

2019

Regional Community Health Needs Assessment

Inland Empire



2019 Regional Community Health Needs Assessment

© 2019

Hospital Association of Southern California

Keven Porter, MS, BSN, RN
Regional Vice President HASC Inland Empire
2280 Market Street, Suite 250
Riverside, CA 92501

With technical assistance from:

Laura Acosta, MPH
HC2 Strategies, Inc.

Susan Harrington, MS, RD, and
Karen Ochoa, MA
Communities Lifting Communities, LLC

James Martinez, Ed.D., MPH

Val Malika Reagon, DrPH, MPH, MLA
Smith Hill Global Consulting, LLC



TABLE OF CONTENTS

Executive Summary.....	5
Acknowledgments.....	8
Introduction.....	9
History of Community Health Needs Assessment	14
Inland Region Community Profile	16
CHNA Overview	21
Social & Economic Factors.....	23
Health System	31
- Prenatal Care and Outcomes After Birth	31
- Access to Health Care	33
- Community Health Centers	34
- Asthma	34
2017 Hospitalizations.....	35
- Overall Hospitalizations, by race/ethnicity, gender and age group	36
- Alcohol/Drug Abuse or Dependency, by race/ethnicity, gender and age group	40
- All Cancers, by race/ethnicity, gender and age group	44
- Asthma, by race/ethnicity, gender and age group	48
- Breast Cancer, by race/ethnicity, gender and age group.....	51
- Chronic Obstructive Pulmonary Disease (COPD), by race/ethnicity, gender and age group ...	54
- Diabetes, by race/ethnicity, gender and age group	57
- Heart Failure, by race/ethnicity, gender and age group.....	61
- Hypertension, by race/ethnicity, gender and age group	65
- Lung Cancer, by race/ethnicity, gender and age group	69
- Mental Diseases and Disorders, by race/ethnicity, gender and age group.....	73
- Mortality.....	77
- Hospitalization Trends Using Prevention Quality Indicators.....	77
Public Health and Prevention.....	81

Physical Environment	85
Voices from the Community	88
Prioritization of Health Needs	98
Identified Health Needs	102
Regional Evaluation	104
Appendix A: Qualifications of Consultant.....	106
Appendix B: Glossary of Terms	108
Appendix C: Data Sources Cited	112
Appendix D: Health Indicator Tables.....	113
Appendix E: 2016 Prevention Quality Indicators by Zip Code.	116
Appendix F: Description of Key Informants and Focus Groups	122
Appendix G: Description of Key Informant Codebooks and Frequencies	126
Appendix H: Focus Group Codebooks and Frequencies.....	127
Appendix I: Survey Results.....	128
Appendix J: Community Resources.....	137

EXECUTIVE SUMMARY

The Hospital Association of Southern California (HASC) Inland Region office represents hospitals in Riverside and San Bernardino counties. Member hospitals are representative of many types of facilities, from rural to large teaching facilities, investor-owned to not-for-profit, VA to behavioral health, and community to public and district operated.

The Hospital Association's mission is to lead, represent and serve hospitals and their related organizations, working collaboratively with our members and other stakeholders to improve health and health care in the communities we serve.

In 2016, The Hospital Association of Southern California worked with eleven hospitals on the inaugural regional community health needs assessment. This 2019 Inland Empire Regional Community Health Needs Assessment (CHNA) report represents a commitment to continue this crosscutting work, share resources, and collaborate for collective impact. The 2019 CHNA report builds on a collaborative effort through expanded data collection from important voices in our community. This assessment also reaffirms a commitment to serving the needs of the most vulnerable members of our communities.

Participating hospitals in the 2019 Inland Empire Regional Community Health Needs Assessment include:

- Desert Regional Medical Center
- Hi-Desert Medical Center
- Inland Valley Medical Center
- JFK Memorial Hospital
- Rancho Springs Medical Center
- Redlands Community Hospital
- San Antonio Regional Hospital
- Mountains Community Hospital

Sources of Data

Primary and secondary data sources are included in this report. Secondary sources include publicly available state and nationally recognized data sources available at the zip code, county and state level. Health indicators for social and economic factors, health system, public health and prevention, and physical environment are incorporated. The top leading causes of death as well as conditions of morbidity that illustrate the communicable and chronic disease burden across San Bernardino and Riverside counties are included. A significant portion of the data for this assessment was collected through a custom report generated through Community Common's Engagement Network CHNA (<https://engagementnetwork.org/assessment/>). Other sources include California Department of Public Health, County Health Rankings & Roadmaps, and California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. When feasible, health metrics have been further compared to estimates for the state or national benchmarks, such as the Healthy People 2020 objectives.

Inpatient hospitalization discharge data for 2017 was derived from the California Office of Statewide Health Planning and Development (OSHPD) utilizing the SpeedTrack analytics platform. Hospitalization discharge data is stratified by gender, race/ethnicity and age, and data containing an n-value of 10 or less were not included and are identified with an * in the table and graphs were not generated.

The hospitals participating in the two-county assessment worked to identify relevant key informants and topical focus groups to gather more insightful data and aid in describing the community. Key informants and focus groups were purposefully chosen to represent medically under-served, low-income, or minority populations in our community, to better direct our investments and form partnerships. Results of the qualitative analysis, as well as a description of participants, can be found later in this document.

An online survey in English and Spanish was created and distributed for greater community input. It should be noted that the survey results are not based on a stratified random sample of residents throughout Riverside and San Bernardino counties. The perspectives captured in this data simply represent the community members who agreed to participate and have an interest in health care. In addition, this assessment relies on several national and state entities with publicly available data. All limitations inherent in these sources remain present for this assessment.

The most frequently mentioned health issues among the focus groups, key informants interviews, and surveys included mental health and alcohol/drug substance abuse, transportation especially for the senior population, poverty and food insecurity, affordable housing and homelessness, education and awareness, chronic diseases, access to healthcare, and preventative health care.

Prioritization Process and Identified Health Needs

On April 19, 2019, HC2 Strategies, Inc. facilitated a strategy meeting with the members of the Inland Empire Regional CHNA Taskforce to review the results of the CHNA and determine the top three priority needs that the hospitals will address over the next three years. To aid in determining the priority health needs, the Taskforce members agreed on the criteria below to consider when making a decision.

- Addresses disparities of subgroups
- Availability of evidence or practice-based approaches
- Existing resources and programs to address problems
- Feasibility of intervention
- Identified community need
- Importance to community
- Magnitude
- Mission alignment and resources of hospitals
- Opportunity for partnership
- Opportunity to intervene at population level
- Severity
- Solution could impact multiple problems

The voting members in attendance were:

- Linda Evans, Desert Regional Medical Center, Hi-Desert Medical Center and JFK Memorial Hospital (via phone call)
- Brian Connors, Inland Valley Medical Center and Rancho Springs Medical Center
- Keven Porter, Hospital Association of Southern California
- Deanna Stover, Principal, representing Redlands Community Hospital
- Cathy Rebman, San Antonio Regional Hospital

The top health needs across the region identified for 2019-2021 include Mental Health and Alcohol/Drug Substance Abuse; Chronic Diseases including asthma, cancer, diabetes, heart disease, and obesity; and access to health care including provider shortage and insurance.

The table below shows the health needs identified in the 2019 CHNA compared to the 2016 CHNA:

Year	Health Outcomes	Social Determinants	Clinical Care	Built Environment
2019	Mental Health and Alcohol/Drug Substance Abuse Chronic Diseases <ul style="list-style-type: none"> • Asthma • Cancer • Diabetes • Heart Disease • Obesity 		Access to Health Care <ul style="list-style-type: none"> • Provider shortage • Insurance 	
2016	<ul style="list-style-type: none"> • Diabetes (higher rates among Hispanics) • Behavioral Health • Heart disease and stroke • Chronic Obstructive Pulmonary Disease • Cancer <ul style="list-style-type: none"> • Colorectal • Lung • Obesity 	<ul style="list-style-type: none"> • High rates of poverty; lower median incomes • Lower educational attainment 	<ul style="list-style-type: none"> • Poor access to primary care and behavioral health providers • Lack of preventive screenings for cancer • Inadequate prenatal care 	<ul style="list-style-type: none"> • Housing shortages • Lack of access to healthy foods

ACKNOWLEDGMENTS

This report was made possible through the contributions of the Hospital Association of Southern California Inland Empire Regional CHNA Taskforce, Communities Lifting Communities and HC2 Strategies, Inc. under the leadership of Mr. Keven Porter, MS, BSN, RN, Regional Vice President, HASC Inland Empire. The taskforce collaborated with Ms. Laura Acosta, MPH of HC2 Strategies, Inc.; Susan Harrington, MS, RD, and Karen Ochoa, MA, of Communities Lifting Communities. HC2 Strategies, Inc. conducted key informant interviews, focus groups, and facilitated establishing priority health needs for the 2019-2021 community health needs cycle.

Additionally, the taskforce worked with Dr. James Martinez and Ms. Val Malika Reagon to gather health indicator data, analyze quantitative and qualitative data, and publish the final report. Many of the critical health indicators presented in this report were collected from the Engagement Network CHNA report provided by Community Commons, which is managed by the Institute for People, Place, and Possibility, the Center for Applied Research and Environmental Systems (CARES), and the Community Initiatives Network. The data gathered from Community Commons ensured an efficient and accurate method of collecting data from numerous sources.

Finally, we would like to thank all those who gave input for this report through key informant interviews and focus groups. Their perspectives ensure that we are taking into consideration the most vulnerable in our communities to better create initiatives, more meaningful partnerships, and strategic investments for our communities.

Consultant

HC2 Strategies, Inc. is a strategy consulting company that works with health systems and hospitals, physician groups, communities and other non-profit organizations across the country to connect and transform the health and well-being of their communities. They work to integrate the clinical and social aspects of community health to improve equity and reduce health disparities. Appendix A includes the qualifications of the consultants.

Members of the Inland Empire Regional CHNA Taskforce

- Linda Evans, Chief Strategy Officer - Community Advocacy, Desert Regional Medical Center, Hi-Desert Medical Center and JFK Memorial Hospital
- Brian Connors, Director of Marketing, Inland Valley Medical Center and Rancho Springs Medical Center
- Deanna Stover, Ph.D., R.N., FNP, CNS, COHN-S, Principal, Synergy Solutions Consulting, LLC, representing Redlands Community Hospital
- Cathy Rebman, Vice President, Business Development & Community Outreach, San Antonio Regional Hospital
- Charles Harrison, MBA, CPA, Chief Executive Officer, Mountains Community Hospital

INTRODUCTION

The Hospital Association of Southern California (HASC) Inland Region office represents hospitals in Riverside and San Bernardino counties. Member hospitals are representative of many types of facilities, from rural to large teaching facilities, investor-owned to not-for-profit, VA to behavioral health, and community to public and district operated.

The Hospital Association's mission is to lead, represent and serve hospitals and their related organizations, working collaboratively with our members and other stakeholders to improve health and health care in the communities we serve.

In 2016, The Hospital Association of Southern California worked together on the inaugural regional community health needs assessment. This report represents a commitment to continue this crosscutting work, share resources, and collaborate for collective impact.

The 2019 report builds on a collaborative effort through expanded data collection from important voices in our community. This assessment also reaffirms a commitment to serving the needs of the most vulnerable members of our communities.

Participating hospitals in the 2019 Regional Community Health Needs Assessment include:

- Desert Regional Medical Center
- Hi-Desert Medical Center
- Inland Valley Medical Center
- JFK Memorial Hospital
- Mountains Community Hospital
- Rancho Springs Medical Center
- Redlands Community Hospital
- San Antonio Regional Hospital



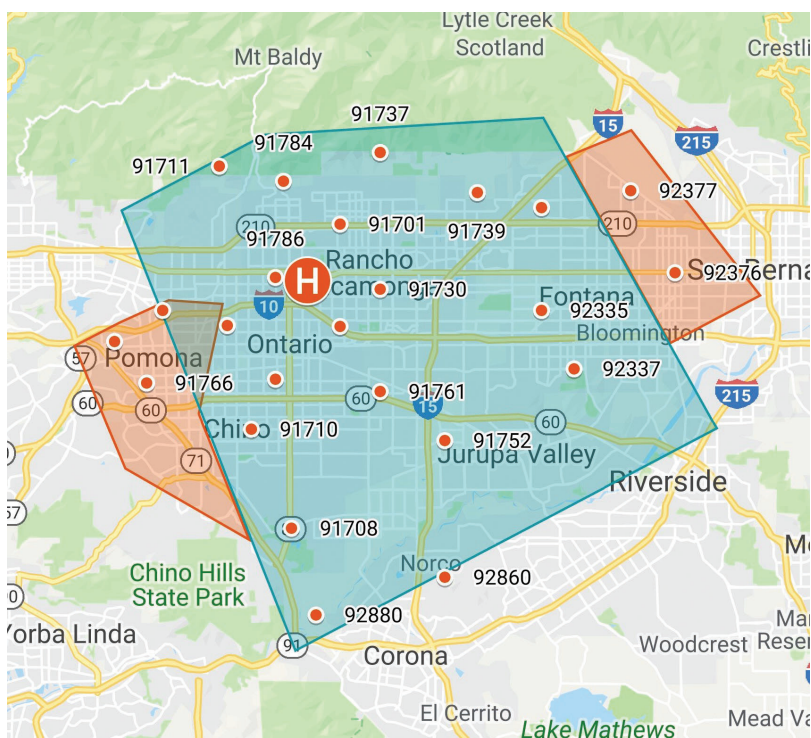
Hospital Service Areas

A hospital service area is “defined” as the geographic area where a hospital receives the majority of hospital admissions. Service areas are divided into two subsets, “primary” and “secondary.”

San Antonio Regional Hospital

San Antonio Regional Hospital is located in Upland, CA and is a 373-bed regional facility residing in the “West End” of San Bernardino County. Their primary service areas include the cities of Claremont, Chino, Eastvale, Fontana, Montclair, Ontario, Rancho Cucamonga, and Upland. Their secondary service areas extend to Pomona, Chino Hills, Corona, Norco and Rialto.

Primary Service Area	
Zip Code	City
91701	Rancho Cucamonga
91708	Chino
91710	Chino
91711	Claremont
91730	Rancho Cucamonga
91737	Rancho Cucamonga
91739	Rancho Cucamonga
91752	Eastvale
91761	Ontario
91762	Ontario
91763	Montclair
91764	Ontario
91784	Upland
91786	Upland
92335	Fontana
92336	Fontana
92337	Fontana
92880	Eastvale
Secondary Service Area	
91709	Chino Hills
92860	Norco
92376	Rialto
92377	Rialto
91766	Pomona
91767	Pomona
91768	Pomona

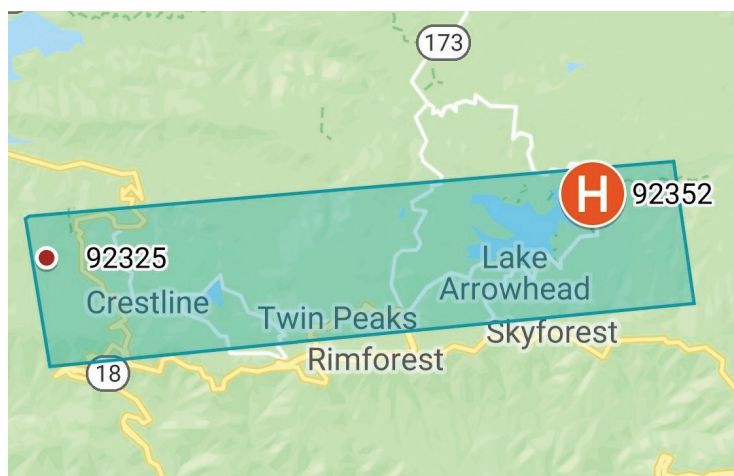


Source: Map data 2019 Google

Mountains Community Hospital

Mountains Community Hospital (MCH) is located in Lake Arrowhead and is a 20-bed long-term care unit and 17-bed medical/surgical unit. This critical access, district hospital serves a population of 26,000 residents and visitors in the San Bernardino Mountains region.

Primary Service Area	
Zip Code	City
92325	Crestline
92352	Lake Arrowhead

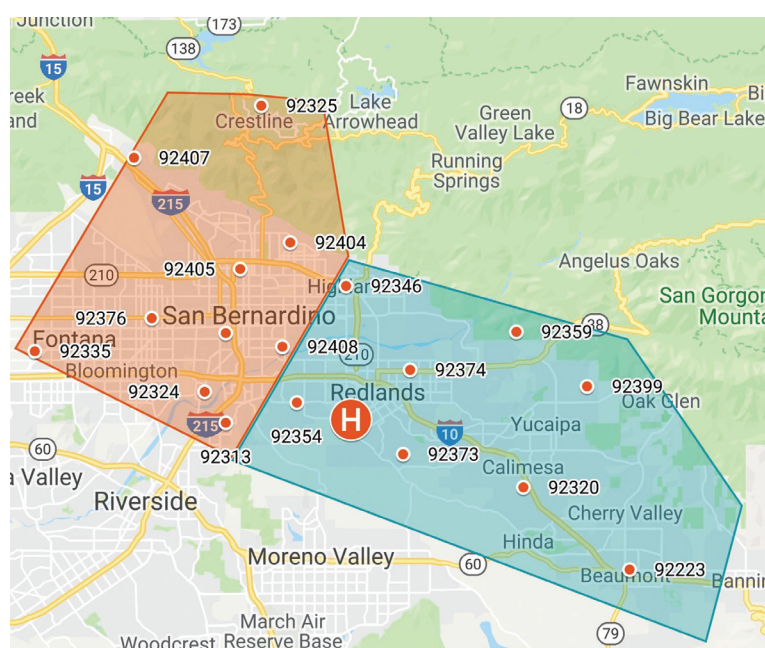


Source: Map data 2019 Google

Redlands Community Hospital

Analyzing historical patient origin data derived from the hospital's statistical information identified the geographic service area of Redlands Community Hospital. Located in the most densely populated area of San Bernardino County, communities identified as being in the primary service area of the hospital are Banning, Beaumont, Cabazon, Colton, Calimesa, Forest Falls, Highland, Mentone, Redlands and Yucaipa. The secondary service area is comprised of the cities of Bloomington, Bryn Mawr, Crestline, Fontana, Grand Terrace, Hemet, Loma Linda, Patton, Rialto, San Bernardino, and several mountain communities.

Primary Service Area	
Zip Code	City
92223	Beaumont
92320	Calimesa
92346	Highland
92354	Loma Linda
92359	Mentone
92373	Redlands
92374	Redlands
92399	Yucaipa
Secondary Service Area	
92313	Grand Terrace
92324	Colton
92325	Crestline
92335	Fontana
92376	Rialto
92404	San Bernardino
92405	San Bernardino
92407	San Bernardino
92408	San Bernardino
92410	San Bernardino

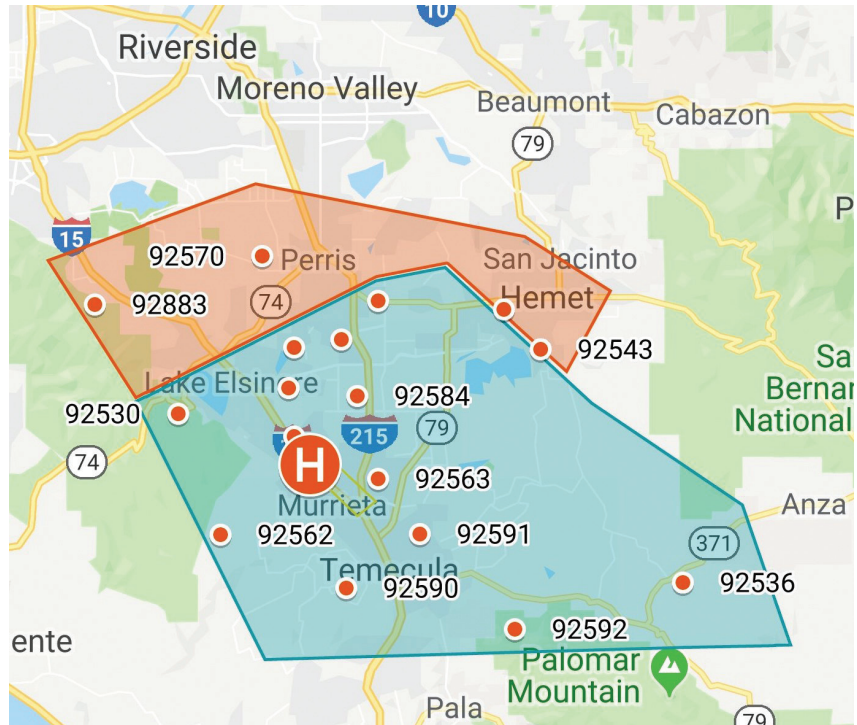


Source: Map data 2019 Google

Southwest Healthcare System-Murrieta

Rancho Springs Medical Center is located in Murrieta, California and is a 120-bed acute-care hospital. Inland Valley Medical Center is a 120-bed facility located in Wildomar, California. Both hospitals share the same primary service areas of Lake Elsinore, Aguanga, Murrieta, Menifee, Sun City, Temecula, and Wildomar. Secondary service areas are Corona, Hemet, and Perris.

Primary Service Area	
Zip Code	City
92530	Lake Elsinore
92532	Lake Elsinore
92536	Aguanga
92562	Murrieta
92563	Murrieta
92584	Menifee
92585	Sun City
92586	Sun City
92587	Sun City
92590	Temecula
92591	Temecula
92592	Temecula
92595	Wildomar
Secondary Service Area	
92543	Hemet
92545	Hemet
92570	Perris
92883	Corona



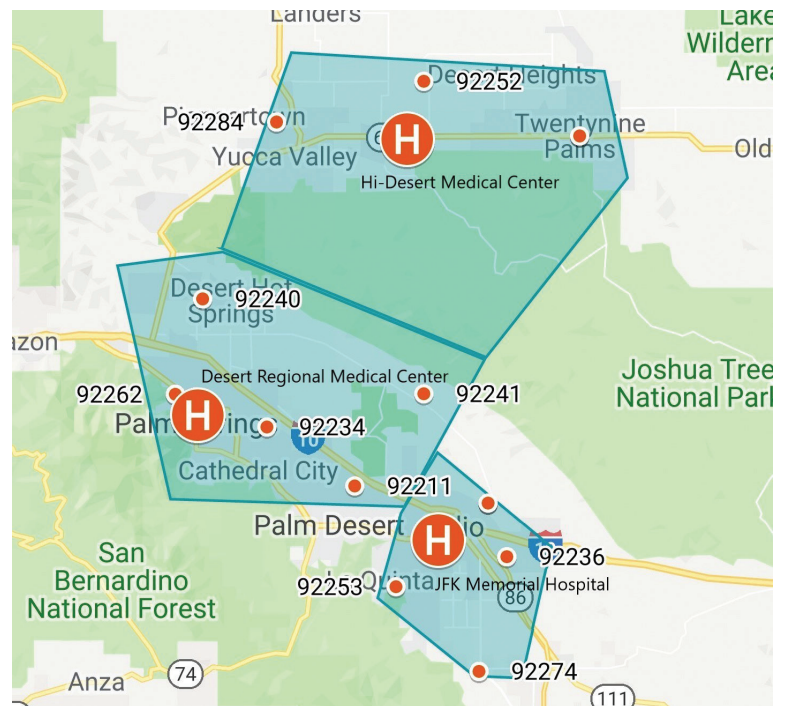
Source: Map data 2019 Google

Desert Care Network

Desert Care Network brings together an entire system of healthcare serving desert communities from the eastern Coachella Valley to the Morongo Basin. This unified network includes:

1. Desert Regional Medical Center
2. Hi-Desert Medical Center
3. Hi-Desert Continuing Care Center (SNF/Sub-Acute)
4. JFK Memorial Hospital
5. MedPost UC-La Quinta
6. El Mirador Imaging Center
7. La Quinta Imaging Center
8. El Mirador Surgery Center
9. Sedona Surgery Center
10. Airway SurgiCenter Imaging Center
11. Comprehensive Cancer Center at Desert Regional Medical Center
12. Comprehensive Cancer Center La Quinta
13. Hi-Desert Behavioral Health Services
14. Hi-Desert Home Health
15. Hi-Desert Hospice
16. Hi-Desert Rehabilitation Services

Primary Service Area	
Desert Regional Medical Center	
Zip Code	City
92201	Indio
92203	Indio
92211	Palm Desert
92234	Cathedral City
92240	Desert Hot Springs
92241	Desert Hot Springs
92252	Joshua Tree
92262	Palm Springs
92277	Twentynine Palms
JFK Memorial Hospital	
Zip Code	City
92201	Indio
92203	Indio
92236	Coachella
92253	La Quinta
92274	Thermal
Hi-Desert Medical Center	
Zip Code	City
92252	Joshua Tree
92277	Twentynine Palms
92284	Yucca Valley



Source: Map data 2019 Google

HISTORY OF COMMUNITY HEALTH NEEDS ASSESSMENT

The passage of the Affordable Care Act of 2010 required hospitals with a 501c3 designation to complete a community health needs assessment (CHNA) every three years. Outlined in section 501(r)(3)(A) of the Federal IRS Code, a hospital organization must conduct a CHNA and adopt an implementation strategy to meet the community health needs identified through the CHNA.

To conduct a CHNA, a hospital facility must complete the following steps:

1. Define the community it serves.
2. Assess the health needs of that community.
3. In assessing the community's health needs, solicit and take into account input received from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health.
4. Document the CHNA in a written report (CHNA report) that is adopted for the hospital facility by an authorized body of the hospital facility.
5. Prioritize Significant Health Needs in the community.
6. Make the CHNA report widely available to the public.

A hospital facility is considered to have conducted a CHNA on the date it has completed all of these steps, including making the CHNA report widely available to the public.

CHNA reporting requirements in California were established in 1994 with passage of Senate Bill 697. This bill noted that non-profit hospitals assume a social obligation in exchange for favorable tax treatment. This legislation required hospitals with a 501c3 designation to report on the community benefits they provide, assess the health needs of their respective communities, and develop plans for addressing these needs. The notable difference in new federal statutes is the emphasis being placed on adopting a clear strategy for addressing the needs identified in the assessment process and the application of this requirement.

The CHNA represents our commitment to improving health outcomes in our community through rigorous assessment of health status in our region, incorporation of stakeholders' perspectives, and adoption of related implementation strategies to address priority health needs. The CHNA is conducted not only to satisfy legal requirements, but also elevate the health status of our community by using our collective resources for greater impact.

The goals of this assessment are to:

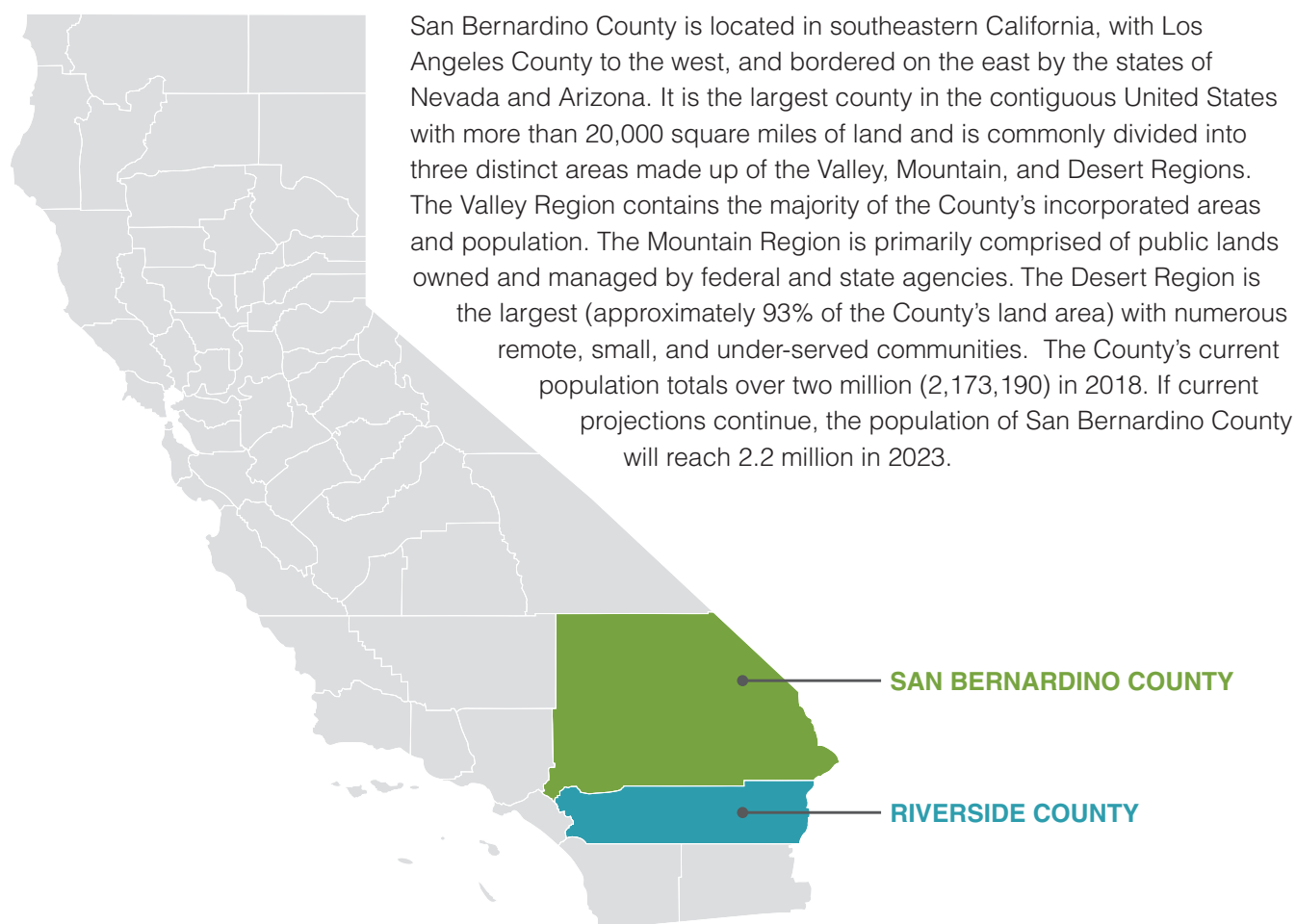
- Engage public health and community stakeholders including low-income, minority, and other underserved populations
- Assess and understand the community's health issues and needs
- Understand the health behaviors, risk factors, and social determinants that impact health
- Identify community resources and collaborate with community partners
- Use findings to develop and implement an implementation strategy based on the collective prioritized issues

INLAND REGION COMMUNITY PROFILE

Riverside and San Bernardino Counties

The Inland Region is comprised of the entirety of Riverside and San Bernardino counties.

Riverside County is located in southeastern California sharing borders with Imperial, Orange, San Diego, and San Bernardino counties, extending from within 14 miles of the Pacific Ocean to the Colorado River. It is the fourth largest county in the state by population, stretching nearly 200 miles across and comprising over 7,200 square miles. It is now the 10th largest county in the nation in terms of population at over two million (2,424,790) in 2018. Only Los Angeles (10.1 million), San Diego (3.3 million) and Orange counties (3.1 million) have greater populations among California counties. If current projections continue, the population of Riverside County will reach 2.5 million in 2023.

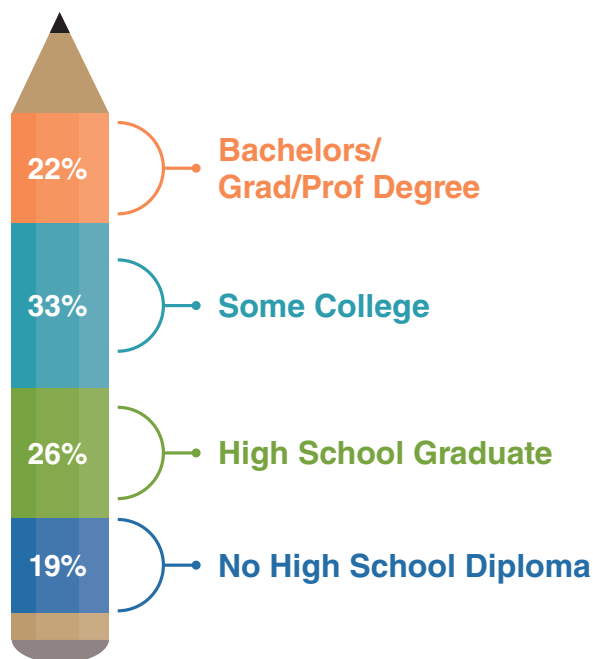


Community Quick Facts — 2018 Riverside County

Key Facts

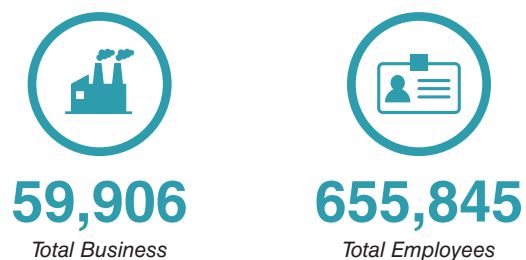


Education

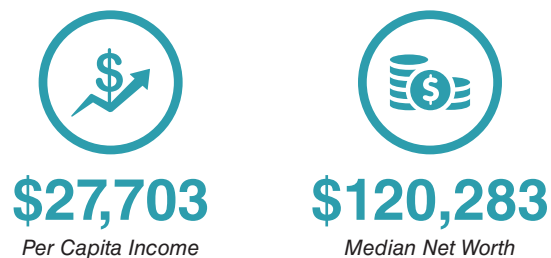


Esri, 2018

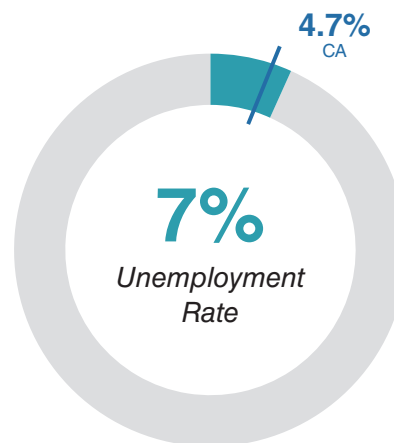
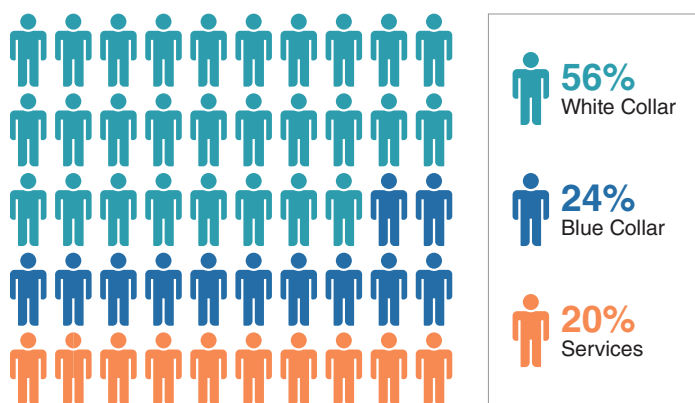
Business



Income

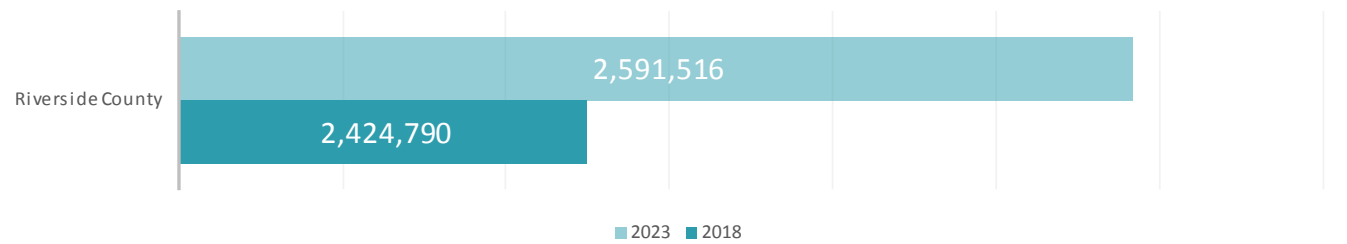


Employment



Community Quick Facts — 2018 Riverside County (Continued)

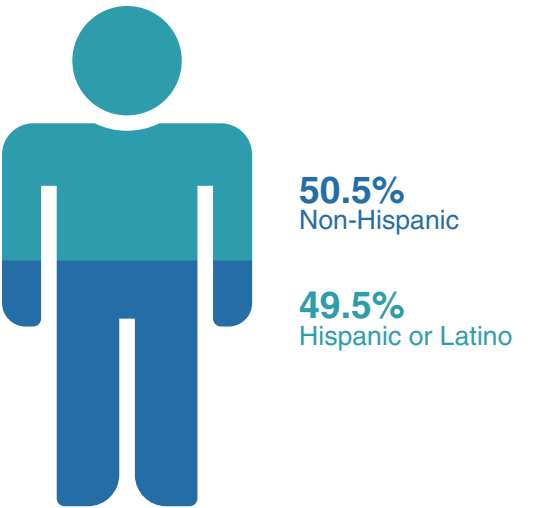
2023 County Population Projection



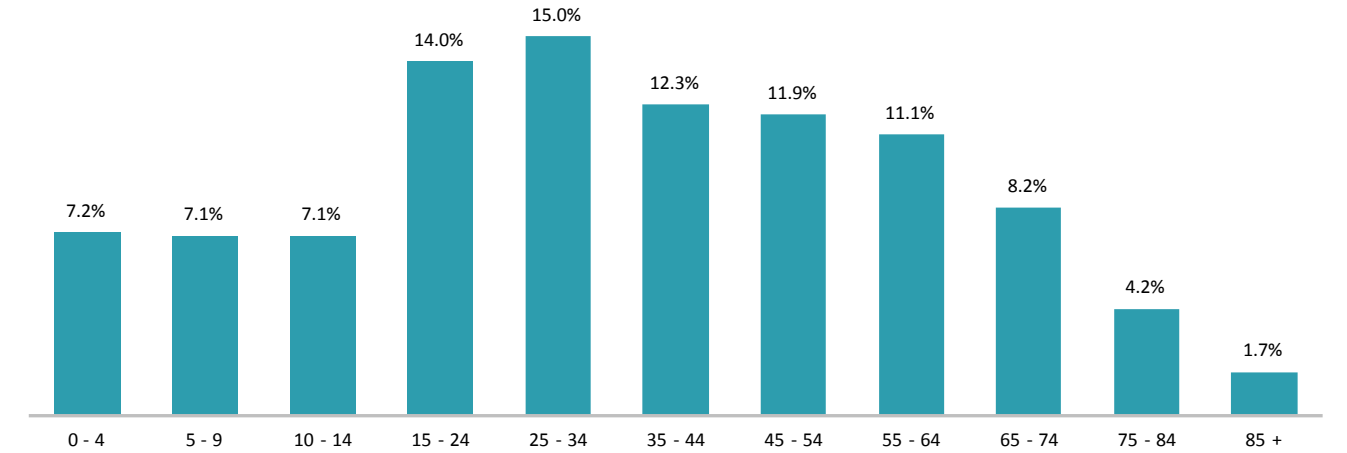
Households by Income

Indicator	Value
<\$15,000	9.2%
\$15,000 – \$24,999	9.1%
\$25,000 – \$34,999	8.7%
\$35,000 – \$49,999	12.2%
\$50,000 – \$74,999	17.2%
\$75,000 – \$99,999	12.9%
\$100,000 – \$149,999	16.3%
\$150,000 – \$199,999	7.4%
\$200,000+	7.1%

Ethnicity — Hispanic or Latino



Population by Age — Riverside County



Data Source: U.S. Census Bureau, Census 2010 Summary File
1. Esri forecasts for 2018 and 2023 Esri converted Census 2000 data into 2010 geography. Retrieved January 2019.

Community Quick Facts — 2018 San Bernardino County

Key Facts



2,173,190

Population



3.3

Average Household Size



32.9

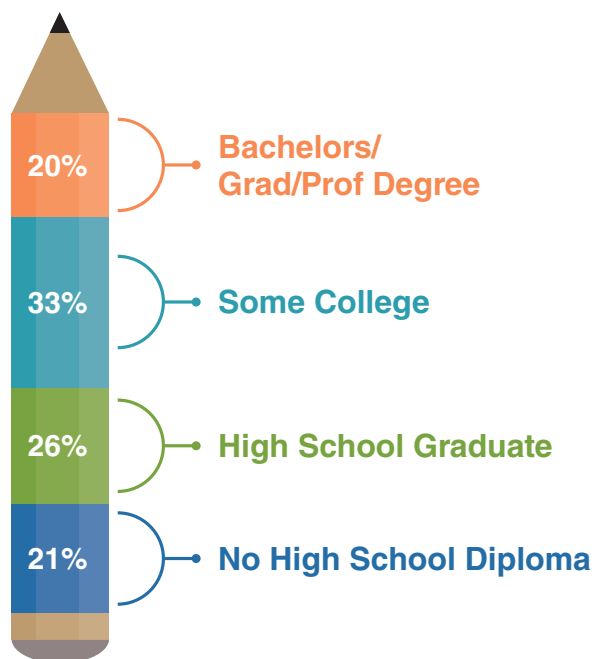
Median Age



\$59,893

Median Household Income

Education



Esri, 2018

Business



55,068

Total Business



666,275

Total Employees

Income



\$24,813

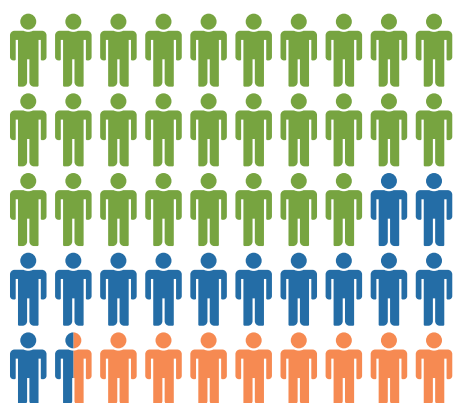
Per Capita Income



\$86,385

Median Net Worth

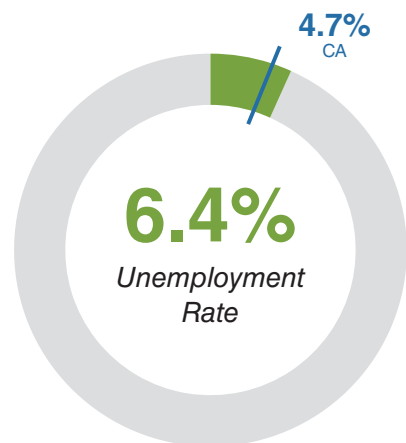
Employment



56%
White Collar

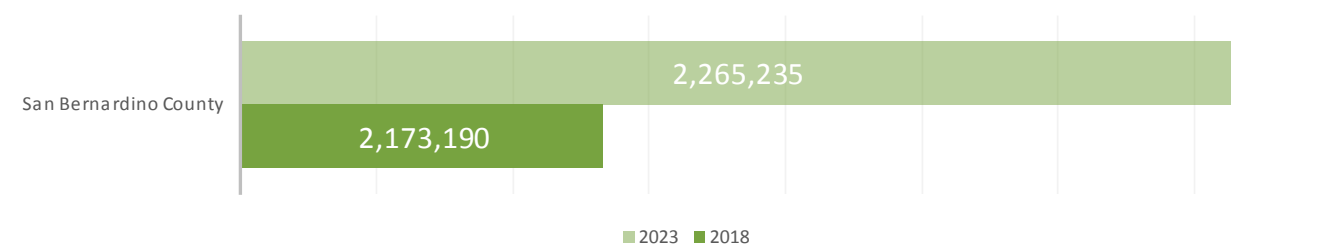
27%
Blue Collar

17%
Services



Community Quick Facts — 2018 San Bernardino County (Continued)

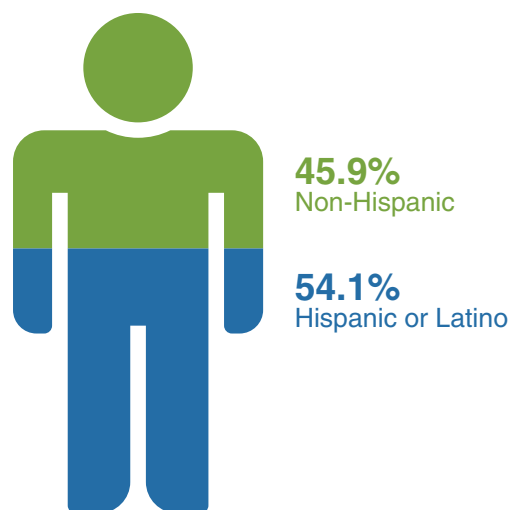
2023 County Population Projection



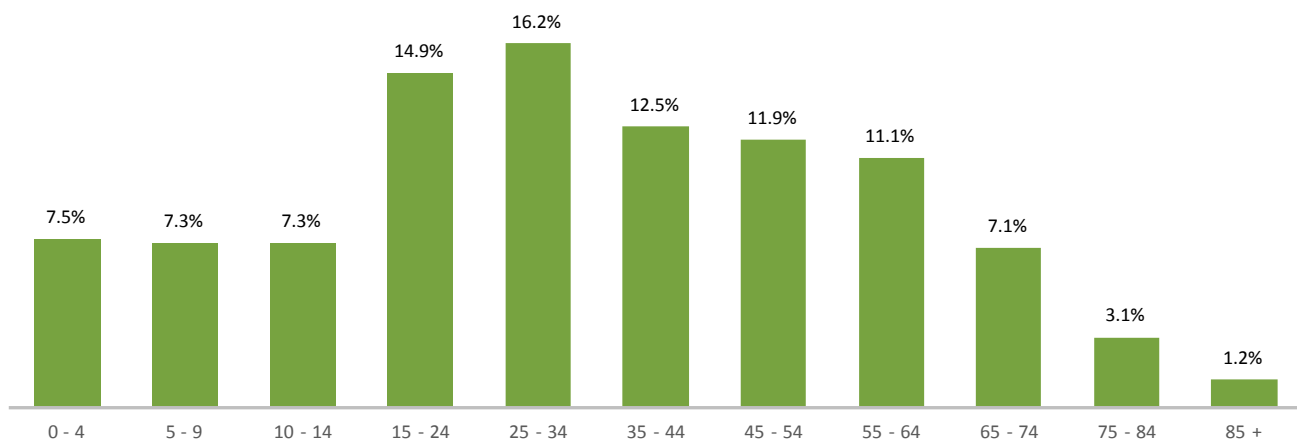
Households by Income

Indicator	Value
<\$15,000	10.1%
\$15,000 – \$24,999	9.2%
\$25,000 – \$34,999	8.8%
\$35,000 – \$49,999	13.0%
\$50,000 – \$74,999	18.2%
\$75,000 – \$99,999	13.1%
\$100,000 – \$149,999	15.4%
\$150,000 – \$199,999	6.6%
\$200,000+	5.7%

Ethnicity — Hispanic or Latino



Population by Age — San Bernardino County



CHNA OVERVIEW

Developing metrics for population health interventions are imperative for continued success in elevating the health status of our communities. Including metrics from multiple sectors ensures a holistic assessment that views the health of a community through multiple sectors, helping to identify everyone's role in making improvements. The community health needs assessment (CHNA) ensures we can target our community investments into interventions that best address the needs of our community. The domains used in this regional CHNA encompass national and state community health indicators. While we recognize that health status is a product of multiple factors each domain influences the next and through systematic and collective action improved health can be achieved. The domains explored in the CHNA are:

- **Social and Economic Environment:**

Indicators that provide information on social structures and economic systems. Examples include: poverty, educational attainment, and workforce development.

- **Health Systems:** Indicators that provide information on health system structure, function, and access. Examples include: health professional shortage areas, health coverage, and vital statistics.

- **Public Health and Prevention:** Indicators that provide information on health behaviors and outcomes, injury, and chronic disease. Examples include: cigarette smoking, diabetes rates, substance abuse, physical activity, and motor vehicle crashes.

- **Physical Environment:** Indicators that provide information on natural resources, climate change, and the built environment.



Secondary Data Sources

Secondary data sources include publicly available state and nationally recognized data sources. A significant portion of the data for this assessment was collected through a custom report generated through Community Common's Engagement Network CHNA (<https://engagementnetwork.org/assessment/>). Other sources include California Department of Public Health, County Health Rankings & Roadmaps, and California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. When feasible, health metrics have been further compared to estimates for the state or national benchmarks, such as Healthy People 2020 objectives. Please see Appendix C for a complete listing of data sources. Please see Appendix D for the Health Indicator Data Tables.

Primary Data Sources

The hospitals participating in this two-county assessment worked to identify relevant key informants and topical focus groups to gather more insightful data and aid in describing the community. Key informants and focus groups were purposefully chosen to represent medically under-served, low-income, or minority populations in our community, to better direct our investments and form partnerships. Results of the qualitative analysis, as well as a description of participants can be found later in this document.

Data Limitations and Gaps

It should be noted that the survey results are not based on a stratified random sample of residents throughout Riverside and San Bernardino counties. The perspectives captured in this data simply represent the community members who agreed to participate and have an interest in health care. In addition, this assessment relies on several national and state entities with publicly available data. All limitations inherent in these sources remain present for this assessment.

SOCIAL & ECONOMIC FACTORS

Health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well and staying active, establishing a medical home, not smoking, getting the recommended immunizations and screening tests, and seeing a medical provider when sick all influence health. Our health is also determined in part by access to social and economic opportunities; the resources and support available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. The conditions in which we live explain in part why some Americans are healthier than others and why Americans generally are not as healthy as they could be.

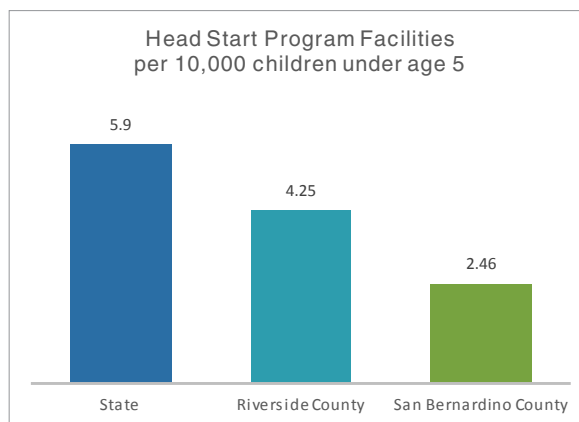
Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as “place.” In addition to the more material attributes of “place,” the patterns of social engagement and sense of security and well-being are also affected by where people live. Resources that enhance quality of life can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and environments free of life-threatening toxins. This section will detail indicators related to social and economic factors in our community that play a role in maintaining good health.

Education

Education is an important factor in health status. Independent of its relation to behavior, education influences a person’s ability to access and understand health information. Education or lack thereof is also correlated with a host of preventable poor health outcomes including increased rates of childhood illness, respiratory illness, renal and liver disease, and diabetes, to name a few. Higher educational levels are associated with lower morbidity and mortality.

Early education is particularly important, because the early years provide a window of opportunity to shape a child’s brain during the most rapid period of development. Study after study proves that smart investments made in the early years can lead to profoundly better outcomes for our children, families, and economy. Attendance at a Head Start program can be an important part of this development. Head Start programs promote school readiness of children ages birth to five from low-income families by supporting their development in a comprehensive way through early learning, health and wellness screening, and programs that support family well-being.

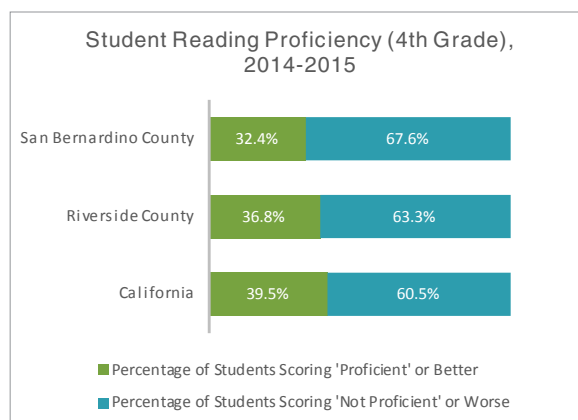
In 2018, Riverside County had a higher number of Head Start facilities per 10,000 children, 4.25, compared to San Bernardino County at 2.46, both are below the state estimate of 5.9.



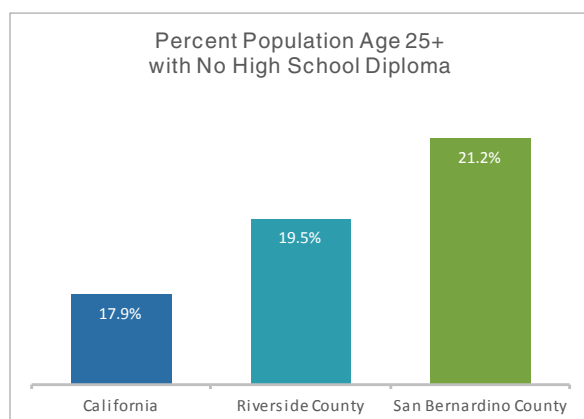
Data Source: Community Commons (2018). US Department of Health & Human Services, Administration for Children and Families. 2018. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

Student Reading Proficiency

A report published by the Anne E. Casey Foundation, found that children who do not read proficiently by the end of third grade are four times more likely to leave school without a diploma than a proficient reader. At the end of the 2015 school year, testing for fourth graders found that across the two-county region, far more students scored Not Proficient or Worse on standardized reading tests, than Proficient or Better. This discrepancy was most apparent in San Bernardino County where nearly a 68% of students scored Not Proficient or Worse. Comparatively, the state estimate showed 39.5% of fourth graders demonstrated Proficient or Better, while 60.5% demonstrated Not Proficient or Worse.



Data Source: Community Commons (2018). US Department of Education, EDData. Accessed via DATA.GOV. 2014-15. Retrieved December 2018 from <https://engagementnet-work.org/assessment/>

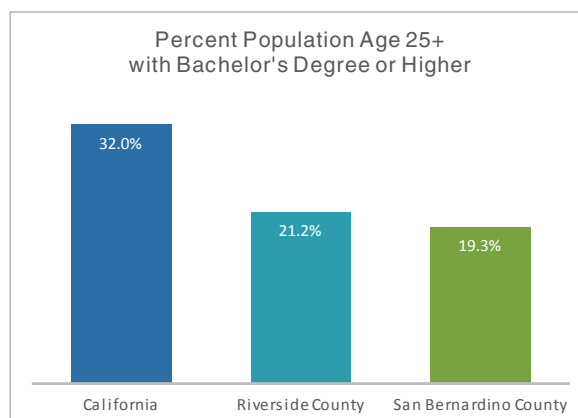


Data Source: Community Commons (2018). US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnet-work.org/assessment/>

Graduation from high school is also associated with better health outcomes and lifetime earning potential as well as attainment of post-secondary education, such as earning an associate's or bachelor's degree. Estimates for the two-county region surpassed the state estimate, with San Bernardino County having the greatest percent of population with no high school diploma.

Bachelor's Degree or Higher

When examining attainment of a bachelor's degree or higher, one finds that the proportion across the two-county region is below the state estimate with San Bernardino County having the least amount of persons earning a bachelor's or higher.

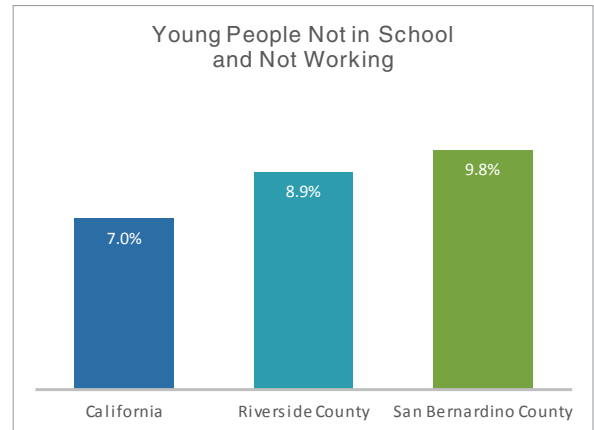


Data Source: Community Commons (2018). US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

Employment

Addressing unemployment levels is important to community development, because unemployment can lead to financial instability and serves as a barrier to healthcare access and utilization. Many people secure health insurance through an employer; however, even with Medicaid expansion, without gainful employment some may not be able to afford co-pays for office visits or medications.

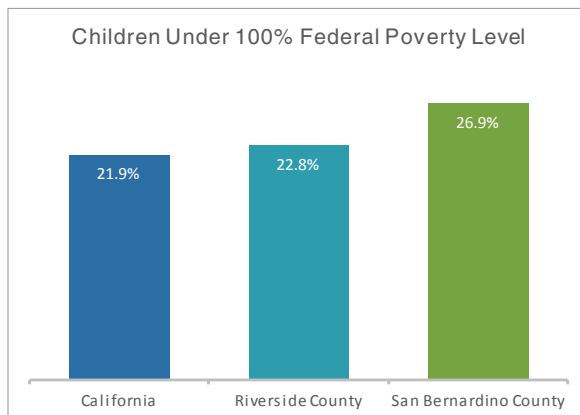
When looking at unemployment figures, Riverside County has the largest percent of unemployed adults in the region (7%) compared to San Bernardino County at 6.4% and State of CA 4.7%. San Bernardino County has the highest percent of Young People Not in School and Not Working, youth age 16-19 years old (9.8%) compared to 8.9% in Riverside County and 7.0% for the state.



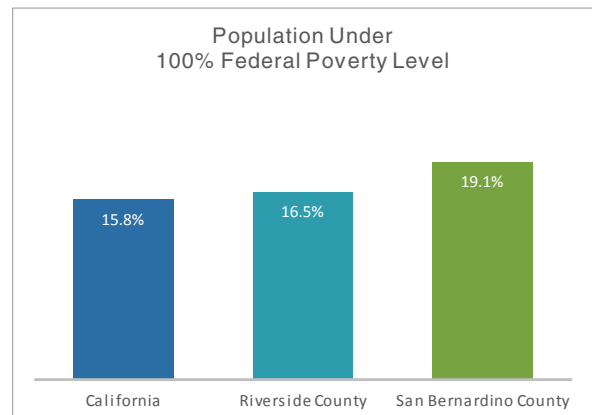
Data Sources: CARES Engagement Network (2019). US Census Bureau, American Community Survey. 2013-17. Retrieved January 2019 from <https://engagementnetwork.org/assessment/>

Measures of Poverty

Poverty is a particularly strong risk factor for disease and death, especially among children. According to the National Center for Children in Poverty, the single biggest threat to children's well-being is poverty. Poverty limits a child's ability to learn and contributes to poor health and mental health issues including social, emotional, and behavioral problems. When looking at rates of poverty, one finds that San Bernardino County has the highest percentage of total population and children under age 18 living under the 100% of the federal poverty level. This exceeds the state estimates.



Data Source: Community Commons (2018). US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>



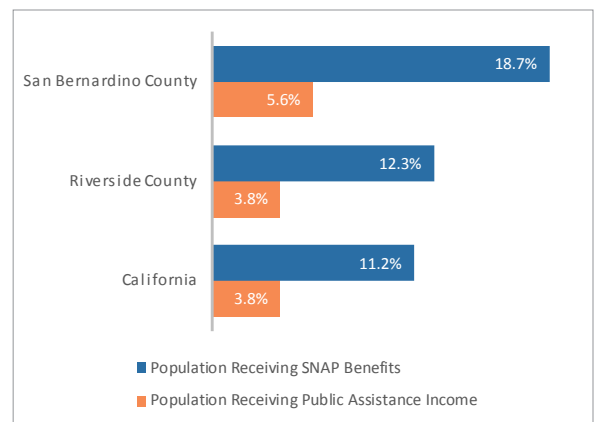
Data Source: Community Commons (2018). US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

The chart to the right displays two other measures of poverty; the percentage of population receiving supplemental nutritional assistance program (SNAP) benefits, and percentage of population receiving public assistance income.

Public assistance income includes general assistance and Temporary Assistance to Needy Families (TANF). Separate payments received for hospital or other medical care (vendor payments) are excluded. This does not include Supplemental Security Income (SSI) or non-cash benefits such as Food Stamps (SNAP).

These indicators are relevant because they assess vulnerable populations which are more likely to have multiple health access, health status, and social support needs. When combined with poverty data, providers can use these measures to identify gaps in eligibility and enrollment.

Across the two-county region, San Bernardino County has the largest populations that receive both SNAP benefits and public assistance income.



Data Sources: Community Commons (2018). US Census Bureau, American Community Survey, 2012-16. US Census Bureau, Small Area Income & Poverty Estimates, 2015. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

Housing and Homelessness

Lack of housing stability often results in homelessness and may occur due to poverty, low education levels, which limit job and income opportunities, lack of access to health care and services, and other health conditions such as mental health, substance abuse or disability. An adequate supply of affordable housing promotes homeownership, which increases stability for families and communities, and can provide long-term financial benefits that renting cannot. Homelessness results in high levels of stress, which put individuals and families at greater risk of violence and injury, food insecurity, unhealthy food options, infectious disease and frequent moves, which have been linked with negative childhood events such as abuse, neglect, household dysfunction and increased likelihood of smoking and suicide in children.

Homeownership is valued as a means to develop personal wealth, increase social opportunities, prevent financial insecurity, and maximize emotional and physical well-being. Homeowners have an increased emotional well-being, greater attachment to their communities and higher levels of civic participation.

Housing

Quality of housing has a major impact on overall health. High housing costs may force trade-offs between affordable housing and other needs. In San Bernardino County 43.2% of households' housing exceed 30% of total household income. Comparatively, Riverside County is slightly lower at 43% but both counties are higher than the state estimate of 42.8%.

Substandard housing conditions include the number and percentage of owner- and renter-occupied housing units having at least one of the following conditions: 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) with 1.01 or more occupants per room, 4) selected monthly owner costs as a percentage of household income greater than 30%, and 5) gross rent as a percentage of household income greater than 30%.

Selected conditions provide information in assessing the quality of the housing inventory and its occupants. This data is used to easily identify homes where the quality of living and housing can be considered substandard.

It is important to note that homeownership rate in Riverside (64%) and San Bernardino (58%) counties exceeds the state estimate of 54%. The counties remain the most affordable in Southern California. An adequate supply of affordable housing promotes homeownership, which increases stability for families and communities, and can provide long-term financial benefits that renting cannot.

	California	Riverside County	San Bernardino County
Housing Cost Burden 30% of Income	42.8%	43.0%	43.2%
Substandard Housing	45.6%	45.5%	46.3%
Homeownership rate	54%	64%	58%

Data Sources: Community Commons (2018). National Broadband Map. 2016. US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2016. US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>; Community Vital Signs report, 2017.

As of 2019, Fair Market Rate for a Riverside County and San Bernardino County one-bedroom apartment is \$986, a two-bedroom is \$1,232 and a three-bedroom apartment is \$1,717. Although rents are lower than Los Angeles County or San Diego, the median household income does not make the rent affordable. Lack of affordable housing can lead to stress and overcrowding, thus impacting physical and mental health and the threat of homelessness.

2019 Fair Market Rents (FMRs) by Unit Bedrooms			
Location	One-Bedroom	Two-Bedroom	Three-Bedroom
Riverside-San Bernardino	\$986	\$1,232	\$1,717
Los Angeles County	\$1,384	\$1,791	\$2,401
San Diego Metro	\$1,490	\$1,938	\$2,776

Data Source: Analysis of Housing and Urban Development 2019 Fair Markets Rents. Retrieved January 2019 from https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2019_code/2019summary.odn

Homelessness

Homelessness and health concerns often go hand-in-hand. An acute behavioral health issue, such as an episode of psychosis, may lead to homelessness, and homelessness itself can exacerbate chronic medical conditions or lead to debilitating substance abuse problems. According to the National Health Care for the Homeless Council, individuals who experience homelessness suffer conditions such as high blood pressure, diabetes, asthma. In addition, behavioral issues such as depression or alcoholism worsen, especially if there is no solution in sight.

A way to measure homelessness in Riverside and San Bernardino counties is by conducting a Point in Time (PIT) homeless count. This PIT count is conducted in the month of January every year and focuses on counting homeless persons who are unsheltered with a primary nighttime residence in a public place not designated for

human habitation; and sheltered in an emergency shelter, transitional housing, and Safe Havens on a single night. In 2018, San Bernardino County had a count of 2,118 compared to Riverside County's count of 2,310. Between 2017 and 2018 in San Bernardino County, there was a homeless population increase of 13.5% among the newly homeless, unaccompanied women, families and veterans. Riverside County on the contrary had a 4% decrease during the same time period. This information is useful as it helps develop strategies to decrease homelessness and its associated health conditions.

2018 Point-in-Time Homeless Total Count			
	2018	2017	2016
Riverside County	2,310	2,406	2165
San Bernardino County	2,118	1,866	1,887

Data Source: Riverside County Department of Public Social Services, 2018 and Homelessness in San Bernardino County: Point in Time Count 2018

Violence and Injury Prevention

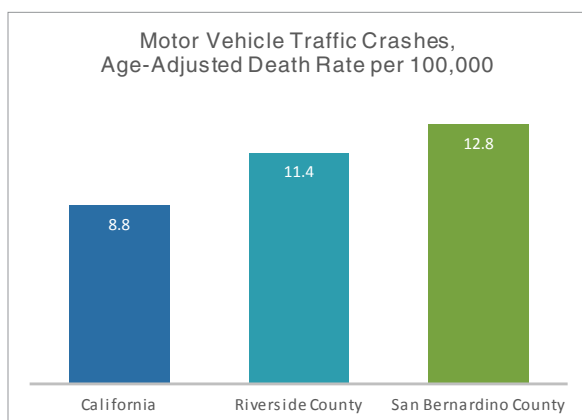
According to the Centers for Disease Control and Prevention (CDC), in the United States, injury is the leading cause of death for children and adults between the ages of 1 and 45. Injury not only includes those caused by violence, but also unintentional injuries, such as those caused by motor vehicle crashes.

When looking at violent crimes, over the three-year period, Riverside and San Bernardino counties combined had an increase rate of 19.3 from 2012-2016 and a decrease rate of 14 from 2016-2017. High rates of violent crimes in a community not only compromises individuals' real and perceived safety but can be detrimental to overall mental health. High rates of violent crimes can also deter residents from pursuing healthy behaviors, such as walking for leisure or to and from work or school. When examining rates of substantiated child abuse cases, Riverside County had the highest average number of cases from 2012 to 2015, at 11.1 per 1,000, while San Bernardino County had the lowest average across that same time period at 8 per 1,000. During the same time period, California had a high of 9.3 per 1,000 in 2012 while a low of 8.4 in 2015.

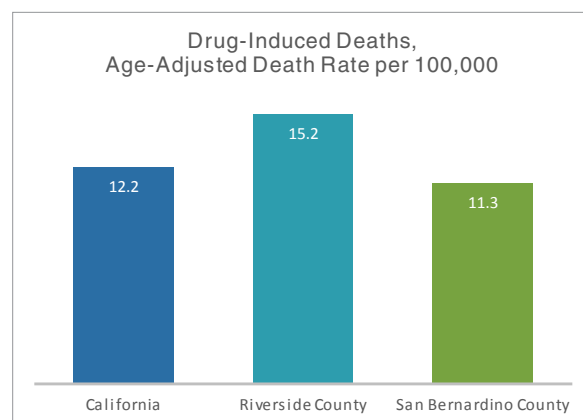
For unintentional injuries, Riverside County had the highest rate of drug-induced deaths (age-adjusted) per 100,000, in comparison to San Bernardino County. San Bernardino County had a higher rate of motor vehicle crashes (age-adjusted) per 100,000, in comparison to Riverside County and in both instances, the rates were higher than the state average.

Rate of Substantiated Child Abuse (per 1,000)				
	2012	2013	2014	2015
California	9.3	9.2	9	8.4
Riverside County	10.2	10.6	11.1	9.6
San Bernardino County	8	8.6	9	9.4

Data Source: Annie E. Casey Foundation (2018). Kids Count Data Center. Retrieved January 2019 from <https://datacenter.kidscount.org/>



Data Source: California Department of Public Health, County Health Status Profiles 2018, Individual County Data Sheets. 2011-2016 Death Files. Retrieved December 2018 from <https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx>



Data Source: California Department of Public Health, County Health Status Profiles 2018, Individual County Data Sheets. 2011-2016 Death Files. Retrieved December 2018 from <https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx>

Violent Crime Rate (per 100,000)			
	2015	2016	2017
Riverside – San Bernardino County	378.0	397.3	383.3

Data Source: Federal Bureau of Investigation. Retrieved January 2019 from <https://ucr.fbi.gov>

How is the Region Doing?

- Riverside County has a higher number of Head Start Program Facilities (4.25) than San Bernardino County (2.46), 36.8% of students who scored Proficient or Better on the Student Reading Proficiency (4th grade) than San Bernardino County at 32.4%, and 21.2% of population age 25+ with Bachelor's Degree or higher in Riverside County as compared to San Bernardino County at 19.3%. Both counties are below the state estimate of 5.9 per 10,000 for Head Start Program facilities.
- Both Riverside (19.5%) and San Bernardino counties (21.2%) exceed the state average of 17.9% for percent of population with no high school diploma.
- San Bernardino County has the lowest percent of unemployed adults in the region (6.4%), compared to Riverside County (7%). However, this rate is still slightly higher than the state average (4.7%).
- Both Riverside (64%) and San Bernardino (58%) counties have the highest rate of home ownership and remain the most affordable in California (54%).
- In the two-county region, San Bernardino County had the lowest homeless Point-in Time Count in 2018.
- For unintentional injuries, Riverside County had the highest rate of drug-induced deaths (age-adjusted) per 100,000, in comparison to San Bernardino County. San Bernardino County had a higher rate of motor vehicle crashes (age-adjusted) per 100,000, in comparison to Riverside County and in both instances, the rates were higher than the state average.

What Can Be Done?

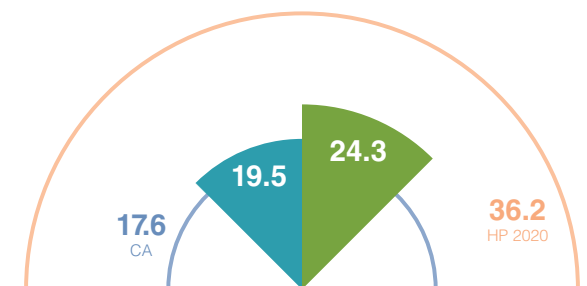
Hospitals and health systems are stepping outside of the traditional roles of hospitals and beginning to collaboratively address the social, economic, and environmental conditions that contribute to poor health in the communities they serve. Strategic multi-sectoral interventions can help address the issues that have the greatest impact on people's health to move the dial on education, and unemployment thus having an impact on homelessness and unintentional injuries for the betterment of the community.

HEALTH SYSTEM

A strong health system is one in which patients receive efficient coordinated care for a variety of illnesses and appropriate follow-up care to prevent unnecessary hospitalizations. In order to strengthen linkages to care, we must first understand the current state of our health system. This begins by understanding the outcomes associated with receiving or not receiving good maternal health care, as well as how one accesses the health care system.

Prenatal Care and Outcomes After Birth

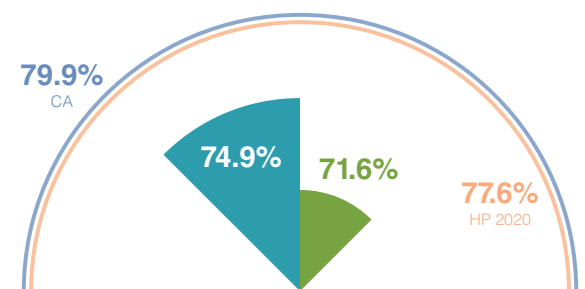
■ *Riverside County* ■ *San Bernardino County*



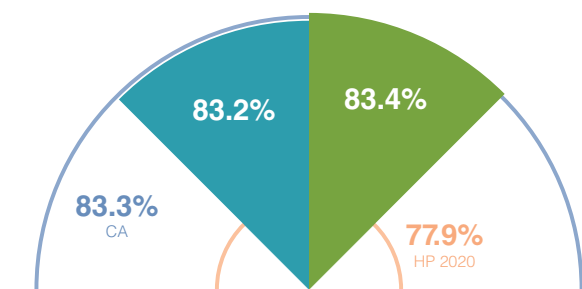
Teen Births

(per 1,000 female population aged 15 to 19 years old)

Live births are an indication of population growth and demand on a community's existing resources, infrastructure, schools, and the health care system/services. It is important to understand the infrastructure as it is the foundation. An adequate health care system is capable of providing preventive, diagnostic, and treatment care according to the requirements of the people being served. San Bernardino County has the highest teen birth rates (24.3) in comparison to Riverside (19.5) and to the state (17.6) estimate.



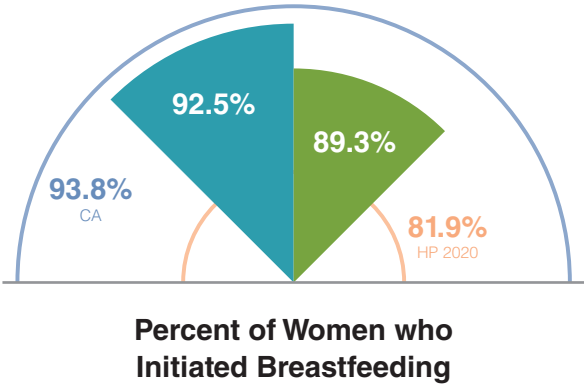
Percent of Women who Received Adequate or Adequate-Plus Prenatal Care



Percent of Women who Received Prenatal Care in the First Trimester

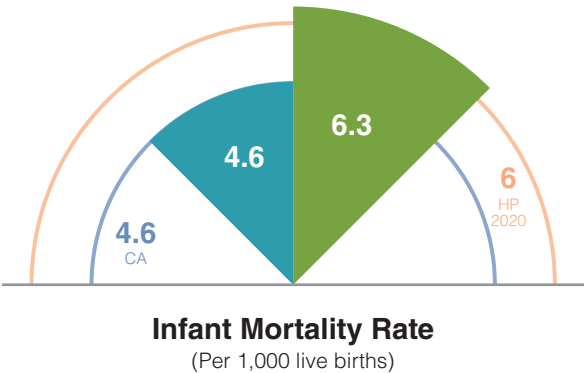
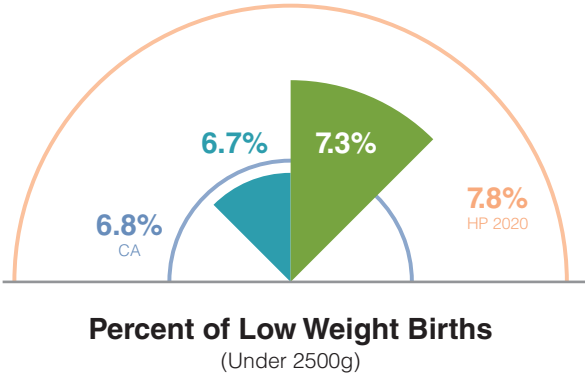
"Early prenatal care," is care started in the 1st trimester (1-3 months). Adequacy of prenatal care calculations are based on the Adequacy of Prenatal Care Utilization Index (APNCU), which measures the utilization of prenatal care based on the timing of initiation of such care using the month prenatal care began as reported on the birth certificate and the ratio of the actual number of visits reported on the birth certificate to the expected number of visits. Adequate-Plus care is defined as prenatal care begun by the 4th month of pregnancy and 110% or more of recommended visits received. Adequate care is defined as prenatal care begun by the 4th month of pregnancy and 80-109% of recommended visits received. These indicators are relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. These indicators can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social

barriers preventing utilization of health care services. For indicators of prenatal care denoted in the graphs (early first trimester prenatal care and adequate care), San Bernardino had the highest early care rate at 83.4% slightly exceeding the state average of 83.3%, while Riverside County demonstrated higher proportion of women receiving adequate care at 74.9%. Of note, neither county surpasses the Healthy People 2020 performance target of 77.9% for pregnant woman receiving early prenatal care and 77.6% receiving adequate prenatal care.



Breastfeeding has many health benefits for both the mother and infant. Breastfeeding protects against diarrhea and common childhood illnesses such as pneumonia, and may also have longer-term health benefits, such as reducing the risk of overweight and obesity in childhood and adolescence. Riverside County demonstrated the highest proportion of women across the region initiating breastfeeding at 92.5%. Of note, both counties exceeded the Healthy People 2020 performance target for 81.9% of infants to have “ever been breastfed” and all counties came within at least five percentage points of the state estimate, which demonstrates a strong alignment of goals to support and promote breastfeeding.

Low birth weight is indicative of the general health of newborns and often a key determinant of survival, health, and development. Infants born at low birth weights are at a heightened risk of complications, including infections, neurological disorders, Sudden Infant Death Syndrome, and even chronic diseases. The Healthy People 2020 goal is 7.8% or less for infants to be born with weights below 2,500 grams. Of note, both counties demonstrated an estimate below the Healthy People 2020 performance target, with Riverside County having the lowest proportion of low birth weight births.



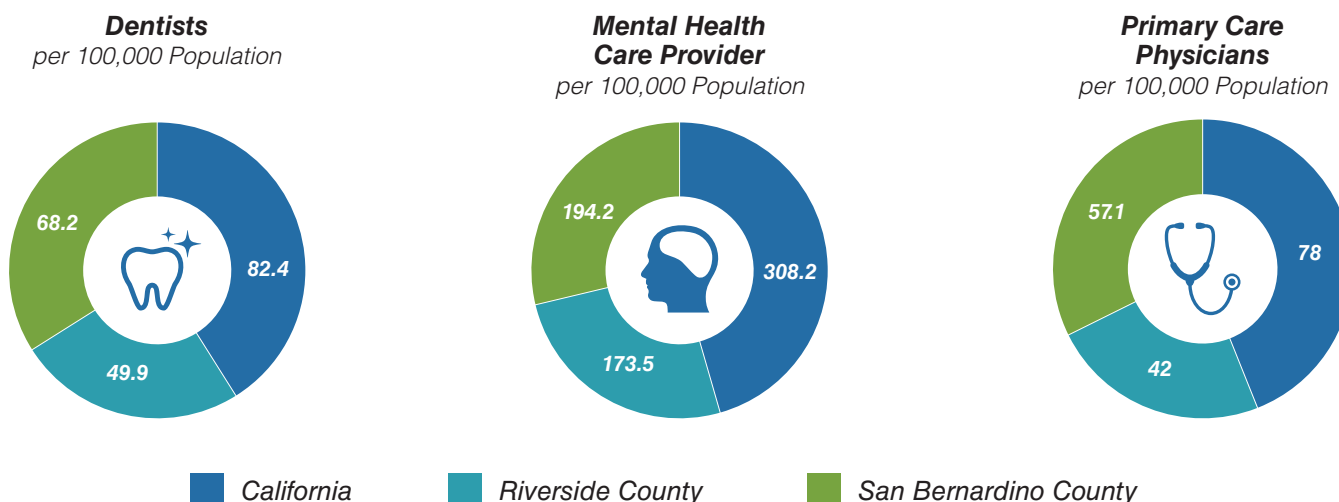
Finally, the infant mortality rate (IMR) is critical as it is indicative of the existence of broader issues pertaining to access to care and maternal child health. Such rates can further provide us metrics of community health outcomes and areas of needed services and interventions. Riverside County (4.6) fell under the Healthy People 2020 target of an IMR of 6.0 per 1,000 live births, conversely San Bernardino exceeded the goal. Healthy birth outcomes and early identification can help predict future public health challenges for families, communities, and the health care system.

Data Source: California Department of Public Health, County Health Status Profiles 2018, Individual County Data Sheets. 2011-2016 Birth Records. 2011-2016 Death Files. 2010-2015 Birth Cohort-Perinatal Outcome Files. Retrieved January 2019 from <https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx>

Access to Health Care

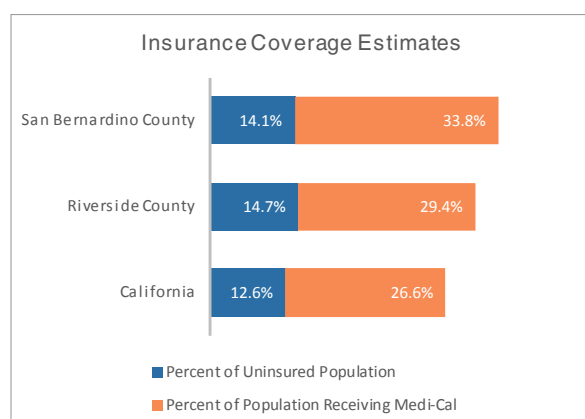
Access to health care is a component of measuring community health. Access can be measured at both the individual level (i.e., health insurance coverage, Medicaid coverage) and at the system level (i.e., primary care provider rate, health professional shortage areas). When an individual has the means to secure treatment and quality comprehensive treatment is readily available, then access to health care is highest. Understanding provider rates per 100,000 population can be useful for determining areas most in need of providers and the potential stress on existing providers.

Across each provider indicator (dentists, mental health, and primary care), San Bernardino County demonstrated higher proportions of providers to population in comparison to Riverside County.



Note: Mental health providers are defined as Psychiatrist, psychologist, licensed social worker, counselors, marriage and family therapist, mental health providers that treat alcohol and other drug abuse as well as advanced practice nurses specializing in mental health care.

Data Source: Robert Wood Johnson Foundation (2018). County Health Rankings and Roadmaps. Retrieved January 2019 from <http://www.countyhealthrankings.org>



Data Source: Community Commons (2018). US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

When looking at the proportion of population covered by Medi-Cal, San Bernardino County has the highest percentage of persons covered through the Medi-Cal/Medicaid program (33.8%).

Health insurance coverage is also an important indicator to consider when determining the health of a community. Lack of insurance is a primary barrier to health care access, regular primary care, specialty care, and other health services and contributes to poor health status. Additionally, understanding the proportion of the population receiving Medi-Cal is important because this allows for an assessment of vulnerable populations which are more likely to have multiple health access, health status, and social support needs. When combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment. When looking at coverage estimates, one finds that Riverside County has the largest proportion of persons who are uninsured at 14.7%. Conversely, San Bernardino County has the lowest estimate at 14.1%.

Community Health Centers

Community Health Centers (CHCs) are community assets that provide health care to vulnerable populations in areas designated as medically underserved. Per the California Primary Care Association, the term Community Health Center (CHC) includes Federally Qualified Health Centers (FQHCs), FQHC Look-Alikes, Migrant Health Centers, Rural and Frontier Health Centers, and Free Clinics. CHCs are an essential segment of the safety-net. In many California counties, these clinics provide a significant proportion of comprehensive primary care services to patients who receive partial subsidies or are uninsured.

In the two-county region Riverside County has the highest rate of FQHCs to population with 1.96 FQHCs for every 100,000 people. Conversely, San Bernardino County has the lowest ratio at 1.18 per 100,000. Both Riverside and San Bernardino counties are lower than the state rate of 2.74.

Looking at the numbers of CHCs, Riverside County has the largest numbers (76) compared to San Bernardino County (40).

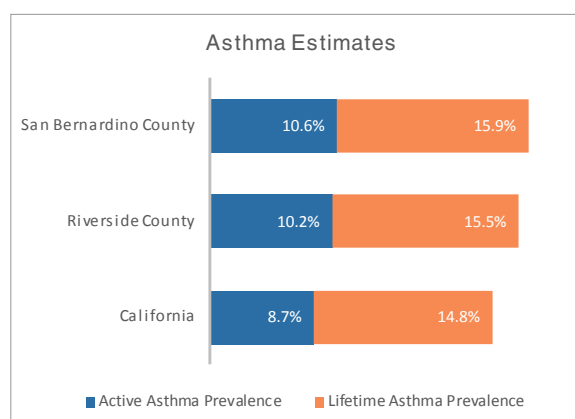
Health Center Site Population Type Description	Riverside County	San Bernardino County
Rural	7	6
Urban	30	21
Unknown	39	13
Total Number of Community Health Centers	76	40

Note: Unknown means that the type of population served is unknown. Data Source: Health Resources and Services Administration (2019). Health Center Service Delivery and Look- Alike Sites Data Download. Retrieved March 2019 from <https://data.hrsa.gov/data/download>.

Asthma

Respiratory health is related to general health and can be indicative of poor air quality. Key respiratory illnesses include chronic obstructive pulmonary disease (COPD) and asthma. This indicator is relevant because asthma is a prevalent problem in the U.S. that is often exacerbated by poor environmental conditions.

Of particular importance is the Inland region estimates related to those living with or who have ever had asthma. San Bernardino County has the highest rates for emergency department visits and hospitalizations related to asthma and the lowest percentage of persons diagnosed with asthma, suggesting under-diagnosis. In addition, San Bernardino County has the highest percentage of people diagnosed with asthma (15.9% lifetime and 10.6% active). Riverside County has the lowest asthma hospitalization rate per 100,000. Riverside County also has the lowest asthma ED visits per 100,000. Undoubtedly, asthma is a public health concern in the Inland region and interventions aimed at reducing asthma morbidity are of imperative need.



Data Source: California Department of Public Health, California Breathing. County Asthma Data Tool, 2015-2016. Retrieved December 2018 from <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/Pages/CaliforniaBreathingCountyAsthmaProfiles.aspx>

	California	Riverside County	San Bernardino County
Asthma ED Visits, Rate per 100,000	45.8	41.5	51.9
Asthma Hospitalizations, Rate per 100,000	4.8	4.2	5.6

Data Source: California Department of Public Health, California Breathing. County Asthma Data Tool, 2015-2016. Retrieved December 2018 from <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/Pages/CaliforniaBreathingCountyAsthmaProfiles.aspx>

2017 Hospitalizations

Hospitalization discharge data for the year 2017 was derived from the OSHPD data set using the SpeedTrack analytics platform and compares overall California total, San Bernardino and Riverside counties and various hospitals in the Inland Empire participating in the CHNA. Hospitalization data containing an n-value of 10 or less were not included and are identified with an * in the table and graphs were not generated. Patient Race/Ethnicity data representing less than one percent of the population were not graphed. Data on the following hospitalization types include:

- Overall Hospitalizations, by race/ethnicity, gender and age group
- Alcohol/Drug Abuse or Dependency, by race/ethnicity, gender and age group
- All Cancers, by race/ethnicity, gender and age group
- Asthma, by race/ethnicity, gender and age group
- Breast Cancer, by race/ethnicity, gender and age group
- Chronic Obstructive Pulmonary Disease (COPD), by race/ethnicity, gender and age group
- Diabetes, by race/ethnicity, gender and age group
- Heart Failure, by race/ethnicity, gender and age group
- Hypertension, by race/ethnicity, gender and age group
- Lung Cancer, by race/ethnicity, gender and age group
- Mental Diseases and Disorders, by race/ethnicity, gender and age group

Overall Hospitalizations

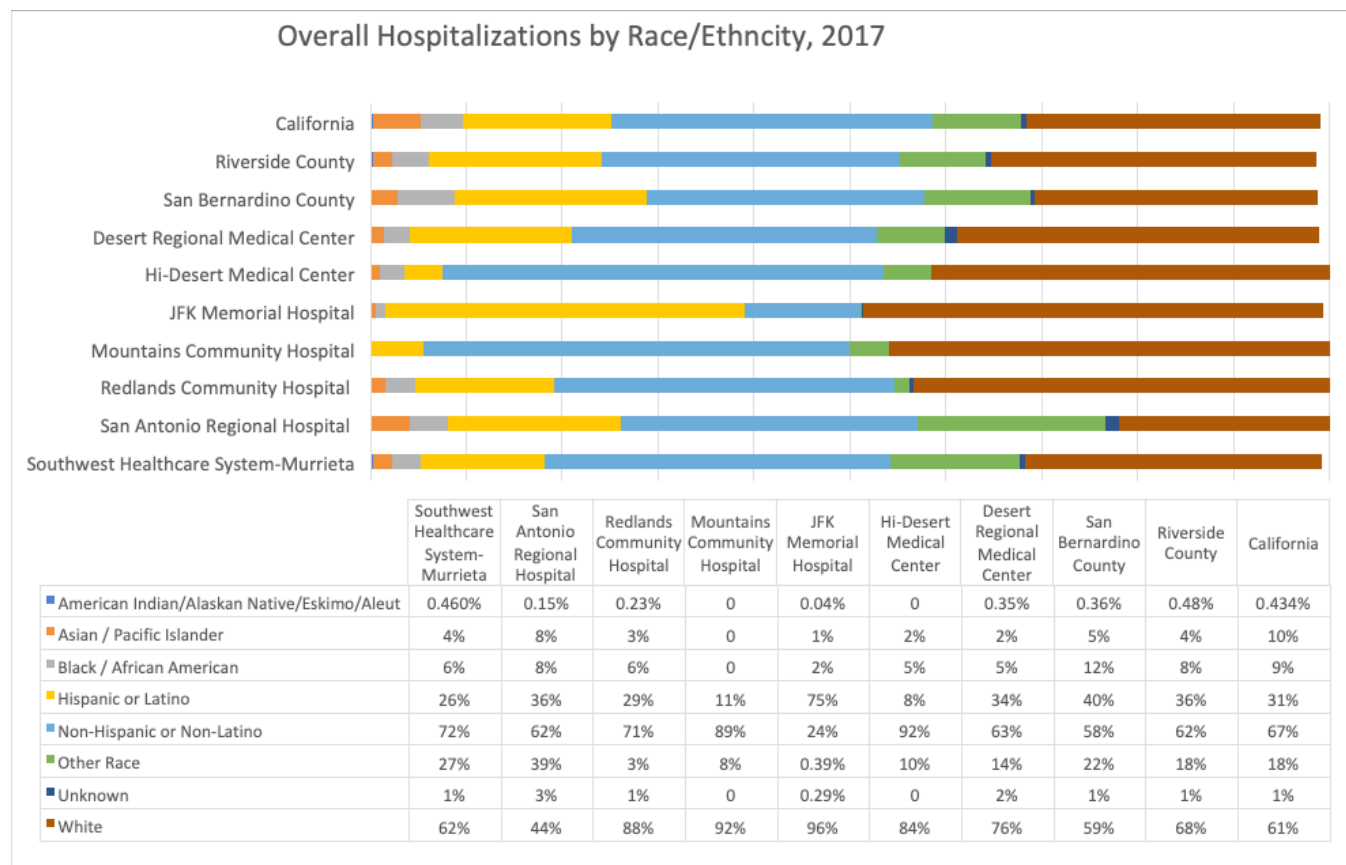
This section includes 2017 data for the overall hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital, Mountains Community Hospital and Southwest Healthcare System.

Table 1 N-Value for Total Overall Hospitalizations per Service Area 2017

2017 Overall Hospitalizations	
California	3,856,191
Riverside County	229,373
San Bernardino County	220,085
Desert Regional Medical Center	22,079
Hi-Desert Medical Center	1,754
JFK Memorial Hospital	8,560
Redlands Community Hospital	13,896
San Antonio Regional Hospital	19,179
Mountains Community Hospital	273
Southwest Healthcare System-Murrieta	19,831

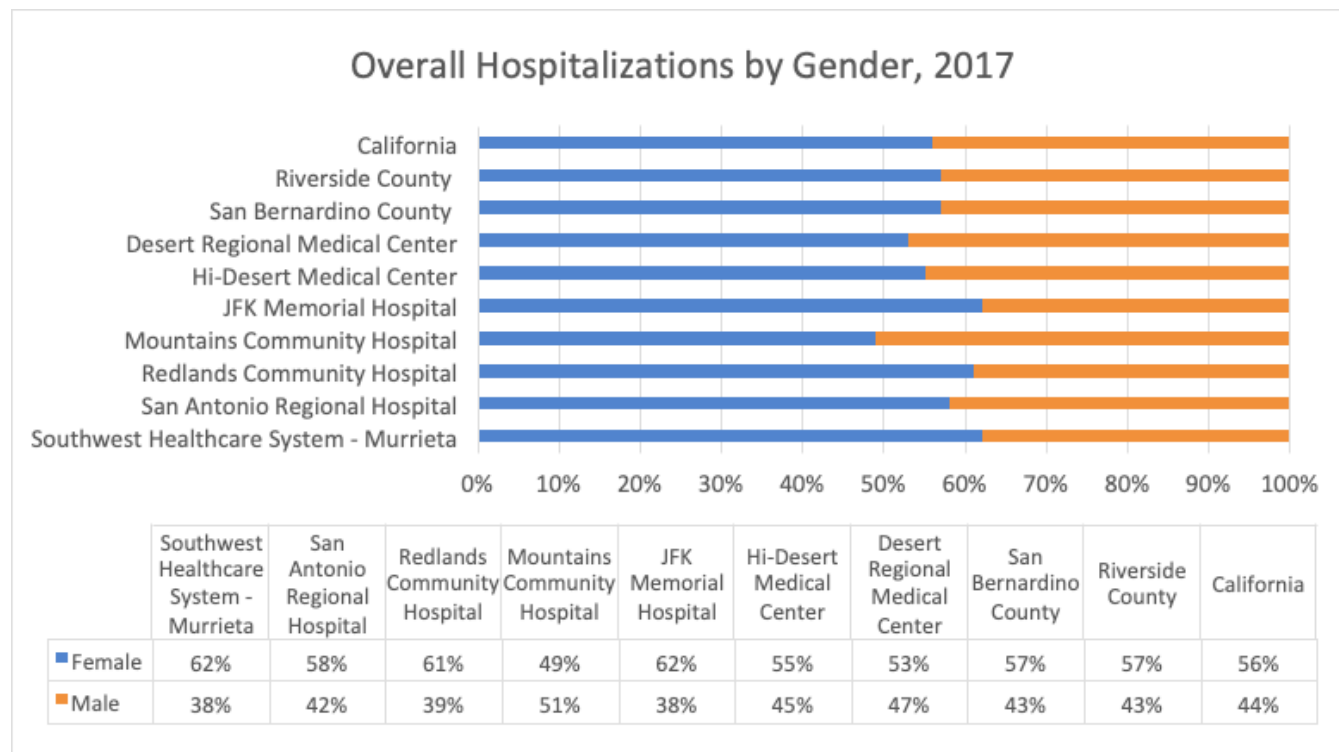
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Hospitalizations by Race/Ethnicity, 2017



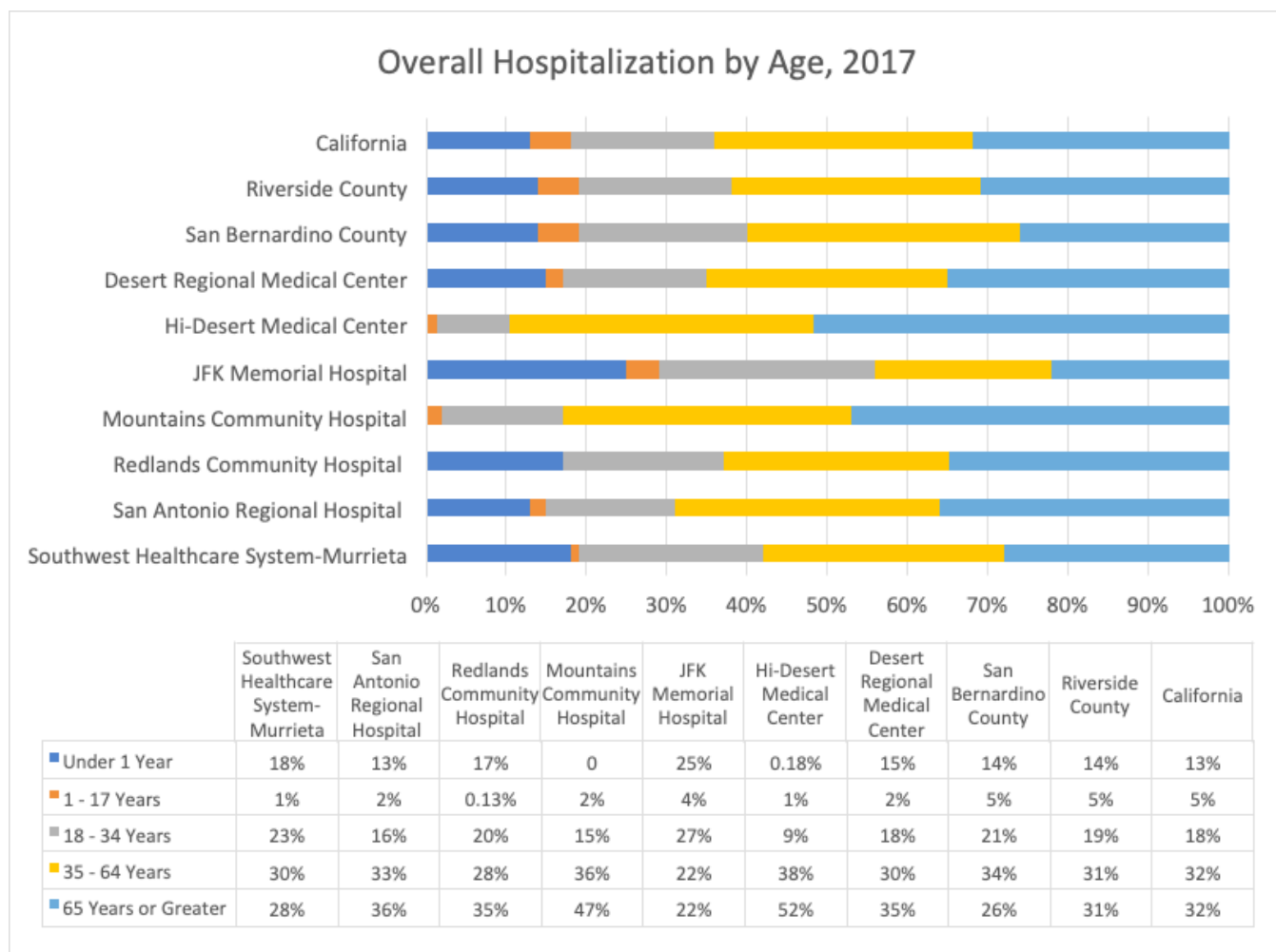
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Overall, females have a higher proportion of hospitalizations than males at JFK Memorial Hospital, Southwest Healthcare System-Murrieta, Redlands Community Hospital and San Antonio Regional Hospital.
- Approximately one-in-three hospitalizations are Hispanics at San Antonio Regional Hospital and Desert Regional Medical Center; whereas 75% of hospitalizations are Hispanic at JFK Memorial Hospital.
- Fifty-two percent of the Hi-Desert Medical Center and 47% of the Mountains Community Hospital hospitalizations are among seniors 65 years and older.

Alcohol/Drug Abuse or Dependency Hospitalizations

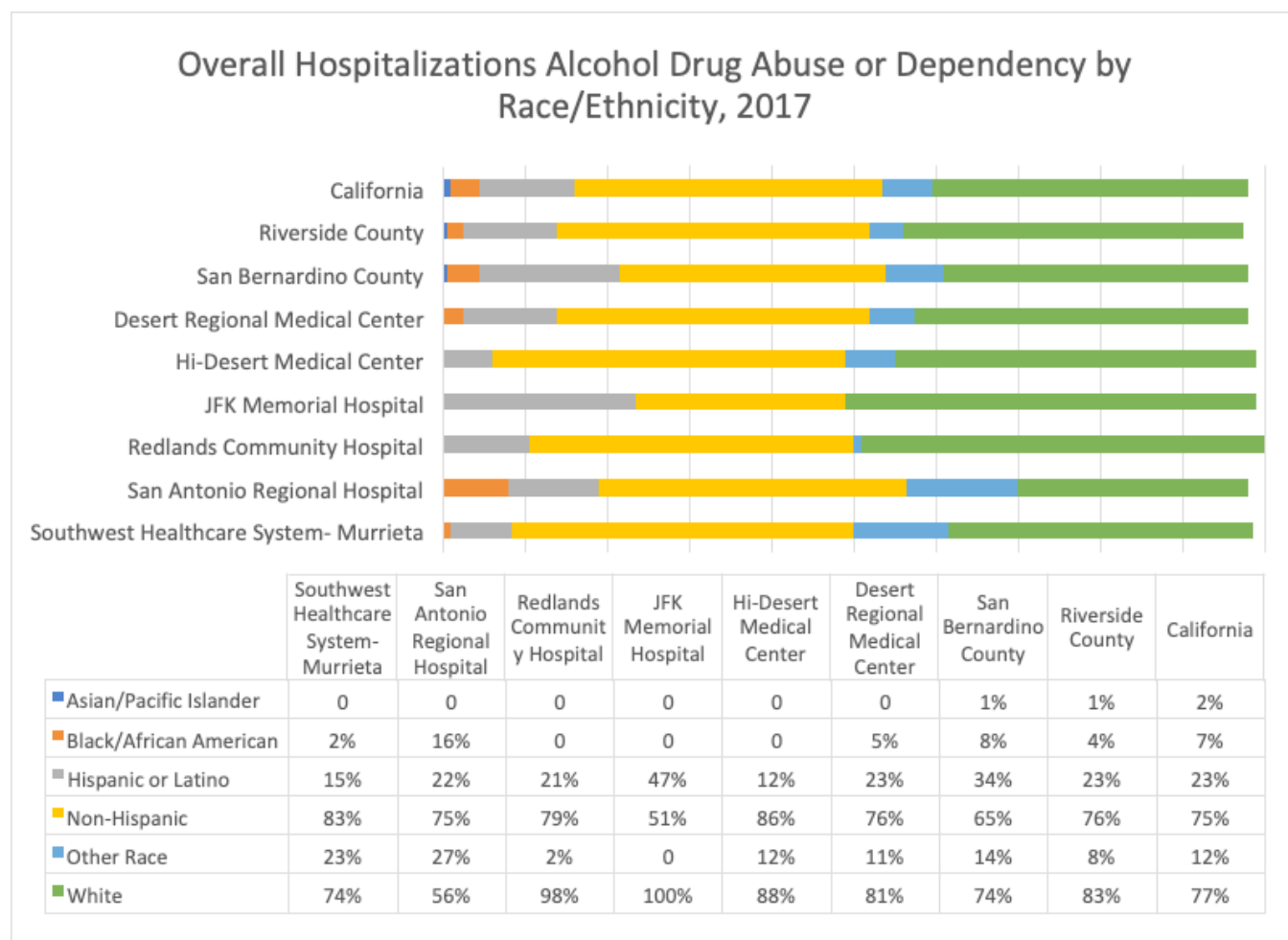
This section includes 2017 data for Alcohol/Drug Abuse or Dependency inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital, and Southwest Healthcare System-Murrieta. Mountains Community Hospital was not included due to insufficient data. Medicare Severity-Diagnosis Related Group (MS-DRG) codes include 894/895/896/897.

Table 1 N-Value for Total Alcohol/Drug Abuse or Dependency Hospitalizations per Service Area 2017

2017 Alcohol/Drug Abuse or Dependency Hospitalizations	
California	46,920
Riverside County	2,491
San Bernardino County	2,059
Desert Regional Medical Center	136
Hi-Desert Medical Center	16
JFK Memorial Hospital	45
Mountains Community Hospital	*
Redlands Community Hospital	58
San Antonio Regional Hospital	106
Southwest Healthcare System-Murrieta	150

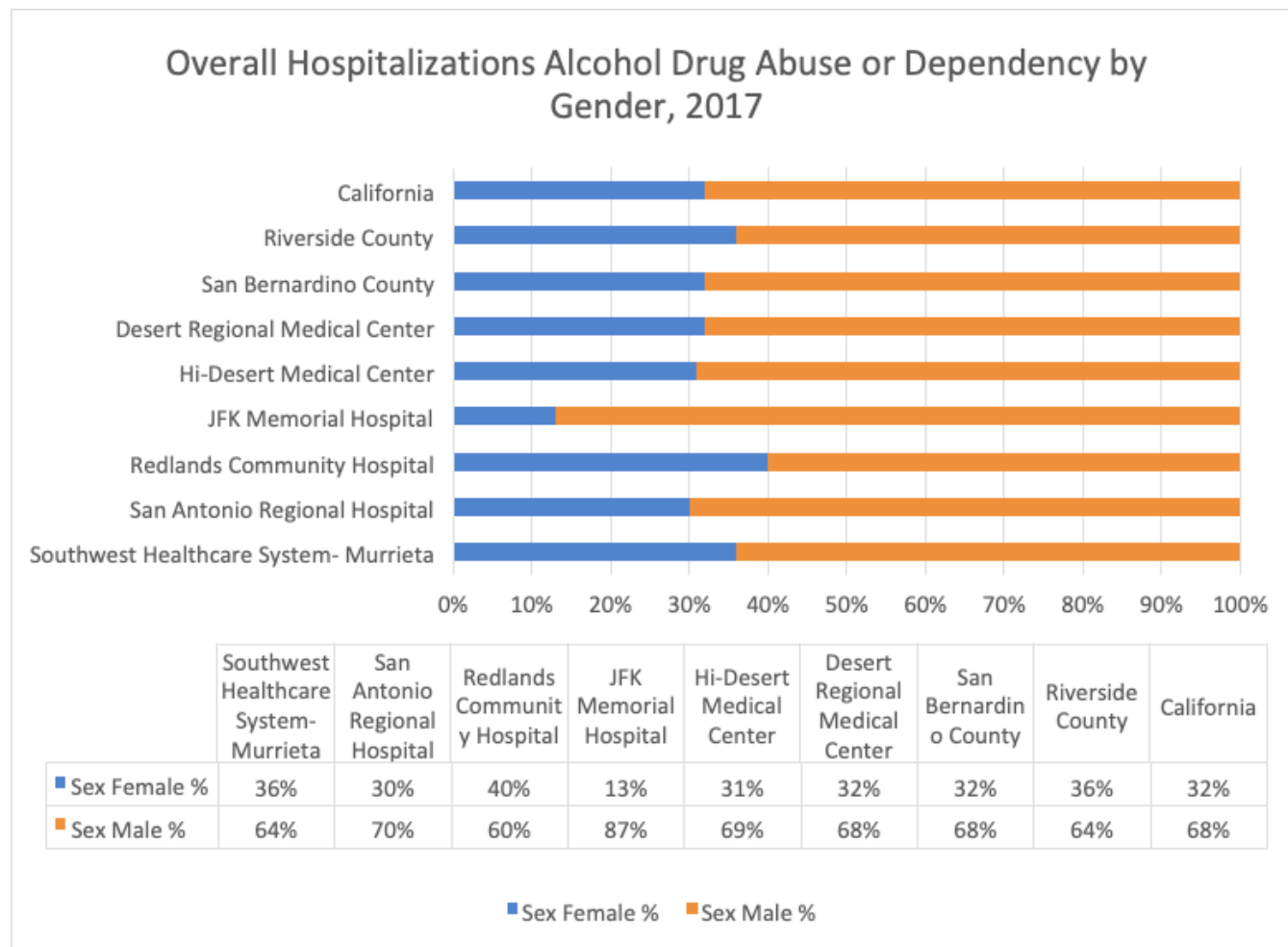
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Hospitalizations Alcohol/Drug Abuse or Dependency by Race/Ethnicity, 2017



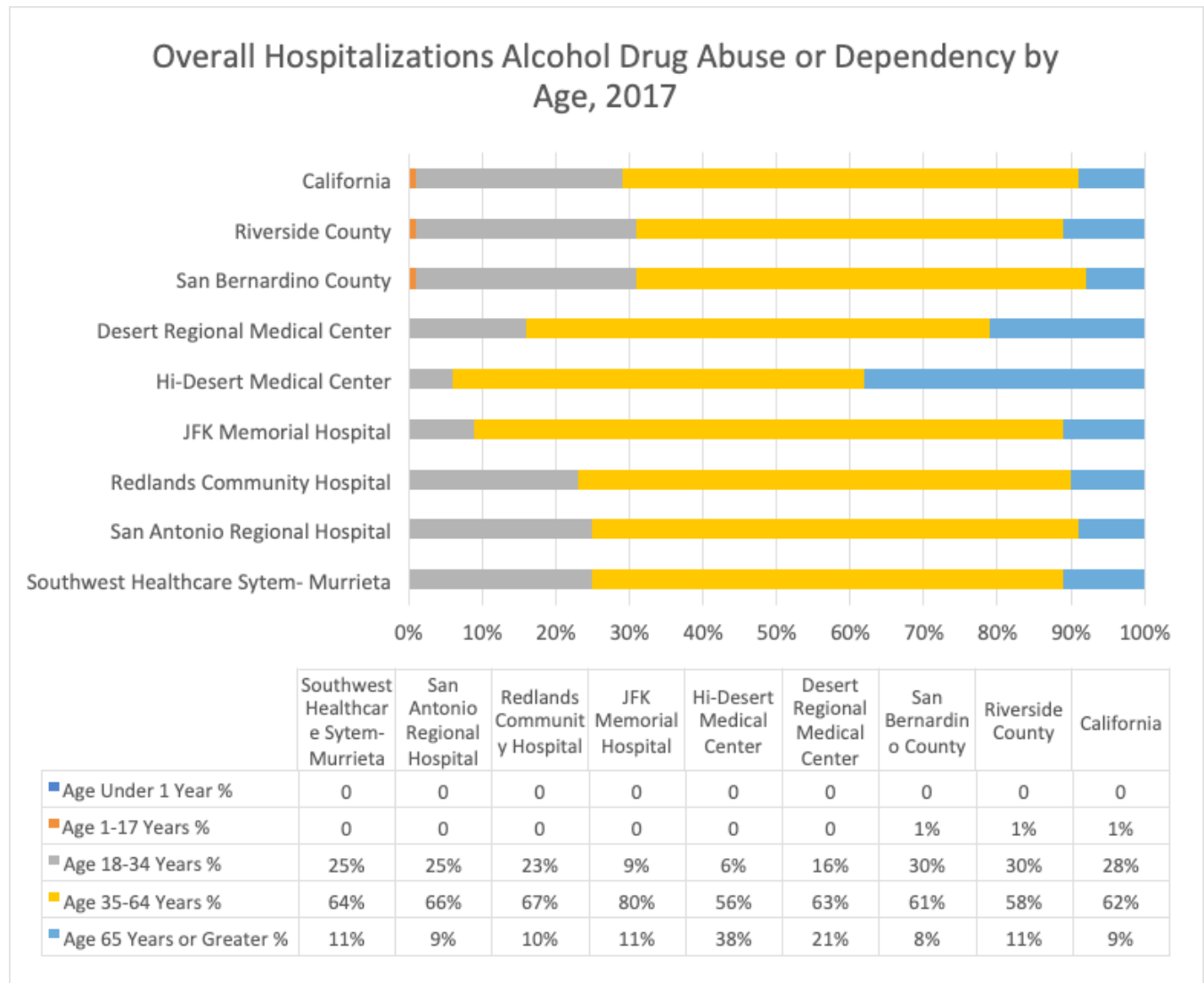
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Hospitalizations Alcohol/Drug Abuse or Dependency by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Hospitalizations Alcohol/Drug Abuse or Dependency by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Approximately 16% of hospitalizations for Alcohol/Drug Abuse or Dependency are Black/African Americans at San Antonio Regional Hospital, and approximately 47% are Hispanic at JFK Memorial Hospital.
- Men have a significantly higher proportion of hospitalizations for Alcohol/Drug Abuse or Dependency than women at all hospitals.
- Approximately 80% of hospitalizations for Alcohol/Drug Abuse or Dependency are among adults age 35-64 years at JFK Memorial Hospital.
- Approximately 38% of hospitalization for Alcohol/Drug Abuse or Dependency are among seniors age 65 years and older at Hi-Desert Medical Center.

All Cancer Hospitalizations

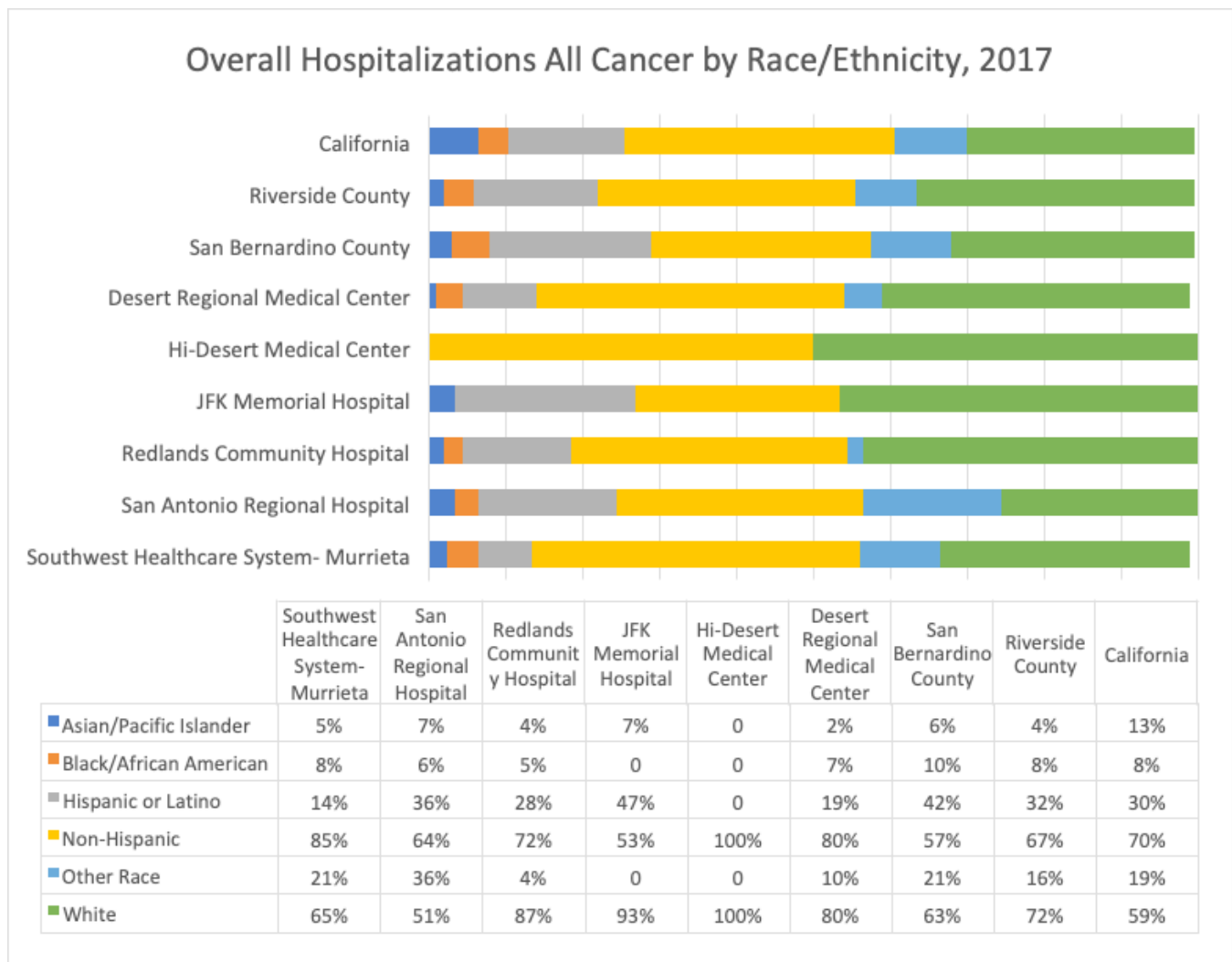
This section includes 2017 data for All Cancer inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital, and Southwest Healthcare System-Murrieta. Mountains Community Hospital was not included due to insufficient data. All Cancers include MS-DRG codes from the oncology inpatient service line.

Table 1 N-Value for Total All Cancer Hospitalizations per Service Area 2017

2017 All Cancer Hospitalizations	
California	63,339
Riverside County	3,253
San Bernardino County	3,389
Desert Regional Medical Center	241
Hi-Desert Medical Center	12
JFK Memorial Hospital	30
Mountains Community Hospital	*
Redlands Community Hospital	109
San Antonio Regional Hospital	359
Southwest Healthcare System-Murrieta	129

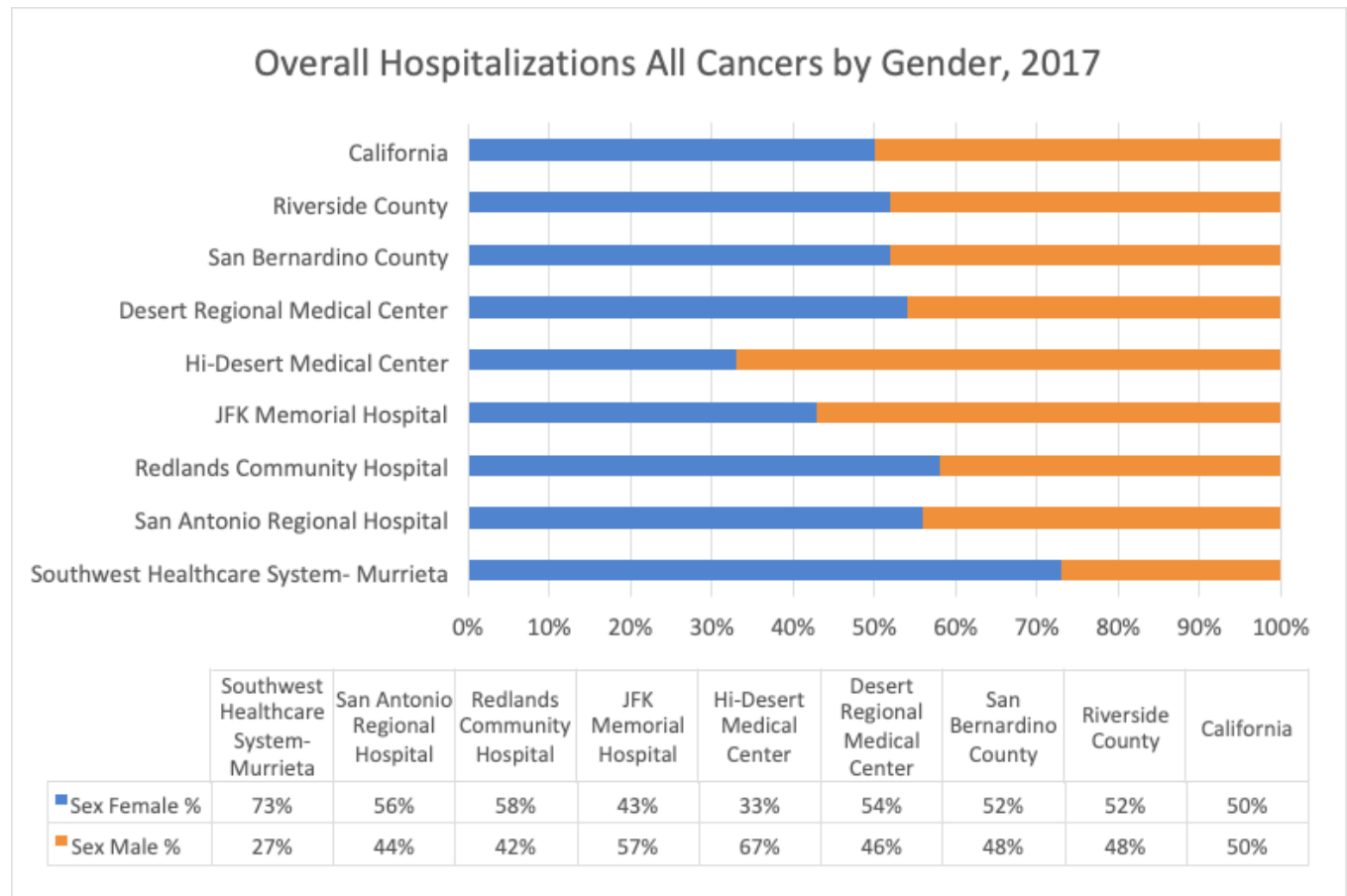
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Hospitalizations All Cancer by Race/Ethnicity, 2017



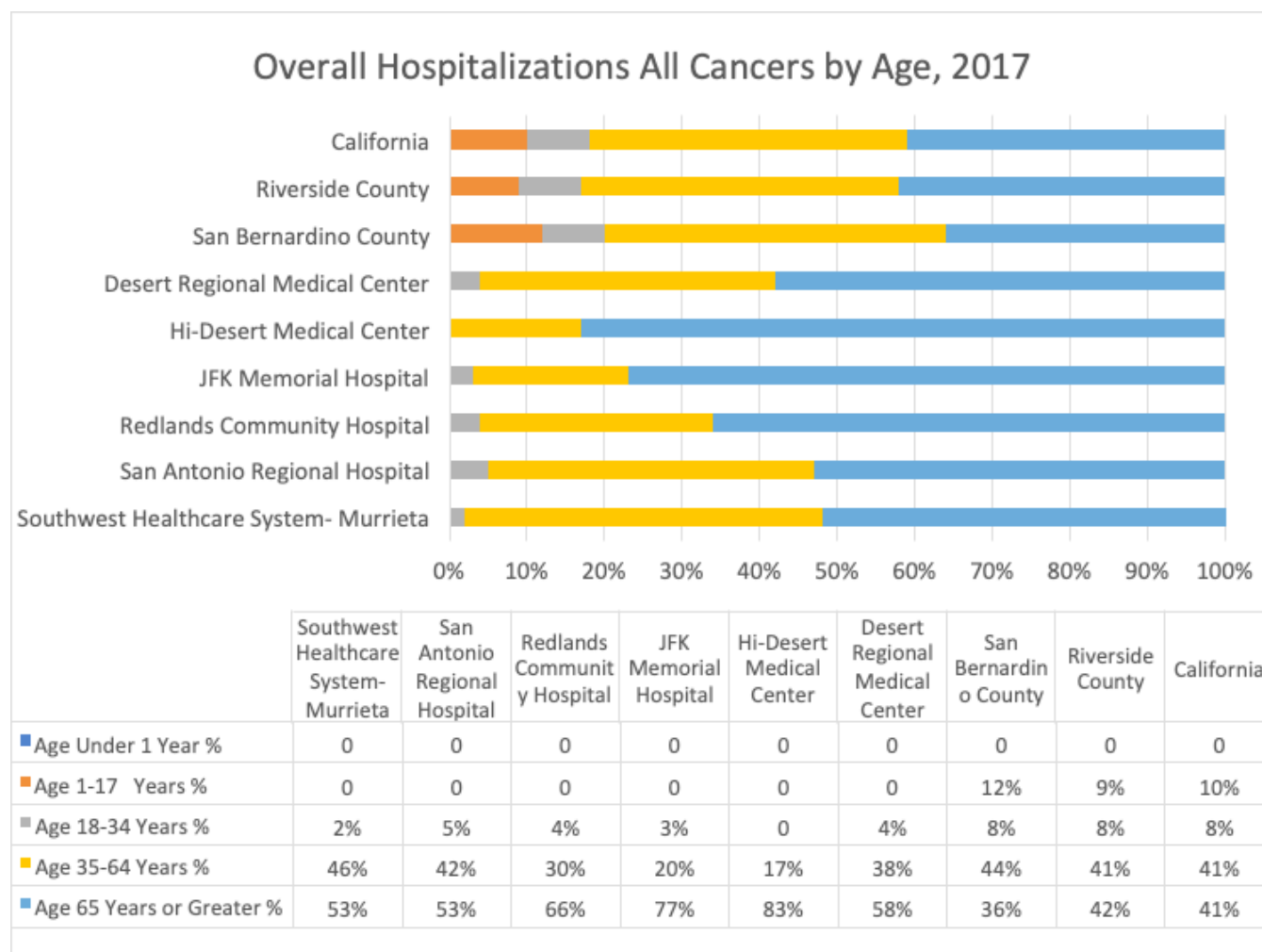
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Hospitalizations All Cancer by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Hospitalizations All Cancer by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Women (73%) have a significantly higher proportion of hospitalizations due to cancer compared to men (27%) at Southwest Healthcare System-Murrieta.
- Men have a higher proportion of hospitalizations due to cancer compared to women at Hi-Desert Medical Center and JFK Memorial Hospital.
- Seniors age 65 years and older have a higher proportion of hospitalizations due to cancer compared to any other age group at all hospitals.

Asthma Hospitalizations

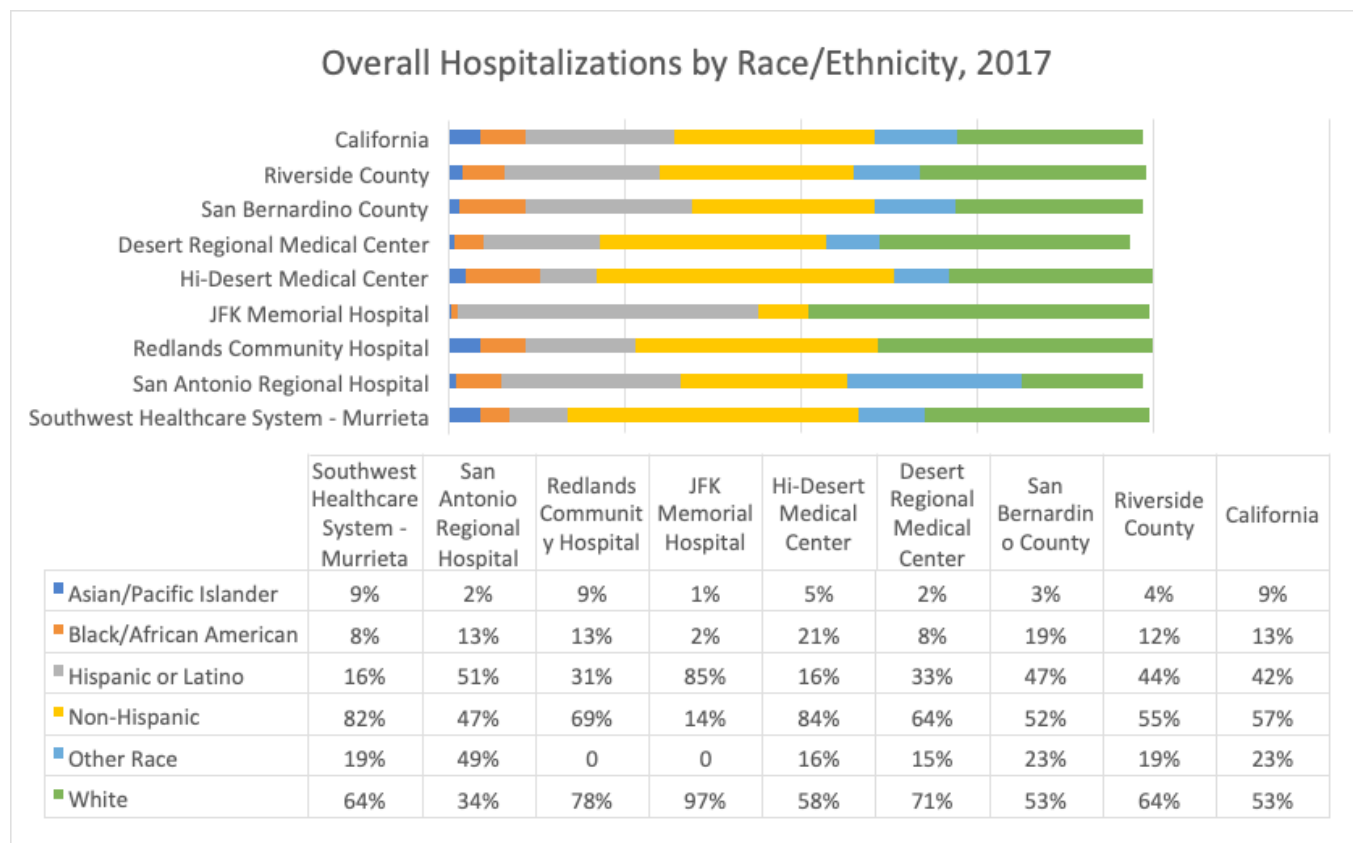
This section includes 2017 data for Asthma inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta. Mountains Community Hospital was not included due to insufficient data. MS-DRG codes include 202/203.

Table 1 N-Value for Total Asthma Hospitalizations per Service Area 2017

2017 Asthma Hospitalizations	
California	32,704
Riverside County	1,546
San Bernardino County	1,736
Desert Regional Medical Center	165
Hi-Desert Medical Center	19
JFK Memorial Hospital	101
Redlands Community Hospital	32
San Antonio Regional Hospital	174
Mountains Community Hospital	*
Southwest Healthcare System-Murrieta	97

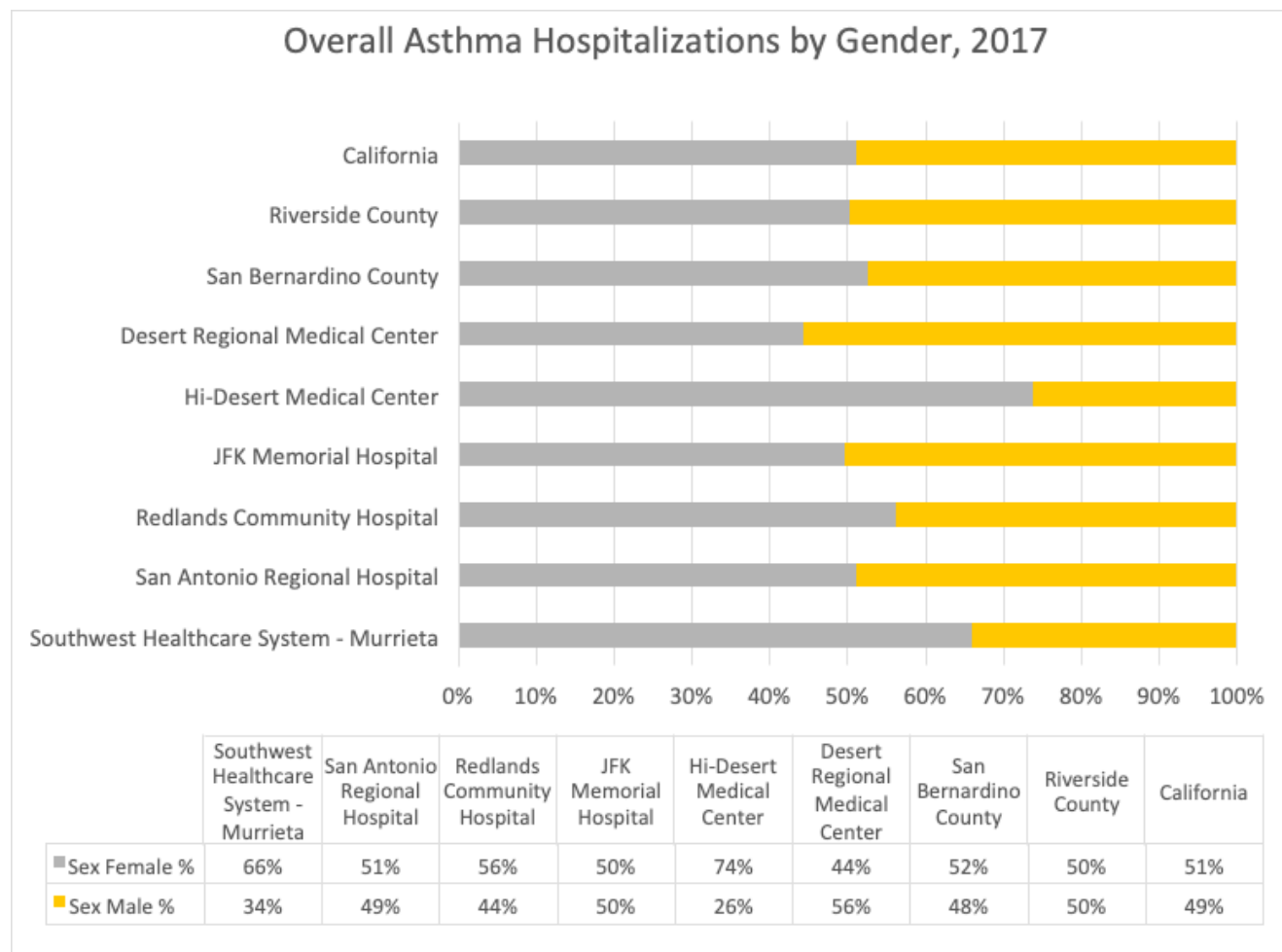
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Asthma Hospitalizations by Race/Ethnicity, 2017



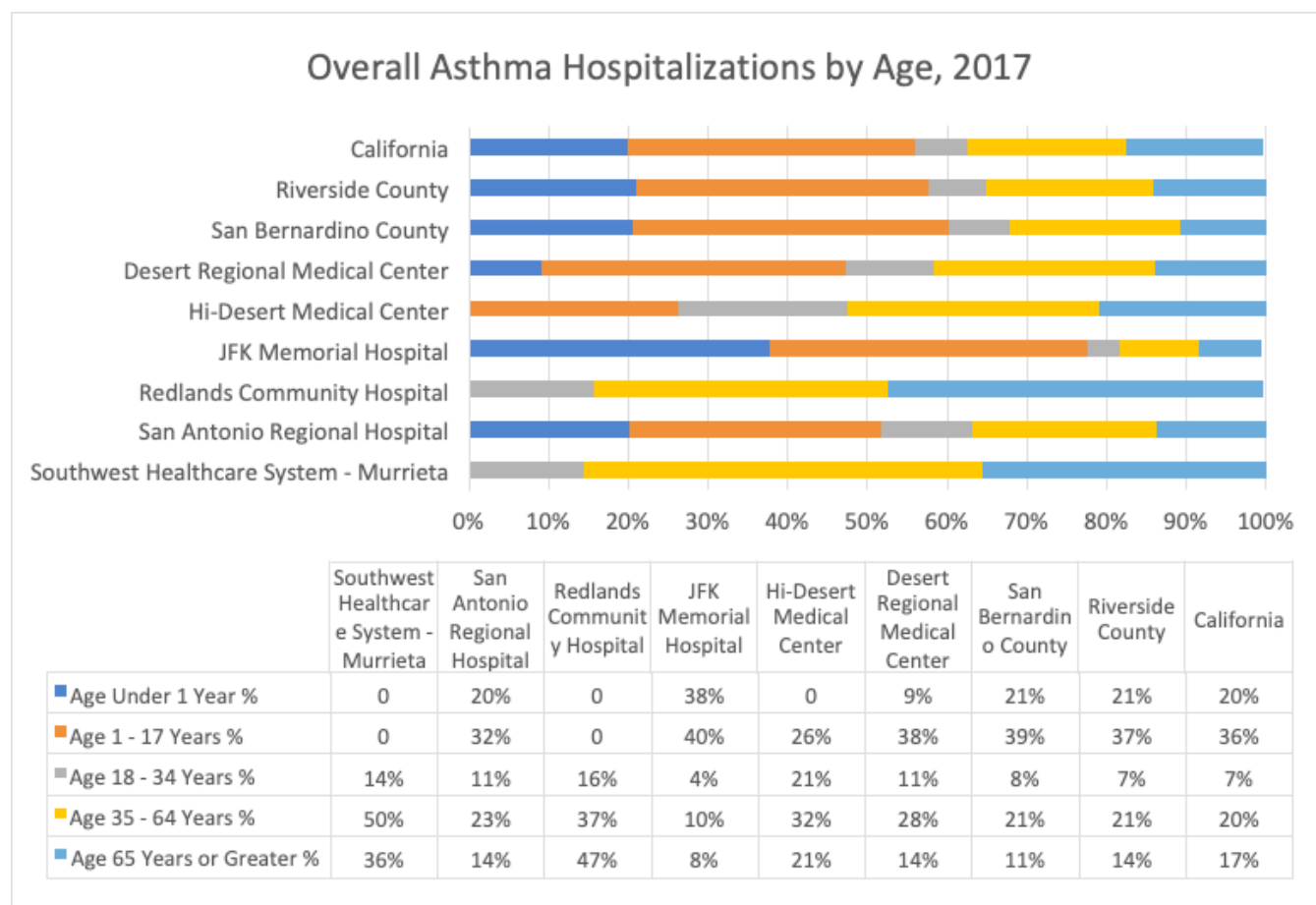
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Asthma Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Asthma Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Hispanics have a significantly higher proportion of hospitalizations due to asthma compared to any other racial/ethnic group at San Antonio Regional Hospital (51%) and JFK Memorial Hospital (85%).
- Women have a significantly higher proportion of hospitalizations due to asthma at Hi-Desert Medical Center and Southwest Healthcare System-Murrieta.
- Approximately 50% of asthma hospitalizations at Southwest Healthcare System-Murrieta are among adults age 35-64 years.
- Approximately 50% of asthma hospitalizations at Redlands Community Hospital are among seniors age 65 years and older.

Breast Cancer Hospitalizations

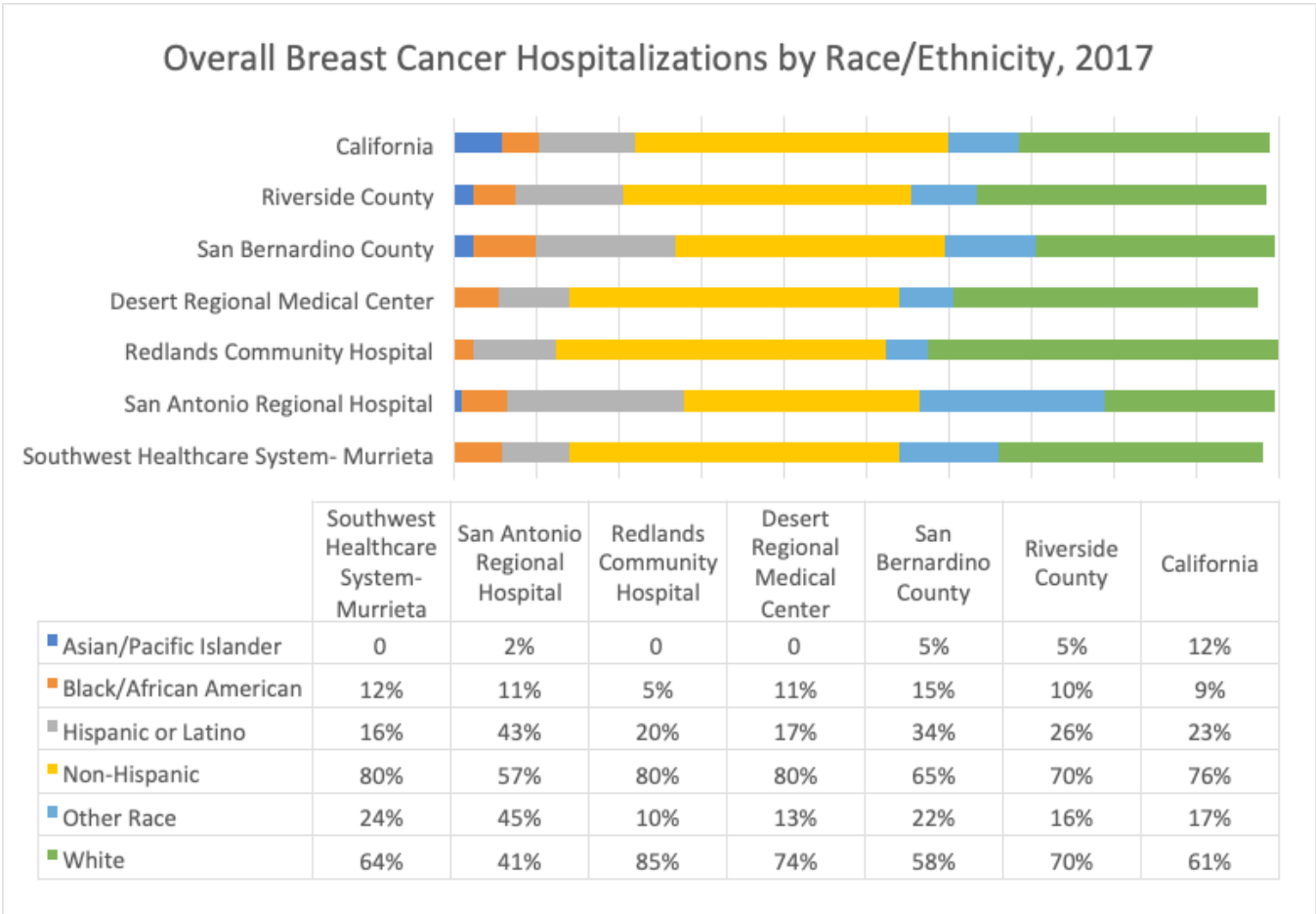
This section includes 2017 data for Breast Cancer inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta. Hi-Desert Medical Center, JFK Memorial Hospital, and Mountains Community Hospital were not included due to insufficient data. MS-DRG codes include 597/598/599.

Table 1 N-Value for Total Breast Cancer Hospitalizations per Service Area 2017

2017 Breast Cancer Hospitalizations	
California	5,953
Riverside County	359
San Bernardino County	341
Desert Regional Medical Center	46
Redlands Community Hospital	20
San Antonio Regional Hospital	44
Southwest Healthcare System-Murrieta	25

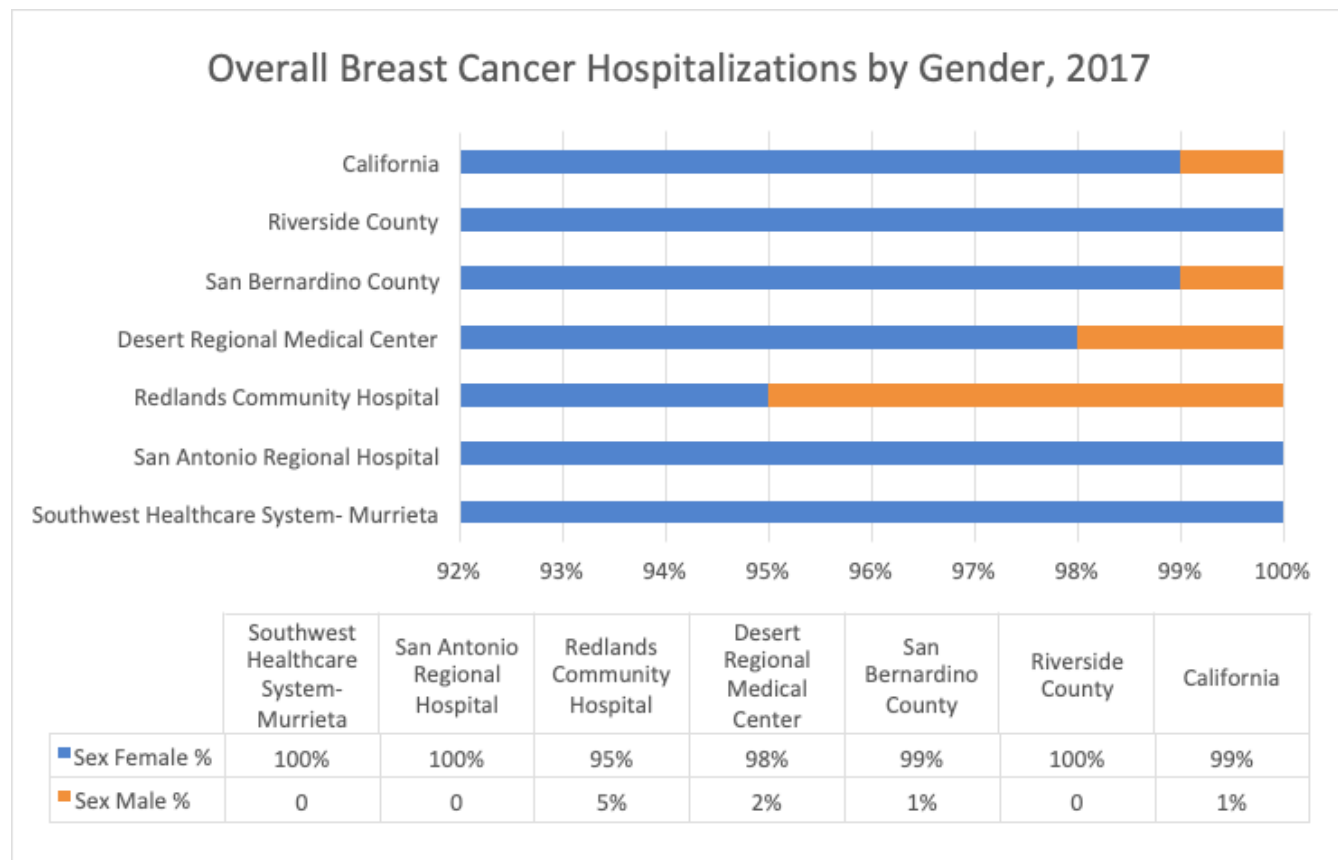
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Hospitalizations Breast Cancer by Race/Ethnicity, 2017



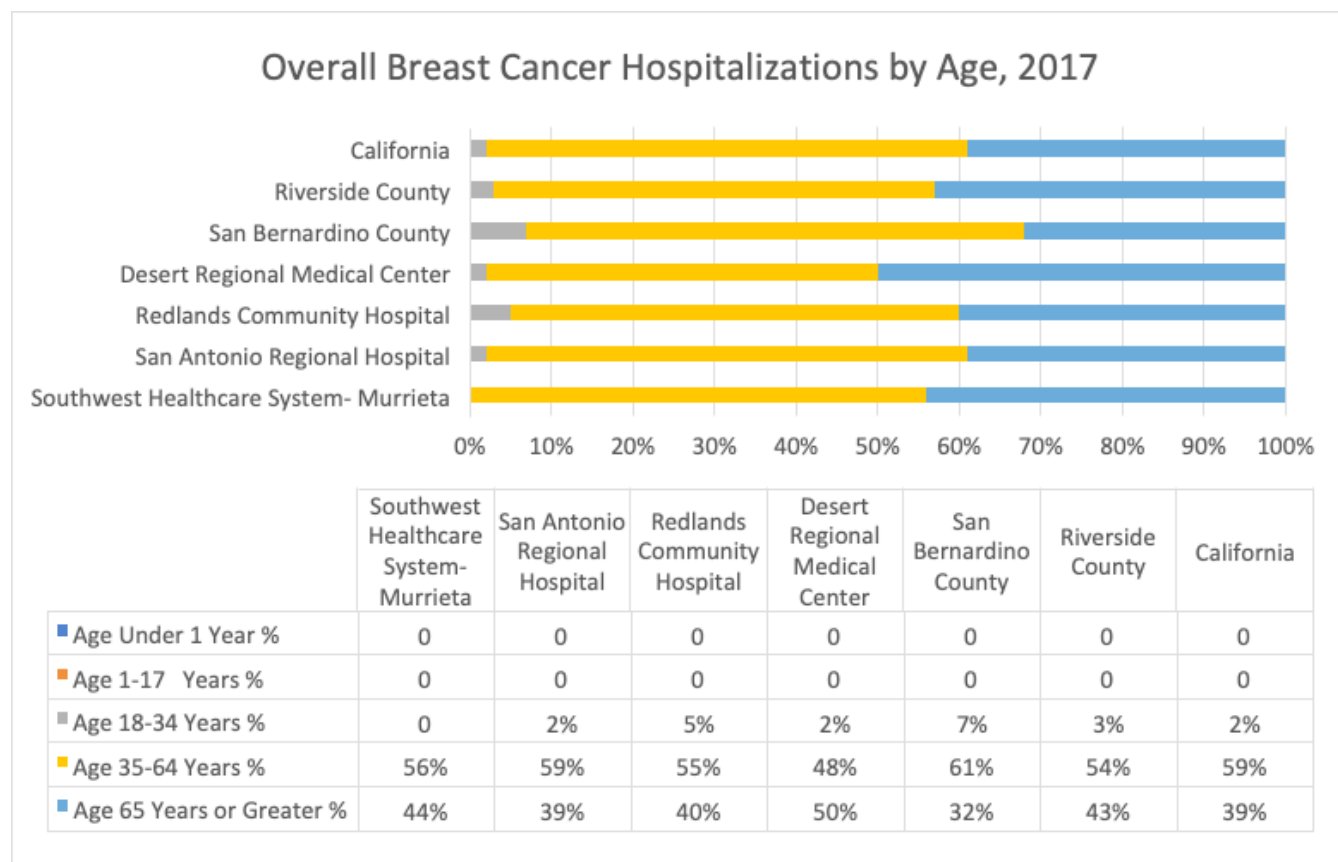
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Hospitalizations Breast Cancer by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Hospitalizations Breast Cancer by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Approximately 43% of hospitalizations due to breast cancer are among Hispanics at San Antonio Regional Hospital.
- Approximately 73% of hospitalizations due to breast cancer are among adults 35-64 years of age at Redlands Community Hospital.
- Approximately 40% of hospitalizations due to breast cancer are among seniors age 65 years and older at Desert Regional Medical Center.

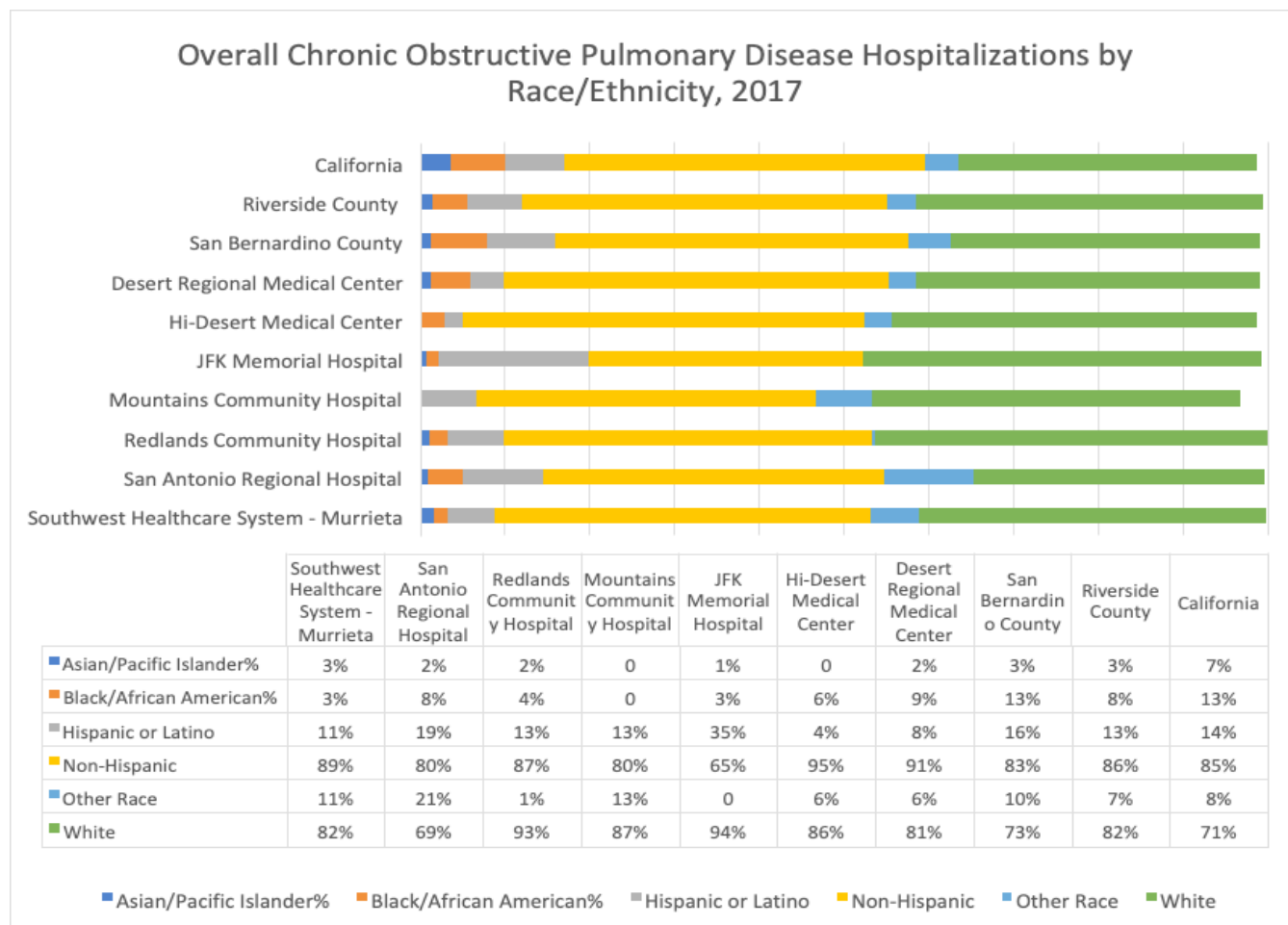
Chronic Obstructive Pulmonary Disease Hospitalizations

This section includes 2017 data for the overall Chronic Obstructive Pulmonary Disease hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Mountains Community Hospital, Redlands Community Hospital, San Antonio Regional Hospital, and Southwest Healthcare System-Murrieta. MS-DRG codes include 190/191/192.

Table 1 N-Value for Total Chronic Obstructive Pulmonary Disease Hospitalizations per Service Area 2017

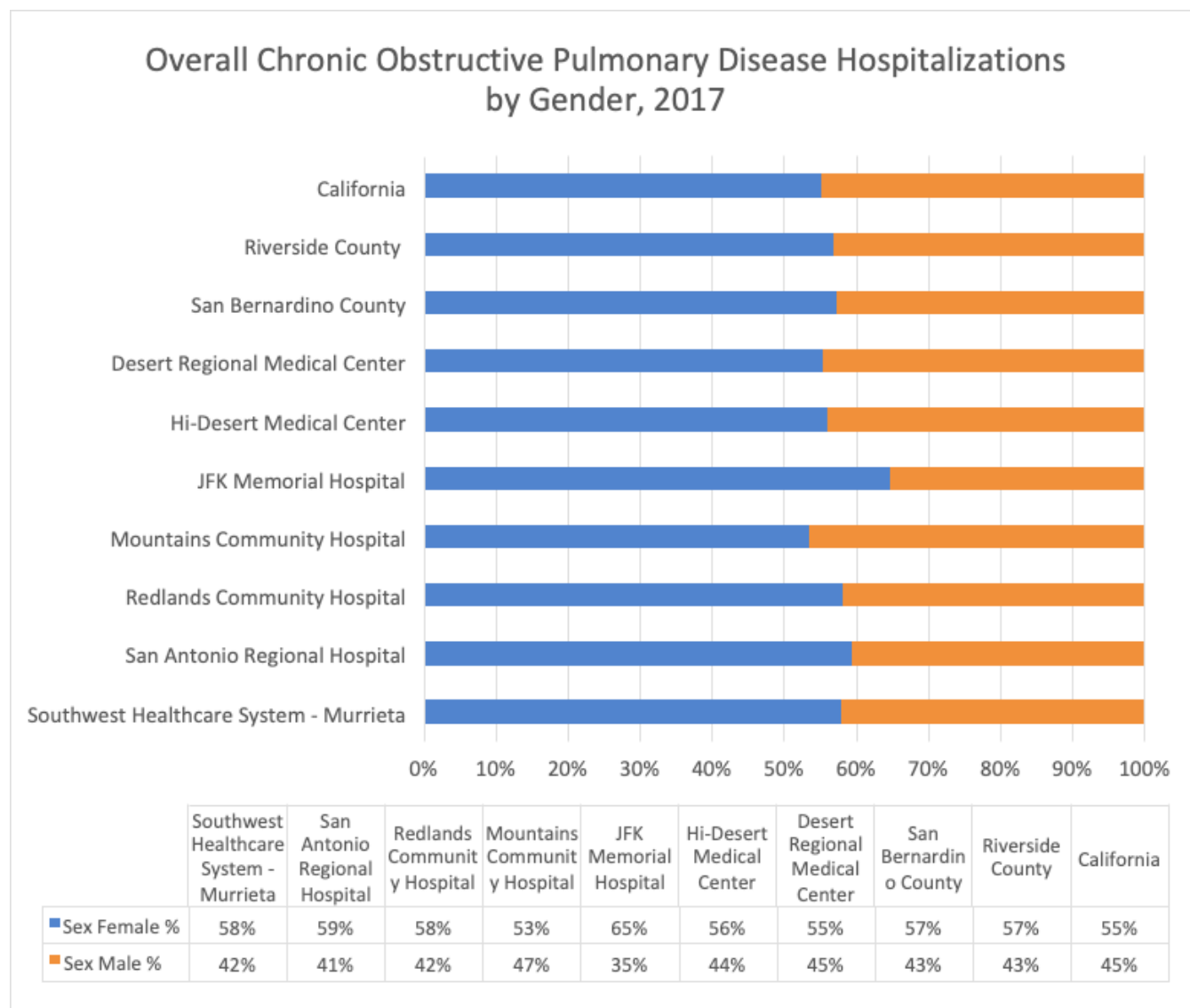
2017 Chronic Obstructive Pulmonary Disease Hospitalizations	
California	49,151
Riverside County	2,785
San Bernardino County	2,757
Desert Regional Medical Center	369
Hi-Desert Medical Center	207
JFK Memorial Hospital	68
Mountains Community Hospital	15
Redlands Community Hospital	138
San Antonio Regional Hospital	292
Southwest Healthcare System-Murrieta	349

Figure #1 Overall Chronic Obstructive Pulmonary Disease Hospitalizations by Race/Ethnicity, 2017



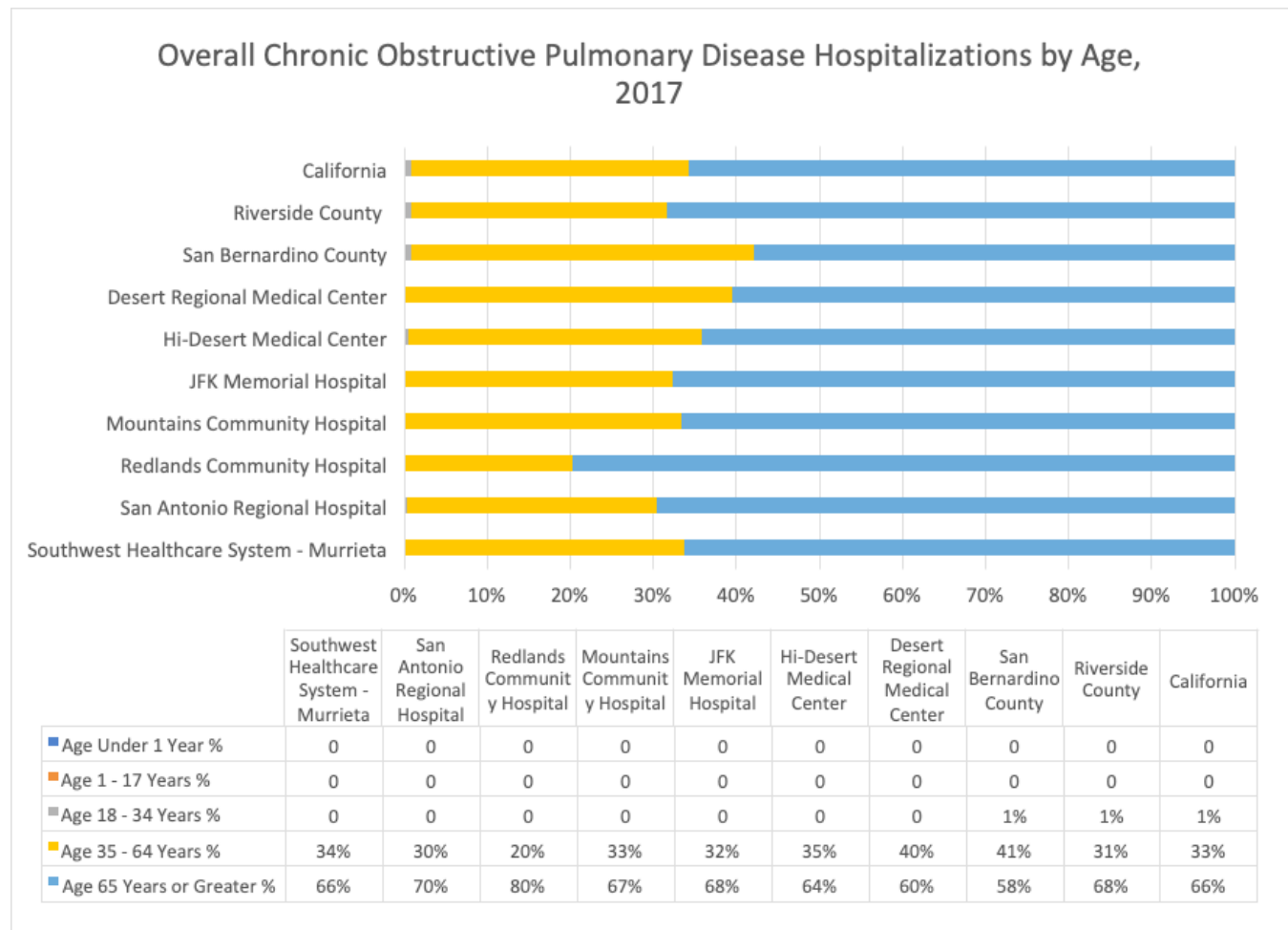
* Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform. (Applies to both charts above)

Figure #2 Overall Chronic Obstructive Pulmonary Disease Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Chronic Obstructive Pulmonary Disease Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Women have a higher proportion of hospitalizations due to COPD compared to men at all hospitals.

Diabetes Overall Hospitalizations

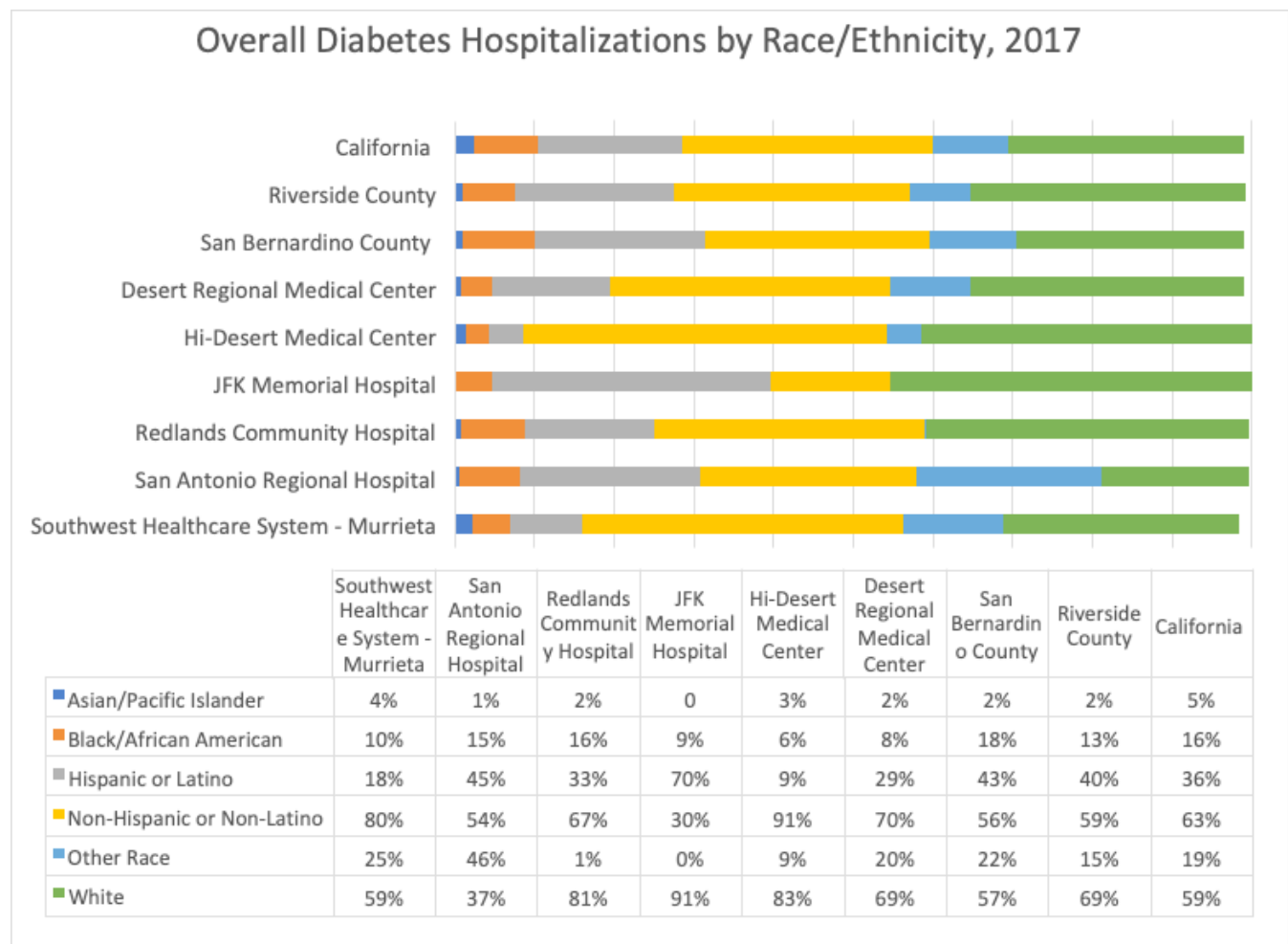
This section includes 2017 data for the overall diabetes hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital, and Southwest Healthcare System. Mountains Community Hospital was not included due to insufficient data. MS-DRG codes include 637/638/639.

Table 1 N-Value for Total Diabetes Hospitalizations per Service Area 2017

2017 Diabetes Hospitalizations	
California	39,553
Riverside County	2,441
San Bernardino County	2,940
Desert Regional Medical Center	197
Hi-Desert Medical Center	70
JFK Memorial Hospital	106
Mountains Community Hospital	*
Redlands Community Hospital	163
San Antonio Regional Hospital	269
Southwest Healthcare System-Murrieta	184

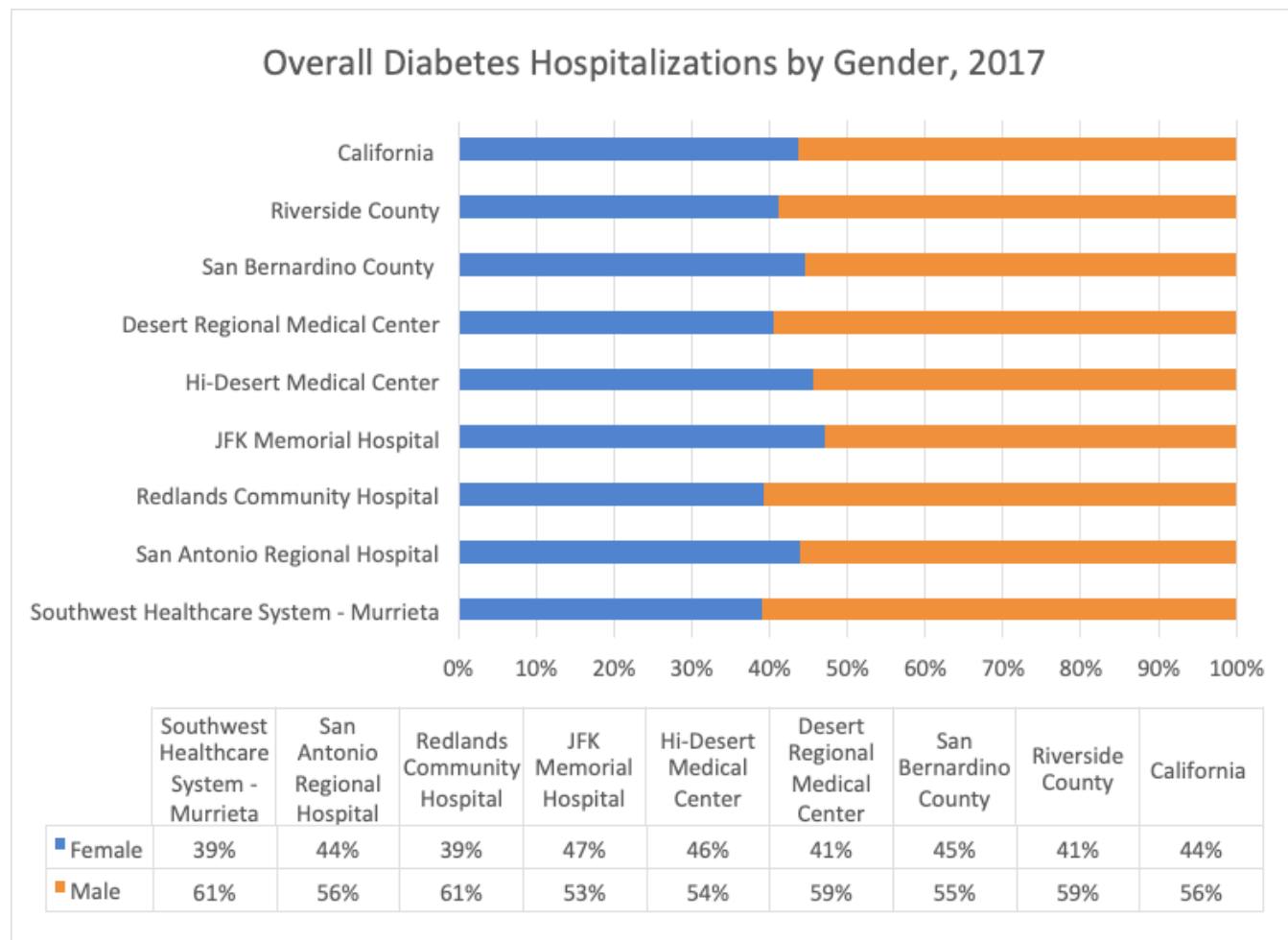
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Diabetes Hospitalizations by Race/Ethnicity, 2017



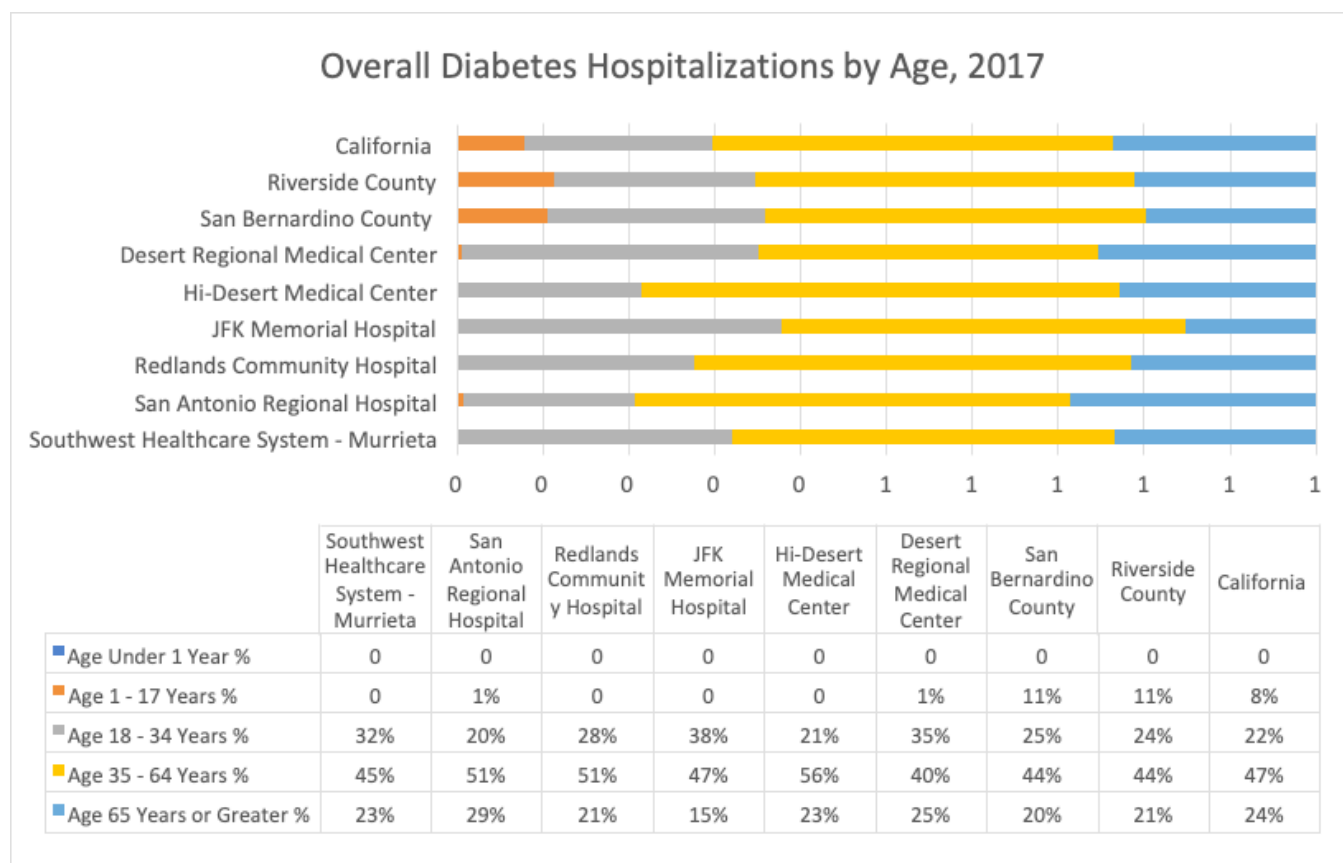
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Diabetes Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Diabetes Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Whites have a higher proportion of hospitalizations due to diabetes compared to any other racial/ethnic group at Desert Regional Medical Center, Hi-Desert Medical Center, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta.
- Hispanics have a higher proportion of hospitalizations due to diabetes compared to any other racial/ethnic group at San Antonio Regional Hospital.
- Men have a higher proportion of hospitalizations due to diabetes compared to women at all hospitals.

Heart Failure Hospitalizations

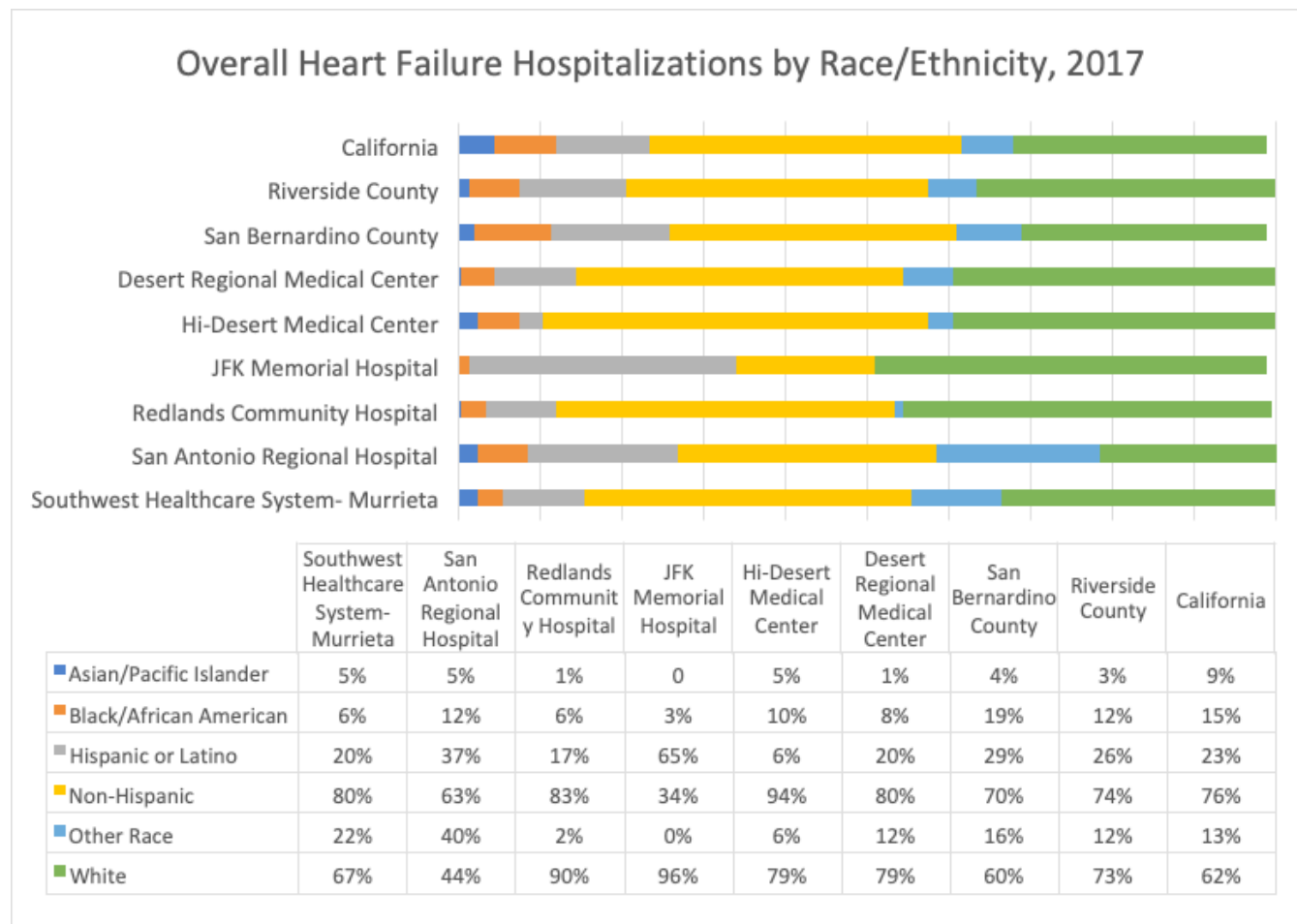
This section includes 2017 data for Heart Failure inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Hi-Desert Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta. Mountains Community Hospital was not included due to insufficient data. MS-DRG codes include 291/292/293.

Table 1 N-Value for Total Heart Failure Hospitalizations per Service Area 2017

2017 Heart Failure Hospitalizations	
California	96,725
Riverside County	5,120
San Bernardino County	5,284
Desert Regional Medical Center	410
Hi-Desert Medical Center	126
JFK Memorial Hospital	114
Mountains Community Hospital	*
Redlands Community Hospital	270
San Antonio Regional Hospital	519
Southwest Healthcare System-Murrieta	425

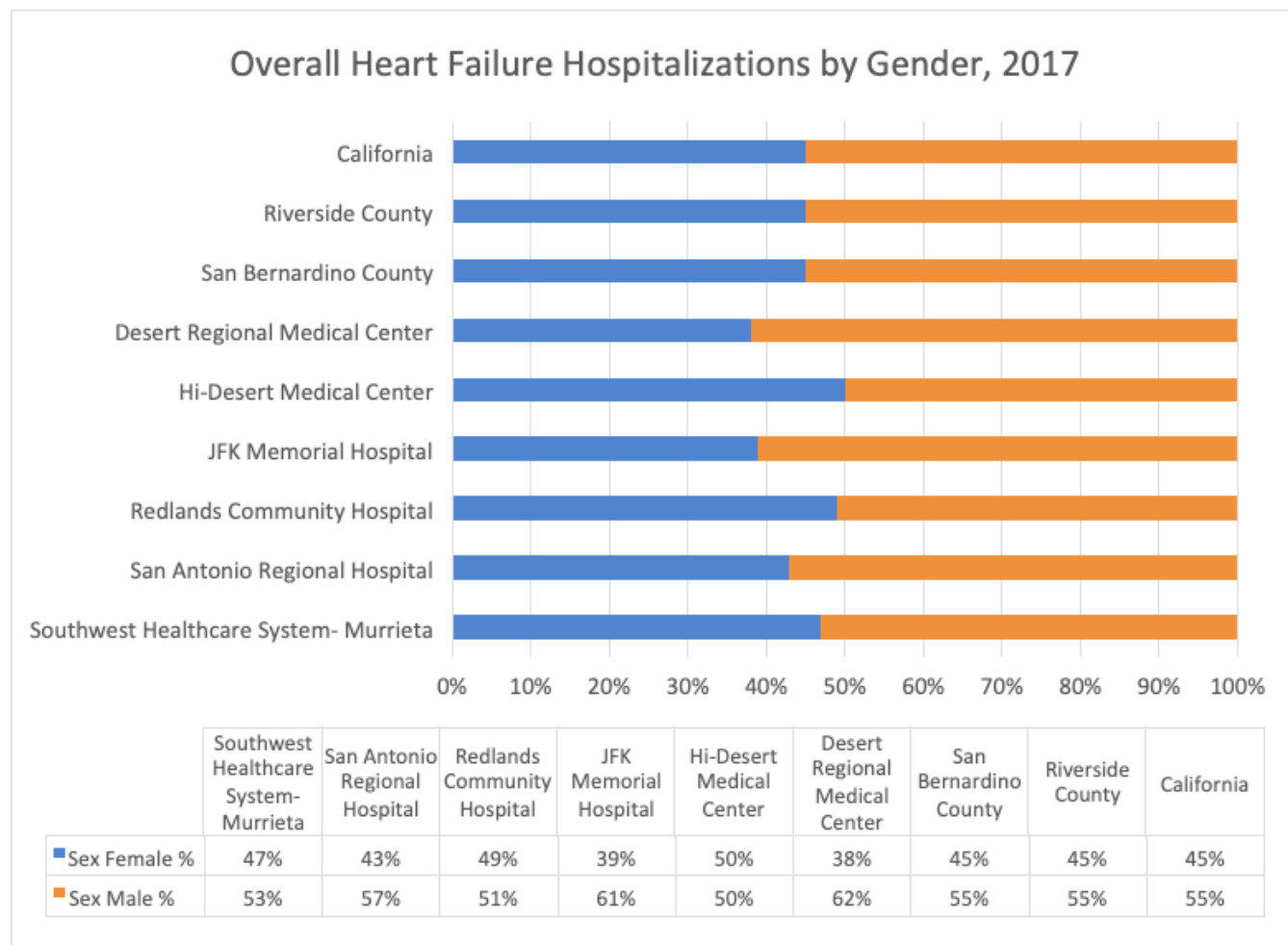
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Heart Failure Hospitalizations by Race/Ethnicity, 2017



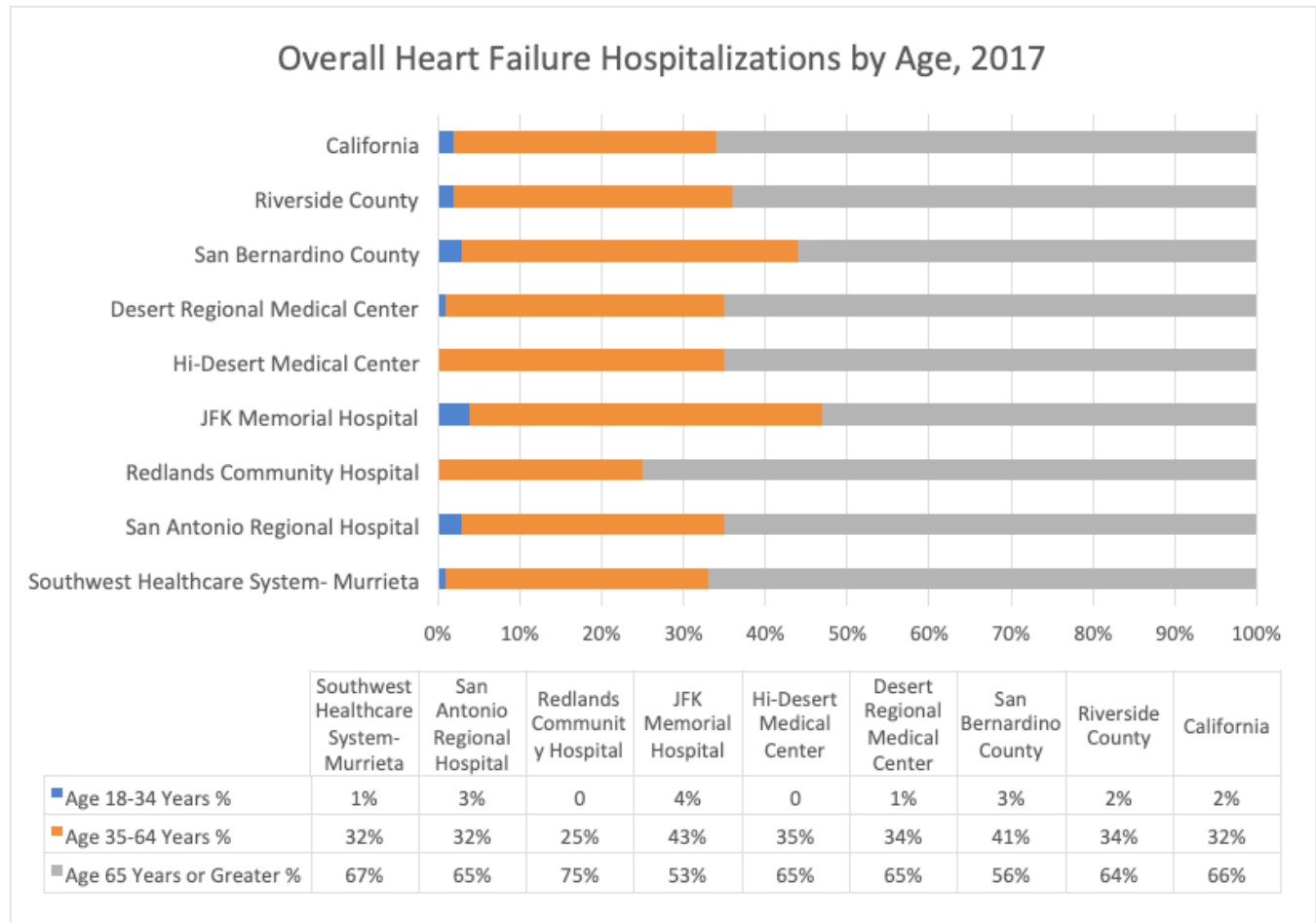
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Heart Failure Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Heart Failure Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Men have a slightly higher proportion of hospitalizations due to heart failure compared to women at Desert Regional Medical Center, JFK Memorial Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta.
- Approximately 65% of hospitalizations due to heart failure are among Hispanics at JFK Memorial Hospital.
- Approximately two-in-three hospitalizations for heart failure are among seniors age 65 years and older at Desert Regional Medical Center, Hi-Desert Medical Center, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta.

Hypertension Hospitalizations

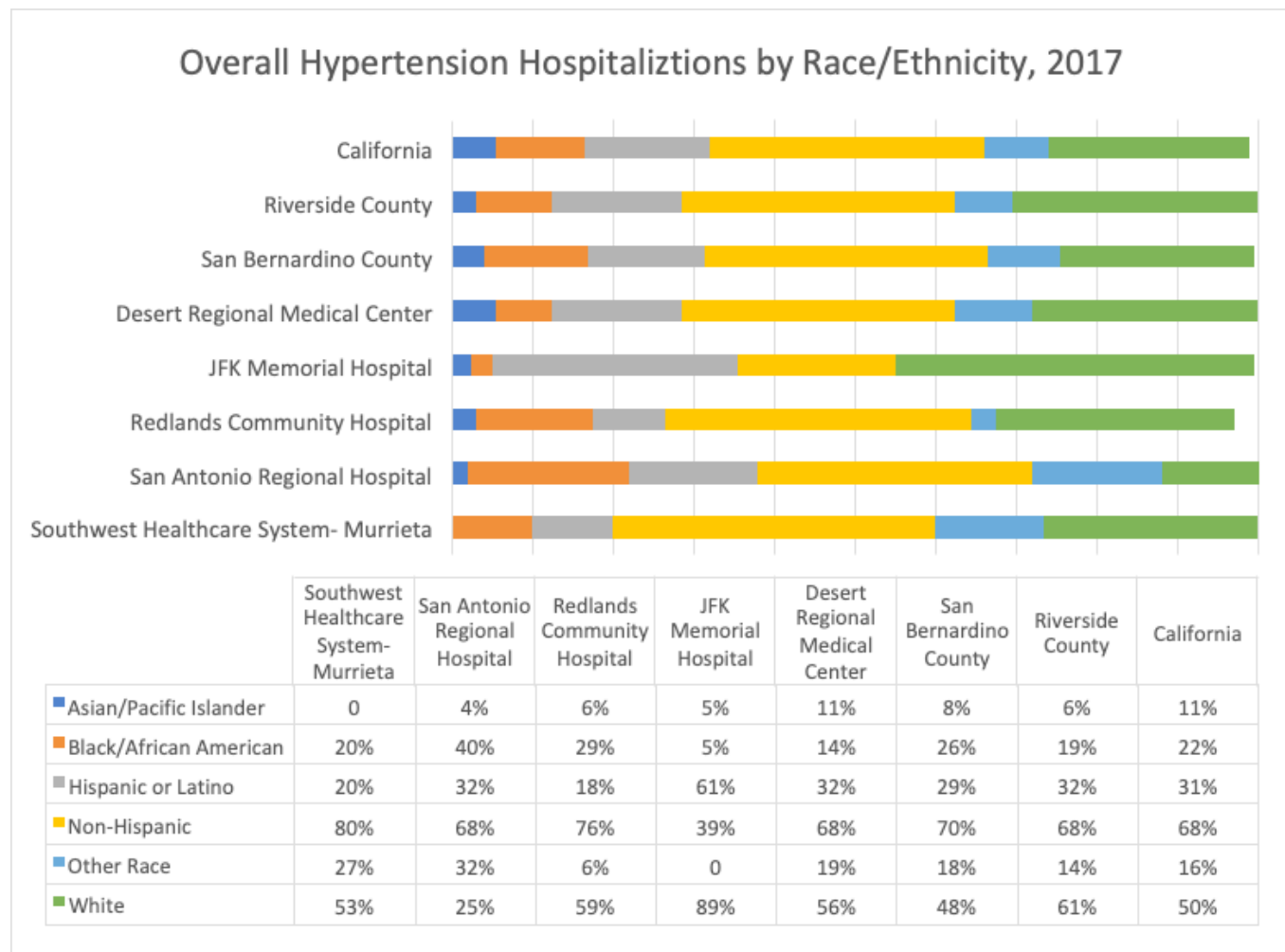
This section includes 2017 data for Hypertension inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, JFK Memorial Hospital, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta. Hi-Desert Medical Center and Mountains Community Hospital were not included due to insufficient data. MS-DRG codes include 304/305.

Table 1 N-Value for Total Hypertension Hospitalizations per Service Area 2017

2017 Hypertension Hospitalizations	
California	10,848
Riverside County	667
San Bernardino County	640
Desert Regional Medical Center	37
Hi-Desert Medical Center	*
JFK Memorial Hospital	18
Mountains Community Hospital	*
Redlands Community Hospital	17
San Antonio Regional Hospital	57
Southwest Healthcare System-Murrieta	49

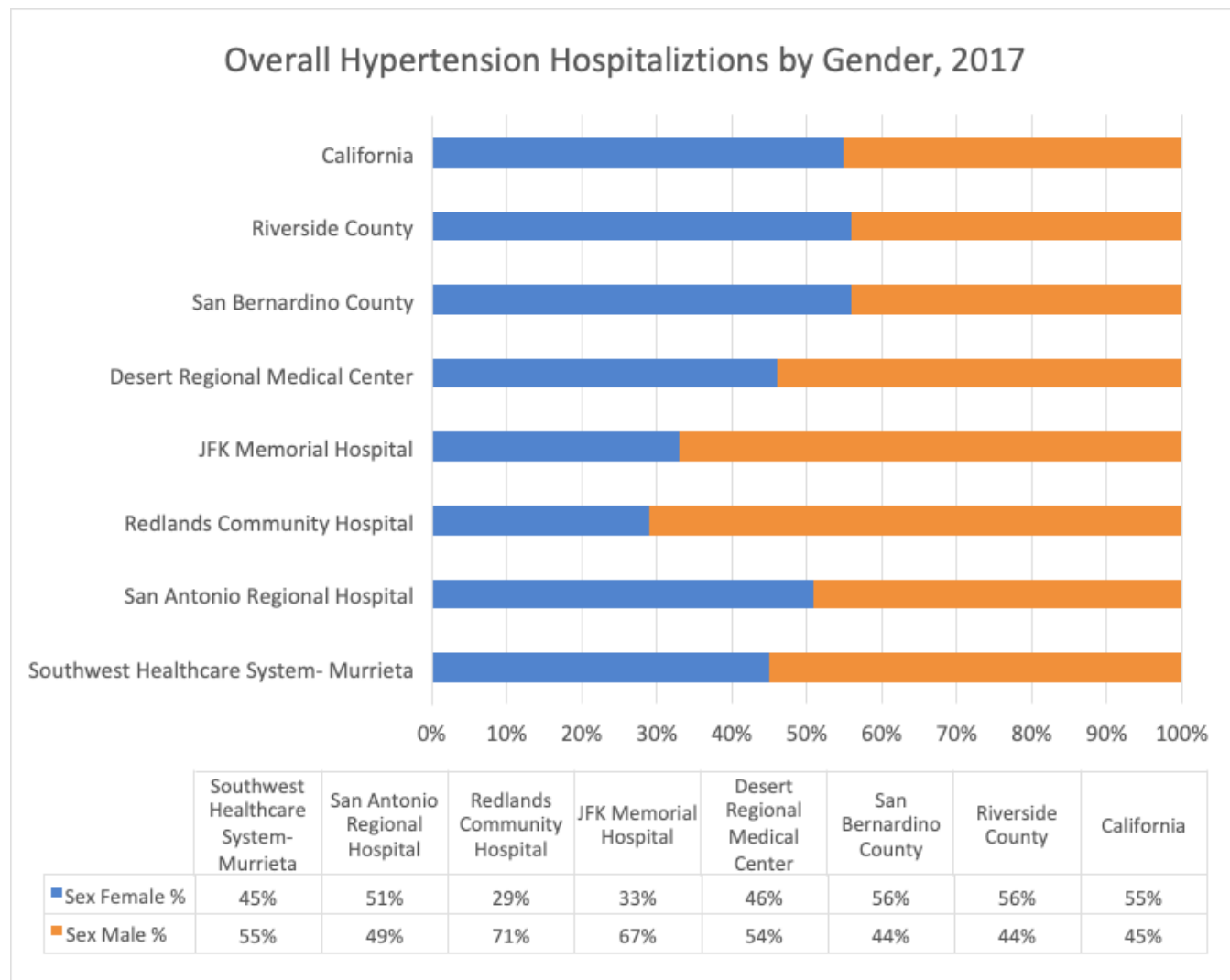
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Hypertension Hospitalizations by Race/Ethnicity, 2017



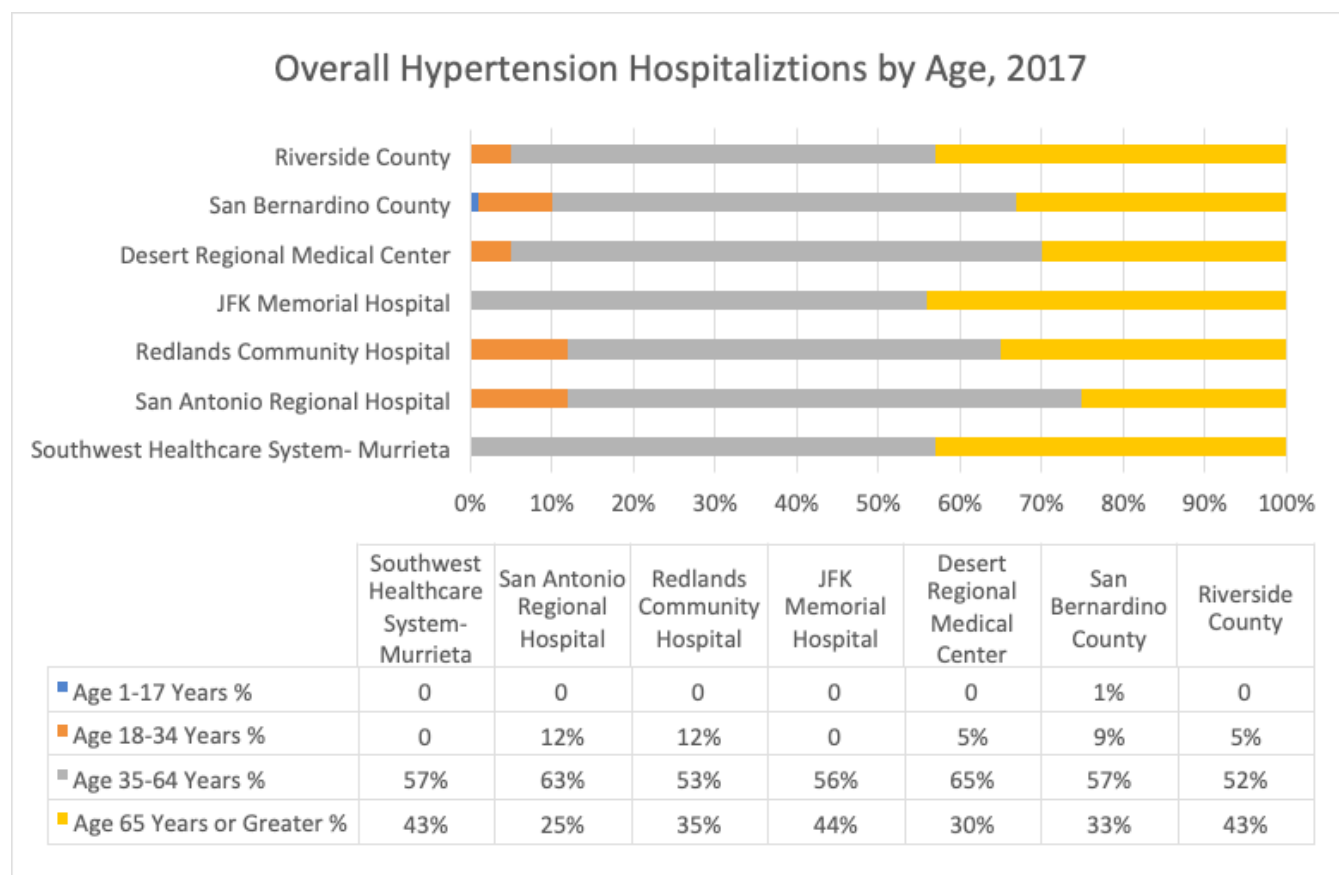
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Hypertension Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Hypertension Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Women have a higher proportion of hospitalizations due to hypertension compared to men at Hi-Desert Medical Center and San Antonio Regional Hospital.
- Hispanics have a higher proportion of hospitalizations due to hypertension at JFK Memorial Hospital compared to any other racial/ethnic group.
- Black/African Americans have a higher proportion of hospitalizations due to hypertension at San Antonio Regional Hospital compared to any other racial/ethnic group.
- Sixty-five percent of the hospitalizations due to hypertension are among adults age 35-64 at Desert Regional Medical Center.
- Twelve percent of the hospitalizations due to hypertension are among adults age 18-34 years at Redlands Community Hospital and San Antonio Regional Hospital.

Lung Cancer Hospitalizations

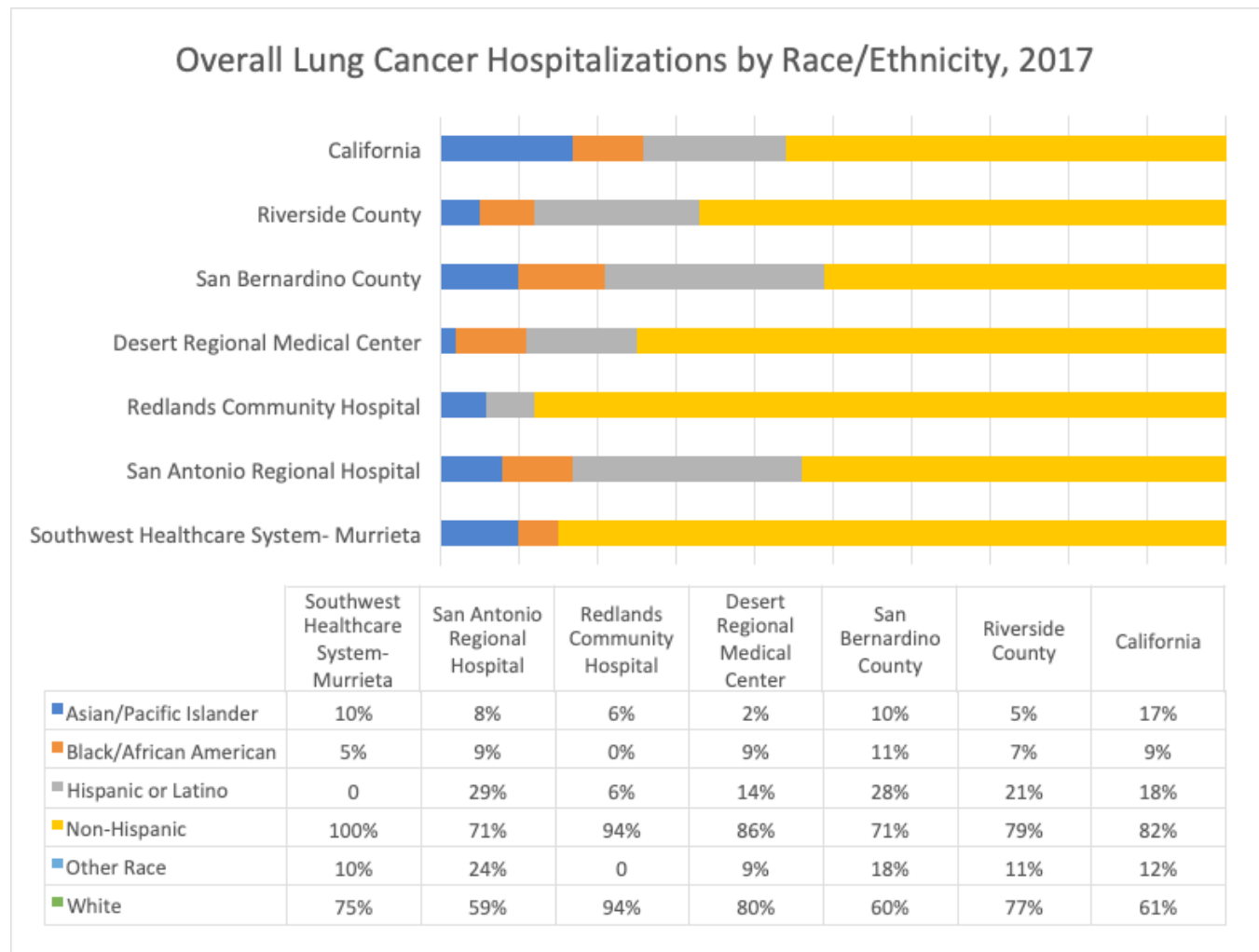
This section includes 2017 data for Lung Cancer inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta. Hi-Desert Medical Center, JFK Memorial Hospital and Mountains Community Hospital were not included due to insufficient data. MS-DRG codes include 180/181/182.

Table 1 N-Value for Total Lung Cancer Hospitalizations per Service Area 2017

2017 Lung Cancer Hospitalizations	
California	6,605
Riverside County	376
San Bernardino County	350
Desert Regional Medical Center	44
Hi-Desert Medical Center	*
JFK Memorial Hospital	*
Mountains Community Hospital	*
Redlands Community Hospital	17
San Antonio Regional Hospital	78
Southwest Healthcare System-Murrieta	20

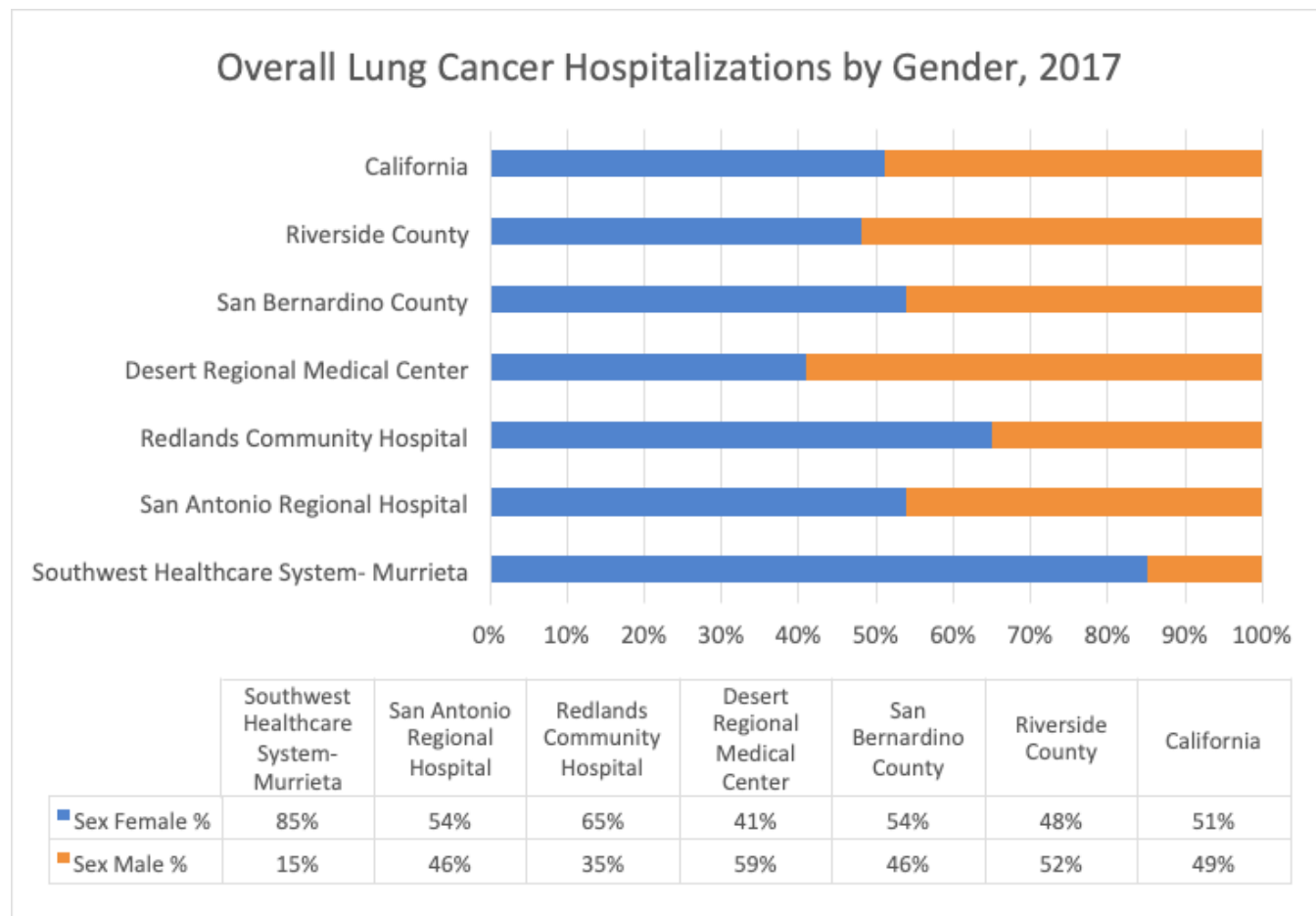
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Lung Cancer Hospitalizations by Race/Ethnicity, 2017



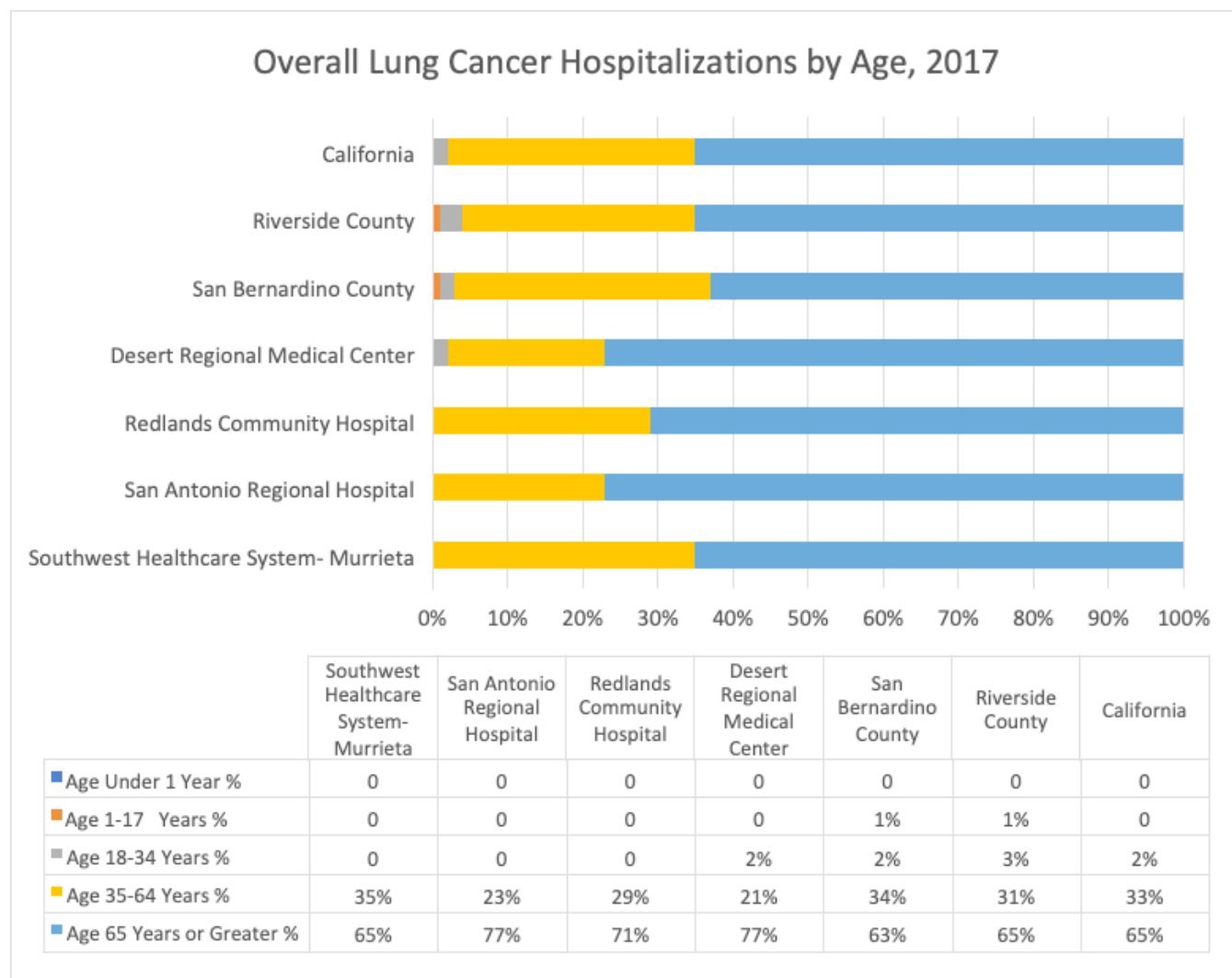
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Lung Cancer Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Lung Cancer Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Women have a significantly higher proportion of lung cancer hospitalizations compared to men at Redlands Community Hospital and Southwest Healthcare System-Murrieta.

Mental Diseases and Disorders

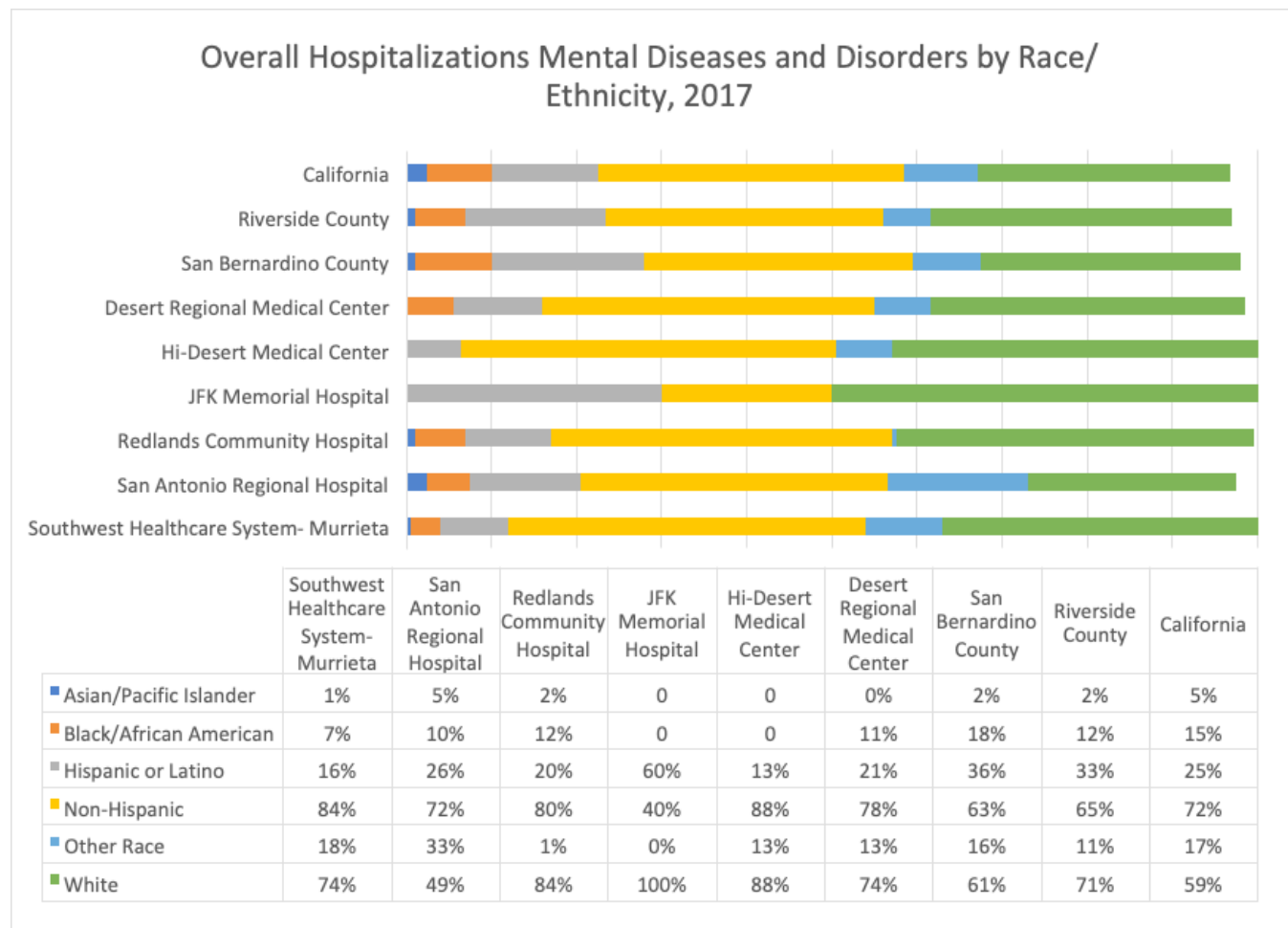
This section includes 2017 data for Mental Diseases and Disorders inpatient hospitalizations in California, San Bernardino County, Riverside County, Desert Regional Medical Center, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta. Mountains Community Hospital not included due to insufficient data. MS-DRG codes include 880/881/882/883/884/885/886/887.

Table 1 N-Value for Total Mental Disease and Disorders Hospitalizations per Service Area 2017

2017 Mental Diseases and Disorders Hospitalizations	
California	223,182
Riverside County	12,051
San Bernardino County	13,661
Desert Regional Medical Center	99
Hi-Desert Medical Center	16
JFK Memorial Hospital	11
Redlands Community Hospital	697
San Antonio Regional Hospital	39
Southwest Healthcare System-Murrieta	68

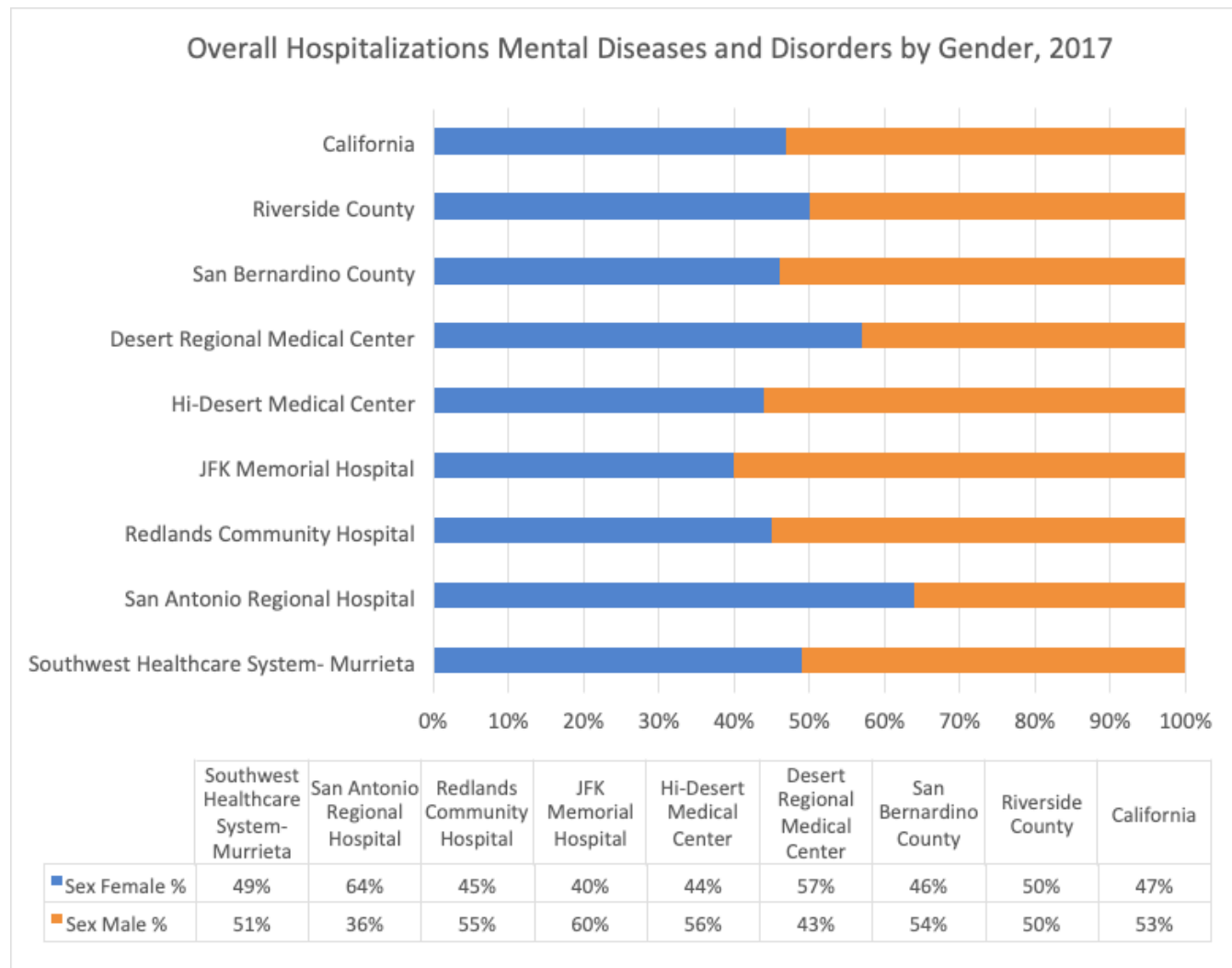
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #1 Overall Mental Diseases and Disorders Hospitalizations by Race/Ethnicity, 2017



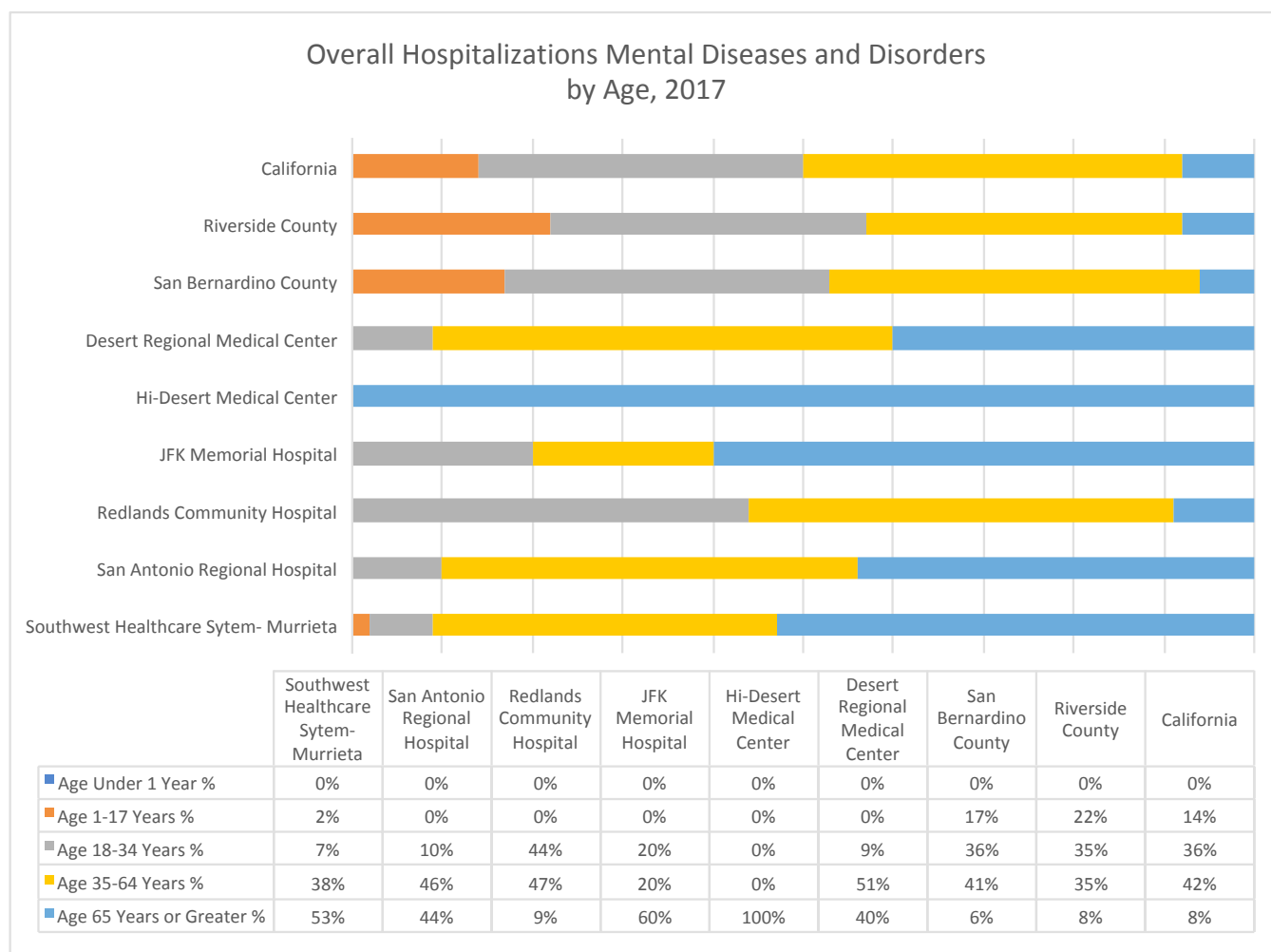
Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #2 Overall Mental Diseases and Disorders Hospitalizations by Gender, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Figure #3 Overall Mental Diseases and Disorders Hospitalizations by Age, 2017



Data source: 2017 Hospitalizations derived from the OSHPD file using the SpeedTrack analytics platform.

Key Findings

- Women have a higher proportion of hospitalizations for Mental Diseases and Disorders compared to men at San Antonio Regional Hospital.

Mortality

Health status and health care utilization measures are central indicators of the performance of the health care system. Health status measures the level of wellness and illness, while health care utilization is the use of services by people for the purpose of preventing and curing health problems. The leading causes of death in the United States are overwhelmingly the result of chronic and preventable disease. Nearly 75% of all deaths in the United States are attributed to just ten causes, with the top three of these accounting for over 50 percent of all deaths. According to the Centers for Disease Control and Prevention, in 2016 the top three leading causes of death in the United States were from heart disease, cancer, and unintentional injuries.

Rank	Riverside	San Bernardino
1	Malignant Neoplasms (Cancer) 146.2	Malignant Neoplasms (Cancer) 157.6
2	Diseases of Heart 104.6	Diseases of Heart 106.5
3	Chronic Lower Respiratory Diseases 41.1	Chronic Lower Respiratory Diseases 52.1
4	Alzheimer's Disease 36.2	Cerebrovascular Diseases (Stroke) 40.5
5	Accidents (Unintentional Injuries) 35.7	Alzheimer's Disease 40.0
6	Cerebrovascular Diseases (Stroke) 34.2	Diabetes Mellitus 33.2
7	Diabetes Mellitus 19.3	Lung Cancer 32.3
8	Drug-Induced Deaths 15.2	Accidents (Unintentional Injuries) 27.5
9	Colorectal Cancer 14.1	Chronic Liver Disease and Cirrhosis 15.5
10	Chronic Liver Disease and Cirrhosis 13.0	Influenza and Pneumonia 13.2

Data Source: California Department of Public Health, County Health Status Profiles 2018, Individual County Data Sheets. 2011-2016 Death Files. Retrieved January 2019 from <https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx>

Within the two-county region, the first three leading causes of death are in the same order — cancer, heart disease and chronic lower respiratory illness. San Bernardino County has the highest rate for mortality from all cancers at 157.6 per 100,000 (age-adjusted). Comparatively, during the same time span the mortality rate for all cancers for the State of California was 140.2 per 100,000.

The fourth through tenth leading causes of death varied by county in terms of order and the cause of death that appears. For example, for San Bernardino County, lung cancer appears as the seventh leading cause of death, and influenza and pneumonia are listed at number ten, but neither are on the list for Riverside County.

Hospitalization Trends Using Prevention Quality Indicators

In the continuum of the disease process, hospitalization is the last step for patient care resulting in separation from community resources and family support. Patients who frequently over-utilize healthcare services typically suffer from multiple chronic conditions, requiring frequent care provided by a number of different providers. Many also have complicated social situations that directly impact their ability to get and stay well. Too often,

high-utilizer patients experience inefficient, poorly coordinated care that results in multiple trips to emergency rooms and costly hospital admissions.

The Agency for Healthcare Research and Quality (AHRQ) developed the Prevention Quality Indicators (PQI) as measures to help assess quality and access to health care in specific communities. The PQIs are population-based and reported at the state, county and zip code levels and adjusted for age and sex. PQIs are a set of measures that can identify quality of care for “ambulatory care sensitive conditions” when used with hospital inpatient discharge data, and can identify areas needing further investigation to potentially prevent the need for hospitalizations and check for primary care access or outpatient services in a community.

Five PQIs are described in this assessment from the 2016 PQI analysis derived from the Office of Statewide Health Planning and Development (OSHPD) PQI Record Level File using the SpeedTrack analytics platform. The PQIs for PQI 01 Diabetes Short-term Complications, PQI 03 Diabetes Long-term Complications, PQI 07 Hypertension, PQI 14 Uncontrolled Diabetes and PQI 15 Asthma in Younger Adults (Ages 18-39) are described below:

PQI 01 Diabetes Short-Term Complications Admission Rate Description:

Admissions for a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma) per 100,000 population ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.

PQI 03 Diabetes Long-Term Complications Admission Rate Description:

Admissions for a principal diagnosis of diabetes with long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified) per 100,000 population ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.

PQI 07 Hypertension Admission Rate Description:

Admissions with a principal diagnosis of hypertension per 100,000 population, ages 18 years and older. Excludes kidney disease combined with dialysis access procedure admissions, cardiac procedure admissions, obstetric admissions, and transfers from other institutions.

PQI 14 Uncontrolled Diabetes Admission Rate Description:

Admissions for a principal diagnosis of diabetes without mention of short-term (ketoacidosis, hyperosmolarity, or coma) or long-term (renal, eye, neurological, circulatory, or other unspecified) complications per 100,000 population, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.

PQI 15 Asthma in Younger Adults (Ages 18-39) Admission Rate Description:

Admissions for a principal diagnosis of asthma per 100,000 population, ages 18 to 39 years. Excludes admissions with an indication of cystic fibrosis or anomalies of the respiratory system, obstetric admissions, and transfers from other institutions.

Analysis of the five 2016 PQIs for Riverside and San Bernardino counties reveals that San Bernardino County has the highest admission rates for diabetes short-term complications, diabetes long-term complications, hypertension, uncontrolled diabetes and asthma in younger adults (ages 18-39).

2016 County Comparison					
County	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
Riverside	60.15	91.14	24.77	36.81	20.13
San Bernardino	71.69	105.69	33.36	44.57	29.51

The zip code table below highlights the zip code where the admissions rate for each of the PQIs is the highest. Please refer to Appendix E: 2016 Prevention Quality Indicators By Zip Code for the Riverside County and San Bernardino County Zip Code tables.

	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
Zip Code	92240	92543	92536	92404	92590
Admissions Rate	182.42	196.84	65.92	93.16	112.49

How is the Region Doing?

- San Bernardino County had the highest percentage of women who received prenatal care during the first trimester (83.4%) and was higher than the state estimate of (83.3%) and Healthy People 2020 (77.9%) goal.
- Percent of Women who Initiated Breastfeeding is higher in Riverside County (92.5%) and exceeds the Healthy People 2020 goal of 81.9%.
- The infant mortality rate in San Bernardino County (6.3) is slightly higher than the state (4.6) and Healthy People 2020 goal (6).
- Across each provider indicator (dentist, mental health, and primary care), San Bernardino County demonstrated higher proportions of providers to population in comparison to Riverside County. However, the estimates are still lower than the state estimates.
- Riverside and San Bernardino counties' first three leading causes of death are cancer, diseases of the heart and chronic lower respiratory diseases.
- Analysis of the five Prevention Quality Indicators (PQIs) reveals that San Bernardino County has the highest admission for diabetes short-term complications (71.69), diabetes long-term complications (105.69), hypertension (33.36), uncontrolled diabetes (44.57), and asthma in younger adults ages 18-39 (29.51).
- Women have a significantly higher proportion of hospitalizations due to asthma compared to men at Mountains Community Hospital, Hi-Desert Medical Center and Southwest Healthcare System-Murrieta.

- Whites, Non-Hispanics or Non-Latinos have a higher proportion of hospitalizations due to diabetes compared to any other racial/ethnic group at Desert Regional Medical Center, High-Desert Medical Center, Redlands Community Hospital, San Antonio Regional Hospital and Southwest Healthcare System-Murrieta.
- Men have a higher proportion of hospitalizations due to diabetes compared to women at all hospitals.
- Women have a higher proportion of hospitalizations due to Chronic Obstructive Pulmonary Disease (COPD) compared to men at all hospitals.

What Can Be Done?

A strong health system is one in which patients receive efficient coordinated care for a variety of illnesses and appropriate follow-up care to prevent unnecessary hospitalizations. In order to strengthen linkages to care, we must first understand the current state of our health system to strategically and intentionally address the needs of the communities. Multi-sector health initiatives should identify high-need and vulnerable communities when they begin conversations to guide the assessment of community needs, alignment of partnerships and target measurable outcomes.

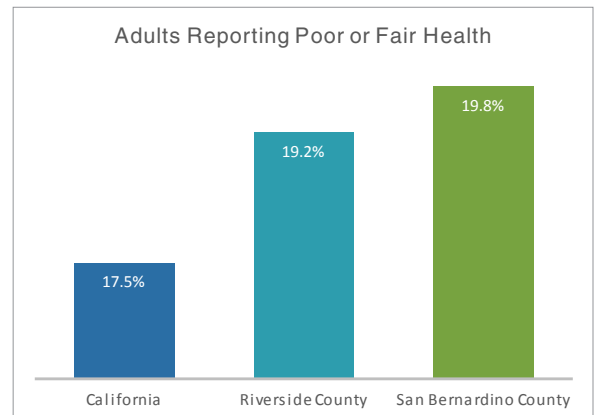
PUBLIC HEALTH AND PREVENTION

Public health is the science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing and responding to infectious diseases. When these factors are addressed a community will enjoy an overall higher level of physical and emotional well-being.

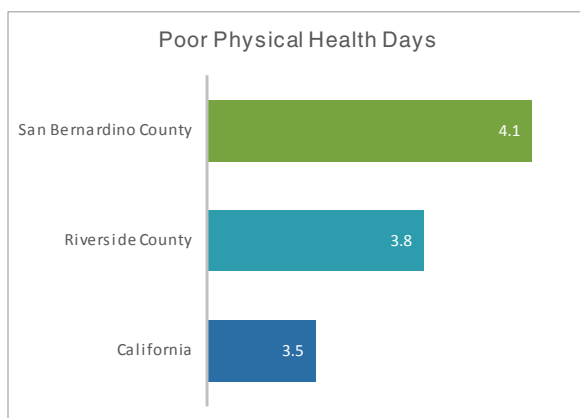
Health Status

Health status is determined by more than the presence or absence of any disease. It is comprised of a number of factors including measures of healthy life expectancy, years of potential life lost, self-assessed health status, chronic disease prevalence, physical illness, and mental well-being. These measures go hand-in-hand with measures related to health behaviors, such as physical activity, nutritional choices, and alcohol consumption. Measuring health behaviors provides a deeper understanding of health status.

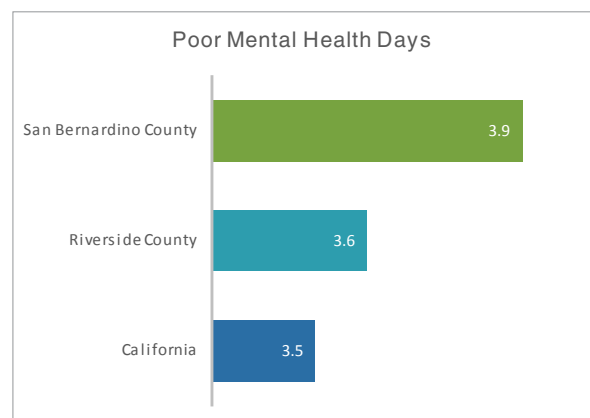
When looking at overall health status, San Bernardino County had the largest proportion of adults who would rate their health as “poor” or “fair” (19.8%), while Riverside County had a rate of 19.2%. However, both exceed the state estimate (17.5%). Of the two counties, San Bernardino County also had the highest number of poor physical health days (4.1) as well as poor mental health days (3.9) reported in a 30-day period.



Data Source: Robert Wood Johnson Foundation, County Health Rankings and Roadmaps, 2019. Retrieved January 2019 from <http://www.countyhealthrankings.org>



Data Source: Robert Wood Johnson Foundation, County Health Rankings and Roadmaps, 2019. Retrieved January 2019 from <http://www.countyhealthrankings.org>



Data Source: Robert Wood Johnson Foundation, County Health Rankings and Roadmaps, 2019. Retrieved January 2019 from <http://www.countyhealthrankings.org>

Physical Activity

In terms of physical inactivity, proportions across the region were slightly higher than the state estimate (17.9%) in response to the question: “During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?”

Specifically, positive response percentages were as follows: 21.2% in Riverside County and 21.3% in San Bernardino County.

When considering populations who have adequate access to locations for physical activity, figures vary greatly across the region. According to the 2018 County Health Rankings, access to exercise opportunities is defined as the percentage of individuals in a county who live reasonably close to a location for physical activity. Locations for physical activity are defined as parks or recreational facilities. Riverside County had the highest percentage of individuals with adequate access to exercise opportunities at 88%. San Bernardino County had the lowest percentage at 84.3%.

Chronic Disease

Chronic diseases and conditions—such as heart disease, stroke, cancer, type 2 diabetes, obesity, and arthritis—are among the most common, costly, and preventable of all health problems. The Centers for Disease Control and Prevention estimates that as of 2012, about half of all adults—117 million people—had one or more chronic health condition and one of four adults had two or more chronic health conditions.

Chronic Disease Indicators	California	Riverside County	San Bernardino County
Adults with a Body Mass Index Greater than 30	22.5%	25.6%	26%
Medicare Population with Depression	14.3%	13.6%	13.6%
Medicare Population with Heart Disease	23.6%	25.3%	24.2%
Medicare Population with High Blood Pressure	49.6%	48.1%	47.3%
Medicare Population with Diabetes	25.3%	23.9%	27.2%

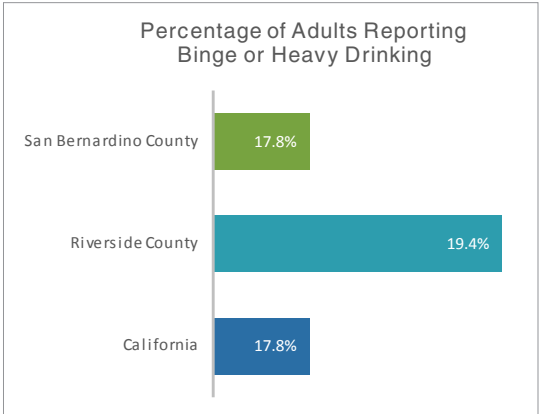
Data Sources: Community Commons (2018). Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2015. Centers for Medicare and Medicaid Services. 2015. Retrieved December 2018 from [https:// engagementnetwork.org/assessment/](https://engagementnetwork.org/assessment/)

Of note from the table above, San Bernardino County had the lowest percentages, in comparison to Riverside County, for Medicare populations with heart disease and high blood pressure. Riverside County had the lowest percentage for diabetes. While both counties share the same percentage with Medicare populations with depression.

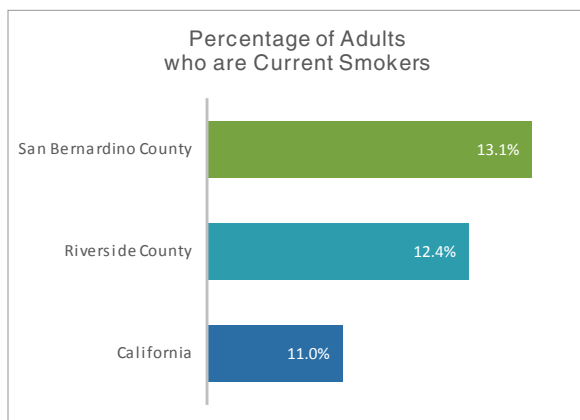
Alcohol and Tobacco Use

Alcohol and/or tobacco use has a major adverse impact on individuals, families and communities. The effects of abuse are cumulative, contributing to costly social, physical, mental, and public health problems.

According to recent estimates, Riverside County has the highest percentage (19.4%) of adults who engaged in binge or heavy drinking within the last 30 days, higher than the state estimate of 17.8%. Conversely, San Bernardino County has the lowest percentage of adults who engaged in binge or heavy drinking.



Data Source: Robert Wood Johnson Foundation, County Health Rankings and Roadmaps, Retrieved January 2019, <http://www.countyhealthrankings.org>



Those same estimates also noted that San Bernardino County has the highest percentage of adults who are current smokers (13.1%), while Riverside County has the lowest (12.4%). Comparatively, the statewide estimate is 11.0%.

Data Source: Robert Wood Johnson Foundation, County Health Rankings and Roadmaps, Retrieved January 2019, <http://www.countyhealthrankings.org>

Mental Health

Optimal mental health is a state of successful performance of cognitive and mental function. This results in productive activities, fulfilling relationships with other people, and the ability to change and to cope with challenges. Without meaningfully addressing mental illness a person may develop other physical symptoms or comorbidities due to self-medication and under treatment.

Good mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to one's community or society, as a whole. Maintaining mental health means not only seeking treatment for mental illnesses, but also having access to systems of social support through meaningful relationships. Suicide rates in Riverside County (10.9) were higher than San Bernardino County (10.5).

Suicide Age-Adjusted Death Rate (Per 100,000 Pop.)	California	Riverside County	San Bernardino County
	10.3	10.9	10.5

Data Sources: CARES Engagement Network (2019). Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2012-16. Retrieved February 2019 from <https://engagementnetwork.org/assessment/>

Sexually Transmitted Disease

Sexually transmitted infections (STIs) are passed from one person to another through intimate physical contact and from sexual activity including vaginal, oral, and anal sex. STIs are very common. In fact, CDC estimates 20 million new infections occur every year in the United States. Understanding the rate of STIs is important because they are measures of poor health status, indicate a lack of sexual health education, and indicate the prevalence of unsafe sex practices. San Bernardino County had the highest rates per 100,000 population for chlamydia (540.1) and gonorrhea (158.7) incidence. Riverside County had the highest rates for HIV prevalence (247.9).

Rate per 100,000 Population	California	Riverside County	San Bernardino County
Chlamydia Incidence	506.2	363.7	540.1
Gonorrhea Incidence	164.9	109.3	158.7
HIV Prevalence	376.4	247.9	168.5

Data Sources: Community Commons (2018). US Department of Health & Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2016. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

How is the Region Doing?

- Adults in San Bernardino County reported more Poor or Fair Health Days (19.8%), Poor Physical Health Days (4.1), and Poor Mental Health Days (3.9) than Riverside County (19.2%, 3.8, 3.6) as well as the state estimate (17.5%, 3.5 and 3.5) respectively.
- San Bernardino County reported slightly higher Physical Activity rates (21.3%) than Riverside County (21.2%). Both counties, exceed the state estimate (17.9%).
- San Bernardino County had lower rates than the state estimates in Medicare Populations with Depression, Heart Disease and High Blood Pressure. However, the rates were higher for Adults with BMI Greater than 30 and Medicare populations with diabetes.
- San Bernardino County has the same rate as state for Percent of Adults Reporting Binge or Heavy Drinking at 17.8%, whereas Riverside County had the highest rate of 19.4%.
- Riverside County (10.9) had a higher rate than San Bernardino County (10.5) for suicide rates. Both exceed the state estimate of 10.3 per 100,000.
- San Bernardino County had the highest rates per 100,000 population for chlamydia (540.1) and gonorrhea (158.7). Riverside County had the highest rates of HIV prevalence (247.9).

What Can Be Done?

Protecting the public's health means ensuring that a community has access to health services and the information necessary to make healthy decisions. In order to form more meaningful partnerships, we must understand the health status of our community. Primary and secondary data reveal that mental health including substance abuse services are the top needs to be addressed. To begin to heal our community, we must comprehensively address mental health and substance abuse by providing integrated and specialty services to those in need.

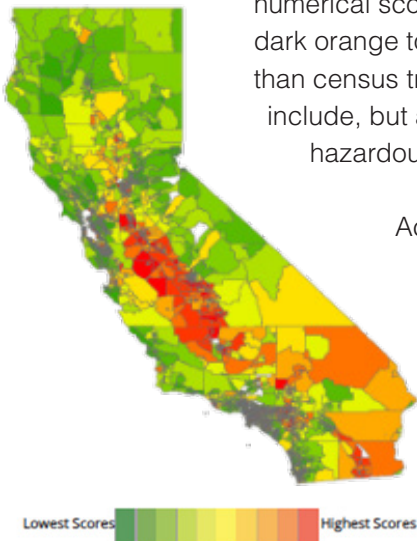
PHYSICAL ENVIRONMENT

Our physical environment can affect our health behaviors, quality of life and years of healthy life lived. The World Health Organization (WHO) defines environment, as it relates to health, as “all the physical, chemical, and biological factors external to a person and all the related behaviors.” This can include air quality and exposure to toxic substances, as well as factors such as the built environment and housing. The lack of safe green places to play can affect the health of a community through reduced opportunities to engage in physical activity.

CalEnviroScreen 3.0, June 2018

CalEnviroScreen is a science-based mapping tool that was developed by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. This tool helps identify California communities that are most affected by many sources of pollution and that are often especially vulnerable to pollution's effects.

CalEnviroScreen uses environmental, health, and socioeconomic information to produce a numerical score for each census tract in the state. A census tract with a high score (colored dark orange to dark red) is one that experiences higher pollution burden and vulnerability than census tracts with low scores (colored shades of green). Indicators that are considered include, but are not limited to, ozone, PM 2.5, drinking water quality, pesticides, and hazardous waste.



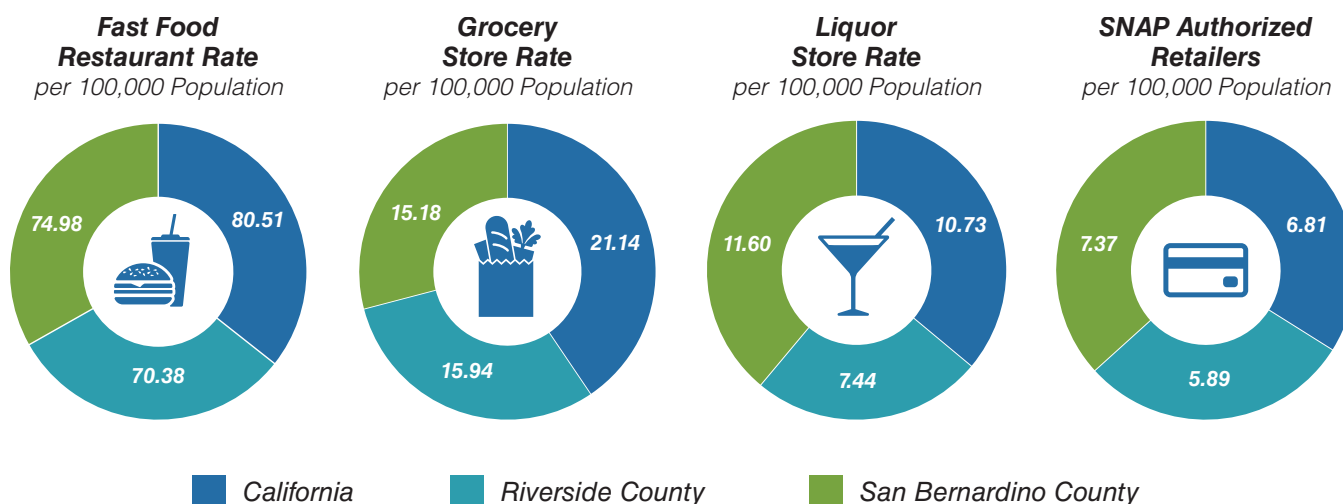
According to the most recent CalEnviroScreen 3.0 results, Riverside County falls in the 60-65% CalEnviroScreen 3.0 Percentile. San Bernardino County falls in the 75-80%. This means that these areas have a high pollution burden (includes exposure and environmental effects variables), populations especially sensitive to these factors, and socioeconomic factors that increase vulnerability to pollution.

Data Source: Office of Environmental Health Hazard Assessment. CalEnviroScreen 3.0 Overall Results and Individual Indicator Maps, January 2019. Retrieved from <https://oehha.ca.gov/calenviroscreen/maps-data>

Retail Food Environment

Understanding the retail food environment is important to determine access to healthy foods for populations and overall environmental influences on dietary behaviors.

Four indicators are important to consider: the fast food restaurant rate, the grocery store rate, liquor store rate and the number of retailers authorized to accept Supplemental Nutrition Assistance Program (SNAP) benefits (all calculated as establishments per 100,000 population). Areas with a high fast food rate, low grocery store rate, high liquor store rate and low SNAP authorized retailers will inevitably have populations with higher rates of food insecurity, due to lack of access to healthy and affordable foods. Across the two-county region, San Bernardino County had the highest fast food restaurant (74.98), lowest grocery store (15.18) and highest liquor store rates (11.60). Riverside County had the fewest SNAP authorized retailers (5.89). The state estimates are 80.51 fast food restaurant, 21.14 grocery store, 10.73 liquor store, and 6.81 SNAP authorized retailers respectively.



Data Source: Community Commons (2018). US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2016. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

Food Insecurity

Food insecurity refers to the US Department of Agriculture's measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Food insecurity may reflect a household's need to make trade-offs between important basic needs such as housing or medical bills and purchasing nutritionally adequate foods.

	California	Riverside County	San Bernardino County
Overall Food Insecurity, Percentages	11.7%	9.8%	10.4%
Children Food Insecurity, Percentages	19.0%	19.0%	19.9%

Data Source: Feeding America (2016). Map the Meal Gap, Online Tool. Retrieved January 2019 from <http://map.feedingamerica.org/>.

When looking at overall food insecurity rates across the two counties, one finds the proportions lower than the estimates for the State of California. San Bernardino County has the highest proportion of children experiencing food insecurity at 19.9%. This rate is higher than the estimate for the State of California (19.0%).

Built Environment

The term built environment refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings to parks. It has been defined as "the human-made space in which people live, work, and recreate on a day-to-day basis." The built environment influences a person's level of physical activity. For example, inaccessible or nonexistent sidewalks and bicycle or walking paths contribute to sedentary habits. These habits lead to poor health outcomes such as obesity, cardiovascular disease, diabetes, and some types of cancer. Other factors to consider include access to recreational facilities and fitness centers, housing indicators, and access to broadband internet access. Access to the internet is important because access to technology opens up opportunities for employment and education. Access to recreational facilities is relevant because access encourages physical activity and other healthy behaviors. Riverside County has the lowest

percentage of the population that commutes to work by either walking or riding a bicycle at 1.9%, almost two percentage points lower than the state estimate of 3.8%.

	California	Riverside County	San Bernardino County
Broadband Access	95.4%	96.2%	94.1%
Recreational Facilities Establishments, per 100,000 Population	10.75	8.22	6.14
Walking or Biking to Work	3.8%	1.9%	2.1%

Data Sources: Community Commons (2018). National Broadband Map. 2016. US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2016. US Census Bureau, American Community Survey. 2012-16. Retrieved December 2018 from <https://engagementnetwork.org/assessment/>

How is the Region Doing?

- Riverside County had a lower Pollution Burden (60-65%) than San Bernardino County (75%-80%) in the CalEnviorScreen.
- Across the two-county region, San Bernardino County had the highest fast food restaurant (74.98), lowest grocery store (15.18) and highest liquor store rates (11.60). Riverside County had the fewest SNAP authorized retailers (5.89). The state estimates are 80.51, 21.14, 10.73, and 6.81 respectively.
- Riverside County (9.8%) and San Bernardino County (10.4%) have lower proportions of Overall Food Insecurity than the estimates for the state, 11.7%.
- San Bernardino County has the highest proportion of children experiencing food insecurity at 19.9%. This is higher than the state estimate of 19.0%.

What Can Be Done?

The physical environment is where we live, work, and play. Access to green spaces, as well as healthy foods play a part in our overall health and how well we interact with others, and often determine our long-term health. To effectively implement interventions, we must understand the built environment in which we live and invite partners to develop collective action plans to achieve health equity and overall health improvements for the entire population. Nontraditional partners such as transportation, planning and parks and recreation agencies can help address the physical environment issues systematically.

VOICES FROM THE COMMUNITY

A CHNA would not be complete without hearing from the local community. Those chosen to provide input, represent the diversity of our community and those who are medically under-served, low-income and minority populations.

Overview

From November 12, 2018 to January 18, 2019, multiple focus groups, key informant interviews and surveys were administered. A total of 228 people were surveyed to obtain input from the community in the form of 11 focus groups (with a total of 97 focus group participants), 32 key informant interviews and 99 people responded to the online survey (including a Spanish option). A full description of key informants and focus group participants can be found in the Appendix F of this document.

Focus Groups

Participants in the focus groups were end-users of programs and services as well as volunteers and/or auxiliary board members provided by the hospitals participating in this CHNA. Populations represented by focus group members included low-income populations, homeless, seniors, women's cancer, single mothers/maternal health, and Spanish-speaking Promotoras. Most of the participants were from Ontario, Temecula, and Redlands. Additional cities represented by the participants were Crestline, Running Springs, Murrieta, Wildomar, Yucaipa, Menifee, Winchester, Lake Arrowhead, Hemet, and Fallbrook.

Key Informant Interviews

Key informant interviews consisted of key leaders in our community from an array of agencies, including those that serve children, homeless populations, veterans, seniors, and Spanish-speaking populations. Other organizations represented included public health agencies, law enforcement, health care organizations, funders, and school districts. The majority of the people interviewed serve residents in San Bernardino County, Riverside, Inland Empire, Murrieta, and Crestline. Pomona, Rancho Cucamonga, Redlands, Lake Arrowhead, Highland, Green Valley Lake, and Cedar Pines Park were among those areas mentioned more than once. Most of the key informants had titles as Director or Executive Director, President or Vice President, or were a part of the medical staff of their organizations. Seven respondents mentioned working for non-profit organizations. Community hospitals, public and/or population health, workforce development, affordable housing, and fire protection services were most frequently stated as services provided.

Survey

The surveys portrayed some similarities to the focus groups and key informant interviews. Ninety-three percent of the survey respondents lived in San Bernardino County, while 6 percent in Riverside. A majority live in the 91786, 91701, and 91730 zip codes. The services provided were for older residents, homeless, families, and youth. Of those representing organizations, the services provided are health education, acute care, physical therapy, transportation, caregiver support, companions, village model, volunteer opportunities, case management, Friday night dinners at various churches, and once a week free clothes washing.

Methodology

To determine focus groups and key informants, members of the Inland Empire Regional CHNA Taskforce individually created lists of people they thought should be interviewed. They were provided with a list of sample sectors for consideration that included: community-based organizations, local business, foundation/funders, school board/district, city council, public health department, law enforcement, legal, faith-based organizations, and hospital leaders. Additionally, work group members were asked to consider the following criteria:

- Does this person represent a vulnerable population?
- Does this person represent the uninsured/underinsured population?
- Does this person's role transcend over more than one county?
- Do we have representation from all sectors?
- Does it meet the requirement of community health needs assessments?
- Does this person's role cross sectors?

Additionally, workgroup taskforce members were asked to consider the following populations for inclusion in focus groups: those dealing with mental health issues or substance abuse, minority, low income, uninsured/underinsured, and youth. While members considered potential groups and venues, they were asked to keep the following criteria in mind:

- Does this group represent a vulnerable population(s)?
- Does this group represent the uninsured/underinsured population?
- Do we have a strong relationship with this group?
- Do we wish to strengthen this relationship?

Finally, the taskforce was encouraged to send survey links to any partner organizations that did not make the key informant list.

Objectives

By engaging the community our main objective was to discover strategies in which our hospitals could collaborate to better serve communities and elevate the health status of our region. To better understand the needs, the focus groups and key informant interviews concentrated on these themes:

- Visions of a Healthy Community
- Health Needs
- Existing Resources
- Barriers to Accessing Resources and Addressing Needs
- Methods of Hospital Improvement
- Additional Feedback

Additionally, key informants were asked about the greatest health and social needs of children. Respondents to the survey were asked about the health problems and health needs of the community, including what is healthy in the community, what is not healthy in the community, and what the community needs to be healthy. They were also asked about the greatest health and social needs of children, services that could improve health in the community, barriers for clients from an organizational perspective, and for any additional feedback. Finally, the codebooks and survey results were instrumental in discovering commonalities in themes, to inform this report. This can be found in Appendix G-I.

The codebooks for the focus groups, key informant interviews, and surveys serve as guides to combine themes for comparison and analysis. The three sources were synchronized to provide a richer analysis when applicable. In addition, the quantitative data from the surveys were used to support the qualitative data for more comprehensive analysis where applicable.

Findings — Significant Health and Social Needs

The focus groups, key informants, and surveys contained questions about the most significant health need in the community. Based on those responses, prioritization was given to issues most frequently mentioned in all three data sources. The top five mentioned below are a combination of all three data sources based on frequency of response. The overarching themes based on the amount of times the issue was mentioned across all three data sources are ranked below:

1.

Mental health including substance use and abuse
2.

Social issues – i.e. education, transport, housing, nutrition, poverty
3.

Chronic diseases - i.e. diabetes, obesity, cancer
4.

Access to health care
5.

Preventative care

The priority needs were identified by first creating codebooks based on the focus group, key informant interviews, and open text responses from the online survey. The codebooks assisted in combining the separate themes for comparison and analysis. The three sources were coordinated to supply richer interpretation when applicable. Using secondary sources, county information was gathered and compared with the themes found in the focus groups, key informant interviews, and surveys. Table 1 displays the separate ranking of most frequently mentioned health issues by focus group, key informant interview, and online surveys and corresponding data from the secondary sources. Although focus groups indicated mental health as the number one issue in the community, high rates of chronic disease was indicated most frequently in the surveys.

Table 1. Ranked order of most frequently mentioned by data source type

	Focus Groups	Key Informants	Surveys (health and social factors)
1	Mental health (including substance use and abuse)	Social determinants/issues (i.e. education, housing, nutrition, jobs)	High rates of chronic diseases (i.e. diabetes, obesity, asthma, cancer)
2	Social issues (i.e. education, transportation, housing, nutrition, poverty)	Mental health (including substance abuse and use)	Lack of affordable housing options
3	Chronic disease (i.e. diabetes, obesity, cancer)	Access to health care (i.e. insurance, provider shortage)	Lack of access to pediatric care
4	Access to health care (i.e. provider shortage, overcrowding)	Chronic disease (i.e. diabetes, obesity, cancer)	Lack of access to mental health services (including substance abuse services)
5	Lack of preventative care; Health issues of the older population	Preventative health care	High need for help navigating assistance programs

Focus groups indicated mental health as a high priority in several questions. These issues included substance use and abuse, access to help and resources, depression, anxiety, and suicide. Transportation, poverty, homelessness, nutrition, and government were among the social issues affecting the health of communities. Also frequently mentioned were chronic diseases such as diabetes, obesity, and cancer. Access to health care, lack of awareness, lack of insurance, over-crowding, and lack of providers were mentioned in focus groups as health issues.

Focus Group Supporting Quotes

“[Mental health provider] on staff, but they work Monday through Friday, 9:00 am to 4:00 pm. So, you have to have a breakdown during those hours to send somebody out.”

<i>“It’s what actually put me in the street. I have major health issues, but at the same time, the way social security and disability things like that, system seems to work they just don’t care. If they owe quite a bit of money, it’s just hard to get anything really accomplished and anybody to hear or look into.”</i>	<i>“Right now, what I see the most is cancer. I don’t know if it’s because of what we eat here. The food has added hormones. Not sure why that happens. You see a lot of the food is refrigerated and the canned food lasts a very long time. They have to put other ingredients to make food last for a long time.”</i>	<i>“I’m sorry but they’ve opened the floodgates up to too many people that can’t pay. And then it’s taking away from us that can and so it’s crowding the system. So that’s why I believe there’s not enough doctors and quality doctors and beds.”</i>
--	--	---

Key informant interviews provided information about the significant health needs, and social determinants of health were among the highest issue mentioned. These included education, homelessness, insurance, housing, economic stability, nutrition, jobs, and transportation. The greatest needs were seen in mental health, which encompasses depression, substance abuse, behavioral health access and treatment, community trauma, and stress. Multiple respondents mentioned gaps in the health care system, lack of access to primary care and specialists, and access to health information as issues with access to health care. Similarly, to the focus groups, the key informants indicated chronic diseases such as diabetes, obesity, cardiovascular, respiratory, and having more than one health problem are significant health issues in the community. The need for preventative health care services such as screenings, checkups, and wellness awareness were high concerns for the community.

Key Informant Supporting Quotes

“Education includes health literacy and healthcare education as well as academic achievement and purchasing power. Under purchasing power that includes employment and it includes understanding how to use money, and understanding insurance, the cost of insurance, and use of insurance, and also how to use personal finances to invest in health.”

“Mental health concerns, seeing and hearing more. In some ways we are under resourced counselors and other mental health supports to encourage. This kind of change in how we connect, focus on technology is impacting people’s mental health as well. I think it’s going to be a need for us.”

“It’s wellness care, wellness awareness. People use the community hospital when they are in need which means they had an accident or are sick. We need to use those opportunities to educate people for wellness in their personal life or people they come in contact.”

Key informants were also questioned about specific populations disproportionately affected by the health issues, effect of health needs on the community, and other priorities in the community that may have not been discussed. Specific populations disproportionately affected were identified as minority groups, including immigrants, people of color, LGBTQ, and seniors, homeless, mothers and children, drug users and abusers, private payers, low education, mentally ill, re-entry population, and veterans.

Key informants described the health needs of the community as a negative “snowball” effect in community health and ‘insurmountable’ barriers. Further descriptors were increased chronic disease, next generation repeating the cycle, lower quality of life, more homelessness, premature death, delays in care, exhausted resources, and increased suicide. Homelessness, income, mental health, and the combination of multiple needs were repeated when asked about other priorities.

Findings by Themes

Visions of a Healthy Community

The main themes surrounding the vision of a healthy community intersected on promotion of healthy living, education, access to health care, and safety. Both the focus groups and key informant interviews had these themes as the most frequently mentioned. For focus groups, examples of a healthy community include access to recreational activities including park accessibility, exercise, and community events, especially for youth. Having sidewalks, murals, and community gardens were also visions of healthy communities. Education included community awareness, health literacy, higher education opportunities, and promoting technical skills. Quality health care, adequate amount of providers, insurance, and equitable care were areas regarding access to health care. Safety concerns included safe schools, protected communities, low crime, and adequate places for the homeless.

Focus Group Supporting Quotes

“Definitely somewhere there has a lot of parks to be active. A lot of kids now are stuck on video games or on their phones. It’s important to have a very nearby park...Where they can be active and safe. Also, it builds family bonding as well which is much needed and bond with other kids too”

“Those who are educated were initially exposed and this is wonderful, but if that education doesn’t continue through those elementary years and forward, then the lifestyle doesn’t revert back to what they see in their environment. So, we’ve got to be able to continue that education along the way to that they develop healthy lifestyles going forward, so it is no longer repeated.”

“Having equitable access for our residents to not only services and resources, but equitable access to feel that they can make a change. So, getting involved in sharing their voices, authentic voices at a table.”

“A place that is safe and one where we don’t have to hide from anyone. That’s important.”

Congruent with the focus groups, the key informants provided health promotion and prevention, education, access to health care and safety as the main themes. Focusing on wellness care and prevention, addressing social issues, educating youth about healthy lifestyles, and promotion through community events. A healthy community of key informants also highlighted education in regards to having equal access to the best education and using that education to better the workforce and community. Access to health care spanned from language barriers to affordability; having the equal ability to access quality care. A vision of living, working, and playing without the worry of violence resonated among the key informants.

Key Informant Supporting Quotes

“I think it’s one in particular where children and their families can thrive and reach their full potential and all that comes with that. Everything from safety, strong community infrastructure— transportation and schools and education that leads to better health outcomes, one where we have the workforce, population that is prepared for the workforce where they can have good jobs.”

“Safe and healthy place to live, work, and play with opportunities to grow. A community that has equal opportunities to thrive, regardless of race, gender, income, educational level, etc.”

Social Factors

Economics including poverty, housing, and education were the social factors mentioned by key informants. Additionally, homelessness, language barriers, transportation, culture, lack of family support, food deserts, safety, drug use, gangs, misaligned services, physical activity, sex trafficking, and shortage of resources are factors impacting the health of the community.

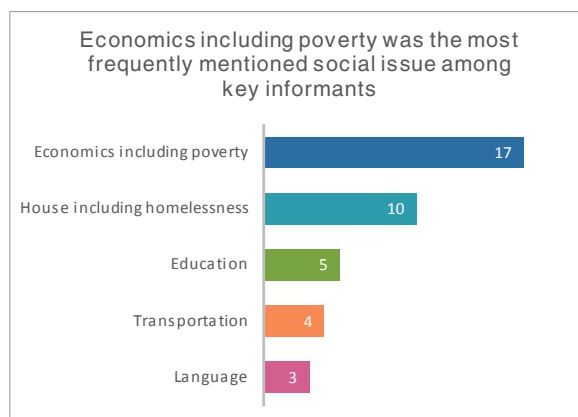
Supporting Quotes

“People who are perhaps of a lower socioeconomic class feel like they are ignored, do not have the ability to speak up when they have issues or may not even know who to speak to when they’re trying to resolve issues. The other component...is undocumented residents and given the political climate, it further pushes those individuals into the shadows. The outcome of that is if we don’t provide health care to everyone particularly where we have disease outbreaks even if something as simple as the flu. People have no access to health care, don’t get the proper immunizations to get the proper care they might need and then further spread whatever pathogen we may be looking at.”

“There is a lack of housing; sleeping in a car, sleeping outside, but there’s that stress level and then the stress adds to the looming health problems.”

Health Needs of Children

Among the key informants, the social and health issues with the greatest impact on children were identified most frequently as mental and behavioral health, nutrition, access to education, safety, and social-economic factors. Literacy, obesity, education of parents, physical activity, prevention, need for leisure activities, dental care, and elimination of vaping were also mentioned as concerns for children. Specifically, for mental and behavioral health, themes of bullying at schools and community spaces, family and generational trauma, depression, lack of resources for special needs, and chemical dependencies were brought up. Social needs included food insecurity, food programs, learning about healthy options were nutrition issues related to children. Although children attend school at a certain age, having quality education and support, and early childhood education, with access for preschoolers.



Key Informant Supporting Quotes

“To have access to food and nutrition. There are a lot of children often in their region go to school hungry and they only get the meals, or whatever is provided at school, so having healthy food options.”

“Statistics are showing greater discomfort and people in stress and more and more children, we have youth, homeless youth in growing numbers. Even though practitioners are recognizing the importance of early childhood adverse happenings, it’s not reached mainstream. The general public does not really understand the effects of early childhood adverse experiences and abuse and its long-term effects. Obviously, we have a high rate of incarceration.”

“One of the biggest areas we need to start focusing on for children is the idea of early education. Enough studies have shown and even just from a practice standpoint, the idea behind early education, is going to be a huge issue for children moving forward. Focus on the lifelong benefits as a result of early education of kids. Traditionally from an education standpoint, even from a health standpoint, from every standpoint, we’ve always been incredibly reactive rather than starting at the beginning. I think there’s a lot of potential around prevention when you’re talking about children: Children’s education falls into that category.”

Survey findings related to the health and social needs of children as listed below:

1. Opportunities to engage in physical activity, such as after-school sports programs and recreational centers;
2. Access to educational and mentorship enrichment opportunities;
3. Safe and affordable housing;
4. Access to mental health including substance abuse services; and
5. Access to healthy foods.

Many of these findings overlap with those of the key informant interviews. Additional comments from the survey include parents that establish good habits for their children, additional mental health providers, and education on interacting positively with other children with empathy and compassion.

Barriers to Access

The highest responses to barriers to access include transportation, costs, affordability of services, poverty and lack of resources. Transportation woes include limited public transportation, costs and trust of ride sharing applications, and lack of towing assistance.

Supporting Quotes

“The economics, there’s a lot of poverty and lack of jobs that impacts people getting care on some level. They don’t have the gas to go down the hill to get the services that aren’t here.”

Perception of Hospital Services

Focus group participants and key informants were asked their perception of the hospital and were asked to offer any suggestions for new activities or strategies. Perception of the hospitals by the focus group findings provided positive highlights and constructive ways to improve. The positive perception themes include people and the physical building, doctors, nurses, family members, professionals, nice staff, hospital patrolling, and outreach activities. The clean facility and convenient location were also positives. As far as negative perceptions, most of this was based on the negative views of others. There were some personal experiences such as wait time, dissatisfaction with care, poor ratings, horrible experiences, lack of time, and lack of equipment. Additionally, the improvements the hospital has made are not publicized.

Focus Group Supporting Quotes

“I totally had a good experience with our hospital when it was little through the pregnancy center. It was something that I couldn’t get done down the hill because I had constraints with driving and I went and I had a lovely experience with there.”

“And the reality is even if they’re improving their services, they’re doing nothing to communicate to the community what they’re trying to improve their care. I never hear them engaging with the population. So even if they do improve things if you’re not telling them, they won’t know. You have to control the image.”

Quick service, supporting community, behavioral health, compassion, attentive NICU, funding, lab services, meeting needs, pharmacy, radiology, and residency programs were all mentioned as things that should continue and increase. In supporting the community, partnerships, awareness, investing in communities, programs in schools, innovation, low-income population focus, mobile clinics, developing a newsletter, and working with Women Enlightened. Areas mentioned in the focus group for improvement focused on extending ER and hospital services including time open, build more community programs, market and reach out for greater community awareness, increase staff, have preventative services, activities for families, having discharge plans for homeless, donating to physical health programs, mobile clinics, and addressing prescription care.

Focus Group Supporting Quotes

“What I am proud of at the hospital is that we’ve been doing a lot of innovation. Some of it has been forced on us because of lower costs and low reimbursement but we are looking at integrating behavior health into our inpatient and outpatient practices. I’m proud of the efforts early efforts to use community health workers to try to understand the value in helping patients address social barriers.”

“Holding a type of event, a series that will help bring up the image and ways they’re improving. They need to let the community know they are improving their services.”

Key Informants findings mostly described the status of services and relationships rather than the health and quality of life aspects of improving hospital and community relations. Leading plans and initiatives, working with organizations already addressing health issues, and offering education on wellness were among the most mentioned examples of services and relationships to be improved. Health and quality of life included being advocates of social issues and community and focusing on cultural specifics of the demographic served.

Key Informant Supporting Quotes

“Hospitals as a whole may not have taken time to understand their communities. Truly being a part of the community and not just utilize their health needs assessment as a folder that sits on their desk that’s just done every three years. Truly taking that plan out and connecting their activities, their resources, their human capital to make a significant impact on those issues that are identified.”

“It would be great if hospitals had a more holistic view of what are the critical needs of the community and they became advocates for the kinds of developments necessary for the population health indicators to be moving in a positive direction. If the hospitals were advocating for parks and walkable communities and eliminating food deserts and addressing a lot of these issues, the health care community would be listened to in that regard and have a very positive impact. Most hospitals are so inwardly focused. They should pay attention to what is going on in that community around them.”

Suggestions for improving relationships between the hospital and community involved partnerships, reaching out to the community, advocating for the community, economically supporting the community, transportation, sharing data and information, supporting diversity, focusing on prevention, and developing the workforce in the community.

“Working deliberately together and collaborating and understanding the needs of our specific community and then coming together to decide how we tackle them. It shouldn’t be working in a silo with one hospital versus another hospital and fire department or even private ambulance company. We should all be sitting at the table saying these are the needs of our community, how can we solve them instead of it being so proprietary and siloed.”

PRIORITIZATION OF HEALTH NEEDS

Process and Criteria

On April 19, 2019, HC2 Strategies, Inc. facilitated a strategy meeting with the members of the Inland Empire Regional CHNA Taskforce to review the results of the CHNA and determine the priority need(s) that the hospitals will address over the next three years. To aid in determining the priority health need(s), the Taskforce was given several critical pieces of information and criteria to consider when making a decision. The priority needs were identified by first creating codebooks based on the focus group, key informant interviews, and open text responses from the online survey. The codebooks assisted in combining the separate themes for comparison and analysis. The three sources were coordinated to supply richer interpretation when applicable. Using secondary data sources, county information was gathered and compared with the themes found in the focus groups, key informant interviews, and surveys. The table represents the most frequently mentioned health issues, in ranked order, among the focus groups, key informant interviews, and online survey, with corresponding data from the secondary sources.

Ranked order of identified community health needs:

Priority Health Issue	Rationale/Contributing Factors
Mental Health and Alcohol/Drug Substance Abuse	<p>Mental health was one of the most frequently mentioned health needs in nearly every question by the focus groups, key informants, and survey respondents, including children and the aging population. Issues mentioned on shortage of staff, addiction, lack of available services, trauma, isolation, and social factors such as transportation, lead to continued unmet mental health needs.</p> <p>Reported poor mental health days is slightly higher in Riverside County at 3.6 days and San Bernardino County at 3.9 days than the state average of 3.5 days.</p> <p>2017 Hospitalizations for Alcohol/Drug Abuse or Dependency for men are significantly higher than women at all hospitals.</p> <p>Riverside and San Bernardino counties report 13.6% of the Medicare population with depression compared to 14.3% for California.</p> <p>San Bernardino County has the same rate as state for Percent of Adults Reporting Binge or Heavy Drinking at 17.8%, whereas Riverside County had the highest rate of 19.4%.</p>

Priority Health Issue	Rationale/Contributing Factors
Transportation – Especially for Senior Population	<p>Although most community members use more than one means of transportation to work, all three sources mentioned transportation as a major issue for access to health care.</p> <p>With age 65 and older population of approximately 14 percent in Riverside County and 11 percent in San Bernardino County, there is a concern for the aging population for lack of mobility, increased medical need, and greater levels of social isolation.</p> <p>Surveys mentioned having a bus system for seniors, key informants mentioned the dependency of transportation to access health services, and focus groups mentioned the lack of mobility affects access to quality food, mental health, and increased substance abuse.</p>
Poverty and Food Insecurity	<p>Poverty puts people, especially children, at a higher risk of premature death, mental health issues, malnutrition, and overall poor health. The percent of the population living under 100% FPL is 19.1% in San Bernardino County and 16.5% in Riverside County compared to 15.8% in the state. The percent of children under the age of 18 living under 100% FPL is 26.9% in San Bernardino County, 22.8% in Riverside County compared to 21.9% in the state.</p> <p>Access to affordable, quality food in communities and schools, such as walking distance to farmer's markets and fresh fruit and vegetables, were indicated as issues among focus groups, key informants, and surveys. San Bernardino County has the largest population receiving SNAP benefits (18.7%) compared to Riverside County (12.3%) and the state (11.2%).</p>
Affordable Housing and Homelessness	<p>The lack of affordable housing leads to stress, overcrowding, homelessness, and living in substandard conditions. Nearly half of the populations in Riverside (45.5%) and San Bernardino (46.3%) counties are living in substandard housing conditions. The percentage of households spending more than 30% of their gross income on housing in San Bernardino County is 43.2%, Riverside County 43%, and state is 42.8%.</p> <p>The key informants indicated physical and mental illness leads to eviction ending in homelessness. The priority of maintaining housing lessens the priority of health; and the lack of sufficient wages to afford quality housing.</p> <p>Survey respondents indicated the need for safe housing among seniors.</p>

Priority Health Issue	Rationale/Contributing Factors
Education and Awareness	<p>Higher levels of education correlate with preventable poor health outcomes. Approximately a fifth of the population do not hold a high school diploma; Riverside County – 19.5% and San Bernardino – 21.2%.</p> <p>Focus groups mentioned links between poverty and education blocking people's ability to be in optimum health. Key informants indicated links between education and purchasing power and the importance of starting education early among children to encourage good health.</p> <p>Communicating with the community about resources and having health navigators and advocates was mentioned as awareness to facilitate health.</p>
Chronic Diseases <ul style="list-style-type: none"> • Asthma • Diabetes • Heart Disease • Obesity • Cancer 	<p>The top three leading causes of death in San Bernardino and Riverside counties are cancer, heart diseases and chronic lower respiratory disease. Chronic conditions are more prevalent in San Bernardino County than Riverside County.</p> <p>The rate of ED visits for Asthma are highest for San Bernardino County (51.9), followed by the state (45.8) and Riverside County (41.5).</p> <p>Analysis of the Prevention Quality Indicators (PQI) reveal that San Bernardino County has the highest admissions for diabetes short-term complications, diabetes long-term complications, hypertension, uncontrolled diabetes and asthma in younger adults.</p> <ul style="list-style-type: none"> • Percent of Medicare population with diabetes is 27.2% in San Bernardino County, 23.9% in Riverside County and 25.3% in California • Percent of Adults with a BMI greater than 30 is 26% in San Bernardino County, 25.6% in Riverside County and 22.5% in California • Seniors age 65 years and older have a higher proportion of hospitalizations in 2017 due to cancer than any other age group at all hospitals participating in the CHNA • Percent of Medicare population with heart disease is 24.2% in San Bernardino County, 25.3% in Riverside County and 23.6% in California • Percent of Medicare population with high blood pressure is 47.3% in San Bernardino County, 48.1% in Riverside County and 49.6% in California <p>The lack of cancer services, high rates of diabetes and obesity due to poor food choices and low income, and difficulty to find places to walk were among the issues mentioned by the focus groups.</p> <p>A key informant indicated the issue is that people never have one issue, but multiple. The need to connect the dots with services before they visit will assist in facilitating healthy people.</p>

Priority Health Issue	Rationale/Contributing Factors
Access to Health Care <ul style="list-style-type: none"> • Provider shortage • Insurance 	<p>Significantly lower provider rates were found for dentists, mental health providers, and primary care physicians in Riverside (49.9, 173.5, 42, respectively) and San Bernardino counties (68.2, 194.2, 57.1, respectively) compared to the state with 82.4 per 100,000 population dentists, 308.2 mental health care providers, and 78 primary care physicians.</p> <p>Percent of uninsured was higher in Riverside County (14.7%) and San Bernardino County (14.1%) than the state (12.6%).</p> <p>One focus group indicated although there was a mental health staff member, if a mental health breakdown did not happen between the hours of 9:00 am to 4:00 pm, there was no help. Survey respondents also mentioned the need for longer hours in urgent care facilities.</p> <p>Key informants discussed access to health care as closing the gaps in health care system through connecting the dots for people with multiple issues, having more primary care providers and specialists available, and access to information for better treatment of the population.</p>
Preventative Health Care	<p>Preventative health care is comprised of promoting healthy lifestyles, preventing infectious disease, and helping patients achieve overall wellbeing. Riverside County had 19.2% adults who reported poor or fair health days, while San Bernardino had 19.8% compared to the state rate of 17.5%. While the state reported poor physical health for 3.5 days, Riverside County was 3.8 days and San Bernardino County was 4.1 days.</p> <p>Focus groups themes included the need for education and awareness on how to live healthy lives to combat preventable health conditions.</p> <p>Key informants indicated actions are needed from both the community and providers for wellness awareness and proactive preventative care.</p>

Taskforce members were also urged to consider the criteria outlined in the list below when making a decision. This method recognizes the need for a combination of information types (e.g., health indicators and primary data) as well as consideration of issues such as practicality, feasibility, mission alignment and hospital resources. Of note, the criteria selected for determining significant health needs were based on the IRS 501(r) regulations for conducting community health needs assessments and developing implementation plans and finalized in consultation with the Inland Empire Regional CHNA Taskforce.

IDENTIFIED HEALTH NEEDS

On April 19, 2019, HC2 Strategies, Inc. facilitated a strategy meeting with the members of the Inland Empire Regional CHNA Taskforce to review the results of the CHNA and determine the top three priority needs that the hospitals will address over the next three years. To aid in determining the priority health needs, the Taskforce members agreed on the criteria below to consider when making a decision.

- Addresses disparities of subgroups
- Availability of evidence or practice-based approaches
- Existing resources and programs to address problems
- Feasibility of intervention
- Identified community need
- Importance to community
- Magnitude
- Mission alignment and resources of hospitals
- Opportunity for partnership
- Opportunity to intervene at population level
- Severity
- Solution could impact multiple problems

The voting members in attendance were:

- Linda Evans, Desert Regional Medical Center, Hi-Desert Medical Center and JFK Memorial Hospital (via phone call)
- Brian Connors, Inland Valley Medical Center and Rancho Springs Medical Center
- Keven Porter, Hospital Association of Southern California
- Deanna Stover, Ph.D., R.N., FNP, CNS, COHN-S, Principal, Synergy Solutions Consulting, LLC, representing Redlands Community Hospital
- Cathy Rebman, Vice President, Business Development & Community Outreach, San Antonio Regional Hospital

The top health needs across the region identified for 2019-2021 include Mental Health and Alcohol/Drug Substance Abuse; Chronic Diseases including asthma, cancer, diabetes, health disease, and obesity; and access to health care including provider shortage and insurance.

The table below shows the health needs identified in the 2019 CHNA compared to the 2016 CHNA:

Year	Health Outcomes	Social Determinants	Clinical Care	Built Environment
2019	Mental Health and Alcohol/Drug Substance Abuse Chronic Diseases <ul style="list-style-type: none"> • Asthma • Cancer • Diabetes • Heart Disease • Obesity 		Access to Health Care <ul style="list-style-type: none"> • Provider shortage • Insurance 	
2016	<ul style="list-style-type: none"> • Diabetes (higher rates among Hispanics) • Behavioral Health • Heart disease and stroke • Chronic Obstructive Pulmonary Disease • Cancer <ul style="list-style-type: none"> • Colorectal • Lung • Obesity 	<ul style="list-style-type: none"> • High rates of poverty; lower median incomes • Lower educational attainment 	<ul style="list-style-type: none"> • Poor access to primary care and behavioral health providers • Lack of preventive screenings for cancer • Inadequate prenatal care 	<ul style="list-style-type: none"> • Housing shortages • Lack of access to healthy foods

REGIONAL EVALUATION

The Hospital Association of Southern California (HASC) Inland Region office represents hospitals in Riverside and San Bernardino counties. Member hospitals are representative of many types of facilities, from rural to large teaching facilities, investor-owned to not-for-profit, VA to behavioral health, and community to public and district operated. HASC Inland Region office convenes and collaborates with member hospitals, local public health departments and community stakeholders to share current health issues and concerns in the region.

HASC Inland Region committees include:

- California Department of Public Health/Hospital Roundtable
- Homeless Patient Discharge Planning
- Workplace Violence Prevention Committee
- Behavioral Health Services Committee
- Emergency Health Services Committee
- Continuum of Care Committee
- HASC Accountable Communities for Health Initiative
- Workforce Development

In 2016 HASC Inland Region office coordinated the region's first Regional Community Health Needs Assessment (CHNA) in collaboration with 11 local hospitals. The assessment provided a detailed review of health in the Inland Empire with clear similarities and variability across the two counties and hospital service areas. The top chronic health conditions expressed through data compilation included (in alphabetical order):

- Asthma & Bronchitis
- Chronic Obstructive Pulmonary Disease
- Diabetes
- Mental Illness
- Obesity
- Substance Abuse

During the regional prioritization process, the Inland Empire Regional CHNA Taskforce decided that as a region they will focus on Diabetes, Obesity and Workforce Development as their health priorities.

Diabetes/Obesity

In response to the 2016 Regional Community Health Needs Assessment, the Inland Empire Bridging for Health Collaborative was created in September 2016 to focus on Diabetes and Obesity as the regional community health issue that was of critical concern for residents of the Inland Empire.

The multi-sector collaborative embarked on a two-year process to utilize grant funding from the Robert Wood Johnson Foundation and was comprised of Riverside and San Bernardino County Departments of Public Health, hospitals, school districts, regional health plans, and philanthropy leaders.

The goals of the collaborative were to:

- Identify intervention strategies to address the issue of diabetes/obesity.
- Determine innovative financing vehicles to fund the highest-impact interventions sustainably.
- Devise policy solutions that align intervention implementation and savings to public systems with private and public financing.
- Build on the infrastructure of regional efforts in Riverside and San Bernardino counties, Vital Signs, Riverside Community Health Improvement Plan, and the HASC Regional CHNA.

In August 2018, the Inland Empire Health Plan changed their direction and the group was reformed. The new focus is directed toward early childhood respiratory illness (asthma) and is a work in progress.

Workforce Development

The HASC Inland Region office has been working with REACHOUT, Loma Linda University Health (LLUH) and University of California Riverside (UCR) to develop a pipeline for community health workers (CHW) in the High Desert area (Victorville, Apple Valley, and Barstow).

This effort was in response to a need identified in the 2016 Regional CHNA for culturally appropriate navigation services that would support improving access to health care. The concept provided an educational pipeline that utilized community residents to support the interface and navigational needs to make health care access appropriate and easy.

The CHW workgroup has developed a presentation and is in the process of refining and exploring funding opportunities to support prospective candidates and employers.

The Inland Empire Economic Partnership (IEEP) Healthcare Council has met with academic leaders from UCR, LLUH, Western University and Health System representatives to discuss health care workforce challenges and the need for collaborative work. The discussion focused on developing five key strategy areas: 1) policy and advocacy; 2) decrease costs; 3) policy reform; 4) promote wellness; and 5) advise workforce development programs. The next steps are to develop a database of all programs being offered in the Inland Empire and where they are accessing clinical rotations for RN, LVN, MD, LAB and Respiratory Therapy.

APPENDIX A: QUALIFICATIONS OF CONSULTANTS

Laura Acosta, MPH, HC2 Strategies, Inc.

HC2 Strategies, Inc. is a strategy consulting company that works with health systems and hospitals, physician groups, communities and other non-profit organizations across the country to connect and transform the health and well-being of their communities. They work to integrate the clinical and social aspects of community health to improve equity and reduce health disparities.

Laura Acosta has experience in healthcare administration, community-based activities, faith communities, and healthy communities initiatives. She provides leadership to various community-based activities focused on improving the quality of life for Inland Empire, California residents. She has extensive knowledge and experience with community benefits, community health needs assessments, and community health plans. Ms. Acosta earned her bachelor degree in Business Administration, and a Master in Public Health from Loma Linda University with a focus in policy and leadership. She has been involved in leadership programs with the Inland Empire Economic Partnership and Healthcare Executives of Southern California, and has been actively involved in experience design.

Jaynie Boren, HC2 Strategies, Inc.

Jaynie is a strategy and business development executive with more than 25 years of progressive leadership responsibility in planning, growing market share, creating new revenue opportunities, and facilitating relationships and joint ventures for independent hospitals, major integrated healthcare delivery systems and tertiary medical centers.

She has the ability to bring individuals with diverse interests together to achieve corporate and business objectives. Jaynie is an executive that can bring together her outstanding market research, planning, marketing, strategy, project development, implementation, and relationship building skills. She has documented success in building strategic plans and working with teams to assure implementation of goals.

Susan Harrington, MS, RD, Communities Lifting Communities, Hospital Association of Southern California

Susan is a Registered Dietitian Nutritionist and has worked in public health for over 32 years. She is a former director of the Riverside County Department of Public Health and is a public and community health consultant. In July 2018, Susan joined the Hospital Association of Southern California (HASC) as Executive Director for Communities Lifting Communities (CLC). CLC is working with founding partners including HASC, HC2 Strategies and the Public Health Alliance of Southern California to advance significant systems change through a collective impact model aligning HASC member hospitals and health systems, public health departments, health plans, and community stakeholders to improve community health and reduce health disparities. Susan holds a master's degree in Nutrition from the University of Nebraska, Lincoln and a bachelor's degree in Dietetics from the University of California, Davis.

James A. Martinez, Ed.D., MPH

James earned a master's degree in epidemiology and a doctoral degree in health education from Columbia University, NY. He is a population health data expert using data to tell the community story. He teaches courses in database design, cartography and GIS applications in public health practice at Loma Linda University Health. He is also a program manager of Research and Evaluation at San Bernardino County Superintendent of Schools, where he assists with leadership and integrating interactive data systems.

He also works on a community-lead partnership with local government on developing a countywide health improvement framework, and asset mapping applications to promote networks of healthy communities and real-time community health management platforms for hospital emergency department visits and solutions for preventing readmissions.

Karen Ochoa, MA, Project Manager, Communities Lifting Communities, Hospital Association of Southern California

Karen manages projects and daily operations of the organization. Before joining CLC, Karen served as the Education Manager for the Hospital Association of Southern California. In her role as Education Manager, she supported the development of the various educational programs that focused on leadership development for hospital clinical and healthcare executives. Karen holds a master's degree in Urban Sustainability and a Bachelor of Arts degree in Urban Community & Environment from Antioch University Los Angeles.

APPENDIX B: GLOSSARY OF TERMS

Benchmark

A benchmark is a measurement that serves as a standard by which other measurements and/or statistics may be measured or judged. A “benchmark” indicates a standard by which a community can determine whether the community is performing well in comparison to the standard for specific health outcomes.

Community Resources

Community resources include organizations, people, partnerships, facilities, funding, policies, regulations, and a community’s collective experience. Any positive aspect of the community is an asset that can be leveraged to develop effective solutions.

Federal Poverty Level (FPL)

The set minimum amount of gross income that a family needs for food, clothing, transportation, shelter and other necessities. In the United States, this level is determined by the Department of Health and Human Services and used to determine financial eligibility for certain federal programs. One can calculate various percentage multiples of the guidelines by taking the current guidelines and multiplying each number by 1.25 for 125 percent, 1.50 for 150 percent, etc. 150%, 200%, and 400% are included in the tables below.

2018 Poverty Guidelines for the 48 Continental United States, Annual Salary				
Persons in Family/ Household Size	Poverty Guideline (Level)	138% of the FPL	300% of the FPL	400% of the FPL
1	\$12,140	\$18,210	\$36,420	\$48,560
2	\$16,460	\$24,690	\$49,380	\$65,840
3	\$20,780	\$31,170	\$62,340	\$83,120
4	\$25,100	\$37,650	\$75,300	\$100,400
5	\$29,420	\$44,130	\$88,260	\$117,680
6	\$33,740	\$50,610	\$101,220	\$134,960
7	\$38,060	\$57,090	\$114,180	\$152,240
8	\$42,380	\$63,570	\$127,140	\$169,520
For families/households with more than 8 persons, add \$4,320 for each additional person.				

Data Source: <https://aspe.hhs.gov/2018-poverty-guidelines>

2018 Poverty Guidelines for the 48 Continental United States, Monthly Salary				
Persons in Family/ Household Size	Poverty Guideline (Level)	150% of the FPL	300% of the FPL	400% of the FPL
1	\$1,012	\$1,518	\$3,035	\$4,047
2	\$1,372	\$2,058	\$4,115	\$5,487
3	\$1,732	\$2,598	\$5,195	\$6,927
4	\$2,092	\$3,138	\$6,275	\$8,367
5	\$2,452	\$3,678	\$7,355	\$9,807
6	\$2,812	\$4,218	\$8,435	\$11,247
7	\$3,172	\$4,758	\$9,515	\$12,687
8	\$3,532	\$5,298	\$10,595	\$14,127

Data Source: <https://aspe.hhs.gov/2018-poverty-guidelines>

Federally Qualified Health Center

Federally Qualified Health Centers are community-based health care providers that receive funds from the Health Resources & Services Administration Health Center Program to provide primary care services in underserved areas. They must meet a stringent set of requirements, including providing care on a sliding fee scale based on ability to pay and operating under a governing board that includes patients. Federally Qualified Health Centers may be Community Health Centers, Migrant Health Centers, Health Care for the Homeless, and Health Centers for Residents of Public Housing.

Focus Group

A group of people questioned together about their opinions on an issue. For this CHNA, focus groups answered questions related to components of a healthy community and issues in their community.

Food Insecurity

A lack of consistent access to food resulting in reduced quality, variety, or desirability of diet, or multiple indications of disrupted eating patterns and reduced food intake.

Health Indicator

A single measure that is reported on regularly and that provides relevant and actionable information about population health and/or health system performance and characteristics. An indicator can provide comparable information, as well as track progress and performance over time.

Healthy People 2020

Healthy People 2020 provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time to encourage collaborations across communities and sectors, empower individuals toward making informed health decisions, and measure the impact of prevention activities.

Housing Cost Burden

Measures the percentage of household income spent on mortgage costs or gross rent. The US Department of Housing and Urban Development currently defines housing as affordable if housing for that income group costs no more than 30 percent of the household's income. Families who pay more than 30 percent of their income for housing are considered cost burdened; families who pay more than 50 percent of their income for housing are severely cost burdened.

Housing Units with Substandard Conditions

Housing that poses a risk to the health, safety or physical well-being of occupants, neighbors, or visitors. Substandard housing increases risk of disease, crime, social isolation and poor mental health. Substandard housing is associated with one or more of the following conditions:

1. Is dilapidated;
2. Does not have operable indoor plumbing;
3. Does not have a usable flush toilet inside the unit for the exclusive use of a family;
4. Does not have a usable bathtub or shower inside the unit for the exclusive use of a family;
5. Does not have electricity, or has inadequate or unsafe electrical service;
6. Does not have a safe or adequate source of heat;
7. Should, but does not, have a kitchen; or
8. Has been declared unfit for habitation by an agency or unit of government.

Infant Mortality Rate

Expressed as a rate per 1,000 births, this is defined as the death of a child prior to its first birthday (should be read, for example, as 7.8 infant deaths for every 1,000 births).

Low Birth Weight

Expressed as a rate per 1,000 births, this refers to infants born with a weight between 1,500 and 2,500 grams or between 3.3 and 5.5 pounds. Very low birth weight infants are born with a weight less than 1,500 grams.

Prenatal Care

Adequacy of prenatal care calculations are based on the Adequacy of Prenatal Care Utilization Index (APNCU), which measures the utilization of prenatal care on two dimensions. The first dimension, adequacy of initiation of prenatal care, measures the timing of initiation using the month prenatal care began reported on the birth certificate. The second dimension, adequacy of received services, is measured by taking the ratio of the actual number of visits reported on the birth certificate to the expected number of visits. The expected number of visits is based on the American College of Obstetrics and Gynecology prenatal care visitations standards for uncomplicated pregnancies (1), and is adjusted for the gestational age at initiation of care and for the gestational age at delivery. The two dimensions are combined into a single summary index, and grouped into four categories: Adequate-Plus, Adequate, Intermediate, and Inadequate.

- Adequate-Plus: Prenatal care begun by the 4th month of pregnancy and 110% or more of recommended visits received.
- Adequate: Prenatal care begun by the 4th month of pregnancy and 80-109% of recommended visits received.
- Intermediate: Prenatal care begun by the 4th month of pregnancy and 50-79% of recommended visits received.
- Inadequate: Prenatal care begun after the 4th month of pregnancy or less than 50% of recommended visits received.

Prevention Quality Indicators (PQIs)

Prevention Quality Indicators (PQIs) are a set of measures that are derived from inpatient discharge data to identify the quality of care for ambulatory care sensitive conditions (ACSC). These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

Primary Data

Primary data are new data collected or observed directly from first-hand experience. They are typically qualitative (not numerical) in nature. For this CHNA, primary data were collected through focus groups and key informant interviews and surveys.

Secondary Data

Data that has already been collected and published by another party. Typically, secondary data collected for CHNAs is quantitative (numerical) in nature (for example, data collected by a local or state department of health, the Centers for Disease Control and Prevention, or a state department of education).

Teen Birth Rate

Expressed as a rate per 1,000 births, this refers to the quantity of live births by teenagers who are between the ages of 15 and 19.

APPENDIX C: DATA SOURCES CITED

1. Annie E. Casey Foundation (2018). Kids Count Data Center. Retrieved from <https://datacenter.kidscount.org/>.
2. California Department of Public Health, California Breathing. County Asthma Data Tool, 2015-2016. <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/EHIB/CPE/Pages/CaliforniaBreathingData.aspx>
3. California Department of Public Health, County Health Status Profiles 2018, Individual County Data Sheets. 2011-2016 Death Files. Retrieved from <https://www.cdph.ca.gov/Programs/CHSI/Pages/Individual-County-Data-Sheets.aspx>
4. California Office of Statewide Health Planning and Development, 2017 Inpatient Hospitalizations file using the SpeedTrack analytics platform.
5. Community Commons (2018). Engagement Network CHNA Report. Retrieved from <https://engagementnetwork.org/assessment/>.
6. Federal Bureau of Investigation, Uniform Crime Reporting Program, <https://ucr.fbi.gov>
7. Feeding America, Map the Meal Gap, 2016, <http://map.feedingamerica.org/>
8. Office of Environmental Health Hazard Assessment. CalEnviroScreen 3.0 Overall Results and Individual Indicator Maps, June 2018. Retrieved from <https://oehha.ca.gov/calenviroscreen/maps-data>
9. Robert Wood Johnson Foundation, County Health Rankings and Roadmaps, 2018, <http://www.countyhealthrankings.org>
10. State of California Department of Justice (2018). OpenJustice Online Database. Retrieved from <https://openjustice.doj.ca.gov/>

APPENDIX D: HEALTH INDICATOR TABLES

All data sources can be found throughout the document in the respective graph.

Social and Economic Factors Indicators	State Estimate	Riverside County	San Bernardino County
Children Below 100% Federal Poverty Level, Percent	21.9%	22.8%	26.9%
Cost-Burdened Households, Percent	42.8%	43.0%	43.2%
Head Start Programs, Rate (per 10,000 Children)	5.9	4.25	2.46
Housing Units with One or More Substandard Conditions, Percent	45.6%	45.5%	46.3%
Mortality — Drug-Induced Death, Rate per 100,000	12.2	15.2	11.3
Mortality — Motor Vehicle Traffic Crash Death Rate per 100,000 Population	8.8	11.4	12.8
Percentage of Homeownership, Percent	54%	64%	58%
Population Age 16-19 Not in School and Not Employed, Percent	7.0%	8.9%	9.8%
Population Age 25+ with Bachelor's Degree or Higher, Percent	32.0%	21.2%	19.3%
Population Age 25+ with No High School Diploma, Percent	17.9%	19.5%	21.2%
Population Below 100% Federal Poverty Level, Percent	15.8%	16.5%	19.1%
Population Receiving Public Assistance Income, Percent	3.8%	3.8%	5.6%
Population Receiving SNAP Benefits, Percent	11.2%	12.3%	18.7%
Students Scoring 'Not Proficient' or Worse on 4th Grade Reading Test, Percent	60.5%	63.3%	67.6%
Students Scoring 'Proficient' or Better on 4th Grade Reading Test, Percent	39.5%	36.8%	32.4%
Total Homelessness, 2018	NA	2,310	2,118
Substantiated Child Abuse Cases per 1,000	8.4	9.6	9.4
Unemployment Rate, Percent	4.3%	4.7%	4.2%

Public Health and Prevention Indicators	State Estimate	Riverside County	San Bernardino County
Access to Exercise Opportunities, Percent	89.6%	88%	84.3%
Adults who are Current Smokers, Percent	11.0%	12.4%	13.1%
Depression (Medicare Population), Percent.	14.3%	13.6%	13.6%

Public Health and Prevention Indicators	State Estimate	Riverside County	San Bernardino County
Diabetes (Medicare Population), Percent	25.3%	23.9%	27.2%
Excessive Drinking, Percent	17.8%	19.4%	17.8%
Heart Disease (Medicare Population) Percent	23.6%	25.3%	24.2%
High Blood Pressure (Medicare Population), Percent	49.6%	48.1%	47.3%
Poor or Fair Health (Age-Adjusted), Percent	17.5%	19.2%	19.8%
Poor Physical Health Days, 30-Day Period	3.5	3.8	4.1
Poor Mental Health Days, 30-Day Period	3.5	3.6	3.9
Population with No Leisure Time Physical Activity, Percent	17.9%	21.2%	21.3%
Obesity (Body Mass Greater than 30), Percent	22.5%	25.6%	26.0%
Suicide, per 100,000 Population	10.3	10.9	10.5
STI — Chlamydia Incidence, per 100,000 Population	506.2	363.7	540.1
STI — Gonorrhea Incidence, per 100,000 Population	164.9	109.3	158.7
STI — HIV Prevalence, per 100,000 Population	376.4	247.9	168.5

Health Systems Indicators	State Estimate	Riverside County	San Bernardino County
Active Asthma Prevalence, Percent	8.7%	10.2%	10.6%
Asthma ED Visits, Rate per 100,000	45.8	41.5	51.9
Asthma Hospitalizations, Rate per 100,000	4.8	4.2	5.6
Breastfeeding Initiation, Percent	93.8%	92.5%	89.3%
Dentists, Rate per 100,000 Population	82.4	49.9	68.2
Infant Mortality Rate (per 1,000 Live Births)	4.6	4.6	6.3
Lifetime Asthma Prevalence, Percent	14.8%	15.5%	15.9%
Low-Weight Births (Under 2500g), Percent	6.8%	6.7%	7.3%
Mental Health Care Provider, Rate per 100,000 Population	308.2	173.5	194.2
Mortality — All Cancers, Age-Adjusted Death Rate per 100,000 Population	140.2	146.2	157.6
Mortality — Diabetes, Age-Adjusted Death Rate per 100,000 Population	20.7	19.3	33.2
Mortality — Alzheimer's Disease, Age-Adjusted Death Rate per 100,000 Population	34.2	36.2	40.0

Health Systems Indicators	State Estimate	Riverside County	San Bernardino County
Mortality — Coronary Heart Disease, Age-Adjusted Death Rate per 100,000 Population	89.1	104.6	106.5
Mortality — Stroke, Age-Adjusted Death Rate per 100,000 Population	35.3	34.2	40.5
Mortality — Influenza/Pneumonia, Age-Adjusted Death Rate per 100,000 Population	14.3	10.6	13.2
Mortality — Chronic Lower Respiratory Disease, Age-Adjusted Death Rate per 100,000 Population	32.1	41.1	52.1
Mortality — Chronic Liver Disease and Cirrhosis, Age-Adjusted Death Rate per 100,000 Population	12.2	13.0	15.5
Mortality — Accidents (Unintentional Injuries), Age-Adjusted Death Rate per 100,000 Population	30.3	35.7	27.5
Mortality — Motor Vehicle Traffic Crashes, Age-Adjusted Death Rate per 100,000 Population	8.8	11.4	12.8
Mortality — Drug-Induced Deaths, Age-Adjusted Death Rate per 100,000 Population	12.2	15.2	11.3
Primary Care Physicians, Rate per 100,000 Population	78.0	42.0	57.1
Population Receiving Medicaid, Percent	26.6%	29.4%	33.8%
Rate of Federally Qualified Health Centers per 100,000 Population	2.74	1.96	1.18
Teen Births (per 1,000 female population aged 15 to 19 years old)	17.6	19.5	24.3
Uninsured Population, Percent	12.6%	14.7%	14.1%
Women who Received Adequate or Adequate-Plus Prenatal Care, Percent	77.9%	74.9%	71.6%
Women who Received Prenatal Care in the First Trimester, Percent	83.3%	83.2%	83.4%

Physical Environment Indicators	State Estimate	Riverside County	San Bernardino County
Broadband Access, Percent	95.4%	96.2%	94.1%
Fast Food Restaurant Rate, per 100,000 Population	80.51	70.38	74.98
Estimate Excessive Drinking, Percent	17.8%	19.4%	17.8%
Food Insecurity — Children, Percent	19.0%	19.0%	19.9%
Population Food Insecurity— Overall, Percent	11.7%	9.8%	10.4%
Grocery Store Rate, per 100,000 Population	21.14	15.94	15.18
Recreation and Fitness Facility Access, per 100,000 Population	10.75	8.22	6.14
SNAP-Authorized Retailers, Rate per 100,000 Population	6.81	5.89	7.37

APPENDIX E: 2016 PREVENTION QUALITY INDICATORS BY ZIP CODE

RIVERSIDE COUNTY						
Zip Code	City	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
92536	Aguanga	-	98.88	65.92	-	-
92539	Anza	96.83	121.04	48.41	96.83	-
92220	Banning	200.06	105.49	32.74	94.57	11.6
92223	Beaumont	60.89	55.09	20.3	52.2	29.02
92225	Blythe	23.35	70.06	-	23.35	11.52
92230	Cabazon	-	101.68	101.68	50.84	120.63
92320	Calimesa	58.17	130.89	-	72.72	-
92234	Cathedral City	43.13	112.61	33.54	38.33	44.66
92236	Coachella	91.03	94.41	26.97	40.46	24.72
92879	Corona	49	54.44	8.17	27.22	5.86
92880	Corona	53.05	69.19	16.15	36.9	9.66
92881	Corona	26.01	56.36	13.01	21.68	11.32
92882	Corona	36.48	59.52	11.52	21.12	12.96
92883	Corona	26.93	22.44	17.95	13.47	23.53
92239	Desert Center	-	-	432.9	432.9	-
92240	Desert Hot Springs	182.42	193.59	33.51	74.46	43.88
92241	Desert Hot Springs	75.47	113.21	12.58	25.16	-
92543	Hemet	153.1	196.84	47.39	91.13	20.55
92544	Hemet	137.15	142.86	22.86	54.29	24.07
92545	Hemet	54.51	127.18	42.39	66.62	20.26
92548	Homeland	18.15	127.04	-	18.15	-
92549	Idyllwild	-	119.37	-	-	-

RIVERSIDE COUNTY						
Zip Code	City	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
92210	Indian Wells	21.58	43.17	-	-	-
92201	Indio	103.96	165.11	30.58	30.58	18.81
92203	Indio	28.56	42.84	38.08	14.28	-
92253	La Quinta	43.87	56.41	28.2	15.67	24.42
92530	Lake Elsinore	79.55	114.03	29.17	50.38	34.06
92532	Lake Elsinore	73.21	65.89	36.61	65.89	15.11
92518	March Air Reserve Base	95.88	95.88	-	-	-
92254	Mecca	53.84	118.46	21.54	43.08	-
92584	Menifee	39.89	76.72	18.41	27.62	21.02
91752	Mira Loma	29.14	133.23	33.31	29.14	-
92551	Moreno Valley	55.72	64.29	25.72	25.72	8.67
92553	Moreno Valley	74.52	116.32	27.26	23.63	24.89
92555	Moreno Valley	49.66	79.46	16.55	39.73	14.27
92557	Moreno Valley	45.1	77.67	30.07	20.05	22.35
92256	Morongo Valley	65.88	98.81	32.94	32.94	119.33
92561	Mountain Center	132.28	198.41	-	66.14	-
92562	Murrieta	30.1	53.74	21.5	34.4	40.4
92563	Murrieta	55.22	72.79	25.1	32.63	28.04
92258	North Palm Springs	-	141.84	-	-	-
92860	Norco	25.97	60.6	12.99	12.99	22.48
92567	Nuevo	13.72	82.3	27.43	13.72	-
92260	Palm Desert	37.38	64.56	57.77	44.18	28.44
92262	Palm Springs	126.61	84.41	29.54	71.75	98.93
92264	Palm Springs	72.67	98.62	20.76	20.76	30.52
92211	Palm Desert	16.43	28.75	41.08	16.43	28.8

RIVERSIDE COUNTY						
Zip Code	City	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
92570	Perris	45.94	89.46	19.34	45.94	5.42
92571	Perris	108.25	105.61	26.4	39.61	20.08
92270	Rancho Mirage	29.07	63.95	29.07	29.07	-
92503	Riverside	48.34	123.87	15.11	46.83	20.02
92501	Riverside	51.9	132.63	40.37	69.2	58.23
92504	Riverside	42.62	91.98	35.89	33.65	-
92505	Riverside	65.52	125.8	10.48	34.07	16.18
92506	Riverside	43.62	109.06	16.36	27.27	24.16
92507	Riverside	33.88	73.73	9.96	19.93	9.38
92508	Riverside	11.66	69.99	11.66	3.89	18.42
92509	Riverside	76.58	95.3	20.42	37.44	15.03
92582	San Jacinto	61.58	79.18	17.59	43.99	36.36
92583	San Jacinto	42.78	141.18	51.34	59.89	10.51
92585	Sun City	118.46	74.04	14.81	37.02	-
92586	Sun City	41.06	148.83	35.93	82.11	61.43
92587	Sun City	23.59	39.32	39.32	23.59	66.11
92590	Temecula	162.13	32.43	64.85	64.85	112.49
92591	Temecula	45.07	31.21	17.34	27.74	16.43
92592	Temecula	56.92	41.74	26.56	28.46	9.75
92274	Thermal	27.31	61.45	27.31	13.66	-
92276	Thousand Palms	119.28	44.73	-	14.91	-
92282	White Water	100.3	-	-	-	-
92595	Wildomar	17	97.76	51.01	21.25	53.94
92596	Winchester	30.88	86.47	6.18	37.06	12.98

SAN BERNARDINO COUNTY

Zip Code	City	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
92308	Apple Valley	97.06	110	71.17	67.94	98.21
92309	Baker	-	232.02	-	232.02	-
92311	Barstow	168.05	155.76	16.4	94.27	49.99
92314	Big Bear City	111.46	12.38	-	12.38	42.81
92315	Big Bear Lake	46.4	69.61	-	23.2	-
92316	Bloomington	83.34	127.21	21.93	61.41	9.25
92322	Cedarpines Park	-	-	97.37	-	-
91708	Chino	32.05	96.15	-	-	-
91710	Chino	40.51	76.34	24.93	46.74	10.27
91709	Chino Hills	14.1	33.48	15.86	17.62	23.8
92324	Colton	84.98	132.19	37.77	40.13	4.83
92325	Crestline	79.91	119.87	26.64	13.32	-
92327	Daggett	215.52	-	-	215.52	-
92242	Earp	-	68.73	-	-	-
92335	Fontana	53.77	134.43	22.64	26.89	19.62
92336	Fontana	54.26	79.07	20.16	26.36	6.48
92337	Fontana	28.39	39.04	3.55	17.75	-
92339	Forest Falls	131.41	-	-	-	-
92310	Fort Irwin	16.36	-	-	-	18.04
92313	Grand Terrace	48.99	48.99	9.8	9.8	24.61
92342	Helendale	75.47	75.47	-	18.87	-
92344	Hesperia	41.4	82.8	48.3	48.3	15.82
92345	Hesperia	103.72	143.48	77.79	107.18	45.05
92346	Highland	80.63	106.72	30.83	35.57	18.03
92347	Hinkley	-	-	-	-	-

SAN BERNARDINO COUNTY

Zip Code	City	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
92252	Joshua Tree	100.34	62.71	-	62.71	70.7
92352	Lake Arrowhead	-	31.64	15.82	-	-
92285	Landers	265.6	132.8	-	44.27	-
92354	Loma Linda	43.72	54.65	10.93	27.33	12.44
92356	Lucerne Valley	38.57	96.41	57.85	38.57	-
92358	Lytle Creek	-	162.6	-	162.6	-
92359	Mentone	47.66	47.66	15.89	31.78	38.54
91763	Montclair	55.98	108.45	48.98	34.98	7.56
92365	Newberry Springs	-	44.98	-	-	-
92363	Needles	311.15	359.02	-	359.02	75.36
91761	Ontario	43.15	129.44	27.25	36.33	19.47
91762	Ontario	64.47	66.77	6.91	66.77	39.07
91764	Ontario	94.43	101.69	48.42	53.27	69.52
92368	Oro Grande	-	110.38	-	-	-
92371	Phelan	54.66	93.7	62.47	54.66	159.71
92372	Piñon Hills	61.55	41.03	-	61.55	-
92268	Pioneertown	182.48	-	182.48	182.48	-
91701	Rancho Cucamonga	28.97	41.85	16.09	9.66	9.38
91730	Rancho Cucamonga	37.4	65.45	20.57	20.57	30
91737	Rancho Cucamonga	20.61	66.99	10.31	10.31	43.55
91739	Rancho Cucamonga	82.8	82.8	11.83	27.6	-
92373	Redlands	50.55	43.32	14.44	14.44	9.85
92374	Redlands	72.54	94.62	6.31	37.85	-
92376	Rialto	70.9	146.74	32.98	34.62	27.35

SAN BERNARDINO COUNTY

Zip Code	City	PQI 01 Diabetes Short-term Complications	PQI 03 Diabetes Long-term Complications	PQI 07 Hypertension	PQI 14 Uncontrolled Diabetes	PQI 15 Asthma in Younger Adults (Ages 18-39)
92377	Rialto	129.3	51.72	45.25	38.79	-
92382	Running Springs	71.33	47.55	-	-	-
92401	San Bernardino	133.33	466.67	66.67	66.67	-
92404	San Bernardino	151.39	183.99	48.91	93.16	30.65
92405	San Bernardino	88.63	163.27	37.32	46.65	59.04
92407	San Bernardino	70.12	116.87	30.39	30.39	31.03
92408	San Bernardino	56.02	128.04	24.01	16.01	32.02
92410	San Bernardino	106.59	207.41	46.09	83.54	34.06
92411	San Bernardino	77.1	241.57	66.82	71.96	33.49
92386	Sugarloaf	285.88	-	-	-	-
92277	Twentynine Palms	133.7	100.28	11.14	27.86	19.17
91784	Upland	18.67	32.67	18.67	18.67	-
91786	Upland	83.3	90.66	22.05	44.1	10.89
92392	Victorville	101.9	150.3	99.35	84.06	49.57
92394	Victorville	65.19	142.6	73.34	40.74	45.67
92395	Victorville	118.3	171.23	71.6	96.51	112.76
92397	Wrightwood	25.82	-	51.64	25.82	187.62
92399	Yucaipa	76.08	56.44	2.45	19.63	13.86
92284	Yucca Valley	69.28	98.97	29.69	54.43	-

APPENDIX F: DESCRIPTION OF KEY INFORMANTS AND FOCUS GROUPS

This assessment would not have been possible without input from our community. This section outlines the community leaders that served as key informants for this assessment, as well as a description of the focus groups convened.

- 228 total participants
- 11 focus groups, 2 conducted in Spanish (with a total of 97 focus group participants)
- 32 key informants
- 99 people responded to the online survey (including a Spanish option)

Description of Focus Groups

Riverside County Focus Groups				
Organization	Location	Population Served	Language	# of Participants
Michelle's Place	27645 Jefferson Ave, Suite 117, Temecula, CA	Women's Cancer Support Group	English	9
National Alliance on Mental Illness (NAMI)	30520 Rancho CA Road, Suite 107, Temecula, CA	Mental Illness	English	6
Project T.O.U.C.H.	Extended Stay of America 27622 Jefferson Ave., Room 301 Temecula, CA 92590	Homeless Men	English	5
Rancho Damacitas	38950 Mesa Road, Temecula, CA	Single Moms and Family Services	English	7

San Bernardino County Focus Groups				
Organization	Location	Population Served	Language	# of Participants
El Sol - Clinical Community Health Workers (CCHW's)	718 E. Maitland St. Ontario, CA 91861	Promotoras – Serving All Community Members	Spanish	15
Family Service Association of Redlands	612 Lawton St Redlands, CA. 92374	Low Income Community	Spanish	6
Foothill Family Shelter	324 N. San Antonio Ave., Apt #3 Upland, CA 91786	Low Income Community	Spanish	6

San Bernardino County Focus Groups				
Organization	Location	Population Served	Language	# of Participants
Healthy Cities Coordinators	Zoom Conference Call	Healthy Community Coordinators, Public Health, Hospital Representatives, and Community Based Organizations	English	13
Mountain Pregnancy Center	461 S Dart Canyon Crestline, CA 92325	Young Mothers/ Maternal Health	English	6
Redlands Community Hospital Boards Board of Directors, Volunteers and Foundation	501 Terracina Blvd Redlands, CA 92373 Rooms C and D Weisser Education Pavilion	Community	English	16
Rim Family Services	28545 State Hwy 18 Skyforest, CA 92385	Counseling/ Parent Education/Anger Management	English	6

Description of Key Informants

Riverside County Key Informant Contact List				
Name	Title	Organization	Sector	Population Served
Bridgette Moore	Council Member, District 4	Wildomar City Council	City Council	Wildomar
California State Assemblywoman Melissa Melendez	Assemblywoman of CA 67th District	State Assembly	Government – State Assemblywoman	CA Inland Empire
Council Member Jonathon Ingram	Council Member	Murrieta City Council	City Council	Murrieta, CA
Jennifer Antonucci, MHA, BsN, RN	EMS Coordinator	Murrieta Fire Department	Public Safety	All - Fire/Safety
Kim Saruwatari	Director	Riverside University Health System Public Health	Public Health	Riverside County Residents
Kristi Piatkowski	Director of Development	Rancho Damacitas Children & Family Services	Health Care	Single Mothers

Riverside County Key Informant Contact List				
Name	Title	Organization	Sector	Population Served
Michael Osur	Deputy Director	Riverside University Health System Public Health	Public Health	Riverside County Residents
Patrick Ellis	Chamber President/ CEO	Murrieta Chamber of Commerce	Business	Murrieta, CA
Sean Hadden	Murrieta Police Chief	Murrieta Police	Law Enforcement	Murrieta Residents
Wendy Hetherington	Chief of Epidemiology and Program Evaluation	Riverside University Health System Public Health	Public Health	Riverside County Residents

San Bernardino Key Informant Contact List				
Name	Title	Organization	Sector	Population Served
Aaron Scullin	Executive Director	Rim Family Services	Non-profit/Family Services	Families: Counseling, Parent Ed
Angelica Baltazar	Executive Director	Lewis-San Antonio Healthy Communities Institute	Workforce Development; Vulnerable Communities	Workforce Development; Vulnerable Communities
Anita Adorador	Director	Redlands Community Hospital	Vulnerable Communities	Vulnerable Communities
Cherie Towers	Volunteer Services Director	Redlands Community Hospital	Health Care	San Bernardino County Residents
Cliff "Doc" Bennet	USMC	Rim Vet Veterans Out-reach	Military	Veterans
Dori Baeza	Public Health Program Coordinator	San Bernardino County Department of Public Health	Public Health Department	San Bernardino County Residents
Dr. Nancy Kelly	Superintendent	Upland Unified School District	Education	K-12 School Education
Evette De Luca	President	The Social Impact Artists	Community	Low income Communities, Local Government, CBO's
Gary Madden	Executive Director	211-United Way	Vulnerable Communities	San Bernardino County Residents
Kathi Spetnagel	VP Business Development	Redlands Community Hospital	Health Care	San Bernardino County Residents
Ludwig Cibelli, MD	ER Physician	San Bernardino Comm. Hospital	Health	ER Patients/ Community
Pam Allen	Executive Director	Redlands Community Hospital	Health Care	San Bernardino County Residents

San Bernardino Key Informant Contact List

Name	Title	Organization	Sector	Population Served
Randy Buecheler	Pastor	Mt. Calvary Lutheran Church and Schools	Faith Based	Faith Community
Rob Davis	EMS Nurse Educator	San Bernardino County Fire Department	Fire/Safety	San Bernardino County Residents
Trudy Raymundo	Director	San Bernardino County Department of Public Health	Public Health	San Bernardino County Residents
Dr. Felita Jones	President/CEO	Inland Empire United Way	Community Based Organization	Low Income Communities
Gregory Bradbard	President, Hope Through Housing Foundation Sr. Vice President, National CORE	Hope Through Housing Foundation and National CORE	Housing	Low Income Families and Seniors
Jason Cordova	Director of Education & Workforce Development	Inland Empire Economic Partnership	Education, Communities, Workforce	Youth, Workforce, Minority Communities
Marcie Coffey	Director of Community Outreach	Inland Empire Health Plan	Health Care	Riverside and San Bernardino County Residents
Michelle Decker	CEO	The Community Foundation	Foundation	Riverside and San Bernardino CBOs
Steve PonTell	President	National Community Renaissance	Low Income Housing	Low Income
Tom Lynch	EMS Administrator	Inland Counties Emergency Medical Agency (ICEMA)	Health	Inyo, Mono and San Bernardino Counties

APPENDIX G: KEY INFORMANT CODEBOOKS AND FREQUENCIES

Key Informant Interview Codebook				
Question Number	Interview Questions	Main Codes	Sub-Codes	Frequencies
1	Please share your role within your organization and a brief description of your organization.	Role		32
		Description		
2	What geographic area do you primarily serve?	Service Area		32
3	What is your vision of a healthy community?	Vision		32
4	In your opinion, what are the most significant health needs that have the greatest impact on overall health in the community?	Significant Health Needs		36
4a	In your opinion, are there any specific populations that are disproportionately affected by the health problems just mentioned?		Populations	
4b	How would you describe these health needs effect on the health of your community?		Effect of Health Needs	
4c	Are there other priorities in the community you serve that have not been discussed?		Other Priorities	
5	Are you aware of social factors that influence the issues we've discussed for your community? If so, what social issues have the biggest influence on these issues? Prompt: Economic Factors	Social Factors		32
6	What are the greatest needs of children in your community, including social and health issues?	Children's Needs		26
7	What factors or conditions cause or contribute to these health needs?	Contributing Factors		24
8	What existing community assets and resources could be used to address these health issues and inequities we've been discussing?	Community Resources		34
8a	Do you see opportunities for systems-level collaborations or local policies that could help address the health challenges discussed?	Opportunities		32
9	What can hospitals in your community do to improve the health and quality of life in the community?	Hospital Improvement	Health and Quality of Life	30
9a	How can hospitals in your community better improve services and relationships in the community?		Services and Relationships	
9b	Suggestions for new activities or strategies?	Suggestions		32
10	Anything you would like to add that we haven't discussed?	Additional Comments		26

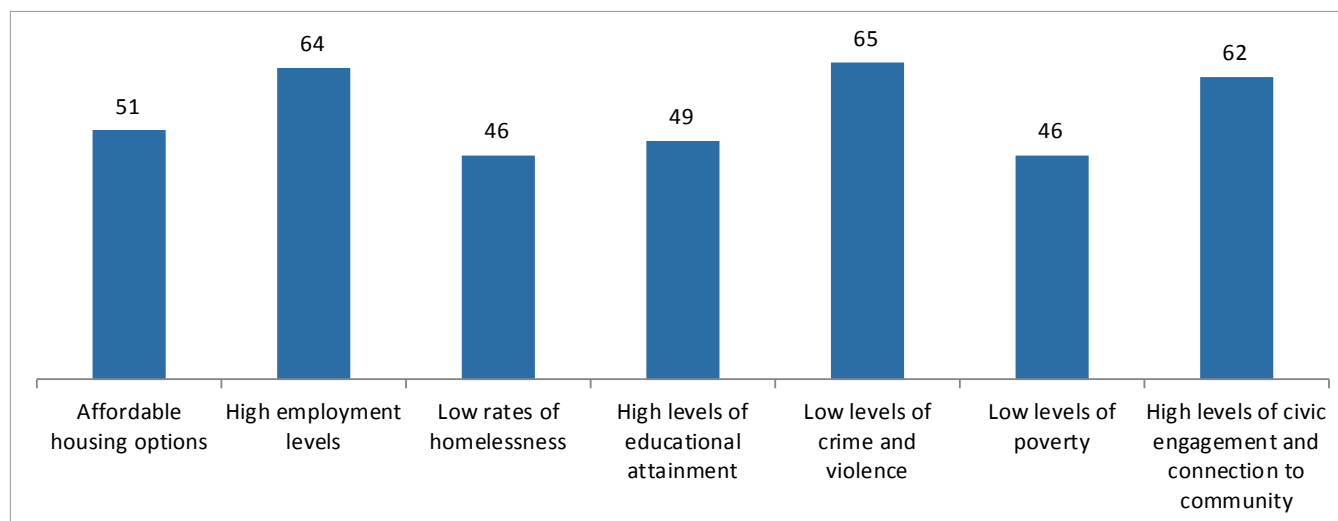
APPENDIX H: FOCUS GROUP CODEBOOKS AND FREQUENCIES

Focus Group Codebook			
Question Number	Interview Questions	Main Codes	Frequency
1	Let's start by introducing ourselves. Please tell us very briefly your first name, the town/city you live in, and one thing that you are proud of about your community.	Introduction	11
		Residence	
		Community Pride	
2	What is your vision of a healthy community?	Vision	10
3	From your perspective, what are the biggest health issues in your community? Why?	Health Issues	11
4	In your opinion, what health services are lacking for you and the people you know? (Probes: prenatal care, reproductive services, dental care, vision care, mental health services, community clinics, etc.)	Lacking Health Services	12
5	Outside of healthcare, what resources exist in your community to help you and the people you know to live healthier lives?	Community Resources	13
6	What are the barriers to accessing these resources?	Barriers to Accessing Resources	11
6a	What resources are missing?	Resources Lacking	4
7	What is your perception of hospital's name and current programs/services?	Perception of Hospital and Services	11
7a	What are we currently doing good that we can do more of?	Should Increase	9
7b	What needs improvement?	Needs Improvement	9
8	Is there anything else you would like to share with our team about the health of your community that hasn't already been addressed?	Additional Comments	9

APPENDIX I: SURVEY RESULTS

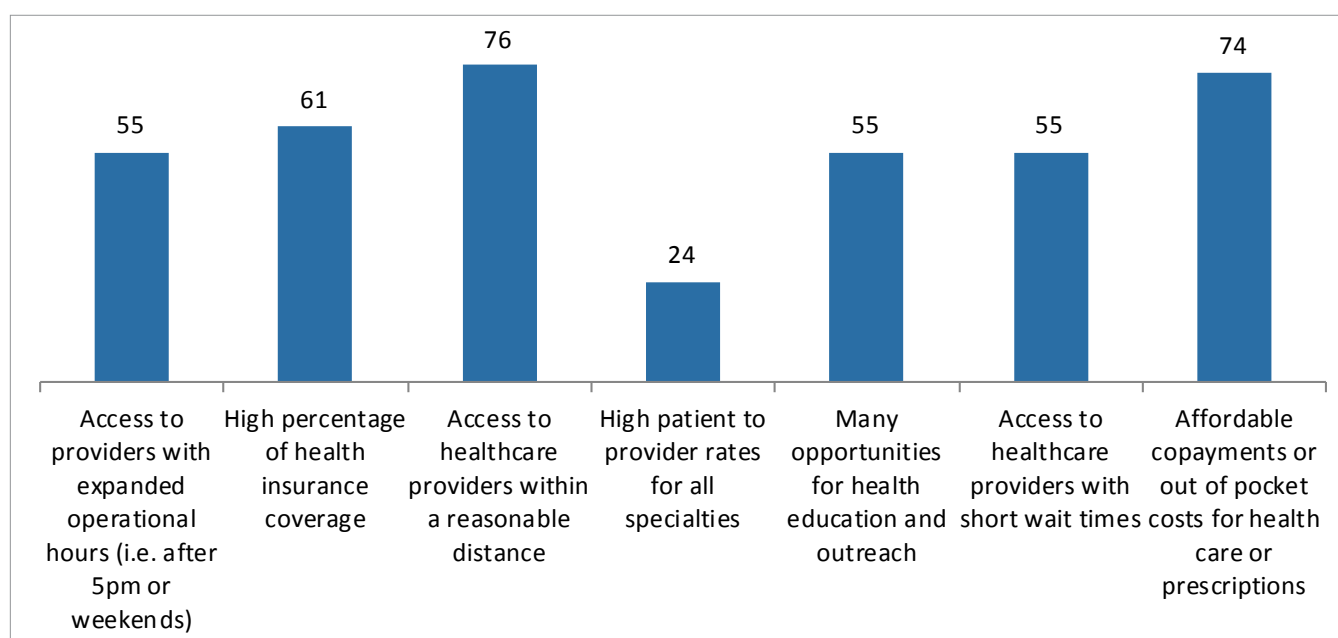
Question 1

From a social and economic lens (how well people live in their community), what aspects of your community contribute to people's health in a positive way? (Please select all that apply.)



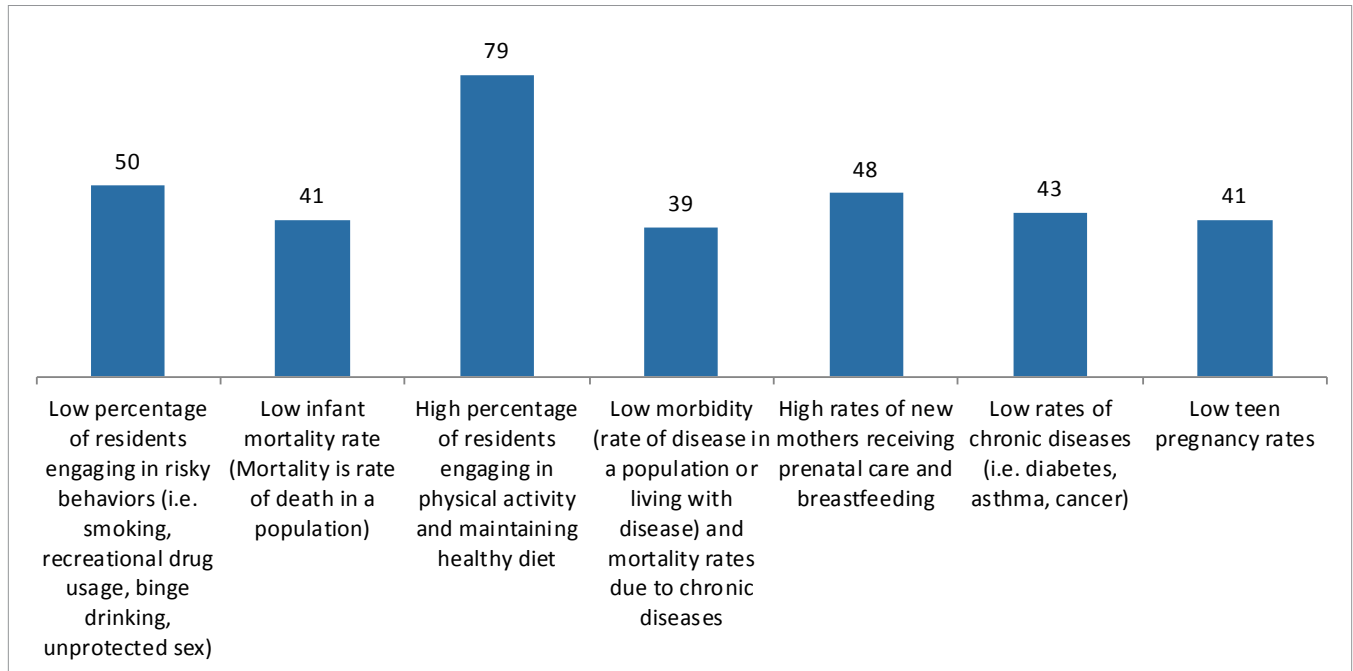
Question 2

From a health system lens (one in which patients receive efficient coordinated care for a variety of illnesses), what aspects of your community contribute to people's health in a positive way?



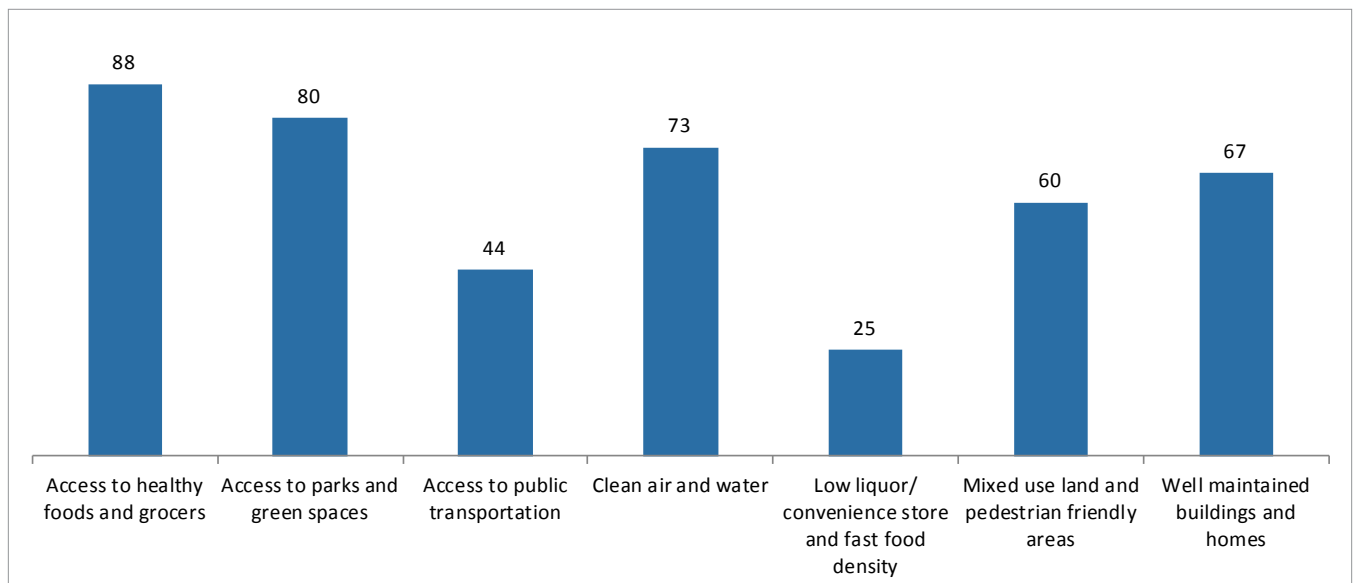
Question 3

From a public health and prevention lens (ensuring that a community has access to preventative services and the information necessary to make healthy decisions), what aspects of your community contribute to people's health in a positive way?



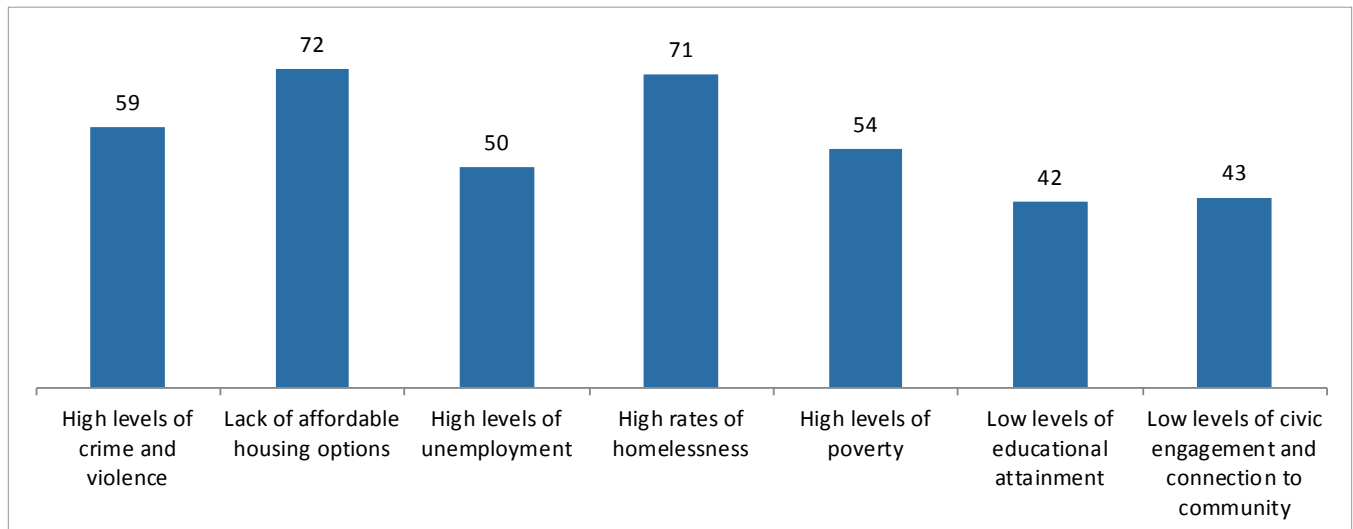
Question 4

From a physical environment lens (where we live, work, and play), what aspects of your community contribute to people's health in a positive way?



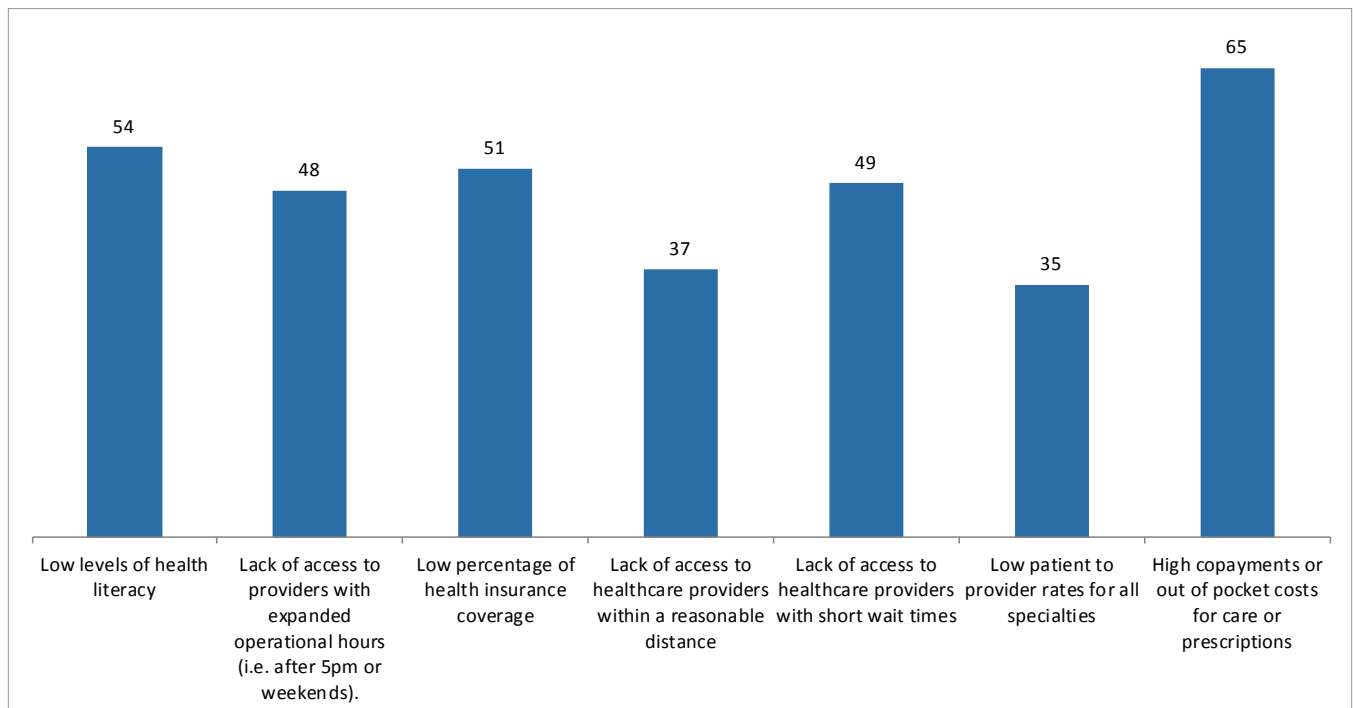
Question 5

From a social and economic lens (how well people live in their community), what aspects of your community contribute to people's health in a negative way? (Please select all that apply.)



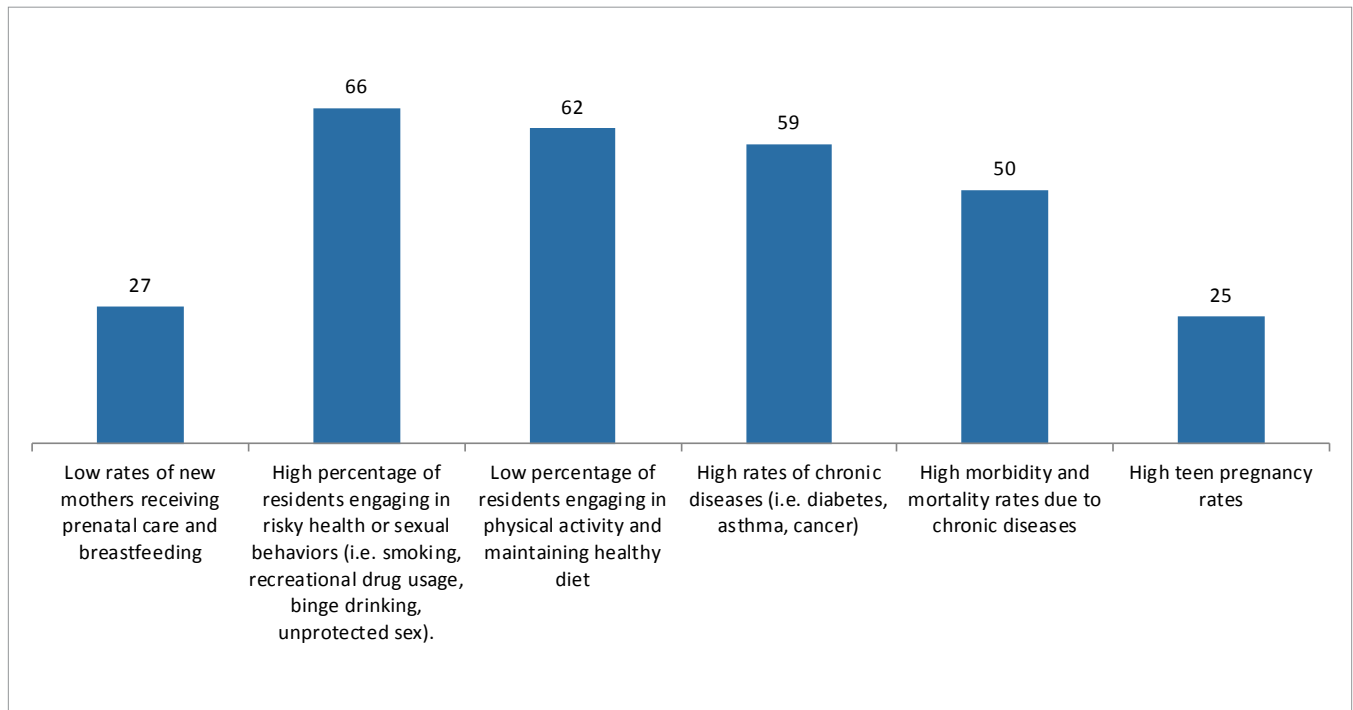
Question 6

From a health system lens (one in which patients receive efficient coordinated care for a variety of illnesses), what aspects of your community contribute to people's health in a negative way? (Please check all that apply.)



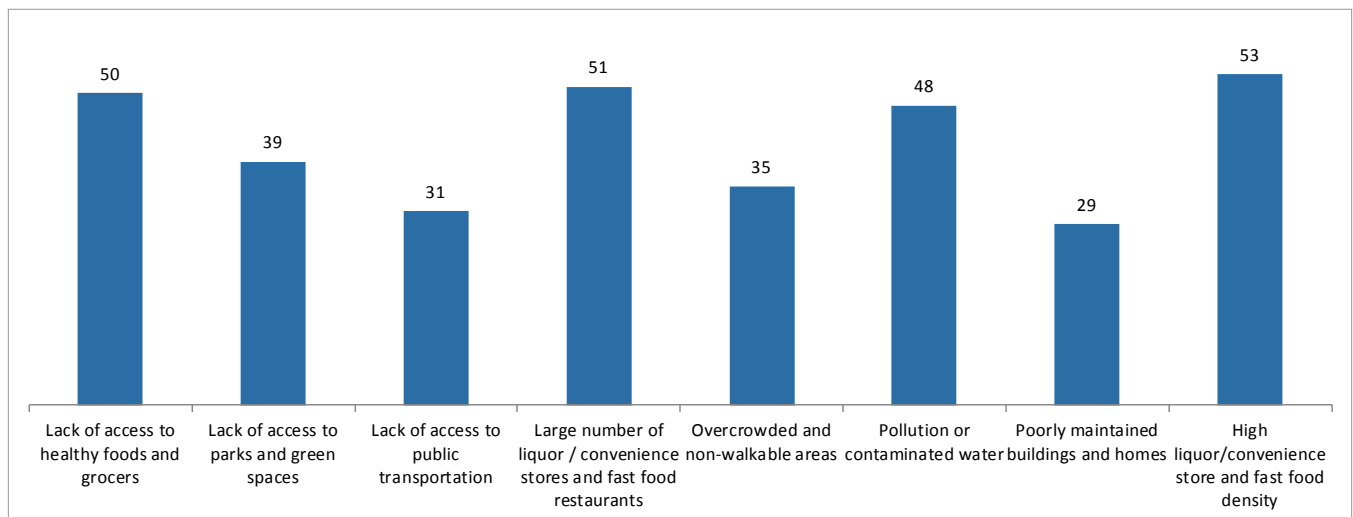
Question 7

From a physical environment lens (where we live, work, and play), what aspects of your community contribute to people's health in a negative way? (Please check all that apply.)



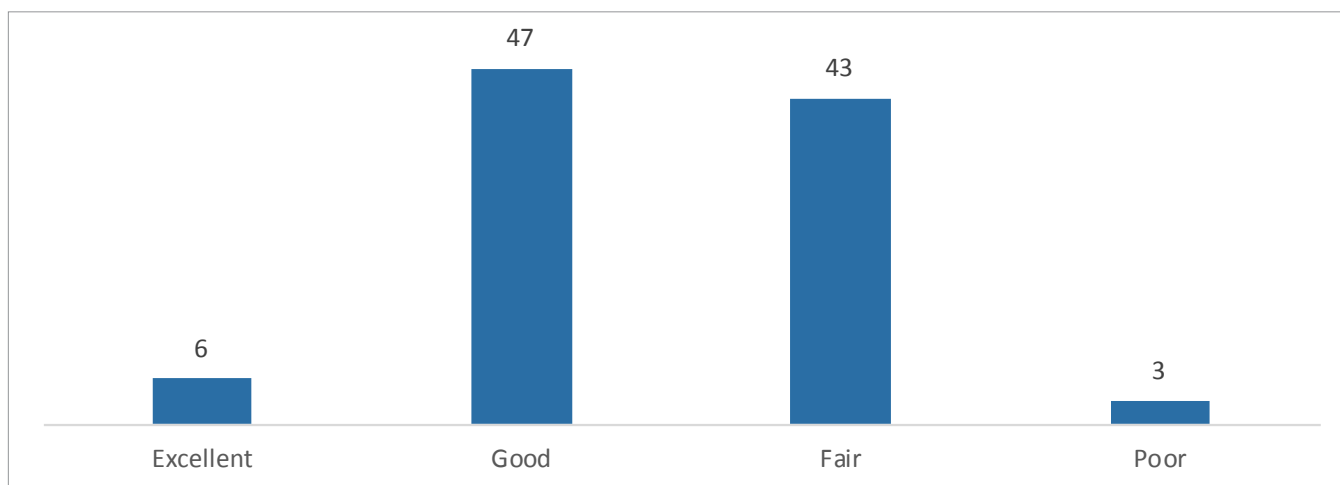
Question 8

From a public health and prevention lens (ensuring that a community has access to preventative services and the information necessary to make healthy decisions), what aspects of your community contribute to people's health in a negative way? (Please select all that apply.)



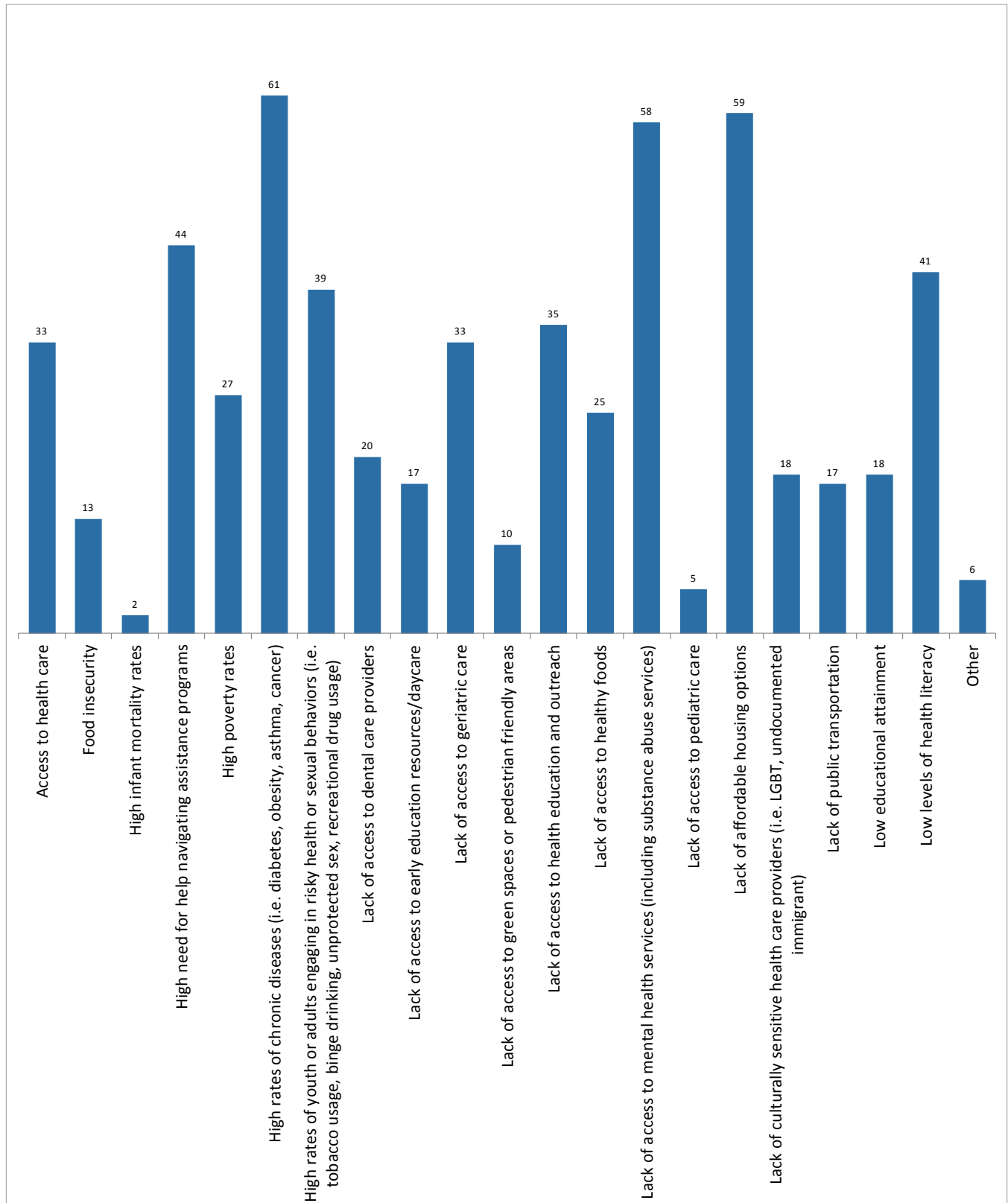
Question 9

How would you rate the health of your community?



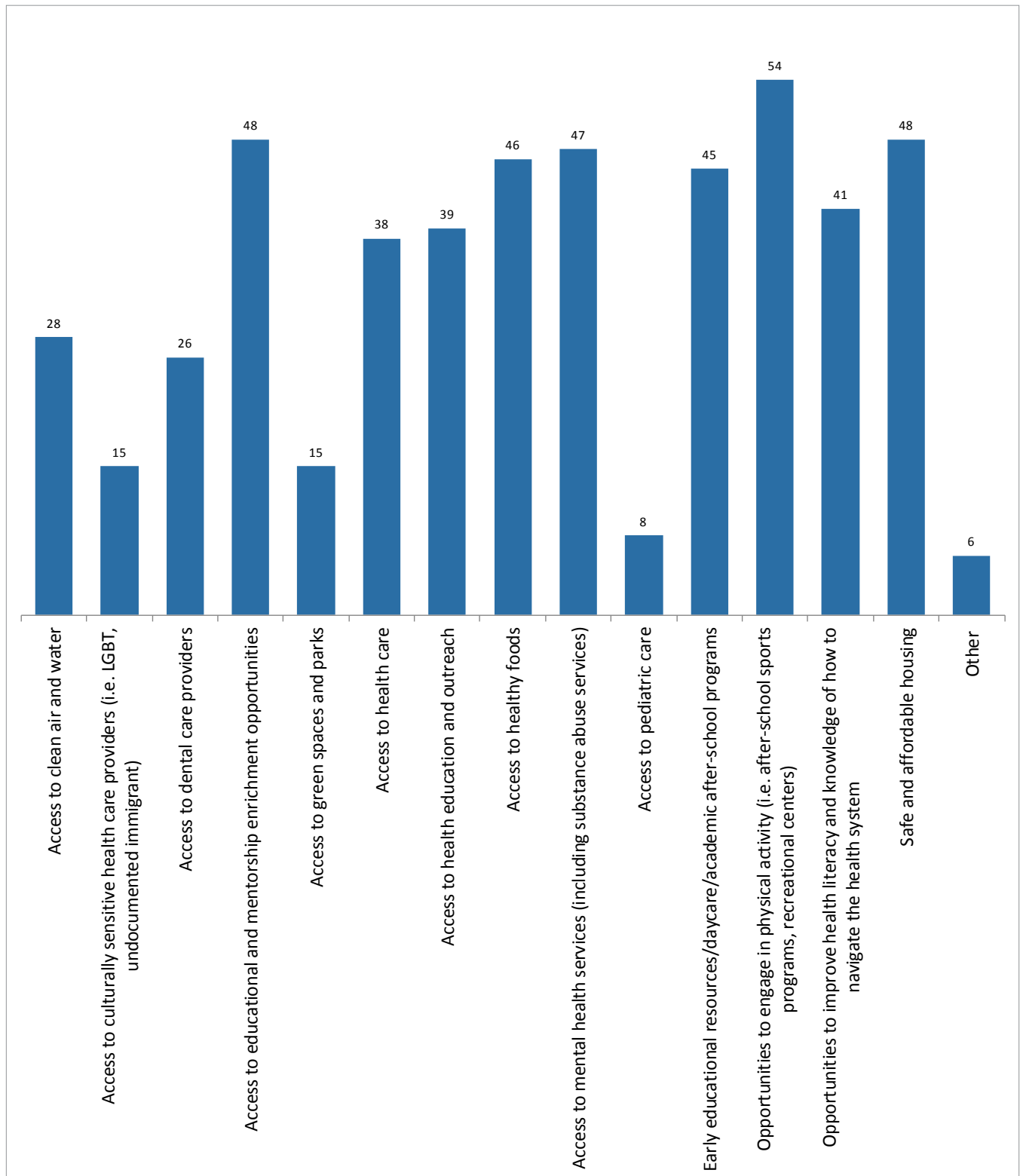
Question 10

What do you believe are the top 5 health or social issues in your community?



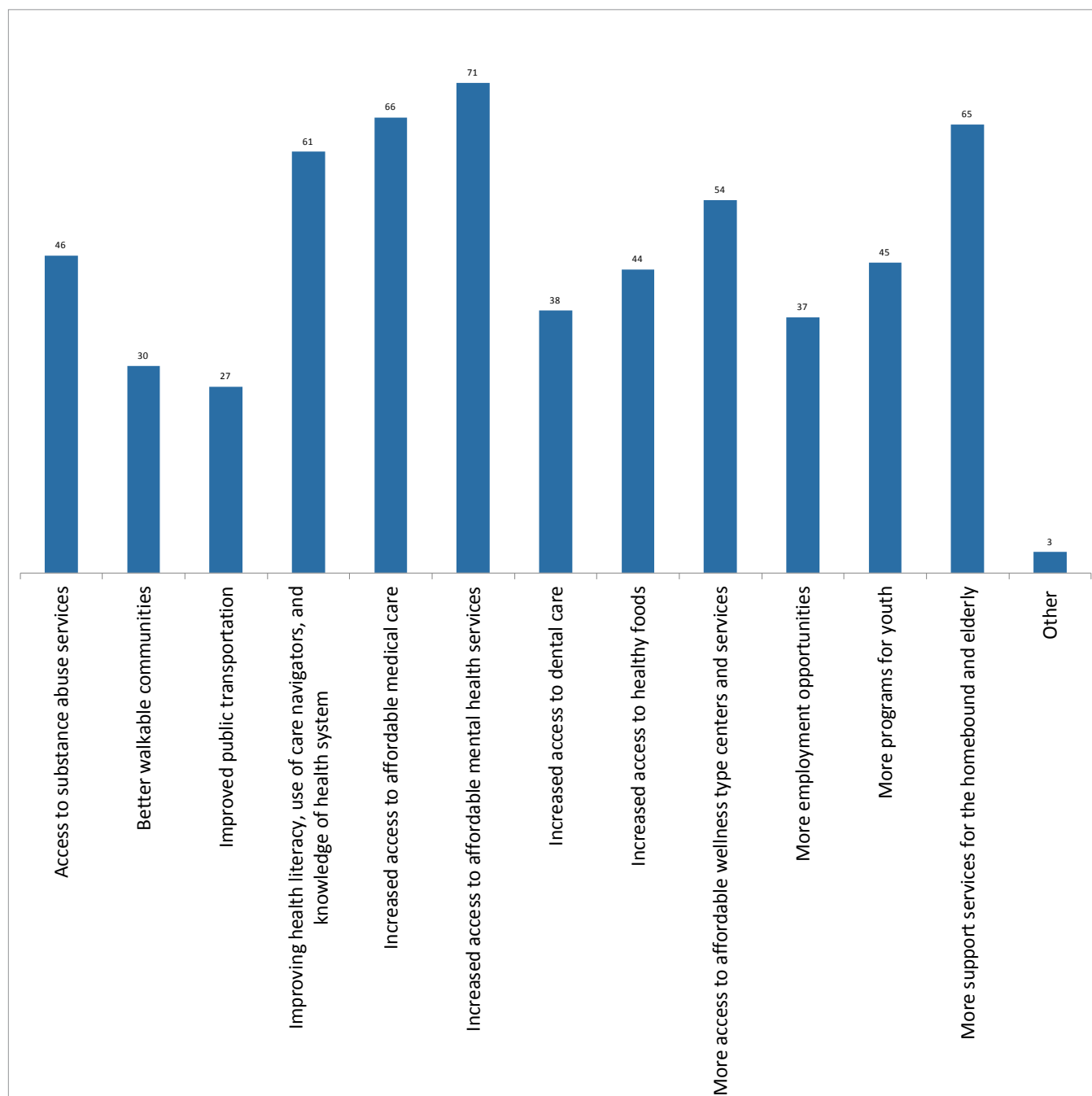
Question 11

**What are the greatest needs of children in your community, including social and health issues?
(Please select the top 5.)**



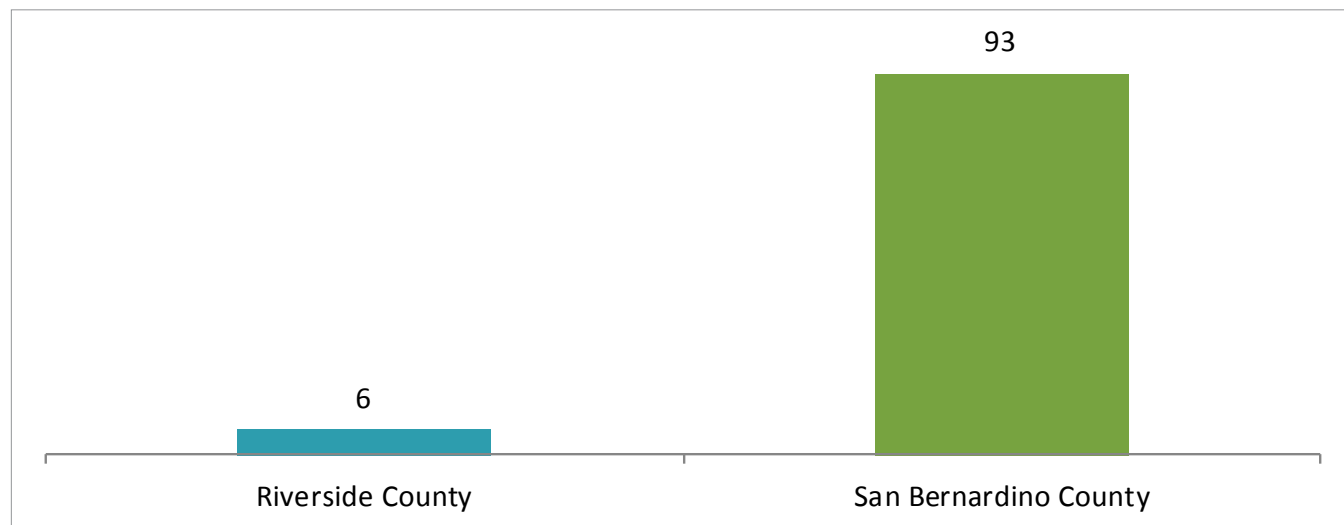
Question 12

What do you believe are ways to improve people's health in your community? (Please select all that apply.)



Question 13

What county do you live in? (Please select one.)



APPENDIX J: COMMUNITY RESOURCES

In an effort to better understand our community assets, hospitals were tasked with exploring current and desired partnerships and compiling a list of community resources dedicated to the health and well-being of the community. The following list is not intended to be exhaustive, but rather representative of organizations that offer services in Riverside and/or San Bernardino counties. Identified resources are as follows:

211 Community Connect, Riverside County	REACH Air Medical Services
American Cancer Society	Family Service Association of Redlands
Arrowhead Regional Medical Center	Redlands Unified School District
Assistance League of Temecula Valley	Rim Family Services
Boys & Girls Clubs of Southwest County	Riverside Community Hospital
Building A Generation	Rotary Club of Redlands
City of Redlands, Police and Recreation Departments	SAFE (Safe Alternatives for Everyone)
Dignity Health — St. Bernardine Medical Center	San Bernardino Children's Fund
Inland Empire Community Benefit Collaborative, Healthy Cities	San Bernardino County, 211 United Way
Jacob's House	San Bernardino County Fire Department
Kiwanis Club of Redlands	San Bernardino County Paramedics
LifeStream Blood Bank	Trauma Intervention Program
Loma Linda University Health System	University of Redlands Community Service Learning
Mercy Air Helicopter Service	YMCA Cardiac Monitoring Program
Michelle's Place cancer Resource Center	
Mountain Pregnancy Center	
National Alliance for the Mentally Ill – Temecula Valley	
Oak Grove Center for Education	
Project T.O.U.C.H.	
Rancho Damacitas – Children & Family Services	



**HOSPITAL
ASSOCIATION**
OF SOUTHERN CALIFORNIA

2280 Market Street, Suite 250

Riverside, CA 92501

Phone: (951) 316-9395