Clinical Immunology. Volume 126, Issue 4, Pages 845-852.e10, October 2010

Social Determinants of Health throughout the Region

Increasing attention has been given to the social determinants of health that impact health outcomes. Public health researchers, health advocates and social epidemiologists see these as key drivers that influence population health and thus can be important in predicting health needs. Three drivers of health were used in our review of the populations served in this region:

1. The percent of individuals living below 100% of the Federal Poverty Level
2. The percent of the population that is uninsured
3. The percent of adults without a high school diploma

The federal poverty rate for California in 2012 lists $11,170 gross income or below for an individual, $15,130 for a family of two, $19,090 for a family of three and $23,050 for a family of four.

As can be seen in Figure 8 below, the Fresno Service Area and all four counties as a whole have high rates of poverty and residents who are uninsured, as well as having limited education. By comparison, California’s poverty rate as a whole is 13.7%. The uninsured in California are 17.92% of the population. California residents without a high school diploma make up 19.32% of the population.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population for Whom Poverty Status is Determined</th>
<th>Percent Population in Poverty (100% of the Federal Poverty Level)</th>
<th>Total Population (For Whom Insurance Status is Determined)</th>
<th>Percent Uninsured</th>
<th>Total Population For Whom Educational Attainment is Determined</th>
<th>Percent of Population with No High School Diploma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A</td>
<td>1,119,823</td>
<td>21.43%</td>
<td>1,068,090</td>
<td>19.79%</td>
<td>675,000</td>
<td>26.69%</td>
</tr>
<tr>
<td>Fresno</td>
<td>890,694</td>
<td>22.49%</td>
<td>908,058</td>
<td>19.57%</td>
<td>529,358</td>
<td>26.94%</td>
</tr>
<tr>
<td>Kings</td>
<td>133,206</td>
<td>19.30%</td>
<td>132,274</td>
<td>20.19%</td>
<td>91,224</td>
<td>30.12%</td>
</tr>
<tr>
<td>Tulare</td>
<td>133,206</td>
<td>19.30%</td>
<td>132,274</td>
<td>20.19%</td>
<td>91,224</td>
<td>30.12%</td>
</tr>
<tr>
<td>California</td>
<td>35,877,036</td>
<td>15.71%</td>
<td>36,414,292</td>
<td>17.92%</td>
<td>23,497,944</td>
<td>19.52%</td>
</tr>
</tbody>
</table>

Figure 8 This table summarizes the status of three key drivers of health in all four counties. Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. Source geography: Tract

Figure 9 below shows that just under half of all residents in the Fresno Service Area are living at 200% the Federal poverty level. By comparison, 32.8% of Californians as a whole live at this this income. Tulare County leads the region with the most residents living at both 100% and 200% of federal poverty status.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population for Whom Poverty Status is Determined (200% of Federal Poverty Level)</th>
<th>Total Population in Poverty</th>
<th>Percent of Population in Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S. A</td>
<td>1,119,823</td>
<td>507,730</td>
<td>45.54%</td>
</tr>
</tbody>
</table>

A review of the rates of poverty faced specifically by children age 0-17 underscores that this is one of the segments of the population most impacted by poverty. Figure 10 below summarizes that one-third of all children in the Fresno Service Area live at 100% the Federal Poverty Level.

Without a doubt, the poverty level in the region is impacted by the larger economic challenge posed by the current economic climate which created high unemployment rates throughout California. The region has experienced four to six percentage points higher rates of unemployment than the rest of California as can be seen in Figure 11 below.

### Access to Health Care

One of the primary barriers in accessing health care is whether a person has the financial means necessary to pay for treatment or has private health care insurance or qualifies for either Medicare or Medi-Cal. The Healthy People 2020 target is that 100 percent of the population has medical insurance.

The table below indicates that the Fresno Service Area is nearly 20% away from reaching the Healthy People 2020 target. The implications of this are substantial in our region. Among those able to prove legal residency, health care can be obtained through Medi-Cal. Those without legal status rely on charity care, nonprofits, free clinics, and a patchwork of services where legal status is not reviewed. All four counties have a greater percentage of residents without insurance than California as a whole. Insurance
status data is sought only among non-institutionalized populations—those aged 16 and over who are not incarcerated, in active military duty or hospitalized in a nursing home or mental institution.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (For Whom Insurance Status is Determined)</th>
<th>Number Uninsured</th>
<th>Percent Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A.</td>
<td>1068090</td>
<td>211325</td>
<td>19.79%</td>
</tr>
<tr>
<td>Fresno County</td>
<td>908,058</td>
<td>177,752</td>
<td>19.57%</td>
</tr>
<tr>
<td>Kings County</td>
<td>132,274</td>
<td>26,704</td>
<td>20.19%</td>
</tr>
<tr>
<td>Madera County</td>
<td>141,053</td>
<td>29,066</td>
<td>20.61%</td>
</tr>
<tr>
<td>Tulare County</td>
<td>433,349</td>
<td>97,729</td>
<td>22.55%</td>
</tr>
<tr>
<td>California</td>
<td>36,414,292</td>
<td>6,523,640</td>
<td>17.92%</td>
</tr>
</tbody>
</table>

Figure 12: Total population without health insurance in region. Data Source: U.S. Census Bureau, 2008-2010 American Community Survey 3-Year Estimates. Source geography: PUMA.

**Chronic Conditions – Asthma and Diabetes**

In California 13 percent of the population has asthma, while the Fresno Service Area, the percent of adults with asthma is nearly 2.5% higher. Only Madera County as a whole, with approximately 11% of adults with asthma, performs better than the state and national averages.

For a more detailed summary of the prevalence of asthma among children, we turned to the California Breathing website which is part of the California Department of Public Health’s Environmental Health Investigations Branch. This data provides asthma rates for children age 0 – 4. Except for Tulare County, the asthma rates for this population rises well above the Healthy People 2010 benchmarks in the remaining Counties. Specifically, the rates for asthma among children range from a high of 42% in Fresno, 24% in Kings, 37% in Madera and 19% in Tulare.

**Diabetes**

The rate of diabetes for adults in the Fresno Service Area is twice as high as the state average of 7.5%. The Health People 2020 benchmark for diabetes is set at 7.2 new cases per 1,000 individuals aged 18 – 84 years of age.

The U.S. Centers for Disease Control and Prevention reports that about 215,000 people younger than 20 years of age have either Type 1 or Type 2 diabetes. It is roughly .26% of all people in this age group. Type 1 diabetes is often referred to as juvenile or insulin dependent diabetes. It is the result of a lack of insulin produced by the pancreas. Type 2 diabetes is a metabolic disorder often referred to as adult onset diabetes and characterized by high blood glucose levels that are insulin resistant. Research has shown that Native American and Latino youth have higher rates of diabetes among the adult population and this is also the case for youth. In one national study, the prevalence for children and adolescents with diabetes was 1.82 cases per 1000 youth and the average age of onset was 8.4 years with some variance across ethnic groups.

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9 California Department of Public Health, Environmental Health Investigations Branch. See [http://www.californiabreathing.org](http://www.californiabreathing.org)


11 Rosenblloom, A., Joe, J., Young, R., Winter, W. Emerging Epidemic of Type 2 Diabetes in Youth. Diabetes Care, Volume 22, Number 2, February 1999.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (Age 18 +)</th>
<th>Number Adults with Asthma</th>
<th>Percent Adults with Asthma</th>
<th>Total Population (Age 20+ )</th>
<th>Number Adults with Diabetes</th>
<th>Percent Adults with Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno S.A.</td>
<td>757,963</td>
<td>116,763</td>
<td>15.40%</td>
<td>700,920</td>
<td>63,552</td>
<td>9.07%</td>
</tr>
<tr>
<td>Fresno County</td>
<td>634,493</td>
<td>102,090</td>
<td>16.09%</td>
<td>589,806.45</td>
<td>54,852</td>
<td>9.50%</td>
</tr>
<tr>
<td>Kings County</td>
<td>109,265</td>
<td>17,439</td>
<td>15.96%</td>
<td>87,697.37</td>
<td>6,665</td>
<td>7.60%</td>
</tr>
<tr>
<td>Madera County</td>
<td>105,286</td>
<td>11,466</td>
<td>10.89%</td>
<td>100,858.82</td>
<td>8,573</td>
<td>8.50%</td>
</tr>
<tr>
<td>Tulare County</td>
<td>288,581</td>
<td>39,536</td>
<td>13.70%</td>
<td>267,506.33</td>
<td>21,133</td>
<td>7.90%</td>
</tr>
<tr>
<td>California</td>
<td>27,311,960</td>
<td>3,583,329</td>
<td>13.12%</td>
<td>26,721,032.93</td>
<td>2,022,190</td>
<td>7.57%</td>
</tr>
<tr>
<td>United States</td>
<td>232,747,222</td>
<td>30,473,296.44</td>
<td>13.09%</td>
<td>239,583,791.97</td>
<td>21,015,523</td>
<td>8.77%</td>
</tr>
</tbody>
</table>

Figure 13: Total population without health insurance in region. Data Source: U.S. Census Bureau, 2008-2010 American Community Survey 3-Year Estimates. Source geography: PUMA.

**Unique Needs**

The rate of Hepatitis B carrier status among the Hmong is prevalent with one study showing 1 out of 6 Hmong patients in the San Joaquin Valley screened positively for Hepatitis B. Tuberculosis, asymptomatic splenomegaly, sudden unexpected nocturnal death syndrome, post-traumatic stress disorder, injuries related to agricultural occupation, cardiovascular disease, diabetes, lower immunization rates, and higher rates of cancer have also been documented as major concerns for the Hmong population in the US.

**The Community Benefit Workgroup**

This report represents the collective hospital community’s second health needs assessment and the commitment to tri-annually conduct this assessment. These hospitals are:

1. Adventist Health/Adventist Medical Center - Hanford
2. Adventist Medical Center - Reedley
3. Clovis Community Medical Center
4. Coalinga Regional Medical Center
5. Corcoran District Hospital
6. Community Regional Medical Center (includes Community Behavioral Health Center)
7. Children's Hospital Central California
8. Fresno Heart & Surgical Hospital
9. Kaiser Permanente Fresno Medical Center
10. Kaweah Delta Medical Center
11. Madera Community Hospital
12. San Joaquin Valley Rehabilitation Hospital
13. Sierra View District Hospital
14. Saint Agnes Medical Center
15. Tulare Regional Medical Center

**The Consultants**

To develop this report, the Hospital Council of Northern and Central California contracted with Leap Solutions Group, LLC. Established in 1998, the managing consultants Chuck McPherson, and Scott Ormerod, each have over 25 years of experience working in corporate, public and nonprofit sectors with a focus on organizational development, strategic planning and human resource management. The consulting team for this report includes:

**Maria G. Hernandez, PhD.**

Maria received her doctoral degree in community psychology from the University of Texas at Austin. She brings to this effort a wide range of prior experience facilitating strategic planning, community engagement and outreach efforts, and stakeholder analysis for public agencies, elected officials, foundations and nonprofits. She has managed teams of consultants working on public outreach efforts for the Foundation Board of Directors at Sutter Health’s St. Luke’s Hospital in San Francisco, CA and also provided technical assistance to produce the community benefits report for St. Luke’s Hospital. She has also provided cultural awareness training for wide range of nonprofits that serve diverse communities. She is both a Danforth Fellow and American Psychological Association Minority Fellow with university teaching experience at the UC Berkeley School of Public Policy Woodrow Wilson Institute in Policy Studies and Saint Mary’s College. She is a current advisor with Health Research for Action at the UC Berkeley School of Public Health where she has collaborated with researchers on the use of social impact investing to address chronic health conditions. With support from The California Endowment, she recently co-authored a white paper on the first effort to use a social impact bond in Fresno, CA targeting asthma patients using home-based interventions paid by private investors.

Maria has consulted in both public and corporate settings in the U.S. and Mexico where her professional facilitation, research and project management skills can address complex strategic initiatives that involve operational effectiveness, talent optimization and client or consumer relations. Maria is bi-cultural and fluent in both Spanish and English.

**Chuck McPherson**

With over 20 years of global business and management experience, Chuck brings an extensive portfolio of expertise in human capital and organizational development results. He has led large and small teams through organizational effectiveness, change management, strategic planning, and professional development initiatives. His consulting focus includes leading businesses with traditional teams through untraditional planning processes and supports clients in the fields of Organization Development and Human Resources.

In 2003, Chuck left Hewlett Packard to launch IMSIConsulting and IMSITrackMeet™, a management consulting firm based in Santa Rosa, CA. IMSIConsulting focused on business management consulting and collaborative technologies. In 2009, Chuck merged IMSIConsulting and IMSITrackMeet™ into Leap Solutions Group, LLC formalizing a business partnership that began through a collaborative consulting agreement with Leap in 2004. Today IMSITrackMeet™ is still used extensively within the consulting of Leap Solutions Group to gather and sort data with small and large populations across many industries.

Chuck has extensive experience within the health care industry including acquisition assessment, coaching, investigations, human resources and organization development. Most recently, he has worked with Johns Hopkins University, Adventist Health Physicians Network, Adventist Health Physicians Services, Physicians Network Medical Group, Sonoma County Department of Health Services and the Hospital Council of Northern and Central California.
Chuck was born in Mountain View, CA and received his BA from Williamstown University. He has been published and quoted in numerous magazines, newspapers, books and studies for his work with collaboration technologies and human resource development, including The Wall Street Journal, Boston Globe, Sun Sentinel, New York Times, Top Consultant and Training Magazine.

Scott Ormerod, MBA

As a partner of Leap Solutions Group LLC, a business management consulting firm located in Santa Rosa, CA, Scott Ormerod brings over 28 years organizational development, management and human resources experience to the consulting practice. Scott inspires creative, innovative solutions for his clients as a way to develop and enhance teams that are focused upon organizational values, vision and mission. His expertise includes assisting organizations with the development of their organizational and human assets in a way that incorporates individualism, diversity and growth. Scott is known for his organized and systematic approach to complex problem solving with executable implementation plans.

Scott has a diverse background in the areas of human resources, organization development, facilities management, risk management, administration and finance. Combining this background with his nonprofit industry experience allows him to bring distinctive and diverse solutions to consulting engagements.

Scott has extensive experience in the health care industry focusing on human resources, coaching, administration, organizational development and acquisitions. Most recently, he has worked with Hospital Association of Southern California, Hospital Council of Northern and Central California, White Memorial Medical Center, Adventist Health and Adventist Health Physicians Network, Physicians Network Medical Group, Sonoma County Department of Health Services, Healthcare Foundation of Northern Sonoma County, North Sonoma County Healthcare District.

Prior to launching Leap Solutions in 1998, Scott worked in the higher education field as a director of human resources. His experience also includes work as a CFO for a private boarding school and Administrative Manager for a private, liberal arts college. In addition to life-long learning for himself, Scott teaches human resources and management courses as an adjunct faculty member for Pacific Union College and University of San Francisco.

One of Scott’s passions is volunteering in the community with organizations such as the Greater Bay Area Make-A-Wish Foundation, Make-A-Wish Foundation of America, the Children’s Village of Sonoma County and the County of Sonoma Workforce Investment Board. Scott serves on the Make-A-Wish Foundation of America Resource Development and Branding Committee and is a former member of its national board. He also serves as a board member for The Children’s Village, the Santa Rosa Convention and Visitor’s Bureau, the County of Sonoma Workforce Investment Board and Tomorrow’s Leaders Today, a leadership program for high school juniors in Santa Rosa.

On May 16, 2001, Scott was one of 50 individuals from throughout the world honored by His Holiness the Dalai Lama for his nonprofit service particularly with the Make-A-Wish Foundation. A native Californian, Scott received his MBA in management at Golden Gate University in San Francisco.
CHNA Data Collection Process

To develop this report, Leap Solutions, LLC followed several steps to ensure that members of the Hospital Work Group would have adequate information from which to identify possible actions. First, it was important to review the work that had been done in the past and identify opportunities for improvement in this second version of a regional report. Second, it was essential to agree upon the data to be used for this report in order to apply a consistent set of key social determinants of health or drivers of health, population data, and key indicators on health in each of the four counties.

Serving as an agreed upon set of measures to assess public health, this report is structured by using those 10 leading health indicators defined by Healthy People 2010. There are however, Healthy People 2020 benchmarks included in the report where available.

Secondary Data
The opportunity to use a comprehensive data set emerged as Kaiser Permanente had launched its CHNA Data Platform (www.chna.org/kp) and made it available; not only to its facilities but to all communities initiating their own needs assessment efforts. Given the resources available for this work and the ease of use for this data base, it was determined this would serve as the primary source of health outcomes data on the populations served in all four counties and in the Kaiser Permanente Fresno Service Area.

Sources and dates of data and other information used in the assessment

- **Demographics.** The source for demographic data includes:
  - U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates

- **Social and Economic Factors.** These data were from the following sources:
  - US Census Bureau, American Community Survey 2006-2010 5-year estimates and 2008-2010 3-year estimates
  - Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010
  - U.S. Census Bureau, 2008-2010 American Community Survey 3-Year Estimates
  - US Federal Bureau of Investigation, Uniform Crime Reports, 2010

- **Physical Environment**, including data from the following sources:
  - US Census Bureau, ZIP Code Business Patterns, 2009 and County Business Patterns, 2010
  - California Department of Alcoholic Beverage Control, Active License File, April 2012
Clinical Care data from the following sources:
- California Health Interview Survey (CHIS) 2007, and 2009
- US Health Resources and Services Administration Area Resource File 2009 (as reported in the 2012 County Health Rankings) and Health Professional Shortage Area File 2012
- Dartmouth Atlas of Healthcare, Selected Measures of Primary Care Access and Quality 2003-2007,
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010
- US Health Resources and Services Administration Area Resource File, 2011
- California Office of Statewide Health Planning and Development (OSHPD), Patient Discharge Data, 2010-2011
- US Health Resources and Services Administration Health Professional Shortage Area File, 2012

Health Behaviors data from the following sources:
- California Health Interview Survey (CHIS) 2009
- Nielsen Claritas Site Reports Consumer Buying Power, 2011
- California Department of Public Health Death Statistical Master File, 2008-2010
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2003-2010
- California Department of Education, Fitnessgram Physical Fitness Testing Results, 2011

Health Outcomes data, based on incidence and mortality:
- California Office of Statewide Health Planning and Development (OSHPD), Patient Discharge Data, 2010-2011
- Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010
- California Department of Public Health, Death Statistical Master File, 2008-2010
- Centers for Disease Control and Prevention, National Diabetes Surveillance System, 2009
- California Health Interview Survey (CHIS) 2009
- California Department of Education, Fitnessgram Physical Fitness Testing Results, 2011
- Centers for Disease Control and Prevention, National Vital Statistics System, 2003-2010 (As reported in the 2012 County Health Rankings)
- SEARCH for Diabetes in Youth Study – Pediatrics 2006
- US Centers for Disease Control and Prevention 2011 National Diabetes Fact Sheet
In addition to looking at specific demographic data, there are several community indices that have emerged in the past 10 years to rank regions on several factors, which were also considered when using secondary data. The **Community Need Index** (CNI) was developed in 2005 as a collaborative effort between Dignity Health, Solucient, LLC and Thompson Reuters. The CNI looks at the link between community need, access to care and preventable hospitalizations. It takes into account known barriers to health care access (income, culture/language, education, insurance, and housing) and use indicators within each barrier to rank the ability of residents to access care.\(^{14}\)

A **score of 1** indicated community with the lowest socioeconomic barriers or lowest need while a **score of 5** represents a community with the highest degree of socioeconomic barriers. Scores are aggregated and averaged for a final CNI score across the five barriers to health care access. Figure 14 below indicates that all four counties have conditions that make it difficult to access health care.

<table>
<thead>
<tr>
<th></th>
<th>Fresno</th>
<th>Kings</th>
<th>Madera</th>
<th>Tulare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Average</td>
<td>4.6</td>
<td>4.4</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Median CNI Score</td>
<td>3.6</td>
<td>4.8</td>
<td>5</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Figure 14: Summary of Community Need Index Scores across all 4 counties. *Data Source: Community Needs Index Interactive available at: [http://cni.bhw-interactive.org](http://cni.bhw-interactive.org)*

The **County Health Rankings** is another rating system published by the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation.\(^{15}\) Its rankings are based on the latest data publicly available and provide an overall ranking on **Health Outcomes** for all counties.

The overall rank for **Health Outcomes** is comprised of **four separate ratings** for health behaviors, clinical care, social and economic factors, and physical environment. The following is a brief description of what data is used to create each of these ratings.

- **Health behaviors** takes into account rates of smoking, obesity, physical inactivity, excessive drinking and motor vehicle crash death rates, sexually transmitted infections, and the teen birth rate.

- **Clinical care** takes into account the rate of uninsured residents, total number of primary physicians, preventable hospital stays, diabetic screening and mammography screening.

- **Social and economic factors** used in the ranking include high school graduation rates, college attendance, unemployment, children in poverty, inadequate social support, children in single parent households and violent crime rate.

- **Physical Environment** includes air pollution-particulate matter days, air pollution o-zone days, access to recreational facilities, limited access to healthy foods, fast food restaurants.

The **mortality rank** is based on premature deaths. **Morbidity** is based on those who are in poor or fair health, the number of poor physical health days, poor mental health days and low birth weight.

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\(^{15}\) See [http://www.countyhealthrankings.org](http://www.countyhealthrankings.org) Accessed 11/29/12
In California, 56 of 58 counties have been ranked in this data platform. Figure 15 below indicates that Tulare and Madera counties are in the lower quartile for overall Health Outcomes with Health Outcome ranks of 45 and 47, respectively. Fresno and Kings counties are ranked slightly higher at 42 and 40, respectively.

<table>
<thead>
<tr>
<th>County</th>
<th>Overall Health Outcomes Rank</th>
<th>Mortality Rank</th>
<th>Morbidity Rank</th>
<th>Health Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno</td>
<td>42 of 56</td>
<td>38</td>
<td>45</td>
<td>53</td>
</tr>
<tr>
<td>Kings</td>
<td>40 of 56</td>
<td>40</td>
<td>41</td>
<td>49</td>
</tr>
<tr>
<td>Madera</td>
<td>45 of 56</td>
<td>33</td>
<td>56</td>
<td>47</td>
</tr>
<tr>
<td>Tulare</td>
<td>47 of 56</td>
<td>42</td>
<td>49</td>
<td>56</td>
</tr>
</tbody>
</table>

Figure 15: Summary of County Health Rankings assigned to four counties in our region. Data Source: County Health Rankings.

These data affirm that the study region faces significant challenges to support the health and quality of life of residents. By comparison, the top four counties in the state from first to fourth place are Marin, Santa Clara, San Benito and Placer counties, respectively.

**Community Input**

In addition to the information available through the CHNA Data Platform, the committee placed a strong emphasis on conducting focus groups and interviews of key stakeholders in each county. A total of 115 people attended the 14 focus groups conducted and another 104 people completed the same questions on-line. We also interviewed the public health director or officer in all four counties, the CEOs or senior executives of eight hospital facilities and stakeholders who play a variety of roles in the region’s health services. The qualitative data that was generated from the focus groups, surveys and interviews provides additional context and deepened the importance of this information.

**Facility Executives Perspectives**

A total of 17 executives and senior leaders were individually interviewed or participated in small groups at 8 facilities by consultants. A list of their names, titles and affiliated institutions is provided on page 26. As with the focus groups, the CHNA Data Platform (www.chna.org/kp) provided the primary focus of health indicators discussed while answering questions on page 28. Common themes and areas of high concern were recorded by the consultant. As predominant themes emerged in these interviews they affirmed the issues that surfaced in our focus groups and surveys. Many are very concerned about the chronic health conditions of diabetes and asthma with strong appreciation that several factors contribute to their high rates in the region: poor nutrition and/or lack of physical exercise, poor air quality, and poor health literacy. Executives are also aware that mental health resources are limited in the region and those that do exist are not leveraged efficiently. Some attribute this to policy or regulation and others see operational silos among facilities that prevent action.

Executives were also sensitive to the broad community impact of poverty, access to health care, and the increasing diversity of the region. The large number of Latinos in the region is specifically a focus of efforts to provide culturally competent care and to understand the fear of accessing health care services.
among the region’s large number of undocumented people. These efforts are well defined among some and still in development among others. There is an appreciation that different cultural groups approach health and wellness with unique perspectives that need to be considered in both clinical outcomes and patient satisfaction outcomes. This is not just about language differences. The cultural determinants of health include a bias for accepting fate (attributed to Latinos) or the resolve to take control of individual health (attributed to Caucasians) and these truly play a role in healthcare.

The need for more coordination and collaboration among all facilities, clinics and community organizations is of concern to executives. Some are looking at health care reform as an opportunity to improve population health. There is an interest in defining chronic care management in the context of engaging community resources. Similarly, there is a willingness to look at health education in collaboration with community leaders, employers, and school systems. The key questions remain, however: how and when?

Public Health Directors Perspectives

Using the same interview technique and list of questions that were used with the facility executive interviews, all four public health directors pointed to chronic disease as their primary concern for the populations they serve. At the top of this list are diabetes and the remarkable level of obesity throughout the region. Another concern is the high rates of asthma that lead to hospitalizations among children. Similarly they saw a broad level of social issues — poverty, poor housing, and lack of access to care as a large contributor to both chronic disease and, at least in one county, premature death. While all pointed to the large number of uninsured residents in the region, they also raised concerns related to isolated communities based on geography or language barriers. In Kings County, there have also been large numbers of residents who become ill with Valley Fever contracted by inhaling spores of a fungus that is common to the area.

The lack of access to health care was attributed to a wide range of issues. First, many of the uninsured residents are part of immigrant communities where some do not have legal status or struggle to navigate the health care system. Others pointed to the current practice of fee-for-service rather than a capitated service design. There simply is not enough of an incentive for providers to manage for quality care or control costs by keeping patients healthy through preventative or health education programs. In three counties, there is also a strong sense that there are not enough primary care providers, especially those who are bilingual and bicultural, to address the needs of such a diverse population. This shortage of providers is even greater among specialists.

The economic downturn of the past few years has greatly limited the number of free services available and placed great strain on the region’s nonprofits and county programs designed to serve residents without any coverage. All of the county public health officers view health care access as a significant challenge in the region. Given the number of residents who do not have insurance of any kind, all felt there is a tremendous need to do more in primary prevention efforts and in one instance a specific focus on the social determinants of health: making sure that people live, work and play in a healthy community. There was also interest in seeing more attention drawn to California’s Health in All Policies Executive Order which was established by Governor Arnold Schwarzenegger in 2010. The intent of this legislation was to encourage inter-agency collaboration related to policies and programs in land use, transportation, and
housing which impact healthy lifestyles. Executive Order S-04-10 asks public agencies to “recognize the influence of policies related to air and water quality, natural resources, and agricultural land, housing, infrastructure systems, public health, sustainable communities and climate change on health outcomes”

All of the counties are tracking the Healthy People 2010 indicators where data is readily available. Those indicators that are receiving more attention — physical activity, obesity, tobacco use, suicide, immunization, environmental quality — are of great concern. In Fresno County there is additional focus on factors that are more predictive of health risks: breast-feeding rates, school fitness data, reading level, school attendance, and WIC utilization. For those who experienced the greatest budget loss in the last two years, tracking these health indicators remains a priority even if programs designed to address these have ended.

All of the public health directors interviewed believe that their population values quality care and in some areas that care is found at a rural health clinic, the Federally Qualified Health Centers, a free clinic sponsored by a public health department, a local hospital or a Women, Infants and Children’s (WIC) clinic. Communities value primary physicians who have the ability to understand their needs and respond accordingly.

The most underutilized health resource in the region appears to be the talent of public health departments that are capable of providing more health education or prevention programs and support services that can improve the health of the community. The unique capacity of public health staff has been deeply hurt, however, by the budget shortfall of the last few years and thus it is hard to inform the public about the services and programs that do exist to help residents — especially those intended to prevent chronic diseases. One of the county public health directors also believed the community health needs assessment process is poorly utilized for planning purposes and would like to see the reporting process produce clear strategies for addressing health needs.

In order to track the information necessary to understand their county’s health needs, public health directors are turning to California Health Interview Survey (CHIS) data, Central Valley Health Policy Institute, County Health Rankings, and data available from the Centers for Disease Control Syndromic Surveillance (SS). There is no shortage of information for tracking population health trends. There is also a perception that tracking the needs facing uninsured residents who often do not want to respond to surveys or participate in programs that involve tracking cannot be easily addressed. Most felt that their front-line staff is coming into contact with that population regularly, however. The needs of the uninsured are reflective of the larger population but they are most visible in emergency departments.

In looking at what additional content the CHNA Report may have in 2013 or how it might be used differently, all of the county public health officers pointed to a need to see some coordinated action take place as a result of this report. They want more information on how to promote better coordination of care, follow up with patients who may not have a primary physician, and how the region can respond to the challenges posed by the Affordable Care Act. But additional information alone is not enough to make the CHNA a valuable process. Instead, the value of CHNA Report is in the extent to which targeted action based on the health needs that are identified is addressed.

**Special Stakeholder Interviews**

In addition to the interviews among facility executives and public health directors, we also reached out to gain insights from a few health advocates that are familiar with the health, social, economic, and
environmental conditions in the region. The following is a list of key informants interviewed for the purpose of this report.

**List of Key Informant Interviews**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Knowledge and Expertise</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kris Aubry</td>
<td>Director</td>
<td>Children's Hospital Central Calif.</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ashley Ave</td>
<td>Supervisor</td>
<td>Children's Hospital Central Calif.</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Jack Chubb</td>
<td>CEO</td>
<td>Community Regional Medical Center</td>
<td>x x x x x</td>
<td>x</td>
</tr>
<tr>
<td>Jeff Collins</td>
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<td>x x x x</td>
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</tr>
<tr>
<td>Danny Davis</td>
<td>Executive Director</td>
<td>Children's Hospital Central Calif.</td>
<td>x</td>
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<tr>
<td>Wayne Ferch</td>
<td>CEO</td>
<td>Hanford Adventist Health</td>
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<tr>
<td>Carlos Flores</td>
<td>Trauma Coord.</td>
<td>Children's Hospital Central Calif.</td>
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<tr>
<td>John Fry</td>
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<td>Madera Community Hospital</td>
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<td>Leanne Kozub</td>
<td>Child Advocacy Coord.</td>
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<td>x x x x x</td>
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<tr>
<td>Wanda Holderman</td>
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<tr>
<td>Nancy Hollingsworth</td>
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<td>Saint Agnes Hospital</td>
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<td>Chris Long</td>
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<td>Lindsy Mann</td>
<td>CEO</td>
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<td>Children's Hospital Central Calif.</td>
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<td>Anthony Yamamoto</td>
<td>Director of Social Services</td>
<td>Children's Hospital Central Calif.</td>
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<td>Ed Moreno, MD</td>
<td>Director</td>
<td>Fresno County Public Health</td>
<td>x</td>
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<tr>
<td>Karen Haught, MD</td>
<td>Officer</td>
<td>Tulare County Public Health</td>
<td>x</td>
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<tr>
<td>Van Do Reynoso</td>
<td>Director</td>
<td>Madera County Public Health</td>
<td>x</td>
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<td>Keith Winter</td>
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<td>Chinayera Black-Hardaman</td>
<td>Executive Director</td>
<td>First 5 Madera County</td>
<td>x</td>
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<td>John Capitman</td>
<td>Executive Director</td>
<td>Central Valley Health Policy Institute</td>
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<td>Kevin Hall</td>
<td>Executive Director</td>
<td>Central California Air Quality Coalition</td>
<td>x</td>
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<tr>
<td>Steve Schilling</td>
<td>CEO</td>
<td>Clinica Sierra Vista</td>
<td>x</td>
<td></td>
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<td>Zoua Vang</td>
<td>Comm. Director</td>
<td>First 5 Fresno County</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

Figure 16: List of key informants interviewed October – November 2012

**Methodology for Primary Data**

**Focus Groups**

The work of gathering the focus group data and interviews involved securing meeting dates and sites near each of the participating facilities in each County. Members of the working committee identified key stakeholders in their respective communities and consultants reached out by email to invite them to a community focus group. A total of 230 individuals were invited by consultants to attend the community focus groups. Hospital staff were also identified by the committee members and they were invited to their own focus group sessions. In order to ensure that the focus groups and survey participants answered the same questions, the focus groups involved used the same questions on Apple iPads® and on paper (for participants less comfortable with technology) in order to capture participant responses.
The indicators and themes from primary data were ranked using the following criteria:

**Impact:** What are the leading indicators, if improved would make the greatest impact on health, quality of life and health disparities?

**Severity:** Which are the leading indicators associated with the most severe negative health repercussions in the region?

**Resources:** Which are the leading indicators can be addressed with existing resources across the study region?

**Outcome:** Which are the leading indicators, if addressed effectively, would yield the most visible improvement in our mortality and morbidity rates?

Facilitator notes were also taken during the focus group sessions to capture key discussion points and issues raised by the participants.

For the purpose of this report the Community Benefit Work Group initially selected health data that performed poorly against the Healthy People 2020 benchmark or the state average, when no benchmark exists. The secondary data and primary data gathered in the focus group and individual interviews helped narrow the focus to develop the list of top health needs.

The following questions were selected for use in focus groups with staff and community members:

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**Focus Group and Survey Questions for Facility Staff/Community Stakeholders**

1. What do you believe to be the top 3 most serious health issues facing the communities your facility serves? / What do you believe to be the top 3 most serious health issues facing your community?
2. When you think about the resources and services that help the communities you serve stay healthy, what organizations—aside from your facility—stand out? / When you think about the resources and services that help your community stay healthy, what organizations stand out?
3. What organization do you see taking a strong leadership role at improving health in the communities your facility serves? / What organization do you see taking a strong leadership role at improving healthy in your community?
4. What is the most beneficial health resource or service in the communities your facility serves? / What is the most beneficial health resource or service in your community?
5. What can health care facilities in your area do to improve health and quality of life in the communities you serve? / What can health care facilities in your area do to improve health and quality of life in your community?
6. What health care services do you believe patients might be using least effectively in your community? / Same question for community stakeholders
7. What percent of the population you serve at your facility do you believe has a regular family or primary care physician that addresses their routine health needs? / What percent of your community do you believe has a regular family or primary care physician who addresses their routine health needs?
8. By what means do you believe the majority of patients you serve at your facility travels to see a health care provider or a facility? / By what means do you believe the majority of patients in your community travel to see a health care provider or
visit a health facility?
9. What percent of your population do you estimate delays health care due to a lack of money and/or insurance? / What percent of your community do you estimate delays health care due to a lack of money and/or insurance?
10. If hospitals could do one thing to improve the health of the communities they serve, what would that be? / Same question for community stakeholders
11. If local, state or federal government could do one thing to improve the health of the communities they serve, what would that be? / Same question for community stakeholders

Figure 17: List of questions asked at focus groups conducted for this report. These same questions were also used in the electronic survey.

The following questions were used with facility executives and public health directors:

Questions Used for Interview with Facility Executives and Public Health Directors

1. What are the regional health issues that you consider to be of greatest concern right now?
2. What are the primary issues you see impacting health access?
3. What are the primary issues related to effective disease prevention?
4. What health indicators are most important to you to track?
5. What health resources in the region do you think are most valued? Most underutilized?
6. What sources of information do you rely upon to keep tabs on what is happening in the region as a whole? With the uninsured?
7. What, if any, information gaps exist?
8. What else do you think we should be covering in the 2013 CHNA report?

Figure 18: List of questions used to interview facility executive leaders and the County Public Health Directors.

Secondary Data
The Kaiser Permanente CHNA Data Platform includes a robust set of nearly 100 secondary data indicators to assess the health of communities in its service regions. In some places, these indicators overlap the Healthy People 2020 health indicators developed by the U.S. Department of Health and Human Services. When available, the Healthy People 2020 benchmark is indicated in this report. The CHNA Data Platform highlights in green data that is better than the state average. It uses red to highlight figures that do not meet and are worse than the state average. Similarly, it uses green to indicate if a measure meets or exceeds the benchmark and red if the measure fails to meet the benchmark.

Limitations of the Data
The KP common data set includes a robust set of nearly 100 secondary data indicators that, when taken together, enable an examination of the broad health needs faced by a community. However, there are some limitations with regard to this data, as is true with any secondary data available. Some data were only available at a county level, making an assessment of health needs at a neighborhood level challenging. Moreover, disaggregated data around age, ethnicity, race, and gender are not available for all data indicators, which limited the ability to examine disparities of health issues within the community. Availability for data for certain health issues like mental health was unavailable through the platform or other resources. Had the data been available, the group is certain that the issue would have performed poorly against benchmarks. Lastly, data are not always collected on a yearly basis, meaning that some data are several years old.

At the time this assessment was conducted, the CHNA KP Data Platform remains structured around the original Healthy People 2010 leading health indicators. It should be noted that not all of the Healthy People
2010 objectives associated with each of the 10 indicators are available within the CHNA KP Data Platform. Data for immunization, mental health, childhood obesity and asthma were sought from alternate sources as marked in corresponding sections below.

It should also be noted that the focus group and survey results are not based on a stratified random sample of residents throughout the four counties or a random sample of employees in each facility. The perspectives captured in this data simply represent the community members who completed the survey or attended a focus group with an interest in health care. Similarly, the perspectives of facility staff captured impressions of those who were invited and could attend or chose to complete the survey on line. While the total numbers of individuals participating in the focus groups and surveys reflect a significant improvement from the prior CHNA completed in 2011, members of the Hospital Council Community Benefits Work Group understand that much work is needed to encourage greater levels of participation. It is also clear that the work of communicating the importance of the CHNA is a key opportunity in the future. Once the value of this process is clear to community stakeholders and staff, it is believed a greater degree of interest will be evident and participation will increase in each county.

**Health Needs**

The data from the CHNA KP Data Platform and themes from primary data were ranked by the Community Benefit Workgroup, according to impact, severity, health outcomes, and resources available to address using the following criteria:

**Impact:** What are the top 3 leading indicators, if improved would make the greatest impact on health, quality of life and health disparities?

**Severity:** Which are the top 3 leading indicators associated with the most severe negative health repercussions in the region?

**Resources:** Which are the top 3 leading indicators can be addressed with existing resources across the study region?

**Outcome:** Which are the top 3 leading indicators, if addressed effectively, would yield the most visible improvement in our mortality and morbidity rates?

Identified health needs ranked by CBWG:

- Access to Health Care
- Physical Activity
- Tobacco Use

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From the CHNA Data Platform Frequently Asked Questions: “CHNA indicators are only included in the benchmark reports when the methodology used to calculate the statistic "exactly matches" the Healthy People 2020 data methodology. This typically requires that CHNA reports draw their data from the same source as HP 2020, or at a minimum use the same data processing techniques. Because the CHNA tool provides the most-current, most-granular data available for each indicator, this often resulted in incomparable statistics.

For example, the HP 2020 objective AHS-1, *Increase the proportion of persons with health insurance* uses national-level data from the Centers for Disease Control and Prevention (CDC), National Health Interview Survey (NHIS) to determine the nation’s baseline statistic and target objective. The CHNA platform reports the same statistic – percentage of total population with health insurance – but using public use micro area (PUMA) level results from the U.S. Census Bureau’s American Community Survey (ACS). While the NHIS provides just one statistic to represent the nation (83.2 percent of persons had medical insurance in 2008), ACS data can be broken out for smaller geographic areas within a state or county, to provide a better picture of local area health. Because data collection techniques yield different across the datasets, the CHNA indicator is not benchmarked to the HP 2020 objective.

County level information is available when it is supported by the data source. When the raw data are reported at the county level, or at a geographic area that is either entirely contained by county boundaries (tracts, block groups), the data can be aggregated and summarized to the county level. When data are reported for areas that cross county boundaries (ZIP codes, school districts), the data cannot be directly summarized to, and thus are not reported at the county level.” [http://www.chna.org/KP/FAQ.aspx](http://www.chna.org/KP/FAQ.aspx)
• Substance Abuse
• Overweight/Obesity
• Responsible Sexual Behavior
• Mental Health
• Injury and Violence
• Immunization
• Diabetes
• Asthma
• Environmental Quality
• Poverty
• Education
• Infant Mortality
• Premature Death

Once ranked, the priority indicators and health needs were categorized into top and lower priorities:

**Top Priorities**
- Access to health care
- Physical activity and overweight/obesity (combined into one priority) and
- Mental health
- Diabetes
- Asthma

**Lower priorities**
- Substance Abuse
- Education
- Tobacco Use
- Responsible Sexual Behavior
- Environmental Quality
- Injury and Violence
- Immunization
- Infant Mortality
- Premature Death

For the purpose of this report, the top priority health needs are described below.

**Access to Care** is a health need in the Fresno Service Area because of its potential impact on the rate of premature deaths that are higher than the state average. The health need is likely being impacted by the shortage of primary care providers, the high number of uninsured individuals, the high number of adults and children living in poverty. In particular, the problem is worse in the rural communities within the Fresno Service area, possibly due to the lack of appropriate transportation, and the higher rates of people who are linguistically isolated, specifically in Kings and Tulare County.
Overweight, Obesity and Physical Activity is a health need in the Fresno Service Area because of its potential impact on the cost of care in an area where resources are limited, the high rates of diabetes for adults, heart disease prevalence and mortality. The health need is likely being impacted by fewer options people have to pursue physical exercise as compared to other parts of California, the high number of people living in designated food deserts, the lower than state average of adults consuming fruits and vegetables, and according to community input, the lack of coordinated efforts to encourage healthy lifestyles. The rates of obesity and hypertension among Hmong children are higher than for the general population.

While it is true that our rate of Mental Illness is not higher than state averages as documented in the Kaiser Permanent CHNA Data Platform, the community comments we collected suggest this is an area of concern. Mental health is likely being impacted by the high poverty rate and high rates of unemployment. Our interviews, focus groups and survey results reveal strong concerns about the lack of mental health resources throughout the region. Mental health is a health need because of its potential to impact to increased Emergency Department utilization rates. Many participants in this report pointed out that patients are frequently assisted in an Emergency Department but there is limited long-term support, and little no follow-up care which increases the likelihood that they will return again to the Emergency Department. Youth in particular do not have many options for long-term treatment for a wide range of mental illness. Mental health issues are of special concern for Hmong populations living in the US. Of particular concern is the high number of what is termed, “Sudden Unexpected Nocturnal Death Syndrome” or SUND that affect Hmong males recently immigrated to US. SUND is often associated with severe nightmares based in spiritual beliefs held by Hmong. Speculations have been made about the association of mental health issues such as post-traumatic stress disorder, depression, and post emigration stress with these unexplained nocturnal deaths.17

Asthma is a health need in the Fresno Service Area, as marked by incidence rates and adult and youth hospitalizations that are higher than the state average. The health need is likely being impacted by higher number of days that exceed emission standards, the number of unhealthy air due to ozone levels or smog, and the number nonsmokers exposed to environmental tobacco. The factors that impact the study region center on the large concentration of pesticides, diesel fuel exhaust, and dust that is the result of farming activities. The presence of pollution exacerbates asthma in children leading greater likelihood of hospitalization and more long term impact to their immune system. It should be noted that the measurement of air quality is influenced by the geographical terrain and measurement approaches which vary throughout our study region.

Diabetes is a health need in the Fresno Service Area, as marked by incidence rates and adult hospitalizations than are higher than state average. Its potential impact on the cost of care is not sustainable within our communities. Several factors contribute to the high rates in the region: poor nutrition and/or lack of physical exercise, poor access to care, and poor health literacy. Chronic conditions are clearly a leading source of concern among focus participants, and diabetes was the most often mentioned condition that participants believe needs to be addressed.

Community Assets and Resources

The four counties are home to 15 hospital facilities that range in size and service offerings to meet the needs of both urban and rural communities in our study region. The largest hospitals serving Fresno County—the largest of the four counties—are the Community Medical Centers system (CMC), Saint Agnes, and Kaiser Permanente. Beyond Fresno, the largest facilities are Kaweah Delta Health Care District and Adventist Health Central Valley Network. Sierra View Hospital in Tulare County serves the area farthest southeast in the region. Children’s Hospital provides some of the regions most specialized pediatric care. These facilities are supported by 52 different clinics and Federal Qualified Health Centers that are accessible to the residents in the most rural areas and the most socioeconomic disadvantaged.

The hospitals who contributed to the development of this report provide a total of 3,158 beds among them and employ 18,447 health care staff. Due to the region’s poor economy and disproportionate number of individuals using Medi-Cal and/or Medi-Care, the hospitals provided $399,675,810 in uncompensated care in the region. In 2010, the 15 facilities provided care to 2,864,079 outpatients and 658,705 emergency department visits. Figure 19 provides an overview of the capacity of health care facilities in each county.

<table>
<thead>
<tr>
<th></th>
<th>California</th>
<th>Fresno</th>
<th>Madera</th>
<th>Tulare</th>
<th>Kings</th>
<th>Four Counties Total</th>
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<tbody>
<tr>
<td>Number of Facilities</td>
<td>376</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>17</td>
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<tr>
<td>Licensed Beds</td>
<td>78,379</td>
<td>1,655</td>
<td>445</td>
<td>856</td>
<td>202</td>
<td>3,158</td>
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<tr>
<td>Discharges</td>
<td>3,133,451</td>
<td>88,913</td>
<td>18,681</td>
<td>38,321</td>
<td>13,986</td>
<td>159,901</td>
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<td>Outpatient Visits</td>
<td>44,540,423</td>
<td>921,058</td>
<td>425,069</td>
<td>804,539</td>
<td>713,413</td>
<td>2,864,079</td>
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<tr>
<td>Emergency Department Visits</td>
<td>10,653,976</td>
<td>256,510</td>
<td>112,121</td>
<td>192,751</td>
<td>97,323</td>
<td>658,705</td>
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<td>Uncompensated Care Costs</td>
<td>$(12,571,714,249)</td>
<td>$(272,296,058)</td>
<td>$(54,385,666)</td>
<td>$(54,286,178)</td>
<td>$(18,707,908)</td>
<td>$(399,675,810)</td>
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<td>FTE Employees</td>
<td>396,100</td>
<td>9,021</td>
<td>3,030</td>
<td>4,436</td>
<td>1,960</td>
<td>18,447</td>
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Figure 19: An overview of the capacity of health care facilities in the study region. Data Source: OSHPD 2010 Data Files

When asked what the most valuable health resource participants could identify in their community that supports the health of their community, we saw a common pattern of responses. Staff at facilities in each county tended to select their own facility or hospital as the most valued resource. This was less so for community stakeholders who listed not only the local hospital but also focused on local health clinics and County Public Health services.

We also encouraged our focus group respondents to let us know of unique programs or facilities that they believed are most beneficial in their region’s network of health services. Over 25 different entities were named across all focus group and survey responses. A few of the most frequently stated resources by county are listed in Figure 20 below.

<table>
<thead>
<tr>
<th>Fresno</th>
<th>Kings</th>
<th>Madera</th>
<th>Tulare</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Catholic Charities</td>
<td>• Adventist Health</td>
<td>• Adult Protective</td>
<td>• Family Healthcare</td>
</tr>
<tr>
<td>• Clínica Sierra Vista</td>
<td>• Corcoran District</td>
<td>• Services</td>
<td>Network</td>
</tr>
<tr>
<td>• CRMC Clinics</td>
<td>Hospital</td>
<td>• Camarena Health</td>
<td>• Family Services</td>
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</tbody>
</table>
We also asked participants which facility or resource they perceive is **taking a leadership role in promoting the health of the community**. Once again we saw a similar pattern among participants at facilities. They shared a view that their own facility was taking a leadership role. Other common choices here were the County Public Health Department and local clinics.
Appendix A: Health Need Profiles

Access to Care

Relevant data:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Service Area value</th>
<th>Benchmark</th>
<th>Source</th>
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<tbody>
<tr>
<td>Premature Death</td>
<td>7407/100,000</td>
<td>5971/100,000</td>
<td>Centers for Disease Control and Prevention, National Vital Statistics System, 2008-2010 (As Reported in the 2012 County Health Rankings).</td>
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<tr>
<td>Primary Care Provider Rate</td>
<td>64.40</td>
<td>83.20</td>
<td>U.S. Health Resources and Services Administration Area Resource File, 2011</td>
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The health factors influencing the health need

Quantitative Data

<table>
<thead>
<tr>
<th>Health Outcomes</th>
<th>Fresno Service Area</th>
<th>CA</th>
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<tbody>
<tr>
<td>Asthma Hospitalization</td>
<td>12.82</td>
<td>8.9</td>
</tr>
<tr>
<td>Diabetes Hospitalization</td>
<td>11.15</td>
<td>10.4</td>
</tr>
<tr>
<td>Poor General Health</td>
<td>21.96</td>
<td>18.5</td>
</tr>
</tbody>
</table>

| Physical Environment                 |                     |       |
| Population living in food deserts    | 9.92                | 5.71  |
| Park access                          | 21.08               | 58.6  |

| Clinical Care                        |                     |       |
| Access to Primary Care               | 64.4                | 83.20 |
| Lack of Consistent Primary Care      | 15.89               | 14.23 |
| Preventable Hospital Events          | 123.93              | 83.17 |

| Social and Economic Risks            |                     |       |
| Population below 200%               | 45.34               | 32.83 |
| Percent of population in poverty     | 21.43               | 13.71 |

Qualitative Data

Focus group themes:

- Lack of coordination of services
  - Improve connectivity between providers at every level
  - Provide avenues that the community can access so that they do not have to frequent Emergency Rooms.
Support and participate in development of a strategic plan for the health of the local community that would include development and implementation of community-wide collaborative health promotion efforts in order to decrease health disparities and improve health.

The problem of access to care impacts some communities more than others. The rural communities within Kings and Tulare County are impacted most due to lack of transportation and higher rates of linguistically isolated population.

**Summary: Access to Care** is a health need in the Fresno Service Area because of its potential impact on the rate of premature deaths that are higher than the state average. The health need is likely being impacted by the shortage of primary care providers, the high number of uninsured individuals, the high number of adults and children living in poverty. In particular, the problem is worse in the rural communities within the Fresno Service area, possibly due to the lack of appropriate transportation, and the higher rates of people who are linguistically isolated, specifically in Kings and Tulare County.

**Overweight/Obesity/Physical Activity**

**Relevant data**

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<th>Service Area value</th>
<th>Benchmark</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity (Adult) – BMI between 25.0 and 30.0</td>
<td>29.22</td>
<td>23.25</td>
<td>Centers for Disease Control and Prevention, National Diabetes Surveillance System, 2009</td>
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<tr>
<td>Overweight (Youth) – Percent within the &quot;Needs Improvement&quot; category for body composition on the Fitnessgram</td>
<td>15.29</td>
<td>14.30</td>
<td>CDC, National Diabetes Surveillance System (2009)</td>
</tr>
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</table>
The health factors influencing the health need

Quantitative Data

<table>
<thead>
<tr>
<th>Health Outcomes</th>
<th>Fresno Service Area</th>
<th>CA</th>
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</thead>
<tbody>
<tr>
<td>Diabetes Prevalence</td>
<td>9.07</td>
<td>7.57</td>
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<tr>
<td>Diabetes Hospitalization</td>
<td>11.15</td>
<td>10.40</td>
</tr>
<tr>
<td>Heart Disease Prevalence</td>
<td>6.39</td>
<td>5.87</td>
</tr>
<tr>
<td>Heart Disease Mortality</td>
<td>133.50</td>
<td>131.34</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Fresno Service Area</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate Fruit/Vegetable Consumption (Youth) – Fresno County</td>
<td>47.52</td>
<td>48.37</td>
</tr>
<tr>
<td>Percent Physically Inactive (Youth)</td>
<td>40.51</td>
<td>37.45</td>
</tr>
<tr>
<td>Percent Physically Inactive (Adult)</td>
<td>25.69</td>
<td>22.70</td>
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<th>Physical Environment</th>
<th>Fresno Service Area</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Populations living in food deserts</td>
<td>9.92</td>
<td>5.71</td>
</tr>
<tr>
<td>Recreation and Fitness Facility Access</td>
<td>8.50</td>
<td>8.94</td>
</tr>
<tr>
<td>Park access</td>
<td>21.08</td>
<td>58.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social and Economic Risks</th>
<th>Fresno Service Area</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of population in poverty</td>
<td>21.43</td>
<td>13.71</td>
</tr>
</tbody>
</table>

Qualitative Data

Focus group themes:

- Focus on health and wellness
  - Encourage healthy lifestyles to prevent disease and illness that could impact quality of life long term.
  - Education on health, wellness or preventative care (i.e. Healthy Eating
  - Collaborate more with community groups, businesses and health care providers to improve health education and preventative health care.

- Lack of resources
  - No parks/recreational space
  - Improve living and social conditions (poor housing, crime, drug use)
  - Lack of nutrition and physical education resources

Summary: Overweight, Obesity and Physical Activity is a health need in the Fresno Service Area because of its potential impact on the cost of care in an area where resources are limited, the high rates of diabetes for adults, heart disease prevalence and mortality. The health need is likely being impacted by fewer options people have to pursue physical exercise as compared to other parts of California, the high number of people living in designated food deserts, the lower than state average of adults and youth consuming fruits and vegetables. The problem of obesity among Hmong children is higher than for the general population. According to community input, there is a lack of coordinated effort to encourage healthy lifestyles, and limited resources for families to be physically active in a safe environment.
Mental Health

Relevant data:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Service Area value</th>
<th>Benchmark</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>8.70</td>
<td>9.79</td>
<td>California Department of Public Health, Death Statistical Master File, 2008-2010.</td>
</tr>
</tbody>
</table>

The health factors influencing the health need

Quantitative Data

<table>
<thead>
<tr>
<th></th>
<th>Fresno Service Area</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviors</td>
<td>Alcohol Expenditures</td>
<td>1.94</td>
</tr>
<tr>
<td></td>
<td>Percent Physically Inactive (Youth)</td>
<td>40.51</td>
</tr>
<tr>
<td></td>
<td>Percent Physically Inactive (Adult)</td>
<td>25.69</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>Liquor Store Access</td>
<td>89.3</td>
</tr>
<tr>
<td>Social and Economic Risks</td>
<td>Poverty Rate</td>
<td>21.43</td>
</tr>
<tr>
<td></td>
<td>Adequate Social and Emotional Support</td>
<td>72.21</td>
</tr>
</tbody>
</table>

Qualitative Data

Focus group themes:

- Increased Emergency Department Utilization
  - Little to no follow-up care
  - Lack of mental health resources
  - Need for increased awareness of available resources

- Unique population needs
  - Limited long-term treatment options for youth
  - High mental health issues among the Hmong population

Summary: While it is true that our rate of Mental Illness is not higher than state averages as documented in the Kaiser Permanent CHNA Data Platform, the community comments we collected suggest this is an area of concern and we believe that had more secondary data been available it may have been an issue. Mental health is likely being impacted by the high poverty rate and high rates of unemployment. Mental health is a health need because of its potential to impact to increased Emergency Department utilization rates. Many participants in this report pointed out that patients are frequently assisted in an Emergency Department but there is limited long-term support, and little no follow-up care which increases the likelihood that they will return again to the Emergency Department. Youth in particular do not have many options for long-term treatment for
a wide range of mental illness. Mental health issues are of special concern for Hmong populations living in the US.

**Asthma**

**Relevant data:**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Service Area value</th>
<th>Benchmark</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma Hospitalization</td>
<td>12.82</td>
<td>8.90</td>
<td>California Office of Statewide Health, Planning and Development (OSHPD), Patient Discharge Data, 2010-2011</td>
</tr>
</tbody>
</table>

**The health factors influencing the health need**

**Quantitative Data**

<table>
<thead>
<tr>
<th></th>
<th>South Bay</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Outcomes</td>
<td>Heart Disease Prevalence</td>
<td>6.39</td>
</tr>
<tr>
<td></td>
<td>Heart Disease Mortality</td>
<td>133.50</td>
</tr>
<tr>
<td>Behaviors</td>
<td>Tobacco Usage (Adult)</td>
<td>14.09</td>
</tr>
<tr>
<td></td>
<td>Percent Physically Inactive (Youth)</td>
<td>40.51</td>
</tr>
<tr>
<td></td>
<td>Percent Physically Inactive (Adult)</td>
<td>25.69</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>Poor air quality</td>
<td>7.59</td>
</tr>
<tr>
<td>Social and Economic Risks</td>
<td>Poverty Rate</td>
<td>21.43</td>
</tr>
<tr>
<td></td>
<td>Population below 200%</td>
<td>45.34</td>
</tr>
</tbody>
</table>

**Qualitative Data**

Focus group themes:

- Focus on health and wellness
  - Encourage healthy lifestyles to prevent disease and illness that could impact quality of life long term.
  - Education on health, wellness or preventative care
  - Collaborate more with community groups, businesses and health care providers to improve health education and preventative health care.

- Focus on Physical Environment
  - No parks/recreational space
  - High level of pesticides, dust, and diesel due to farming
The problem of asthma impacts some communities more than others. Fresno, Tulare and Kings Counties have the highest percentage of adults with asthma.

![Map showing asthma prevalence](image)

**Asthma** is a health need in the Fresno Service Area, as marked by incidence rates and adult and youth hospitalizations that are higher than the state average. The health need is likely being impacted by higher number of days that exceed emission standards, the number of unhealthy air due to ozone levels or smog, and the number nonsmokers exposed to environmental tobacco. The factors that impact the study region center on the large concentration of pesticides, diesel fuel exhaust, and dust that is the result of farming activities. The presence of pollution exacerbates asthma in children leading greater likelihood of hospitalization and more long term impact to their immune system. It should be noted that the measurement of air quality is influenced by the geographical terrain and measurement approaches which vary throughout our study region.

**Diabetes**

**Relevant data:**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Service Area value</th>
<th>Benchmark</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes incidence</td>
<td>9.07</td>
<td>7.57</td>
<td>CDC, National Diabetes Surveillance System (2009)</td>
</tr>
<tr>
<td>Adult diabetes hospitalization rates</td>
<td>11.15</td>
<td>10.40</td>
<td>California Office of Statewide Health, Planning and Development (OSHPD), Patient Discharge Data, 2010-2011</td>
</tr>
</tbody>
</table>
**The health factors influencing the health need**

### Quantitative Data

<table>
<thead>
<tr>
<th>Health Outcomes</th>
<th>Fresno Service Area</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity (Adult) - (BMI) between 25.0 and 30.0 (overweight)</td>
<td>29.22</td>
<td>23.25</td>
</tr>
<tr>
<td>Overweight (Adult) - (BMI) between 25.0 and 30.0 (overweight)</td>
<td>36.37</td>
<td>36.2</td>
</tr>
<tr>
<td>Overweight (Youth) – Percent within the &quot;Needs Improvement&quot; category for body composition on the Fitnessgram</td>
<td>15.29</td>
<td>14.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behaviors</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Physically Inactive (Youth)</td>
<td>40.51</td>
<td>37.45</td>
</tr>
<tr>
<td>Percent Physically Inactive (Adult)</td>
<td>25.69</td>
<td>22.70</td>
</tr>
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<table>
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<table>
<thead>
<tr>
<th>Clinical Care</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes management – percent of diabetic Medicare patients who have had a HbA1c test</td>
<td>78.36</td>
<td>75.97</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social and Economic Risks</th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td>Population below 200%</td>
<td>45.37</td>
<td>32.83</td>
</tr>
<tr>
<td>Percent of population in poverty</td>
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<td>13.71</td>
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</table>

### Qualitative Data

Focus group themes:

- Focus on health and wellness
  - Encourage healthy lifestyles to prevent disease and illness that could impact quality of life long term.
  - Education on health, wellness or preventative care
  - Collaborate more with community groups, businesses and health care providers to improve health education and preventative health care.

- Behavior
  - Poor nutrition
  - Lack of physical activity
  - Too busy – multiple jobs

### Summary: Diabetes is a health need in the Fresno Service Area, as marked by incidence rates and adult hospitalizations than are higher than state average. Its potential impact on the cost of care is not sustainable within our communities. Several factors contribute to the high rates in the region: poor nutrition and/or lack of physical exercise, poor access to care, and poor health literacy. Chronic conditions are clearly a leading source of concern among focus participants, and diabetes was the most often mentioned condition that participants believe needs to be addressed.