Fresno County

Community Health Needs Assessment

FRESNO STATE
Central Valley Health Policy Institute

FRESNO METRO MINISTRY

FCHIP
Collective Efforts. Real Outcomes.

Table of Contents

Figures

Tables

Acknowledgements

This report was made possible through the California Healthcare, Research and Prevention Tobacco Tax Act of 2016. The Fresno County Department of Public Health (FCDPH) was awarded these funds by the California Department of Public Health (CDPH) to develop a countywide comprehensive health needs assessment to strategically inform a long-term community health improvement plan (CHIP). The FCDPH contracted the Fresno Community Health Improvement Partnership (FCHIP) and Fresno Metro Ministry (FMM) to reach out to community partners, conduct focus group discussions and key informant interviews, and host community resident meetings. The Central Valley Health Policy Institute (CVHPI) was contracted to design the methodology, gather health indicator data, analyze quantitative and qualitative data, and package the final report. All components of the contracted tasks listed above were collaborative across all organizations.

We would like to thank the community members who made tremendous efforts to attend discussions, share their experiences, and voice their health concerns. Without their input, our efforts would have been misguided and out of touch with the lived-experiences of Fresno County residents. A special thanks to the organizations who supplied time, space, and resources for data collection as well as to the individuals who contributed their time and expertise via key informant interviews.

Members of the Fresno County Community Health Needs Assessment Workgroup

Listed in Alphabetical Order by Organization

- Emanuel Alcala; *Central Valley Health Policy Institute*
- Rachel Doherty; *Central Valley Health Policy Institute*
- Hayam Megally; *Central Valley Health Policy Institute*
- Yesenia Silva; *Central Valley Health Policy Institute*
- Susan Kincaid; *Fresno Community Health Improvement Partnership*
- Ana Cruz; *Fresno County Department of Public Health*
- Annic Lopez; *Fresno County Department of Public Health*
- David Luchini; *Fresno County Department of Public Health*
- Melanie Ruvalcaba; *Fresno County Department of Public Health*
- Elizabeth Tello; *Fresno County Department of Public Health*
- Keith Bergthold; *Fresno Metro Ministry*
- Christian Gonzalez; *Fresno Metro Ministry*
- Lee Her; *Fresno Metro Ministry*
- Kristian House; *Fresno Metro Ministry*
- Katie Kellet; *Fresno Metro Ministry*

Executive Summary

Approach

This community health needs assessment was designed to reach underserved and vulnerable populations, understand their needs, develop priority areas of focus for the region, and establish the foundation for a sustainable Community Health Improvement Plan (CHIP) in Fresno County. To complete a comprehensive assessment, the Fresno County Department of Public Health (FCDPH), along with partners, designed an assessment that incorporated populations traditionally theorized to be vulnerable to disease due to socioeconomic status and place of residence.

The community health needs assessment was conducted with three broad goals in mind:

1. The project aimed to gather community residents and organizational leaders alike to align, collaborate, and leverage resources to identify and address the root causes of our communities' health needs.
2. To fill gaps and build on previous health assessments of the region by analyzing key regional secondary data indicators and incorporating lived-experience feedback from residents through primary data collection.
3. To capture and present *Priority Areas* that represent the needs of community members from the perspective of community residents, multi-sector key informants and stakeholders to develop an actionable plan that addresses upstream causes, prevention, and equitable health solutions.

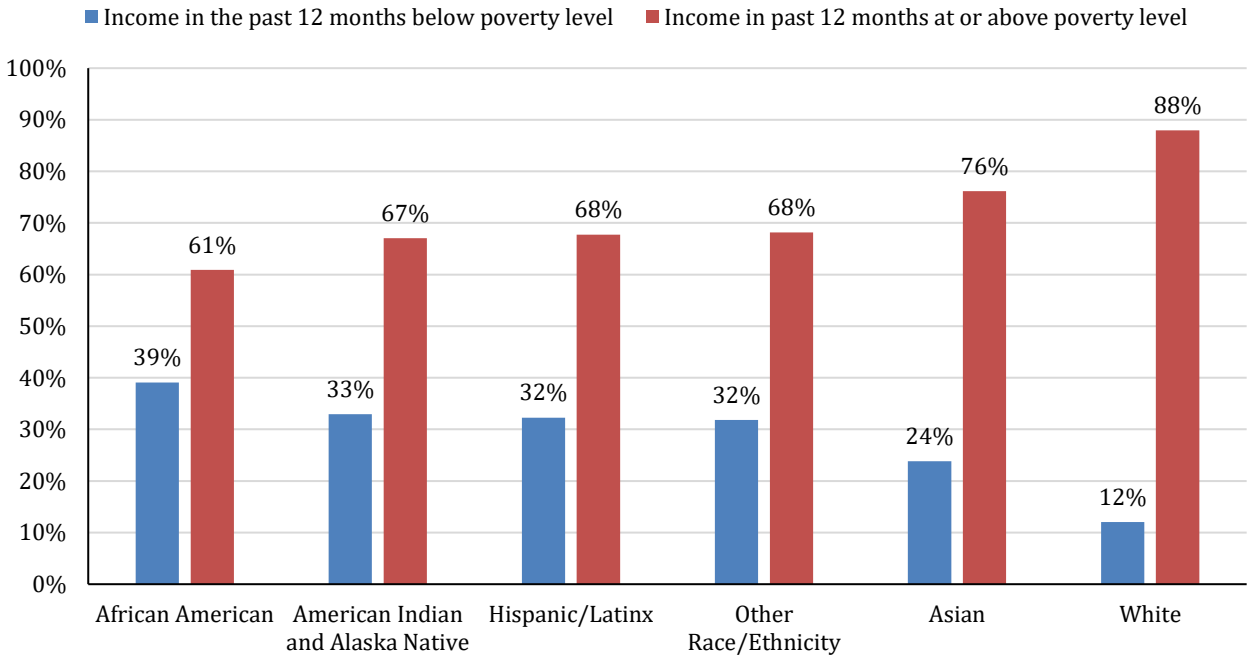
Methods

Previously published needs assessments of Fresno County were reviewed to understand priority areas that had already been identified, as well as to identify key partners to incorporate throughout the health needs assessment process (Appendix A). The FCDPH, Fresno Community Health Improvement Partnership (FCHIP), Fresno Metro Ministry (FMM), and the Central Valley Health Policy Institute (CVHPI) developed a list of key informants who would be leveraged to gain connections with institutions, nonprofit organizations, and community members to gather primary data through focus groups.

Secondary data analysis was used to describe basic demographic, socioeconomic, and health status for Fresno County. Key secondary data indicators were analyzed to identify neighborhoods with the greatest lack of social and economic opportunity, environmental hazards, and health inequalities. Primary data collection informed by resident lived-experiences and key stakeholder

input was used to develop *Priority Areas* for several populations. *Priority Areas* were identified for 1) place-based populations (n=11), 2) vulnerable populations (n=13), 3) key informants (n=49), and 4) stakeholders (n=5) independently by capturing key themes that emerged in discussions. In turn, each groups' *Priority Areas* were assessed and compared to highlight areas of agreement. A final list of *Priority Areas of Agreement* was created across these data sources to highlight areas of consensus.

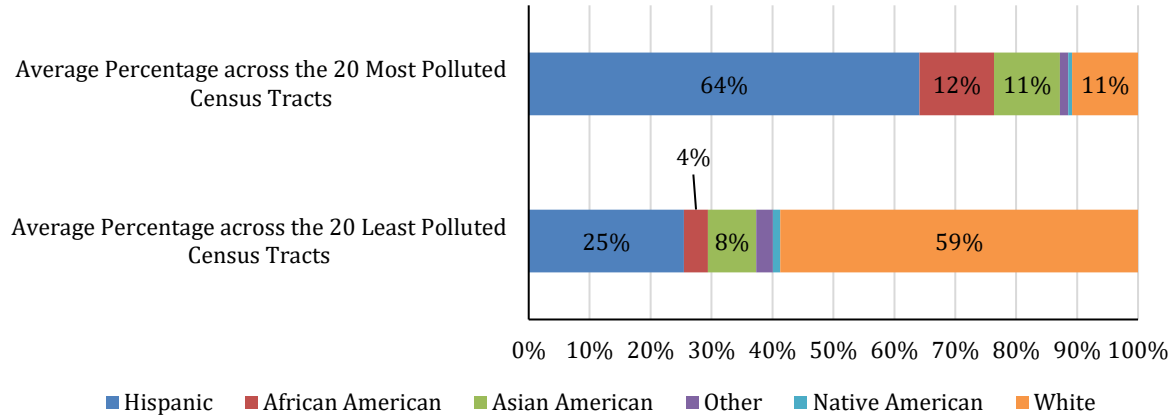
Figure 1. Percentage of Population by Race/Ethnicity and Income in the Past 12 Months, Fresno County, 2017, ACS



Findings

Fresno County has a higher share of people younger than 25 years of age, a higher proportion of Latinos (52% vs. 39%), and nearly double the rate of child poverty (36.5% vs. 20.8%) than California as a whole. Fresno County is home to a broad spectrum of cultures, languages, and racial/ethnic minorities and these communities of color are particularly affected by poverty. Figure 1 illustrates the percentage of the population by income and race/ethnicity. When comparing income in the past 12 months that is below the poverty level, African-Americans (39%), American-Indian and Alaska Natives (33%), and Hispanic/Latino populations (32%) are disproportionately in poverty compared to their White (12%) counterparts. Figure 1 demonstrates *who* is affected by poverty and Figure 2 shows *where* these populations live. Figure 2 illustrates the average racial/ethnic composition in the most and least polluted communities in Fresno County. In the 20 most polluted census tracts, on average, 89% of the population is non-White. Specifically, Hispanic/Latino, African-American, and Asian-American populations compose 64%, 12%, and 11%, respectively. In the 20 least polluted

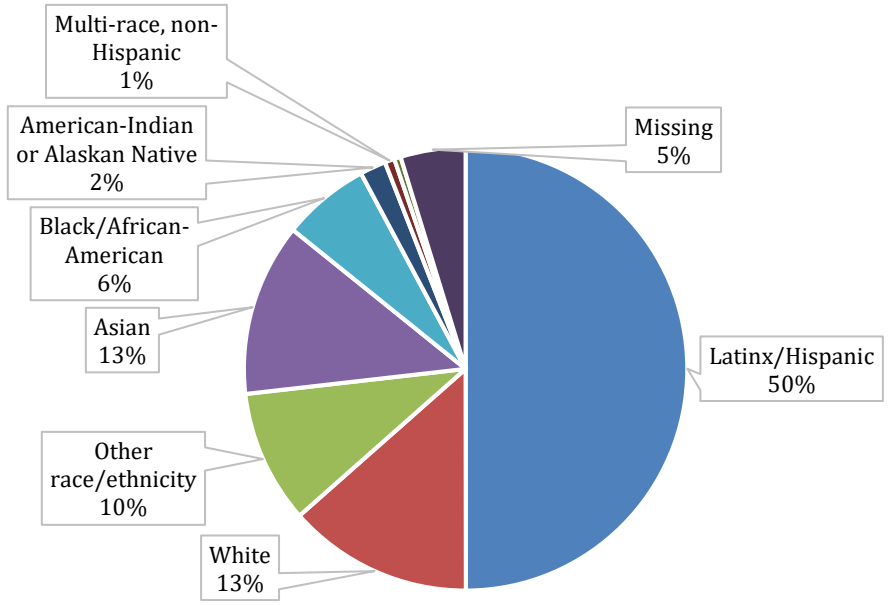
Figure 3. Percentage of Population in Most and Least Polluted Census Tracts by Race/Ethnicity, Fresno County, 2018, CES



census tracts, on average, 41% of the population is non-White. Whites compose 11% and 59% of the population in the most and least polluted census tracts, respectively. In other words, communities and people of color are disproportionately exposed to high levels of pollution.

Primary data collection was strategically planned to incorporate community members from specific localities in Fresno (*Place-Based Populations*) and particular underserved populations (*Vulnerable Populations*). *Key informants* spanning professionals in health, public health, law, business, agriculture, and academia were interviewed to provide insights on the health needs in Fresno County. Moreover, *stakeholders* representing community-based organizations, academia, law, and health were gathered into focus groups by sector to share their views on the needs of Fresno County. Figure 3 shows the racial/ethnic compositions of community residents who participated in focus group discussions. More than 50% of these participants had an annual household income of less than $30,000. As Figure 3 suggests, and are in alignment with the goals of the community health needs assessment, people of color living in low-income communities were engaged in the process.

Figure 2. Percentage of Focus Group Participants by Race/Ethnicity, Fresno County, 2019



Priority Areas of Agreement across Community Participants, Key Informants, and Stakeholders

A primary goal of the health needs assessment was to understand Fresno County's health needs from the perspective of community residents, multi-sector key informants, and stakeholders. By achieving this goal, the foundation will be set for developing future partnerships across sectors to address common priority areas. *Priority Areas of Agreement* presented in Table 1 were determined by analyzing themes that emerged from the 1) Place-based Populations, 2) Vulnerable Populations, 3) Key Informants, and 4) Stakeholders independently. To determine *Priority Areas of Agreement* across these groups, themes from place-based and vulnerable population discussions were compared to themes from key informants and stakeholders in turn. Table 1 shows the results of this comparison. It should be noted that all priority areas from placed-based and vulnerable populations are presented in Table 1. Key informants identified *political will* and stakeholders identified *quality education* as priority areas that did not match the needs of community residents. Table 1 demonstrates the key *Priority Areas of Agreement* in descending order, from greatest to least.

Table 1. Priority Areas of Agreement, Fresno County, 2019

Priority Area	Primary Data			
	Place-based focus groups	*Vulnerable Population focus groups*	*Key Informants*	*Stakeholders*
1. Public Transportation	X	X	X	X
2. Income, Jobs, and Lack of Stable Economic Opportunity	X	X	X	X
3a. Access to Quality and Affordable Care	X	X		X
3b. Access to Specialty Care		X	X	X
3c. Cultural Humility and Appropriate Services in the Healthcare System	X	X		X
4. Air Pollution	X		X	X
5. Parks and Safe Public Spaces	X	X	X	
6. Community Engagement		X	X	X
7. Affordable Quality Housing	X	X		

8. Access to Healthy Foods	X	X		
Note. All priority areas that emerged in the place-based and vulnerable population focus groups are represented in Table 1. All of the priority areas that emerged from conversations with key informants and stakeholders are also represented in this table with the exception of the lack of *political will* (identified by key informants) and the lack of pathways to higher education for underserved communities (identified by stakeholder focus groups).				

Conclusion

This health needs assessment aimed to gather community residents and organizational leaders to fill in gaps and build on previous regional assessments by incorporating lived-experience feedback, as well as to capture and present *Priority Areas of Agreement* that align across community residents and organizational leaders. We found that community members and organizational leaders do agree on several priorities that can be addressed to improve the health of Fresno County residents. With resounding agreement, these three priority areas were the development of public transportation, economic opportunity, and the healthcare system. Specifically, the lack of accessible, reliable, and affordable **public transportation** was viewed as a key determinant of health opportunities and life chances. **Economic opportunity** was identified as the second priority with the lack of employment opportunities due to the seasonality of the agricultural sector and low wages viewed as key to addressing health outcomes in the region. The healthcare system had three specific components that were identified as priority areas including **(3a) access to quality and affordable care**, **(3b) access to specialty care**, and **(3c) cultural humility and appropriate services within the healthcare system**.

The fourth priority area was **air pollution**. Community residents and organizational leaders agreed that improving **air quality** in Fresno County is key to addressing poor health. The fifth priority area was **parks and safe public spaces**. Community residents and organizational leaders also agreed that the lack of outdoor parks and safe public spaces, as well as the lack of community engagement, were crucial determinants of health. The sixth priority was **community engagement**. **Affordable quality housing** and **access to healthy foods** are the seventh and eighth priority areas, respectively. Although organizational leaders did not identify affordable quality housing and access to healthy foods as priority areas, the community residents from both place-based and vulnerable population focus groups independently discussed the urgent need for these to be addressed. Broadly, these eight *Priority Areas of Agreement* should be the foundation for the development of a Community Health Improvement Plan (CHIP).

Fresno County Community Health Needs Assessment

Background

In 2018, the Fresno County Department of Public Health (FCDPH) set out to conduct a community health needs assessment (CHNA) to identify factors, barriers, and gaps in residents' health, including oral health, and to use the CHNA to develop the Community Health Improvement Plan (CHIP) and Local Oral Health Program Action Plan. The findings of the CHNA are presented in this document. The CHIP and Local Oral Health Program Action Plan will be published separately once they are developed and finalized. The requirements and scope of work of the CHNA process include identifying community partners and key stakeholders, reviewing existing data, creating an inventory of resources, and executing the CHNA report. Key components of the CHNA assessment are to assess the following: existing community health needs assessments, available secondary data, resident health status, community needs, access to healthcare services, and other determinants of health. Funding for this project comes from California Proposition 56: Cigarette Tax to Fund Healthcare [1].

Approach

Recently, several health needs assessments in the region have been completed, including the Hospital Council of Northern and Central California's Community Health Needs Assessment; Oral Health Barriers for California's San Joaquin Valley Underserved and Vulnerable Populations; Alcohol and Other Drug Strategic Prevention Plan; Maternal, Child and Adolescent Health Needs Assessment; and the Chronic Disease Community Health Needs Assessment. The CHNA is the foundation to construct the Community Health Improvement Plan (CHIP) and Action Plan to ensure health equity in Fresno County and is part of a requirement under the Public Health Accreditation Board (PHAB) for local public health agencies to be accredited. We believe this document complements the Hospital Council of Northern and Central California's Needs Assessment, by taking an 'upstream' approach and engaging with the community to gain a better understanding of the daily barriers that are preventing residents from achieving optimal health.

Community health needs assessments are designed to reach the underserved and vulnerable, understand their needs, develop priority areas of focus for the region, and to establish the foundation for a sustainable CHIP in Fresno County. To complete a comprehensive assessment, the FCDPH, along with partners, designed an assessment that incorporated populations traditionally theorized to be vulnerable to disease due to socioeconomic status and place of residence. Determinants of health mediate effects

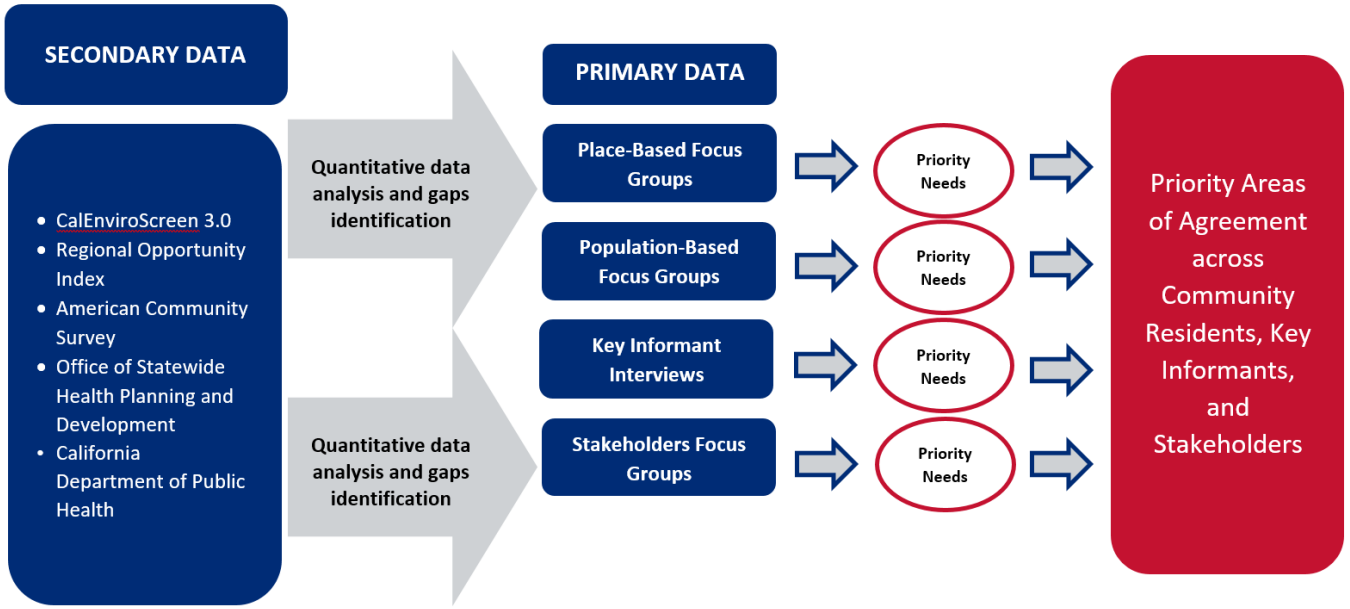
through dynamic pathways including social, environmental, and neighborhood conditions; therefore, broadening the scope of investigation for the current needs assessment was key to the success of the Fresno County CHNA.

The CHNA was conducted with three broad goals in mind:

1. The project aimed to gather community residents and organizational leaders alike to align, collaborate, and leverage resources to identify and address the root causes of our communities' health needs.
2. To fill gaps and build on previous health assessments of the region by analyzing key regional secondary data indicators and incorporating lived-experience feedback from residents by means of primary data collection.
3. To capture and present *Priority Areas* that represent the needs of community members from the perspective of community residents, multi-sector key informants and stakeholders to develop an actionable plan that addresses upstream causes, prevention, and equitable health solutions.

Figure 4 is a flow chart of the community health needs assessment process, and conceptualizes how *Priority Areas of Agreement* were developed. Secondary quantitative data was used to describe the current state of population, socioeconomic status, and health challenges related to mortality and morbidity in Fresno County. Moreover, secondary quantitative data was used to identify key place-based communities and vulnerable populations to engage for primary data collection. Primary data was collected through key informant interviews and focus group sessions. The FCDPH, FCHIP, FMM, and the CVHPI developed a list of key informants who could be leveraged to gain connections with institutions, nonprofit organizations, and community members to gather primary data through focus groups.

Figure 4. Flow Chart of Community Health Needs Assessment Process



In addition to identifying priority health needs for Fresno County, this work supported the development of an oral health needs assessment, improvement plan, and action plan as well as a tobacco/vaping assessment that was published elsewhere. The FCDPH collaborated with FCHIP, and FMM to connect with partners and facilitate data collection, as well as with the CVHPI, to design methodology aimed to understand the community needs of vulnerable populations.

Fresno County is characterized by unusually large racial/ethnic and residential neighborhood disparities in income, education, and employment.[2,3] Low-income populations in Fresno County are predominately and disproportionately African-American, Latino, and Asian-American. Prior research in the region has pointed to socioeconomic inequities among key drivers of population health, particularly for people and communities of color.[4–6] Research clearly shows that African-Americans, Latino, and low-income communities in Fresno County are, in fact, exposed to higher volumes of air (diesel particulate matter, ozone, and particulate matter$_{2.5}$), water (impaired water bodies and groundwater threats), pesticides, and toxic industrial waste (cleanup sites, hazardous generators, and solid waste sites and facilities) compared to White, affluent communities. In conjunction, both pollution and socioeconomic status affect health. For example, prior to birth and in early childhood, residents of Fresno County are exposed to poor environmental and social standards, increasing the risk for poor health, such as congenital malformations and asthma, and, in turn, impact the trajectory of resident's future opportunities.[7,8] Furthermore, research in Fresno County shows that people of color are more frequently exposed to poor social and environmental conditions than their White counterparts, and are differentially impacted by

social and environmental conditions potentially due to physiological dysregulation from cumulative exposure to stressful environments.[4,7,9]

More broadly, upstream social and environmental factors existent in Fresno County impact a plethora of health outcomes including diabetes, cardiovascular and respiratory conditions, cancer, obesity, and infectious disease.[10–14] In addition to poor health and drastic racial/ethnic health disparities cited above, existing regional assessments and research demonstrate Fresno County residents' difficulty in accessing healthcare services due to barriers in distance to services, language access, health literacy, and coverage shortcomings.[15–18] In summary, Fresno County has greater rates of low socioeconomic status and pollution that disproportionately affect low-income communities of color. Such evidence is the foundation and theoretical framework guiding the development of methodology, outreach, and implementation strategies throughout the CHNA process.

Methods

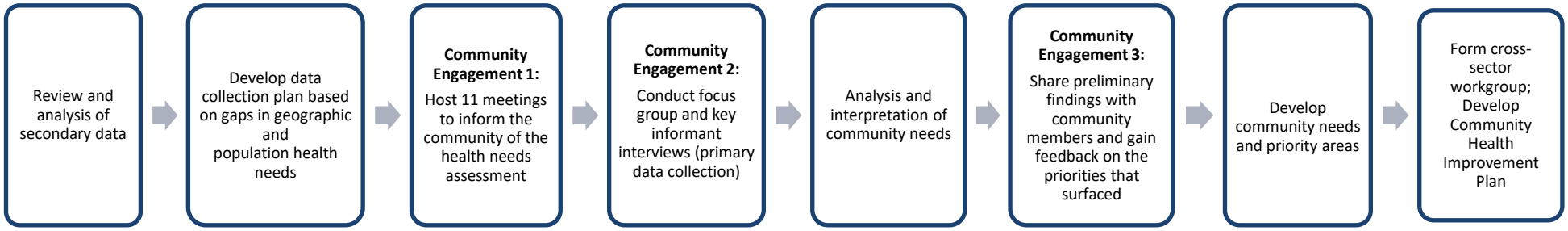
Previously published needs assessments of Fresno County were reviewed to understand priority areas that had already been identified as well as to identify key partners to incorporate throughout the health needs assessment process (see Appendix A). The Fresno County Department of Public Health (FCDPH), Fresno Community Health Improvement Partnership (FCHIP), Fresno Metro Ministry (FMM), and the Central Valley Health Policy Institute (CVHPI) developed a list of key informants who would be leveraged to gain connections with institutions, nonprofit organizations, and community members to gather primary data through focus groups. This snowball sampling technique allowed us to grow the number of organizations, sectors, and community members to participate in focus group sessions throughout the duration of the project.

Publicly available secondary data were collected and analyzed to describe Fresno County's demographic, socioeconomic, and health landscape. This data was also used to inform primary data collection, collected in the form of focus groups and key informant interviews. Specifically, key informants and stakeholders included health professionals, as well as individuals from sectors outside of the health field including business, agriculture, academia, and law. A description of the 49 key informants interviewed can be found in Table B1 of Appendix B. Table B2 of the Appendix B shows the type of focus groups that were gathered for data collection including vulnerable populations (n = 13), place-based communities (n = 11), and stakeholder (n = 5) focus groups. *Priority areas* were identified for 1) Place-based Populations, 2) Vulnerable Populations, 3) Key Informants, and 4) Stakeholders independently. *Priority areas* were identified using grounded theory to allow for codes and themes to emerge from the data. The World Health Organization's theoretical framework of the social determinants of health were adopted to categorize codes and themes that were developed. A team of eight

individuals coded the qualitative data. Six of the raters were randomly selected into groups of two and were randomly assigned to code at least four place-based focus groups. These teams of two checked in with one another to compare, contrast, and reframe coding rubrics until an agreement was reached. Two of the raters coded independently to compare codes to the groups of two. Once the coding rubric was developed and finalized, each rater used the coding rubric to assess the rest of the qualitative data. Themes were identified by assessing the frequency and magnitude (agreement within the focus group discussion) of the code. For example, in many cases, when codes were mentioned at least seven times, this would qualify the code to emerge to the level of a theme. In other cases, the code was only mentioned once and the level of agreement within the focus group discussion would qualify the code to emerge to the level of a theme. To develop priority areas and ranking for the place-based focus groups, we assessed the level of agreement across the place-based focus groups themes where the most agreement (tallies across place-based focus groups) was ranked highest and the least agreement was lowest. Themes were compared to complementary descriptions and data sources. Although this contributed the least amount to the development of themes, it was necessary to rank a few priorities. For example, we assessed secondary data, as well as engaged in discussions with FMM, FCHIP, and the FCDPH whenever a particular priority could not clearly be distinguished as being more pertinent than others. The same process was used to develop priority areas and rankings for vulnerable population focus groups. The coding rubrics developed for the place-based and vulnerable population focus groups were used to assess the key informant interviews and stakeholder focus groups. The methodology allows for greater weight to be emphasized on priority areas identified by community members in comparison to key informants and other stakeholders. Key informants were categorized by sector including academic, community, government, agriculture, business, health, law, and community-based organizations. Similarly, for the place-based focus groups, codes were assessed for frequency and magnitude. The priority areas developed for key informants were based on the level of agreement across the sectors and were ranked by the number of sectors who agreed where the most agreement was the highest ranked priority and the least agreement was the lowest priority. The final *Priority Areas of Agreement* were developed by areas of consensus across the different data sources (i.e., 1. Place-based Populations, 2. Vulnerable Populations, 3. Key Informants, and 4. Stakeholders). The ranked priority areas for place-based populations and vulnerable populations were assessed for agreement first to give priority to community participants. The priority areas of agreement were ranked higher and areas of non-agreement were ranked lower. The priority rankings for the key informants and stakeholder focus groups were also assessed in alignment with place-based and vulnerable population priorities. The priorities with the most agreement across all data sources (i.e., 1) Place-based populations, 2) Vulnerable Populations, 3) Key Informants, and 4) Stakeholders) was given highest priority and the areas with least agreement was given lowest priority. In the case of a tie, preference was given to the ranking of community resident data and secondary data.

Figure 5 below highlights the community engagement throughout the implementation of the CHNA process. Outreach included canvassing, the dissemination of flyers, and engaging with champion organizations to recruit participants. For the place-based areas, 11 community meetings were hosted to initiate engagement and introduce residents to upcoming opportunities to participate in the health needs assessment. The second community engagement occurred during the actual focus group sessions and data collection. The third point of engagement revealed preliminary results of data analysis and asked for community feedback to ensure that the results reflected community needs.

Figure 5. Flow Diagram of Community Engagement and Health Needs Assessment Process



Secondary data was collected from a variety of publicly available resources to describe the demographic, socioeconomic, and health landscape of Fresno County. The American Community Survey (ACS) and the California Health Interview Survey (CHIS) were used to describe population size, age, race/ethnicity, unemployment, poverty, and other socioeconomic indicators. To describe health and healthcare utilization in Fresno County, the Office of Statewide Health Planning and Development (OSHPD), the California Department of Public Health (CDPH), and the CHIS were used. To describe neighborhoods by health status, demographic, and socioeconomic indicators, the CalEnviroScreen version 3.0, Regional Opportunity Index, and ACS were used. Lastly, the Behavior Risk Factor Surveillance System (BRFSS) was used to show population behavioral data.

Primary data was collected through key informant interviews and focus group sessions. Analysis of secondary data revealed gaps in data collected in low-income populations, racial/ethnic minorities, and sectors outside of the health system. In addition, there are factors that may determine health across multiple traditional measures that are addressed here as there is now belief in causal roles and commitment politically to address these broader determinants. Therefore, a large portion of primary data collection efforts was focused-in on place-based communities. The list of key informants included professionals from the health sector, as well as a broad set of constituents beyond health including academia, law, business, and community-based organizations. Forty-nine key informants were interviewed and a description can be found in Table B1 of Appendix B. Table B2 of the Appendix B shows the type of focus groups

that were gathered for data collection including vulnerable populations (n = 13), place-based communities (n = 11), oral health (n = 5), tobacco/vaping (n = 4), and stakeholder (n = 5) focus groups. The key informant interview and focus group guides are included in Appendix B.

Through secondary data analysis (outlined in Appendix C), and data-informed discussions with FCDPH, FMM, FCHIP, and the CVHPI, 11 census tracts were identified as being at high-risk for health needs. The place-based communities were identified by analyzing the CalEnviroScreen version 3.0, Regional Opportunity Index, and the ACS and are presented in Table C1 of Appendix C. The CalEnviroScreen measured census tracts with the highest pollution burden; the Regional Opportunity Index measures communities with the greatest opportunity; and the ACS was used to gather indicators of social and economic burden that have been commonly used in previous health needs assessments. These indicators were measured at the census tract-level. An exhaustive list ranked all census tracts in Fresno County according to the CalEnviroScreen percentile ranking system from highest to lowest burden. Census tracts were selected if they were designated a disadvantaged community according to Senate Bill 535 within the CalEnviroScreen, were one standard deviation below the mean on ROI people or ROI place measures, and had high percentages of social and economic vulnerability across the six measures collected from the ACS. The Walk Score® for each identified geographic location is included in Table C2 of Appendix C compared to Fresno City and San Francisco City averages - the latter of which has the highest rated public transit use score. Figure C1 and Figure C2 of Appendix C show the Population Characteristic Percentile and the Pollution Burden Percentile comparison of California, Fresno County as a whole, and selected underserved census tracts in Fresno County respectively, as identified by the CalEnviroScreen version 3.

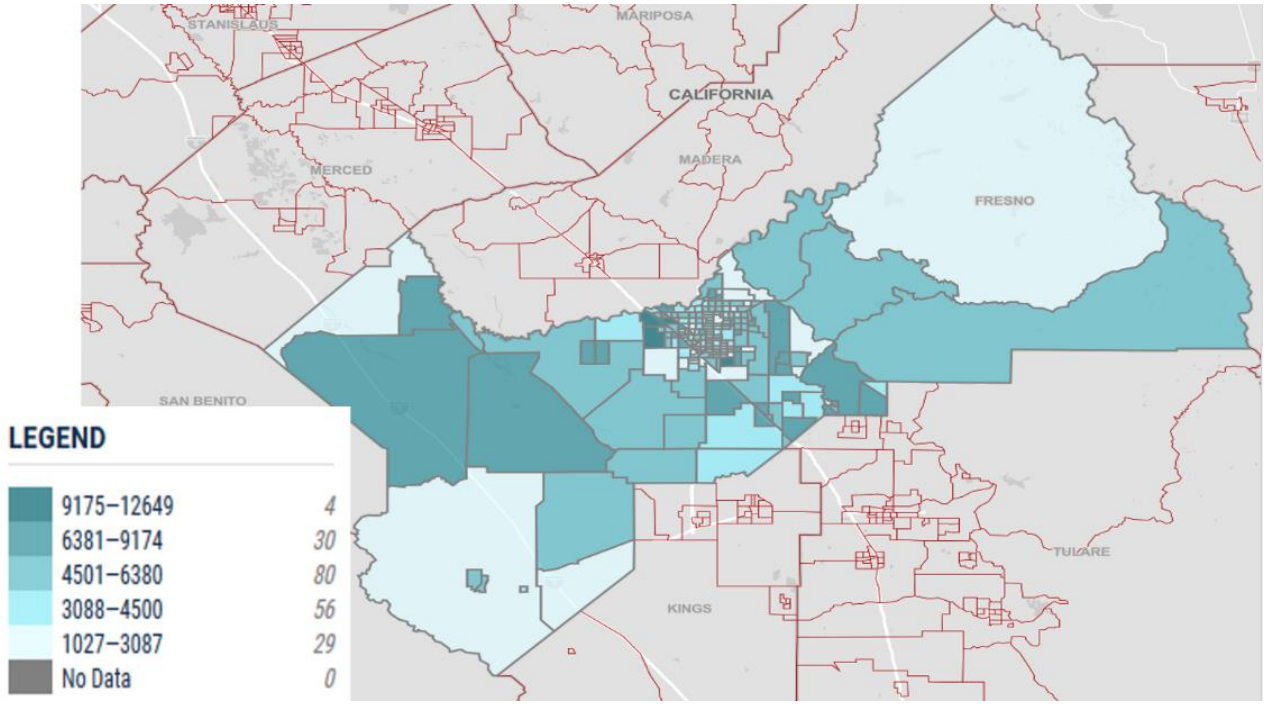
Data from focus groups and key informant interviews were analyzed for themes and priority areas. The most frequent and compelling themes were identified as *Priority Areas* for 1) Place-based Populations, 2) Vulnerable Populations, 3) Key Informants, and 4) Stakeholders independently. To determine *Priority Areas of Agreement* across these groups, *Priority Areas* from place-based and vulnerable populations (collectively referred to as community members) discussions were compared to *Priority Areas* from key informants and stakeholders, in turn. *Priority Areas* that were identified by place-based populations, vulnerable populations, key informants, and stakeholders were top *Priority Areas of Agreement*. *Priority Areas* that were identified in three or fewer data sources (i.e., Place-based Populations, Vulnerable Populations, Key Informants, and Stakeholders) were sorted in descending order from having the most to least agreement.

Fresno County Snapshot

Demographic Characteristics

In this section, we examine the most current secondary data to describe the demographics and health status of Fresno County. We draw on the U.S. Census, the California Health Interview Survey, Office of Statewide Planning and Development, California Department of Public Health, and California Health and Human Services Open Portal for data. Our findings underscore how Fresno County differs from the state of California. Fresno County has a higher share of people younger than 25 years of age, has a higher proportion of Latinos, and has

Figure 6. Fresno County Population by Census Tract, 2014-2018, ACS



nearly double the rate of child poverty than the state of California as a whole. Fresno's elevated poverty rate is high despite recent gains in employment. Fresno's overall health status also differs from California as a whole. The socioeconomic indicators presented in this report are inextricable from the County's higher rates of infant mortality, preterm birth, asthma, obesity, and diabetes.

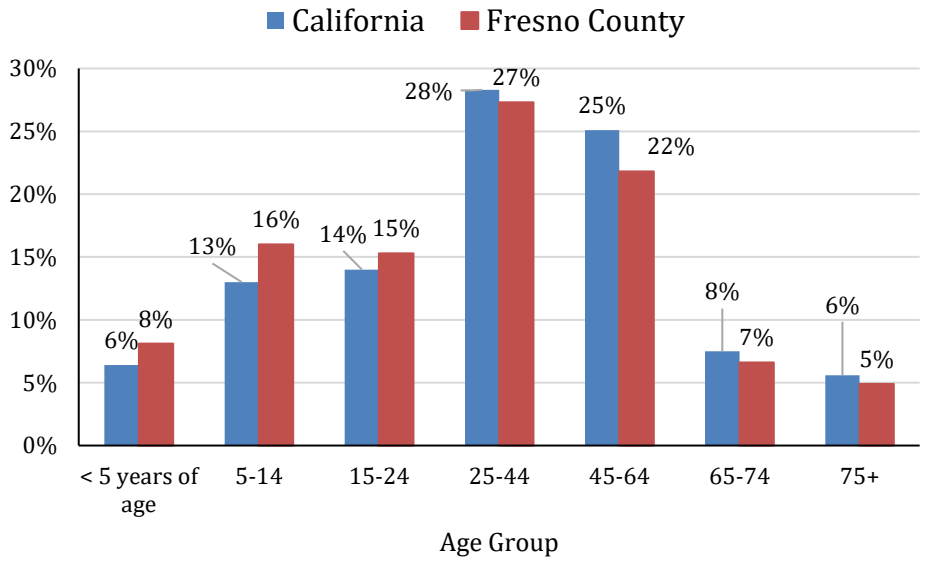
Fresno County is the most populated region in California's San Joaquin Valley. As of 2017, nearly 1 million individuals reside in Fresno County and the population has continually increased over the past decade. From 2011 to 2017, there has been an increase in the population of approximately 6.32% (58,000 individuals) and the population density has risen from 155 to 163 individuals per square mile. Figure 6 illustrates the number of individuals residing in each census tract and the number of census tracts in each population range. In terms of area, the smallest census tracts are in the urban centers of Fresno County and the largest are in the rural east and west regions of the County.

For residents of Fresno County, demographic, socioeconomic, and environmental characteristics are linked to health at all stages of the lifespan. The following presentation of secondary data illustrates the size of the population, the demographic and socioeconomic characteristics, as well as the environmental hazards that are affecting health.

Key Findings from Figure 7:

- Nearly 1 million individuals reside in Fresno, California.
- The population has increased by 6.32% from 2011 to 2017.
- Fresno County has a younger demographic distribution than the rest of the state
- Fresno County has a greater proportion of youth aged 0 - 4, 5 - 14, and 15 – 24 compared to the rest of California
- Fresno County has a smaller proportion of adults aged 25 – 64, 65+, and 85+ compared to the rest of California.

Figure 7. Percentage of Age Group by Region, 2018, ACS

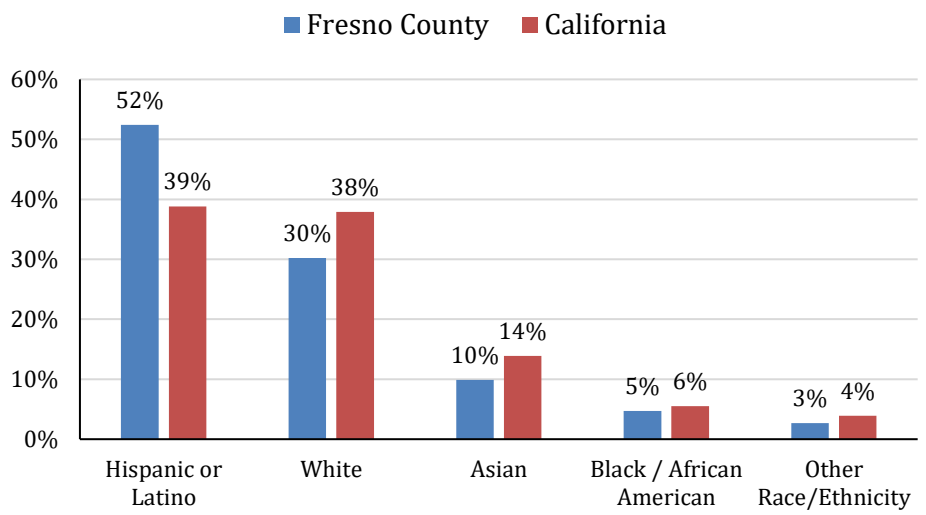


As shown in Figure 7 and 8, Fresno County's population tends to be younger than the rest of the state and has a much larger Latino population when compared to the rest of California. According to the ACS (2017), Latinos make up the largest racial/ethnic group in Fresno County and Whites are the second largest. In California, Latinos and Whites are similar in population size.

Key Findings from Figure 8:

- Fresno County is 52% Latino and 30% White.
- California is 39% Latino and 38% White.
- Asian-American, Black/African-American, and Other racial/ethnic groups tend to be represented similarly in Fresno County compared to the state.

Figure 8. Percentage of Population by Race/Ethnicity and Region, 2018, ACS



Socioeconomic Indicators

Key socioeconomic indicators are presented in Table 2 comparing Fresno County to California. Although the unemployment rate has decreased in past years, Fresno County continues to lag behind the rest of the state, with nearly double the unemployment rate. Fresno County is known as home to a broad spectrum of cultures, languages, and racial/ethnic minorities. However, according to the ACS (2017), the state of California has more non-U.S. citizens than Fresno County. Fresno County does not significantly differ from the state in terms of non-U.S. citizens, non-English speaking persons, and persons without insurance.

Footnote. Categories of race and ethnicity throughout the report reflect source material. Therefore, categories may vary.

Table 2. Socioeconomic Characteristics Comparing Fresno County to California, 2017, ACS

Socioeconomic Measure	Fresno		California	
Core Indicators	Current	% change from 2010	Current	
Percent Unemployed	7.3%	-55.21%	4.4%	
Percent Below Poverty Level				
Children	36.50%	2.82%	20.80%	
Families	20.80%	17.51%	11.10%	
Total	25.40%	2.42%	15.10%	
Median Household Income	$48,730	4.95%	$67,169	
Special Population	**Number**	**% of total population**	**Number**	**% of total population**
U.S. Citizenship Status				
U.S. citizen, born in the U.S.	759,083	78.13%	27,944,679	71.68%
Foreign-born population	204,366	21.03%	10,518,488	26.98%
Naturalized U.S. citizen	79,302	8.16%	5,267,884	13.51%
Not a U.S. citizen	125,064	12.87%	5,250,604	13.47%
Non-English speaking persons	395,588	44.30%	16,071,014	44.00%
Persons aged 25+ with less than a high school education	149,076	25.33%	4,543,530	17.51%
Persons without insurance	112,114	11.67%	4,041,396	10.50%
Single-parent families	78,219	25.92%	2,481,190	19.25%

Key Findings from Table 2:

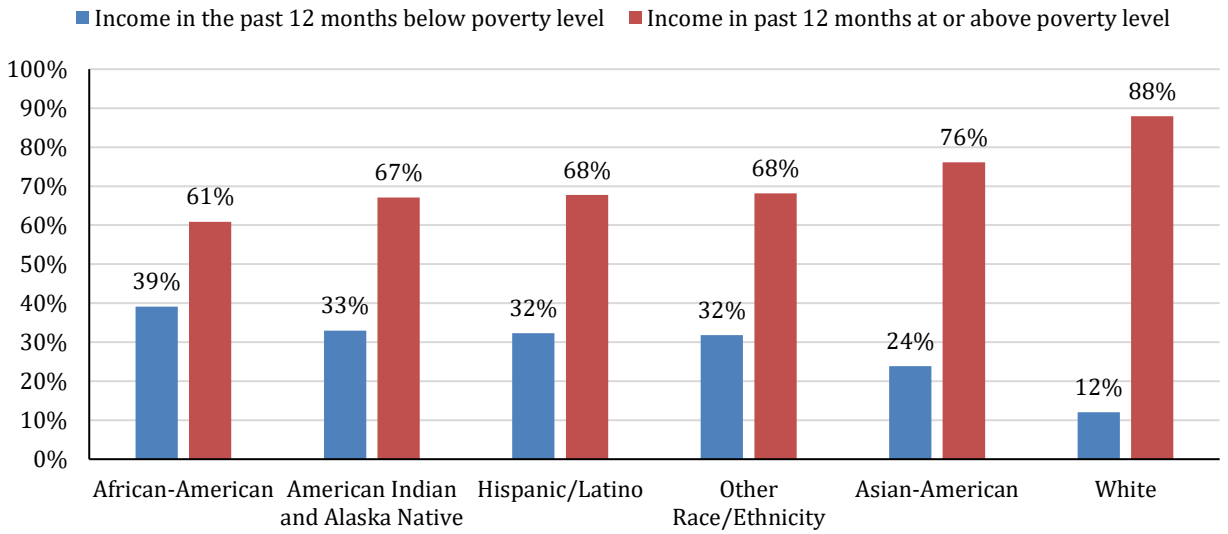
- As of July 2019, the unemployment rate in Fresno County was 7.3%, which is a decrease from July 2010 when it was 16.3%.
- Nearly twice the proportion of children are living below the federal poverty level in comparison to the state of California.
- The median household income in Fresno County ($48,730) is lower than state of California ($67,169).
- The rate of U.S.-born citizens is higher in Fresno than the rest of the state; however, rates of poverty remain higher in Fresno County

Figure 9 illustrates the percentage of the population by income and race/ethnicity. When comparing income below the poverty level in the past 12 months,, African-Americans (39%), American-Indian and Alaska Natives (33%), and Hispanic/Latino populations (32%) are disproportionately in poverty compared to their White (12%) counterparts. Figure 10 illustrates the racial/ethnic composition in the most and least polluted communities in Fresno County. In the 20 most polluted census tracts, 89% of the population is non-White. Specifically, Hispanic/Latino, African- American, and Asian-American populations compose 64%, 12%, and 11%, respectively. In the 20 least polluted census tracts, 41% of the population is non-White. Whites compose 11% and 59% of the population in the most and least polluted census tracts, respectively. In other words, communities of color are disproportionately exposed to high levels of pollution.

Key Findings from Figure 9:

- Among all African-Americans in Fresno County, 39% had an income below the federal poverty level in the past 12 months.
- Among all Hispanic/Latino and "other" racial/ethnic populations in Fresno County, 32% had an income below the federal poverty level in the past 12 months.
- Among all White populations in Fresno County, 12% had an income below the poverty levels in the past 12 months.

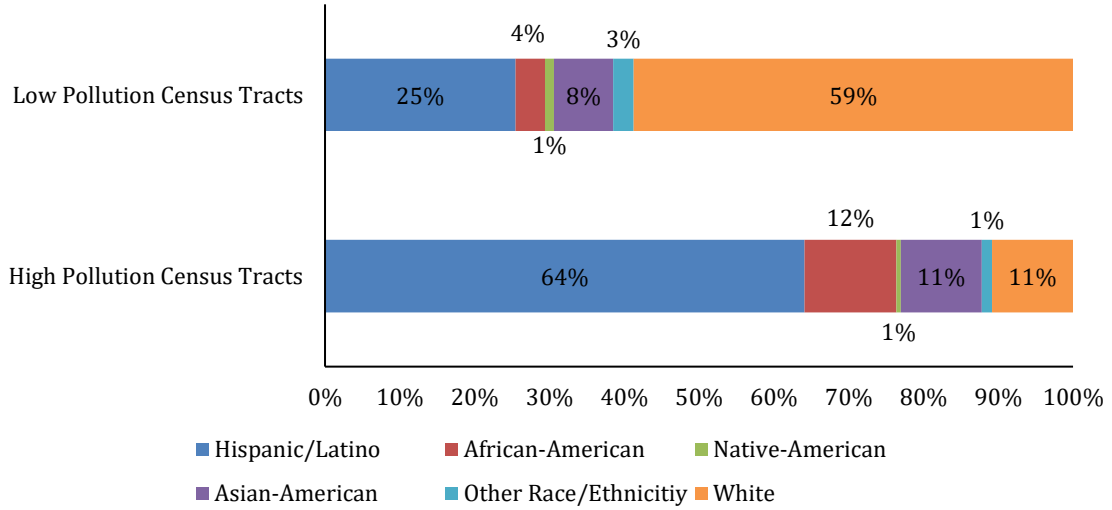
Figure 9. Percentage of Population by Race/Ethnicity and Income in the Past 12 Months, Fresno County, ACS 2017



Key Findings from Figure 10:

- The 20 most polluted census tracts in Fresno County compose of 89% of people of color.
- The 20 most polluted census tracts are composed of 11% White.
- The 20 least polluted census tracts compose of 41% of people of color.
- The 20 least polluted census tracts are composed of 59% White.

Figure 10. Percentage of Population in Most and Least Polluted Census Tracts by Race/Ethnicity, Fresno County, 2018, CES



Health Indicators

Although health can be a barrier toward reaching full social and economic potential, the health indicators presented here are largely the outcome of social, political, and environmental factors that shape population health in Fresno County. The measures presented below are standard and allow for comparison within and between states. Table 3 illustrates a variety of health measures for Fresno County in comparison to California. The rate of preterm birth in Fresno County is among the highest in the nation. Preterm birth is considered a key population health indicator and a measure of the trajectory of a child's life opportunities. In comparison to the state, Fresno County also has had higher ambulatory care-sensitive (potentially preventable) hospital admissions for more than a decade.

Table 3. Health Measure Comparing Fresno County to California

Health Measure	Fresno County	California
Never have affordable fresh fruits/vegetables in neighborhood (Nutrition)	5.7%	1.3%
Infant Mortality	7.8/ 1,000	4.5/ 1,000
Age-adjusted rate of preventable Dental Emergency Department Visits	400/100,000	298/100,000
Ever diagnosed with Asthma	18.2%	15.1%
BMI of 30 or higher (Obesity)	34.9%	26.4%
Number of teen births per 1,000 young women ages 15-19	25.82/1,000	19/ 1,000
Ever diagnosed with Diabetes	12%	9.8%
Does not have a usual source of care (Access to Health Services)	17.8%	13.9%
Preterm birth Delivery	10.1%	8.5%
Tobacco	9.9%	10.2%
Age-adjusted rate of preventable Dental Emergency Department Visits (OSHPD 2012) Tobacco (California Health Interview Survey, 2017) Ever Diagnosed with Diabetes, Ever Diagnosed with Asthma, Never have affordable fresh fruits, Does not have a usual source of care, and body mass index (California Health Interview Survey 2015-2017) Preterm birth and number of teen births (Fresno County Department of Public Health 2017) Infant mortality (kidsdata.org 2013-2015)		

Key Findings from Table 3:

- Nearly 6% of Fresno County residents report never having affordable fresh fruits or vegetables in their neighborhood, compared to 1.3% for California.
- The rate of infant mortality is nearly twice as much in Fresno County than California.
- Fresno County tends to be worse than the state in terms of asthma, obesity, teen births, diabetes, and preterm delivery.
- 17.8% of Fresno County does not have a usual source of care compared to 13.9% for California.

Figure 11 shows a time trend of ambulatory care-sensitive hospitalizations. These hospitalizations are for conditions that are potentially preventable with appropriate primary care services.

Key Findings from Figure 11:

- Since 2005, Fresno County has had higher rates of preventable hospitalizations than California.
- Since 2013, Fresno County has significantly improved in reducing preventable hospitalizations.
- California and Fresno County have not met the "Let's Get Healthy California" target set by the state Task Force in 2012.

Figure 12 illustrates crude hospitalization rates comparing Fresno County to the rest of the state. Across the top five conditions, Fresno County is worse than California including circulatory, endocrine (largely diabetes), musculoskeletal, genitourinary, and injuries/drugs/complications.

Key Findings from Figure 12:

- The largest difference is found in circulatory hospitalizations where Fresno County has a rate of 1,216/100,000 and California has a rate of 1,032/100,000.
- The second largest difference is found in endocrine (mostly diabetes) hospitalizations where Fresno County has a rate of 443/100,000 and California has a rate of 300/100,000.

Figure 11. Rate of Preventable Hospitalizations per 100,000 Residents by Region, 2005-2017, OSHPD

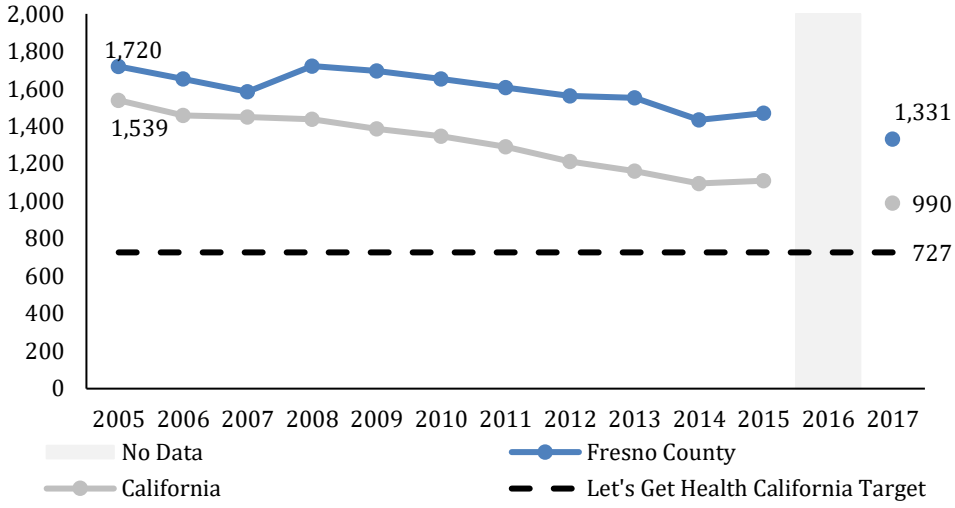


Figure 12. Rate of Major Diagnostic Category Hospitalization per 100,000 Residents by Region, 2017, OSHPD

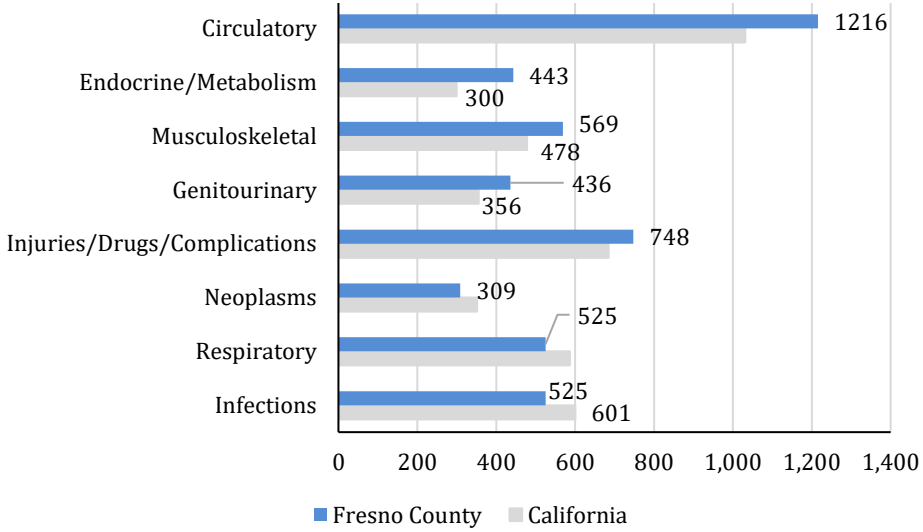


Figure 13. Rate of Chlamydia per 100,000 Residents by Region, 2001-2017, OSHPD

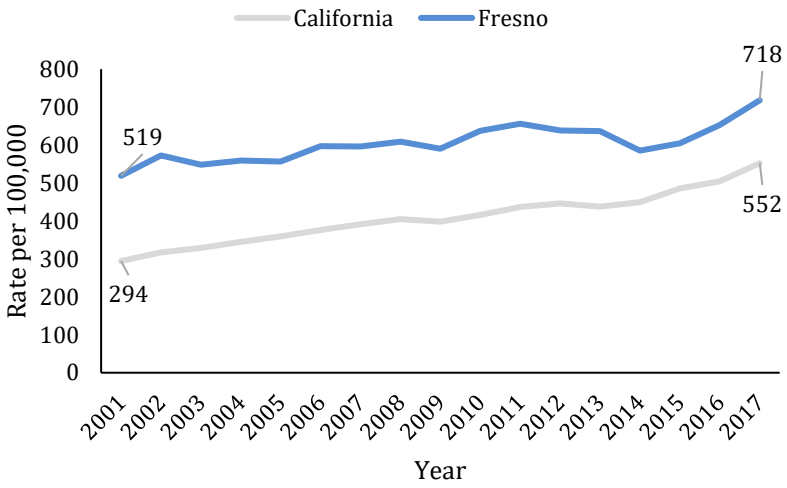
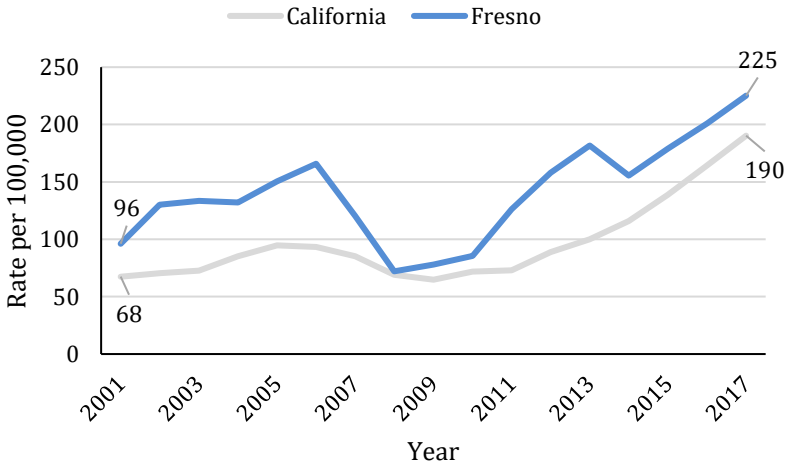


Figure 14. Rate of Gonorrhea per 100,000 Residents by Region, 2001-2017, OSHPD



In the following two figures, we illustrates regional disparities in sexually transmitted diseases (STD). Surveillance of the transmission and acquisition of STDs is important due to the link between STDS and social determinants such as segregation, health care, and socioeconomic conditions. Figure 13 illustrates the rates of chlamydia per 100,000 people by region and year. The rate of chlamydia is rising in Fresno County and the state as a whole. For a decade and a half, Fresno County has had a greater rate of chlamydia than the state.

Key Findings from Figure 13:

- In 2001, the rate of chlamydia in Fresno County was 519 per 100,000 compared to 294 per 100,000 for the state of California.
- In 2017, the rate of chlamydia in Fresno County was 718 per 100,000 compared to 552 per 100,000 for the state of California
- Chlamydia continues to rise in California and the rate is worse in Fresno County.

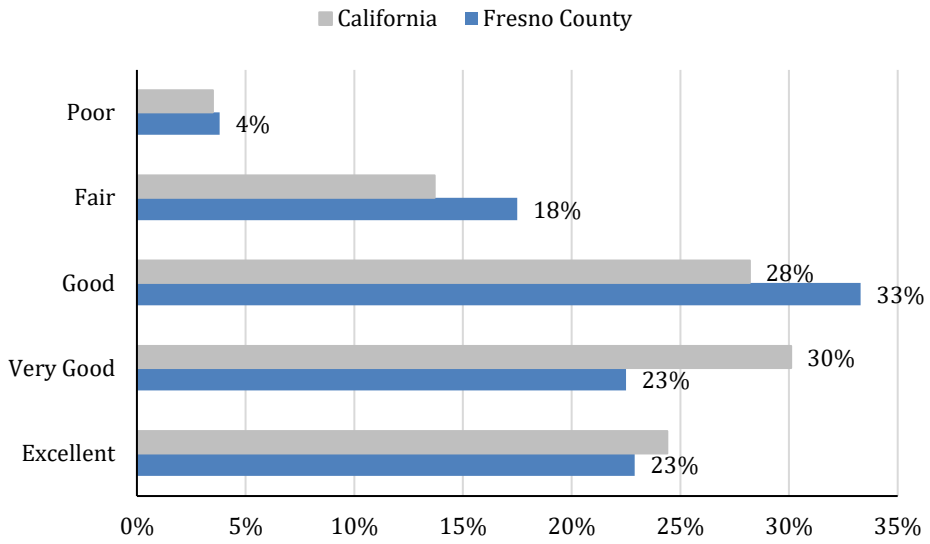
Figure 14 shows the rate of gonorrhea per 100,000 people by region and year. Although there have been fluctuations in the rate of Gonorrhea in Fresno, the rate more than doubled in 2017 than in 2001. For more than a decade, Fresno County has consistently had a greater rate of gonorrhea than the state of California as a whole.

Key Findings from Figure 14:

- In 2001, the rate of gonorrhea in Fresno County was 96 per 100,000 compared to 68 per 100,000 for the state of California
- In 2017, the rate of gonorrhea in Fresno County was 225 per 100,000 compared to 190 per 100,000 for the state of California.

According to the California Health Interview Survey (CHIS), residents of Fresno County tend to self-report worse health than the rest of the California. Figure 15 shows the percentage of respondents who answered having poor, fair, good, very good, or excellent health. A higher percentage of Fresno County residents reported having poor, fair, or good health compared to California. A lower percentage of Fresno County residents reported having very good or excellent health compared to California residents.

Figure 15. Percentage of Self-Reported Health Status by Region, 2014-2017, CHIS

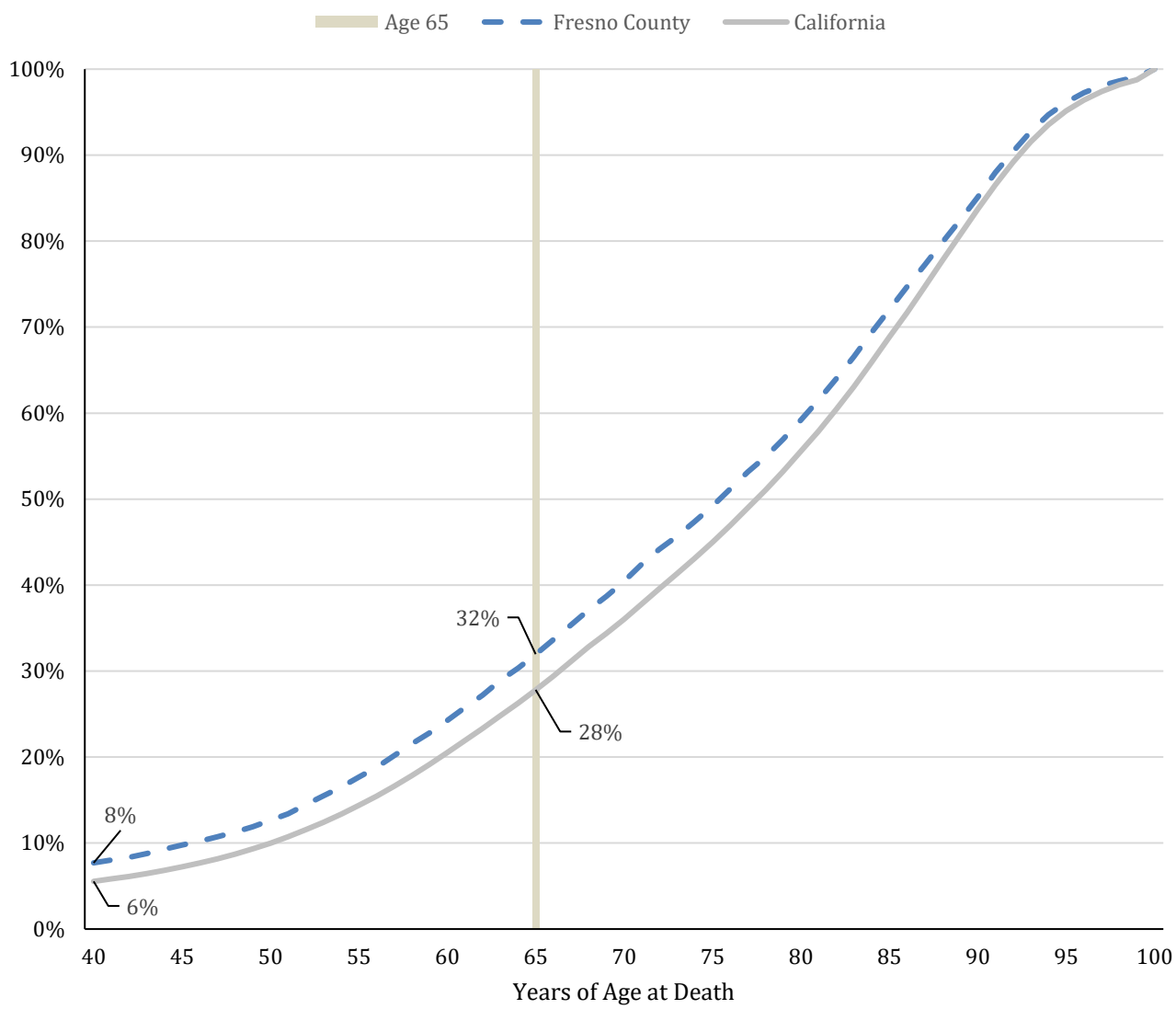


Key Findings from Figure 15:

- Among the three lowest values of self-reported health status (i.e., poor, fair, and good), a larger percentage of Fresno County residents tend to report poor to good health compared to the rest of the state.
- The largest discrepancy in the measure comes from residents who self-reported "very good" health where 30% of respondents in California and 23% of respondents in Fresno County reported very good health.

In terms of mortality, Fresno County tends to have higher rates of all-cause mortality than the rest of the state. In Figure 16, we illustrate the cumulative percentage of age at death comparing Fresno County to the rest of California. Figure 16 demonstrates that in 2014-2015 a greater percentage of deaths were younger in Fresno County than in the rest of California. In Fresno County, 8% of all all-cause deaths were to people younger than forty years of age. In the same period, for the rest of California, only 6% of all all-cause deaths were to people younger than forty years of age. This gap expands between the ages of 40 to 65. For example, 32% of all deaths in this time period were younger than 65 years of age compared to 28% for the rest of California. This indicates that younger populations in Fresno County disproportionately die in comparison to those in California. Older adults in California tend to die at later ages compared to Fresno County, so the gap narrows. In summary, Figure 16 shows that populations between 40 and 65 years of age die disproportionate in Fresno County compared to the rest of California.

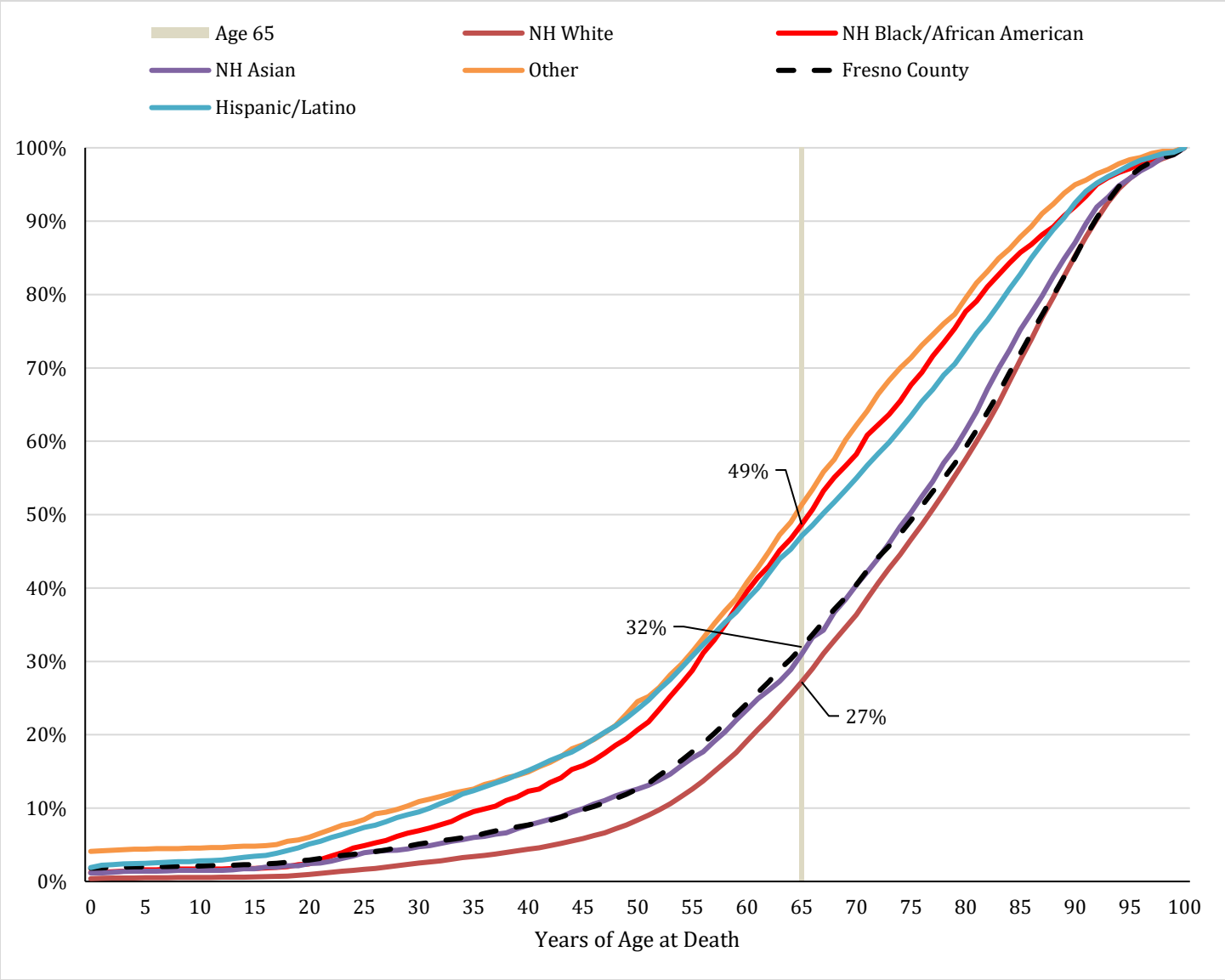
Figure 16. Cumulative Percentage of Age at Death, Fresno County vs. Rest of California, 2014-2015, CDPH



Key Findings from Figure 16:

- In 2014-2015, 32% of all deaths in Fresno County were to individuals younger than 65 years of age.
- In 2014-2015, 28% of all deaths in the rest of California were to individuals younger than 65 years of age.

Figure 17. Cumulative Percentage of Age at Death by Race/Ethnicity, Fresno County, 2014-2015, CDPH



Key Findings from Figure 17:

- In 2014-2015, more than 50% of all deaths to individuals of "other race/ethnicity" were to persons younger than 65 years of age.
- In 2014-2015, 49% of all Non-Hispanic Black/African-American and 47% of all Latino deaths occurred to persons younger than 65 years of age.
- The populations with the lowest proportion of deaths younger than 65 years of age are Non-Hispanic White (27%) and Non-Hispanic Asian-American (32%).

As shown in Figure 16, mortality varies from region to region; furthermore, mortality within Fresno County varies more by race/ethnicity. Figure 17 illustrates the cumulative percentage of age at death by racial/ethnic group in Fresno County. This graph is interpreted similarly to Figure 16, where all deaths in 2014-2015 are graphed by race/ethnicity and are compared to the County as a whole. As mentioned above, in this period, 32% of all all-cause deaths were to individuals younger than 65 years of age. Non-Hispanic Whites had the fewest premature deaths with 27% occurring prior to 65 years of age. In contrast, "Other" racial/ethnic groups, Non-Hispanic African-Americans, and Hispanics/Latinos had the highest proportion of deaths prior to 65 years of age with 51%, 49%, and 47%.

Table 4. Rate of Hospitalization by Major Diagnostic Category per 100,000 by Race/Ethnicity, Fresno County, 2014-2015, CDPH

Major Diagnostic Category	Race/Ethnicity	
	White	Black/ African American
Diseases of the circulatory system	200.59	216.73
Complications of pregnancy; childbirth; and the puerperium	126.06	205.01
Certain conditions originating in the perinatal period	129.46	174.27
Mental Illness	98.92	168.74
Diseases of the respiratory system	107.33	157.46
Diseases of the digestive system	117.03	110.58
Infectious and parasitic diseases	114.99	100.63
Injury and poisoning	130.72	98.19
Endocrine; nutritional; and metabolic diseases and immunity disorders	57.14	77.18
Diseases of the genitourinary system	60.75	55.51
Diseases of the musculoskeletal system and connective tissue	91.8	51.75
Neoplasms	51.76	47.99
Diseases of the nervous system and sense organs	37.46	36.27
Symptoms; signs; and ill-defined conditions and factors influencing health status	28.47	26.1
Diseases of the skin and subcutaneous tissue	22.47	23.66
Diseases of the blood and blood-forming organs	7.36	23.44
Congenital anomalies	4.36	3.54

As discussed above, in comparing Fresno County to the rest of the state, Fresno County tends to lag behind in healthcare utilization, health, and self-reported health and this is largely explained by health disparities across racial/ethnic groups. Within Fresno County, there are major racial/ethnic disparities in health that are linked to factors of place and socioeconomic indicators. Table 4 illustrates the disparity in hospitalization rates by comparing non-Hispanic Whites to African-Americans. Table 4 is sorted in descending order from the highest to the lowest rates. Communities of color tend to be exposed to poorer environmental and socioeconomic conditions. African-Americans have a greater rate of

hospitalization for diagnoses related to the circulatory system, pregnancy, perinatal period, mental illness, and respiratory system, which are all strongly linked to environmental exposures and socioeconomic status.

For a complete stratification of hospitalization rates by gender, and race/ethnicity per 10,000, please see Table D2 and D3 in Appendix D, respectively.

Key Findings from Table 4:

- The top five major diagnostic categories with the greatest rates are worse for African-Americans than their White counterparts including, circulatory and respiratory systems, pregnancy complications, perinatal conditions, and mental illness.
- The rates of hospitalization for digestive system, infectious diseases, and injury and poisoning are higher for whites than their African-American counterparts.
- Endocrine; nutritional; and metabolic diseases are largely composed of diagnoses of diabetes. The African-American population has a greater rate of hospital use than their white counterparts do in this category.

Survey Results

Demographic Characteristics of Survey Participants

The following is a summary of the demographic survey results administered at all focus groups. This data represents 422 individuals that were surveyed in all focus groups including place-based populations, vulnerable populations, and stakeholder focus groups. The participants of the survey were asked basic demographic information, spoken language, household income, and to rank priority areas in the social determinants of health. The overall findings are presented here to show the population sampled for focus group participation. In each subsection of the findings, we show the specific demographic characteristics of the participants.

Overall, the participants recruited represented individuals from low-income, disadvantaged backgrounds who might be the most vulnerable populations to poor health. The focus groups consisted of 50% Latino, 13% White, 13% Asian-American, 6% African-American, and many other racial/ethnic groups and cultures were included. More than 50% of the participants had a household income of less than $30,000 per year.

Table 5 shows some demographic characteristics collected from the survey including gender, survey language, and veteran status. Community members completed 422 surveys and participated in focus group sessions. Figures and Tables may vary in the number of participants due to missing data points. Most of the participants were women, English-speaking, and were not veterans.

Key Findings from Table 5:

- 72.0% of participants were women
- 30.6% of surveys were distributed in Spanish
- 4.5% identified as veterans.

Figure 18 illustrates participants by age group. The largest group represented was aged 35-44 (30.1%) followed by 25-34 (21.6%) year olds. 10.7% of individuals were older than 65 and 6.2% were aged 18-24. 4.3% of participants did not report an age.

Table 5. Frequency and Percentage of Survey Participants by Demographic Characteristics

Characteristic	Frequency	%
Gender		
Woman	304	72.0
Man	97	23.0
Transgender person	4	1.0
Missing	17	4.0
Survey Language		
English	292	69.2
Spanish	129	30.6
Missing	1	.2
Veteran Status		
Yes	19	4.5
No	357	84.6
Missing	46	10.9
Total	422	100

Figure 18. Percentage of Focus Group Participants by Age (n=422)

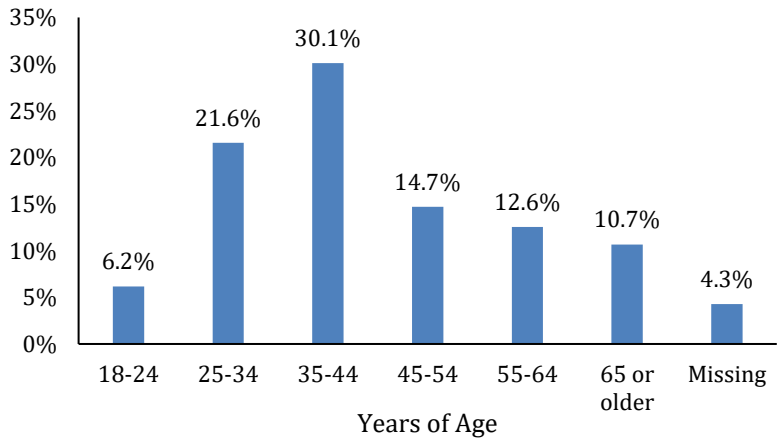


Figure 19. Percentage of Focus Group Participants by Race/Ethnicity (n=422)

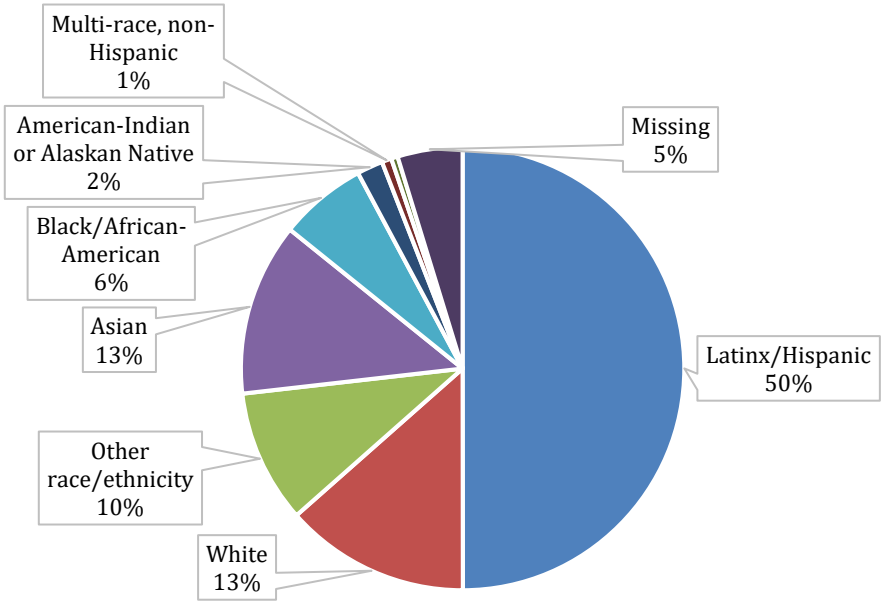


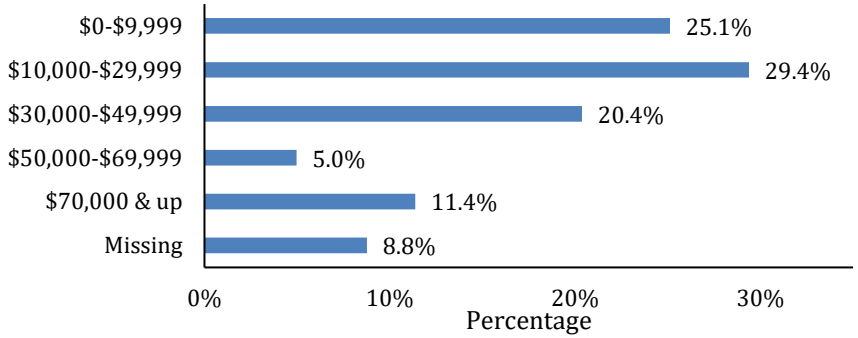
Figure 19 illustrates the racial/ethnic composition of participants of the focus groups. Participants who identified as Asian-American (13%), Black/African-American (6%), or Other race/ethnicity (10%) composed 29% of the sample. More than half of the Asian-American focus group participants identified as being Hmong. The largest group that participated in the focus groups were Latino/Hispanic (50%) followed by White (13%). In terms of demographic characteristics, the focus group sample was representative of the target sample with respect to age, race/ethnicity, and income.

Figure 20 shows the percentage of participants by levels of household income. The majority of focus group participants had a household income less than $30,000 per year (54.5%). 20.4% had a household income of $30,000-$49,999 and 11.4% were above $70,000.

Key Findings from Figure 20:

More than 50% of the recruited population had a household income lower than $30,000.

Figure 20. Percentage of Focus Group Participants by Household Income (n=422)



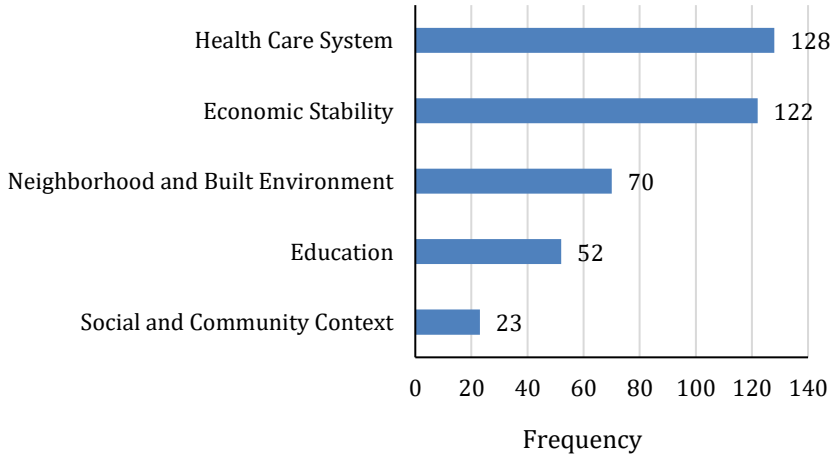
Ranking the Social Determinants of Health

The Social Determinants of Health framework was adopted throughout this assessment to understand what community members found to be the key social and environmental aspects that contribute to their health. Figure 21 outlines the World Health Organization's five social determinants of health areas. These five areas include the neighborhood and built environment, health and health care, social and community context, education, and economic stability. The neighborhood and built environment is synonymous with access to foods that support health eating pattersn, crime and violence, environmental conditions, and quality housing. Health and health care constitute access to health care, access to primary care, and health literacy. Social and community context is defined by civic participation, discrimination, incarceration, and social cohesion. Education includes early childhood development, enrollment in higher ecuation, high school graduation, and language and literacy. Economic stability is defined to include employment, food insecurity, housing instability, and poverty. Community members and key informants from multiple sectors were asked to rank these social determinants of health from greatest to least impactful on health.

Figure 21. Social Determinants of Health Framework by World Health Organization

Figure 22 shows the results of the rank of social determinants of health from greatest to least priority. There were 395 individuals who ranked the healthcare system, neighborhood and built environment, social and community context, economic stability, and education from greatest priority (1 = greatest priority) to least priority (5 = least priority). The top two contributors to poor health identified by community members were the healthcare system and economic stability. The healthcare system was ranked as the greatest contributor to poor health (n = 128). 122 individuals identified economic stability as the greatest

Figure 22. Social Determinants of Health Ranked by Greatest Priority and Frequency of Participant Votes (n = 395), Fresno County, 2019



contributor to poor health. The third highest ranked priority area was the neighborhood and built environment followed by education and the social and community context, respectively.

The themes identified in the place-based focus groups are presented in the order that participants ranked the social determinants of health in Figure 23. To provide further detail and analysis, Figure 24 and 25 show how participants in urban and rural communities prioritized the social determinants of health, respectively. There was no significant difference in the order of prioritization; however, the topics discussed within the focus groups did differ between rural and urban communities. For a comprehensive review of the different priority areas that emerged within place-based focus groups, please see the Appendix E.

Figure 23. Ranking of Social Determinants of Health by Place-based Focus Group Participants (n=145)

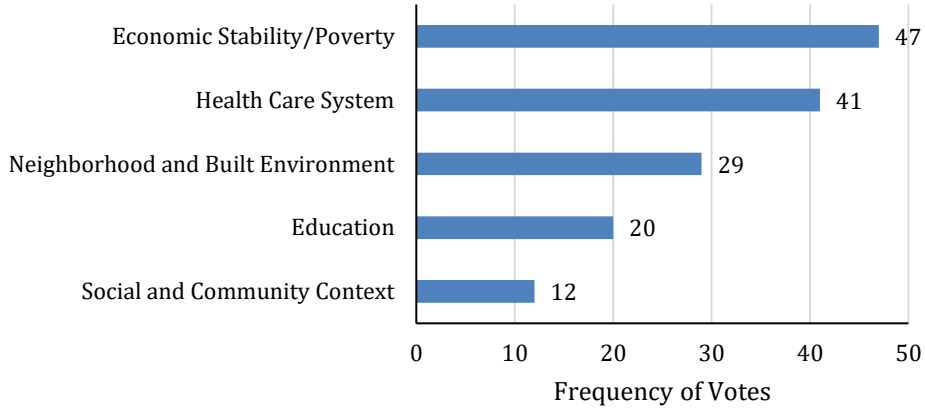


Figure 24. Ranking of Social Determinants of Health by Focus Group Participant in Rural Communities (n=41)

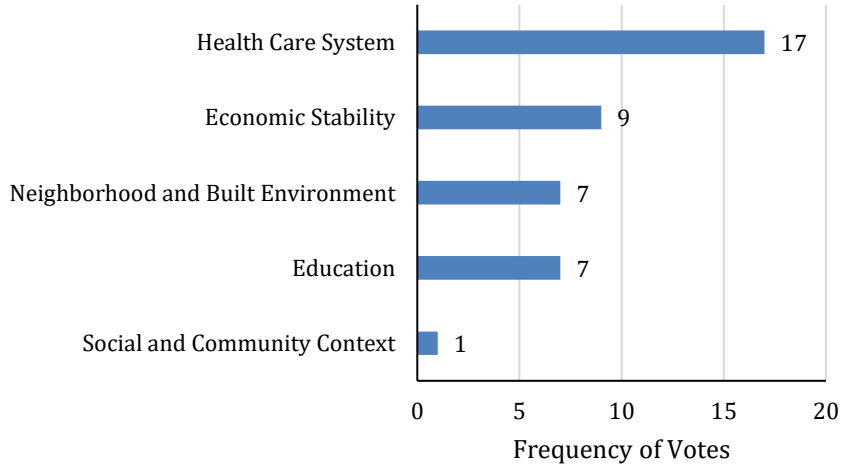


Figure 25. Ranking of Social Determinants of Health by Focus Group Participant in Urban Communities (n=104)

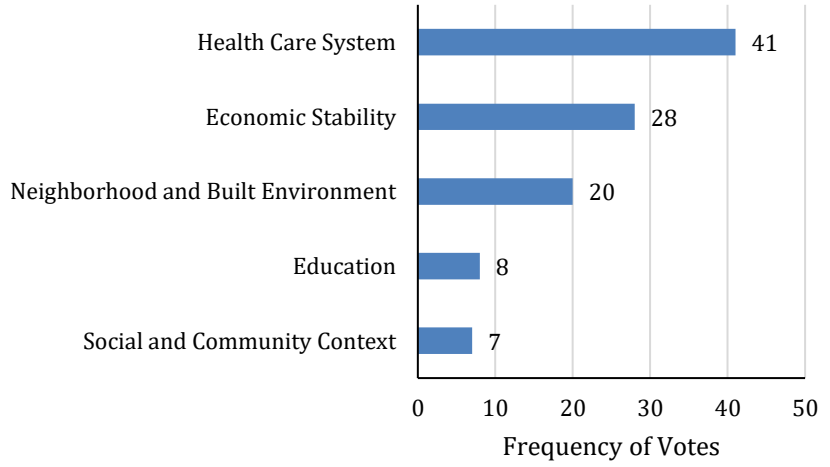
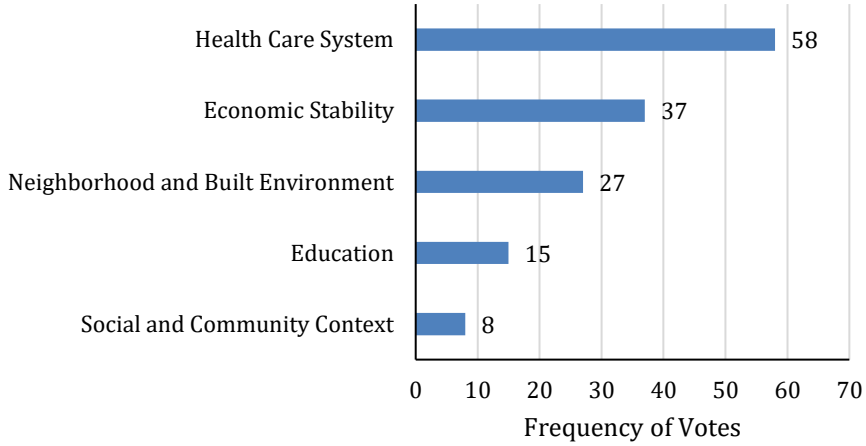


Figure 26. Ranking of Social Determinants of Health by Vulnerable Population Focus Groups (n=149)



There were 145 participants in the geographic (place-based) focus groups. This ranking system was used to determine the order by which themes from the focus group discussion are presented in this document. For example, Figure 26 shows the order by which participants in the vulnerable population focus groups ranked the social determinants of health and Table 6 follows this order where 1) is economic stability, 2) health care system, 3) built and physical environment, 4) education, and 5) social and community context.

Figure 26 illustrates how participants of the vulnerable population focus groups ranked the social determinants of health. Across the 13 focus groups, 47 individuals ranked economic stability/poverty as the priority need in Fresno County. This is the only group of participants that did not rank the health care system as the number one priority.

Key Findings from Figure 26:

- 31.5% of individuals voted economic stability/poverty as the number one priority area
- 27.5% of individuals voted healthcare system as the number one priority area

Place-Based Focus Group Themes

Findings from the place-based focus group discussions are presented next. Community members were gathered to share the geographic barriers to achieving optimal health. Bullet points and key themes are presented across the five social determinants of health (i.e., health care system, economic stability, neighborhood and built environment, education, and community and social context) followed by the top eight *Priority Areas* identified by place-based focus groups in Table 7. Priority areas emerged by identifying themes that were expressed across focus groups for rural and urban localities. Given that the focus of these discussions was about place-based barriers to achieving optimal health, transportation and environmental conditions emerged as the first and secondary

priority areas, respectively. Despite the emphasis on place-based barriers, the participants of these focus groups identified access to quality care as the third priority area, emphasizing the costs and unaffordable copays. A summary of themes from place-based focus groups and supporting quotes, in rural and urban areas, are included in Table E1 and E3 in Appendix E, respectively. The following key points expressed by place-based focus group participants across the social determinant of health categories.

Healthcare System

- Across all communities, themes of **healthcare coverage**, **access to care**, and **quality of care** emerged as barriers.
- Southeast Fresno expanded on these themes to include the need for **cultural humility in health services** as well as the need to improve **health literacy** through the communication of materials.
- Community members expressed that **their insurance coverage is not adequate** in terms of copays and deductibles.
- Many of the residents shared that their salary is too high to qualify for health support, but also too low to comfortably afford health and general living expenses.
- Community residents expressed a **lack of specialists, dentists, pharmacists, and mental health services.**
- Community residents also expressed that **Medi-Cal acceptance rates are too low**.
- Participants expressed that **waiting periods** are too long in both scheduling appointments and in the actual waiting room.
- Participants noted that offices are open for a **limited number of hours during the day** making it difficult to access services. When the patient visits their primary care physician and asks for a referral to a specialist, this request is often delayed or denied.
- All focus group participants expressed a **disconnect from the healthcare system**.
- Focus group participants expressed a **lack of trust in providers** and the healthcare system overall and a lack of health professionals who demonstrate care and compassion for their patients.
- Participants in all place-based focus groups expressed the **lack of continuity of care** where the patient and physician-led team are jointly involved in ongoing healthcare management. The services provided are not streamlined and not easy for the patients to navigate, understand what they qualify for, or where to go for follow-up visits.
- All communities expressed the **lack of quality healthcare professionals in their neighborhood**.

Economic Stability

- In rural areas, themes of employment and income emerged. Rural community members who work in the agricultural sector deal with **low wages** and limited **seasonal employment opportunity**.
- In the urban areas of the city of Fresno, **financial investment, housing stability, and high cost** were central concerns of community residents, who expressed that a majority of their earnings go to daily living expenses. Many urban community members expressed not having enough money to pay bills.

Neighborhood and Built Environment

- Across all geographic areas, there was a consistent and clear expression for the development, improvement, and maintenance of **housing, transportation, safety, parks, walkability, environmental conditions, and access to healthy food options.**
- Most focus groups discussed the **lack of transportation,** especially school buses for children and the poor road conditions, For many of the children, they have to walk far and usually along roads where there are no sidewalks.
- There is a need for pedestrian crossings, paths, sidewalks, and ADA compliance for accessibility to seniors.
- All focus groups expressed **environmental hazards** as major needs for public health improvement. The **poor air quality, pesticides, and water contamination** were the three areas of most need.

Education

- Focus groups across neighborhoods identified varying **educational needs**.
- Southwest and Southeast Fresno expressed place-based educational needs including **lack of dissemination of materials and higher education opportunities**.
- Participants noted that there is a **lack of pathways to higher education to disrupt the cycle of poverty**.

Community and Social Context

- Across all communities, strong themes of **a lack of social cohesion, a lack of social support, discrimination, and civic participation emerged**.
- Community members spent a lot of time and gave much thought to this area. The themes that developed were grounded in a strong sense of community. Community members described that **a lack of social cohesion** within communities was a direct result from a **lack of support systems and discrimination**.
- Community members living in urban areas expressed a need **for transparency in civic engagement** and the **incorporation of community members' asks**.

Table 6. Findings from Place-Based Populations by Social Determinants of Health Category, Theme, and Location

Social Determinant of Health Category	Theme	SW Fresno (93706)	Blackstone (93701)	Calwa (93725)	Central (93703)	SE Fresno (93727)	Pinedale (93650)	El Dorado Park (93710)	Sanger (93657)	Huron (93234)	Mendota (93640)	Parlier (93648)
1) Healthcare System	**Healthcare coverage** • Unaffordable copays and deductibles	X	X		X	X					X	
	• Residents do not qualify for support because income is above limit and yet struggle to afford health and general living expenses	X			X	X	X					
	Access to care • Lack of specialists, dentists, pharmacists, and Medi-Cal acceptance		X					X	X	X		X
	• Limited office hours					X						X
	• Lack of mental health services		X	X	X						X	
	• Patient requests for referrals are generally declined									X		
	• Lack of transportation, which causes patients to have to travel long distances because there are no local facilities		X		X	X		X			X	X
	Cultural humility • Lack of culturally and linguistically appropriate services		X			X						
	Health literacy • Need for clearly understandable materials on health management and navigation										X	

	Theme	SW Fresno (93706)	Blackstone (93701)	Calwa (93725)	Central (93703)	SE Fresno (93727)	Pinedale (93650)	El Dorado Park (93710)	Sanger (93657)	Huron (93234)	Mendota (93640)	Parlier (93648)
	• Lack of eligibility awareness throughout the healthcare process				X	X					X	
	Quality of Care • Lack of trust in providers and healthcare system overall										X	X
	• Lack of health professionals who demonstrate care and compassion										X	
	• Lack of continuity of care where patient and physician-led team are not cooperatively involved in ongoing healthcare management									X		X
	• Services are not streamlined for community members to know where to go for help, what they qualify for, and someone to follow-up									X		
	• Waiting periods are too long in both scheduling an appointment and in the waiting room		X		X					X	X	
2) Economic Stability	**Lack of Stable Economic Opportunity** • Employment opportunities are inconsistent due to seasonality of agricultural sector and low wages impact housing and affordable healthcare			X		X			X			X

	Theme	SW Fresno (93706)	Blackstone (93701)	Calwa (93725)	Central (93703)	SE Fresno (93727)	Pinedale (93650)	El Dorado Park (93710)	Sanger (93657)	Huron (93234)	Mendota (93640)	Parlier (93648)
	Financial investment/support • Lack of investment and business development	X	X									
	• Urban Fresno cited a lack of financial support to cover cost of rehabilitation services							X				
	Housing stability/affordable housing • Unaffordable housing reflected on the increased rent, homelessness, and a lack of opportunities to afford the cost of living	X			X	X	X	X				
3) Built and Physical Environment	**Quality of housing** • Lack of utilities									X		
	• Greater landlord and city responsibility		X	X			X			X	X	X
	Transportation • Lack of public transportation including school buses and poor road maintenance	X	X	X	X					X	X	X
	• Children walk far to schools due to a lack of buses											X
	Parks and safety • A lack of outdoor safe spaces	X			X			X				X
	• Lack of parks and current parks need investment		X		X							
	• Poor lighting			X	X							

	Theme	SW Fresno (93706)	Blackstone (93701)	Calwa (93725)	Central (93703)	SE Fresno (93727)	Pinedale (93650)	El Dorado Park (93710)	Sanger (93657)	Huron (93234)	Mendota (93640)	Parlier (93648)
	Walkability • There is a need for pedestrian crossing, paths, sidewalks, and ADA compliance for accessibility to seniors	X				X		X				X
	Environmental Conditions • Proximity to pesticides	X		X	X		X			X	X	X
	• Water quality contamination concerns of pathogens and chemicals	X		X	X		X			X		X
	• Poor air quality due to factory chemicals, toxins, and farming pesticides.	X	X	X	X					X	X	X
	• Poor sanitation concerning sewage and trash/litter.	X		X	X		X	X				X
	Access to Healthy Food Options • Too many fast food restaurants in near proximity without alternative options					X			X			
	• Food procurement is difficult due to the distance of grocery stores	X		X								
4) Education	**Quality Education** • Need for local education opportunities	X				X		X				
	Pipeline to Higher Education • There is a lack of pathways to higher education to disrupt the cycle of poverty	X				X					X	

	Theme	SW Fresno (93706)	Blackstone (93701)	Calwa (93725)	Central (93703)	SE Fresno (93727)	Pinedale (93650)	El Dorado Park (93710)	Sanger (93657)	Huron (93234)	Mendota (93640)	Parlier (93648)
5) Community and Social Context	**Discrimination** • Environmental injustice in the distribution of water air pollution				X				X			X
	• Law enforcement discriminate against African-Americans, homeless, and the poor							X				
	• Unequal distribution of funding with a disregard for low-income communities	X				X		X				
	Social Cohesion • Lack of communication between residents and institutions.						X		X			X
	• City neglect results in low morale for community members	X										
	• There is a need for investment in spaces that promote social interaction	X										
	• Lack of engagement for youth						X					
	Support System • Continuing existing programs, commitment and support from local elected officials to develop quality community spaces											X
	• Lack of long-term investments in underserved neighborhoods	X				X						
	• Lack of communication channels with law enforcement						X					

	Theme	SW Fresno (93706)	Blackstone (93701)	Calwa (93725)	Central (93703)	SE Fresno (93727)	Pinedale (93650)	El Dorado Park (93710)	Sanger (93657)	Huron (93234)	Mendota (93640)	Parlier (93648)
	• Lack of resources for individuals with substance abuse problems, homelessness, legal counseling	X					X	X				
	• Lack of navigators that connect children and adults with special needs										X	
	• Lack of information of where funding is going to address neighborhood needs	X										
	• Collaboration and communication across communities to understand what works and does not work	X					X					
	Civic Participation • Voting booths are systematically closed and not easily accessible	X										

Primary data collection was initiated in the 11 place-based communities. These focus groups were the first to be engaged by the community health needs process and were key in developing initial priority needs. Below follows the eight *Priority Areas* that emerged for the place-based communities after the final analysis. The *Priority Areas* were developed by examining the frequency by which they were discussed, as well as the level of agreement across focus groups. *Priority Areas* for place-based focus groups are presented in Table 7 from greatest to least amount of agreement across focus group discussions. Key themes presented in Table 6 have been merged to represent a broader priority area.

Table 7. Place-Based Priority Areas

Priority Area (Place-Based Populations)	Theme
1. **Transportation**	• Lack of public transportation • Lack of transportation to healthcare services
2. **Environmental Conditions**	• Air quality • Water quality • Pesticides
3. **Access to Quality Care**	• Unaffordable copays and deductibles
4. **Affordable Quality Housing**	• Unaffordable housing
5. **Income, Jobs, and Lack of Economic Opportunity**	• Employment opportunities are inconsistent • Low wages
6. **Parks and Safe Places**	• Lack of outdoor spaces
7. **Quality Education**	• Need for local educational opportunities
8. **Access to Healthy Foods**	• Too many fast food restaurants in near proximity without alternative options

Vulnerable Population Focus Group Themes

There were 13 vulnerable population focus groups including youth mentors, Syrian refugees, Southeast Asians, Punjabi's, Native Americans, low-income housing residents, LGBTQ+ community, Latino immigrants, homeless population, parents of foster youth, ex-offenders, adults with disabilities, and adults 55 - 65 years of age. For a complete list of the focus group topics and key organizations that assisted in recruiting these populations, please see Appendix F. Although each group had their own set of needs and themes discussed in focus group discussions, there were overarching themes that emerged across many of the focus groups. Below are the key themes that were strongly represented in the focus group discussions. Table 8 displays the tally of key themes that were discussed in specific focus groups and Table 9 shows *Priority Areas* in order from greatest (many of the focus groups discussed the theme) to least priority (some focus groups discussed this theme). A comprehensive description of each vulnerable group key findings is also provided in Appendix F.

Income

- Participants agreed that **poverty** is a main challenge to staying healthy in Fresno.
- Participants mentioned that in Fresno **there are not many economic opportunities** to break the cycle of poverty.

Transportation

- Participants agreed that in Fresno there is a huge **need for affordable, reliable and accessible transportation**.
- Participants said that a **lack** of accessible transportation **impairs their ability to access health services** even in an emergency.

Access to care

- Participants agreed that there is a **need for accessible specialists** in Fresno, including mental health providers, podiatrists, optometrists, diabetes specialists, and specialists on reproductive health for individuals that identify as LGBTQ+, etc.

Access to healthy foods

- Participants agreed that in Fresno there is **limited access to quality fresh produce** in comparison to access of processed foods.

Health Literacy

- Participants agreed on the need for having **clear and accessible health literacy materials**.
- Participants shared that some of them have restricted to no internet access and therefore they are **left without access to educational materials**.
- Not having access to hard copy information at centralized areas **leave many without knowledge of** existing resources that may be beneficial for some of the more vulnerable populations.

Quality of care

- Participants agreed that they experience long **waiting times to see providers and to get an appointment**.
- Many felt that the **lack of providers in the Fresno County** somewhat influences delays in scheduling an appointment.

Cultural Humility

- Participants agreed that there is a **lack of trust in doctor-patient relationships** due to stigmas when visiting the doctor.
- Participants agreed that the **lack of cultural humility in health services harms the participants' ability to share their health concerns**. For example, providers' lack of capacity to speak with patients about preventative STD medication.

Parks and outdoors spaces

- Participants agreed that in Fresno there is a **need for parks that are accessible to vulnerable populations**.
- Participants said that creating **accessible parks would have a positive impact on the physical, emotional and social health** of vulnerable populations.

Table 8. Findings from Vulnerable Populations by Social Determinants of Health Category, Theme, and Group

Social Determinant of Health Category	Theme	Youth	Syrian refugee	SE Asian	Punjabi Sikh	Native American	Low-income housing	LGBTQ+	Latino immigrant	Homeless	Parents of foster youth	Ex-offender	Adult with disabilities	Adult 55-65
1) Economic Stability	**Income** • Lack of sustainable jobs		X	X		X	X		X			X	X	
	• Poverty is a main challenge to stay healthy	X	X		X	X	X	X	X	X	X	X	X	X
	• Lack of financial support • Lack of adequate and quality financial support system	X	X	X			X				X	X		
2) Healthcare System	**Access to Care** • Lack of specialists	X	X		X		X	X	X	X		X	X	X
	• Difficulty obtaining appointments	X	X				X				X		X	X
	• Long waiting time to see provider and get an appointment	X			X	X	X		X	X	X	X		X
	Health Literacy • Clear and accessible materials		X	X	X	X	X	X	X			X		

	Theme	Youth	Syrian refugee	SE Asian	Punjabi Sikh	Native American	Low-income housing	LGBTQ+	Latino immigrant	Homeless	Parent of foster youth	Ex-offender	Adult with disabilities	Adult 55-65
	Health Coverage • Out of network coverage		X	X			X				X	X		X
	• Access to dental coverage with and without insurance			X			X		X	X	X	X		X
	• Coverage of vision services	X		X			X					X		X
	Cultural Humility • Cultural and linguistically appropriate services	X	X	X	X				X					X
3) Neighborho-od and Built environment	**Quality of Housing** • Securing quality of housing	X	X	X				X		X		X	X	X
	Transportation • Public services systems	X	X	X	X	X	X	X	X	X		X	X	X
	Parks and Outdoors Spaces • Need for parks accessible to vulnerable populations	X	X	X	X		X		X				X	X
	Access to Healthy Foods • Limited access to quality fresh produce and high access to majority process foods	X	X	X	X			X	X	X	X	X		

	Theme	Youth	Syrian refugee	SE Asian	Punjabi Sikh	Native American	Low-income housing	LGBTQ+	Latino immigrant	Homeless	Parent of foster youth	Ex-offender	Adult with disabilities	Adult 55-65
4) Education	**Literacy** • Lack of dissemination of information about existing resources that is layperson friendly			X	X		X		X		X		X	
5) Community and Social Context	**Social Cohesion** • Stigmatization of vulnerable populations					X		X	X	X			X	
	• Lack of relationship building/support among vulnerable populations	X				X			X	X			X	
	Community Engagement • Lack of engagement of vulnerable populations in city/regional/tribal planning and long-term investments	X				X			X	X			X	

Table 8 displays the key themes that emerged across the focus groups. Here are Key Findings from Vulnerable Populations:

- 12 of the 13 focus groups discussed lack of transportation to work and obtain health services.
- 12 of the 13 focus groups identified poverty as being the main challenge toward achieving optimal health.
- 10 of the 13 vulnerable populations discussed the lack of healthcare specialists in Fresno County and the inability to obtain a referral.
- 9 of the 13 vulnerable populations discuss the lack of access to fresh fruits and vegetables in their communities.
- 8 of the 13 vulnerable populations identified the difficulties of securing affordable, quality housing.

Table 9 displays the *Priority Areas* that emerged from discussions of health needs with vulnerable populations. Similar to the place-based focus groups, these vulnerable populations identified the lack of public transportation as the number one priority area that affects their opportunity to achieve optimal health. Vulnerable populations identified economic opportunity as the second highest priority, in terms of what affects their opportunities to achieve optimal health. Access to quality care was the third priority area for the vulnerable populations. Access to healthy food was discussed across nine of the vulnerable populations and is identified here as the fourth highest priority area.

Table 9. Vulnerable Population Priority Areas

Priority Area (Vulnerable Populations)	Theme
1. **Transportation**	• Lack of public transportation • Lack of transportation to healthcare services
2. **Income, Jobs, and Lack of Economic Opportunity**	• Lack of sustainable jobs • Employment Opportunities are inconsistent
3. **Access to Quality Care**	• Lack of health coverage • Long wait periods • Lack of specialty care, including dental and mental health services
4. **Access to Healthy Foods**	• Limited access to quality fresh produce and high access to majority process foods • Too many fast food restaurants in near proximity without alternative options
5. **Affordable Quality Housing**	• Unaffordable quality housing • A need for options beyond renting
6. **Parks and Safe Places**	• Lack of outdoor parks and public spaces
7. **Community Engagement**	• Lack of relationship building among community members • Lack of community engagement in planning.
8. **Cultural Humility in the Healthcare System**	• Cultural and linguistically appropriate services

Key Informant Themes

Forty-nine key informants were included in the Fresno County CHNA. Key informants were defined as organizational leaders, Chief Executive Officers (CEO), and Executive Directors. They spanned across a broad set of sectors, including health professionals, academia, community leaders, agriculture, law, business, and community-based organizations. A complete list of key informants and their respective sector can be found in Table B1 Appendix B. The aim was to understand priority areas from multiple perspectives and to develop synergies across sectors that may align. Table 10 illustrates the themes identified by key informants and shows the wide range of ideas on how to address social needs and health in Fresno County.

Across the eight sectors, **political will** was the only theme that emerged across five sectors. In this context, political will was mostly about decision makers, policy makers, and other stakeholders aligning their efforts to change the health circumstances of Fresno County through policy. In terms of immediate health issues in Fresno County, at least four sectors agreed on the following themes including **community engagement, specialist availability, affordable and reliable public transportation, air quality, and economic opportunity to address generational poverty. Safe public spaces** was a priority need identified by representatives of government, health, and law. This was the lowest cited priority area, but still very important across sectors. In contrast to the focus groups where community members participated, the key informants did not specifically discuss education as a main driver of poor health in Fresno County.

Key Findings from Key Informants:

- **Political will** was identified as a priority need across most sectors.
- **Genuine community engagement**, **specialist availability, affordable and reliable public transportation, improved air quality, and economic opportunity** were all identified as priority areas across four sectors.
- **Safe public spaces** were identified as a priority area across three sectors.

Table 10. Findings from Key Informant Interviews by Social Determinants of Health Category, Theme, and Sector

Social Determinants of Health Category	Theme	Academic	Community Leader	Government	Agriculture	Business	Health	Law	Community-Based Organization
1) Community and Social Context	**Community Engagement** • Need for genuine community engagement and grassroots engagement in city and regional planning and long-term investment	X	X				X		X
	Political Will • Need for political will to implement policies that foster healthy communities	X	X	X	X	X			
2) Healthcare system	**Specialist Availability** • Need for health specialists across the board.		X			X	X		X
3) Neighborhood and built environment	**Affordable and Reliable Public Transportation** • Need for reliable, affordable and accessible public transportation services across rural and urban areas.	X		X			X		X
	Improve Air Quality • Need for innovative and ecological friendly practices in business such as agriculture, transportation and cement manufacturers to address poor air quality, especially to reduce the burden on underserved communities across the county.	X	X	X		X			
	Safe Public Spaces • Need for investment in safe family oriented public spaces. Without safe spaces, parents, and children cannot utilize open spaces, potentially affecting their physical and mental health.			X			X	X	
4) Economic Stability	**Economy Opportunities to Address Generational Poverty** • Need for economic opportunities for adults to address health inequities.		X		X		X		X

Table 11 shows the *Priority Areas* identified by key informants. Key themes that emerged from conversations are outlined in Table 10 by the sector from which the key informant represented. Key informants from the healthcare sector identified many of the same key themes that place-based and vulnerable populations had identified including **community engagement, availability of specialists, affordable and reliable public transportation, safe public spaces, and economic opportunities.** By incorporating ideas from broader sectors, we were able to capture ideas that are not traditionally considered in health needs assessments. For example, across all key informants, the number one *Priority Area* was the need for **political will** to implement policies that foster healthy communities. This was clearly the most agreed upon priority area across key informants with five of the sectors pointing to political will as necessary to combat health in Fresno County. Table 11 below, shows the seven *Priority Areas* identified by key informants.

Table 11. Key Informant Priority Areas

Priority Area (Key Informants)	Theme
1. Political Will	• Need for political will to implement policies that foster healthy communities
2. Access to Quality Care	• Need for specialty care across the board including dentists and mental health services
3. Transportation	• Need for innovative and ecologically friendly practices in business such as transportation to address poor air quality, especially to reduce the burden on underserved communities across the county
4. Environmental Conditions	• Improve air quality
5. Income, Jobs, and Lack of Stable Economic Opportunity	• Need for economic opportunities for adults to address health inequities • Employment opportunities offer low wages
6. Community Engagement	• Lack of relationship building among community members • Lack of community engagement in planning
7. Parks and Safety	• Lack of outdoor parks and public spaces

Stakeholder Focus Group Themes

Five stakeholder focus group discussion sessions were included in the Fresno County CHNA. It was important to capture the perspective of multiple stakeholders across sectors. Among the sectors, four were included in this portion of the needs assessment including law (attorneys and law enforcement), healthcare professionals, academia, and two community partner focus group sessions for a total of five sessions. Stakeholders were defined as those more closely in contact with residents, such as grassroots organizers, community leaders, program officers and outreach workers.

Key Findings from Stakeholder Focus Groups:

- **Community engagement** was identified as a priority need across the sectors.
- Healthcare was a top priority across all stakeholder groups with an emphasis on **health literacy, affordable healthcare, and mental health services.**
- **Affordable and reliable public transportation** was a top priority for all stakeholder groups.
- **Poverty** was identified as priority areas across four sectors.
- There is a need for greater access to **higher education pathways** for underserved communities to improve their overall outcomes.

For a complete tabulation of themes discussed in stakeholders' focus groups, please see Table 12.

Table 12. Findings from Stakeholder Focus Groups by Social Determinants of Health Category, Theme, and Sector

Social Determinants of Health Category	Theme	Law	Health	Community-Based Organization	Academic
1) Community and Social Context	**Community Engagement** • Need for genuine community engagement in city and regional planning and long-term investment in services addressing Social Determinants of Health.	X	X	X	X
	Political Will • Need for political will to implement policies that foster healthy communities		X	X	X
	Support System • Lack of services that address generational trauma.	X		X	
2) Healthcare system	**Cultural Humility** • Providers' humility towards patients to better understand and address their health concerns.		X	X	X
	Quality of Care • Providers' burnout may be connected to perceived disrespect from patients.				X
	Language Access • Language barrier while navigating the healthcare system.	X	X	X	X
	Affordable Healthcare • Affordable healthcare services for privately, publicly and non-insured populations.	X	X	X	X
	Health Literacy • Need for navigators for underserved communities who utilize the complex healthcare system.	X	X	X	X
	Reproductive Health • Access to reproductive health services to underserved populations.				X
	Mental Health • Needs of resources, providers and policy for inpatient and outpatient mental health services for the underserved and vulnerable populations.	X	X	X	X

	Theme	Law	Health	Community-Based Organization	Academic
3) Neighborhood and Built environment	**Affordable and Reliable Public Transportation** • Need for reliable, affordable and accessible public transportation services/systems across rural and urban areas.	X	X	X	X
	Improve Air Quality • Need for innovative and ecological friendly practices in business such construction in partnership with northern Central Valley counties to address poor air quality and environmental racism.		X		
	Safe Public Spaces • Need for investment in safe family oriented public spaces. Without safe spaces, parents, and children cannot utilize open spaces, potentially affecting their physical and mental health.			X	
4) Economic Stability	**Economic Opportunities to Address Generational Poverty** Need for economic opportunities for adults to address health inequities.	X		X	
	Poverty • Poverty is one of the main drivers of community disparities	X	X	X	X
5) Education	**Access to Education** • Access to higher education pathways for underserved communities to improve their overall outcomes.	X	X	X	X

Table 13 shows the eight *Priority Areas* identified from Stakeholder focus group discussions. The themes and priority areas that emerged from analyzing the place-based and vulnerable population focus group data were used as the framework to analyze stakeholder data. We analyzed stakeholder focus group data by comparing themes that were similar to place-based and vulnerable population focus groups. Then, in turn, we re-assessed these data to identify key themes that were different and independent of community resident discussions. Table 12 shows the themes that emerged from this process. Table 13 shows *Priority Areas* that were identified by Stakeholder focus group and are presented in descending order from greatest to least priority.

Table 13. Stakeholder Priority Areas

Priority Area (Stakeholders)	Theme
1. Community Engagement	• Lack of relationship building among community members • Lack of community engagement in planning
2. Access to Affordable Quality Care	• Unaffordable copays and deductibles • Lack of coverage
3. Cultural Humility in the Healthcare System	• Humility toward patients to better understand and address health concerns • Language barrier while navigating the healthcare system
4. Access to Quality Care Specialty Services	• Lack of specialty care and mental health services
5. Transportation	• Need for reliable, affordable, and accessible public transportation across rural and urban areas
6. Environmental Conditions	• Improve air quality
7. Income, Jobs, and Lack of Stable Economic Opportunity	• Need for economic opportunities for adults to address health inequities
8. Quality Education	• Access to higher education pathways for underserved communities

Community Engagement and Feedback

As depicted in Figure 5, the process of engaging the community was thorough and intentional toward developing meaningful *Priority Areas*. For example, for each of the 11 place-based communities, three separate community meetings were held to engage residents. The first community meeting objective aimed to introduce the project and recruit participants that best represented the community. The second touch point was to conduct focus group discussions. The third community engagement meeting was important to show preliminary findings of the identified priority areas and to ask community members if the priorities were reflective of their lived experience. Additionally, in this meeting, participants were asked about their level of willingness to advocate for these initiatives via various capabilities. The options ranged from: having no interest or time for the initiatives related to a particular priority; reading and sharing information about the initiatives; participating in meetings about such initiatives; volunteering/advocating for the initiatives; and organizing /leading such initiatives. The purpose behind ranking the willingness to act was to gauge which initiatives the community members were most likely to collaborate with local government, community-based organizations and elected leaders for CHIP implementation. Table B3 of Appendix B show the list of community meetings and the feedback survey, respectively. The feedback surveys varied slightly depending on the preliminary priority areas for the group.

Preliminary findings were presented to community members, which included participants from focus group discussions and key informant interviews, as well as community members who did not participate in the data collection processes. In total, nearly half of all community members that participated in the final community feedback meeting did not participate in focus group sessions. However, when presented with key preliminary findings from the health needs assessment, they largely affirmed the findings that emerged from focus group discussions. For example, when asked about the place-based priorities, about 88% of all attendees responded with “agreed” or “strongly agreed” with the priorities that were identified; 11% remained neutral and 1% did not agree. The community feedback meetings were critical to maintaining credibility and rapport with community residents, and for providing the opportunity for open discussion prior to finalizing findings, gauging community residents’ willingness to participate in the implementation of a community health improvement plan, and confirming that the data analysis maintained fidelity to the values and needs expressed by community residents. A comprehensive discussion of the community engagement meetings results is provided in Appendix I.

Fresno County Priority Areas of Agreement

This section highlights the top *Priority Areas* for potential action that emerged from secondary and primary data analysis. The *Priority Areas of Agreement* represent the accumulation of employed methodology and consideration of community members' expressed needs, and key informant and stakeholder representation. We developed priority areas for 1) place-based populations (n=11), 2) vulnerable populations (n=13), 3) key informants (n=49), and 4) stakeholders (n=5) independently by capturing key themes that emerged in discussions. An aim of this health needs assessment was to develop actionable priority areas that community residents, partners, and stakeholders from multiple sectors would agree upon; therefore, we assessed key themes that were present across all forms of data. We compared *Priority Areas* from Table 7, 9, 11, and 13, to capture areas of agreement. Table 14 shows the final *Priority Areas of Agreement* across the data sources and the key themes expressed within each group.

When comparing priority areas for place-based populations, vulnerable populations, key informants, and stakeholders, there were three clear areas of agreement: **public transportation**, **economic opportunity**, and **access to quality care**. These were the only priority areas that emerged from all data sources. Furthermore, access to quality care had three major components that are outlined in Table 14 including (3a) **access to quality and affordable care**, (3b) **access to specialty care**, and (3c) **access to culturally and linguistically appropriate services**. **Air pollution**, **parks and safe public spaces**, and **community engagement** were the fourth, fifth and sixth priority areas of agreement where at least three data sources identified these as a priority area. Air pollution has long been one of the well-known needs in Fresno County. The discussion of parks and safe places, as well as the need for community engagement, although not new, has emerged as pressing and of similar magnitude to air pollution, in terms of needing change. Finally, the community residents expressed that **affordable quality housing** and **access to healthy foods** as their seventh and eight priority. Key informants or stakeholders did not identify affordable quality housing and access to healthy foods as priority areas; however, the overwhelming agreement among community residents was clear in their needs to achieve optimal health.

For detailed review on each one of these priority areas, please see the place-based and vulnerable population focus groups, and key informant sections where priority areas were initially presented. Appendix J provides more details about priority areas identified by focus group participants as suggested solutions to improve health. Table J1 shows the list of thematic solutions.

Table 14. Fresno County Priority Areas of Agreement across Community Participants, Key Informants, and Stakeholders

Priority Area	Primary Data			
	Place-based focus groups	*Vulnerable Population focus groups*	*Key Informants*	*Stakeholders*
1. Public Transportation	Lack of public transportation including school buses and poor road maintenance was reported in most groups. Children have to walk too far to school due to a lack of buses.	Lack of transportation to go to work and obtain health services	Need for innovative and ecologically friendly practices in business such as transportation to address poor air quality, especially to reduce the burden on underserved communities across the county.	Need for reliable, affordable, and accessible public transportation across rural and urban areas.
2. Income, jobs, and lack of stable economic opportunity	Employment opportunities are inconsistent due to seasonality of agricultural sector and low wages, which affect housing and affordable health care.	Almost all vulnerable populations identified poverty as being the main challenge toward achieving optimal health. Employment opportunities are inconsistent and offer low wages.	Need for economic opportunities for adults to address health inequities. Employment opportunities offer low wages.	Need for economic opportunities for adults to address health inequities.
3a. Access to Quality and Affordable Care	Lack of providers in Fresno County. Unaffordable copays and deductibles.	Lack of health coverage and long wait periods.	Not an expressed priority for this group.	Unaffordable copays and deductibles.

Priority Area	*Place-based focus groups*	*Vulnerable Population focus groups*	*Key Informants*	*Stakeholders*
3b. Access to Specialty Care	Not an expressed priority for this group.	Vulnerable populations discussed the lack of healthcare specialists in Fresno County and not being able to obtain a referral. Need for dental and mental health services.	Need for specialty care across the board, especially dentists and mental health services.	Lack of specialty care and mental health services.
3c. Cultural Humility and appropriate services in the Healthcare System	Lack of culturally and linguistically appropriate services. Lack of trust between the doctor-patient relationships.	Lack of health literacy to navigate healthcare system. Clear and accessible materials. Linguistically appropriate services.	Not an expressed priority for this group.	Humility toward patients to better understand and address health concerns. Language barrier while navigating the health care system.
4. Parks and Safe Public Spaces	Lack of outdoor parks and safe public spaces.	Lack of outdoor parks and safe public spaces.	Lack of outdoor parks and safe public spaces.	Not an expressed priority for this group.
5. Air Pollution	Poor air quality due to factory chemicals, toxins, and farming pesticides. Proximity to pesticides.	Not an expressed priority for this group.	Need for innovative and ecologically friendly practices in business, such as transportation to address poor air quality, especially to reduce the burden on underserved communities.	Need for ecological friendly practices in business such construction in partnership with northern Valley counties to address poor air quality and environmental racism.

Priority Area	*Place-based focus groups*	*Vulnerable Population focus groups*	*Key Informants*	*Stakeholders*
6. Community Engagement	Not an expressed priority for this group.	Lack of relationship building and community engagement in planning.	Lack of relationship building and community engagement in planning.	Lack of relationship building and community engagement in planning.
7. Affordable Quality Housing	Lack of affordable housing for low-income populations	Unaffordable quality housing and a need for options beyond renting.	Not an expressed priority for this group.	Not an expressed priority for this group.
8. Access to Healthy Foods	Too many fast food restaurants in near proximity without alternative options.	Lack of access to fresh produce.	Not an expressed priority for this group.	Not an expressed priority for this group.

Conclusion

This health needs assessment aimed to gather community residents and organizational leaders, fill in gaps and build on previous regional assessments by incorporating lived-experience feedback, and to capture and present *Priority Areas of Agreement* that align across community residents and organizational leaders. We found that community members and organizational leaders do in fact agree on several priorities that need to be addressed to improve the health of Fresno County residents. Three priority areas, with resounding agreement, were the development of **public transportation**, **economic opportunity**, and the **healthcare system**. Specifically, the lack of reliable, affordable, and accessible **transportation** was viewed as a key determinant of health opportunities and life chances. **Economic opportunity** was identified as the second priority where the lack of employment opportunities due to seasonality of the agricultural sector and low wages are viewed as key to addressing health outcomes in the region. Specifically, the healthcare system had three components that were identified as priority areas including **access to quality and affordable care**, **access to specialty care**, and **cultural humility and appropriate services within the healthcare system**.

The fourth priority area was **air quality**. Community residents and organizational leaders agreed that improving **air quality** in Fresno County is key to addressing poor health. Community residents and organizational leaders also agreed that the lack of outdoor parks and safe public spaces, as well as the lack of community engagement were crucial to determining health. The fifth priority area is **parks and safe public spaces**. The sixth priority area is **community engagement**. **Affordable quality housing** and **access to healthy foods** are the seventh and eighth priority areas, respectively. Although organizational leaders did not identify affordable quality housing and access to healthy foods as priority areas, the community residents from both place-based and vulnerable population focus groups independently discussed the urgent need for these to be addressed.

References

1. Analyst, L. The 2019-20 Budget: Using Proposition 56 Funding in Medi-Cal To Improve Access to Quality Care. **2019**.
2. London, J.; Huang, G.; Zagofsky, T. Land of risk/land of opportunity: Cumulative environmental vulnerability in California's San Joaquin valley. *Davis, CA UC Davis Cent. Reg. Chang.* **2011**.
3. Admin, O. CalEnviroScreen.
4. Cushing, L.; Faust, J.; August, L.M.; Cendak, R.; Wieland, W.; Alexeeff, G. Racial/ethnic disparities in cumulative environmental health impacts in California: evidence from a statewide environmental justice screening tool (CalEnviroScreen 1.1). *Am. J. Public Health* **2015**, *105*, 2341–2348.
5. Alcala, E.; Brown, P.; Capitman, J.A.; Gonzalez, M.; Cisneros, R. Cumulative Impact of Environmental Pollution and Population Vulnerability on Pediatric Asthma Hospitalizations: A Multilevel Analysis of CalEnviroScreen. *Int. J. Environ. Res. Public Health* **2019**, *16*.
6. Lessard, L.N.; Alcala, E.; Capitman, J.A. Pollution, Poverty, and Potentially Preventable Childhood Morbidity in Central California. *J. Pediatr.* **2016**, *168*.
7. Padula, A.M.; Yang, W.; Carmichael, S.L.; Tager, I.B.; Lurmann, F.; Hammond, S.K.; Shaw, G.M. Air Pollution, Neighbourhood Socioeconomic Factors, and Neural Tube Defects in the S an J oaquin V alley of C alifornia. *Paediatr. Perinat. Epidemiol.* **2015**, *29*, 536–545.
8. Padula, A.M.; Balmes, J.R.; Eisen, E.A.; Mann, J.; Noth, E.M.; Lurmann, F.W.; Pratt, B.; Tager, I.B.; Nadeau, K.; Hammond, S.K. Ambient polycyclic aromatic hydrocarbons and pulmonary function in children. *J. Expo. Sci. Environ. Epidemiol.* **2015**, *25*, 295–302.
9. Carlson, E.D.; Chamberlain, R.M. Allostatic load and health disparities: a theoretical orientation. *Res. Nurs. Health* **2005**, *28*, 306–315.
10. Institute, C.V.H.P. Preventable Childhood Illness: Individual and Neighborhood Characteristics.
11. Institute, C.V.H.P. *Adolescent Health in the San Joaquin Valley :*;
12. Institute, C.V.H.P. *LONGEVITY FOR*;
13. Schwarte, L.; Samuels, S.E.; Capitman, J.; Ruwe, M.; Boyle, M.; Flores, G. The Central California Regional Obesity Prevention Program: changing nutrition and physical activity environments in California's heartland. *Am. J. Public Health* **2010**, *100*, 2124–2128.
14. Hunt, B.R.; Whitman, S.; Hurlbert, M.S. Increasing Black: White disparities in breast cancer mortality in the 50 largest cities in the United States. *Cancer Epidemiol.* **2014**, *38*, 118–123.
15. Clouser, T. Willis, M. 2016 Community Health Needs Assessment- Wesley Chapel. **2016**, 1–6.

16. Bengiamin, M.; Costantino, A. Oral Health Barriers for California ' s San Joaquin Valley Underserved and Vulnerable Populations.

17. Capece-fairless, M.; Day, J.; Gholamrezaei-eha, L.; Hagaman, N.; Harkness, D.; Kramer, B.; Lopez, D. Fresno County ' s Alcohol and Other Drug Strategic Prevention Plan. **2020**.

18. Chna, F. Fresno County Chronic Disease Community Health Needs Assessment (2012-13 Fresno CHNA) Department of Public Health. **2012**.