2013 Stanislaus County Community Health Assessment

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Much gratitude goes to the dedicated members of the **Stanislaus County Community Health Assessment (CHA) Steering Committee** who guided the entire 2013 CHA effort:

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Olivia Tong⌖	Epidemiologist	Stanislaus County Health Services Agency	2011-2013
Colleen Woolsey⌖	Associate Director for Public Health	Stanislaus County Health Services Agency	2011-2012

⌖ *Have since left the listed agency.*

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- Stanislaus Community Foundation
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- United Way of Stanislaus County
- West Modesto / King Kennedy Neighborhood Collaborative

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Finally, recognition is given to Heidi Santino, Cle Moore-Bell and Julie Falkenstein for their painstaking editing of this report.

Foreword

This is the third Stanislaus County Community Health Assessment (CHA). The CHAs are designed around broad, social determinants of health. The broad determinants are non-medical factors that affect health, such as income, educational attainment, housing and community safety, among others. This format is the outcome of a national initiative called Mobilizing for Action through Planning and Partnership (MAPP). MAPP is a community-based strategic planning process which recognizes that public health is larger than the local health department. Below is a schematic of the broad stakeholders within the public health system.

Figure 1: U.S. Public Health System

Diagram adapted from the National Association of City and County Health Officials (NACCHO) Local Public Health System figure; see http://www.arlingtonva.us/departments/HumanServices/PublicHealth/mapp/page59017.aspx.

Previous CHAs were conducted in 2003 and 2008. The five year cycle is in conjunction with federal Maternal, Child, and Adolescent Health requirements. Each assessment has both primary and secondary data components. The primary data is collected through direct survey of Stanislaus County residents. The secondary data is gathered from pre-existing sources, for example birth and death certificates, census data, California Health Interview Survey (CHIS), and others.

The CHAs have broad participation by stakeholders. The 2008 CHA lead to a MAPP Stakeholder Workshop in 2009, attended by over 100 people representing more than 50 agencies, during which attendees identified four focus areas for community health improvement:

1) Education
2) Basic Needs (food, housing, employment, income, child care)
3) The Built Environment (transportation, safety, walkability, etc.)
4) Access to Health Information and Health Care

A community health improvement plan (CHIP) for Stanislaus County was built around these four areas of focus. The CHIP is usually a five year plan. However, due to the adverse local impact of the Great Recession of 2008, it became a ten year plan.

In 2010, the CHIP became known as the *Framework for a Thriving Stanislaus*. The name change better reflects the incorporation of non-traditional partners and work and effort to create a healthy, prosperous and thriving community. The ten year plan aligns with Healthy People 2020, a national effort best characterized by the slogan:

"Health begins where people live, learn, work and play."

-*Robert Wood Johnson Foundation, adopted by the Centers for Disease Control and Prevention*

The 2013 CHA is the product of collaborative work by a number of stakeholders over three years. The first portion was a secondary data survey funded by Memorial Medical Center, published in 2012. This document includes more clinical data sources than the prior two CHA reports. The primary survey of community residents was conducted in 2013 by Family Resource Centers in Stanislaus County, as well as CHA Steering Committee members, partners and volunteers. The primary survey of community employers was conducted by the Stanislaus Economic Development and Workforce Alliance in 2013.

We hope the findings presented in this report are useful to the reader, whether a member of the public curious about his or her community, a student doing a report, a non-profit seeking grant funding, or leaders looking for data on which to base their decisions. While many of the findings show a greater health burden than we would like, understanding where our community is now is crucial to improving it and creating a healthier, more educated, more prosperous, vibrant and sustainable community.

Sincerely,

John Walker, MD
Stanislaus County Public Health Officer

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Purpose

The Stanislaus County Health Services Agency (H.S.A.) conducts and publishes a community health assessment (CHA) approximately every five years, in coordination with a required assessment for the state- and federally-funded Maternal, Child Adolescent Health Program. The purpose of this report is to present the most current data available about the health and wellbeing of Stanislaus County and its residents in one place. The data contained within this assessment speaks to factors which contribute to the health and well-being of residents of the community, including "upstream" factors that contribute to health. This report is primarily intended for 1) decision makers for public and private programs dedicated to supporting and improving the community, and 2) grant writers who need local data to obtain resources for programs. However, it may be of interest to others, including the general public.

Since 2001, H.S.A. has worked with multiple community partners to select appropriate topics for inclusion in each Community Health Assessment, to obtain assistance with collecting new (primary) data, and to interpret and report the results.

Table 1: Stanislaus County 2013 Community Health Assessment Steering Committee: Agency Membership

Sector	Agency
Charities and Private Human Services Providers	Sierra Vista Child and Family Services
	United Way of Stanislaus County
Governmental Agencies	Centers for Disease Control and Prevention (CDC)
	Stanislaus County Behavioral Health and Recovery Services
	Stanislaus County Children and Families Commission
	Stanislaus County Department of Aging and Veteran Services
	Stanislaus County Health Services Agency (H.S.A.)
	Stanislaus County Office of Education / Child & Family Services
Neighborhood Organization	West Modesto King Kennedy Neighborhood Collaborative
Private-Public Partnership	Stanislaus Economic Development and Workforce Alliance
Private Research Organization	Community and Local Neighborhood Research

Community Health Assessment Topics and Data Sources

The information presented below is meant for a general audience. For those who wish, additional technological details about the CHA methodology can be found in *Appendix A.*

Procedure

In June 2011, Health Services Agency (H.S.A.) staff formed the 2013 Community Health Assessment (CHA) Steering Committee, inviting representatives from partner organizations as members that frequently gather or consult local data to make programmatic decisions. This committee was tasked with identifying the key areas of information for inclusion in the CHA. At the first meeting, the CHA Steering Committee agreed that the broad determinants of health, as defined by Healthy People 2020 (U.S. Department of Health and Human Services, no date), would be used for defining the structure of the 2013 CHA.

To include information from all important broad determinants of health, the CHA Steering Committee agreed that both new ("primary") data collection (i.e. information gathered for the purposes of this report) and existing ("secondary") data were necessary for a complete assessment. The Steering Committee decided that two types of primary data would be collected: 1) information from individuals living in Stanislaus County ("community survey"), and 2) information from local employers ("employer survey"). For the community survey, Steering Committee members emphasized the importance of ensuring that the people surveyed reflected the County's demographic profile so that the results would be a balanced portrayal of the health and well-being of the entire County.

During the first six months of planning, CHA Steering Committee members selected specific topic areas and data elements that would best reveal the overall quality of life and well-being of the community. By December 2011, topic areas that were to be included in the community survey were selected, the indicators were ranked by order of importance, and the review and selection of major secondary data sources was finalized. For more information on the process of selecting and prioritizing data indicators, please see *Appendix A: Part I*. In 2012, the topics and specific questions to include in the employer survey were finalized. In January 2013, the community survey questions were finalized.

Primary Data Collection

For more details on how the two primary surveys were designed, conducted, analyzed and interpreted see *Appendix A: Part II*.

Community Survey

To understand the health and well-being of Stanislaus County residents, a questionnaire was designed to be administered to adults living in the County. Paper versions were created in English and Spanish. In addition, an electronic version in English was made available through SurveyMonkey on the internet. Trained partners and volunteers distributed and collected surveys between April and August 2013, following a survey plan designed to create a survey representative of the County as a whole. Respondents who

agreed to participate in the survey were offered their choice of a small donated incentive: a wooden spoon, a magnetized note pad, shoelaces, or a pedometer.

In 2013, the CHA Steering Committee agreed that an experienced contractor was needed to analyze the community survey data, given local limitations in staffing and resources, and selected the Family Health Outcomes Project (FHOP) from the University of San Francisco. To determine whether the survey plan worked and the survey sample was representative of the County, surveys that did not include gender, age, poverty status, or both city and zip code were excluded from the analysis. FHOP then examined the final sample to determine whether it matched the survey plan targets. They found that female respondents and respondents not living in poverty were over-represented in the surveys, while surveys from certain geographic areas were under-represented, despite attempts to ensure survey respondents' demographics matched that of the survey plan. To make the survey data more representative of the County's population, FHOP staff applied statistical weighting to the survey data set. For information on how the weighting was performed, please see *Appendix A: Part II*. Once weighted frequencies were calculated, the contractor sent the findings in the form of SAS outputs and Excel files to H.S.A. staff, which in turn, created graphs and tables and reported the findings.

Employer Survey

The CHA Steering Committee was interested in including information about local employers' current practice in and future plans for offering health insurance to their employees. To this end, H.S.A. staff worked with the Stanislaus Economic Development and Workforce Alliance to collect relevant data, creating three questions to be added to the 2013 annual *Employer Survey* conducted by the Business Resource Center of the Alliance. The CHA employer survey questions concerned current employer practices in offering health care to their employees, as well as their plans for the implementation of the employer mandate of the Patient Protection and Affordable Care Act in 2014 (see *Appendix B* for the employer survey questions). The CHA employer survey was administered electronically through SurveyMonkey by providing a link to the survey in the Alliance's January 2013 newsletter. A total of 215 employers participated.

Alliance personnel analyzed the employer survey results using SurveyMonkey and shared these with H.S.A. staff, who in turn created tables and graphs, and wrote up the findings.

Review and Analysis of Secondary Data

In order to assess the health and well-being of the community, including underlying causal and contributing factors, many topics were examined through secondary data. Secondary data is information which has already been collected by a separate entity or organization. This secondary data included information from multiple sources concerning the health and well-being of Stanislaus County residents. The secondary data was compiled, and in some cases re-analyzed, for this report primarily by H.S.A. Public Health staff, with contributions by some CHA Steering Committee members and outside partners. The most updated data available from each source was used through December 2013, with the exception of trending, which requires multiple years of information for comparison; or when multiple

years needed to be aggregated to improve statistical stability (see more details in *Appendix A: Part III*). The analysis was conducted by both H.S.A. personnel. Assistance with mapping findings was provided by the Central Valley Health Policy Institute at the California State University at Fresno.

Major Secondary Data Sources

The following is a comprehensive list of the major secondary data sources used. Further detailed information can be found in *Appendix A: Part III.*

1) Census 2010 and the American Community Survey (ACS; multiple years) from the U.S. Census Bureau
2) California Health Interview Survey (multiple years) from the University of California Health Policy Institute California Healthy Kids Survey (CHKS) by WestEd
3) California Department of Public Health's *County Health Status Profiles* reports (multiple years)
4) Birth Statistical Master Files (BSMF) from the California Department of Public Health (2010-2012)
5) Emergency Department and Ambulatory Surgery Data Files, Model Data Set (EDASF; 2010-2012) from the California Office of Statewide Health Planning and Development
6) Patient Discharge Data Files, Model Data Set (PDDF; 2010-2012) from the California Office of Statewide Health Planning and Development
7) EpiCenter Injury Data from the California Department of Public Health (2010-2012)
8) Death Statistical Master File (DSMF) from the California Department of Public Health (2010-2012)
9) Healthcare Effectiveness Data and Information Set (HEDIS) 2012 Aggregate Report for the Medi-Cal Managed Care Program of the California Department of Health Care Services (2012)
10) California Department of Education, Dataquest website (California Department of Education, 2011, 2012a, 2012b, 2013a, 2013b)

Additional Data Sources

Many other data sources were used to obtain information on crime, education, the economy, child care, health care coverage, health care quality, health and well-being, housing (see *Appendix B: Part III*).

Report Conventions

Analysis Conventions

The analyses conducted for this report followed certain conventions to assure statistical stability, including aggregating data across years. In addition, to ensure fair comparisons across groups, particularly those with different age distributions, age-adjustment was performed. To protect people's privacy and confidentiality, and abide by the federal protections in the Health Insurance Portability and Accountability Act (HIPAA), results for groups of less than 10 individuals, in which some demographic or other potentially identifying piece of information was given, are suppressed in this report (i.e. reported as

≤10). Data for other "cells" was also suppressed when the real values could be used to calculate a suppressed value. More information on these procedures can be found in *Appendix A: Part IV*.

Demographic Groups

Across all data sources (where possible), race and ethnicity were treated as separate categories, following the current practice of the U.S. Census Bureau (Humes, Jones & Ramirez, 2011). Two ethnic groups were included in this report: Latinos and Non-Latinos. For race, three or four groups were compared across data sources: White, Black, Asian/Pacific Islander and Other Race(s). Due to smaller numbers, data from Asians, Native Hawaiians and other Pacific Islanders were combined into a larger Asian/Pacific Islander category. Due to small numbers data for Native Americans and Alaskan Natives are included in the "Other Race(s)" category.

Geographic Regions

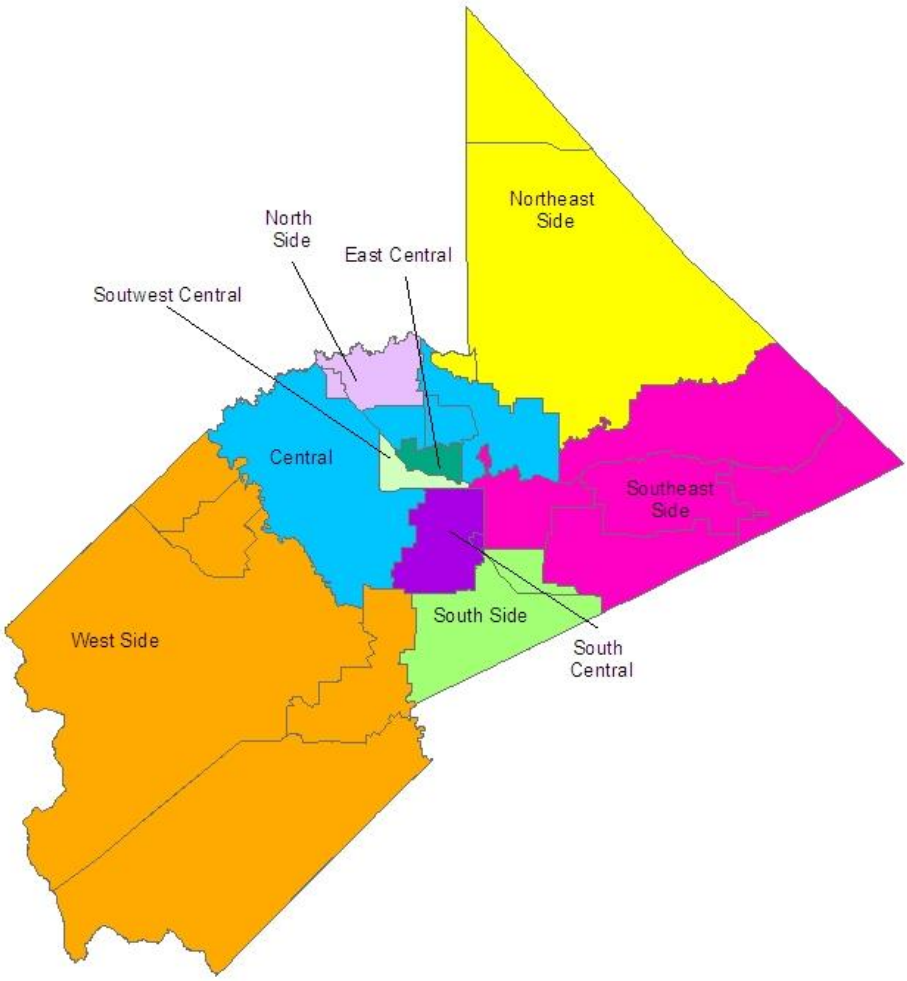
To examine geographic differences, the County was divided into nine regions, each with one or more zip codes (see Table 2 and Figure 2). Most regions are centered on community Family Resource Centers (FRCs), and roughly align with their service areas.

Analyses were conducted for each of nine geographic regions whenever the data permitted.

Table 2: Stanislaus County's Nine Geographic Regions

Region	Communities	Zip Codes
Central	Modesto (portions) and outlying areas	95350, 95355, 95357, 95358
East Central	Airport Neighborhood and East Modesto (portions)	95354
Southeast Side	Denair, Empire, Hughson, Hickman, La Grange, Waterford	95316, 95319, 95326, 95323, 95329, 95386
Northeast Side	Knights Ferry, Valley Home, Oakdale, Riverbank	95230, 95361, 95367
North Side	Del Rio, Salida and Modesto (portions)	95356, 95368
Southwest Central	West Modesto and South Modesto	95351
West Side	Crows Landing, Grayson, Newman, Patterson	95313, 95360, 95363, 95385, 95387
South Central	Ceres, Keyes	95307, 95328
South Side	Turlock	95380, 95382

Figure 2: Map of Stanislaus County Showing the Nine Geographic Regions



Findings

Community Demographics and Well-Being

The specific source and time period on which each reviewed finding is based are noted in parentheses in the text (e.g. 2010 U.S. Census or 2010-2012 ACS). Unless otherwise noted, health insurance data and information about individuals' usual source of care come from the California Health Interview Survey (2001 through 2011-2012) with the specific year or years of data noted (e.g. 2011-2012 CHIS).

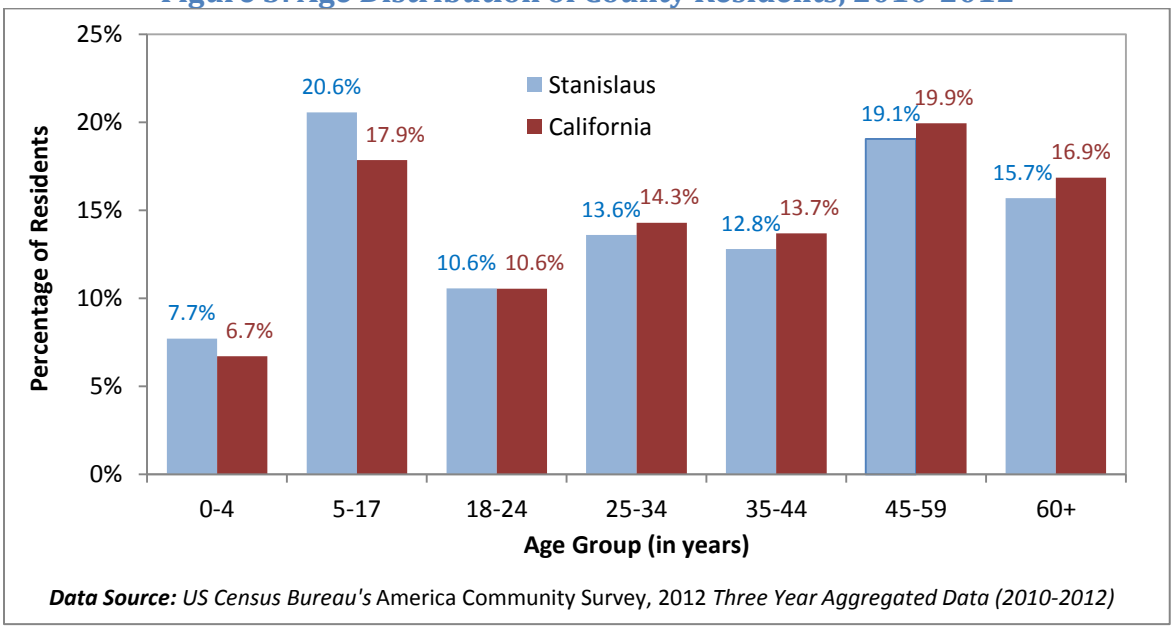
Location and Population Size

- Stanislaus County is located in the San Joaquin Valley (the heart of California's Central Valley), and is a major producer of agricultural products for the U.S. and world.
- Over 1,500 square miles in size, Stanislaus County includes rural agricultural areas, small and medium-sized towns, and the county seat of Modesto.
- Stanislaus County is included in the Modesto Metropolitan Statistical Area, one of the nation's 100 largest metropolitan areas.
- Stanislaus County has a population of 518,836 residents (2010-2012 ACS).

Age Distribution

- Like the nation as a whole, Stanislaus County is aging. The average age in Stanislaus increased from 29.2 years in 1980 to 32.8 years of age in 2010 (2010 Census). However, Stanislaus County still has a younger median age than California (33.0 vs. 35.4 years; 2010-2012 ACS). Figure 3 shows the distribution of residents by age in 2010 to 2012.

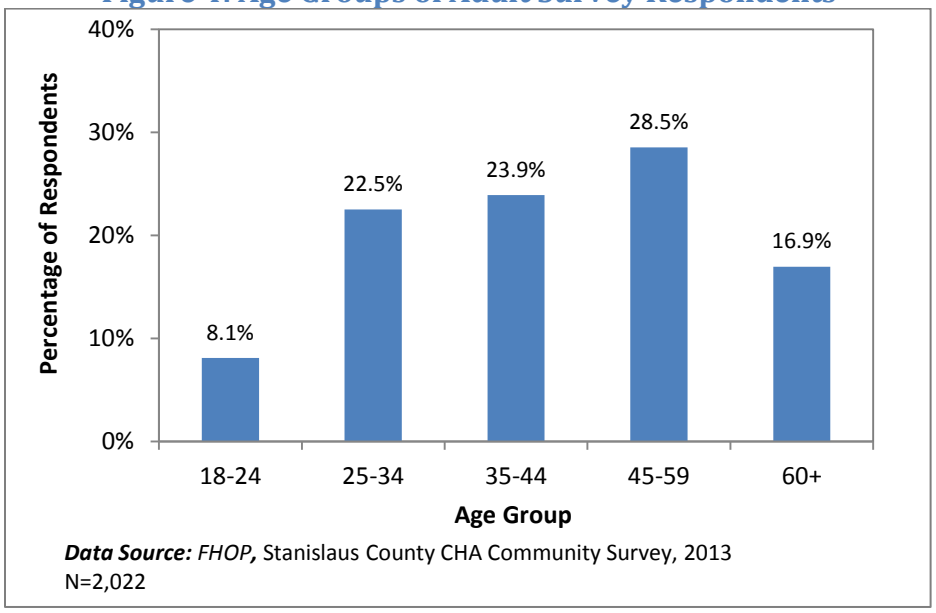
Figure 3: Age Distribution of County Residents, 2010-2012



Data Source: *US Census Bureau's* America Community Survey, 2012 *Three Year Aggregated Data (2010-2012)*

As mentioned in the *Community Health Assessment Topics and Data Sources* section, the 2013 community survey was only administered to adults (18 years or greater). See Figure 4 for the age distribution of the 2013 CHA community survey respondents.

Figure 4: Age Groups of Adult Survey Respondents

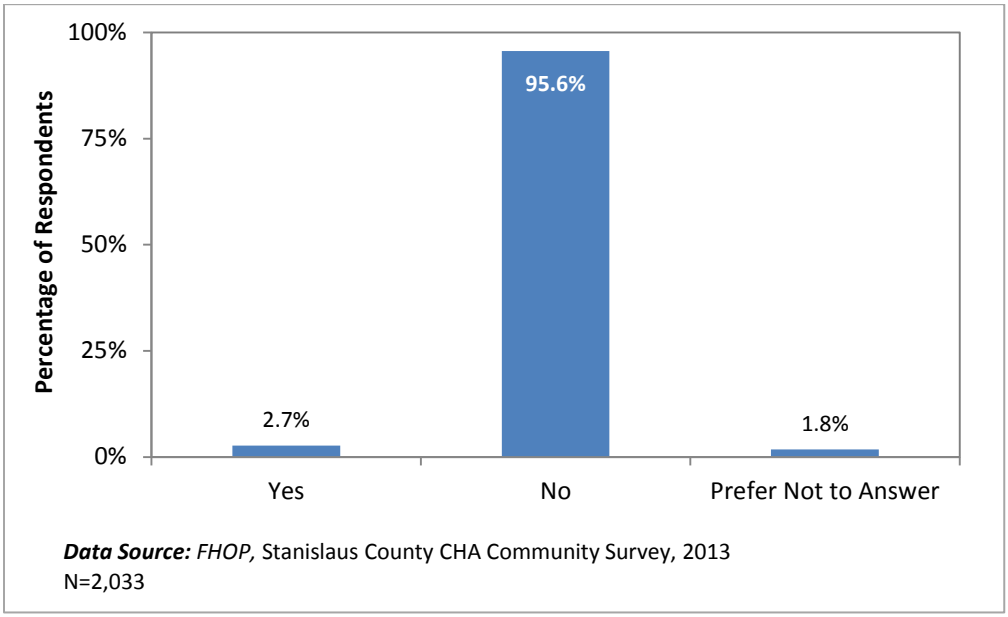


Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,022

Gender and Orientation

- According to the 2010-2012 ACS, Stanislaus County is divided approximately evenly into male (49.5%) and female (50.5%) residents.
- As explained in the *Community Health Assessment Topics and Data Sources* section, the 2013 CHA was intended to be representative of the county as a whole, and thus sampling and statistical weighting were performed to mimic the gender distribution of the 2010 Census. Hence, despite the fact that more females completed the 2013 CHA community survey, the findings were weighted so that responses reflected a distribution of 49.9% females and 50.1% males.
- Several of the CHA Steering Committee organizations are asked or required to report on the gender identity and sexual orientation of their clients. The U.S. Census Bureau does not include such questions on the Census or the American Community Survey. Therefore a question was added to the 2013 CHA community survey. As shown in Figure 5,
    - 2.7% of respondents self-identified as either lesbian, gay, bisexual, transgender, or questioning;
    - 1.8% preferred not to answer the question; and
    - 95.8% of respondents said that they did not consider themselves to fit any of these categories.

Figure 5: Do you consider yourself lesbian, gay, bisexual, transsexual or questioning?



- For their 2011-2012 data collection, UCLA added questions on sexual orientation to the CHIS survey. Their findings are quite similar to those of the 2013 primary CHA survey, including that
    - 95.1% of Stanislaus County residents reported being heterosexual;
    - 2.0% of Stanislaus County residents reported being gay, lesbian or homosexual;
    - 2.3% of Stanislaus County residents reported being bisexual; and
    - Less than 1% (0.6%) of County residents reported not being sexual, being celibate, having no sexual orientation or having "other" sexual orientation.

Race and Ethnic Origin

The U.S. Census Bureau, following guidelines set by the U.S. Office of Management and Budget (Humes, Jones & Ramirez, 2011) currently classifies race and ethnicity within the following defined categories:

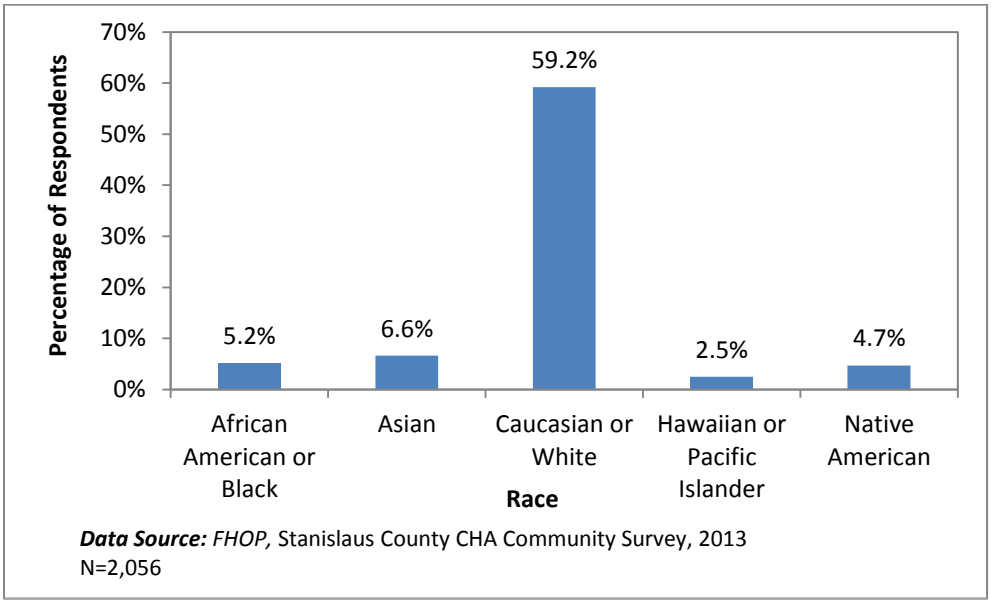
- Race based on skin color and geographic origin; and
- Ethnicity predominately based on language and culture.

Latino/Hispanic is the only ethnic category included in the 2010 Census and recent American Community Surveys. Due to this classification, one can be of any race and also be classified as Hispanic/Latino *or* Not Hispanic or Latino.

It is important to note that respondents to the U.S. Census and American Community Surveys (Humes, Hines & Ramirez, 2011) as well as the 2013 CHA community survey may have different concepts of race and ethnicity and answer the separate race and ethnicity questions in unexpected ways. A sizeable percentage of Latinos, for example, report Latino/Hispanic/Spanish as their race. The U.S. Census Bureau and FHOP (for the 2013 CHA community survey) reclassified these individuals as some other (non-specified) race.

- According to the 2010-2012 ACS, the population of Stanislaus County is predominantly White (77.2%), while 5.9% percent are Asian or Pacific Islander, 2.8% African American, 1.0% American Indian or Alaska Native, 8.6% some other race, and 4.6% are Multiracial. Stanislaus County has a higher percentage of Latinos than California, 42.5% vs. 38.0% (2010-2012 ACS). During the past 30 years, Stanislaus County has become more racially and ethnically diverse (1980 and 2010 Census). For example,
    - The proportion of Latinos grew from 15.0% to 41.9%; and
    - The proportion of African Americans increased from 1.1% to 2.9%.
- The 2013 Community Health Assessment primary survey was designed to be representative of the racial and ethnic makeup of the county, based on the 2010 Census. However, a significant minority of respondents did not reply to both the race and ethnicity questions, evidently not seeing these as separate categories.
    - Thus, 59.2% of 2013 CHA community survey respondents self-reported as Caucasian or White, 6.6% as Asian, 5.2% as African American or Black, 4.7% as Native American, 2.5% as Hawaiian or Pacific Islander, while 22.8% did not self-identify with any of the racial affiliations (see Figure 6).

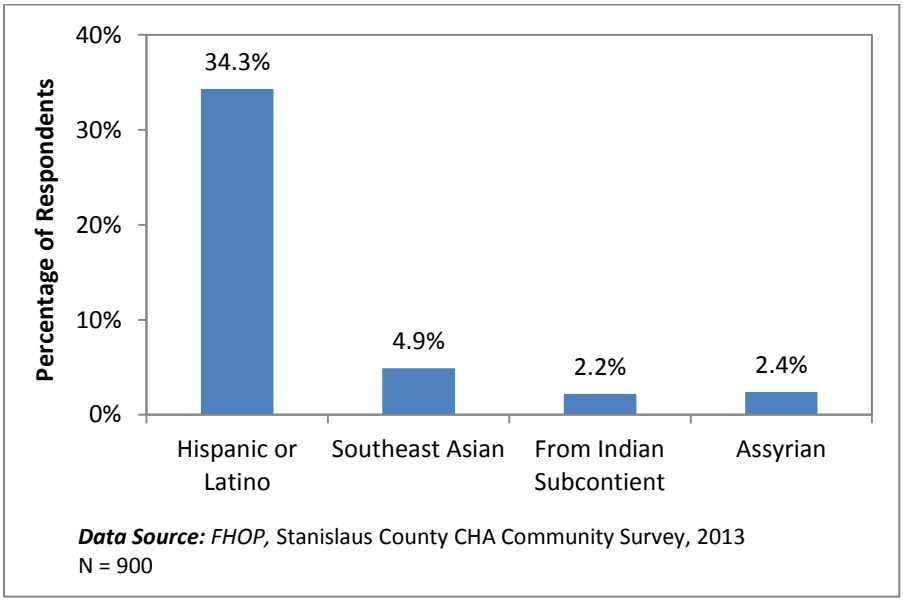
Figure 6: Do you consider yourself... (Race)



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,056

- To gather information about a variety of ethnic groups in Stanislaus County, not available through U.S. Census Bureau data, the 2013 CHA community survey asked respondents whether they self-identified with any of four ethnic categories.
    - 34.3% of 2013 CHA community survey respondents self-identified as Hispanic, 4.9% as Southeast Asian, 2.2% as from the Indian subcontinent and 2.4% as Assyrian, while 56.2% did not self-identify with any of the ethnic affiliations presented (see Figure 7).

Figure 7: Do you consider yourself... (Ethnicity)



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N = 900

Language and Country of Origin

Knowing the predominant languages spoken in a community is important in meeting the communication needs of members of that community, removing language barriers for those seeking access to programs and opportunities, and ensuring that health messages and other services are culturally competent and appropriate. Recent wars and instability in the Middle East have led to an increasing local sub-population of Assyrian refugees from Iraq and Iran, a group which is not categorized separately in U.S. Census Bureau methodology. Even more recently, refugees from Burma have begun to arrive in Stanislaus County.

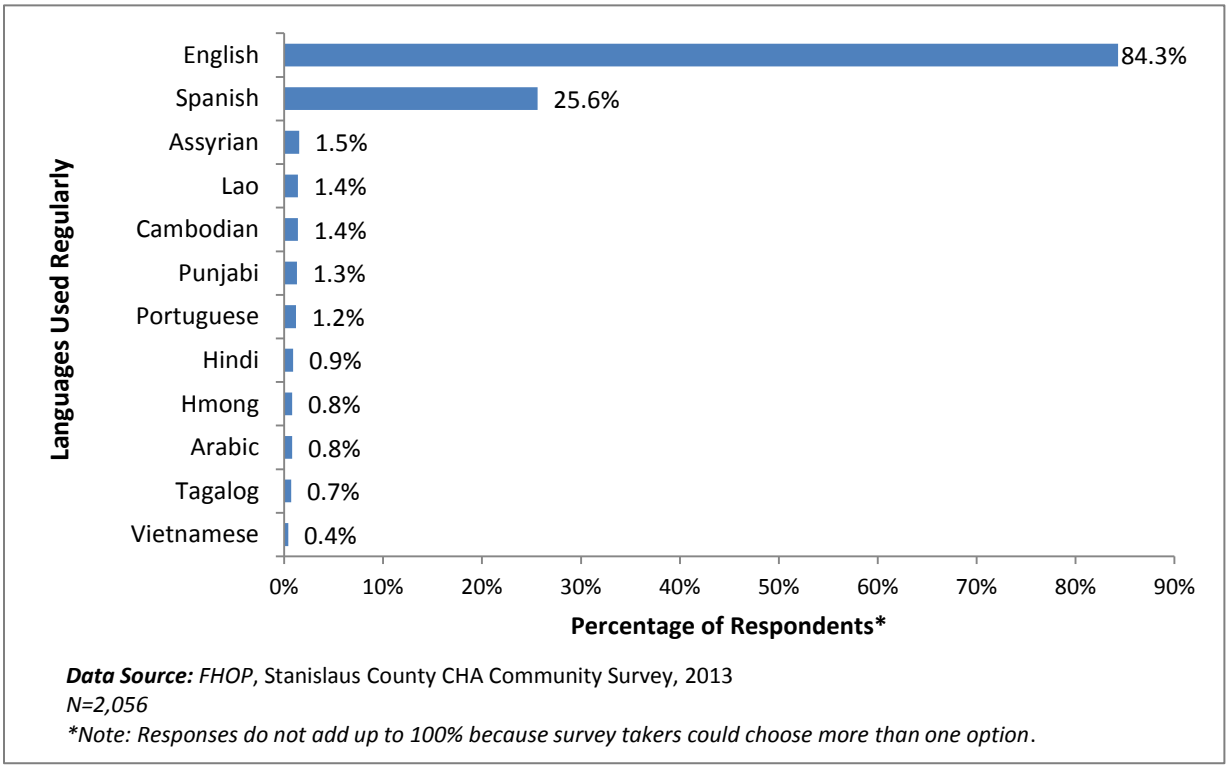
According to the U.S. Census Bureau (2010-2012 ACS),

- 20.4% of the County's population is foreign-born.
- Of the foreign born residents, 67.7% are from Latin America, 22.6% from Asia, 6.2% from Europe, 2.3% from countries in the Indian or South Pacific oceans, and less than 1% each from Africa and North America.
- Stanislaus County residents are also linguistically diverse
    - 41.0% of residents speak a language other than English at home; 16.7% of them speak English less than "very well."
    - 31.4% of residents who speak a language other than English speak Spanish.

Participant characteristics of the 2013 CHA community survey generally reflected these county-wide demographics (see Figure 8). English was the predominant language spoken (84.3%) by Stanislaus survey respondents, followed by Spanish (25.6%).

- Other languages spoken in daily life were Assyrian (1.5%), Lao (1.4%), Cambodian (1.4%), Punjabi (1.3%) and Hindi (0.9%).

Figure 8: Which language(s) do you regularly use in your everyday life? *Mark all that apply.*



Data Source: *FHOP*, Stanislaus County CHA Community Survey, 2013
N=2,056
**Note: Responses do not add up to 100% because survey takers could choose more than one option.*

Family and Household Structure

Households and Families

- There are 166,948 households (occupied residences) in Stanislaus (2010-2012 ACS).
- The average household size is 3.1 individuals, while the average family (household made up of related individuals) size is 3.6 people (2010-2012 ACS).
- Families make up 74.6% of households in Stanislaus (2010-2012 ACS). Of those,
    - 52.1% are married-couple households, 37.8% of which have children under 18 years of age;
    - 15.5% are headed by women without husbands present, 9.1% of which have children under 18 years of age;
    - 6.9% are male householder families with no wife present, 3.3% of which have children under 18 years of age

Marital and Relationship Status

Among the Stanislaus population 15 years of age and older, the 2010-2012 ACS found that

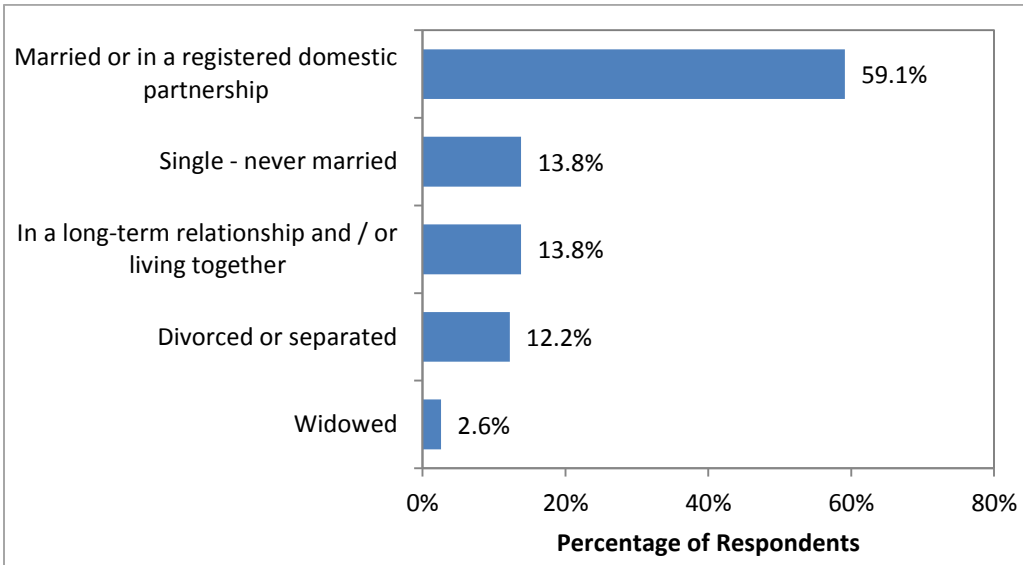
- 33.1% have never been married;
- 49.0% are married and not separated;
- 2.3% are married and separated;
- 10.5% are divorced; and
- 5.1% are widowed.

The last few decades have seen changes to the traditional nuclear family structure. More adults declare themselves to be in a long term relationship, living together, or in a registered domestic partnership. Such data is not gathered by the U.S. Census Bureau, which only asks about traditional family structures. The 2013 CHA community survey was designed to gather information about these emerging relationship structures.

Of the 2013 CHA community survey participants (see Figure 9),

- 59.1% are married or in a registered domestic partnership;
- 13.8% are in a long term relationship and/or are cohabitating;
- 13.8% are single;
- 12.2% are divorced or separated; and
- 2.6% are widowed.
- Please note that respondents were able to select more than one option (e.g. both widowed and in a long-term relationship), therefore the percentages for each category do not add up to 100%.

Figure 9: What is your current status? *Mark all that apply.*



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N = 2,033
Note: Percentages do not sum to 100% because participants could select more than one response.

Grandparents

Many grandparents have become the primary caregivers for their grandchildren, when the parents are unable to do so. According to the 2010-2012 ACS,

- 17,098 grandparents live with their grandchildren (Table DP02);
  - In 8.4% of these families neither parent is present (Table S1002);
  - 5,406 (31.6%) of these grandparents are financially responsible for most of their grandchildren's basic needs (Table DP02);
  - 7.7% of these grandparents have been responsible for their grandchildren for less than one year (Table B10050);

    - 7.0% of these grandparents have been responsible for their grandchildren for one or two years (Table B10050);
    - 4.2% of these grandparents have been responsible for their grandchildren three or four years (Table B10050);
    - 12.7% of these grandparents have been responsible for their grandchildren for five or more years (Table B10050).
- Among grandparent-headed households, the median family income is $47,588. In grandparent-headed households where the child's parent is absent, the median family income is lower, at $29,135 (2010-2012 ACS, Table B10010).
- Among grandparents who live with their grandchildren (2010-2012 ACS, Table S1002),
    - 70.6% are White, 6.8% are Asian/Pacific Islander and 2.6% are African American, 13.6% are some other race, and 4.5% are Multiracial;
    - Just over half (51.5%) are Latino
    - 49.0% are still in the labor force
    - 57.9% speak languages other than English, with 42.9% stating they speak English less than "very well"
    - 28.4% have a disability
    - Approximately one fifth (21.0%) live in poverty.

Veteran Status

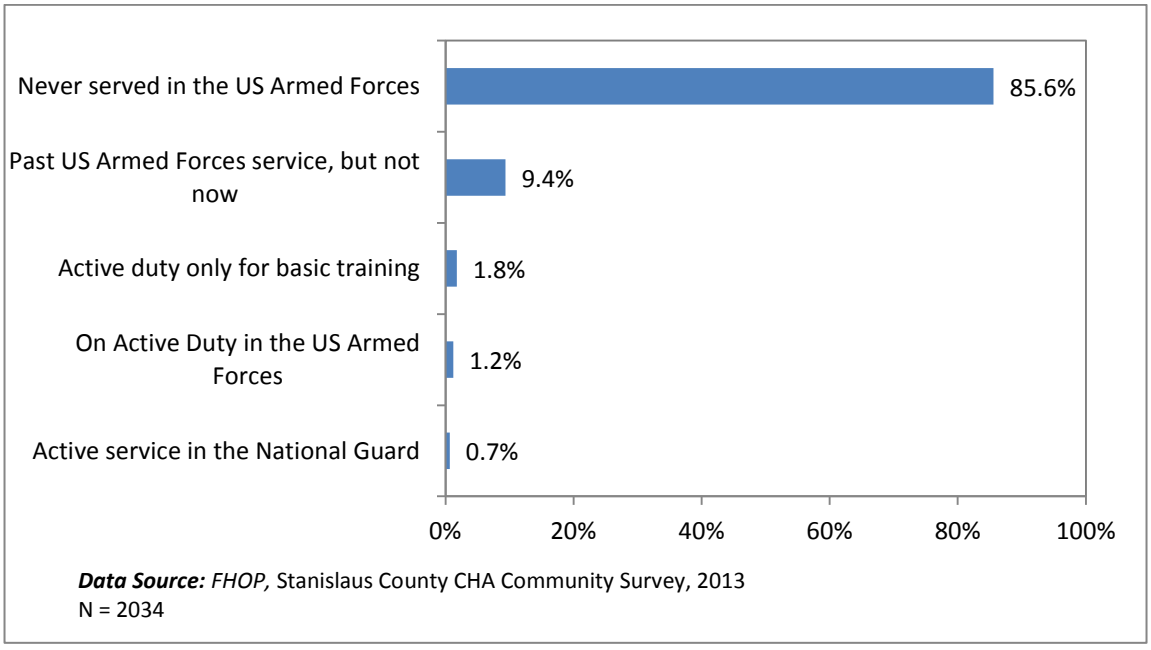
Of Stanislaus County civilian residents 18 years or older, 25,428 individuals (6.8%; 2010-2012 ACS) are veterans of the U.S. armed forces. The majority of Stanislaus veterans are male (94.7%).

- The period of service for Stanislaus veterans (2010-2012) varies,
    - 36.2% served during the Vietnam War,
    - 13.2% served during the Korean War,
    - 12.4% served during the Gulf War before 9/11 terrorist attacks (8/1990 to 8/2001),
    - 9.4% served during World War II, and
    - 8.8% served since 9/11 (9/2001 or later).
- As may be expected from the period of service, the current age of Stanislaus veterans also varies,
    - 33.7% are between 18 and 34 years,
    - 36.4% are between 35 and 54 years,
    - 14.6% are between 55 to 64 years,
    - 8.4% are between 65 and 74 years, and
    - 6.9% are 75 years or older.
- The race and ethnicity of Stanislaus veterans closely mirrors that of the county as a whole,
    - 37.1% are of Hispanic ethnicity;
    - 78.6% are White,
    - 5.4% are Asian or Pacific Islander,
    - 2.6% are African American
    - 8.1% are some other race, and
    - 3.5% are Multiracial.

- The educational attainment data concerning Stanislaus veterans suggests that some have taken advantage of educational assistance provided by the U.S. armed forces (2010-2012 ACS).
    - Only 10.0% of veterans, compared to 24.6% of nonveterans have less than a high school diploma or equivalency;
    - Equal percentages of veterans and non-veterans have attained a high school diploma or equivalency) 28.8%,
    - A higher percentage of veterans (43.1%) have some college or attained an associate's degree than non-veterans (30.5%), and
    - A higher percentage of veterans (18.1%) than non-veterans (16.1%) have attained a bachelor's degree or higher.
- The unemployment rate for veterans was lower than that of non-veterans (12.0% vs. 17.6%) in the 2010-2012 ACS.
- The U.S. Census and American Community Surveys exclude people living in institutions including the military, prisons, university dormitories and long-term care facilities or hospitals. For the non-institutionalized population, there is no difference in the percentage of disabled individuals between veterans and non-veterans (16.5%; 2010-2012 ACS).
- A smaller percentage of non-institutionalized veterans live in poverty than non-institutionalized non-veterans (7.7% vs. 18.7%).
    - The median income for non-institutionalized male veterans was $36,961, somewhat higher than the $31,588 for non-veteran males.
    - Similarly, for non-institutionalized female veterans, the median income ($31,221) was higher than for non-veterans ($21,212).

Of nearly 2,000 respondents to the Stanislaus County 2013 Community Health Assessment primary survey, 9.4% self-reported having served in the U.S. armed forces (see Figure 10).

Figure 10: Have you ever served in the U.S. armed forces? *Mark all that apply.*



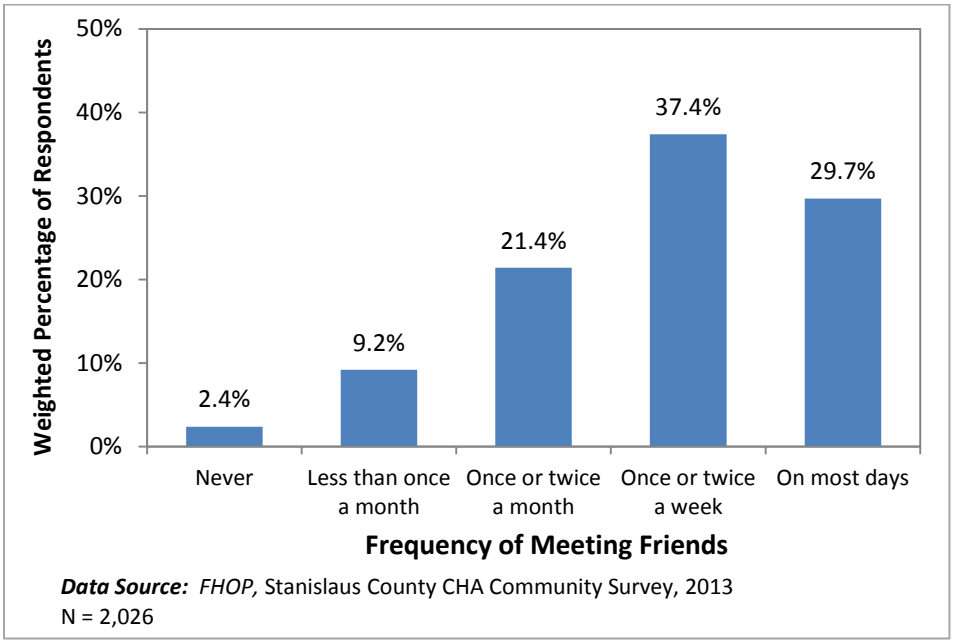
Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N = 2034

Social Support and Neighborhood Cohesion

There is little existing information available about the level of social support Stanislaus County residents have, or how neighbors relate to one another. To find out, participants in the 2013 CHA community survey were asked some questions about the level of social support they have. Social support can help people handle stress and adverse events more effectively (Ozbay, Johnson, Dimoulas, Morgan, Charnaey & Southwich, 2007).

As is shown in Figure 11, the majority of Stanislaus County residents have regular contact with friends or family who live outside their household, with 67.1% meeting such individuals at least once per week. However, a small minority (2.4%) of residents reported that they never meet friends or relatives with whom they are not living.

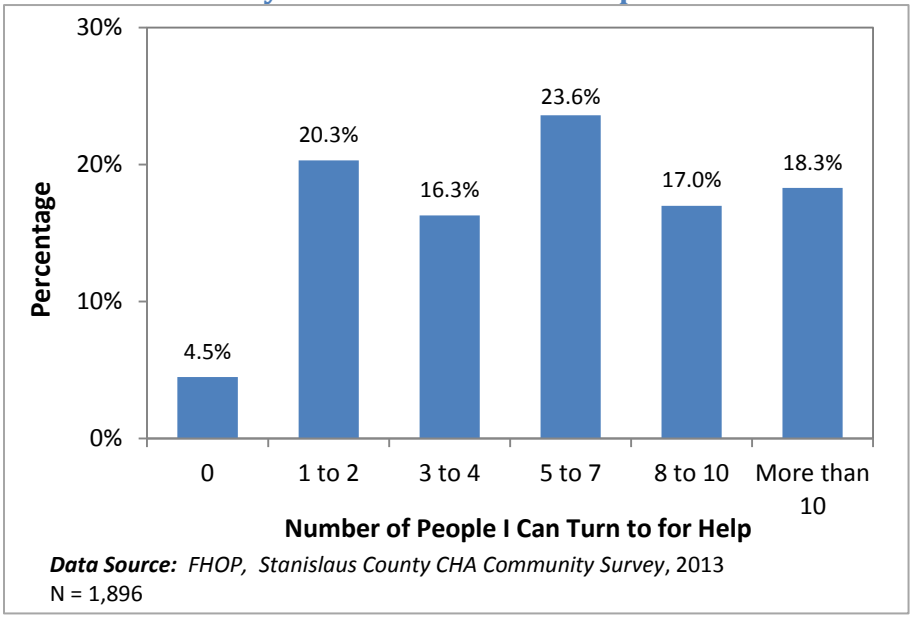
Figure 11: How often do you meet friends or relatives with whom you are not living?



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N = 2,026

As shown in Figure 12, the majority (58.9%) of Stanislaus County residents can turn to at least five individuals for help in a serious personal crisis. However, 4.5% of individuals reported having no individuals to whom they felt they could turn in such a circumstance.

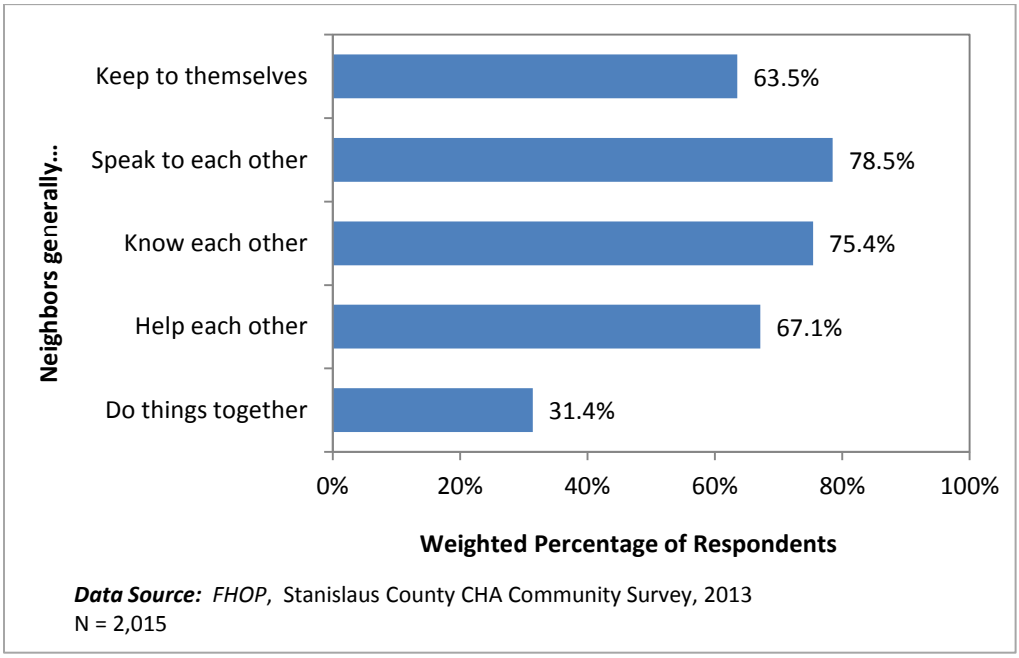
Figure 12: If you experienced a serious personal crisis, how many people do you feel you could turn to for help?



Data Source: *FHOP, Stanislaus County CHA Community Survey*, 2013
N = 1,896

To understand how neighborhoods function, 2013 CHA community survey participants were asked to characterize relationships among neighbors in their neighborhood. The majority reported that neighbors typically keep to themselves (63.5%), speak to one another (78.5%), know one another (75.4%) and help each other (67.1%), but only a minority (31.4%) reported that neighbors generally do things together (Figure 13).

Figure 13: In your neighborhood, do neighbors generally…?



Data Source: *FHOP*, Stanislaus County CHA Community Survey, 2013
N = 2,015

Public Safety

Public safety is a fundamental need of a free and prosperous society. Crime, or at least people's perception of crime and public safety, affects the quality of life. A large majority of Stanislaus County residents are worried about crime. For example, in the 2013 CHA community survey, 71.4% of respondents reported being "very concerned" and 20.0% being "concerned" about crime.

Statistics gathered by law enforcement agencies indicate that Stanislaus County residents' concerns are grounded in reality.

- For 2012, Stanislaus County's property crime rate was 40.1 per 1,000 citizens compared to California's rate of 27.7 (U.S. Department of Justice, 2012). In that year, Stanislaus County experienced
    - 12,282 reported larcenies,
    - 5,539 reported burglaries,
    - 3,190 reported motor vehicle thefts, and
    - 117 reported arsons.
    - As of summer 2013, Modesto was ranked as the U.S. Metropolitan Statistical Area (MSA) with the highest rate of motor vehicle theft, followed by four other Central Valley cities (Stafford, 2013).
- Stanislaus County has a higher violent crime rate than California as a whole (U.S. Department of Justice, 2012). In 2012, California had a violent crime rate of 4.1 crimes per 1,000 residents compared to Stanislaus County's violent crime rate of 5.5. Stanislaus County violent crimes in 2012 included
    - 1,918 reported aggravated assaults,
    - 701 reported robberies,
    - 129 reported rapes, and
    - 38 homicides.

Gangs

The City of Modesto Police Department has identified at least 27 gangs of various sizes active in Modesto communities (Amendariz, 2013). Several of the largest gangs in the County have affiliations with state- or nation-wide gangs (Herendeen, 2007). Local law enforcement professionals have estimated that there are at least 5,000 gang members living in the County, and that gang-affiliated violence has increased over the past few years (Tracy, 2013). Gangs have traditionally been organized around racial and ethnic lines, heightening tension and further disrupting community cohesion. In addition, gang membership in the community is often passed down from parent to child (Stapley, 2013).

As shown in Table 3, 8% of Stanislaus County students in 7th or 9th grade and 7% of those in 11th grade consider themselves members of gangs, similar to the findings for California students (2009-2011 CHKS). However, the percentage is higher for non-traditional students (21%).

Table 3: Percentage of Students who Consider Themselves Current Members of Gangs, 2009-2011

Jurisdiction	Grade Level			
	7th	9th	11th	NT*
Stanislaus	8%	8%	7%	21%
California	8%	9%	8%	15%

Data Source: *WestEd,* California Healthy Kids Survey, 2009-2011
**NT denotes alternative education students.*

As part of territorial claims and intimidation of others, gang members often engage in graffiti or "tagging," wearing gang-associated clothing colors, using gang signs, and loitering in public places such as parks. These signs of gang activity lower the aesthetics and quality of life of a community and prevent other residents from using public amenities (Amendariz, 2013).

Family Violence

Family violence can cause long-lasting physical and psychological effects for victims, perpetrators and observers. Due to social stigma and psychological impacts, family violence of all types is under-reported.

The impact of child abuse and neglect can be especially profound. Research shows that child maltreatment often leads to serious, long-lasting, physical and mental health issues in children and their families. In addition to effects on children and their families, child maltreatment causes an impact on society, through the response by law enforcement, the court system, health professionals, social services, schools and nonprofit agencies. It has been estimated that child abuse and neglect costs the U.S. $94 billion dollars per year in short-term and long-term impacts (National CASA Association, 2007).

Elder abuse often occurs at the hands of a caregiver or a person that the elder trusts. The most frequent types of abuse include physical abuse, emotional abuse, sexual abuse, neglect, abandonment and financial abuse (Centers for Disease Control and Prevention, 2013c). It is a serious problem but is typically under-reported because elders are afraid of retaliation or may not have the physical/cognitive ability to recognize and/or report abuse. Elder abuse also occurs in nursing homes and other long term care facilities (National Center on Elder Abuse, 2013). The most recent national study on elder mistreatment found that one in 10 elders reported some type of abuse (e.g. emotional, physical or sexual) or potential neglect in the past year, and that low social support significantly increased the likelihood of mistreatment (Acierno et al., 2010). Elders who experience abuse have a 300% increased risk of death compared to elders who have not been abused (National Center on Elder Abuse, 2013).

Family violence crosses all social, economic, and ethnic boundaries, and can be exacerbated by unemployment, poverty, social isolation, family breakup, substance abuse and other stresses (U.S. Department of Health and Human Services, 2014).

- ***Domestic Partner Violence***
  - In 2012, Stanislaus County law enforcement logged 2,310 calls for assistance related to domestic violence (State of California Department of Justice, Office of the Attorney General, 2013).
  - In 2009, 21.6% of Stanislaus County women reported that they had experienced violence by an intimate partner since the age of 18 (CHIS).
  - 10.5% of Stanislaus County men reported having experienced intimate partner violence since the age of 18 (2009 CHIS).
- ***Child Abuse and Neglect***
  - In 2012, there were 2,173 substantiated cases of child abuse in Stanislaus County, a 2.5% decrease from 2008 (Needell et al., 2013; see Table 4).
    - The most frequent type of allegation category has consistently been "General Neglect," followed by "At Risk, Sibling Abused."
    - While the raw number of children with one or more substantiated referrals changed for some allegation types between 2008 and 2012, the percentage of children with at least one substantiated allegation (out of all Stanislaus County children 0-17 years of age) did not change meaningfully across this time period.

Table 4: Children (0-17 years of age) with One or More Substantiated Referrals by Allegation Type, Stanislaus County

Allegation Type	2008	2009	2010	2011	2012
Sexual Abuse	107	82	97	88	103
Physical Abuse	54	62	73	58	78
Severe Neglect	17	23	30	35	71
General Neglect	1,588	1,806	1,699	1,496	1,717
Exploitation	<15	<15	<15	<15	<15
Emotional Abuse	<15	<15	<15	<15	<15
Caretaker Absence/ Incapacity	73	57	48	66	44
At Risk, Sibling Abused	203	223	173	155	151
Substantial Risk*	67	70	NA	NA	NA
Total Number	**2,120**	**2,332**	**2,121**	**1,912**	**2,173**
Total Percentage	**1.5%**	**1.6%**	**1.4%**	**1.3%**	**1.5%**

Data Source: *Needell et al, 2013*
**Substantial Risk was dropped as an allegation category after 2009.*

  - As shown in Table 5, from fiscal years 2007-2008 to 2012-2013, the 12-month average number of children who received Emergency Response Dispositions increased 10% from 1,134 to 1,248 children. In addition, the rates, which take into account changes in the number of children residing in the County, also show an increase.
  - For four of the five subcategories of case management, the number (and rate) of services provided increased in this five-year period, the lone exception being a decrease in permanent placements.

- During the same time period, the annual average number of children in foster care increased 13.5%—from 527 to 598 children—and the number of children who received adoption assistance increased 9% from 1,023 children to 1,118 children per month. Importantly, the rates, which take into account changes in the number of children residing in the County, also show increases.

Table 5: Annual Average Number (and Rate*) of Children Receiving Child Welfare Services by Fiscal Year, Stanislaus County

Program	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	07 - 13 % Change
Child welfare emergency response dispositions	1,137 (7.7)	1,141 (7.9)	1,021 (6.9)	1,179 (8.0)	1,131 (7.7)	1,248 (8.6)	9.8% (10.6%)
Child welfare services case management							
Family Maintenance	437 (3.0)	436 (3.0)	461 (3.1)	345 (2.3)	366 (2.5)	485 (3.3)	11.0% (11.8%)
Family Reunification	226 (1.5)	232 (1.6)	234 (2.6)	292 (2.3)	271 (2.2)	321 (1.8)	42.0% (43.1%)
Permanent Placement	333 (2.3)	354 (2.4)	361 (2.4)	339 (2.3)	318 (2.2)	260 (1.8)	-21.9% (-21.3%)
Children in foster care	527 (3.6)	531 (3.7)	545 (3.7)	600 (4.1)	567 (3.9)	598 (4.1)	13.5% (14.3%)
Children receiving adoption assistance	1,023 (7.0)	1,040 (7.2)	1,066 (7.2)	1,078 (7.3)	1,091 (7.5)	1,118 (7.7)	9.3% (10.1%)
Total Child Welfare Services Delivered	**3,683 (25.1)**	**3,734 (25.8)**	**3,688 (24.7)**	**3,833 (26.1)**	**3,744 (25.6)**	**4,030 (27.6)**	**9.4% (10.2%)**

Data Source: *Stanislaus County Community Services Agency,* Key Programs Quarterly Report, 2007-2013.
Population Data Source: *U.S. Census Bureau,* American Community Survey (single year), 2007-2012
**Rates per 1,000 Stanislaus County children were calculated by Health Services Agency staff.*

- As shown in Table 6, the incidence of alleged child maltreatment varied across jurisdictions in 2012. Stanislaus County had a slightly higher rate of child maltreatment allegations than California. Within the County, the 95354 zip code (Modesto) had the highest rate of alleged child maltreatment in 2012, while 95385 (Vernalis) had the lowest.

Table 6: Number and Incidence Rate* of Child Maltreatment Allegations by Zip Code, Stanislaus County, 2012

Zip Code	Community	Child Population	Children with Allegations	Incidence per 1,000 Children
95385	Vernalis	85	<15	<12.0
95326	Hughson	2,846	65	22.8
95313	Crows Landing	395	<15	<26.0
95382	Turlock	9,889	282	28.5
95357	Modesto	4,058	130	32.0
95356	Modesto	8,506	316	37.2
95368	Salida	4,565	179	39.2
95363	Patterson	9,050	375	41.4
95367	Riverbank	7,001	316	45.1
95355	Modesto	15,868	783	49.3
95316	Denair	1,920	99	51.6
95358	Modesto	10,189	530	52.0
95361	Oakdale	8,448	446	52.8
95380	Turlock	12,818	740	57.7
95360	Newman	4,024	243	60.4
95307	Ceres	14,609	892	61.1
95386	Waterford	3,267	223	68.3
95350	Modesto	13,191	959	72.7
95323	Hickman	319	28	87.8
95351	Modesto	16,073	1,411	87.8
95354	Modesto	7,462	750	100.5
Stanislaus		154,583	9,858	63.8
California		9,697,339	486,991	50.2

Data Source: *California Children's Services Archive,* CWS/CMS 2013 Q3 Extract.
Needell et al, 2013; see Berkeley California Child Welfare Indicators Project website at http://cssr.berkeley.edu/ucb_childwelfare.
Population Data Source: *Claritas Inc.'s population projections (based on the 2000 U.S. Census).*
**Rates per 1,000 children calculated by authors; child population frequencies in this analysis were estimated by Claritas using a different formula than is used by the California Department of Finance.*

- ***Elder Abuse:*** During the 2012-2013 fiscal year, Stanislaus County Adult Protective Services (APS) investigated 2,074 reports of alleged elder abuse, which was a 20.5% increase from the 2009-2010 fiscal year (see Table 7).
    - This translates to 173 reports of alleged elder abuse on average every month during the year.
    - There were 329 active cases on average every month receiving APS case management services during 2012-2013.
    - Active APS cases are greater than the number of reports of alleged abuse because they are an accumulation of previous reports that are still receiving

case management services in addition to new APS reports of alleged abuse opened during the month.

- There was a 51.8% decrease in the average monthly number of APS case management cases between 2009-2010 and 2012-2013 fiscal years. However, because these numbers do not take into consideration changes in the adult population of the County across the time period, readers are urged to be cautious before concluding that significant change occurred.

Table 7: Reported Elder Abuse in Stanislaus County by Year

Category	FY 2009 - 2010	FY 2010 - 2011	FY 2011 - 2012	FY 2012 - 2013	2009 - 2013 % Change
APS* reports of alleged abuse – **Year Total**	1,721	1,650	1,770	2,074	20.5%
APS* reports of alleged abuse – **Monthly Average**	143	138	148	173	20.5%
APS* case management^	682	442	325	329	-51.8%

***Data Source**: Community Services Agency,* Key Programs Quarterly Report FY: 2012 & 2013

**Adult Protective Services*

^Case management is reported as the total number of active cases during the month

Community Concerns

As discussed in the *Crime* sub-section above, crime is the leading concern among Stanislaus county residents (2013 CHA community survey). Neighborhood safety is the second leading concern, with 66.1% of community survey participants reporting being "very concerned" about it, followed closely by a health and safety concern—alcohol and drugs (58.8%).

Table 8 shows the percentage of participants "very," "somewhat" and "not at all" concerned about these and other community issues.

Table 8: Percentage of Residents with Specific Community Concerns

Category	Issue	Level of Concern		
		Very	**Somewhat**	**Not at All**
Public Safety	Crime	**71.4%**	20.0%	8.2%
	Family violence	**45.8%**	31.5%	22.7%
Neighborhoods	Neighborhood appearance	**45.3%**	38.1%	16.7%
	Neighborhood safety	**66.1%**	22.6%	11.3%
	Quality or number of parks and places of recreation nearby	**40.1%**	36.7%	23.2%
Economy	Housing costs	**45.8%**	36.6%	17.6%
	Jobs that pay enough to support a family	**65.6%**	23.9%	10.5%
Education	Quality of Schools	**57.9%**	28.4%	13.7%
Health	Alcohol and drugs	**58.8%**	27.9%	27.6%
	Asthma	32.4%	**40.1%**	22.5%
	Diabetes	36.7%	**40.8%**	20.7%
	Mental illness	**43.6%**	35.7%	15.2%
	Obesity/nutrition	**45.7%**	39.2%	15.2%
Social Issues	Homelessness	**50.6%**	34.9%	14.6%
	Racism	34.6%	**36.5%**	29.0%
Transportation	Transportation access	29.1%	**41.3%**	29.6%

Data Source: *FHOP,* 2013 Stanislaus County *CHA* Community Survey
Note: Bolded figures indicate the largest response category for each issue.

Health of the Educational System

A strong educational system is a vital part of a vibrant, healthy and prosperous community. Prominent citizens such as Thomas Jefferson and Thomas Dewey held that education not only prepares young people for work, but also helps maintain our democratic system. Education is also a key window into the well-being of a society. Much research has shown that education is related to health; those with a higher degree of education are generally healthier, are less likely to self-report a chronic disease diagnosis, and are more likely to survive into old age than those with less education (Culter & Lleras-Muney, 2007). Lower educational attainment is also a risk factor for poverty, dependence upon public assistance, and involvement in crime (Amos, 2008, Alliance for Excellent Education, 2011).

Public School Enrollment

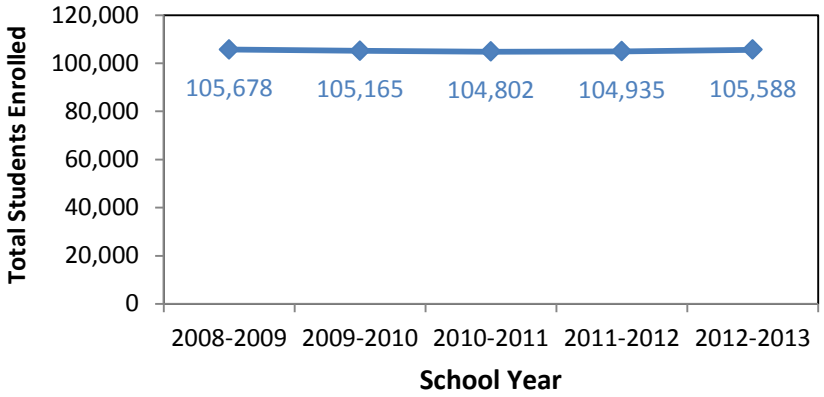
Stanislaus County has 26 public school districts, which vary in size from a single school to over 30 schools:

1) Ceres Unified School District
2) Chatom Union School District
3) Denair Unified School District
4) Empire Union School District
5) Gratton School District
6) Hart-Ransom Union School District
7) Hickman School District
8) Hughson Unified School District
9) Keyes Union School District
10) Knights Ferry School District
11) La Grange Elementary School District
12) Modesto City Schools (broken into elementary, junior high and high schools for some purposes)
13) Newman-Crows Landing Unified School District
14) Oakdale Joint Unified School District
15) Paradise Elementary School District
16) Patterson Joint Unified School District
17) Riverbank Unified School District
18) Roberts Ferry School District
19) Salida Union School District
20) Shiloh School District
21) Stanislaus County Office of Education
22) Stanislaus Union School District
23) Sylvan Union School District
24) Turlock Unified School District
25) Valley Home Joint School District
26) Waterford Unified School District

Public school enrollment figures provide insight into population trends and help project needs for services in areas such as education, child care and health. Additionally, in California, school enrollment determines school funding.

In the 2012-2013 school year, California Department of Education statistics (California Department of Education, 2013b) show that Modesto City Elementary (15,237), Modesto City High (14,731), Turlock Unified (13,956) and Ceres Unified (12,839) had the highest enrollment (see Figure 14). The school districts with the lowest enrollment were rural—Knights Ferry School District with a single elementary school (89) and Gratton School District (130) also with a single elementary school. Between 2008 and 2013, Ceres Unified had the greatest percent increase (289.0%) in enrollment, while Stanislaus Union had the largest percent decrease (192.3%).

Figure 14: Public School Enrollment by Year in Stanislaus County



Data Source: *California Department of Education,* California Longitudinal Pupil Achievement Data System (CALPADS), see http://data1.cde.ca.gov/dataquest/

Special Education

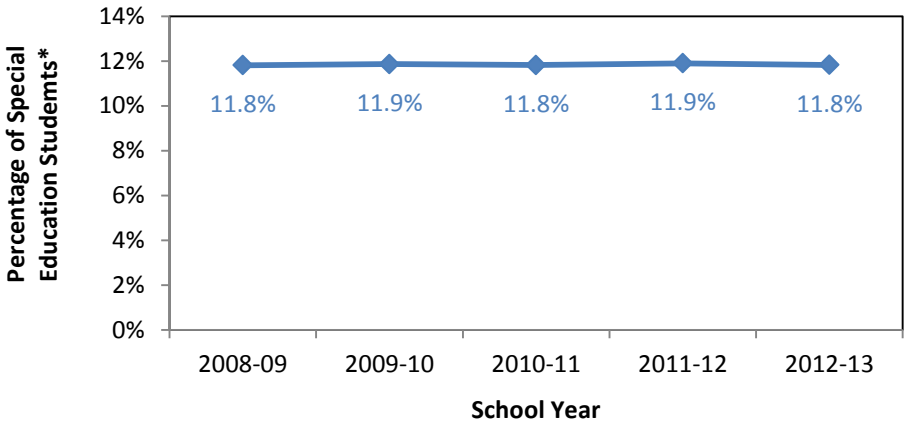
Federal law requires that public schools provide free, appropriate education to children with disabilities (Individuals with Disabilities Education Act of 2004, U.S. Department of Education, no date). Special education includes a variety of services to meet student needs, including speech therapy, access to paraprofessionals and separate class instruction. Special education is expensive; it receives the largest portion of categorical education funds (Public Policy Institute of California, 2009). California schools spend 17% of general kindergarten through twelfth grade expenditures on special education (Public Policy Institute of California, 2009). Additionally, there is a significant achievement gap between students with disabilities and nondisabled students (California Department of Education, 2013a). In 2013, 41% of disabled students passed the California High School Exit Examination (CAHSEE) while 83% of nondisabled students passed the exam.

In Stanislaus County, between 2008 and 2012, the total number of students enrolled in special education was fairly consistent (see Figure 15).

- In 2008-2009, 12,481 special education students were enrolled in Stanislaus public schools;

- In 2010-2011, there were 12,388 special education students; and
- In 2012-2013, there were 12,488.

Figure 15: Special Education Enrollment in Stanislaus County Public Schools



Data Source: *California Department of Education,* Special Education Division, see http://data1.cde.ca.gov/dataquest/
**Includes students 0 to 22 years of age*

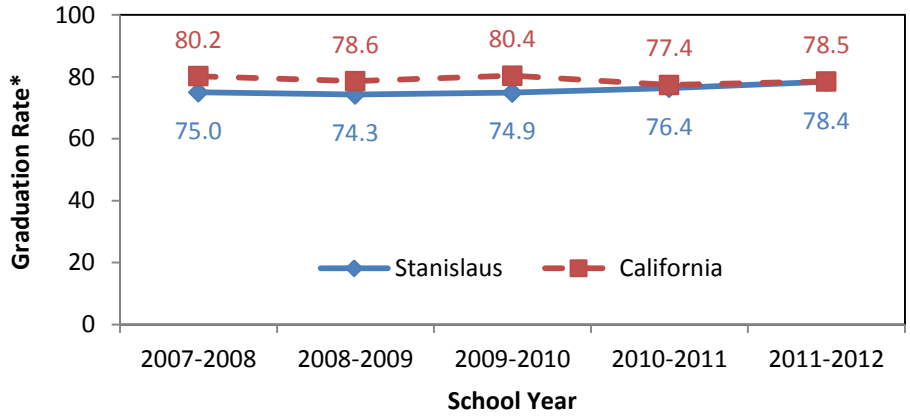
From 2008 to 2012, the leading disability was a specific learning disability, followed by speech or language impairment. (In 2012, the number of total students with the above-mentioned disabilities was 5,694 and 2,897 respectively). Students with a diagnosis of autism had increased by 38.9% in those five years. During this time, enrollment by students with multiple disabilities and other health impairments increased (by 31.0% and 34.9%, respectively). Enrollment of students with orthopedic and visual impairments decreased during the same period (by 22.2% and 20.7%, respectively).

High School Graduation

High school graduation is nearly universally valued because it leads to better-educated citizens and higher earnings for individuals, hence, leading to greater productivity and economic growth locally and nationally. Research shows there is a significant earning gap between high school graduates and dropouts and even those who have earned their General Educational Development (GED) diploma (Child Trends, 2013). Additionally, increased educational attainment has shown to be strongly correlated with good health, increased life expectancy, and decreased crime (Child Trends, 2013). Those with higher levels of education are more likely to have health insurance, understand how to navigate the health system and engage in health promoting behaviors.

In Stanislaus County, the graduation rate has been lower than the state's, though the gap decreased between 2007 and 2012 (Figure 16). In 2012, the graduation rate was 78.4% in Stanislaus County while it was 78.5% in California (California Department of Education, n.d.).

Figure 16: Graduation Rates by Year



Data Source: *California Department of Education,* California Longitudinal Pupil Achievement Data System (CALPADS), see http://data1.cde.ca.gov/dataquest/

**Calculated with NCES formula: # of graduates (year 4) divided by the sum of number of graduates (year 4) + dropouts (from Years 1,2, 3 and 4) until 09-10, when switched to cohort method.*

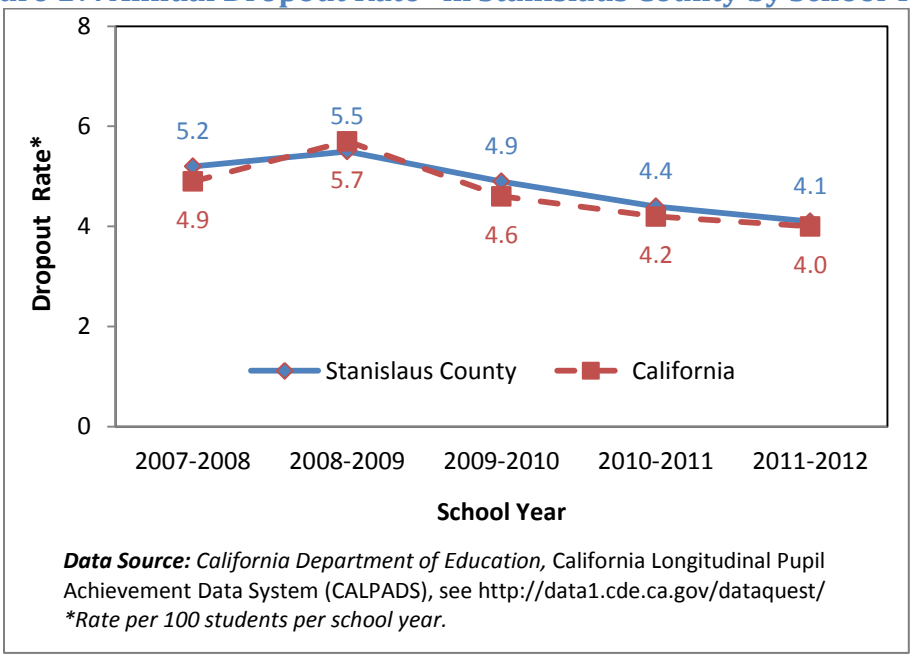
Obstacles to High School Graduation

Dropout

Dropout rates reveal the magnitude of the problem of students who interrupt, and may not continue, their education. Dropping out of school increases the likelihood that a young person will not meet minimum work skills required by the workforce and community. Those who earn high school diplomas are more likely to have higher incomes and occupational statuses whereas dropouts are more likely to live in poverty, receive government assistance and to be involved in crime (Amos, 2008; Child Trends, 2013). Due to their diminished participation in the labor force, high school dropouts exact an economic toll on society. In 2011, if all the high school dropouts of the graduating class graduated on time with their peers, $20.7 billion would have been added to the California economy in additional income over the course of their lifetimes (Alliance for Excellent Education, 2011).

Between 2008 and 2010, Stanislaus County had a slightly higher dropout rate than the state (about 0.5% both years) but from 2010 to 2012 the dropout rate was virtually the same as California's (see Figure 17). Dropout rates differ by school and school district. During the 2011-2012 school year, Denair Unified School District had the highest annual dropout rate (8.8 per 100 students) in Stanislaus County. Modesto City School District had the next highest annual dropout rate (3.7%) but was significantly lower than Denair Unified School District.

Figure 17: Annual Dropout Rate* in Stanislaus County by School Year



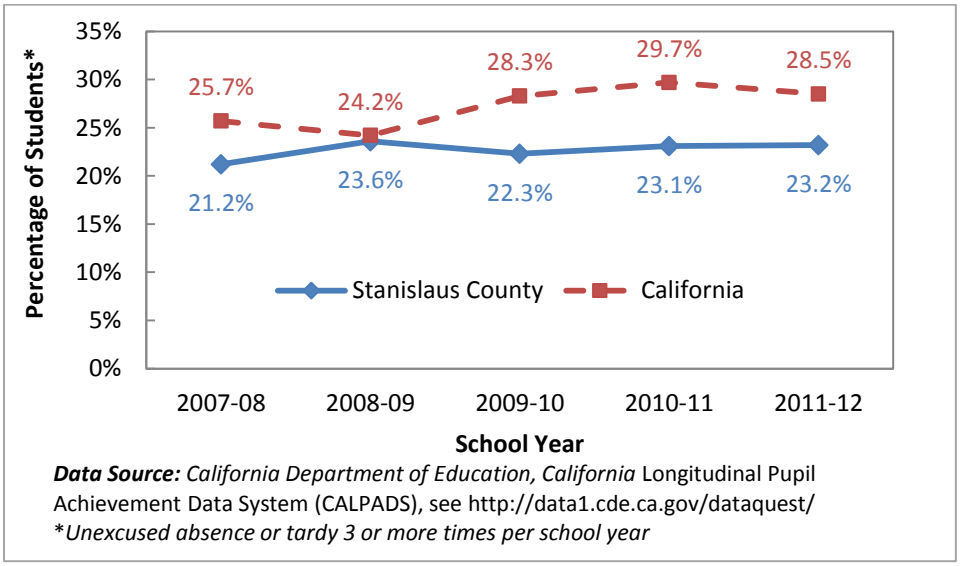
Data Source: *California Department of Education,* California Longitudinal Pupil Achievement Data System (CALPADS), see http://data1.cde.ca.gov/dataquest/
**Rate per 100 students per school year.*

Truancy

When students are truant, they are not in school and are missing valuable learning time. Students who miss school at an early age are more likely to struggle academically and dropout of school entirely. Additionally, school districts lose $1.4 billion each year due to truancy because funding is based on school attendance rates (Harris, 2013).

Between 2007 and 2012, Stanislaus County had a slightly lower percentage of truant students than California (Figure 18).

Figure 18: Percentage of Truant Students by Jurisdiction and School Year



Data Source: *California Department of Education, California* Longitudinal Pupil Achievement Data System (CALPADS), see http://data1.cde.ca.gov/dataquest/
**Unexcused absence or tardy 3 or more times per school year*

In the 2011-2012 school year, Shiloh School District, Patterson Joint Unified, Riverbank Unified, Empire Union and Turlock Unified had the highest truancy rates among Stanislaus County public school districts. For all of these school districts, roughly a third of the students were considered truant, which was higher than the 28.5% of California students that year. On the other side of the spectrum, Gratton School District, Knights Ferry School District, La Grange Elementary School District and Roberts Ferry School District all had no truants during the 2011-2012 school year. Turlock Unified had the greatest net increase in truancy rate (14.5%) while Newman-Crows Landing Unified was the most improved with a 24.8% net decrease.

Teen Pregnancy

Teen pregnancy is an important contributing cause of failure to obtain a high school diploma or equivalent, especially among female students (Perper, Peterson, & Manlove, 2010). See the *Perinatal Health* section for more information on teen pregnancy in Stanislaus County.

Educational Attainment

Stanislaus County's pattern of educational attainment (measured by the U.S. Census Bureau's 2010-2012 ACS) shows a population at risk for poor overall health.

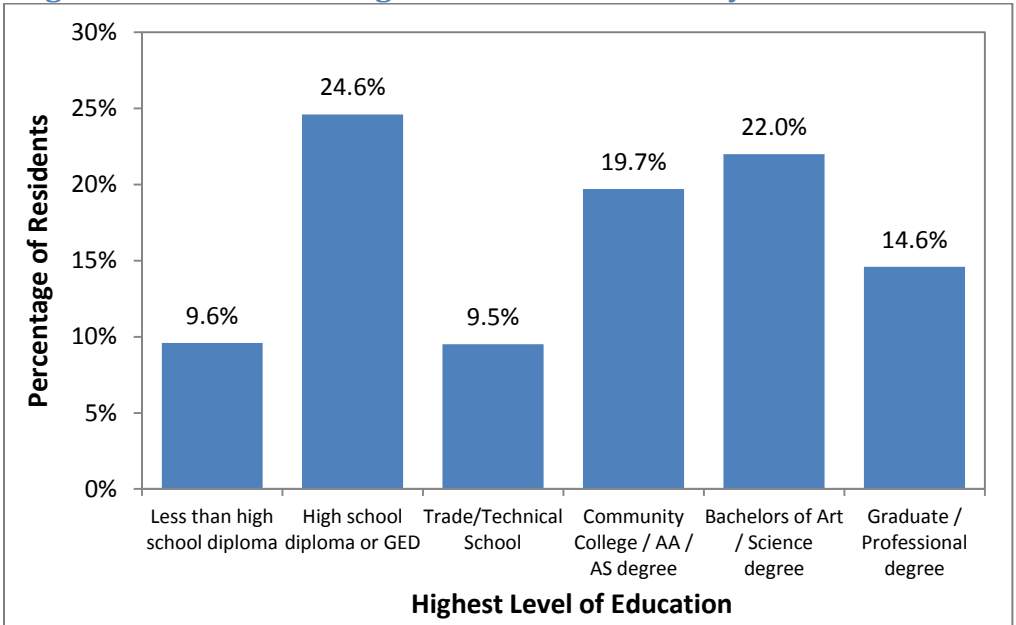
- In Stanislaus, only 16.2% of the population aged 25 years and older had a Bachelor's or graduate degree, compared to 30.5% in California.
- 60.4% of Stanislaus residents (compared to 50.6% of Californians) had only a high school diploma, some college credits or an Associate's degree.
- Nearly a quarter (23.4%) of Stanislaus residents over 25 years did not earn a high school diploma or GED, compared to 18.9% of California residents.

U.S. Census Bureau data also shows that poverty is concentrated among those with less educational attainment (2010-2012 ACS).

- Among Stanislaus residents who were 25 years of age or older and lived below the poverty level,
  - 41.4% did not graduate from high school or receive a GED,
  - 31.8% were high school graduates or earned a GED, and
  - 23.0% had some college credits.
  - But only 3.7% of those living in poverty held a Bachelor's degree (compared to 16.2% of the general population).

Data from the 2013 CHA community survey indicated that the Stanislaus residents who participated in the survey are relatively more educated than the population as a whole (see Figure 19).

Figure 19: What is the highest level of education you have finished?



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,024

Measures of Academic Success

STAR Testing

California's Standardized Testing and Reporting (STAR) program tests student performance on California content standards in mathematics, English language arts, science and history/social science. The test is administered to all students in grades 2-11 upon completion of 85% of the instructional materials, every year, in the various subjects. The test is used to assess individual student learning as well as gauge the quality of instruction.

Students may be required to take STAR testing for some specific subjects that they have studied during the year, but the tests listed in the tables below (Table 9, Table 10, Table 11 and Table 12) are required to be taken by all students in their respective grade level. Reading performance at 3rd grade is particularly important because it is the strongest predictor of school success and high school graduation (Fiester, 2010). The English Language Arts STAR results include more than reading but stand in proxy for this important data point. As a general trend across the different grades and subjects, California consistently has a higher percentage of students scoring proficient or above than the County. While the number of students scoring proficient or above increased from 2008 to 2012 in both jurisdictions, the state has consistently had a higher percentage than the County.

Table 9: Grade 3 STAR Testing Results

Grade 3	2008	2009	2010	2011	2012
Stanislaus					
English Language Arts					
Percent of students tested	95.7%	95.2 %	94.5 %	94.4%	94.2 %
Percent proficient or above	34%	38%	29%	42%	52%
Mathematics					
Percent of students tested	96.3%	95.8 %	95.3%	95.1%	94.9%
Percent proficient or above	56%	59%	60%	62%	63%
California					
English Language Arts					
Percent of students tested	96.3%	95.6%	95.0%	94.7%	94.3 %
Percent proficient or above	38%	44%	44%	46%	48%
Mathematics					
Percent of students tested	96.7%	95.9%	95.5 %	95.1%	94.8%
Percent proficient or above	61%	64%	65%	68%	69%

Data Source: *California Department of Education, Assessment and Accountability Division,* http://data1.cde.ca.gov/dataquest/

Table 10: Grade 5 STAR Testing Results

Grade 5	2008	2009	2010	2011	2012
Stanislaus					
English Language Arts					
Percent of students tested	95.1%	93.8 %	92.8%	92%	92.1 %
Percent proficient or above	43%	52%	54%	52%	55%
Mathematics					
Percent of students tested	95.4%	94.2 %	93.5%	93.0 %	92.9%
Percent proficient or above	45%	54%	57%	58%	57%
Science					
Percent of students tested	94.9 %	93.8%	92.8 %	92.1 %	92.5%
Percent proficient or above	41%	44%	51%	49%	52%
California					
English Language Arts					
Percent of students tested	95.9%	94.4%	93.5%	92.8%	92.4%
Percent proficient or above	48%	54%	58%	59%	63%
Mathematics					
Percent of students tested	96.1%	94.9%	94%	93.5 %	93.1%
Percent proficient or above	51%	57%	60%	63%	65%
Life Science					
Percent of students tested	95.9 %	94.5%	93.7%	93.2 %	92.7%
Percent proficient or above	46%	49%	55%	58%	60%

Data Source: *California Department of Education, Assessment and Accountability Division,* http://data1.cde.ca.gov/dataquest/

Table 11: Grade 8 STAR Testing Results

Grade 8	2008	2009	2010	2011	2012
Stanislaus					
English Language Arts					
Percent of students tested	98.4%	96.3%	94.4%	93.9%	93.9%
Percent proficient or above	44%	45%	49%	53%	53%
Life Science					
Percent of students tested	97.5%	95.9%	94%	94.1%	93.9%
Percent proficient or above	51%	52%	56%	58%	62%
Social Science					
Percent of students tested	97.9%	98.0%	98.3%	98.7%	98.3%
Percent proficient or above	36%	40%	45%	46%	49%
California					
English Language Arts					
Percent of students tested	98.4%	95.6%	94.4%	93.5%	93.0%
Percent proficient or above	45%	48%	54%	57%	59%
Life Science					
Percent of students tested	97.9%	95.4%	94.3%	93.6%	93.1%
Percent proficient or above	52%	56%	59%	63%	66%
Social Science					
Percent of students tested	98.0%	98.1%	98.0%	98.0%	98.0%
Percent proficient or above	36%	42%	47%	50%	52%

Data Source: *California Department of Education, Assessment and Accountability Division,* http://data1.cde.ca.gov/dataquest/

Table 12: Grade 10 STAR Testing Results

Grade 10	2008	2009	2010	2011	2012
Stanislaus					
English Language Arts					
Percent of students tested	97.2%	97.2%	97.3%	93.9%	93.4%
Percent proficient or above	38%	41%	44%	45%	45%
Life Science					
Percent of students tested	95.4%	95.2%	92.2%	92.3%	91.9%
Percent proficient or above	37%	40%	44%	48%	50%
California					
English Language Arts					
Percent of students tested	96.5%	96.7%	96.9%	94.3%	95.3%
Percent proficient or above	41%	44%	45%	48%	50%
Life Science					
Percent of students tested	93.8%	94.4%	94.0%	93.0%	92.7%
Percent proficient or above	40%	44%	46%	50%	53%

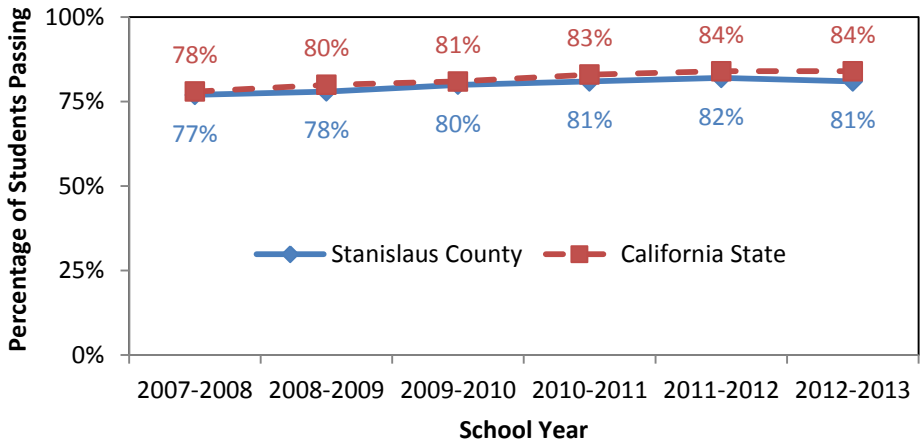
Data Source: *California Department of Education, Assessment and Accountability Division,* http://data1.cde.ca.gov/dataquest/

California High School Exit Examination (CAHSEE)

The main goal of the California High School Exit Examination (CAHSEE) is to improve student achievement in public high schools by ensuring that graduates demonstrate basic competency in English language arts (ELA, i.e. reading and writing) and mathematics. All California public school students, except eligible students with disabilities, must pass the CAHSEE, in addition to meeting all other district graduation requirements, in order to receive a high school diploma. The CAHSEE is offered on multiple occasions, starting in the 10th grade, to ensure that students have ample opportunity to pass the test before the end of their senior year. The passing rate reported here is the first time passing rate for 10th graders.

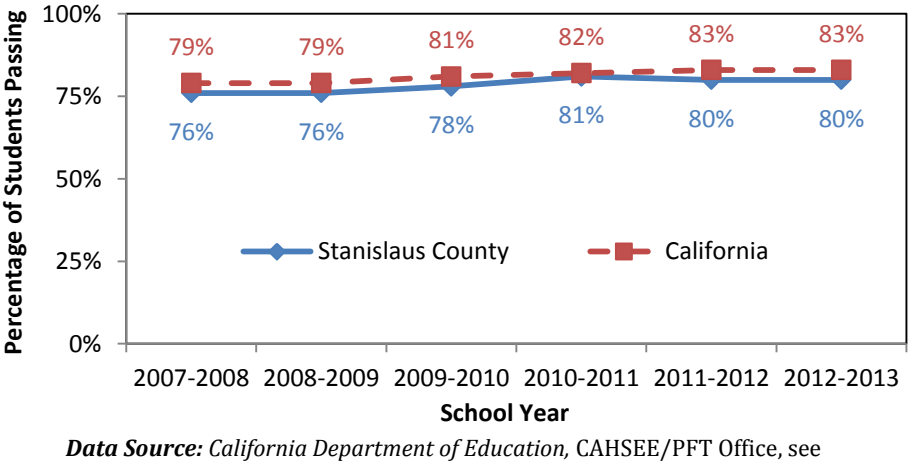
Stanislaus County's passing rates in both subjects have been steadily increasing since 2007, but remain below California's rates which have also risen (see Figure 20 and Figure 21).

Figure 20: CAHSEE Mathematics Passing Rate by Jurisdiction and Year



Data Source: *California Department of Education,* CAHSEE/PFT Office, see http://data1.cde.ca.gov/dataquest/

Figure 21: CAHSEE English Language Arts Passing Rate by Jurisdiction and Year



Data Source: *California Department of Education,* CAHSEE/PFT Office, see http://data1.cde.ca.gov/dataquest/

In the 2012-2013 school year, among non-alternative education schools, Keyes Union had the highest English Language Arts (ELA) first time passing rate (94%), while Newman Crows Landing Unified had the lowest (71%); for mathematics, Waterford Unified had the highest first time passing rate (90%), while Denair Unified had the lowest (69%). Stanislaus County Office of Education had the lowest first time passing rates in both mathematics and ELA (37% and 41%, respectively) but it is important to keep in mind that the district operates the alternative education sites serving at-risk students, which could decrease the first time pass percentage.

From 2007 to 2013, Hughson Unified had the largest margin of improvement in mathematics (9%) while Keyes Union had the greatest improvement (13%) for ELA. Newman Crows Landing Unified's and Waterford Unified's net change in passing rate for both subjects was negative, although Newman Crows Landing Unified dropped by a larger margin.

Academic Performance Index (API)

The Public Schools Accountability Act established the Academic Performance Index (API) in 1999 to create an academic accountability system for kindergarten through twelfth grade public schools (Public Schools Accountability Act of 1999). The API is reported as a number ranging from 200 to 1000 and is calculated from the results of statewide assessments, including the STAR testing and CAHSEE. The target API is 800 and schools that do not meet this target are required to meet annual growth targets. The API is based on an improvement model and each school or local education agency (LEA), district, has individualized growth targets depending on their previous years' performance.

As shown in Table 12, in 2013, nine LEAs had met or surpassed the 800 API target. Among this group, Paradise Elementary (882), and Knights Ferry Elementary (878) had the highest scores. On the other hand, fifteen LEAs had not met the target in 2013. Among these LEAs, Riverbank Unified (726) and Newman-Crows Landing (723) had the lowest scores for traditional LEAs. The Stanislaus County Office of Education had the lowest overall score (481) but it operates the county's alternative education sites. Empire Union Elementary (798) and Salida Union Elementary (794) are both very close to the 800 API target.

Table 13: Academic Performance Index (API) Scores in Stanislaus County

Local Educational Agency	2012 Base	2013 Growth	2012-13 Growth
La Grange Elementary	N/A	N/A	N/A
Paradise Elementary	852	882	30
Keyes Union	781	789	8
Stanislaus Union Elementary	804	815	11
Valley Home Joint Elementary	850	858	8
Shiloh Elementary	833	805	-28
Turlock Unified	782	779	-3
Denair Unified	729	747	18
Ceres Unified	782	781	-1
Riverbank Unified	743	726	-17
Chatom Union	766	770	4
Patterson Joint Unified	747	735	-12
Hughson Unified	802	803	1
Modesto City High	755	756	1
Oakdale Joint Unified	806	807	1
Hart-Ransom Union Elementary	828	815	-13
Hickman Community Charter	853	859	6
Empire Union Elementary	803	798	-5
Salida Union Elementary	799	794	-5
Sylvan Union Elementary	837	832	-5
Knights Ferry Elementary	854	878	24
Modesto City Elementary	752	744	-8
Waterford Unified	776	776	0
Newman-Crows Landing Unified	746	723	-23
Roberts Ferry Union Elementary	822	782	-40
Stanislaus County Office of Education	445	481	36
Gratton Elementary	897	866	-31

Data Source: *California Department of Education,* Analysis, Measurement and Accountability Reporting Division, see http://data1.cde.ca.gov/dataquest/

*LEAs highlighted in green are at or above the state API target of 800 while those that are highlighted in red are below the 800 target. Blue highlight indicates that insufficient data was available.

Economic Health and Well-Being

Economic vitality affects health, crime rates and other quality of life measures. Stanislaus County, like other semi-rural Central Valley counties, has greater socio-economic challenges than California as a whole, including lower income, higher poverty, greater use of public assistance programs, greater unemployment and less educational attainment.

Employment and Unemployment

Employment Status

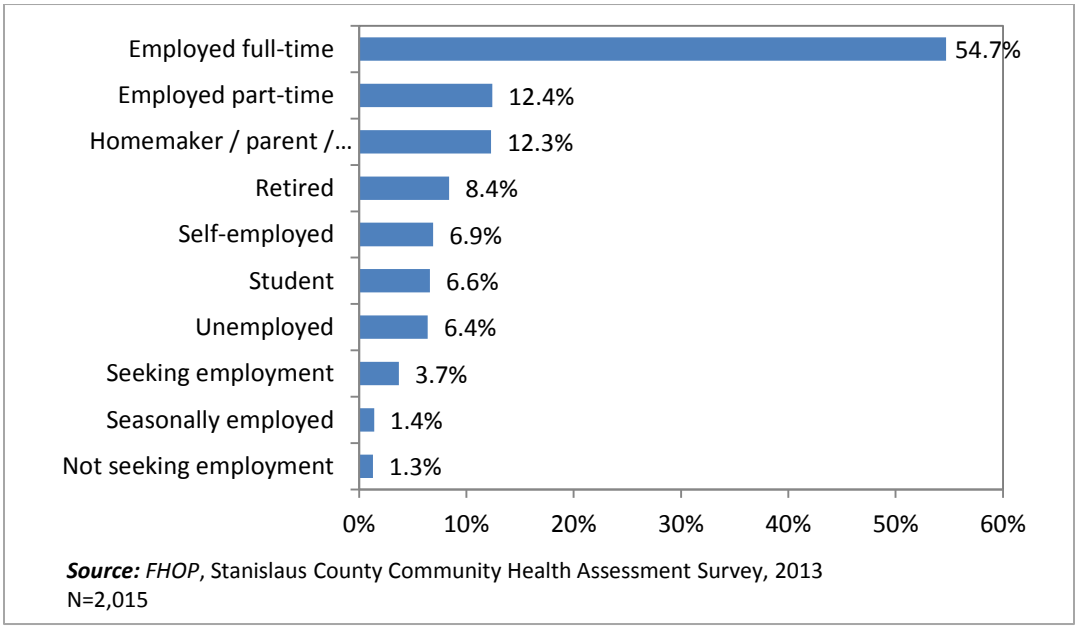
Participation in the labor market is an important foundation of a community's economic strength. The 2010-2012 ACS showed that

- 62.2% of Stanislaus residents 16 years of age and older are in the labor force (2010-2012 ACS, Table DP03), and
- 51.2% of those residents in the labor force are employed (2010-2012 ACS, Table S2301).

Similarly, the 2013 Community Health Assessment primary survey, which was conducted after the 2010-2012 ACS, revealed that (Figure 22)

- 54.7% of Stanislaus adults (18 or older) are employed full-time, 12.4% are employed part-time, and 12.3% are homemakers or caregivers.
- Further, 8.4% of residents are retired, 6.9% are self-employed, 6.6% are students, and 6.4% are unemployed.

Figure 22: What is your employment status? *Mark all that apply.*



Source: *FHOP*, Stanislaus County Community Health Assessment Survey, 2013
N=2,015

Industry and Occupation

According to the 2010-2012 ACS (Table DP03), the "educational services and health care and social assistance" industry category employs the largest percentage of Stanislaus residents (22.1%). Other major industries are

- Retail trade (13.5%),
- Manufacturing (12.7%),
- Professional, scientific, and management and administrative and waste management services (8.3%),
- Arts, entertainment, and recreation, and accommodation and food services (8.2%),
- Construction (6.5%),
- Agriculture (5.5%),
- Transportation, and warehousing, and utilities (5.0%),
- Other services, except public administration (5.0%),
- Wholesale trade (4.3%),
- Public administration (3.9%),
- Finance, and insurance, and real estate and rental and leasing (3.7%), and
- Information (1.2%).

The most common occupation category is "management, business, science and arts occupations," which employs 26.2% of the labor force (2010-2012 ACS, Table DP03), followed by

- Sales and office occupations (24.6%),
- Service occupations (18.4%),
- Production, transportation, and material moving occupations (17.2%), and
- Natural resources, construction, and maintenance occupations (13.6%).

In addition, the 2010-2012 ACS (Table DP03) found

- 76.9% of Stanislaus workers aged 16 years work for private businesses for a wage or salary;
- 14.5% work for a governmental entity;
- 8.5% are self-employed (in their own, unincorporated business); and
- 0.2% are unpaid family workers.

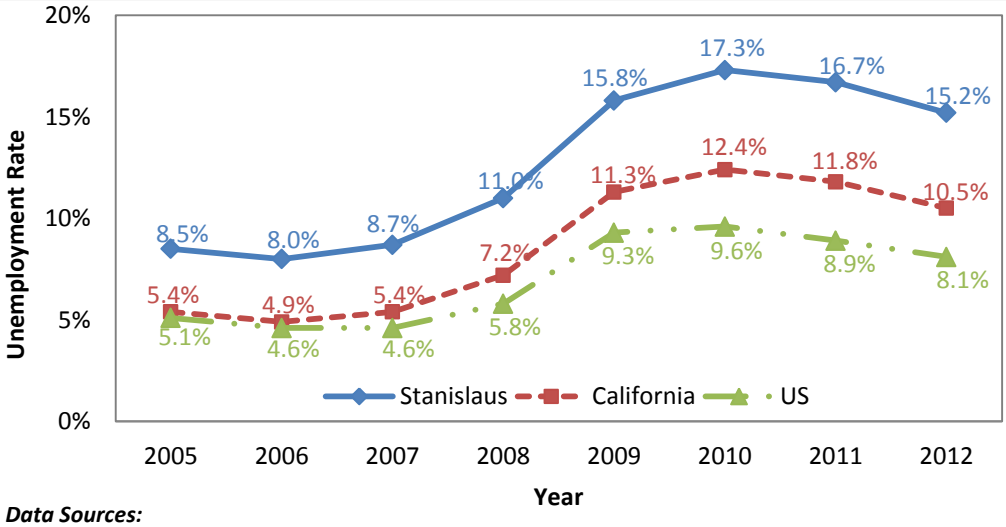
Unemployment Rate

An agricultural base (using migrant labor) and seasonal employment (e.g. in the food processing industry) have historically caused relatively high unemployment, contributing to Stanislaus County's lower overall prosperity when compared to other California jurisdictions. The housing market collapse in 2007 resulted in a 40% decrease in construction payrolls in California. The State also suffered large manufacturing job losses that have not been regained (U.S. Congress, 2013). Long-term unemployment, defined by the U.S. Department of Labor (2013) is the percentage of workers who are jobless for 27 weeks or more.

- As of December 2013, the unemployment rate for Stanislaus County was 12.2%, compared to 7.9% for California and 7.4% for the US (rates not seasonally adjusted; California Employment Development Department 2013c and Gallup Economy, 2014 (see Figure 23).
- Data from the California Employment Development Department (Figure 23) showed that the annual unemployment rate in Stanislaus started to increase in 2008 (11% annual unemployment rate), and reached a peak in 2010 (17.3% annual unemployment rate).

- Although the annual unemployment rate in Stanislaus has started to decrease (15.2% in 2012), it is still higher than the rate pre-recession, and continues to be higher than statewide and nationwide averages (see Figure 23).

Figure 23: Annual Unemployment Rate for Stanislaus, California and the U.S., 2005-2012



Data Sources:

1. State of California, Employment Development Department, Labor Market Info, Local Area Profile

2. United States Department of Labor, Bureau of Labor Statistics. Labor force statistics from current population survey

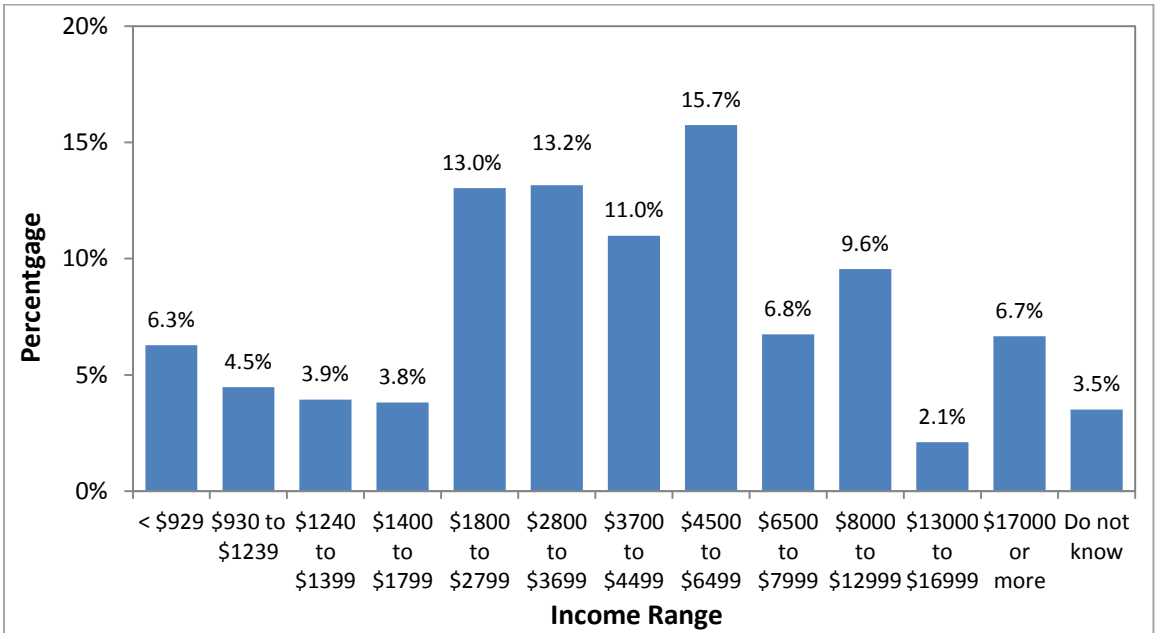
- The longer a worker is unemployed, the harder it is to find employment (U.S. Congress, 2013).
- Long-term unemployment is associated with a greater incidence of suicide (U.S. Congress, 2013).

Household Income

Personal and household incomes are two indicators that assess the economic vitality of a community and the spending power of individuals, including their ability to afford basic needs such as housing and health care. Like its Central Valley neighbors, Stanislaus County is less wealthy than coastal California counties.

- The 2010-2012 ACS data showed that the median household income in the County is $46,879, which is lower than the State median household income of $59,368.
- Data from the 2013 Stanislaus County CHA survey indicated that the median household income is $44,400, slightly below that of the earlier ACS estimate.
- Figure 24 shows the percentage of 2013 CHA community survey respondents in each monthly income category (2013 CHA).

Figure 24: What is your household income each month?



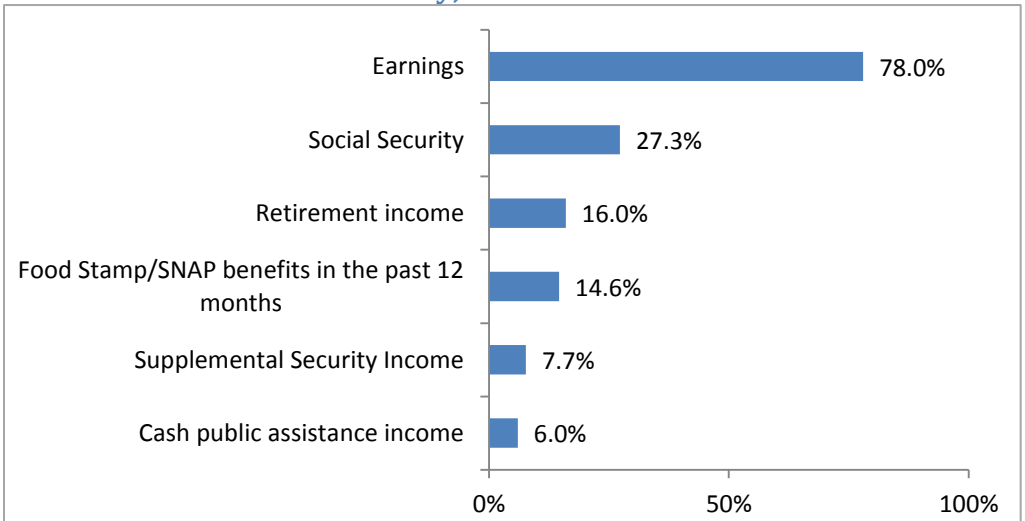
Data Source: *FHOP,* Stanislaus County Community Health Assessment Survey, 2013
N=2,056

- In 2010-2012, 78.0% of households in Stanislaus received earnings (ACS, Table DP03).
- The per capita income is 37% lower in the County ($20,808) than State ($28,576; 2010-2012 ACS, Table DP03).

Other sources of income to Stanislaus residents include Social Security, retirement income, Supplemental Security Income (SSI), cash public assistance income and food stamps/Supplemental Nutrition Assistance Program (SNAP; see Figure 25 for the percentage of households receiving each type of assistance). Please note that SNAP is called Cal Fresh in California. Some households can receive more than one source of income.

- Mean annual Social Security Income is $16,097;
- Mean annual retirement income for Stanislaus seniors is $21,617;
- Mean annual Supplemental Security Income is $9,944; and
- Mean annual cash public assistance income is $5,395.

Figure 25: Proportion of Households with Various Income Sources in Stanislaus County, 2010-2012



***Data Source**: US Census Bureau,* 2010-2012 American Commnity Survey, Selected Economic Characteristics (Table DP03)

Poverty

Poverty is an important social and economic indicator of a community's well-being. There are two federal measures of poverty: poverty thresholds and poverty guidelines. The **poverty thresholds** are updated each year by the U.S. Census Bureau (2013b), and are used to prepare estimates of the number of and proportion of Americans in poverty each year. The matrix of thresholds varies by family size, number of children, for one- and two-person units, and age of adults.

The **poverty guidelines** (also called the Federal Poverty Levels) are issued by the U.S. Department of Health and Human Services (2013b), and are used to determine financial eligibility for public assistance programs such as Head Start. These guidelines are based on household income and family size; for example, a household of two with an annual income of $15,510 is deemed to be at 100% Federal Poverty Level (FPL). Given that this is the measure used to allocate public resources, this report focuses on FPL.

- U.S. Census Bureau data (2010-2012 ACS) shows that a higher percentage of Stanislaus County residents (20.4%) and families (16.8%) live below the Federal Poverty Level (FPL) than California residents (15.5%) and families (11.6%).
    - Among married-couple families, 10.3% live below the FPL.
    - Among female-headed families, 36.2% live below the FPL.
    - Individuals living in poverty vary by age, gender, race, ethnicity and educational attainment, as shown in Table 14.
- Data from the 2013 CHA community survey indicated that 18.0% of Stanislaus households live at or below the 100% FPL (see Table 14).
    - 23.8% of Stanislaus households live at or below the 138% FPL (2013 CHA), which will make them eligible for extended Medi-Cal coverage under the Affordable Care and Patient Protection Act beginning in 2014.)

Table 14: Stanislaus Residents Living in Poverty (<100% Federal Poverty Level) by Demographic Factors over Time

Demographic Factor	% Living in Poverty*		% Change^
	2007-2009	2010-2012	
Age			
< 18	21.1%	29.7%	40.8% ↑
18 to 64	13.8%	19.1%	38.4% ↑
≥ 65	8.8%	11.4%	29.5% ↑
Total	15.5%	21.2%	36.8% ↑
Gender			
Male	14.1%	20.0%	41.8% ↑
Female	16.8%	22.4%	33.3% ↑
Race			
African American/Black	23.2%	32.8%	41.4% ↑
American Indian/Alaskan Native	13.3%	29.7%	123.3% ↑
Asian	12.4%	19.1%	54.5% ↑
Caucasian/White	14.4%	19.9%	38.2% ↑
Native Hawaiian/Pacific Islander	16.1%	25.8%	60.2% ↑
Other race	22.1%	28.5%	29.0% ↑
Multiracial	17.8%	22.8%	28.1% ↑
Ethnicity			
Latino	22.2%	29.3%	32.0% ↑
Non-Latino	11.0%	15.2%	38.7% ↑
Educational Attainment (population 25 years and over)			
Less than high school graduate	22.4%	29.4%	31.3% ↑
High school graduate (includes equivalency)	12.0%	18.3%	52.5% ↑
Some college, associate's degree	8.4%	12.1%	44.0% ↑
Bachelor's degree or higher	5.0%	3.8%	24.0% ↓

Data Source: *U.S. Census Bureau,* 2010-2012 American Community *Survey (2012 three-year estimates), Table S1701.*
**Out of the population for whom poverty status is determined*
^Upward red arrows indicate an increase in percentage in poverty; downward green arrows represent a decrease.

Self-Sufficiency Income

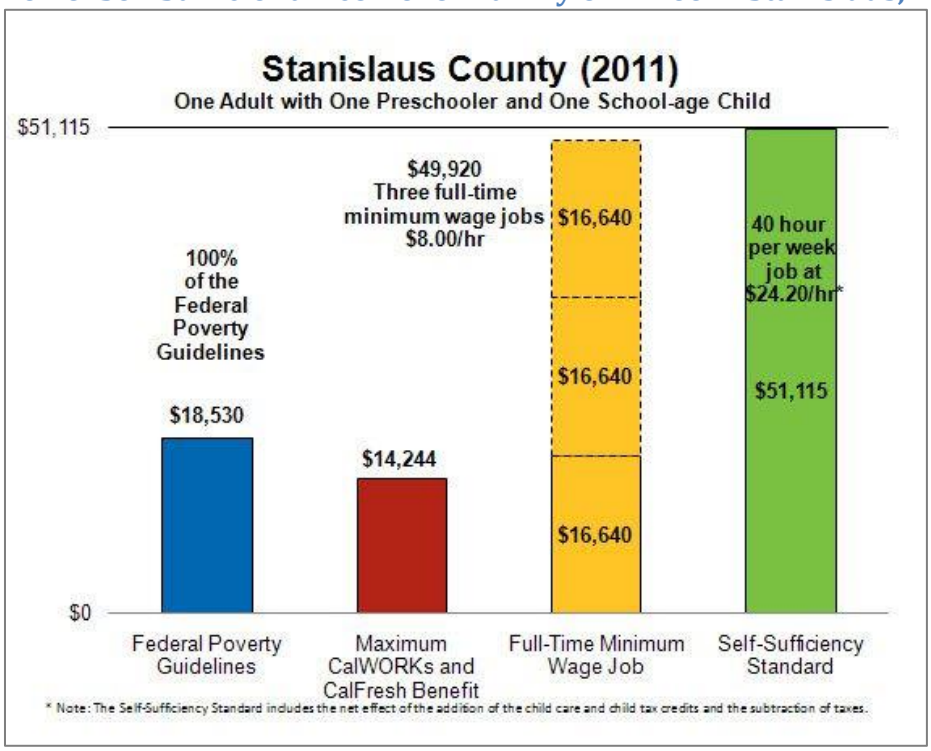
The California Family Self-Sufficiency Standard (Self-Sufficiency Standard) measures the minimum income a family of a certain composition (i.e. number and type of members) living in a particular county requires to cover the local costs of basic needs. The Self-Sufficiency Standard is calculated using the costs families face on a daily basis (including housing, food, child care, out-of-pocket medical expenses and transportation), in a specific jurisdiction, and thus provides a complete picture of what it takes for families to make ends meet (Insight, Center for Community Economic Development, 2011).

The Self-Sufficiency Standard is a more accurate indication of whether individuals and families can pay for their basic needs than the Federal Poverty Level (FPL), which was

developed in the early 1960s and is used to determine income eligibility for many public programs. Proponents of the Self-Sufficiency Standard argue that the FPL is calculated based on the outdated assumptions that families spend one-third of their income on food, and does not take into account the cost of housing, transportation costs, child care, health care and taxes (Insight, Center for Community Economic Development, 2011). In addition, the FPL applies to the 48 contiguous states and Washington D.C., regardless of differences in the cost of living in these different areas. The Self-Sufficiency Standard, in contrast, takes into account actual costs encountered in different counties.

As seen in Figure 26 below, a family of three (one adult, one preschooler and one school-age child) would need an annual income of $51,115 in order to meet all of their basic needs. However, Figure 26 also shows that neither the 100% Federal Poverty Level used to determine eligibility for public programs, nor the maximum CalWORKS/Cal Fresh (California's SNAP) Benefit, is enough for a family of three to be self-sufficient. In Stanislaus County, in order to meet the basic expenses for a family of three, a person would need to: a) have a full time job that pays $24.20 or more per hour, or b) work three full-time minimum wage jobs paying at least $8 per hour (Insight, Center for Community Economic Development, 2011).

Figure 26: Self Sufficient Income for Family of Three in Stanislaus, 2011



The Self-Sufficiency Standard is different depending on the family's make up, as illustrated in Table 15 (Insight, Center for Community Economic Development, 2011). In 2011, in the County, in order to be self-sufficient,

- A single adult would need to make $10.77 an hour or $22,738 annually; while

- A household with two adults, an infant and a school-aged child would need to bring in $55,655 annually.

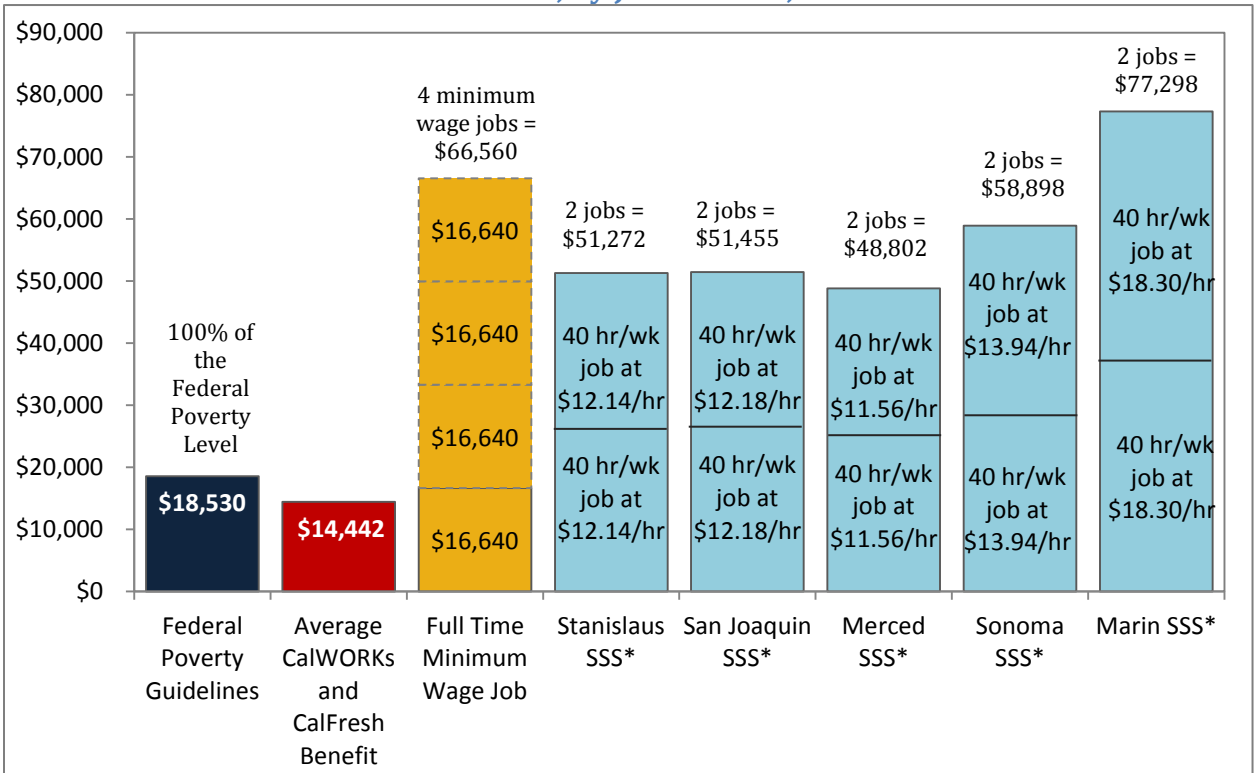
Table 15: Projected Expenses and Income Required for Self-Sufficiency in Stanislaus County by Family Composition, 2011

Monthly Costs	1 Adult	1 Adult, 1 Infant	1 Adult, 1 Infant, 1 School Age Child	2 Adults	2 Adults, 1 Infant	2 Adults, 1 Infant, 1 School Age Child
Housing	$768	$905	$905	$768	$905	$905
Child care	$0	$707	$1,130	$0	$707	$1,130
Food	$253	$376	$568	$499	$614	$784
Transportation	$283	$291	$291	$546	$554	$554
Health Care	$141	$377	$399	$423	$434	$456
Miscellaneous	$144	$266	$329	$224	$321	$383
Taxes	$306	$510	$627	$368	$592	$693
Earned Income Tax Credit*	$0	$0	$0	$0	$0	$0
Child Care Tax Credit*	$0	($55)	($100)	$0	($50)	($100)
Child Tax Credit*	$0	($83)	($167)	$0	($83)	($167)
Self Sufficiency Wage (per adult)						
Hourly	$10.77	$18.72	$22.62	$8.04	$11.35	$13.18
Monthly	$1,895	$3,294	$3,982	$2,827	$3,995	$4,638
Annual	$22,738	$39,527	$47,780	$33,930	$47,935	$55,655

Data Source: *Insight Center for Community Economic Development,* 2011
**These are credits (positive income) rather than expenses.*

As mentioned above, the Self-Sufficiency Standard varies with each Californian county (see Figure 27). In Stanislaus, a family with two adults and one preschooler needs to make $51,272 annually in order to be self-sufficient. Approximately the same amount is needed for San Joaquin, at $51,455 per year. A slightly lower annual income ($48,802) is needed in Merced, while significantly more is needed to live in Sonoma ($60,137) or Marin ($82,913). As shown, neither the 100% Federal Poverty Level used to determine eligibility for public programs, nor the maximum CalWORKS/Cal Fresh (SNAP) Benefit amount, is enough for a family of three to be self-sufficient.

Figure 27: Annual Income Required to be Self-Sufficient with Two Adults and One Preschooler, by Jurisdiction, 2011



Data Source: *Insight Center for Community Economic Development*, California Self-Sufficiency Standard, 2011
**SSS = Self-Sufficiency Standard*

Elder Economic Security Index

The Elder Economic Security Index (Elder Index) is a county-specific measure of the minimum income a retired older adult (65 years of age and older) needs in order to make ends meet and to cover all basic expenses like housing, food, medical care and transportation (see Table 16). What it shows is that neither the median Social Security payment nor the maximum Supplemental Security Income payment is enough to cover Stanislaus County seniors' basic needs.

Table 16: Elder Economic Security Standard(TM) Index, Stanislaus County 2011. Elder Index Per Year, Annual Comparisons for Selected Elder Household Types

	Elder Index Per Year					
	Elder Person			Elder Couple		
	Owner without mortgage	Owner with mortgage	Renter, one bedroom	Owners without mortgage	Owners with mortgage	Renters, one bedroom
Income Needed to Meet Basic Needs*	$16,140	$29,061	$20,736	$24,194	$37,115	$28,790
Annual Comparison Amounts						
Federal Poverty Guideline (2011 DHHS)	$10,890	$10,890	$10,890	$14,710	$14,710	$14,710
% of Federal Poverty (Elder Index ÷ Federal Poverty Guideline)	148%	267%	190%	164%	252%	196%
SSI Payment Maximum, California 2011	$9,965	$9,965	$9,965	$16,886	$16,886	$16,886
SSI Income Gap (SSI Payment Maximum - Elder Index)	-$6,175	-$19,096	-$10,771	-$7,308	-$20,229	-$11,904
Median Social Security Payment 2011	$12,103	$12,103	$12,103	$19,431	$19,431	$19,431
Soc Sec Income Gap (Average Social Security Payment - Elder Index)	-$4,037	-$16,958	-$8,633	-$4,763	-$17,684	-$9,359

Data Source: *Insight Center for Community Economic Development (2011),* California Elder Economic Security Index. See http://www.insightcced.org/communities/besa/cal-eesi/eesiList.html

Elder Economic Security Index for Grandparents Raising Grandchildren

It is hard enough for seniors to make ends meet. Yet, as shown in the *County Demographics and Well-Being* section, a small proportion of grandparents in Stanislaus are responsible for raising their grandchildren. The Social Security and Supplemental Security Income, which are the two common sources of income for seniors, are nowhere near enough to provide for a grandchild for a retired person aged 65 and older.

The UCLA Center for Health Policy Research (2013) calculated county-by-county estimated costs for basic monthly expenses for seniors 65 years and older who are the primary custodian of one or more grandchildren. Calculations are shown by three household types: Elder renters; elder owners with no mortgage; and, elder owners with a mortgage. The costs are calculated using The Elder Index. Table 17 shows the Stanislaus County Elder Index for grandparents raising grandchildren.

Table 17: Stanislaus County, Elder Index for Grandparents Raising Grandchildren, 2011

Annual Elder Index, Additional Costs for Grandchildren, and Monthly Cost Component Example

Annual Elder Index for Elder(s) Only

Income Needed to Meet Basic Needs (based on Elder Index)	Elder Person			Elder Couple		
	Owner w/o mortgage	Owner w/mortgage	Renter	Owner w/o mortgage	Owner w/mortgage	Renter†
	$16,140	$29,061	$20,736	$24,194	$37,115	$28,790
Additional Grandchild Costs						
Add for 1 Grandchild	$5,277	$5,277	$5,277	$5,145	$5,145	$6,777
Total Income Needed	$21,418	$34,339	$26,014	$29,338	$42,259	$35,568
2011 FPL [1]	*$14,710*	*$14,710*	*$14,710*	*$18,530*	*$18,530*	*$18,530*
Total Income Needed as % of FPL	146%	233%	177%	158%	228%	192%
Add for 2 Grandchildren	$10,425	$10,425	$12,058	$10,034	$10,034	$11,666
Total Income Needed	$26,565	$39,486	$32,794	$34,227	$47,148	$40,456
2011 FPL [1]	*$18,530*	*$18,530*	*$18,530*	*$22,350*	*$22,350*	*$22,350*
Total Income Needed as % of FPL	143%	213%	177%	153%	211%	181%
Add for 3 Grandchildren	$15,316	$15,316	$16,949	$14,667	$14,667	$21,002
Total Income Needed	$31,457	$44,378	$37,686	$38,861	$51,782	$49,792
2011 FPL [1]	*$22,350*	*$22,350*	*$22,350*	*$26,170*	*$26,170*	*$26,170*
Total Income Needed as % of FPL	141%	199%	169%	148%	198%	190%

Example: Monthly Cost Components for Older Couple Renter with One Grandchild

	Housing	Food	Health Care	Transportation	Misc Costs	Total
Older Couple - Renter	$766	$472	$490	$335	$336	$2,399
One Grandchild	$136	$202	$0	$129	$98	$565
Total	$902	$674	$490	$464	$434	$2,964

[1] FPL = 2011 Federal Poverty Guidelines: http://aspe.hhs.gov/poverty/11poverty.shtml

†Renter annual total may not equal the sum of monthly totals due to rounding

For the complete report, methodology or other counties visit: http://healthpolicy.ucla.edu/elder-index-grandparents2011

For more information about the California Elder Economic Security Initiative™ program visit: http://www.insightcced.org/communities/cfess/cal-eesi.html

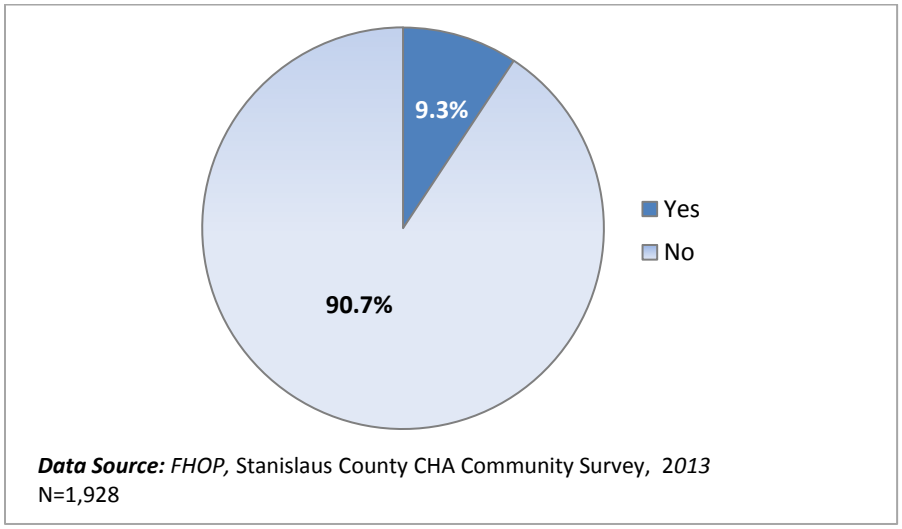
Data Source: *UCLA Center for Health Policy Research,* 2013

Access to Basic Needs

Food, shelter, medical care, clothing and transportation are some of the essential things without which humans cannot survive. The discrepancy (reviewed in the previous section) among the projected cost of basic needs, the federal poverty guidelines and the federal minimum wage, would imply that a significant minority of Stanislaus County residents may be unable to meet their basic needs, even with public assistance.

Participants of the 2013 CHA community survey were asked if they (or their families) had to go without basic needs in the past year. Slightly less than 10% reported having had to go without basic needs (see Figure 28).

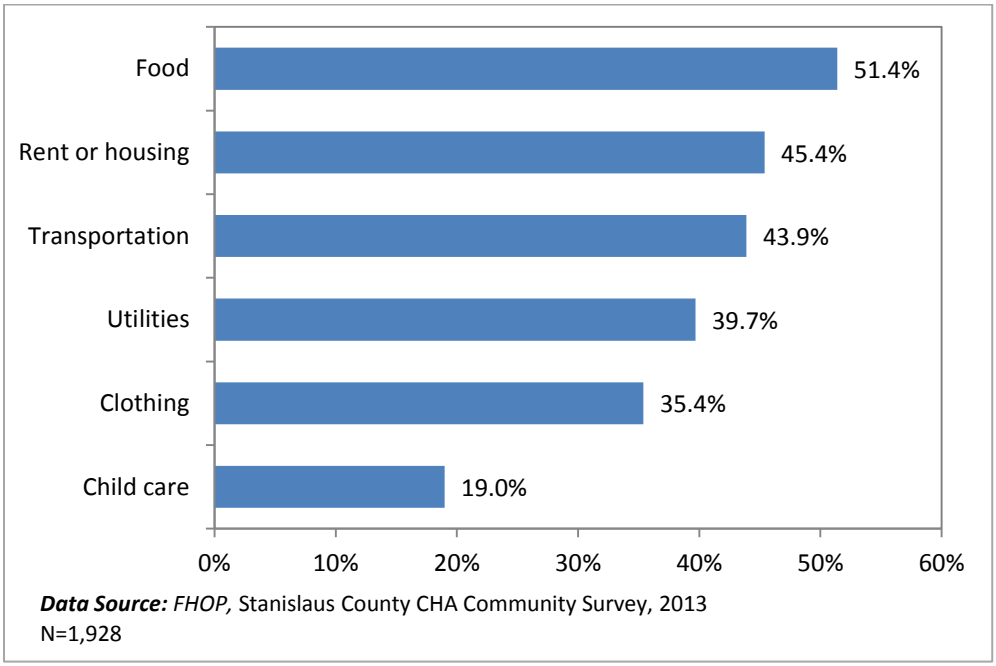
Figure 28: In the past 12 months, did you or your family have to go without basic needs such as food, child care, health care, or clothing?



Data Source: *FHOP,* Stanislaus County CHA Community Survey, *2013*
N=1,928

Of Stanislaus individuals and families who had to go without basic needs, the majority reported having gone without food (51.4%), followed by rent/housing and transportation (see Figure 29). Participants were not asked about forgoing health care as part of this particular survey question; that topic was separately addressed and is discussed in this report in the section on *Access to Healthcare*.

Figure 29: If yes, did you go without...



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=1,928

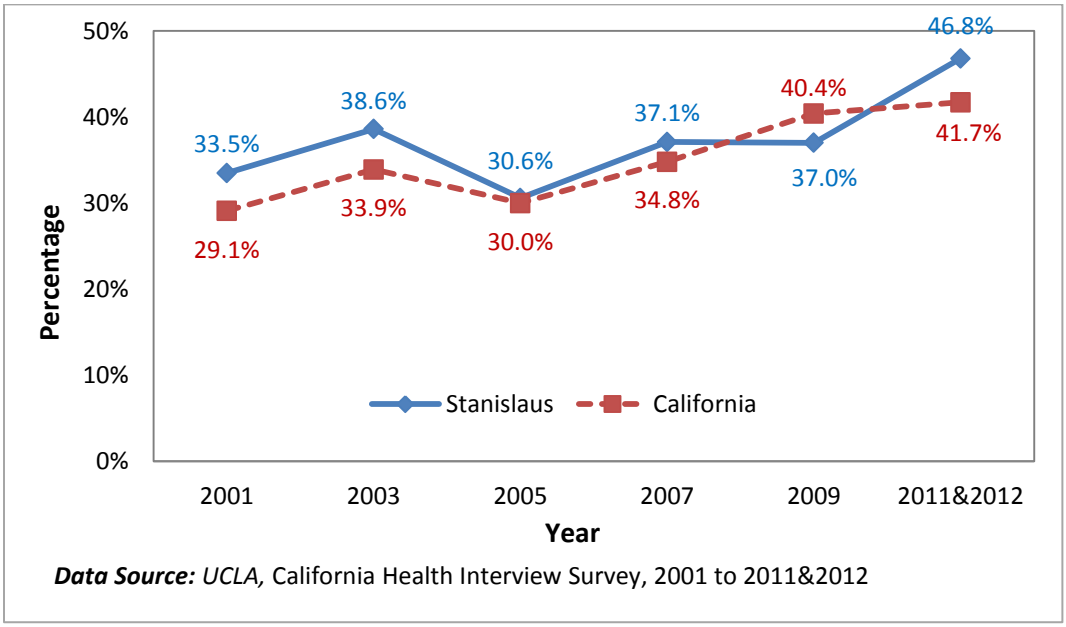
Food and Food Insecurity

Food is a fundamental human need. Food insecurity, or food-access problems or limitations, can lead to negative health outcomes such as depression, poor mental health, diabetes and other chronic disease such as high blood pressure and high cholesterol. In low income, food insecure families, hunger and obesity may be causally related—a phenomenon known as the hunger-obesity paradox (Scheier, 2005). This term describes the situation in which families have to endure hunger episodically and therefore over-eat high calorie fat-laden foods when they can afford food. Calorie dense foods are often cheaper and more affordable to low-income families who frequently live in areas without access to grocery stores and other healthy food outlets.

National data show that women in food insecure households are more likely to be overweight and obese (Chaparro, Langellier, Birnbach, Sharp, & Harrison, 2012). Pregnant women who are food insecure are more likely to experience birth complications and give birth to low birth weight infants (Washington State Department of Health, no date). Children who experience food insecurity are also impacted negatively in their academic development in comparison to other children (Feeding America, 2013).

As seen in Figure 29 in the previous section, 51.4% of 2013 CHA community survey respondents who had to go without basic needs in the past 12 months went without food. Among adults with an annual income less than 200% of the Federal Poverty Level in Stanislaus and in California, food insecurity has increased over the past ten years (CHIS; see Figure 30). To give a point of reference, for a family of three, with two adults and a child, 200% of the Federal Poverty Level would be $37,060.

Figure 30: Trends in Prevalence of Food Insecurity among Adults Living below 200% of the Federal Poverty Level by Jurisdiction

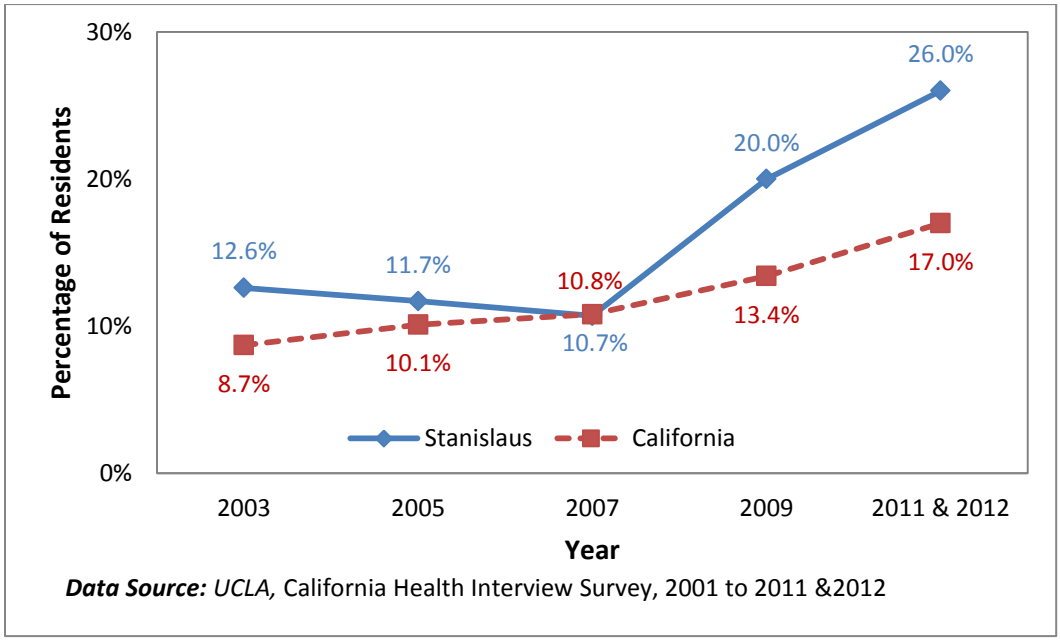


Data Source: *UCLA,* California Health Interview Survey, 2001 to 2011&2012

As Figure 31 indicates, 2011-2012 CHIS data showed that a statistically significantly higher percentage of Stanislaus residents (including children, teens, adults and seniors) are currently receiving food stamps than residents statewide: 26.0% vs. 17.0%.

- The percentage of food stamp recipients in Stanislaus more than doubled between 2003 (12.6%) and 2011-2012 (26.0%).

Figure 31: Percentage of Stanislaus Residents Currently Receiving Food Stamps, 2003 to 2011 & 2012



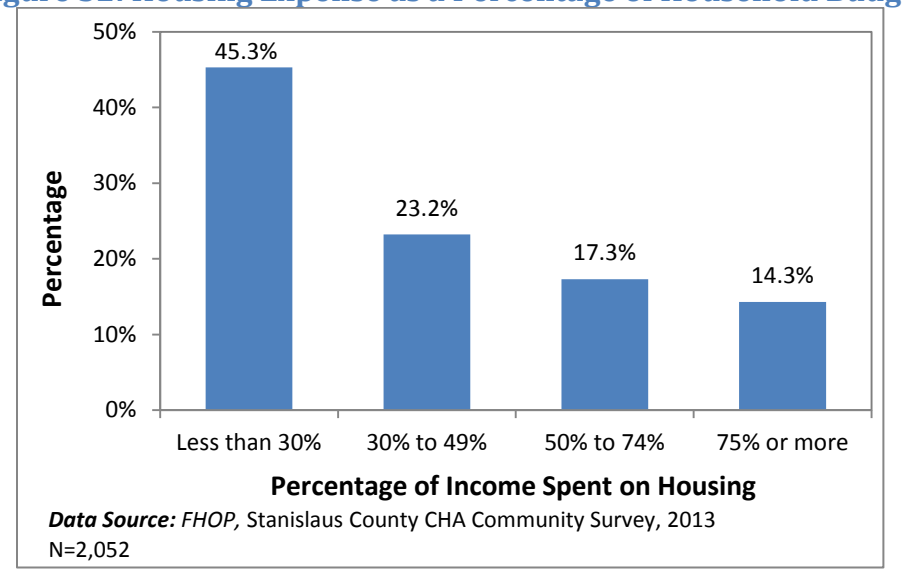
Data Source: *UCLA,* California Health Interview Survey, 2001 to 2011 &2012

Housing

Safe and secure housing is a basic need without which people are often unable to concentrate on other life challenges. Affordable housing is important, especially for low-income individuals, and groups including seniors and the disabled. People spend a significant portion of their lives (usually at least 1/3) in their homes. Thus housing conditions affect health and well-being. Inadequate or unsafe housing can lead to asthma attacks, allergies, infections, lead poisoning, burns, injuries, stress and mental illness (Krieger & Higgins, 2002).

- ***Types of Housing:*** In 2010-2012, the ACS found that there were a total of 179,000 housing units, of which 7% were vacant. Housing availability varies by type.
  - 79.2% of Stanislaus housing units are single-unit structures;
  - 16.3% are multi-unit structures;
  - 4.4% are mobile homes; and
  - 0.1% are non-traditional housing types including boats, recreational vehicles and motor vehicles (2010-2012 ACS Population and Housing Narrative Profile).
- ***Home Ownership:*** In 2010-2012, the ACS found that 58% of Stanislaus County housing units are occupied by their owners, with 42% of units occupied by renters.
- ***Affordability of Housing:*** A commonly accepted guideline for housing affordability is that households should spend no more than 30% of their gross income on housing (U.S. Department of Housing and Urban Development, 2013).
  - The 2010-2012 ACS found that 60% of renters, 48% of home owners with mortgages, and 16% of owners without mortgages spent more than the maximum recommended 30% of income on housing.
  - Similarly, the 2013 CHA community survey showed that the majority (54.7%) of Stanislaus County residents spends more than the maximum recommended (see Figure 32), with nearly 15% of residents spending 75% or more of their household budget on housing costs.

Figure 32: Housing Expense as a Percentage of Household Budget



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,052

- As of October 2013, the median rental list price in Stanislaus County was $950 per month (Zillow, 2013).
- As of November 2013, the median list price for a home in Stanislaus County was $189,000 while the median sale price was $193,000. The median price for a foreclosed property was $165,000 (RealtyTrac, 2013b).
- With home prices rising again, homes are affordable to a smaller percentage of residents.
  - In early 2012, of Stanislaus County homes sold, 92.5% were affordable for the typical Stanislaus family (Sbranti, 2013).
  - By fall 2013, this figure had dropped to 86.4% (Sbranti, 2013).
  - At the height of the housing bubble in 2005, only 3% of Stanislaus County homes were affordable to the typical family (Sbranti, 2013).

- ***Housing Crisis:*** Housing was one of the sectors affected early in the recent economic downturn. During the recession, the value of homes plummeted, leaving many homeowners struggling to pay their mortgage, and in many cases owing more than their home was worth.
  - As of November 2013, 1 out of every 701 homes for sale in Stanislaus County was a bank-foreclosed home (RealtyTrac, 2013d). However, certain areas within the County face higher foreclosure rates (e.g. 1 in 194 homes in Hickman). Foreclosures in Stanislaus were 20% lower in November 2013 than in November 2012 (RealtyTrac, 2013c).
  - While low housing prices meant a broader range of individuals could afford to buy a home; banks tightened lending criteria forcing buyers with lower incomes out of the market. Many homes for sale went to more affluent buyers and investors paying cash who intended to "flip" (i.e. repair or remodel for quick re-sale) or to rent the properties (Sbranti, 2013). The housing burst had a major effect on the home building and ancillary industries, a large employment sector in Stanislaus County, further impacting unemployment issues throughout the county.
- ***Homelessness:*** Definitions of homelessness vary. Governmental entities and others who serve the homeless population have singled out a number of characteristics that can make an individual or family homeless (see Table 18).

Table 18: Definitions of Homelessness

Characteristic of Sleeping Location	Examples	Defining Entity
Shared	"Doubling up" with friends or relatives; "couch-surfing"	National Health Care for the Homeless Council (2014)
Temporary or unstable	Single-room occupancy facility, hotel room	National Health Care for the Homeless Council (2014)
	Families with children or unaccompanied youth with 2 or more moves within 60 days without finding stable housing	National Alliance to End Homelessness, 2012
Temporary living accommodation meant for homeless persons	Homeless shelter, mission, transitional housing	National Health Care for the Homeless Council (2014)
Location not meant for human habitation	Streets; outdoors; abandoned buildings; cars; bus or train station or airport; camping ground	Public Health Service Act (Section 330 of 42 U.S.C., 254b); The Homeless Emergency Assistance and Rapid Transition to Housing Act of 2009 (P.L. 111-22, Section 1003)
About to be lost (within 14 days) with no other housing	Individuals facing eviction or foreclosures; Institutionalized persons about to be released	The Homeless Emergency Assistance and Rapid Transition to Housing Act of 2009 (P.L. 111-22, Section 1003); National Coalition for the Homeless, 2009
Unsafe or inadequate	Victims of domestic violence	National Alliance to End Homelessness, 2012
	Housing lacks necessities such as potable water, roof, walls or sanitation	The Homeless Emergency Assistance and Rapid Transition to Housing Act of 2009 (P.L. 111-22, Section 1003)

Data Sources are listed in the last column.

- *2013 CHA Community Survey:* Because local homeless data are only captured every two years through a count of homeless individuals encountered in a single-day, the 2013 CHA community survey was designed to capture the various definitions of homeless detailed above.
  - 85.8% of CHA community survey participants were not homeless. Of non-homeless participants, 42.6% reported owning their home.
  - 14.2% of 2013 CHA community survey participants self-reported being homeless. These included
    - 3.9% who were living with friends or relatives because they had lost their home or did not have a way to get other housing;
    - 2.8% who were living in a place not meant for humans to live in;
    - 2.7% who had their home foreclosed upon;
    - 2.4% who reported feeling threatened or unsafe in their current housing situation, with no way to get other housing;

- 0.9% who were living in an emergency shelter;
- 0.4% who were living in transitional housing for homeless persons from streets or shelters; and
- 0.3% who were expecting to be evicted within a week from a private dwelling with no means for other housing options.

Child Care

Child care provides great benefits for children and parents. For children, high-quality child care can provide a good learning foundation, which prepares them for kindergarten, primary school, and beyond. For parents, child care can increase work productivity and contribute to the family's income. Next to food and housing expenses, child care can be the most expensive item for families. The cost of child care can be nearly as large as one parent's entire salary. Hence, many families decide to have one parent leave (or not join) the workforce or work less time so that the family does not have the cost associated with child care. Lack of affordable child care can have a great impact on many families' ability to support themselves.

- In Stanislaus County, 64% of children between 0 and 12 years of age have parents in the workplace (2010 ACS).
- As shown in Table 19, the number of slots in licensed child care establishments within the County decreased between 2010 and 2012, driven primarily by a decrease in slots at licensed family child care homes.
- As of 2012, a licensed child care slot was available for only 18% of children 0-12 with parents in the labor force.

Table 19: Licensed Child Care Centers and Family Child Care Homes in Stanislaus County, 2010 and 2012

	Licensed Child Care Centers		Licensed Family Child Care Homes		Total		
Facilities	**2010**	**2012**	**2010**	**2012**	**2010**	**2012**	**% Change**
Total Number of Sites	136	131	489	376	625	507	-18.9%
Total Number of Slots	7,754	7,599	4,950	3,904	12,704	11,503	-9.5%

Data Source: *California Child Care Resource and Referral Network, 2013 California Child Care Portfolio*
Child Care Resource & Referral Databases 2010, 2012

- Taking into consideration parental needs and preference for the duration and regularity of child care slots (e.g. full-time, part-time or non-traditional times) as well as the languages spoken at centers, some families may experience more difficulty than others at finding an appropriate slot for their children (see Table 20).

Table 20: Percentage of Licensed Child Care Facilities and Slots by Center Type and Language Spoken in Stanislaus County, 2012

Facilities	Licensed Child Care Centers	Licensed Family Child Care Homes
Full Time and Part Time Slots[1]	72%	84%
Full Time Slots	6%	15%
Part Time Slots	21%	1%
Non Traditional Hours Slots[2]	12%	26%
Language Spoken at Facilities[3]		
English Speaking	100%	100%
Spanish Speaking	65%	32%
Sign Language	8%	4%
Other Languages	14%	13%

Data Source: *California Child Care Resource & Referral Network,* 2013 California Child Care Portfolio

[1] *Full-time is defined as 30 or more hours per week; part-time is less than 30 hours per week.*

[2] *Evening, weekend, or overnight care*

[3] *Percentages may exceed 100% when combining multiple languages.*

- The cost of child care varies depending on the type of facility, the age of the child and the regularity and duration of care, as well as individual business pricing decisions.
- Table 21 shows the average (mean) cost for full time care for infants and preschool-aged children in licensed centers and licensed family child care homes.
- Readers may wish to refer to the earlier sub-section on Self-Sufficiency Income for a discussion of how child care costs (and other costs) may affect a family's self-sufficiency.

Table 21: Cost of Licensed Care in Stanislaus County, 2012

Child Care Services	Cost
Full Time Infant Care	
Family Child Care Home	$6,919
Licensed Center	$10,315
Full Time Preschool Care	
Family Child Care Home	$6,607
Licensed Center	$6,970

Data Source:*. California Child Care Resource & Referral Network,* 2013 California Child Care Portfolio, see http://d3n8a8pro7vhmx.cloudfront.net/rrnetwork/pages/96/attachments/original/1388367739/Stanislaus.pdf?1388367739; *The mean child care cost comes from the Child Care Regional Market Rate Survey, 2012.*

Healthcare

Access to health care is a basic human need. In this report, related data are presented and discussed in the following section *Access to Healthcare*.

Impact of the Recession

The economic recession has had a greater effect on Stanislaus County than on California as a whole. While there has been evidence of recovery, the County is experiencing a slower recovery than other areas in the state and nation.

- Between 2005-2007 and 2009-2011, Stanislaus' median household income decreased $2,205 (from $50,375 to $48,170), while California's increased $1,280 (from $58,361 to $59,641; 2005-2007 ACS and 2009-2011 ACS).
- Between 2006 and 2011, the percentage of California residents who participated in the SNAP (food stamp) program rose from 4.3% to 8.3% while participation in Stanislaus County rose from 7.1% to 14.7% (2006 & 2011 ACS).
- As of October 2013, the County's monthly (not seasonally adjusted) unemployment rate was 11.7%%, compared to 8.3% for California and 7.0% for the U.S. (State of California Employment Development Department, 2013a).
- The median home sale price in Stanislaus decreased by 62% during the recession: $339,000 in 2007 to $130,000 in 2011 (RealtyTrac, 2011).
- As of November 2013, the median home sales price has risen to $193,000 (RealtyTrac, 2013a). Despite this increase, the median home price now is only 57% of the median value in pre-recession 2007.
- Between 2007 and 2012, Stanislaus County had also consistently been ranked as one of the nation's leaders in foreclosures (RealtyTrac, 2011). As of 2013, Stanislaus (and the Modesto Metropolitan Statistical Area) were no longer listed among the worst 10 areas for foreclosures in the country (RealtyTrac, 2013c).
- Between 2010 and 2012, the number of licensed child care facilities decreased in the County, as did the number of slots available to children (California Child Care Resource & Referral Network, 2013).

Access to Healthcare

Access to preventive care and treatment is vital to a person's well-being, as is access to health care after illness or injury. A lack of health insurance coverage, having inadequate health insurance and a shortage of medical professionals are frequent barriers to accessing medical care. The quality of medical care available to an individual is also an important determinant of their health.

Health Insurance Coverage

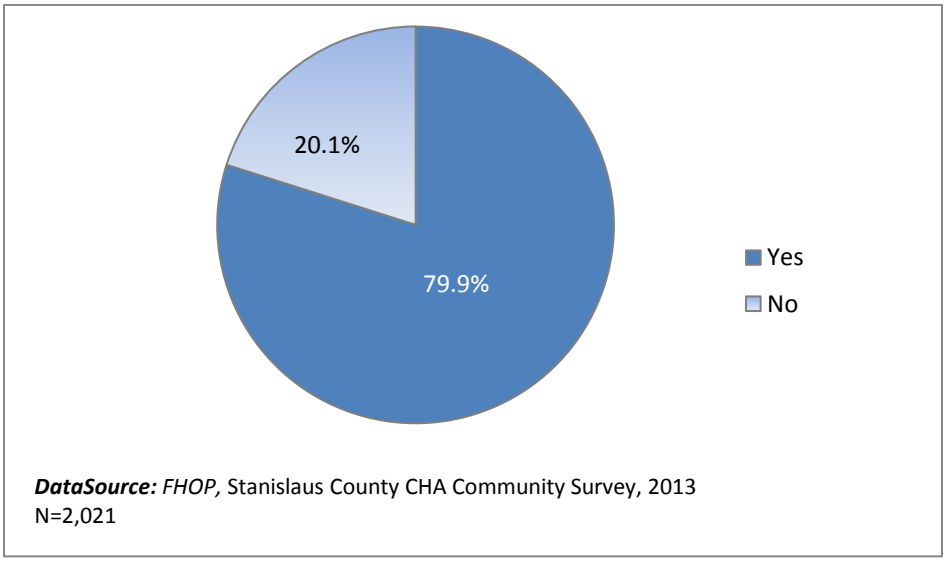
Current Coverage

The US does not have a uniform system of health insurance; many insured people are reliant on employers for coverage, while others are eligible for public coverage under different eligibility requirements; still others purchase commercial plans. Beginning in 2014, health insurance coverage will be mandatory for most individuals (excluding some impoverished individuals), and health care exchanges with a system of subsidies will debut. However, this sub-section focuses on data from an earlier time period (see the *Expected Changes to US Health Insurance System* sub-section below for a discussion of impending changes).

Three data sources inform our understanding of health insurance coverage in the County: ACS, CHIS and the 2013 CHA community survey.

- Health insurance coverage does not differ between the County and the State, with 85.8% of Stanislaus and 85.3% of California residents having some type of health insurance coverage (2011-2012 CHIS).
- The 2013 CHA community survey findings showed a somewhat lower percentage of individuals with health insurance coverage, 79.9% (see Figure 33), but this may be due to a higher percentage of respondents aged 18-64 ("working-age adults") than the County population as a whole (see discussion of age disparities below).

Figure 33: Do you have health insurance?



DataSource: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,021

- ***Disparities:*** There are a number of disparities among demographic groups in health insurance coverage (as shown in Table 22; 2012 ACS).
  - *Age:* Both nationwide (Cohen & Martinez, 2012) and in the County (2012 ACS) health care coverage varies by age.
    - Seniors, young children and adolescents have much higher rates of health insurance coverage than working-age adults in the County.
      - This disparity reflects the fact that special public insurance programs (e.g. State Children's Health Insurance Program and Medicare) have been available for children and seniors, while fewer working-age adults are eligible for public programs and thus more reliant on employer-provided coverage.
    - Of all age groups, young adults (19-25 years) have the lowest percentage of health insurance coverage, even after the 2010 implementation of the provision of the Patient Protection and Affordable Care Act that allowed individuals up to age 26 to be covered through their parents' insurance.
  - *Gender*
    - A slightly higher percentage of Stanislaus County females have health insurance coverage than Stanislaus County males (2012 ACS).
      - Several factors may play a role in this difference, including the fact that insurance coverage exists for all pregnant women (including those without legal documentation).
  - *Race and Ethnicity*
    - The percentage of insured African American/Black individuals and those of Some Other Race is lower than the overall percentage for the County, while the percentage of insured American Indian/Alaska Native, Caucasian/White, and Multiracial individuals is higher than overall for the County (2012 ACS).
    - A smaller percentage of Latinos have health insurance coverage than County residents overall (2012 ACS).
  - *Educational Attainment*: The percentage of individuals with health insurance coverage rises with higher levels of educational attainment (2012 ACS).
  - *Employment Status*
    - A much higher percentage of employed individuals have health insurance coverage than unemployed individuals (2012 ACS).
    - For those not in the workforce (including retired individuals, homemakers and students) insurance coverage is higher than for both employed and unemployed individuals (2012 ACS).
      - This finding may be due to the large number of seniors in this group, almost all of whom are eligible for Medicare coverage.
      - In addition, it may be that households that can afford full-time homemakers have at least one household member with a job providing health care insurance for dependents.
  - *Poverty Status*: The percentage of those with any health insurance increases with income (2012 ACS; note that the categories of FPL presented in Table 22 are different from those in other areas of this report), despite the existence of public insurance programs designed to cover those with lower incomes.

Table 22: Health Insurance by Demographic Factors in Stanislaus County, 2012

Demographic Factor	% Residents Currently Insured (Any Coverage)
Overall	82.2%
Gender	
Male	81.0%
Female	84.6%
Age	
0 to 17 years	95.5%
19-25 years	64.9%
18 to 64 years	74.1%
≥65 years	98.2%
Race	
African American/Black	76.1%
American Indian/Alaska Native	89.2%
Asian	81.2%
Caucasian/White	84.4%
Some Other Race	70.3%
Multiracial	88.7%
Ethnicity	
Latino	77.3%
Non-Latino	NA
Educational Attainment	
<HS graduation or GED	77.1%
HS graduation or GED	77.1%
Some college/Associate's degree	83.0%
Bachelor's degree or higher	91.3%
Employment Status	
In labor force	74.4%
Employed	78.3%
Unemployed	55.1%
Not in labor force	84.1%
Work Experience (last 12 months)	
Worked full-time, year round past	83.3%
Worked part-time, year round	67.1%
Did not work	80.8%
Ratio of Income to FPL (last 12 months)	
<1.38 FPL	75.2%
1.38 to 1.99 FPL	77.3%
≥2.0 FPL	88.3%
Disability Status	
With a disability	89.3%
Without a disability	81.4%

Data Source: *US Census Bureau,* 2012 American Community Survey (single-year); Tables S2701 and B18135

- *Disability Status:* A higher percentage of individuals with a disability have health insurance than those without a disability (ACS; see Table 22 above).
  - This finding may be a reflection of the existence of public insurance eligibility for some disabled individuals (e.g. Medicare coverage for individuals with end state renal disease regardless of age).

Type of Health Insurance Coverage

As mentioned above, in the U.S., there are several possible sources of health care insurance, including employer-based, public and private pay. In Stanislaus County, 47.3% of residents have employment-based coverage, 36.3% have some form of public insurance, while only 4.4% have private/commercial insurance and 14.2% have no health insurance (see Table 23; pooled 2009 and 2011 & 2012 CHIS).

- ***Disparities:*** There are many sub-population differences in the type and source of health insurance coverage (see Table 23; 2009 and 2011/2012 CHIS).
  - *Age*:
    - The percentage of individuals with employment-based health insurance does not vary for any group except seniors, who have a significantly smaller percentage with this type of insurance coverage.
    - The age groups with the highest percentage of coverage by public insurance programs are the oldest and the youngest; working-age adults have the smallest percentage with public coverage.
  - *Race:* While the CHIS sample sizes per race group are very small, creating statistically unreliable estimates, the data by race are presented in Table 23.
    - The Caucasian / White and African American / Black groups have the highest percentage of individuals with public health insurance; while
    - The American Indian / Alaska Native and Asian groups have the highest percentage of individuals with employment-based insurance.
  - *Ethnicity*
    - A smaller percentage of Latinos have employer-based health insurance coverage than Non-Latinos.
    - On the other hand, a smaller percentage of Non-Latinos have public health insurance than Latinos.
    - The percentage of individuals with private pay/commercial health insurance does not differ by ethnicity.
  - *Poverty:* Insurance coverage increases with income (using FPL).
    - The percentage of those with public insurance decreases with higher FPL status (i.e. incomes progressively higher than the poverty level).
    - The percentage of those with employment-based insurance increases with higher FPL status.
      - These findings are likely due to the fact that employers providing lower wages and/or part-time employment are less likely to offer health insurance to their employees. In addition, their employees are unlikely to qualify for public programs due to their employment, leaving many lower income working adults without an affordable source of health insurance (Schoen, Collins, Kriss & Doty, 2008).

Table 23: Type of Health Insurance Coverage by Demographic Factors in Stanislaus County, 2009-2012

Demographic Factor	Percentage of Residents (95% Confidence Interval) with …			
	Any Health Care Insurance	**Employment-Based Insurance**	**Public* Insurance**	**Private / Commercial Insurance**
Overall	87.4% (83.3% – 91.5%)	47.3% (41.5% – 53.1%)	36.3% (30.7% – 41.9%)	4.4% (1.4% – 6.2%)
Gender				
Male	85.5% (1.4% – 6.2%)	51.7% (42.7% - 60.6%)	30.3% (22.2% – 38.4%)	3.5% (0.0% – 8.1%)
Female	88.6% (83.4% - 93.8%)	43.6% (36.0% - 51.1%)	40.9% (33.5% – 48.3%)	4.3% (1.6% – 7.1%)
Age				
0 to 11 years	98.1% (95.4% - 100%)	51.2% (36.4% - 66.0%)	44.6% (29.9% - 59.4%)	2.2% (0.0% - 5.0%)
12 to 17 years	93.8% (84.8% - 100%)	55.2% (37.1% - 73.4%)	38.6% (20.6% - 55.6%)	-- (NA)
0 to 17 years	*96.6% (93.0% - 100%)*	*52.6% (41.1% - 64.2%)*	*42.5% (31.1% - 54.0%)*	*1.5% (0.0% - 3.3%)*
18 to 64 years	81.0% (74.7% - 87.3%)	52.5% (44.8% - 60.1%)	22.9% (16.0% - 29.8%)	5.6% (1.7% - 9.5%)
≥65 years	97.7% (93.7% - 100%)	1.4% (0.0% - 3.3%)	96.3% (91.9% - 100%)	-- (NA)
Race (Census 2000 categories)				
American Indian / Alaska Native	72.9% (44.4% - 100%)	76.8% (50.4% - 100%)	25.4% (0.0% - 53.6%)	18.0% (0.0% - 49.5%)
African American / Black	57.8% (43.6% - 100%)	37.7 (5.5% - 69.9%)	34.0% (3.5% - 64.4%)	14.6% (0.0% - 40.0%)
Asian	95.0% (86.2% - 100%)	62.3 (39.7% - 84.9%)	25.9% (3.5% - 48.3%)	6.8% (0.0% - 17.7%)
Caucasian / White	87.8% (82.9% - 92.8%)	49.2% (42.5% - 55.9%)	35.4% (28.9% - 41.9%)	3.3% (1.3% - 5.3%)
Ethnicity				
Latino	85.1% (78.4% - 91.9%)	41.0% (30.5% 51.5%)	40.8% (30.5% - 51.0%)	3.4% (0.0% - 8.0%)
Non-Latino	88.8% 83.6% - 94.0%)	51.4% (44.7% - 58.1%)	33.3% (26.9% - 39.6%)	4.1% (1.6% - 6.6%)
Poverty Status#				
<100% FPL	75.9% (93.7% - 100%)	7.4% (1.6% - 13.2%)	67.1% (54.5 – 79.8%)	1.3% (0.0 – 3.6%)
100-199% FPL	80.0% (69.6% – 90.4%)	30.7% (15.9% - 45.5%)	47.0% (32.4% - 61.5%)	2.4% (0.0% - 5.2%)
200-299% FPL	90.8% (83.0% - 98.7%)	56.2% (44.4% - 68.0%)	32.2% (20.9% - 43.6%)	2.4% (0.0% - 5.3%)
≥300 FPL	95.7% (92.9% - 98.5%)	71.4% (63.9% - 79.0%)	17.4% (12.0% - 22.9%)	6.8% (1.0% - 12.7%)

Data Source: *UCLA,* California Health Interview Survey, 2009 and 2011/2012

**Public insurance includes, but is not limited to, Medicare, Medi-Cal and Healthy Families/SCHIP.*

#Of the population for whom poverty status is determined

-- Indicates sample is too small for estimate to be calculated.

- ***Employer-Based Coverage:*** Between 2009 and 2012, 73.0% of Stanislaus County workers were offered, and eligible for, health insurance coverage by an employer (see Table 24). 63.9% of workers accepted and thus had employer-based health insurance coverage. As shown in Table 24, these percentages varied across subpopulations.
    - *Gender*
        - A higher percentage of male than female workers were offered and were eligible for health insurance from their employer (80.1% vs. 64.1%).
        - Likewise, a higher percentage of male than female workers were offered and were eligible for such insurance accepted it (72.2%/80.1% = 90.1% for males vs. 53.8%/64.1% = 83.9% for females).
            - Gender differences in occupation types and/or different frequencies of part-time and full-time workers may help explain the discrepancy in percentage offered and eligible for health insurance.
            - Such differences help explain the finding (discussed above) that a larger percentage of male workers have employer-based coverage than females (51.7% vs. 43.6% see Table 23).
    - *Age*
        - A higher percentage of workers aged 18-64 years (traditional working age), were offered and were eligible for health insurance from their employer than individuals 65 years and older (73.3% vs. 69.7%).
        - In addition, a slightly smaller percentage of senior workers were offered and were eligible for insurance accepted it from their employers than those aged 18-64 years (58.2%/69.7% = 83.5% for seniors vs. 64.2%/73.3% = 87.6% for working-age adults).
            - These differences may be due to different frequencies of part-time and full-time workers among these two age groups, as well as to the existence of Medicare, for which a high percentage of workers 65 or older are eligible.
            - These differences help explain the finding (discussed in above) that a smaller percentage of senior workers have employer-based coverage than other age groups (see Table 23). Of course, the percentage of seniors who are employed is also lower than for between 18 and 64 years.
    - *Poverty Status*
        - The percentage of workers who are offered and are eligible for employer-based health insurance increases with higher FPL status (i.e. incomes progressively higher than the poverty level), with the smallest percentage for workers living in poverty.
        - A similar correlation with income/FPL status is seen for workers accepting employment-based insurance.
            - Again, these differences may be due to different frequencies of part-time and full-time workers, as well as occupation type.

Table 24: Workers Offered Employer-Based Health Insurance by Demographic Factors in Stanislaus County, 2009-2012

Demographic Factor	% of all Workers Living in Stanislaus County (95% Confidence Interval)		% of Workers Offered & Eligible for Insurance who Accepted It^
	Offered & Eligible	Offered, Eligible & Accepted	
Overall	73.0% (64.6% - 81.4%)	63.9% (55.0% - 72.9%)	87.5%
Gender			
Male	80.1% (68.9% - 91.4%)	72.2% (59.7% - 84.6%)	90.1%
Female	64.1% (52.6% - 75.7%)	53.8% (42.4% - 65.3%)	83.9%
Age			
18 to 64 years	73.3% (64.6% - 82.0%)	64.2% (54.9% - 73.4%)	87.6%
≥65 years	69.7% (46.9% - 92.4%)	58.2% (32.0% - 84.4%)	83.5%
Ethnicity			
Latino	61.1% (44.8% - 77.4%)	52.2% (35.3% - 69.2%)	85.4%
Non-Latino	79.5% (70.1% - 88.9%)	70.4% (60.1% - 80.7%)	88.6%
Poverty Status*			
<100 % FPL	29.8% (9.0% - 49.4%)	21.5% (3.2% - 39.8%)	72.1%
100-199% FPL	65.2% (42.8% - 87.7%)	56.8% (34.0% - 79.7%)	87.1%
200-299% FPL	72.8% (53.7% - 91.9%)	71.2% (51.6% -90.7%)	97.8%
≥300 FPL	86.2% (78.9% - 93.6%)	75.0% (65.2% - 84.7%)	87.0%

Data Source: *UCLA,* California Health Interview Survey, 2009 & 2011-2012
^Calculated by dividing the % of all workers accepting employer-based insurance by the % of those offered and eligible for such coverage
**Of the population for whom poverty status is determined*

- *Race and Ethnicity*
  - Even after aggregating 2009 with 2011/2012 data, the CHIS sample was too small to get reliable estimates of employer-based health insurance for different racial groups in the County (see Table 24 above).
  - A smaller percentage of Latino workers were offered and eligible for job-based health insurance coverage than non-Latinos (61.1% vs. 79.5%)
  - Similarly, a smaller percentage of Latinos have employment-based insurance (52.2% vs. 70.4%).
    - Again, these differences may be due to different frequencies of part-time and full-time workers, as well as occupation type.

Local Impacts of Expected Changes to US Health Insurance System

In 2010, the U.S. Congress passed the Patient Protection and Affordable Care Act (commonly known as the ACA; U.S. Government Printing Office, 2010) which was then signed into law. The ACA set forth a number of health insurance reforms as well as a timetable for each to be implemented. Since that time, legislative revisions have been put forth, legal challenges have been issued, and implementation of some aspects has been delayed by administrative action.

As of December 2013, two important provisions of the ACA are scheduled to be implemented in the near future: 1) the mandate for individual insurance coverage (deadline March 2014) and 2) mandates on employers (with 50 or more full-time employees) to provide insurance coverage (delayed from original timeline).

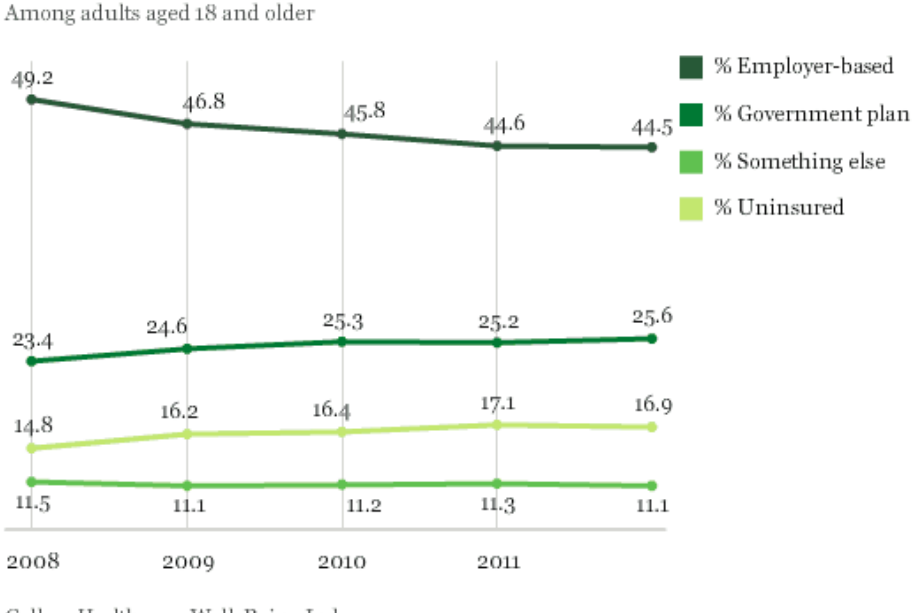
- ***The Individual Mandate in California***
  - In 2013, California merged its SCHIP program (called *Healthy Families*) into Medi-Cal (California's Medicaid program).
  - In October 2013, California launched *Covered California*, the health insurance exchange website, to allow individuals and families to shop for plans with a start date of January 2014. Some families and individuals qualify for subsidies, of varying amounts.
  - In January 2014, the state of California is scheduled to implement expanded Medi-Cal (California's Medicaid program) coverage to adults (with or without children) up to 138% of the FPL.
- ***The Employer-Mandate***
  - Prior to ACA enactment, employers were not required to offer health insurance coverage to employees; it was strictly voluntary, and employees decided whether to enroll or not (U.S. Government Printing Office, 2010).
  - Because 79% of the uninsured are connected to the workforce, expanding employer-sponsored insurance was devised as a method to extend coverage to many of them (Henry J. Kaiser Family Foundation, 2013).
    - Starting in January 2014, employers having a minimum of 50 full-time-equivalent employees (FTE) are required to offer minimum healthcare insurance coverage or face financial penalties.
    - An FTE is defined as a person working a minimum of 30 hours per week (Kaiser Family Foundation, 2010a). Assuming no additional delays are made, beginning in 2015, employers failing to comply with the mandate, and whose employees receive a subsidy to enroll in Medi-Cal or a plan through the health exchange, will be subject to a penalty (Lowry & Gravelle, 2013).
    - Penalties are intended to offset the federal government's cost in providing health care for the uninsured.
    - Analysts are split on the projected impact of the employer mandate.
      - On one hand, The White House (2013) projects that the employer mandate may affect a relatively small percentage of America's 6 million businesses. Because 5.8 million (96%) firms have less than 50 FTE's, they remain unaffected by the mandate, unless they expand above that level. Many of the

remaining 0.2 million firms are also unaffected because they already offer health insurance to employees and their families. In a study co-sponsored by the National Bureau of Economic Research and the Robert Wood Johnson Foundation, Colla, Down & Dube (2011) projected minimal impact from the employer mandate.

- On the other hand, the U.S. Chamber of Commerce (2010) projected increased health insurance premiums and fewer FTE positions at affected employers, with a net of 1 million workers and their families losing employer-based coverage.

- Although the majority of U.S. employees have job-based healthcare insurance, this percentage has been in decline (Mendes, 2013).
  - Figure 34 reproduces a graph published by Mendes (2013) showing the percentage of Americans with different types of insurance coverage between 2008 and 2012 based on data from the Gallup poll. The U.S. Chamber of Commerce (2010) projects that the number of American adults having employer-based insurance will decrease further, from 162 million to 159 million in 2019.

Figure 34: Health Insurance Coverage in the U.S. – Averages for 2008-2012



Note: *Graph reproduced from Mendes, 2013.*

- ***The Employer-Mandate in Stanislaus County: 2013 Stanislaus County Employer Survey***
    - The Alliance's *2013 Stanislaus County Employer Survey* (2013 CHA employer survey) found that 69.8% of employers surveyed offered health insurance to at least some of their employees in 2013 (see Table 25).
    - Businesses offering health insurance varied by the size of their staff (see
    - Table 25); while less than 20% of very small businesses (fewer than 5 employees) offered health insurance in 2013, 100% of those with at least 50 employees did so.

Table 25: Percentage of Employers Offering Health Insurance by Size in Stanislaus County

Employer Size Category	Insurance Offered?	
	Yes	No
0-4 employees	19.2%	80.8%
5-9 employees	48.5%	51.5%
10-19 employees	84.6%	15.4%
20-49 employees	87.5%	12.5%
50-99 employees	100.0%	0.0%
100+ employees	100.0%	0.0%
Overall	**69.8%***	**30.2%***

Data Source: *Stanislaus Economic Development and Workforce Alliance,* 2013 Employer Survey (CHA Employer Survey)
**Weighted totals based on number of businesses per category*

- The 2013 CHA employer survey also found that nearly one quarter of those surveyed did not feel they knew enough about implementation of the employer mandate to make a decision about whether to offer insurance coverage in 2014 (see Table 26). This indicated that a significant minority of local employers needed more information about the ACA employer mandate as of the beginning of 2013.
    - The percentage of employers planning to offer insurance coverage in 2014 was 47.5%, while 31% planned not to offer coverage.
    - It is important to note that in February 2014, the executive branch decided to again delay enforcement of penalties associated with the employer mandate until 2016 (Eilperin & Goldstein, 2014).

Table 26: Current and Planned Employer-Based Insurance Coverage in Stanislaus County

Year	Health Insurance Offered		
	Yes	No	Unsure
2013	58.1%	41.9%	NA
2014	47.5%	31.0%	23.4%

Data Source: *Stanislaus Economic Development and Workforce Alliance,* 2013 Employer Survey (CHA Employer Survey)

Usual Source of Care

Overall

Having a stable source of care to access when needed is an important contributor to health and well-being. Many factors determine what type of usual source of care a patient has, if any. Nationally, individuals with lower incomes, without insurance, and without documentation of legal status are more likely to routinely obtain care at a hospital emergency room (ER) than others, who are more likely to access care in a private practice or clinic setting (The Henry J. Kaiser Family Foundation, 2010b).

- Table 27 shows the percentage of Stanislaus County residents who reported having a usual source of care in 2003 and 2005 (pooled) compared with 2009 & 2011/2012 (pooled), as well as the percentage of people reporting that the ER was their usual source of care for these time periods.
- ***Disparities***
    - *Age Disparity:* Age affects whether a person has a usual source of care (see Table 27).
        - The age group least likely to have a usual source of care in Stanislaus County is working-age adults (18-64 years).
        - This age group also has the highest percentage of individuals who report using the ER as their usual source of care.
    - *Race and Ethnicity:*
        - Between 2003 and 2005, a statistically significantly smaller percentage of Latinos had a usual source of care than Non-Latinos, though the difference narrowed during the 2009 and 2011/2012 time period (see Table 27).
        - The CHIS sample size is too small to examine racial differences in having a usual source of care.
    - *Income and Poverty:* Income (as measured by percentage of FPL) is related to having a usual source of care.
        - A statistically significant percentage of individuals living above 200% of FPL had a usual source of care at both time points than those living under this threshold (see Table 27).

Table 27: Residents with a Usual Source of Care by Demographic Factors in Stanislaus County, 2003 & 2005 vs. 2009 & 2011-2012

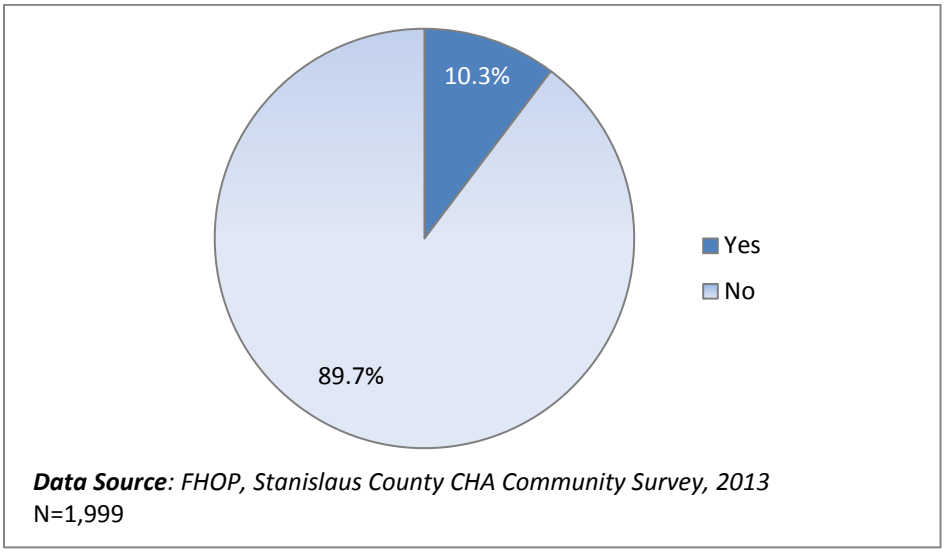
Demographic Factor	% Residents with a Usual Source of Care		% Residents with ER as Usual Source of Care^	
	03-05 (95% CI)	09 – 11/12 (95% CI)	03-05 (95% CI)	09 – 11/12 (95% CI)
Overall	85.7% (80.3%-91.1%)	86.0% (81.5%-90.4%)	2.8% (0.8%-4.7%)	2.7% (0.1%-5.2%)
Gender				
Male	85.7% (80.3%-91.1%)	84.4% (77.3%-91.6%)	4.1% (0.0%-8.3%)	1.7% (0.0%-3.4%)
Female	90.1% (85.3%-94.9%)	87.1% (81.6%-92.7%)	1.4% (0.0%-3.2%)	2.8% (0.0-6.4%)
Total	85.7% (80.3%-91.1%)	86.0% (81.5%-90.4%)	2.8% (0.8%-4.7%)	2.7% (0.1%-5.2%)
Age				
0 to 17 years	89.9% (82.4%-97.5%)	85.6% (77.1%-94.0%)	1.5% (0.0%-4.1%)	0.4% (0.1%-1.1%)
18 to 64 years	85.4% (80.8%-89.9%)	84.3% (78.3%-90.2%)	3.9% (0.9%-6.8%)	3.5% (0.1%-6.9%)
≥65 years	97.6% (94.2%-100.0%)	96.8% (93.4%-100.0%)	-- (NA)	-- (NA)
Ethnicity				
Latino	81.2% (74.1%-88.3%)	83.5% (76.3%-90.7%)	4.1% (0.0%-8.3%)	2.1% (0.0%-5.3%)
Non-Latino	91.6% (87.7%-95.6%)	87.7% (81.9%-93.4%)	2.0% (0.1%-4.0%)	2.3% (0.0%-4.9%)
Poverty Status*				
<100 % FPL	80.4% (69.5%-91.4%)	79.2% (67.8%-90.6%)	7.6% (0.0%-16.1%)	8.6% (0.0%-18.6%)
100-199% FPL	82.1% (74.0%-90.3%)	79.2% (69.0%-89.3%)	4.6% (0.0%-9.2%)	1.5% (0.0%-3.5%)
≥200% FPL	93.0% (89.3%-95.6%)	91.8% (87.3%-96.3%)	1.1% (0.0-2.4%)	0.5% (0.0%-1.6%)

Data Sources: *California Health Interview Survey, 2003 to 2011 & 2012*
**Of the population for whom poverty status is determined*

Use of Emergency Room for Routine Care

- As shown in Table 27 above, 2.7% of Stanislaus County residents in 2009 and 2011/2012 reported using the ER for their usual source of care according to CHIS.
- In the 2013 primary CHA survey, 10.3% of respondents reported that the ER was their usual source of health care (see Figure 35). As a reminder, the respondents of this survey were more likely to be adults of working age (18-64) than those in the CHIS survey or in the County as a whole (see *Community Health Assessment Topics and Data Sources* section).

Figure 35: Do you get most of your health care at the emergency room?



***Data Source**: FHOP, Stanislaus County CHA Community Survey, 2013*
N=1,999

- ***Disparities***
  - *Income and Poverty*: Income as a percentage of the Federal Poverty Level (FPL) affects the place where a person routinely accesses care.
    - The group with the highest percentage reporting to use the ER as their usual source of care was the most poor: those living below 100% of the FPL (see Table 27; CHIS). The less income a person has, the less likely he or she will be able to use a doctor's office or clinic and the more likely he or she will utilize the emergency room (even for non-emergencies).
    - This finding may change after the 2014 implementation of the ACA's individual insurance coverage mandate and expansion of Medi-Cal in California to 138% of FPL. However, such a change would require an increase in the number of providers accepting Medi-Cal to absorb the increase in Medi-Cal covered individuals (see discussion below on the provider shortage).

Provider Shortage

In addition to a high number of uninsured individuals, access to care in Stanislaus County is reduced by the relative lack of health care providers per capita.

Trends

- As shown in Table 28, Stanislaus County shows a persistent lack of primary care providers compared with California and the U.S. when measured by the ratio of population in a jurisdiction to primary care providers who practice there (Population Health Institute, 2013).

Table 28: Ratio of Population to Primary Care Providers by Jurisdiction

County Health Rankings Year	Stanislaus	California	National Benchmark
2011†	1,328:1*	1,062:1*	945:1*
2012††	1,328:1	1,062:1	945:1
2013†††	1,539:1	1,341:1	1,067:1

Data Source: *Population Health Institute,* County Health Rankings, 2013
Notes:
* Recently, project personnel detected an error in the number of Primary Care Providers. The number of General Practice Physicians was double counted. As a result, the estimate of Primary Care Physicians was incorrect. The errors have been corrected. This table shows the correct estimates of the Ratio of Population to Primary Care Physicians.
† HRSA Area Resource File 2008.
†† HRSA Area Resource File 2010-2011.
††† HRSA Area Resource File 2011-2012.

- The County also experiences a shortage of mental health providers (Table 29).
  - The greatest concentration of licensed mental health professionals can be found in the San Francisco Bay Area (*Greater Bay Area* in the table), which considerably exceeds the state average.
  - The San Joaquin Valley, of which Stanislaus is a part, fell well below the state average for all mental health professionals
  - In Stanislaus, there are 6.6 psychiatrists per 100,000 people, which is even lower than the total for the San Joaquin Valley (California Health Care Foundation, 2013).
  - Stanislaus residents who need mental health help and treatment may have had to forgo treatment due to the shortage in mental health professionals.

Table 29: Licensed Mental Health Professionals per 100,000 Population, by California Regions, 2012

Region	Psychiatrists	Psychologists	Licensed Clinical Social Workers	Marriage and Family Therapists
Central Coast	20	45	46	117
Greater Bay Area	32	71	69	123
Inland Empire	9	16	27	40
Los Angeles County	20	45	52	81
Northern and Sierra	10	25	46	91
Orange County	16	41	43	83
Sacramento Area	19	36	57	76
San Diego Area	22	53	53	72
San Joaquin Valley	8	17	25	34
State Average	**19**	**43**	**48**	**81**

Source: *California Health Care Foundation*, California Health Care Almanac, Mental Health Care in California: Painting a Picture. July 2013. See
http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/M/PDF%20MentalHealthPaintingPicture.pdf.
Note: Stanislaus County is part of the San Joaquin Valley.

Forgoing Needed Health Care

In 2011-2012, 11.3% of Stanislaus County residents had to delay or forgo needed medical care (excluding prescriptions) and 10.4% had to delay or forgo prescription medication (CHIS; see Table 30). A similar percentage was found in the 2013 CHA community survey—10.2% of respondents went without needed health care (of any type) from a licensed health care professional in the past year.

Disparities in Delaying of Forgoing Needed Care

- ***Age Disparities:*** Adults of working age (18-64 years of age) had the highest percentage of individuals delaying or going without both needed medical care and needed prescription medications (CHIS; see Table 30).
- ***Income/Poverty Status Disparities:*** While the small CHIS sample means there is not enough statistical power to detect differences among income groups, there are indications that a higher income (relative to the FPL) protects against having to delay or forgo needed medical care and prescriptions (see Table 30).

Table 30: Residents Delaying or Forgoing Needed Medical Care or Prescriptions by Demographics, 2009-2012

Demographic Group	Medical Care (95% CI^)	Prescriptions (95% CI^)
Overall	11.6% (7.5%-15.5%)	10.4% (6.5%-14.2%)
Gender		
Male	12.0% (5.8%-18.1%)	8.4% (2.9%-13.8%)
Female	11.1% (6.2%-15.9%)	12.1% (6.6%-17.6%)
Age		
0 to 17 years	6.2% (0.0%-10.6%)	7.4% (1.1%-13.8%)
18 to 64 years	15.5% (9.6%-21.3%)	12.6% (7.0%-18.2%)
≥65 years	5.6% (1.8%-9.4%)	6.0% (1.2%-10.9%)
Ethnicity		
Latino	9.5% (3.1-15.8)	9.7% (3.8%-15.7%)
Non-Latino	12.8 (8.0-17.6)	10.7% (5.7%-15.7%)
Poverty Status*		
0% to 199% FPL	14.4% (7.3%-21.4%)	14.3% (7.0%-21.7%)
200% to 299% FPL	10.2% (3.2%-17.1%)	10.0% (1.4%-18.7%)
≥300% FPL	9.4% (3.9%-14.8%)	6.2% (2.6%-9.8%)

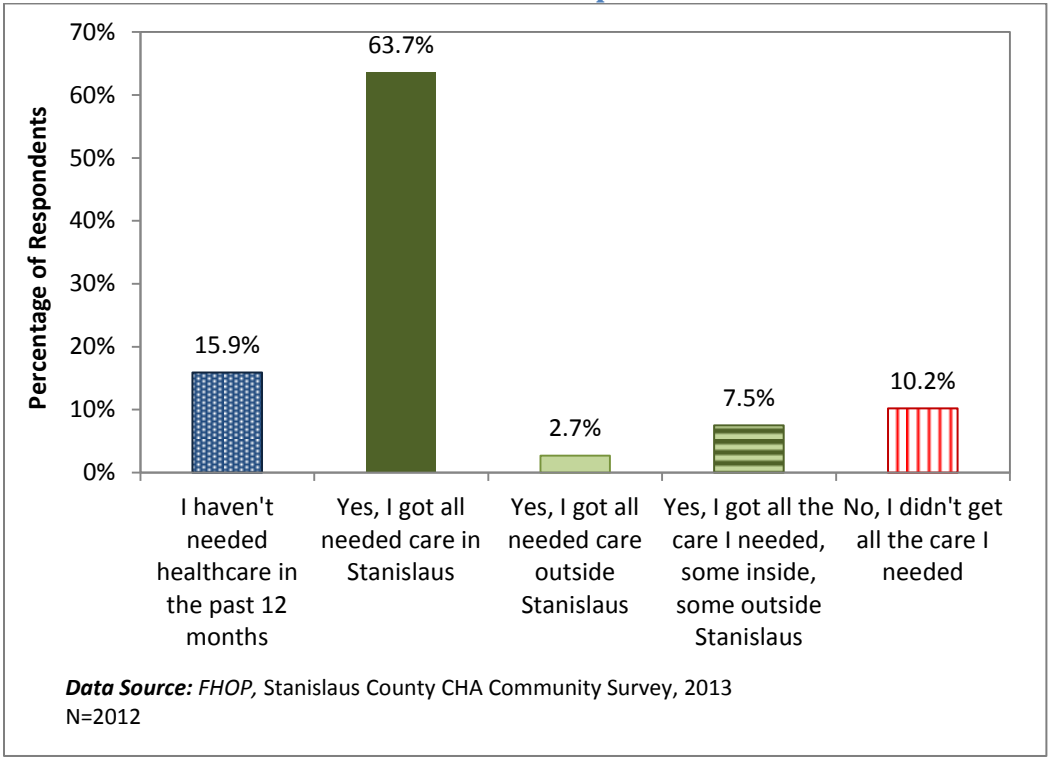
Data Source: *UCLA,* California Health Interview Survey, 2009 & 2011/2012
^95% Confidence Interval
**Of the population for whom poverty status is determined*

Type of Care Forwent

Respondents of the 2013 CHA community survey were asked whether they were able to get needed health care in the past year from a licensed health care professional (see Figure 36).

- 15.9% reported not having needed care, while
- 73.9% got all the health care they needed (whether in the County [63.7%], outside the county [2.7%], or a combination of locations [7.5%].
- The remaining 10.2% failed to get all the health care they needed.

Figure 36: If you needed health care in the past 12 months, were you able to get it from a licensed health professional?

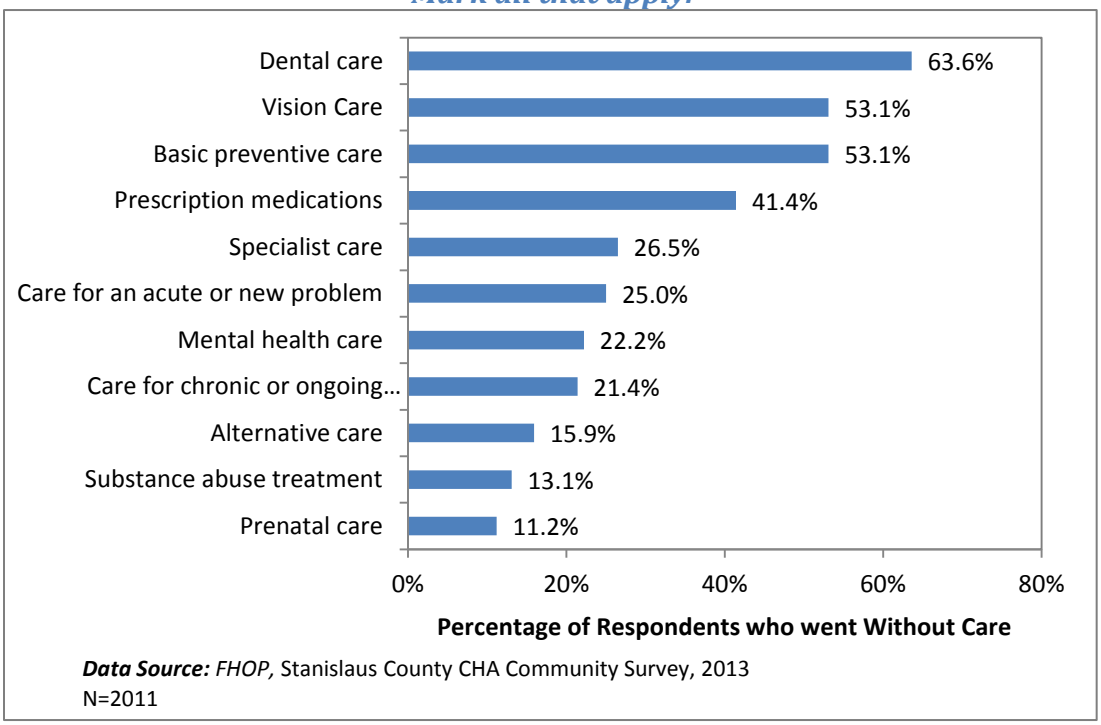


Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2012

Respondents indicating that they went without needed care were asked which type(s) of care they had forgone. A substantial minority of respondents who indicated not having needed care in the past 12 months to the earlier question nevertheless selected one or more types of care they had had to forgo. This pattern may have been due either to the complexity of the earlier question or to the fact that memory was prompted by the types of health care listed in the latter question. Those respondents who chose one or more types of care that they had to go without were scored as having gone without care for the previous question.

- As shown in Figure 37, dental, vision and preventive care were the types of care most often missed. Prenatal, substance abuse and alternative care were the least likely to be forgone.

Figure 37: If you didn't get all the care you needed, what did you have to go without? *Mark all that apply.*



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2011

- This pattern of results likely reflects a number of factors inherent in the U.S. health care system.
    - In the U.S., health insurance plans have typically not included dental, vision or mental health care (including substance abuse treatment). Dental and vision care have long been considered "supplemental" to most commercial and employer-based health insurance plans. For example, the 2008 National Health Interview Survey (Bloom & Cohen, 2010) found that only 73% of Americans younger than 65 years with private or employer-based health insurance had dental insurance or dental care provided under their health insurance.
    - Public insurance programs also typically have no, or restricted, dental coverage (Bloom & Cohen, 2010). In the U.S., care for mental and emotional health issues (including substance abuse) is uncommon and, when existing, less extensive, than care for physical issues (American Psychological Association, 2008). By contrast, most private, employer-based and public insurance programs cover maternity and prenatal care; since the Pregnancy Discrimination Act of 1978, employers offering health insurance and who have more than 15 employees have been required to coverer pregnancy benefits with parity to other medical conditions (Insure.com, 2012). Beginning in 2014, federal regulations concerning required health care coverage elements ("essential benefits") for employer-based and exchange (Health Insurance Marketplace) health plans will be implemented, unless prevented or delayed by judicial decision or administrative or legislative action. These requirements include "parity" for mental and physical health

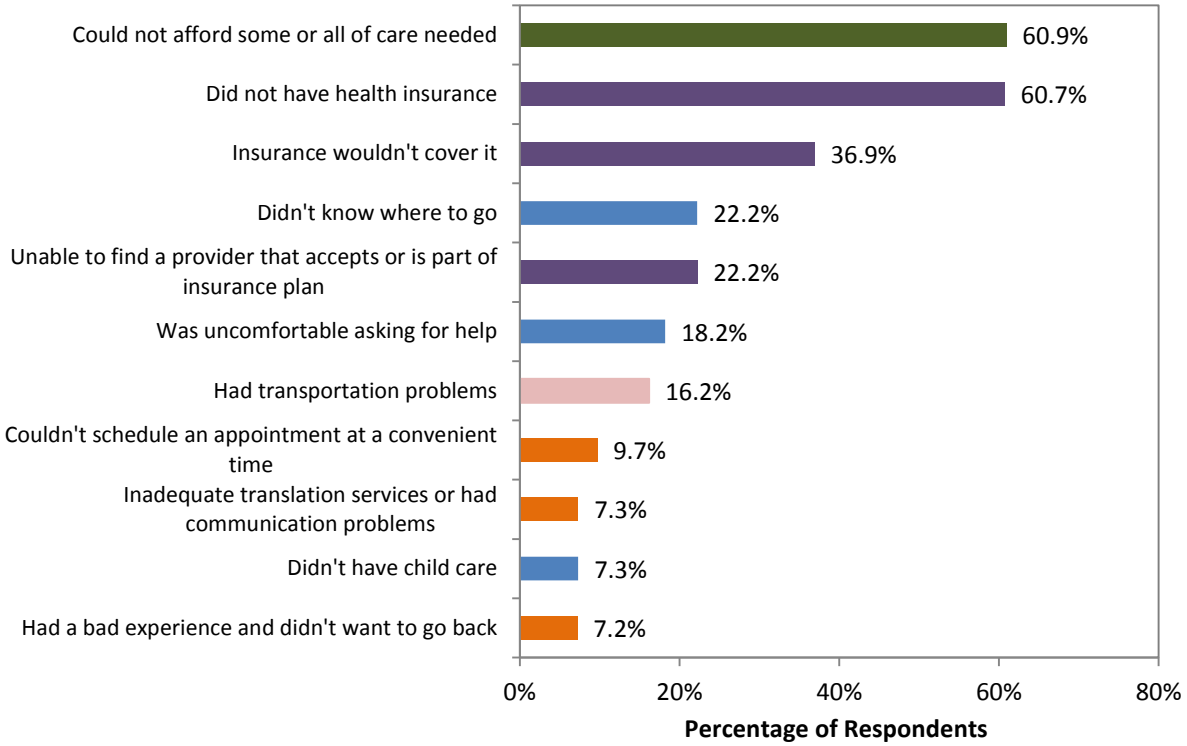
care, building upon the 2008 Mental Health Parity and Addiction Equity Act (Chuck, 2013), coverage for contraception, and preventive services (U.S. Centers for Medicare & Medicaid Services, 2013). Until such federal requirements take place, employer decisions about the scope of health care coverage offered are critical, as nearly half of Stanislaus County residents (47.3%; 2009 and 2011/2012 CHIS; see Table 23 above) have health care coverage from an employer.

Reasons for Forgoing Needed Health Care

2013 CHA community survey respondents who indicated they had gone without needed care were asked why. Figure 38 shows the weighted percentage of respondents experiencing specific obstacles to obtaining needed care.

- The most common obstacle, experienced by 60.9% of those forgoing care, was financial; they could not afford some or all of the care needed.
- Second, third and fifth were obstacles related to health insurance—not having insurance (60.7%), the health insurance plan not covering the care needed (36.9%), or being unable to find a provider that accepts or is part of the insurance plan (22.2%).

Figure 38: If you had to go without care, why? *Mark all that apply.*



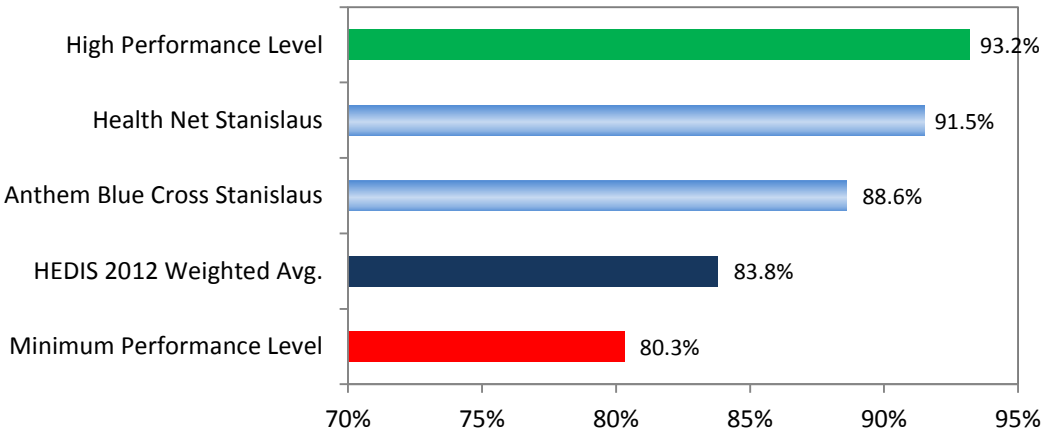
***Data Source**: FHOP,* Stanislaus County CHA Community Survey, 2013
N = 216
Note: Green indicates financial obstacles, dark purple indicates health-insurance related reasons, blue indicates personal obstacles, pink indicates built environment challenges, and orange indicates issues with the medical facility.

Quality of Care

Quality of Preventive Care

- ***Maternal and Perinatal Clinical Care – Timely Prenatal Care:*** Timely and quality prenatal care ensures that health problems are detected early in a pregnancy, which allows more time to correct the problems.
    - One HEDIS indicator examines the timeliness of prenatal care—specifically the percentage of women, who later delivered a live baby, that received prenatal care in the 1st trimester or within 42 days of enrolling into the health plan.
    - In 2012, as Figure 39 shows below, Health Net Stanislaus for Medi-Cal clients performed slightly below the High Performance Level (the 2011 national Medicaid 90th percentile) for this measure, with 91.5% of women receiving timely prenatal care. Eighty-eight percent of Medi-Cal managed care women in Anthem Blue Cross Stanislaus received timely prenatal care.

Figure 39: 2012 HEDIS Measure for Medi-Cal Managed Care - Timely Prenatal Care

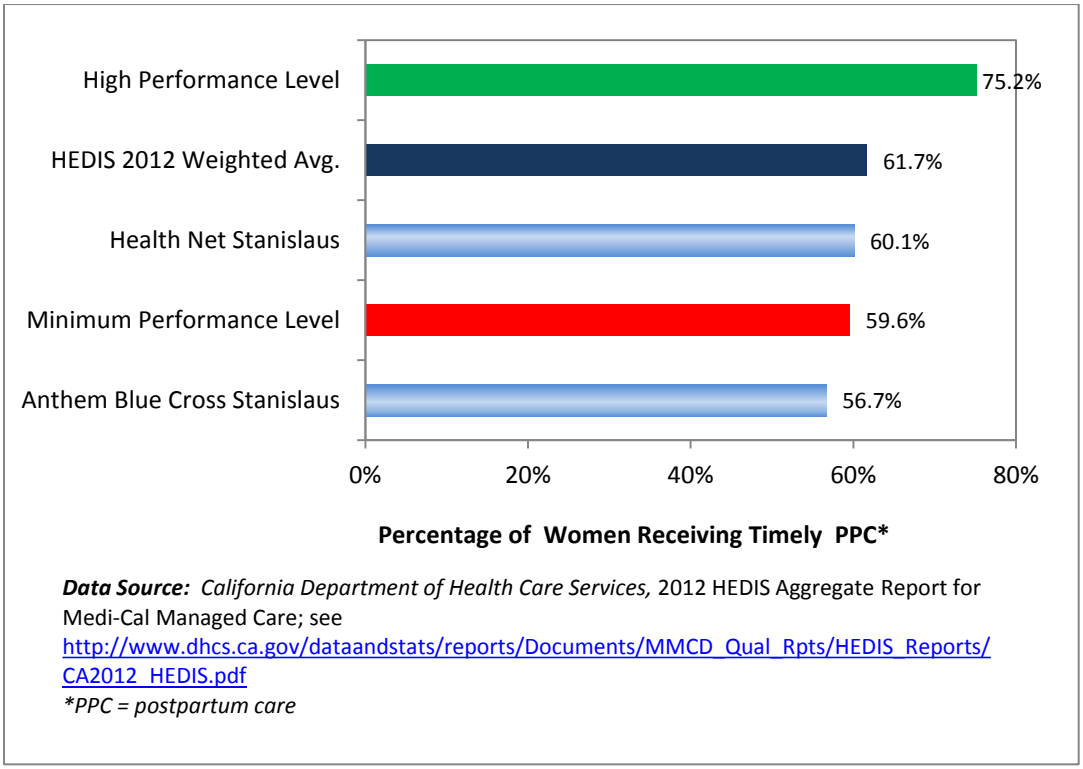


Data Source: *California Department of Health Care Services,* 2012 HEDIS Aggregate Report for Medi-Cal Managed Care; see http://www.dhcs.ca.gov/dataandstats/reports/Documents/MMCD_Qual_Rpts/HEDIS_Reports/CA2012_HEDIS.pdf

**PNC = prenatal care*

- ***Maternal and Perinatal Clinical Care – Timely Post-Partum Care:*** The American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) recommend that women schedule a postpartum care visit 4 to 6 weeks after delivery but no later than 6 to 8 weeks after delivery. Women who delivered by cesarean section or had a complicated pregnancy should schedule a visit within 7 to 14 days of delivery (New York State Department Of Health, 2010). The postpartum care visit is important because this is when postpartum depression is assessed, family planning/contraceptive needs are discussed, inter-conception counseling is offered, and medical complications associated with the delivery are monitored (New York State Department Of Health, 2010).
    - One HEDIS indicator examines the percentage of women who delivered a live birth and who subsequently received a postpartum visit, as recommended, on or between 21 and 56 days of delivery.
    - As Figure 40 shows, Health Net Stanislaus's Medi-Cal managed care program performed above and Anthem Blue Cross Stanislaus's Medi-Cal managed care program performed below the Minimum Performance Level, with 60.1% and 56.7% of women receiving timely postpartum visits.

Figure 40: 2012 HEDIS Measure for Medi-Cal Managed Care - Timely Postpartum Care



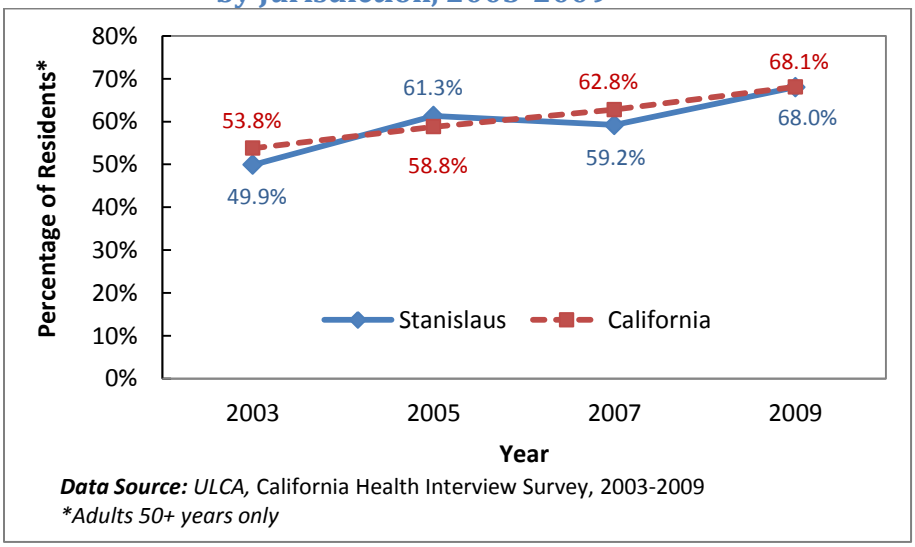
Data Source: *California Department of Health Care Services,* 2012 HEDIS Aggregate Report for Medi-Cal Managed Care; see http://www.dhcs.ca.gov/dataandstats/reports/Documents/MMCD_Qual_Rpts/HEDIS_Reports/CA2012_HEDIS.pdf

**PPC = postpartum care*

- ***Quality of Chronic Disease Prevention:*** Quality preventive care includes screening for early indications of particular health issues as well as counseling for those with risk factors for disease.

- *Cancer Screenings:* For some types of cancer, survival rates can be drastically improved if the cancer is diagnosed early, at a time when the cancer is most treatable (California Department of Public Health, 2013a). For common cancers such as breast, prostate, colon and rectum, cervix, and melanoma of the skin, five-year relative survival rates are 93% to 100% if the cancers are diagnosed early and have not spread beyond the organ of origin.
  - The California Health Interview Survey (CHIS) tracks data for colorectal cancer screening, cervical cancer screening, mammograms, physician breast lump checks, and prostate-specific antigen (PSA) tests.
  - Participants of the 2013 CHA community survey were asked whether they had received screenings recommended for their age group and sex by major professional medical groups. The contractor calculated the weighted percentage of respondents who got specific types of screening out of those who are recommended to have each screening. For example, men, who are not recommended to have a pap smear, are not included in the percentage of respondents who reported receiving them, while individuals over age 50 of both genders are included in colorectal screening recommendations.
    - *Colorectal Cancer*: According to CHIS, compliance with colorectal cancer screening recommendations increased for both Stanislaus County and California adults 50 years of age or older between 2003 and 2009 (see Figure 41). CHIS estimated that 68.1% of County adults recommended to get a colorectal cancer screening did so in 2009. The 2013 primary CHA survey found that 73.4% of County adults at or over 50 years of age reported receiving colorectal cancer screening.

Figure 41: Compliance with Colorectal Cancer Screening Recommendations, by Jurisdiction, 2003-2009

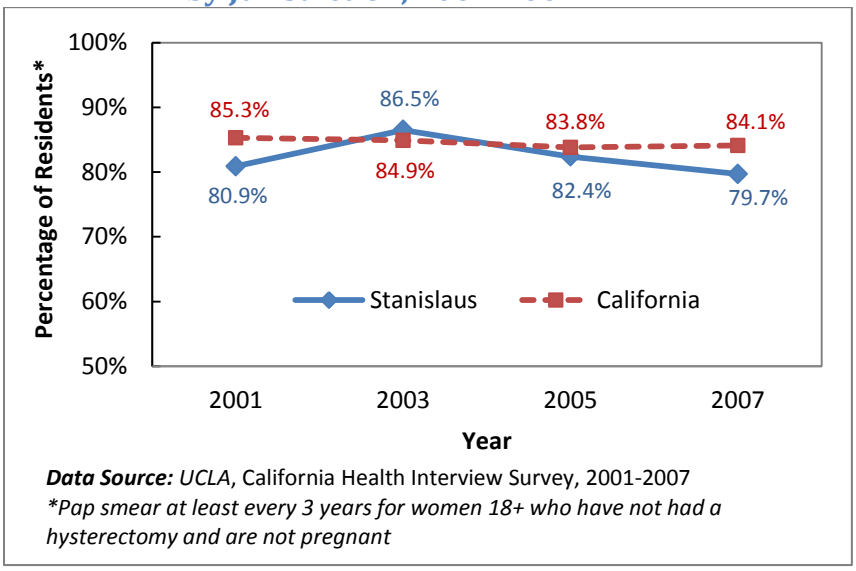


Data Source: *ULCA,* California Health Interview Survey, 2003-2009
**Adults 50+ years only*

➢ *Cervical Cancer*

- ✓ Compliance with cervical cancer recommendations was similar between Stanislaus and California women between 2001 and 2007 (CHIS; see Figure 42); no more recent data are available. Compliance in Stanislaus County was just below 80% in 2007.
- ✓ The 2013 primary CHA survey found that 86.8% of women at least 21 years of age have had a Papanicolaou test ("pap smear").

Figure 42: Compliance with Cervical Cancer Screening Recommendations*, by Jurisdiction, 2001-2007



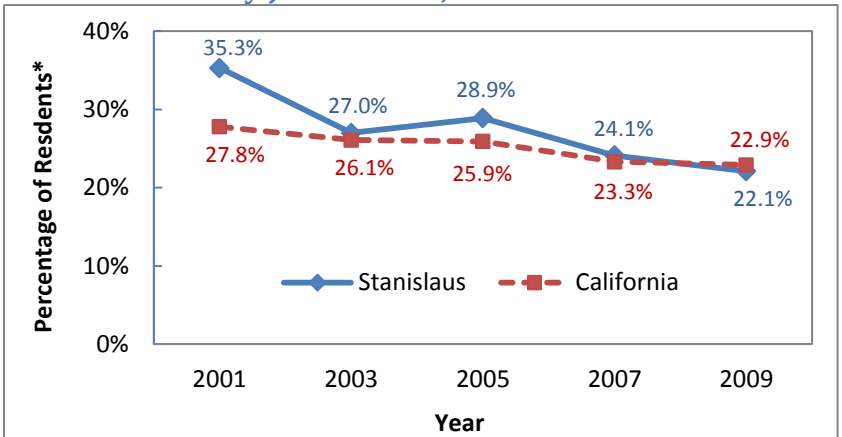
Data Source: *UCLA*, California Health Interview Survey, 2001-2007

**Pap smear at least every 3 years for women 18+ who have not had a hysterectomy and are not pregnant*

➢ *Breast Cancer*

- ✓ Between 2001 and 2009, the percentage of women at least 30 years of age who have <u>never</u> had a mammogram decreased both for Stanislaus County and the state (CHIS; see Figure 43). CHIS estimated that in 2009 only 22.1% of Stanislaus County women of this age had never received a mammogram. The American Cancer Society recommends that women 40 years old and older receive mammograms every year (American Cancer Society, 2013). The 2013 primary CHA survey found that 76.5% of women over 40 years of age have had a mammogram in the past two years.

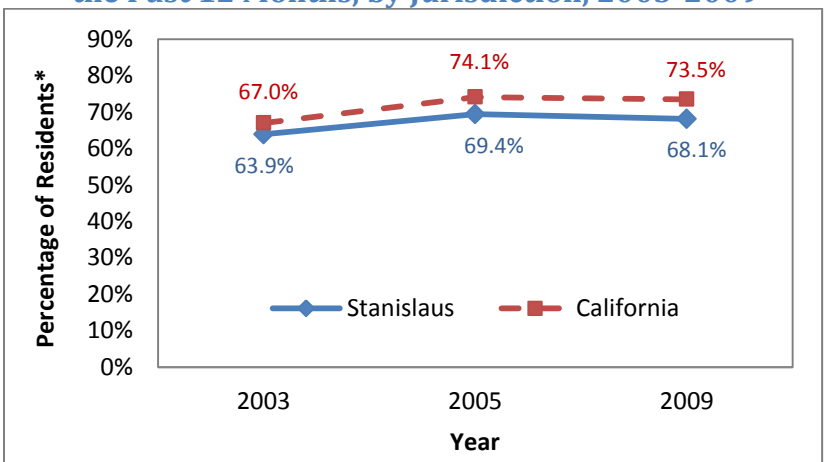
Figure 43: Percentage of Women* Who Have Never Had a Mammogram, by Jurisdiction, 2001-2009



Data Source: *UCLA,* California Health Interview Survey, 2001-2009
**Women 30+ years of age*

- ✓ Between 2003 and 2005, the percentage of women (30 years of age or older) who received a physician breast lump check in the past year increased both for Stanislaus County and the state, with little change between 2005 and 2009 (CHIS; see Figure 44). As of 2009, 68.1% of Stanislaus County women of this age reported having received a check in the past year.

Figure 44: Percentage of Women* Who Received a Physician Breast Lump Check in the Past 12 Months, by Jurisdiction, 2003-2009



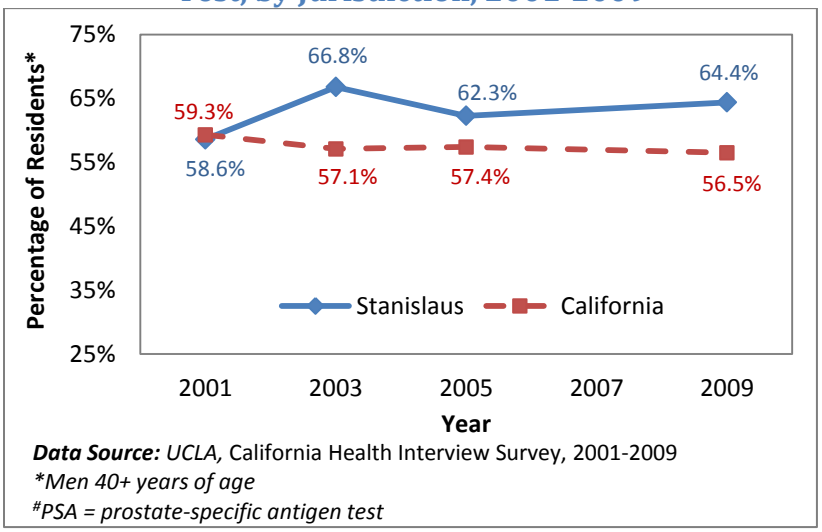
Data Source: *UCLA,* California Health Interview Survey, 2003, 2005, 2009
**Women 30+ years of age*

- ➢ *Prostate Cancer*
  - ✓ Between 2003 and 2009, the percentage of men at least forty years of age who have never had a prostate-

specific antigen (PSA) test was higher in Stanislaus than in California (CHIS; see Figure 45). Data for 2007 is unavailable. CHIS estimated that 64.4% of Stanislaus County men forty years or older had not had a PSA test in 2009.

- ✓ The 2013 primary CHA survey found that 76.4% of men over the age of 50 years have had a prostate exam.

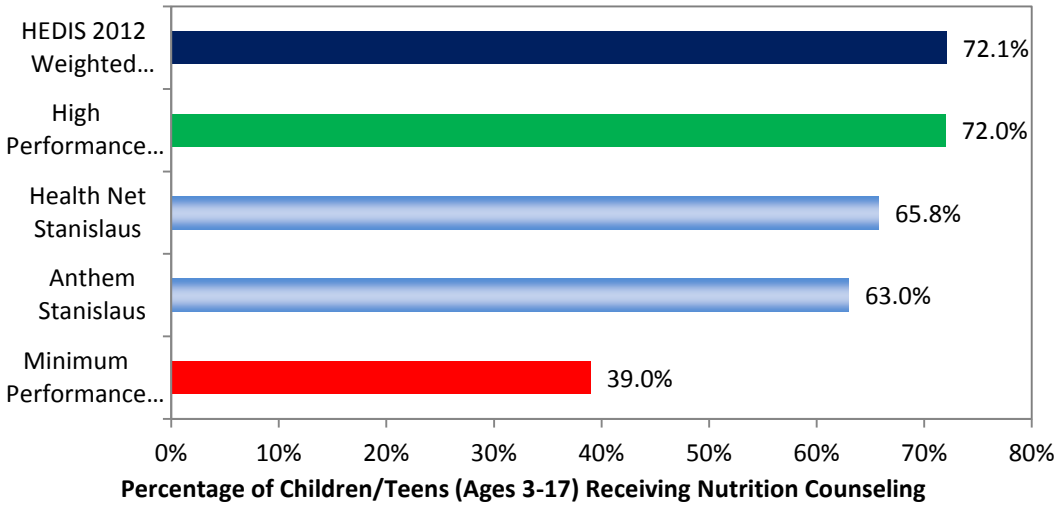
Figure 45: Percentage of Men Who Have Never Had a Prostate Specific Antigen (PSA) Test, by Jurisdiction, 2001-2009



Data Source: *UCLA,* California Health Interview Survey, 2001-2009
**Men 40+ years of age*
#PSA = prostate-specific antigen test

- *Nutrition Counseling*: Individuals with poor diets are at risk for several serious chronic diseases. Beginning in 2010, Medi-Cal Managed Care plans have been required to report the percentage of children and adolescents (3-17 years of age) who had an outpatient visit with a personal care physician or an OB/GYN and received nutrition counseling.
  - Figure 46 shows that in 2012, 65.8% of Health Net Medi-Cal managed children/adolescents and 63.0% of Anthem Blue Cross Medi-Cal managed children/adolescents received nutrition counseling.
  - Both health plans performed below the HEDIS weighted average and the high performance level, but above the minimum performance level.

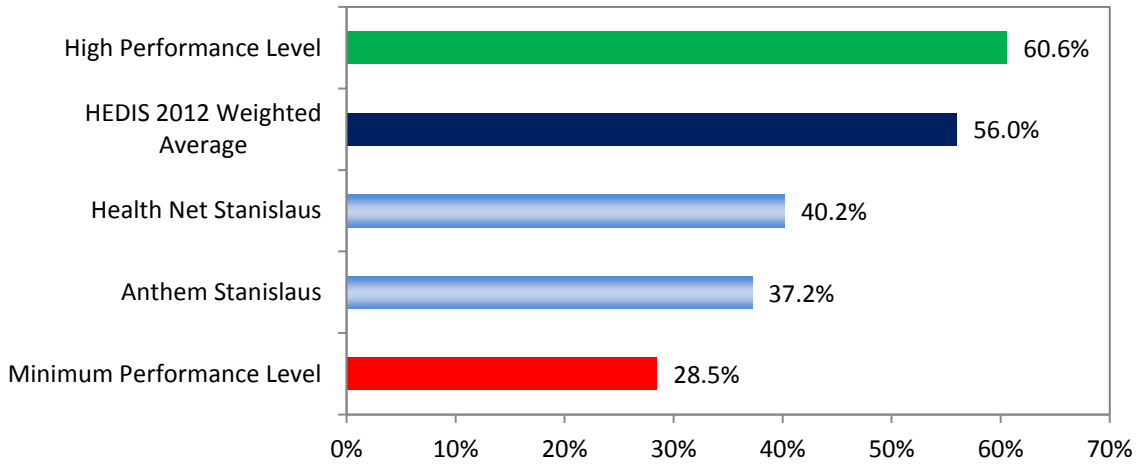
Figure 46: 2012 HEDIS Measure for Medi-Cal Managed Care - Nutrition Counseling



Data Source: *California Department of Health Care Services*, 2012 HEDIS Aggregate Report for Medi-Cal Managed Care; see http://www.dhcs.ca.gov/dataandstats/reports/Documents/MMCD_Qual_Rpts/HEDIS_Reports/CA2012_HEDIS.pdf

- *Physical Activity Counseling*: Adequate physical activity promotes physical and mental well-being. Beginning in 2010, Medi-Cal Managed Care plans have been required to report the percentage of children and adolescents (3-17 years of age) who received physical activity counseling during an outpatient visit with a personal care physician or an OB/GYN (provided that they had such a visit).
  - Figure 47 shows that in 2012, 40.2% of Health Net Medi-Cal managed children/adolescents and 37.2% of Anthem Blue Cross Medi-Cal managed children/adolescents received physical activity counseling.
  - Both health plans performed below the HEDIS weighted average and the high performance level, but above the minimum performance level.

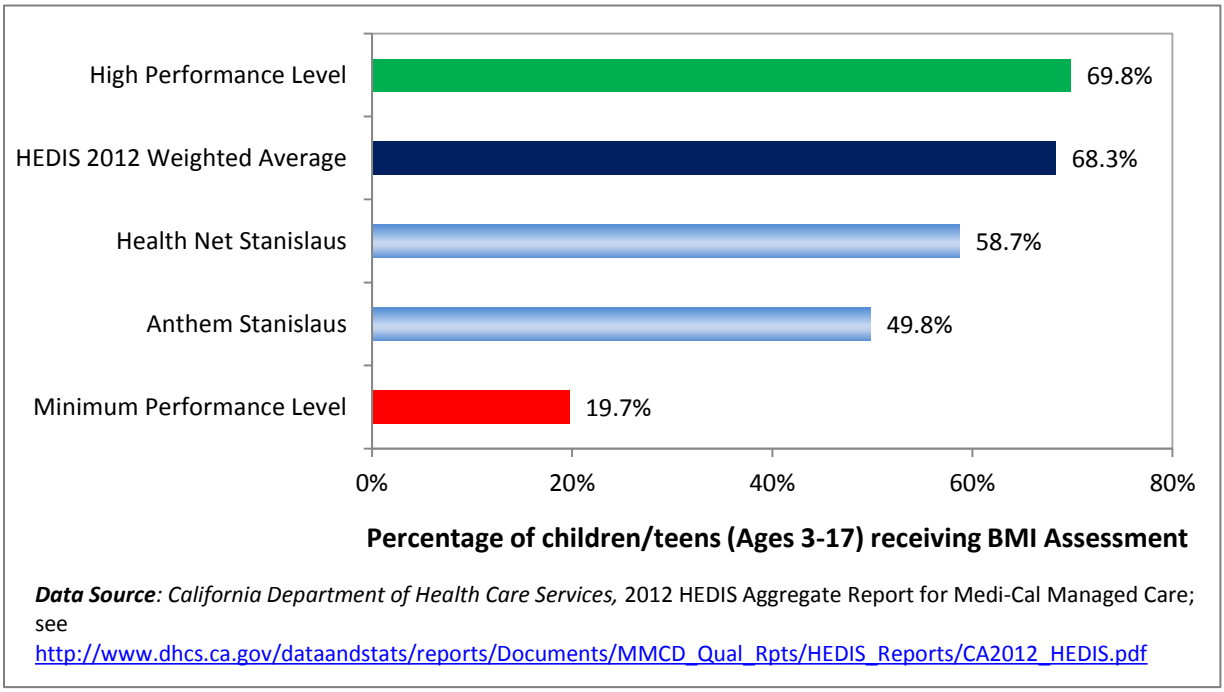
Figure 47: 2012 HEDIS Measure for Medi-Cal Managed Care - Physical Activity Counseling



***Data Source**: California Department of Health Care Services,* 2012 HEDIS Aggregate Report for Medi-Cal Managed Care; see http://www.dhcs.ca.gov/dataandstats/reports/Documents/MMCD_Qual_Rpts/HEDIS_Reports/CA2012_HEDIS.pdf

- *Body-Mass Index (BMI) Assessment:* Individuals with elevated BMI, the most common measure of weight status, are at risk for several serious chronic diseases. Since 2010, Medi-Cal Managed Care plans have been required to report the percentage of children and adolescents (3-17 years of age) who had an outpatient visit with a personal care physician or an OB/GYN and who had received BMI assessment.
  - As shown in Figure 48, in 2012, 58.7% of Health Net children/adolescents and 49.8% of Anthem children/adolescents received BMI assessments.
  - Both health plans performed below the high performance level and then HEDIS weighted average, but above the minimum performance level.

Figure 48: 2012 HEDIS Measure for Medi-Cal Managed Care - BMI Assessment



***Data Source**: California Department of Health Care Services,* 2012 HEDIS Aggregate Report for Medi-Cal Managed Care; see http://www.dhcs.ca.gov/dataandstats/reports/Documents/MMCD_Qual_Rpts/HEDIS_Reports/CA2012_HEDIS.pdf

- *Diabetes Screening:* Respondents of the 2013 primary CHA survey over the age of 45 years were asked whether they had ever been screened for diabetes. 83.3% reported that they had been screened.

Quality of Chronic Disease Care and Management

As discussed further in the *Physical Health and Well-Being* section, chronic disease has increased in the U.S. and other countries, reaching global epidemic proportions (World Health Organization, 2005). Appropriate self-care and clinical management of chronic conditions is an important aspect of modern health care.

- ***Hypertension:*** The federal Agency for Healthcare Research and Quality (AHRQ, no date) has designated a number of factors as Prevention Quality Indicators (PQIs) to indicate causes of hospitalization that could have been prevented by primary prevention, early intervention, or outpatient care (see *Appendix C*).
  - In Stanislaus County, hypertension is the 8th most frequent hospital admission out of the 13 PQIs (Office of Statewide Health Planning and Development, 2011), indicating that ambulatory care for hypertension in the County could be improved.
- ***Heart Disease:*** The federal Agency for Healthcare Research and Quality (AHRQ) has identified three PQIs relevant to management of heart disease: the rates of hospitalization for congestive heart failure, angina without procedure, and hypertension. Please see the Methodology section for an explanation of PQIs.
  - As Table 31 shows, in 2011, Stanislaus County had worse performance in two of these three indicators than the state of California. For Stanislaus County improvements are possible in the clinical management of heart disease in the primary care setting.

Table 31: Hospitalization Rates* for Heart Disease-Relevant Prevention Quality Indicators (PQI) in Stanislaus, 2011

Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators	Stanislaus	California
Congestive heart failure	358.9	300.5
Hypertension	45.7	36.6
Angina without procedure	23.1	23.6

Data Source: *OSHPD,* Prevention Quality Indicators, *see* http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html
**Age-adjusted annual rates per 100,000 hospitalizations of jurisdiction residents.*

- ***Diabetes:*** AHRQ has four PQIs for primary diabetes management: the rate of hospitalization for a) short-term diabetes complications, b) long-term diabetes complications, c) lower-extremity amputation among patients with diabetes, and d) uncontrolled diabetes.
    - As Table 32 shows, in 2011, Stanislaus County had worse performance on each of these four indicators than California, indicating improvement is possible in the clinical management of diabetes in the primary care setting.

Table 32: Hospitalization Rates* for Prevention Quality Indicators (PQI) in Stanislaus, 2011

Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators	Stanislaus	California
Diabetes long term complications[1]	140.4	115.3
Diabetes short term complications[2]	84.8	51.1
Lower-extremity amputation among patients with diabetes	19.8	15.2
Uncontrolled diabetes	16.0	11.9

Data Source: *OSHPD,* Prevention Quality Indicators, *see* http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html
**Age-adjusted annual rates per 100,000 hospitalizations of jurisdiction residents.*
[1]Diabetes long term complications include renal manifestation, ophthalmic manifestations, neurological manifestations, and peripheral circulatory disorders.
[2]Diabetes short term complications include ketoacidosis, hyperosmolarity and coma.

    - Eight HEDIS measures monitor the quality of diabetic care for patients with Type I or Type II diabetes, ages 18 to 75, enrolled in Medi-Cal Managed Care Programs (2012 HEDIS Aggregate Report).
        - *HbA1c Testing:* This measure tracks the percentage of diabetic members who had one or more HbA1c tests conducted within the past year. Blood glucose testing lets the patients and their doctors know whether their blood glucose levels are within the acceptable range. It is important to control blood glucose in diabetics as that significantly reduces the risk of blindness, heart disease, lower extremity amputation and other complications.

- *HbA1c Control (<8.0 Percent):* This measure tracks the percentage of diabetic members whose most recent HbA1c test during the past year showed an HbA1c level of less than 8%.
- *Poor HbA1c Control (>9.0 Percent):* This measure tracks the percentage of diabetic members whose most recent HbA1c test showed greater than 9% HbA1c level, which indicates poor blood glucose control.
- *LDL-C Screening:* This measure tracks the percentage of diabetic members who had an LDL-C test within the past year to monitor cholesterol levels.
- *LDL-C Control (<100 mg/dL):* This measure tracks the percentage of diabetic members who had LDL-C levels that are less than 100 mg/dL. Improved cholesterol levels can reduce cardiovascular complications.
- *Blood Pressure Control (<140/90 mm Hg):* This measure tracks the percentage of diabetics who had blood pressure reading of <140/90 mmHg. High blood pressure is a complication and its control reduces the risk of heart disease.
- *Eye Exam (Retinal) Performed:* This measure tracks the percentage of diabetic members who had an eye screening for diabetic retinal diseases or a negative retinal exam. The three most common eye complications are retinopathy, cataracts and glaucoma.
- *Medical Attention for Nephropathy:* This measure tracks whether diabetic patients were screened for or received treatment for nephropathy (kidney disease). Diabetes is the leading cause of kidney failure.
    - Table 33 shows the performance of the two Medi-Cal Managed Plans in Stanislaus County in 2012 on each of these eight measures, relative to the HEDIS High Performance Level, Weighted Average and Minimum Performance Level. While health plan performance varies, there is clearly room for improvement of clinical diabetes control and management in Stanislaus County.

Table 33: HEDIS Measures Related to Diabetes Care for Medi-Cal Managed Care Plans, 2012

Diabetes-Related HEDIS Measure	High Perform-ance Level	HEDIS Weighted Average	Minimum Perform-ance Level	Anthem Blue Cross	Health Net Stanislaus
HbA1c Testing	90.9%	84.2%	77.6%	76.2%	84.6%
HbA1c Control	59.1%	50.8%	39.9%	49.6%	53.1%
Poor HbA1c Control	29.1%	38.0%	52.1%	44.0%	36.5%
LDL-C Screening	84.2%	79.4%	70.4%	70.6%	76.1%
LDL-C Control	45.9%	40.5%	27.3%	32.1%	39.3%
Blood Pressure Control	76.0%	67.5%	54.5%	65.2%	67.3%
Eye Exam (Retinal) Performed	70.6%	55.5%	43.8%	40.6%	50.0%
Medical Attention for Nephropathy	86.9%	81.9%	73.9%	72.7%	77.0%

Data Source: *California Department of Health Care Services,* 2012 HEDIS Aggregate Report for Medi-Cal Managed Care, see *http://www.dhcs.ca.gov/dataandstats/reports/Documents/MMCD_Qual_Rpts/HEDIS_Reports/CA2012_HEDIS.pdf*
Note: *Green shading indicates the health plan had better than average performance. Red shading indicates the health plan did not reach the minimum performance level.*

In Home Supportive Services

In Home Supportive Services (IHSS) is a program for the disabled, blind or elderly residents ages 65 and older, who have Medi-Cal, and who are unable to live safely at home without help. It is an alternative to out of home care such as nursing homes or Board and Care facilities. IHSS pays for services that the person would need in order to be able to live safely and independently. County social workers assess clients' functional needs for specific services based on medical condition, and determine frequency and amount of time allotted for performing these services (Alameda County Social Services Agency, 2013 & Stanislaus Community Services Agency, 2013b).

Table 34 and Figure 49 show the number of IHSS applicants by year.

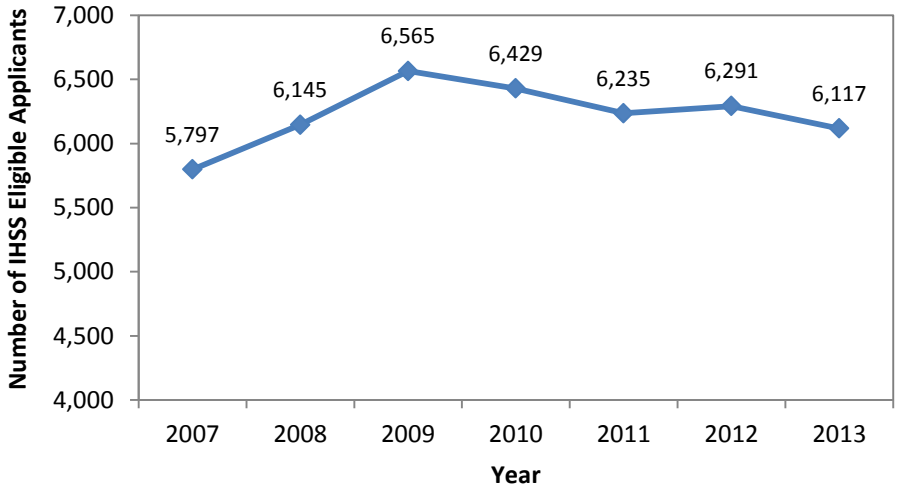
Table 34: In-Home Support Services (IHSS), by Eligibility Status Code, Stanislaus County

Eligibility Status	June 2007	June 2008	June 2009	June 2010	June 2011	June 2012	June 2013
Application in process	214	198	232	201	316	507	248
Interim eligibility	0	3	1	4	2	2	0
Eligible	5,366	5,694	6,074	5,944	5,638	5,499	5,667
Leave of absence	50	32	35	44	48	42	46
Deny	78	103	96	90	95	121	93
Terminated	89	115	127	146	136	120	63
Total	5,797	6,145	6,565	6,429	6,235	6,291	6,117

Data Source: *Stanislaus County Community Services Agency,* Case Management, Information and Payrolling System (CMIPs)

Note: *The total represents all who applied for services. This does not necessarily mean that all those who applied ended up utilizing or gaining access to IHSS. The IHSS collects data on gender and age at the beginning of its application process. Thus, data on gender and age represent the breakdown of all those who applied for services – not necessarily all those who ended utilizing services.*

Figure 49: IHSS Eligibility Applicants, by Number of Persons, Stanislaus County



Data Source: *Stanislaus County Community Services Agency,* Case Management, Information and Payrolling System (CMIPs)

Physical Health and Well-Being

Disability

Disability does not refer to a specific condition; rather, it is a gradient on which a person functions depending on personal and environmental factors (Brault, 2012). Data from the 2010-2012 ACS found that (2010-2012 ACS):

- An estimated 12.1% of Americans have a disability related to hearing, vision, cognition, movement, self-care or independent living.
- In contrast, an estimated, 13.1% of Stanislaus County residents (civilian non-institutionalized population) self-report such a disability.
- When compared to residents without a disability, a higher percentage of Stanislaus residents with a disability (2010-2012 ACS; Table S1811):
    - Did not graduate from high school (32.2% vs. 21.4%),
    - Are not in the labor force (74.3% vs. 30.3%), and
    - Live below the 100% Federal Poverty Level (22.4% vs. 17.3%).
    - In addition, the median earnings of individuals with a disability are substantially lower than those without a disability ($21,048 vs. $26,068).
- As shown in Table 35, disability type differs greatly by age.

Table 35: Age Distribution of Stanislaus Residents* with a Disability, 2010-2012

Disability Category	< 18 Years	18-64 Years	65+ Years	All Ages
Hearing	0.8%	2.3%	18.8%	2.8%
Vision	0.8%	2.1%	8.2%	3.0%
Cognitive	4.4%	4.5%	13.7%	3.0%
Ambulatory	0.6%	5.9%	29.7%	3.1%
Self-Care	1.1%	2.0%	13.3%	3.1%
Independent Living	NA[1]	3.8%	20.7%	3.1%
ANY	4.6%	11.3%	45.5%	4.1%

***Data Source**: U.S. Census Bureau's* 2010-2012 American Community Survey *(three-year estimates), Table S1810.*
**Of civilian non-institutionalized population*
[1]Not asked of this age group. Note that the 0-5 population was assessed only for vision and hearing difficulties. Independent living difficulties were asked only of those 18 and over.
***Definitions Source**: Disability-American Community Survey,* U.S Census Bureaus, http://www.census.gov/people/disability/methodology/acs.html

- **Hearing difficulty**: deaf or have serious difficulty hearing.
- **Vision difficulty**: blind or have serious difficulty seeing, even when wearing glasses.
- **Cognitive difficulty**: Due to a physical / mental / or emotional problem, have difficulty remembering / concentrating / or making decisions.
- **Ambulatory difficulty**: Have serious difficulty walking or climbing stairs.
- **Self-care difficulty**: Have difficulty bathing or dressing
- **Independent living difficulty**: Due to a physical / mental / or emotional problem, have difficulty doing errands such as visiting a doctor's office or shopping.

Prenatal and Perinatal Health in Stanislaus County

The lifetime health and well-being of an individual is heavily influenced by events in pregnancy and through the first year of life (U.S. Department of Health and Human Services, Health Resource and Services Administration Maternal and Child Health Bureau, 2010). In turn, healthy babies generally come from healthy pregnancies and the

preparation a mother makes even before she is pregnant. Actions such as taking folic acid and maintaining a healthy weight prior to a pregnancy are important, as is entering prenatal care in the first trimester and receiving adequate prenatal care thereafter (March of Dimes, 2013a). Mothers who have gestational diabetes are at an increased risk of high blood pressure, preeclampsia, and eclampsia during the pregnancy. Babies of mothers who developed gestational diabetes have a higher chance of developing obesity and Type II diabetes (Mayo Clinic, 2011) later in life.

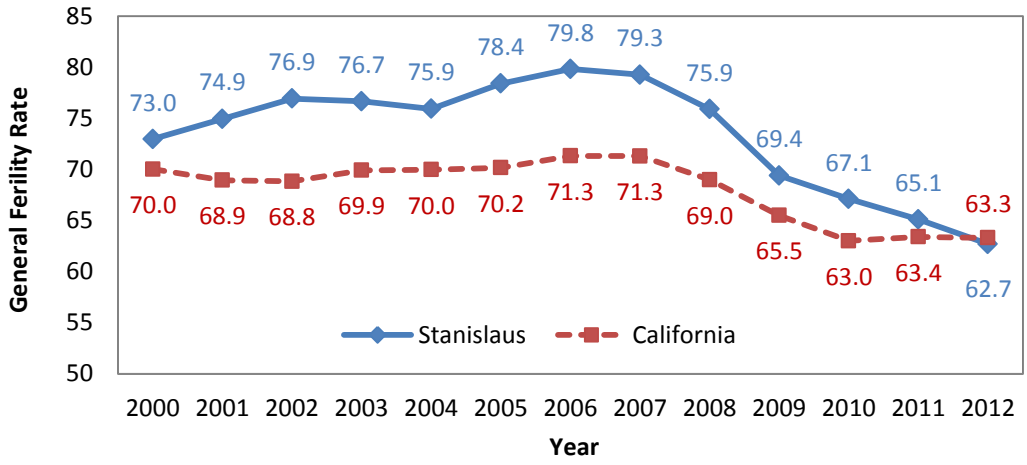
Unless otherwise specified, the data findings cited in this subsection are from the 2000-2012 Birth Statistical Master Files (BSMF). The time period is specified in parentheses for each finding, as is the data source if other than BSMF. H.S.A. staff performed the analyses. Population figures for calculating rates were obtained from the U.S Census Bureau, either from the 2010 Census, or the American Community Survey, depending on the relevant time period and topic area.

General Fertility

The general fertility rate is the total number of live births per 1,000 women aged 15 to 44 years of age. It is a key driver of population growth and is an indicator of reproductive behavior. In 2012, 7,592 babies were born to Stanislaus mothers, a general fertility rate of 62.7 per 1,000 women of reproductive age (ages 15 to 44; 2012 BSMF).

- ***Trends:*** The annual general fertility rate in Stanislaus has grown slowly over much of the past decade until 2007, when it began to decline. A similar pattern of recent decrease in the fertility rate is seen for California as well (see Figure 50).
- This could be due to the recent economic decline that began in 2007/2008.

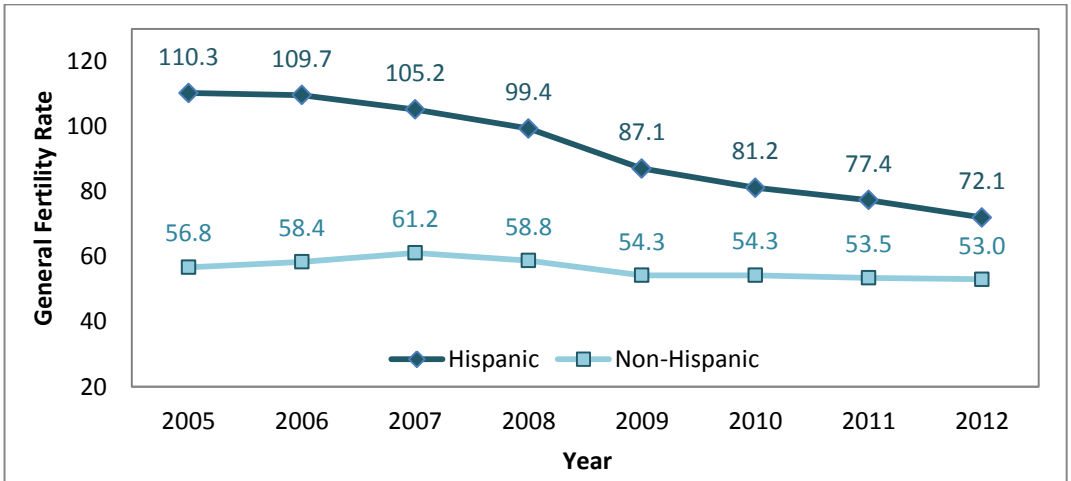
Figure 50: General Fertility Rate (Ages 15 to 44), Stanislaus and California, 2000-2012



Data Sources: 1. *CDPH,* Birth Statistical Master Files, 2000-2012; 2. *California Department of Finance,* Population Projections; 3. National Vital Statistics Report 2012, 2013; 4. *CDPH,* Birth Statistical Data Tables, see http://www.cdph.ca.gov/data/statistics/Pages/CountyBirthStatisticalDataTables.asp
Note: County rate calculations were performed by H.S.A. staff.

- ***Disparities***
  - *Ethnicity*: The annual general fertility rate among Latinas in Stanislaus was also consistently higher than non-Latinas between 2005 and 2012 (see Figure 51). This difference is related to the overall younger age distribution for this group.

Figure 51: General Fertility Rate (Ages 15 to 44), Stanislaus and California, 2000-2012



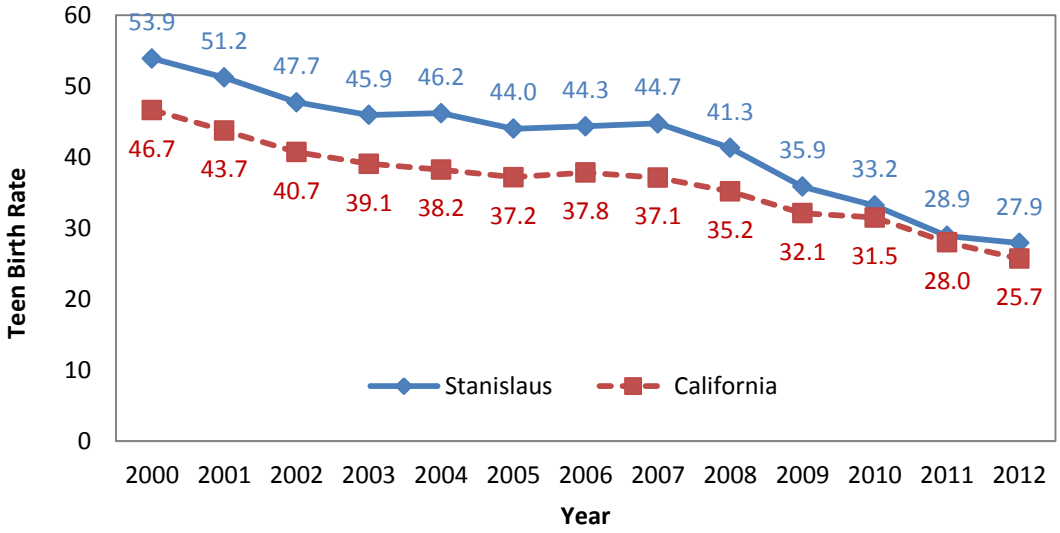
Data Sources: 1. *CDPH,* Birth Statistical Master Files, 2000-2012; 2. *California Department of Finance,* Population Projections; 3. *CDPH,* Birth Statistical Data Tables, see http://www.cdph.ca.gov/data/statistics/Pages/CountyBirthStatisticalDataTables.asp
Note: County rate calculations were performed by H.S.A. staff.

Teen Birth Rate

Teen births are births to any woman aged 15-19. The teen birth rate is the number of births to mothers 15-19 divided by the number of women aged 15-19. Teen births impose high economic and societal costs to the parents, extended family, and society as a whole. Babies born to teen mothers are at higher risk for prematurity, low birth weight, and other health problems (The National Campaign to Prevent Teen Pregnancy, 2013).

- ***Trends***
  - Both California and Stanislaus County show decreases in the teen birth rate between 2000 and 2012, 45.0% for California and 52.3% for Stanislaus.
  - Figure 52 shows the continued decline in teen birth rates for both Stanislaus and California, as well as the closing gap between them.

Figure 52: Teen (Ages 15 to 19) Birth Rate, Stanislaus and California, 2000-2012



Data Sources: 1. *CDPH,* Birth Statistical Master Files, 2000-2012; 2. *California Department of Finance,* Population Projections; 3. *CDPH,* Vital Statistics Query system, see http://www.apps.cdph.ca.gov/vsq/screen_age_birtha.asp?cnty_cd=AA&YEAR_DATA=2012&Criteria=1&Res_occ=Residence&Birth_Death=Birth&stats=2

Note: County rate calculations were performed by H.S.A. staff.

- ***Disparities***
  - *Race/Ethnicity:* 69.4% of teen mothers (ages 19 and under) were Latinas, compared to 52.1% of mothers ages 20 and over (2011 BSMF).
  - *Birth weight:* Babies born to teen mothers are smaller. In 2011, 8% of teen mothers gave birth to low birth weight babies, compared to 5.7% of mothers ages 20 and over (2011 BSMF).
  - *Prenatal care initiation in 1st trimester:* Teen moms are less likely to initiate prenatal care in the first trimester. Sixty one percent of teen mothers compared to 78.1% of mothers 20 years of age or older initiated prenatal care in the first trimester in 2011 (2011 BSMF).
  - *Age and Income:* In 2011, 78.4% of teen mothers used WIC, a proxy for low income, compared to 55.7% of mothers 20 years of age or older (2011 BSMF).

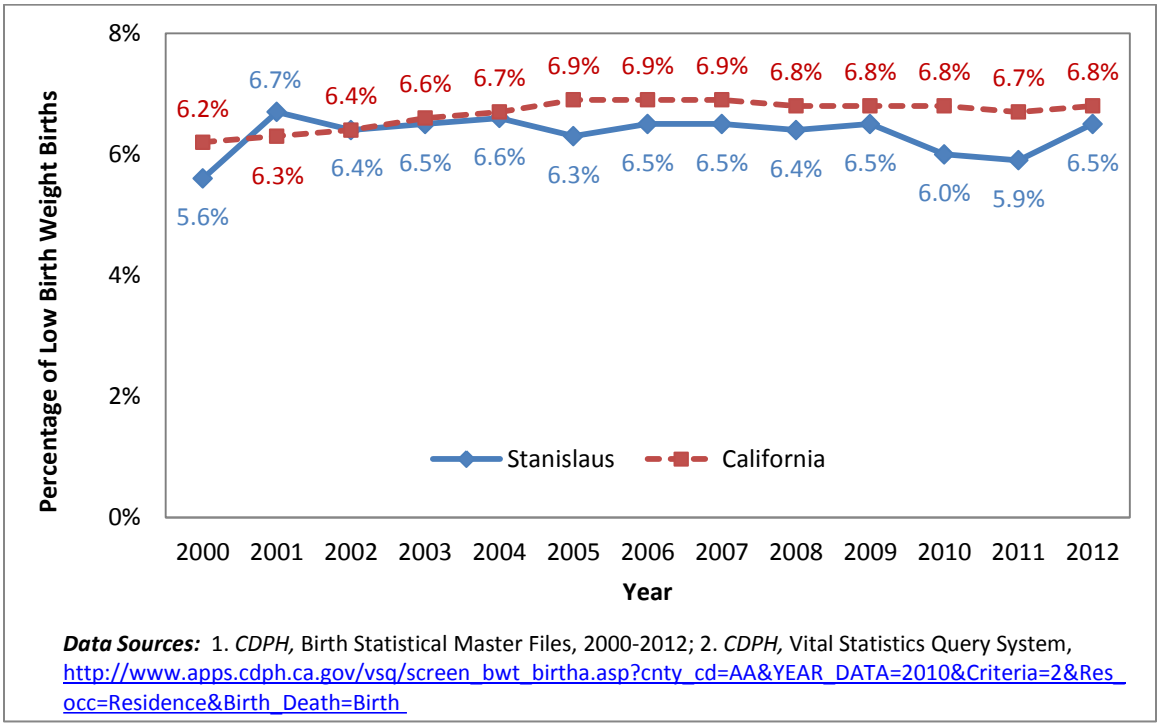
Low Birth Weight

Low birth weight (LBW) babies are born weighing less than 5 pounds 8 ounces (2,500 grams). LBW babies are more likely than those of normal birth weight to encounter health problems like respiratory distress syndrome, bleeding in the brain, heart problems, necrotizing enterocolitis, and abnormal blood vessel growth in the eyes (March of Dimes, 2013b). LBW is also the primary risk factor for infant mortality (U.S. Department of Health and Human Services, 2006).

- As shown in Figure 53, the percentage of LBW babies in Stanislaus has been consistently lower than in the State (2000-2011). However, the percentage of LBW births increased to 6.5% in 2012.

- While it is not possible to eliminate all LBW births, the Healthy People (HP) 2020 target for LBW births is 7.8%. Stanislaus County has reached and maintained this target.

Figure 53: Percentage of Low Birth Weight Births, Stanislaus and California, 2005-2012



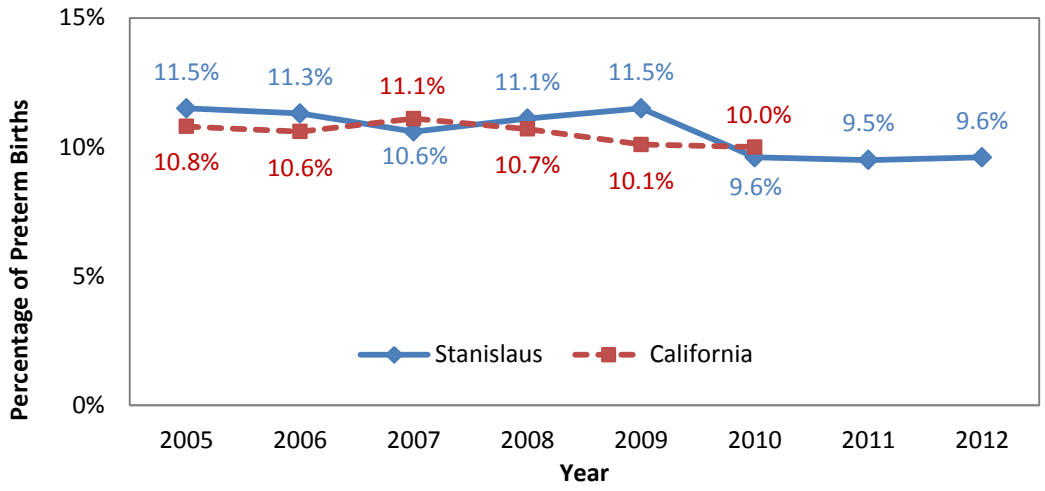
Data Sources: 1. *CDPH,* Birth Statistical Master Files, 2000-2012; 2. *CDPH,* Vital Statistics Query System, http://www.apps.cdph.ca.gov/vsq/screen_bwt_birtha.asp?cnty_cd=AA&YEAR_DATA=2010&Criteria=2&Res_occ=Residence&Birth_Death=Birth

Preterm Birth

Babies born before 37 completed weeks of pregnancy are considered premature and are at greater risk for newborn complications, including death, than those born after the 37th completed week. Premature babies more often suffer from health problems such as respiratory distress syndrome, apnea, and intraventricular hemorrhage. Research has also shown that a baby's brain continues developing after reaching 37 completed weeks; the brain at the 37th week is only 80% of the weight as the 40th week (California Maternal Quality Care Collaborative, 2007).

- As Figure 54 shows, Stanislaus County and California have similar rates of preterm births.
- In 2012, 9.6% of babies in Stanislaus were born preterm.
    - Statewide data for years 2011 and 2012 were not available at the time of this report.
- The County has achieved the HP 2020 target for preterm births: 11.4%.

Figure 54: Percentage of Preterm Births, Stanislaus and California, 2005-2012



Data Sources: 1. *CDPH,* Birth Statistical Master Files, 2005-2012; 2. *CDPH,* County Birth Statistical Tables, *see* http://www.apps.cdph.ca.gov/vsq/default.asp

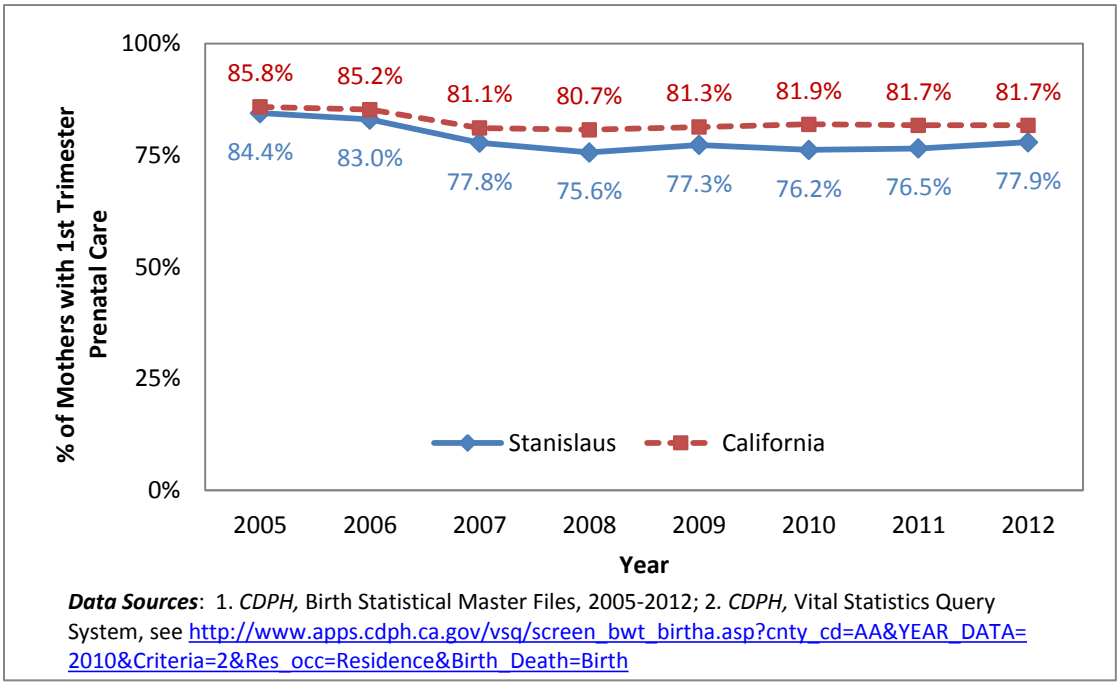
Note: California data are not yet available for 2011 or 2012.

Timeliness of Prenatal Care

Timely and adequate prenatal care is important for the health of both the mother and her fetus. Having a health care provider monitor the mother's and fetus' health helps protect mother and child for healthy birth outcomes. It is recommended that a woman begin prenatal care in the first trimester of her pregnancy.

- The percentage of all Stanislaus County live births receiving first trimester prenatal care has been worsening since 2005, with a slight improvement in 2009. However, there seems to be a slight improvement in 2012, where 77.9% of women had received first trimester prenatal care (see Figure 55).
- In 2012, the County met the Healthy People 2020 target of at least 77.9% of pregnant women receiving prenatal care in the first trimester.
- Factors that lead to reduced first trimester prenatal care may include the shortage of providers, clinic hours or scheduling policies, transportation challenges, and lack of legal documentation. The fear of authorities, linguistic and cultural barriers along with the lack of understanding the importance of early and consistent prenatal care may also contribute low first trimester prenatal care rates.

Figure 55: Prenatal Care Initiation in the 1st Trimester, by Jurisdiction, 2005-2012



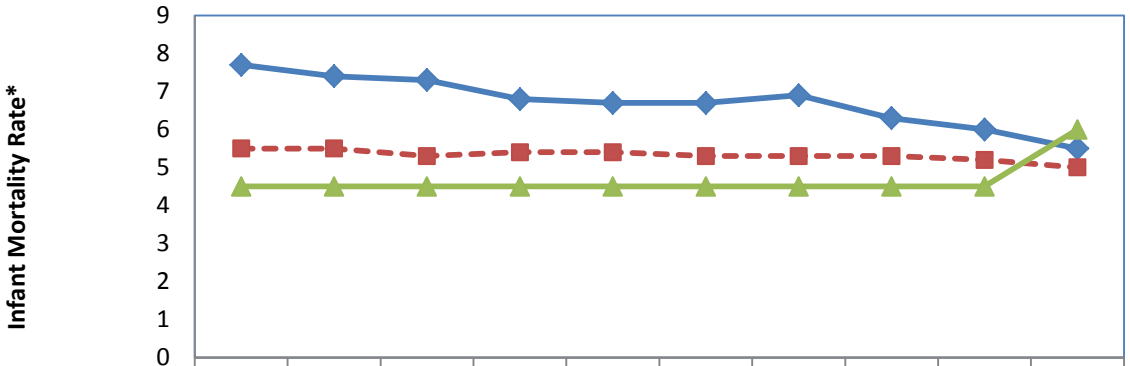
Data Sources: 1. *CDPH,* Birth Statistical Master Files, 2005-2012; 2. *CDPH,* Vital Statistics Query System, see http://www.apps.cdph.ca.gov/vsq/screen_bwt_birtha.asp?cnty_cd=AA&YEAR_DATA=2010&Criteria=2&Res_occ=Residence&Birth_Death=Birth

Infant Mortality

One of the most significant indicators of the health of a community is the rate of infant death. This indicator reveals the overall state of maternal health and the availability of quality health care (The Power of We Consortium, 2013). The infant mortality indicator is also used by international development agencies as a key indicator of the economic prosperity of a nation (Jacobs & Šalus, 2010).

- ***Trends***
  - Stanislaus County's infant mortality rate has consistently been higher than California's rate and the national HP 2010 Objective.
  - In 1999-2001, the State had an infant mortality rate of 5.5 per 1,000 live births while Stanislaus had a rate of 7.7 per 1,000 live births.
  - While the County rate has improved 28.6% over the past nine years, it is still higher than the California rate and has yet to meet the HP 2010 Objective, though we have met the revised (i.e. increased) HP 2020 Objective (see Figure 56).

Figure 56: Trend in Infant Mortality Rate* by Jurisdiction, 1999-2010



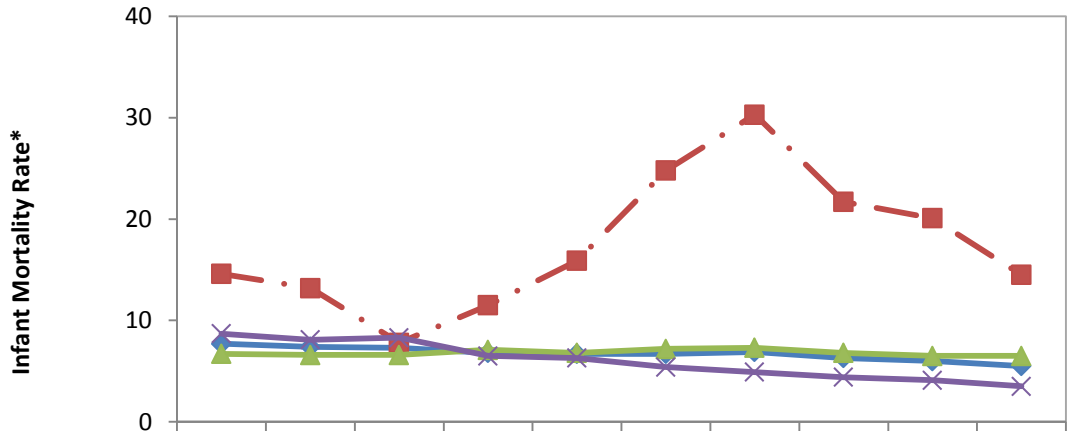
	99 - 01	00 - 02	01 - 03	02 - 04	03 - 05	04 - 06	05 - 07	06 - 08	07 - 09	08 - 10
Stanislaus	7.7	7.4	7.3	6.8	6.7	6.7	6.9	6.3	6.0	5.5
California	5.5	5.5	5.3	5.4	5.4	5.3	5.3	5.3	5.2	5.0
HP Target	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	6.0

Three Year Period

Data Source: *California Department of Public Health,* County Health Status Profiles*, 2002-2013*
**The infant mortality rate is the number of infants born alive who died before their first birthday per 1,000 live births.*
Note: The national Healthy People target increased between 2010 and 2020.

- Although African Americans make up a small percentage of the Stanislaus County population, the rate of infant mortality for this group is more than twice as high as some other racial/ethnic groups. However, caution needs to be exercised in interpreting this finding as the black infant mortality rate is statistically unstable due to small overall numbers of African American births and infant deaths (see Figure 57).

Figure 57: Infant Mortality Trend by Race and Ethnicity in Stanislaus County. 1999-2010



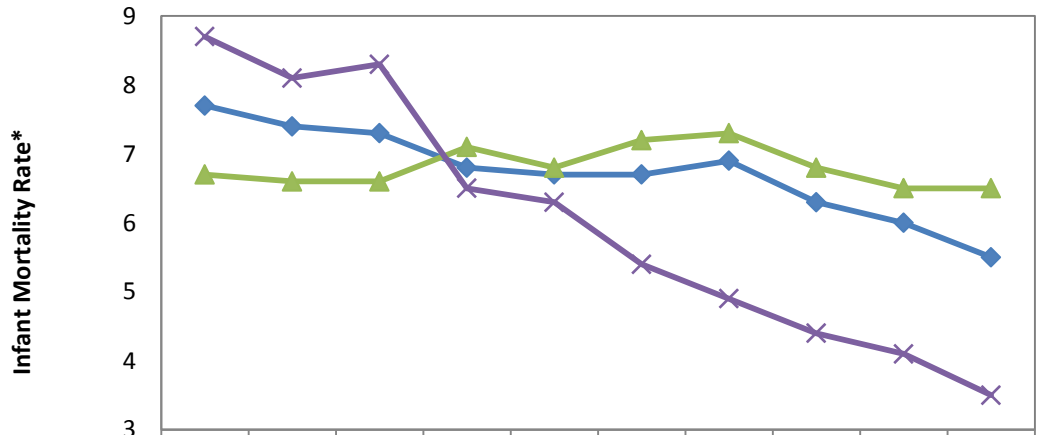
	99 - 01	00 - 02	01 - 03	02 - 04	03 - 05	04 - 06	05 - 07	06 - 08	07 - 09	08 - 10
Overall	7.7	7.4	7.3	6.8	6.7	6.7	6.9	6.3	6	5.5
Black	14.6	13.2	7.8	11.5	15.9	24.8	30.3	21.7	20.1	14.5
Hispanic	6.7	6.6	6.6	7.1	6.8	7.2	7.3	6.8	6.5	6.5
White	8.7	8.1	8.3	6.5	6.3	5.4	4.9	4.4	4.1	3.5

Three Year Period

Data Source: *California Department of Public Health,* County Health Status Profiles*, 2002-2013*
**The infant mortality rate is the number of infants born alive who died before their first birthday per 1,000 live births.*

- Figure 58 shows trends in infant mortality for all race/ethnic groups ***except*** African Americans, to highlight the differences among the remaining groups, which are hard to view in Figure 57 given the scale. Starting in 2006, the Non-Hispanic white infant mortality rate has improved while the Hispanic infant mortality rate has fluctuated around the overall County-wide rate for all races and ethnicities combined.

Figure 58: Infant Mortality Trends for Whites and Hispanics in Stanislaus, 1999-2010



	99 - 01	00 - 02	01 - 03	02 - 04	03 - 05	04 - 06	05 - 07	06 - 08	07 - 09	08 - 10
Overall	7.7	7.4	7.3	6.8	6.7	6.7	6.9	6.3	6	5.5
Hispanic	6.7	6.6	6.6	7.1	6.8	7.2	7.3	6.8	6.5	6.5
White	8.7	8.1	8.3	6.5	6.3	5.4	4.9	4.4	4.1	3.5

Three Year Period

Data Source: *California Department of Public Health,* County Health Status Profiles, *2002-2010*
**The infant mortality rate is the number of infants born alive who died before their first birthday per 1,000 live births.*

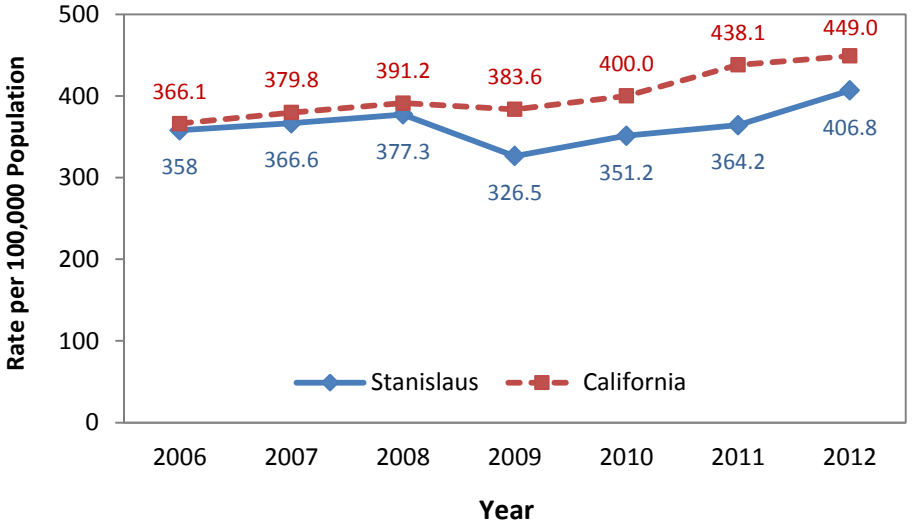
Reproductive Health: Sexually Transmitted Infections

Sexually transmitted infections (STIs) are the most commonly reported condition that health care providers are legally obligated to report under Title 17 of the California Health and Safety Code. Chlamydia is the most frequently reported, with an average of 1,900 infections reported to the county health department annually. In 2012, 2,126 cases of Chlamydia infections were reported in Stanislaus.

Chlamydia

Over the past seven years (2006-2012), California consistently had higher Chlamydia infection rates than Stanislaus County. Chlamydia infection rates in California and Stanislaus have been on an upward trend (see Figure 59).

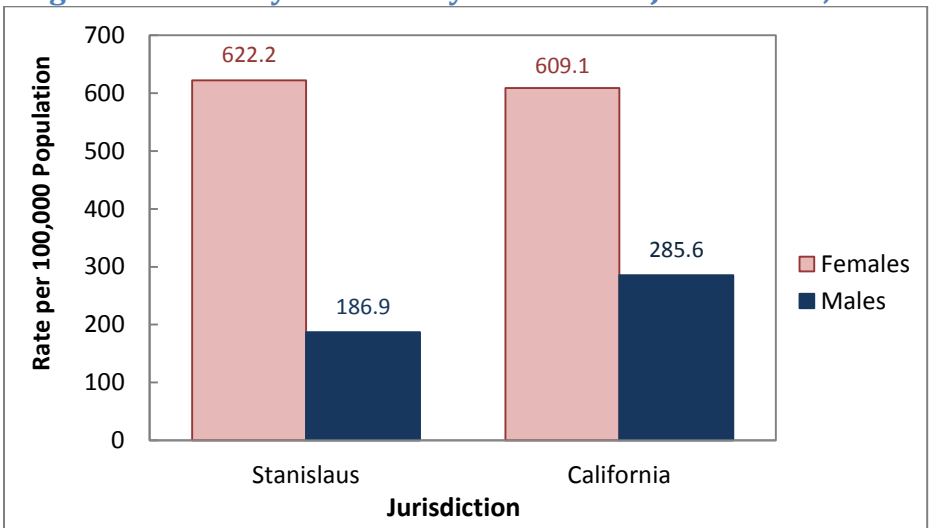
Figure 59: Trends in Crude Chlamydia Rate* by Jurisdiction, 2006-2012



***Data Source*:** *California Department of Public Health, Sexually-Transmitted Diseases Control Branch, see http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx*
**Incidence rate per 100,000 residents*

- ***Gender Disparity:*** The Chlamydia incidence (infection) rate in women is 3.3 times the rate in men (see Figure 60).

Figure 60: Chlamydia Rate* by Gender and Jurisdiction, 2012



Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch, see http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx*
**Incidence rate per 100,000 residents*

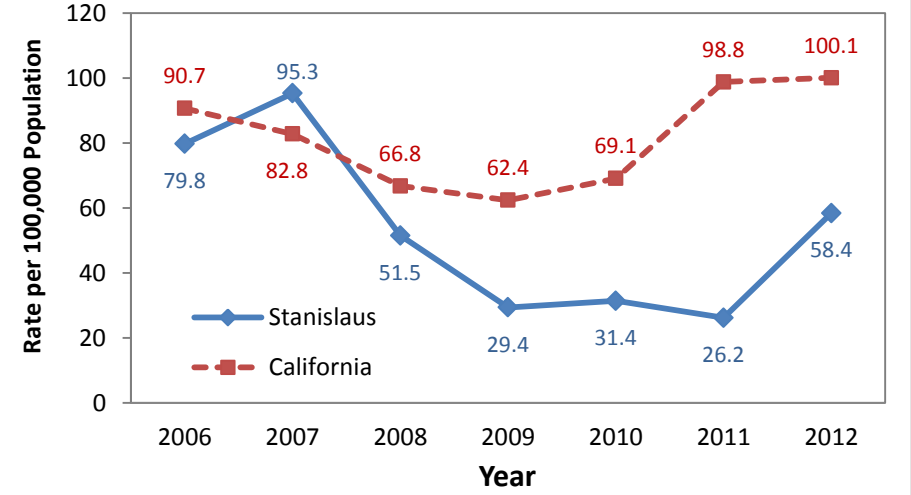
Gonorrhea

Gonorrhea is the second most frequently reported sexually transmitted disease in Stanislaus County. If left untreated, Gonorrhea can result in serious reproductive problems such as pelvic inflammatory disease (PID), infertility and ectopic pregnancy. Pregnant

women who have Gonorrhea are at risk of preterm labor and other complications such as preterm rupture of membranes and chorioamnionitis (Center for Disease Control and Prevention, 2010a).

- ***Trends:***
  - In the past seven years (2006-2012), California consistently had higher Gonorrhea infection rates than Stanislaus, except in 2007 when infection rates in the County spiked above California rates.
  - As indicated by Figure 61, Stanislaus County infections rates were decreasing, but rose between 2011 and 2012. However, the Gonorrhea incidence rate was still much lower in the County than the state; in 2012, the statewide infection rate (100.1 per 100,000 population) was 1.7 times the County infection rate (58.4 per 100,000 population).

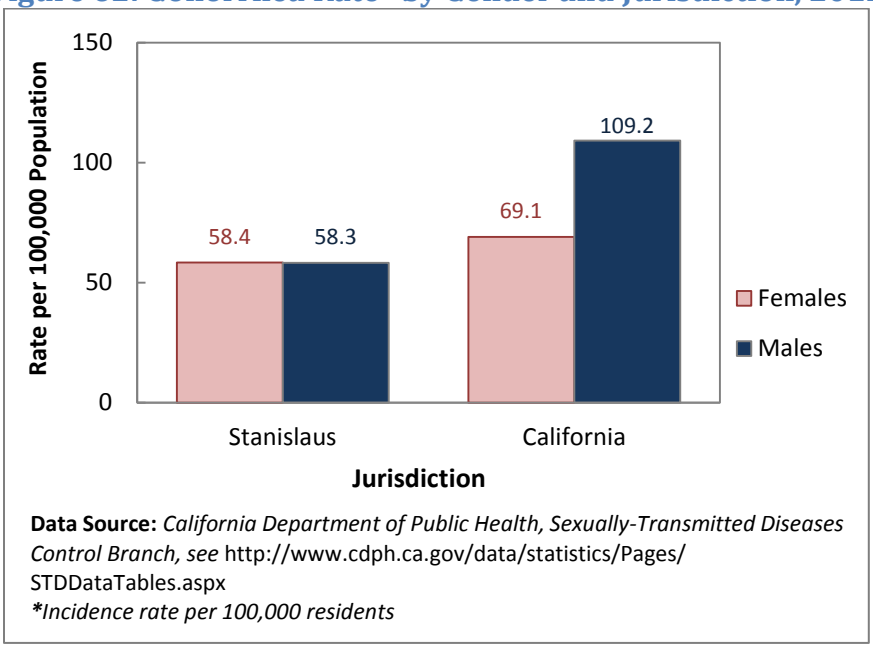
Figure 61: Trends in Crude Gonorrhea Rate*, by Jurisdiction, 2006-2012



Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch*: http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx
**Incidence rate per 100,000 residents*

- ***Gender Disparity:*** In 2012, there was no significant gender difference in Gonorrhea infection rates in Stanislaus (see Figure 62), unlike for California.

Figure 62: Gonorrhea Rate* by Gender and Jurisdiction, 2012



Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch, see* http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx

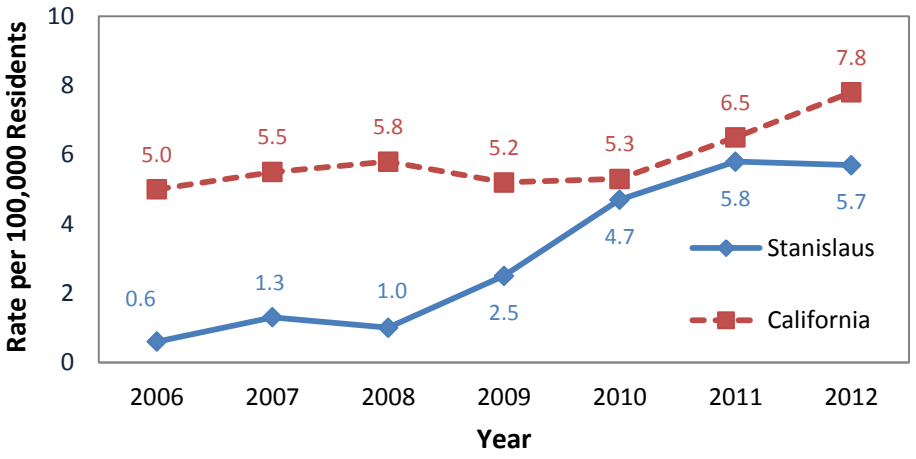
**Incidence rate per 100,000 residents*

Syphilis

Syphilis is an increasing problem, both in Stanislaus County and California. Syphilis is a particularly difficult STI due to its latent phase in which symptoms disappear but the disease can still be transmitted from person to person. If left untreated, late stage syphilis can include neurologic impairment, internal organ damage, blindness and death.

- ***Trends:***
  - Stanislaus County has seen a dramatic increase in the rate of primary and secondary syphilis (P&S), from 0.6 cases per 100,000 population in 2006 to 5.7 cases per 100,000 population in 2012 (see Figure 63, an increase of more than 800%.
  - While the Stanislaus County P&S rate has remained below California's, the Stanislaus County rate has more than doubled since 2009.

Figure 63: Trends in Primary and Secondary Syphilis Rates* by Jurisdiction, 2006-2012

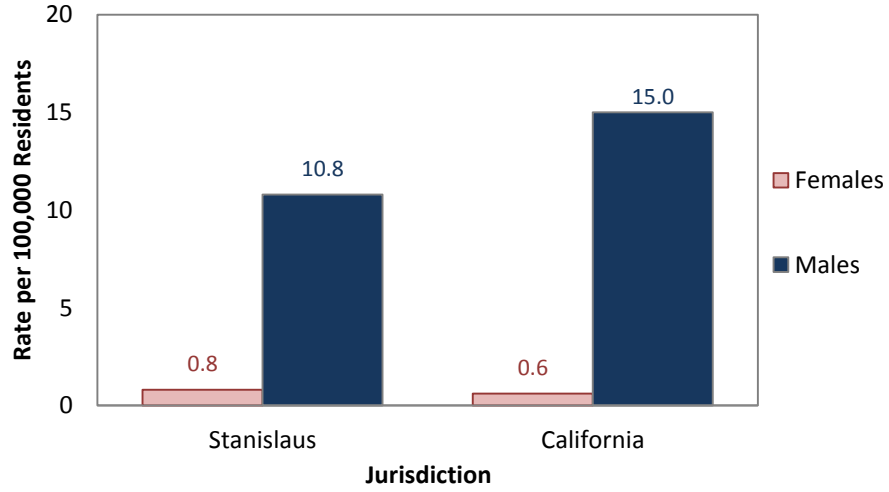


Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch,* see http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx

**Incidence rate per 100,000 residents*

- ***Gender Disparities:***
  - There is a stark disparity in P&S syphilis rates between males and females at both the County level and the State level. In Stanislaus, the rate for females is less than 1/10th the rate for males (see Figure 64).
  - In contrast, California's P&S syphilis rate for females is less than 1/20th the rate for males.

Figure 64: Primary and Secondary Syphilis Rate* by Gender and Jurisdiction, 2012

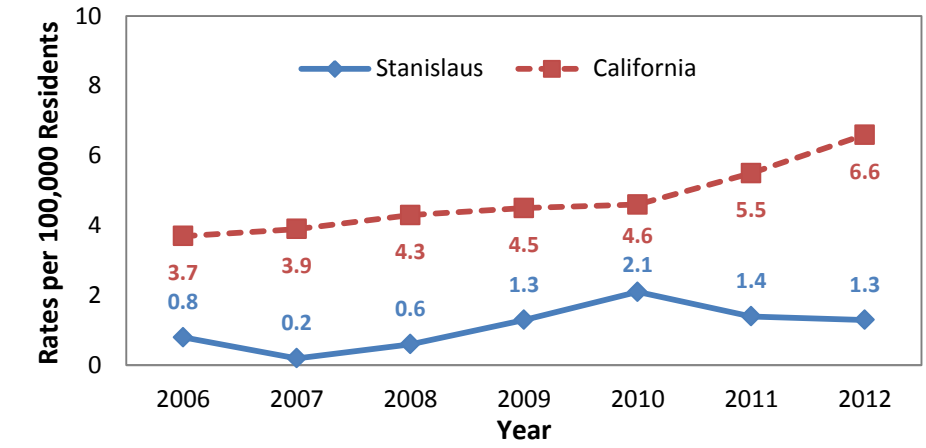


Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch,* see http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx

Incidence rate per 100,000 residents

- ***Trends:***
  - In 2012, California's early latent syphilis rate was about five times the rate in Stanislaus (see Figure 65).
  - Stanislaus County has experienced a slight decline in the rate of early latent syphilis since 2010 but due to the dramatic increase in P&S syphilis, it is probable that the County will see an increase in the rate of early latent syphilis in the future.

Figure 65: Trends in Early Latent Syphilis Rates* by Jurisdiction, 2006-2012

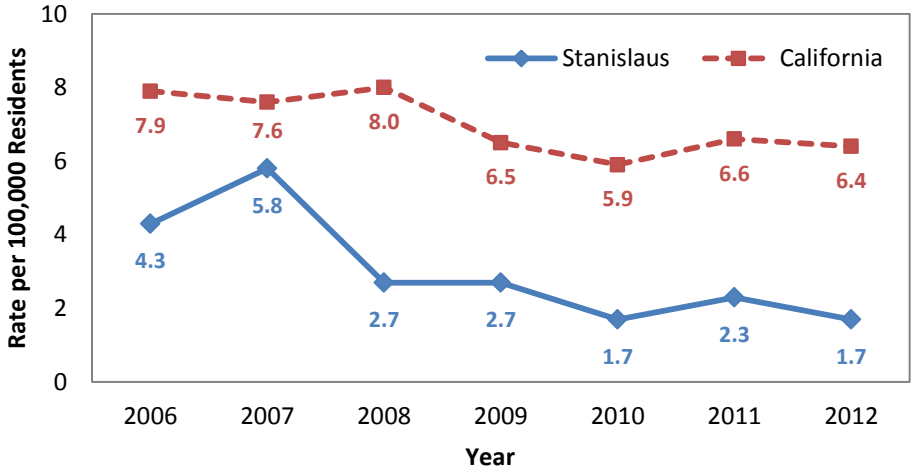


Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch,* see http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx

**Incidence rate per 100,000 residents*

- ***Trends:***
  - The rate of late latent syphilis has been consistently higher at the State than at the County but both jurisdictions have experienced a decrease since 2006 (by 18.9% in California and by 60.5% in Stanislaus County; see Figure 66).

Figure 66: Trends in Late Latent Syphilis Rates* by Jurisdiction, 2006-2012



Data Source: *California Department of Public Health, Sexually-Transmitted Diseases Control Branch,* see http://www.cdph.ca.gov/data/statistics/Pages/STDDataTables.aspx

*Incidence rate per 100,000 residents

Injury

Injuries are a major contribution to the burden of ill health. Nationwide, injuries, including the combination of all causes of unintentional and violence-related injuries, are the leading cause of death for people ages 1 to 44 years (Centers for Disease Control and Prevention, 2014a)In Stanislaus County, for the 2008-2010 time period three types of injuries were among the 15th most frequent underlying causes of death; unintentional injuries were ranked 5th, suicide 10th, and assault/homicide 13th.

Injuries take a toll on individuals; they can cause life-long disabilities, lowered quality of life and shortened life span, can have detrimental psychological effects, and reduce earning potential. On a societal level, injuries lead to large monetary losses due to medical costs, property damage, and decreased productivity. Nationally, injuries cost about $406 billion each year in medical and lowered productivity costs (Centers for Disease Control and Prevention, 2014a).

Research has shown that events leading to injuries are often not random "accidents," but rather they follow patterns and are influenced by complex risk and protective factors. Injury patterns can be studied and used to prevent future injuries. Within the field of public health, injuries are often categorized by their severity (to assess their health burden) and their cause (to assist with prevention efforts).

Please note that the local data in this section come from the on-line EpiCenter database for injuries, using 2011 data, which is the most recent data available at the time of this report. As reviewed in the *Methodology* section, EpiCenter tallies injuries resulting in emergency department (ED) visit, hospitalization or death. Data is not systematically collected on injuries treated in an outpatient setting, at school, work or home.

- In Stanislaus County, during 2011, the rate of non-fatal ED visits was greater than the rate of non-fatal hospitalizations, while the fatal injury rate was the lowest. In other words, the most severe injuries are the least common.
- ***Age Disparities:*** Injury rates vary across groups. On a population-wide level, the severity of injury differs by age (see Table 36). In Stanislaus County,
    - The non-fatal hospitalization rate is highest among residents aged 65 years and older and lowest among children 0 to 4 years of age (177.8 and 24.0 per 100,000 hospitalizations, respectively).
    - Conversely, the non-fatal ED visit rate is greatest among children ages 0 to 4 and lowest among seniors 65 years and older (1,101.3 and 595.0, respectively).
    - The fatal injury rate is highest among middle-aged adults 45 to 64 years old (9.1).

Table 36: Injury Rates* in Stanislaus County by Severity, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	1.8	24.0	1,101.3	1,125.3
5-19 years	2.3	23.6	851.2	874.9
20-44 years	5.9	50.9	847.6	898.5
45-64 years	9.1	86.5	628.4	714.9
65+ years	7.2	177.8	595.0	772.8
Total	**5.6**	**64.6**	**788.1**	**852.7**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

Understanding the cause of injuries is crucial to the effort to prevent them. One major way in which the causes of injuries are categorized is whether they were intentionally or unintentionally inflicted.

Unintentional Injury

Unintentional injuries are those injuries which occur without intent to harm. While unintentional injuries are, by definition, not deliberately caused, in many cases such injuries can be prevented.

- ***Age Disparities:*** In Stanislaus County in 2011, the distribution of unintentional injuries was similar to the distribution pattern of all injuries (see Table 37).
    - Children ages 0 to 4 had the highest non-fatal ED visit rate (1,092.4) and serious non-fatal injury rate (1,114.7). Older children ages 5 to 19 had the lowest fatal injury and non-fatal hospitalization rate (0.9 and 16.9, respectively).

- Nationally, unintentional injuries are the leading cause of death for children 1 to 19 years of age (Centers for Disease Control and Prevention, 2012c). The same is true locally; from 2010-2012, 32.7% of deaths among children of this age were due to unintentional injury (DSMF).

- On the other hand, seniors ages 65 years and older had the highest non-fatal hospitalization rate at 255.8.

Table 37: Unintentional Injury Rates* in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	1.0	22.3	1,092.4	1,114.7
5-19 years	0.9	16.9	799.5	816.4
20-44 years	3.7	31.4	747.8	779.2
45-64 years	6.5	66.7	578.9	645.6
65+ years	7.5	255.8	777.8	1,033.6
Total	**3.9**	**59.9**	**749.2**	**809.1**

Data Source: *EpiCenter, 2011.* See http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- ***Specific Causes of Unintentional Injury***
  - Falls
    - Falls can lead to other serious health threats. For example, falls are the most common cause of traumatic brain injuries and are the cause of over 95% of hip fractures among older adults ages 65 and older (Centers for Disease Control and Prevention, 2013a). Injuries from falls, including lacerations, fractures, and head trauma, can make it hard to live independently and increase the risk of early death (Centers for Disease Control and Prevention, 2013a).
    - Generally in Stanislaus County, serious injuries due to falls, both fatal and non-fatal, are most common in the youngest and oldest age groups (see Table 38).
      - In 2011, the fatal injury rate due to falls was very low (0.5 per 100,000 deaths).
      - The group with the highest fatal fall rate was older adults ages 65 and older (2.7).
      - Seniors also had the highest non-fatal hospitalization and ED visit rates due to falls (192.8 and 488.5, respectively).

- Adults 20 to 44 years of age had the lowest serious non-fatal injury rate due to falls (156.8).
- Overall, fatal injury and non-fatal hospitalization rates increased with age. However, the non-fatal ED visit rate was lowest in the middle age groups and highest with the youngest and oldest groups. In other words, although young children (0-4 years of age) may fall almost as often as seniors (at least 65 years of age), children's injuries are usually less severe. Seniors, on the other hand, are hurt more severely when they fall.

Table 38: Unintentional Injury Rates* due to Falls in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.0	5.3	453.8	459.1
5-19 years	0.0	5.3	220.7	226.0
20-44 years	0.2	6.6	150.2	156.8
45-64 years	0.6	29.2	197.0	226.1
65+ years	2.7	192.8	488.5	681.4
Total	**0.5**	**31.7**	**237.7**	**269.4**

Source: *EpiCenter, 2011.* See http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- *Motor Vehicle Crashes*
  - Motor vehicle crashes are one of the leading causes of death in the U.S. (Centers for Disease Control and Prevention, 2014a). Additionally, out of all 50 states, California has the greatest medical and work loss costs due to motor vehicle crashes at $4.16 billion (Centers for Disease Control and Prevention, 2011h).
  - In 2011, within Stanislaus County (see Table 39),
    - The serious non-fatal injury rate due to motor vehicle crashes was 89.3;
    - Generally, adults had the highest rates of serious injury followed by teens and children;
    - Adults aged between 20 and 44 years had the highest non-fatal hospitalization and non-fatal ED visit rates (9.3 and 121.7, respectively); and
    - Children aged 0 to 4 years had the lowest injury rates due to motor vehicle accidents (The fatal injury rate was 0.5 while the serious non-fatal injury rate was 35.7.).

Table 39: Unintentional Injury Rates* due to Motor Vehicle Crashes in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.5	1.8	33.9	35.7
5-19 years	0.6	3.7	66.5	70.1
20-44 years	1.8	9.3	121.7	131.0
45-64 years	1.1	8.5	74.0	82.5
65+ years	2.5	8.6	44.9	53.5
Total	**1.3**	**7.1**	**82.2**	**89.3**

Source: *EpiCenter, 2011.* See http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- *Poisoning*
  - Nationally, the fatal injury rate due to poisoning almost tripled from 1980 to 2008 (National Capitol Poison Center, 2013). In addition, the percentage of poisoning deaths caused by drugs has increased from 60% to 90% (National Capitol Poison Center, 2013).
  - In Stanislaus County, in 2011, rates of injury due to poisoning were varied across age groups and differed by severity (see Table 40).
    - Adults aged 45 to 64 years had the highest rate (3.9) of fatal injury due to poisoning while seniors aged 65 years and older had the highest rate of non-fatal hospitalization due to poisoning (11.8).
    - On the other hand, children aged 0 to 4 years had the lowest poisoning-specific rate of fatal injury (0.0) but the highest rate of non-fatal ED visits (43.5), almost twice the rate of any other age group.
    - Children ages 5 to 19 had the lowest rate of serious injury due to poisoning (8.8).

Table 40: Unintentional Injury Rates* due to Poisoning in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.0	4.0	43.5	47.6
5-19 years	0.1	0.9	7.9	8.8
20-44 years	1.2	3.1	12.1	15.2
45-64 years	3.9	9.0	14.4	23.5
65+ years	0.5	11.8	12.2	24.0
Total	**1.4**	**5.0**	**14.1**	**19.1**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- *Machinery-Related Injuries*
  - Machinery-related incidents are the second leading cause of traumatic occupational fatalities in the U.S. The industries with the highest industry specific rate are agriculture, forestry and fishing (Marsh & Layne, 2001).
  - Table 43 shows the injury rates in Stanislaus County in 2011 due to machinery.
    - The fatal injury rate due to machinery-related incidents in Stanislaus County for 2011 was near 0.0 though the serious non-fatal injury rate was 3.5 per 100,000.
    - Adults' ages 45 to 64 had the highest rates of injury in all categories; 0.2 for fatal injuries, 0.8 for non-fatal hospitalizations and 4.8 for non-fatal ED visits.
    - Children age 5 to 19 had the lowest rates of accidents with machinery for all categories (0.0 for fatal and non-fatal hospitalizations and 1.2 for non-fatal ED visits).

Table 41: Unintentional Injury Rates* Caused by Machinery# in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.0	0.3	1.0	1.3
5-19 years	0.0	0.0	1.2	1.2
20-44 years	0.0	0.6	3.9	4.4
45-64 years	0.2	0.8	4.8	5.6
65+ years	0.0	0.2	2.3	2.5
Total	**0.0**	**0.4**	**3.1**	**3.5**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

#Excluding motor vehicles

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- *Drowning*
  - Drowning is the leading cause of fatal injury deaths for children aged 1 to 4 years (Centers for Disease Control and Prevention, 2012c). Additionally, many victims of drowning are left with permanent disabilities due to brain damage (Centers for Disease Control and Prevention, 2012c), which can place a financial burden on their families and result in decreased earning potential.
  - Table 44 shows injury rates due to drowning in Stanislaus County in 2011.
    - In 2011, the injury rate due to drowning in Stanislaus County was fairly low. Small children ages 0 to 4 had the highest rate of injury but the rate was dramatically lower for subsequent age groups.
    - Children ages 0 to 4 had the highest rates for all categories for injury, including fatal injury (0.5), non-fatal hospitalizations (0.5) and non-fatal ED visits (4.0).
    - Non-fatal hospitalization rates were 0 .0 for both the 20 to 44 years and 45 to 64 years age groups. Similarly, the 45 to 64 and 65 years and older age groups had the lowest non-fatal ED visit rate (0.2, for both groups).

Table 42: Unintentional Injury Rates* due to Drowning in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.5	0.5	4.0	4.6
5-19 years	0.1	0.0	0.4	0.4
20-44 years	0.2	0.0	0.3	0.3
45-64 years	0.2	0.2	0.2	0.5
65+ years	0.2	0.2	0.2	0.4
Total	**0.2**	**0.1**	**0.6**	**0.7**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

Intentional Injury

Intentional injuries are those deliberately caused, whether by another person or persons (assault) or by the injured person him- or herself (self-harm). Intentional injuries include homicides, rapes, abuse, assaults, suicides, suicide attempts and cutting.

- ***Age Disparities:*** In Stanislaus County, intentional injury rates are highest among the adult population (see Table 43).
    - Adults aged 20 to 44 years have the highest non-fatal hospitalization rate (13.9) and non-fatal ED visit rate (82.3), both of which are about twice the rate of the 5 to 19 age group that have the second highest rates in both categories (5.2 for non-fatal hospitalizations and 46.9 for non-fatal ED visits).
    - Intentional injury rates are relatively low among children ages 0 to 4 and seniors ages 65 and older compared to the other age groups (for serious non-fatal injuries the rates are 5.8 and 11.6, respectively). It is important to note it is unusual for injuries in young children to be classified as intentional self-harm, even if self-inflicted, since infants and young children do not have adult-like intentionality. This fact is at least partially responsible for the lower overall rate of intentional injury to this age group.

Table 43: Intentional Injury Rates* in Stanislaus County by Severity, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.8	1.3	4.6	5.8
5-19 years	1.4	5.2	46.9	52.1
20-44 years	2.0	13.9	82.3	96.1
45-64 years	2.4	10.1	38.5	48.5
65+ years	2.0	3.9	7.7	11.6
Total	**1.9**	**8.9**	**49.4**	**58.3**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- ***Types of Intentional Injury***
  - *Self-Inflicted Injuries*
    - Self-injury is correlated with a history of abuse or substance abuse and lacking a good social support network (Sinclair, Riviero-Arias, Saunders, & Hawton, 2010). Due to the reoccurring nature of self-harm, self-inflicted injuries place a large burden on the healthcare system and society (Sinclair, Riviero-Arias, Saunders, & Hawton, 2010).
    - Table 44 shows the rates of self-inflicted injuries by severity and age group in Stanislaus County in 2011.
      - The rate of self-inflicted injuries among Stanislaus residents was highest for adults aged 20 to 44 in all categories except fatal injury rate (see Table 44). For non-fatal hospitalizations the group's rate was 6.7, while it was 18.7 for non-fatal ED visits (18.7).
      - The lowest self-inflicted injury rates were among children 0 to 4 years old (0.0 for fatal and non-fatal hospitalizations and 0.3 for non-fatal ED visits). Again, as mentioned above, classification of a self-inflicted injury as intentional is rare at very young ages.
      - The rate for fatal injuries steadily increased with age from 0.0 to 2.0 per 100,000. See the *Major Causes of Death* and *Mental and Behavioral Health* sections for more information on suicide.

Table 44: Injury Rates* due to Self-Inflicted Injuries in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.0	0.0	0.3	0.3
5-19 years	0.6	2.4	12.3	14.7
20-44 years	1.2	6.7	18.7	25.5
45-64 years	1.8	6.4	11.0	17.5
65+ years	2.0	2.9	2.5	5.4
Total	**1.2**	**4.7**	**12.2**	**16.9**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

- *Assault*
  - Communities experience the effects of violence through loss of social cohesion and social capital, financial divestment and increased burden on the healthcare and justice systems (Patel, & Taylor, 2012). Nationwide, annually, youth homicides and assault-related injuries result in about $16 billion in medical costs and decreased productivity (Centers for Disease Control and Prevention, 2012d).
  - Table 45 shows the injury rates due to assault by severity and age group in Stanislaus County in 2011.
    - Although the fatal injury rate due to assault (0.7) was low in the County, the rate for non-fatal ED visits was much higher at 37.2.
    - The highest serious non-fatal injury rate due to assault in Stanislaus County was experienced by the 20 to 44 age group (70.7).
    - The 5 to 19 age group had the second highest rate though their rate was significantly lower at 37.4. These two age groups shared the highest fatal injury rate due to assault (0.8).
    - The lowest rates for serious non-fatal assault injuries were experienced by children ages 0 to 4 and seniors ages 65 and older (5.6 and 6.3, respectively).

Table 45: Injury Rates* due to Assault in Stanislaus County by Severity and Age Group, 2011

Age Group	Fatal Injuries	Non-Fatal Hospitalizations	Non-Fatal Emergency Department Visits	All Serious^ Non-Fatal Injuries
0-4 years	0.0	1.3	4.3	5.6
5-19 years	0.8	2.8	34.6	37.4
20-44 years	0.8	7.2	63.5	70.7
45-64 years	0.6	3.6	27.4	31.0
65+ years	0.0	1.1	5.2	6.3
Total	**0.7**	**4.2**	**37.2**	**41.4**

Data Source: *EpiCenter, 2011,* see http://epicenter.cdph.ca.gov/

**The annual fatal injury rate is the number of deaths due to injury per 100,000 residents per year. The annual non-fatal hospitalization rate is the number of hospitalizations due to injury that do not lead to death before discharge per 100,000 hospital visits per year. The annual non-fatal ED visit rate is the number of ED visits due to injury that do not lead to hospitalization or death per 100,000 ED visits per year.*

^The serious non-fatal injury category includes both non-fatal hospitalizations and non-fatal emergency department visits.

Chronic Diseases

Chronic disease has reached global epidemic proportions (World Health Organization, 2005). The cost of chronic diseases in the U.S. is enormous. A study released by the Milken Institute (2007) calculated the total economic impact of seven of the most common chronic diseases to be $1.3 trillion annually, with $1.1 trillion accounting for lost productivity and $277 billion being spent on medical treatments. The specific source and time period on which each reviewed finding is based are noted in parentheses in the text (e.g. 2011 & 2012 CHIS or 2010-2012 DSMF). All rates presented are age-adjusted. H.S.A. staff performed the analyses. Population figures for calculating rates were obtained from the U.S. Census Bureau, either from the 2010 Census, or the American Community Survey, depending on the relevant time period and topic area.

Overview of Risk and Protective Factors

Chronic diseases are among the leading causes of hospitalization and death nationwide. Underlying risk factors such as tobacco use, physical inactivity, being overweight or obese, and poor diet are responsible for much of this trend. An improvement in these modifiable risk factors can result in alleviating the burden of chronic disease (Centers for Disease Control and Prevention, 2010b, 2011b, 2011d, 2011f, 2011i), and therefore much of the total burden of disease. Protective factors are behaviors, lifestyle factors and environmental conditions that decrease the likelihood of disease. They include things such as regular physical activity, a healthy diet that includes the five food groups in appropriate amounts and a built environment that facilitates walking and biking. Thus, both environmental conditions and behaviors can serve as risk or protective factors.

- ***Environmental Factors***
  - *Air Quality:* Air pollution increases the risks of heart and lung illnesses such as asthma, chronic obstructive pulmonary disease, lung cancer and heart failure (Health Canada, 2006).
    - Despite reductions in air pollution levels, the San Joaquin Valley has poor air quality compared with other areas.
    - The San Joaquin Valley is second only to the Los Angeles basin in poor air quality within California (Bedsworth, 2004). Stanislaus County, and its capitol, Modesto, rank poorly nationwide (American Lung Association, 2013), as shown in Table 46.

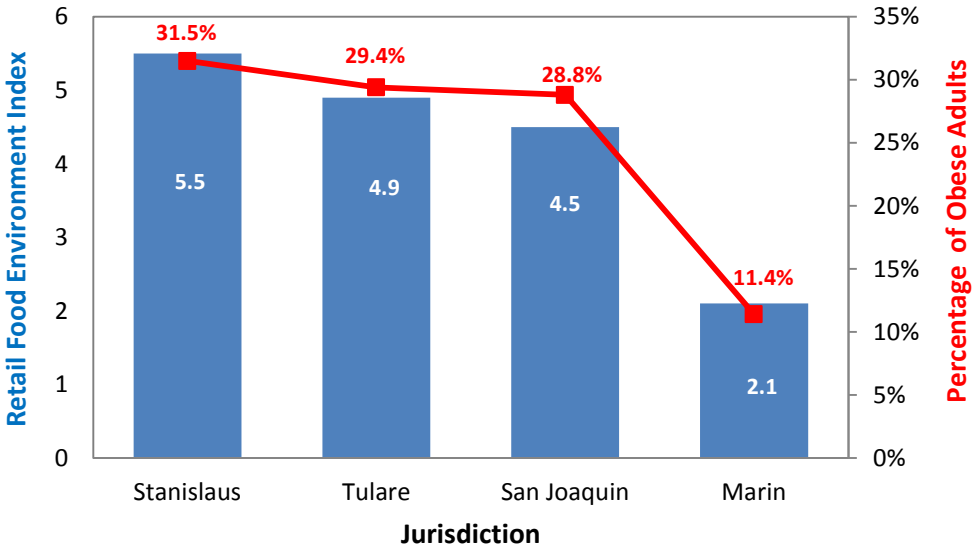
Table 46: Air Quality Rankings and Grades for Modesto and Stanislaus, 2013

	Short-Term Particle Pollution ($PM_{2.5}$)		Year-Round Particle Pollution (Annual $PM_{2.5}$)		Ozone Pollution	
Jurisdiction	**Ranking***	**Grade**	**Ranking***	**Grade**	**Ranking***	**Grade**
Modesto	5th worst	NA	6th worst	NA	13th worst	NA
Stanislaus County	5th worst	F	7th worst	F	20th worst	F

Data Source: *American Lung Association's 2013* State of the Air Report.
**For Modesto, the ranking is out of US Metropolitan Statistical Areas (Office of Management and Budget) with at least 50, 000 residents. For Stanislaus, the ranking is out of approximately 3,000 U.S. counties.*

  - *Access to Healthy Food:* The neighborhood environment affects a person's diet choices and risk of obesity and chronic disease.
    - UCLA's Center for Health Policy Research (California Center for Public Health Advocacy, 2008), found an association between the quality of the retail food environment and rates of both obesity and diabetes. Researchers calculated an index they called the *Retail Food Environment Index (RFEI)*: the ratio of fast-food restaurants and convenience stores to grocery stores and produce vendors. Data for California jurisdictions showed that the higher the RFEI in a jurisdiction, the greater the percentage of residents with obesity and diabetes.
      - The average RFEI for California is 4.48, which means that for each grocery store or produce vendor around homes, there are nearly four and a half times as many fast-food restaurants, pizza places and convenience stores.
      - Stanislaus has the second highest RFEI (5.48) and the highest obesity prevalence (31.5% vs. 21.2% for California) in the state.
      - Figure 67 compares Stanislaus to selected other California counties.

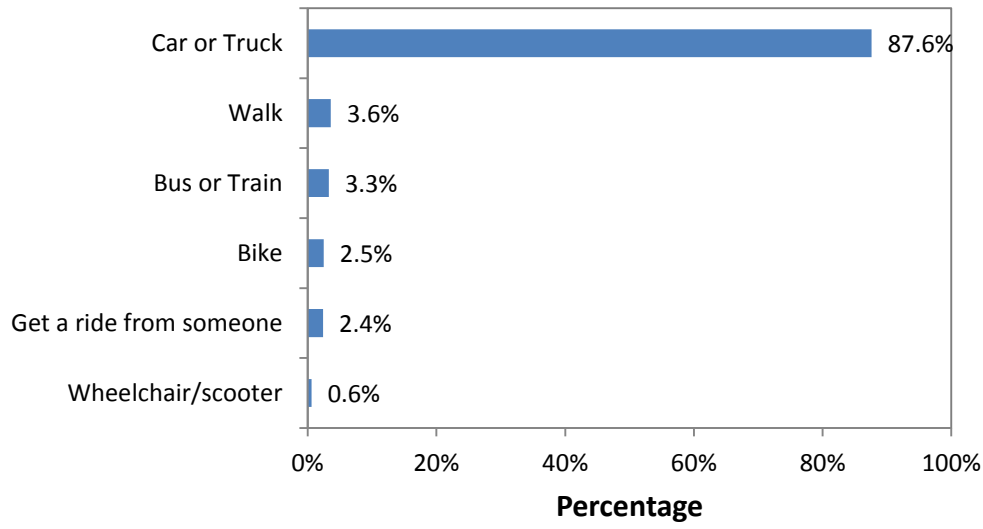
Figure 67: Obesity Prevalence and the Retail Food Environment by Jurisdiction



Data Source: *California Center for Public Health Advocacy,* Designed for Disease: The Link Between Local Food Environments and Obesity and Diabetes
Retail Food Environment Index (RFEI): the ratio of fast-food restaurants and convenience stores to grocery stores and produce vendors.

- Respondents of the 2013 CHA community survey were asked about their primary mode of transportation. The vast majority, 87.6%, generally use a car or truck (see Figure 68).

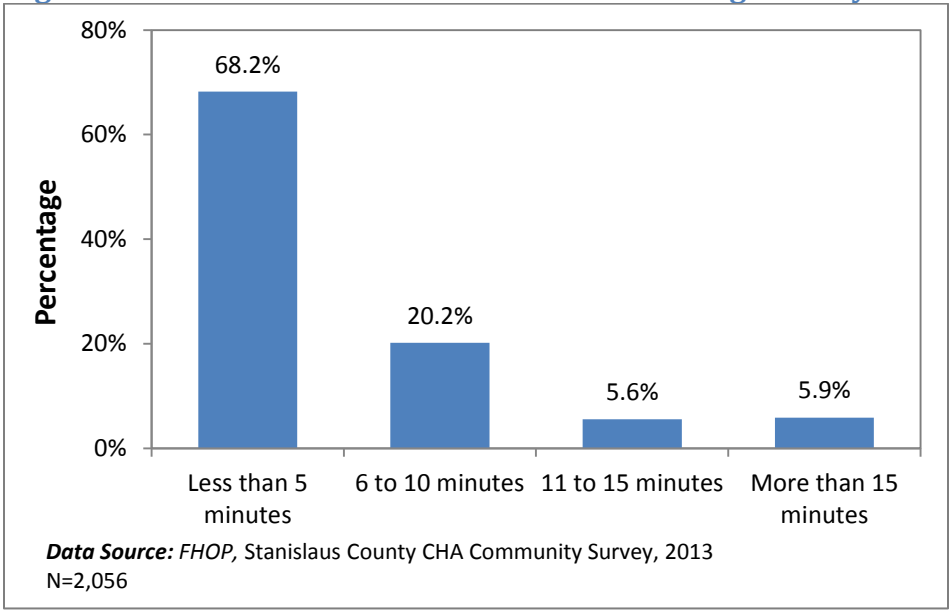
Figure 68: When I need to go somewhere, I usually get there by (please select the single best choice)…



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N = 2,022

- Respondents of the 2013 CHA community survey were then asked how far they live from the nearest store that sells healthy food, and how long it typically takes to get there.
  - As shown in Figure 69, the majority of respondents (68.2%) live within five minutes of a store that sells healthy food. However, 5.9% live more than 15 minutes from such an establishment.

Figure 69: Travel Time to the Nearest Store Selling Healthy Food

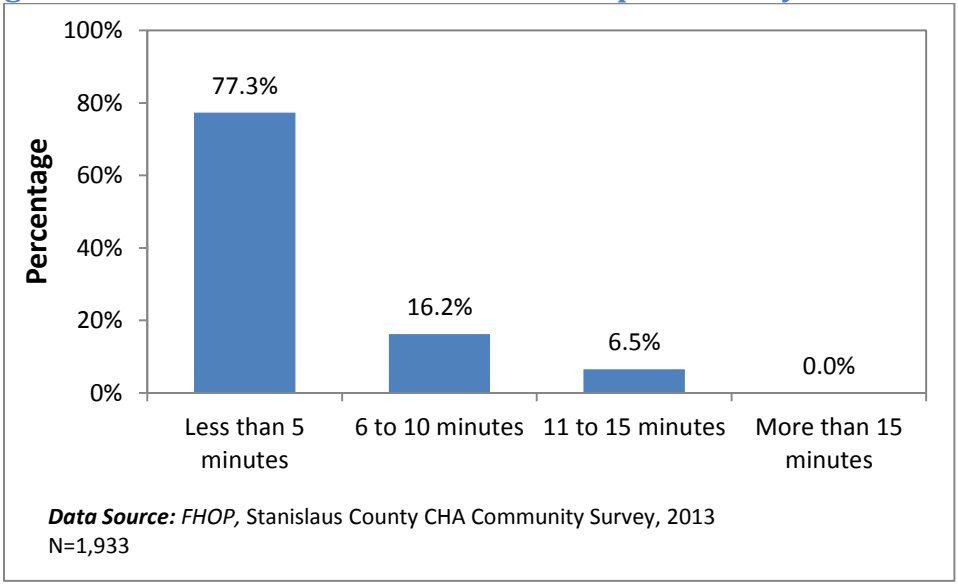


  - Geographic Disparities: The typical travel time varied greatly by where people live.
    - ✓ A much higher percentage (24.2%) of those living in the East Central region (containing the Airport and La Loma neighborhoods) reported living more than 15 minutes from a place to buy healthy food.
    - ✓ In addition, 8.1% of residents of the Southwest Central region (West Modesto and South Modesto) reported being more than 15 minutes from an outlet for healthy food.
    - ✓ These findings may reflect the existence of "food deserts," areas where healthy food is not sold (US Department of Agriculture, no date). Analyses looking at food deserts are typically conducted with much smaller regional areas, census tract or block areas. However, for the 2013 primary CHA survey, the sub-county region was the smallest area for which data was able to be summarized (due to sample size). Summarizing across a larger geographic area makes it much more difficult to

find evidence of food deserts. So it is noteworthy that the East Central and Southwest Central regions show evidence of reduced access to healthy food.

- *Access to Physical Activity:* The neighborhood environment, particularly access to opportunities for physical activity, also affects a person's risk of obesity and chronic disease.
  - Respondents of the 2013 primary CHA survey were asked how far they live from the nearest safe place to be physically active and how long it typically takes to get there. Given that some residents are able to safely participate in physical activity in their own yards or apartment complexes, or bike or walk in their immediate neighborhoods, the typical travel time was expected to be lower than for stores selling healthy food.
  - As shown in Figure 70, a large majority (77.3%) of respondents live within 5 minutes of a safe location for physical activity. None reported living more than 15 minutes from such a location.

Figure 70: Travel Time to the Nearest Safe Space for Physical Activity

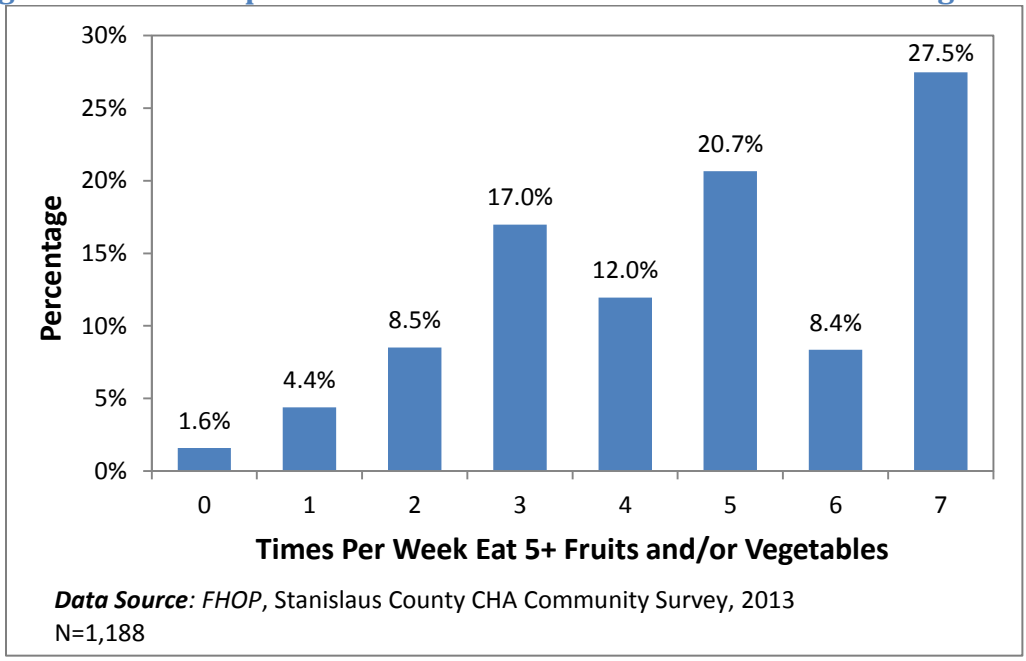


  - *Geographic Disparities:* The typical travel time for physical activity varied greatly by where people live.
    - Just as for the question about access to healthy food, a much higher percentage (11.0%) of those living in the East Central region (containing the Airport Neighborhood and La Loma) reported living more 11-15 minutes from a safe place to be physically active. Residents of the Central (region containing much of Modesto and surrounding areas) and the Southwest Central region (West and South Modesto) also had elevated percentages of those living 11-15 minutes from a safe place for physical activity, 9.7% and 8.5% respectively.

        - It is likely that actual infrastructural differences (e.g. the presence or absence of sidewalks, parks and bike paths) as well as prevalence of crime (especially gang activity) contributed to these findings.

- ***Behavioral Factors***
    - *Diet:* A healthy diet, including consumption of adequate fruits and vegetables, whole grains and moderate quantities of lean meats, supports the body's growth and a strong immune system (Harvard Health Publications, no date). In contrast, poor diet contributes to lowered immunity and vulnerability to certain infectious and chronic diseases (Policy Options, no date). Unhealthy diets are one of the many factors that contribute to obesity, which in turn increases the risk of chronic diseases (Mayo Clinic, no date).
        - Fast food consumption: A mainstay of the U.S. diet, fast food is typically high in empty calories (i.e. low in nutritional value), is highly processed and contains excess salt and sugar (Center on Hunger and Poverty, no date).
            - In 2011 and 2012, 65.8% of Stanislaus residents ate fast food at least once in the past week, while 30.4% ate fast food twice or more (CHIS).
            - *Age Disparities:* The percentage of individuals consuming fast food at least once in the past week was highest among children (0-11 years of age; 74.7%), followed by teens (12 to 17 years of age; 73.6%), then working-age adults (18-64; 70.9%) and lowest in seniors (65 or more years of age; 46.8%; 2009 & 2011-2012 pooled CHIS).
        - Fruit and vegetable consumption: The CDC (Centers for Disease Control and Prevention, 2012d) recommends consumption of 5 to 7 servings of fruits and vegetables per day to maintain health.
            - In the 2013 primary CHA survey, just over one quarter of respondents (27.5%) indicated that they eat the recommended five or more fruits and vegetables per day each day; see Figure 71).

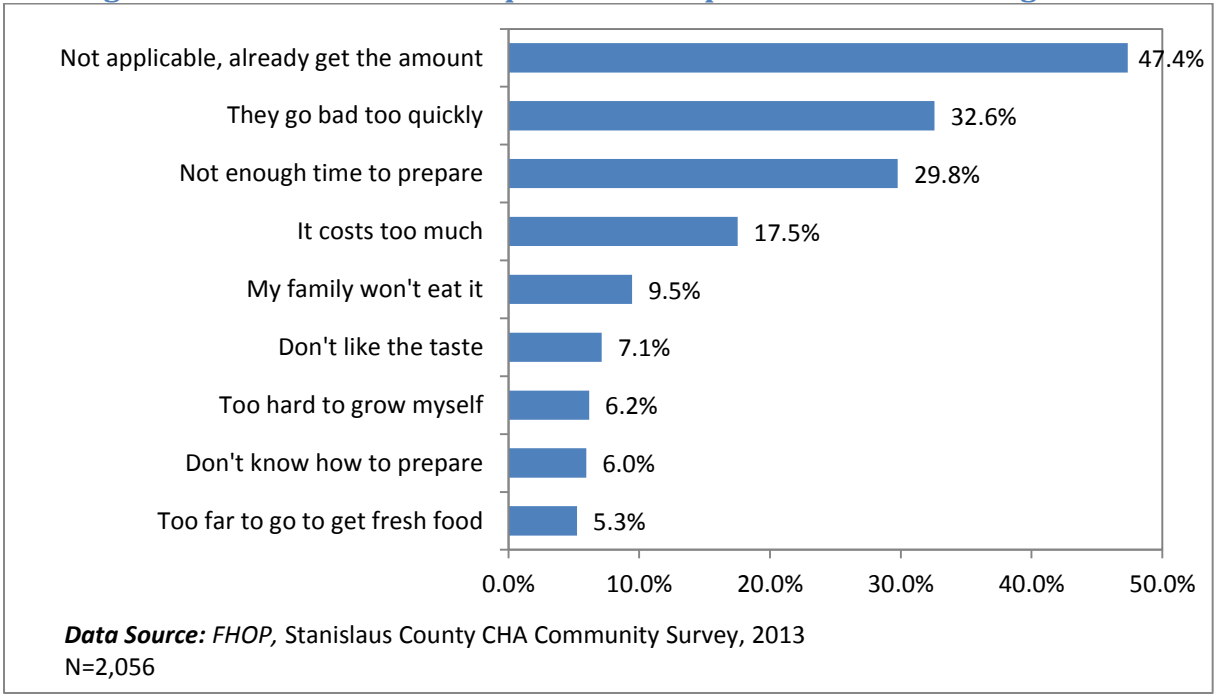
Figure 71: Consumption of Minimum Recommended Fruits and Vegetables



***Data Source**: FHOP*, Stanislaus County CHA Community Survey, 2013
N=1,188

- Contradictorily, however, when questioned about the reasons for not consuming sufficient fruits and vegetables, nearly one-half of respondents (47.4%) indicated that they "already get the required amount" even though they were not following CDC recommendations as to the minimum consumption level. This suggests additional information is needed on dietary recommendations.
- The most common reasons cited by 2013 primary CHA respondents for not getting adequate fruits and vegetables in their diet were produce spoiling and lack of time to prepare it (see Figure 72).

Figure 72: Reasons for Inadequate Consumption of Fruits and Vegetables



Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,056

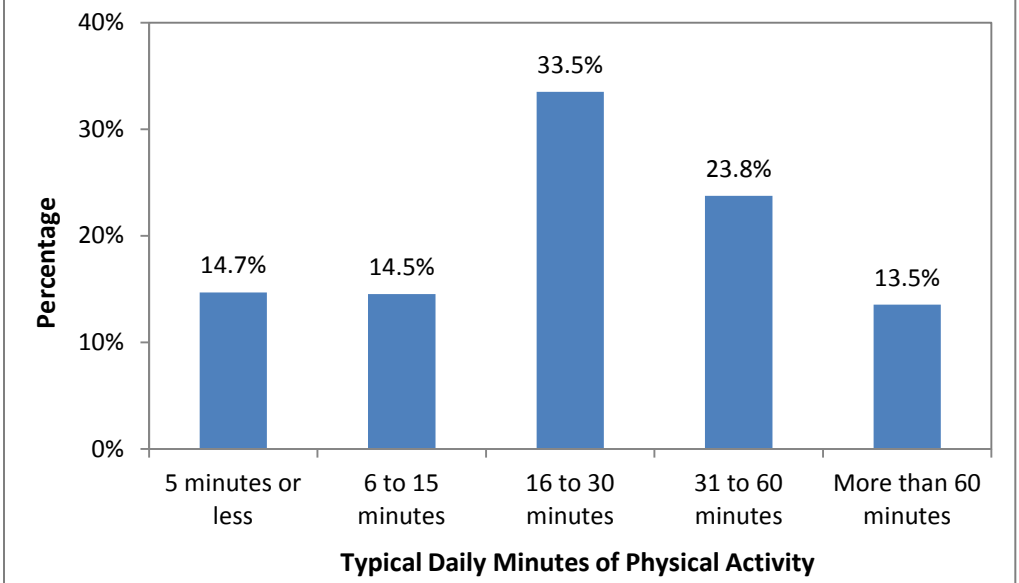
- *Age Disparities:* In 2010, 51.3% of Stanislaus County adults reported not eating the recommended 5 or more servings of fruits and vegetables daily (Brutschy & Stevens, 2010). Between 2009 and 2012, 50.9% of Stanislaus County children and 13.5% teens reported doing so (2009 & 2011-2012 pooled CHIS).
  - ✓ In the 2013 primary CHA survey, less than 1/3rd of respondents (27.5%) reported eating five or more fruits and vegetables every day of the week.
  - ✓ The 2013 primary CHA respondents (all adults) reported multiple reasons for not consuming sufficient fruits and vegetables, including time required to prepare (31.8%), cost (23.1%) and not liking the taste (15%).

- Sugar-Sweetened Beverage Consumption: The Centers for Disease Control and Prevention (2011g) reports that sugar-sweetened beverages (including many sodas, energy drinks, sports drinks and juices) are the primary source of added dietary sugar for U.S. children and adolescents. Given the large increase in obese and overweight children, over the past few decades, the CDC recommends decreasing access of youth to such beverages and promoting consumption of water, fat-free or low-fat milk or 100% fruit juice.

- In 2011-2012, 14.0% of Stanislaus County children and adolescents (aged 2-17) consumed <u>two or more</u> sodas or sugary drinks in the previous day (CHIS).

- *<u>Physical Activity</u>:* Physical activity is important for maintaining a healthy weight and good mental health. The Centers for Disease Control and Prevention (2011f) recommend that adults perform at least 150 minutes of moderate intensity aerobic activity every week, or 75 minutes of vigorous intensity aerobic activity, and muscle strengthening activities at least twice a week.
  - The 2013 primary CHA survey found that 29.2% of Stanislaus adults get less than 150 minutes of moderate-intensity exercise per week, not meeting CDC guidelines i.e. those reporting 0 to 5 minutes or 6 to 15 minutes daily). Some 70% of adults may get the recommended amounts if they exercise for the reported amount of time several times during the week (see Figure 73).

Figure 73: Daily Physical Activity among Stanislaus County Residents

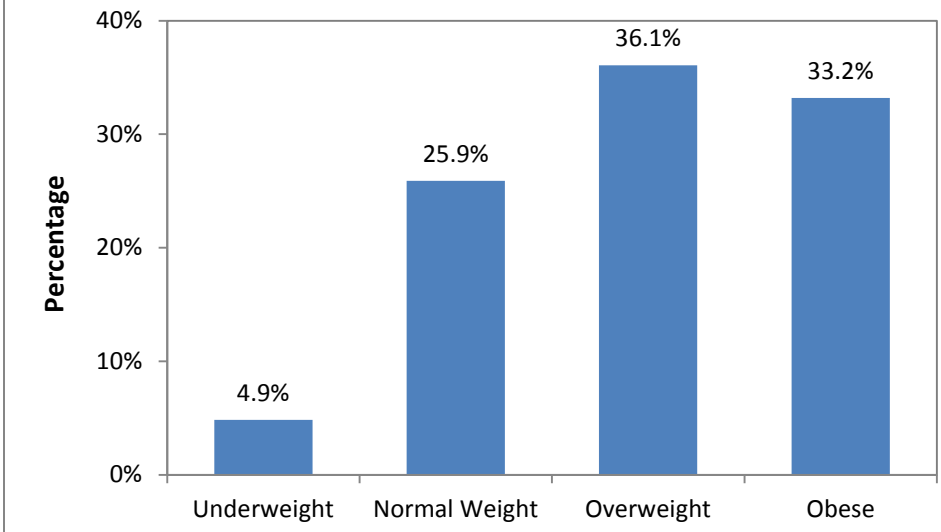


Data Source: *FHOP*, Stanislaus County CHA Community Survey, 2013
N=1,961

- In Stanislaus County, a smaller percentage of children are physically active for one hour at least 3 times per week than at the State (68.4% vs. 71.6% respectively; 2009 & 2011/2012 CHIS).
- The rates for physically active teens are similar across the two jurisdictions: 67.9% in Stanislaus County and 65.8% in California (2009 & 2011/2012 CHIS).

- *Obesity:* Poor diet and lack of physical activity often lead to being overweight or obese, which in turn are among the main risk factors of heart disease, stroke and Type II diabetes (Brin d'Amour, 2012). Obesity is also costly; in 2008, medical costs associated with obesity were estimated to be $147 billion nationwide (Centers for Disease Control and Prevention, 2011c). Different definitions of obesity for children (0-17 years of age) and adults (18 years and over) complicate comparisons across these groups, thus adults and children will be discussed separately in this section.
  - Adult Obesity: Of the adults in Stanislaus County, only about 1/4th is at normal weight, while just over 2/3^{rds} of the population is overweight or obese (2013 primary CHA survey; see Figure 74).

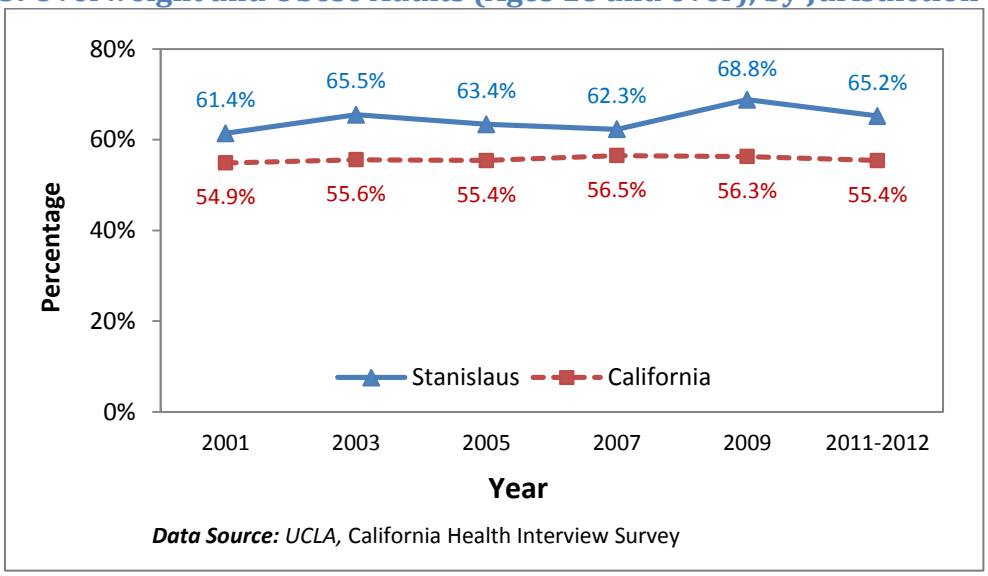
Figure 74: Weight Category of Adults in Stanislaus County, 2013



***Data Source**: FHOP,* Stanislaus County Community Health Assessment Survey, 2013
N=2,019

- Trends: The percentage of adults who are overweight or obese in Stanislaus has long been higher than in California (2001 to 2011/2012 CHIS; see Figure 75.

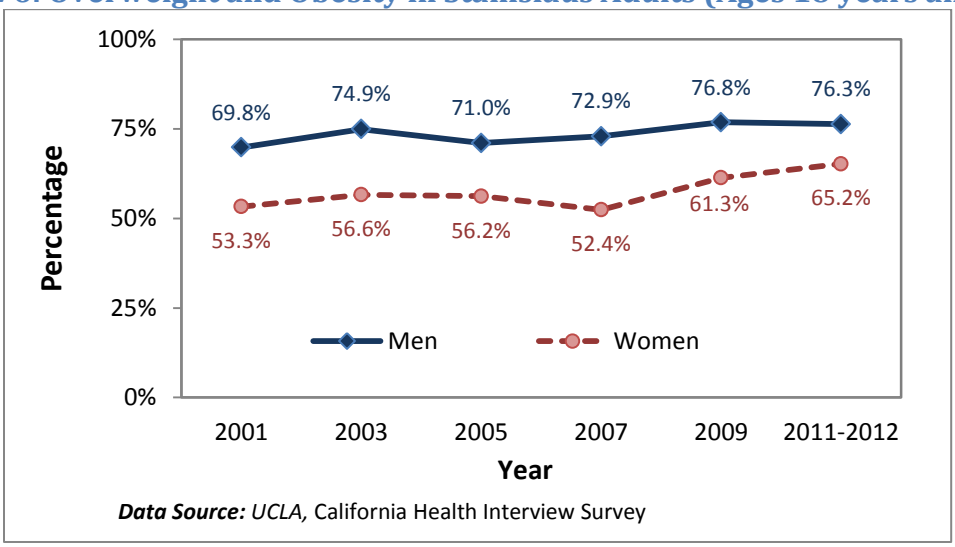
Figure 75: Overweight and Obese Adults (Ages 18 and over), by Jurisdiction and Year



Data Source: *UCLA,* California Health Interview Survey

- Gender Disparity: In Stanislaus County, a statistically significantly higher percentage of men were overweight or obese than women between 2001 and 2011/2012. This is likely due to the fact that the measure of overweight/obesity used (Body Mass Index), does not distinguish between muscle and fat, leading to some fit and muscled individuals being categorized as overweight or obese (Sifferlin, 2013). During this period, the prevalence of overweight/obesity increased in both genders (see Figure 76).

Figure 76: Overweight and Obesity in Stanislaus Adults (Ages 18 years and over)



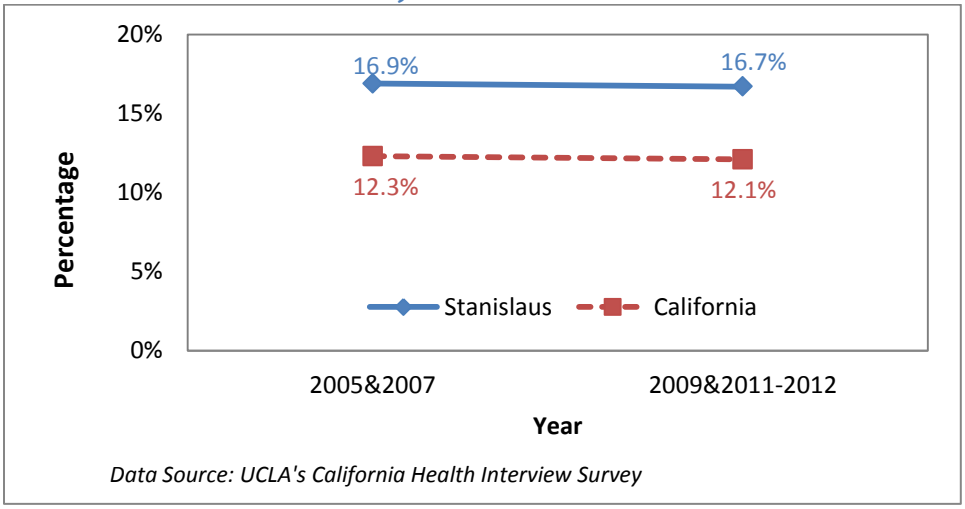
Data Source: *UCLA,* California Health Interview Survey

- Race/Ethnicity: Nationally, obesity prevalence among adults differs by race and ethnicity (Center for Disease Control and Prevention, 2014b).
  - ✓ In Stanislaus, the percentage of overweight or obese Latino adults (72.2%) is not statistically different from that of Non-Latino adults (67.9%; pooled 2009 & 2011/2012 CHIS).
  - ✓ Between 2005 & 2011/2012, the percentage of overweight and obese Stanislaus adults was highest in African Americans and Whites. However, Asian adults experienced the largest increase in overweight/obesity prevalence (47.4%) during this time.
- Gender and Income/Poverty: Nationally, the relationship between obesity and income depends on gender (Ogden, Lamb, Carroll & Flegal, 2010a).
  - ✓ The US obesity prevalence among men does not vary by income; among women, those with higher income and education are less likely to be obese (2005-2008 NHANES as reported in Ogden, Lamb, Carroll & Flegal, 2010a).
  - ✓ In Stanislaus County, the prevalence of overweight/obese is not statistically different from those living above FPL and those that live under FPL (2011/2012 CHIS). The disparity in overweight and obesity prevalence between rich and poor has decreased, yet the prevalence of overweight and obesity has increased for each income group.

- *Childhood Obesity:* Children who are obese are more likely to have high blood pressure, high cholesterol, joint problems, fatty liver disease, and are more likely to become obese adults (Centers for Disease Control and Prevention, 2011c). Nationally, childhood obesity has tripled in the past 30 years (Centers for Disease Control and Prevention, 2011d, 2011j).
  - A higher percentage of children in Stanislaus County are overweight for their age compared to California children.
    - ✓ Data from CHIS (2005-2007 and 2009 & 2011/2012), show that a higher percentage of Stanislaus Children aged 2-11 are overweight for age than California children.
    - ✓ Likewise, Physical Fitness Tests using the FitnessGram (California Department of Education, 2012a) in the 2010-2011 school year indicated that across three grades (Grades 5, 7 and 9), a higher percentage of school children in Stanislaus than in California had body compositions that were not in the Healthy Fitness zone (HFZ).

- ✓ The HFZs are criterion-referenced standards that represent minimum levels of fitness that offer protection against diseases that result from sedentary life styles.
- ✓ Between 2005 and 2012, there was no statistically significant change in the prevalence of overweight for age among children in either Stanislaus County or California (see Figure 77).

Figure 77: Trends in Prevalence of Overweight for Age in Children (Ages 2 to 11), by Jurisdiction



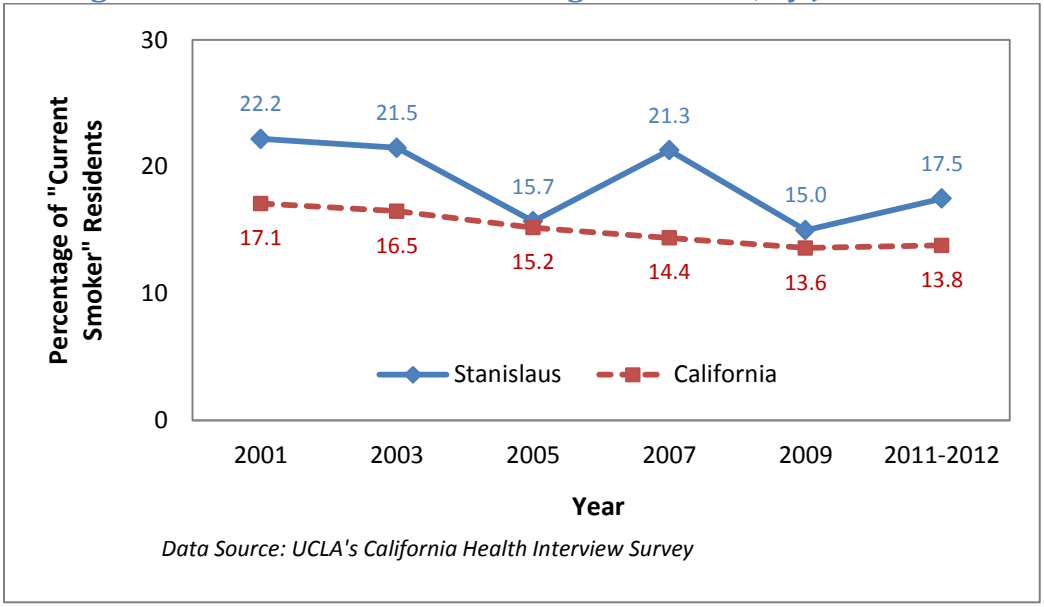
- ➢ Racial/Ethnic Disparities:
  - ✓ Local physical fitness testing in the 2010-2011 school years showed that race and ethnicity play a role in obesity in childhood (California Department of Education, 2012a).
  - ✓ Across all three grades, Latinos had the largest percentage of students with body mass composition not in the HFZ; Blacks had the second largest percentage; and Asians had the lowest percentage (California Department of Education, 2012a).
- ➢ Income: A higher percentage of students (across all three grades) who are socioeconomically disadvantaged have body mass compositions that are not in the HFZ than students who are not socioeconomically disadvantaged (California Department of Education, 2012a).
  - ✓ The California Department of Education (2011) defines as "socioeconomically disadvantaged" students for whom neither parent has received a high school diploma or students who are eligible for the free or

reduced-price lunch program, also known as the National School Lunch Program.

- ✓ Low income families are more likely to live in neighborhoods that present barriers to physical activity, such as lack of sidewalks, not having parks and recreation centers that are within easy walking distance, or having gang activity that makes it difficult to exercise outdoors (Cubbin, Pedregon & Braveman, 2008).

- *Tobacco Use:* Smoking is a known risk factor for many diseases, including cancers (especially lung cancer), heart disease, emphysema and other forms of Chronic Obstructive Pulmonary Disease (Centers for Disease Control and Prevention, 2010c, 2011i). Recent research found that smoking causes approximately one-third of all cancers (Colditz, Wollin & Gehlert, 2012).
  - Trends
    - Historically, the prevalence of smoking in Stanislaus residents has been higher than that of California residents (2001 to 2011/2012 CHIS; see Figure 79).
    - The prevalence rate in Stanislaus County has shown an unsteady but decreasing trend during this time (see Figure 79).
    - The percentage of Stanislaus residents who smoke decreased 21.2% in the County over the past decade (between 2001 and 2012) a slightly larger decrease than experienced by California as a whole (19.3% decrease).
    - Decreases in smoking prevalence are likely the result of major anti-tobacco efforts, including social norm changes. Stanislaus restaurants and government buildings went smoke-free in 1994 and 2003 respectively. Anti-tobacco campaigns have since reduced public acceptance of smoking (Tobacco Free CA, no date) and increased assistance to those wishing to stop smoking such as cessation classes and California NoButts hotline (Centers for Disease Control and Prevention, 2013d).

Figure 78: Trends in Adult Smoking Prevalence, by Jurisdiction



Data Source: UCLA's California Health Interview Survey

- *Gender Disparity:* The percentage of Stanislaus adult men who were current smokers is higher than that of women for the time periods 2005-2007 and 2009 & 2011/2012 (CHIS; see Table 47).
- *Income Disparity:* National research has shown that smoking prevalence is higher in individuals whose household incomes are at or below the federal poverty level (FPL) (Centers for Disease Control and Prevention, 2011f). Stanislaus shows a similar pattern (see Table 47).
  - Smoking prevalence in Stanislaus residents who live below the FPL was significantly higher than those who are not living in poverty in 2005-2007 and 2009 & 2011-2012 (CHIS).
- *Racial/Ethnic Disparity:* In the County, smoking prevalence in Latinos increased between 2005-2007 to 2009 & 2011-2012, while the smoking prevalence decreased in non-Latinos (CHIS, see Table 47). These changes seem to have eliminated the ethnic disparity in smoking locally.
  - CHIS data are too unstable to make any conclusions regarding the existence of racial differences in smoking prevalence within Stanislaus County. National data, however, indicate that the group with the highest smoking prevalence is American Indian/Alaska Natives, with a higher percentage of African American/Black and Caucasian/White smokers than Asian smokers (Centers for Disease Control and Prevention, 2010d).

Table 47: Trends in Adult Smoking Prevalence

Demographic Factor	Smoking Prevalence among Adults (≥18 years)	
	2005-2007	2009 & 2011-2012
Gender		
Male	22.8%	21.5%
Female	14.5%	11.4%
Poverty Status		
<100 % FPL	29.5%	23.5%
≥100% FPL	16.3%	14.6%
Ethnicity		
Latino	14.4%	16.5%
Non-Latino	20.6%	16.3%

***Data Source**: UCLA's California Health Interview Survey*

- *Age Disparity:* In Stanislaus County, 10% of 5th grade students have ever smoked a cigarette (CHKS, 2009-2011). The percentage of students who have smoked at least one whole cigarette rises with age: 7% in 7th grade, 21% in 9th grade, and 25% in 11th grade.
  - Smokeless tobacco use or experimentation is less common, but also rises with age; 4% in 7th grade, 9% in 9th grade and 11% in 11th grade have ever tried smokeless tobacco.
  - The percentage of students who have experimented with smoking or smokeless tobacco decreased slightly across all grades from the 2007-2009 survey to the 2009-2011 survey.
  - These findings indicate that tobacco use starts relatively young and that educational messages and other prevention activities need to begin even younger than they currently do to be effective.

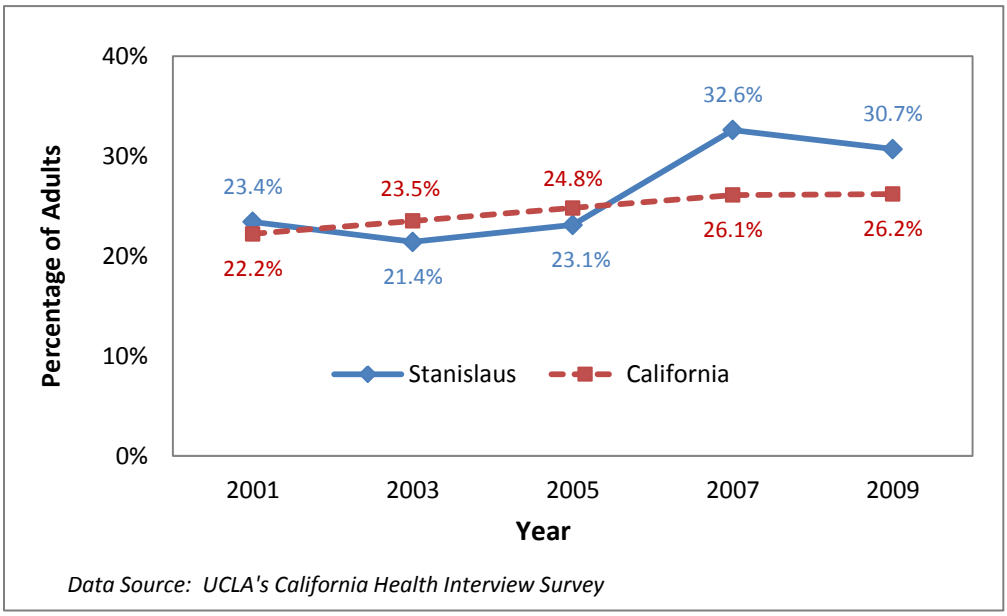
Overview of Chronic Disease Burden

This report reviews local data on the burden of five major chronic conditions and diseases—hypertension, heart disease, stroke, diabetes and asthma.

- ***Hypertension***
  - *Overview:* In the United States, one in three adults has been diagnosed with hypertension, known more commonly as *high blood pressure* (Centers for Disease Control and Prevention, no date-c). Hypertension is a major risk factor for heart disease (Centers for Disease Control and Prevention, no date-c.). Experts estimate that, in 2010, hypertension cost the U.S. $76.6 billion in treatment costs and lost productivity (Centers for Disease Control and Prevention, no date-c).
  - *Trends in Prevalence*
    - Between 2001 and 2009, the percentage of Stanislaus adults ever diagnosed with high blood pressure increased 31.2%. By 2007, it had

surpassed the percentage of California adults ever diagnosed with high blood pressure and was also higher in 2009 (CHIS; see Figure 79).

Figure 79: Percentage of Adults Ever Diagnosed with Hypertension, by Jurisdiction and Year



Data Source: UCLA's California Health Interview Survey

- 25.4% of the respondents to the 2013 CHA community survey reported having been diagnosed with high blood pressure by a health care provider, a lower percentage that that found in CHIS.

- *ED Visit Findings*
  - Each year, on average, over 1,200 Stanislaus County residents face a visit to an emergency department due to hypertension (defined as International Classification of Disease [ICD] version 9 codes I10.0-I10.9 corresponding to *Essential Hypertension and Renal Disease*), for an age-adjusted ED visit rate of 257.5 per 100,000 people (2008-2010 EDAS).
- *Trends in Hospitalization*
  - Approximately 269 Stanislaus County residents are hospitalized with a primary cause of hypertension (defined with the same ICD-9 codes as above) each year (2008-2010 PDDF).
  - Hypertension (defined with the same ICD-9 codes as above) was the 13th most common primary cause of hospitalization in Stanislaus County from 2008-2010.
  - During this period, the average charge for a single hospitalization of a Stanislaus County resident with a primary diagnosis of hypertension was $87,180, for a total cost of $70,267,388 per year.

- *Mortality:*
  - Hypertension (defined as International Classification of Disease version 10 codes I10.0-10.9, I12.0-12.9, or I15.0-15.9 corresponding to *Essential Hypertension and Hypertensive Renal Disease*) is the 10th ranked cause of death in Stanislaus County (2010-2012 DSMF), causing an average of 63 deaths per year. The average annual age-adjusted mortality rate is 12.9 deaths per 100,000 residents.
  - Hypertension leads to a total of 239 years of potential life lost (YPLL) each year. On average, a Stanislaus County resident who dies from hypertension loses 4.1 years of potential life.
- *Disparities:*
  - *Gender:* There are no local significant differences in hypertension prevalence (2001 - 2011 & 2012 CHIS), rates of hospitalization (2000-2010 PDDF) or death due to hypertension (2008-2010 DSMF). However, females are significantly more likely to be hospitalized for hypertension than males, even after age-adjustment.
  - *Ethnicity:* There are no local significant differences in hypertension prevalence by ethnicity. However, Non-Latinos are at higher risk for ED visit (2008-2010), hospitalization (2008-2010) and death (2008-2010) from hypertension. Whether these differences are due to differences in health care access, health seeking behavior or actual disease incidence, prevalence, or severity is unclear.
  - *Race:* African Americans and Whites have the highest prevalence of hypertension locally, with Asians having the lowest prevalence, mirroring national trends (2009 and 2011-2012 pooled CHIS). African Americans have a significantly higher age-adjusted mortality rate due to hypertension than do either Caucasians or Asians.
  - *Income/Poverty Level:* CHIS data show no local significant difference in hypertension prevalence by income (2011-2012).
  - *Geography:* Table 48 below shows the County Regions with the highest age-adjusted ED rates, hospitalization rates and mortality rates for hypertension. See Figure 80 for the regional map of the age-adjusted ED visit rates, Figure 81 for the regional map of the age-adjusted hospitalization rates and Figure 82 for the regional map of the age-adjusted mortality rates of hypertension in Stanislaus residents.

Table 48: Geographic Disparities in Hypertension Morbidity and Mortality

Medical Care and Mortality Outcomes for Hypertension	County Region
Highest Age-Adjusted ED Rate	East Central
Highest Age-Adjusted Hospitalization Rate	East Central
Highest Age-Adjusted Mortality Rate	Southwest Central

Figure 80: Age-Adjusted ED Visit Rates for Hypertension, Stanislaus County, 2006-2010

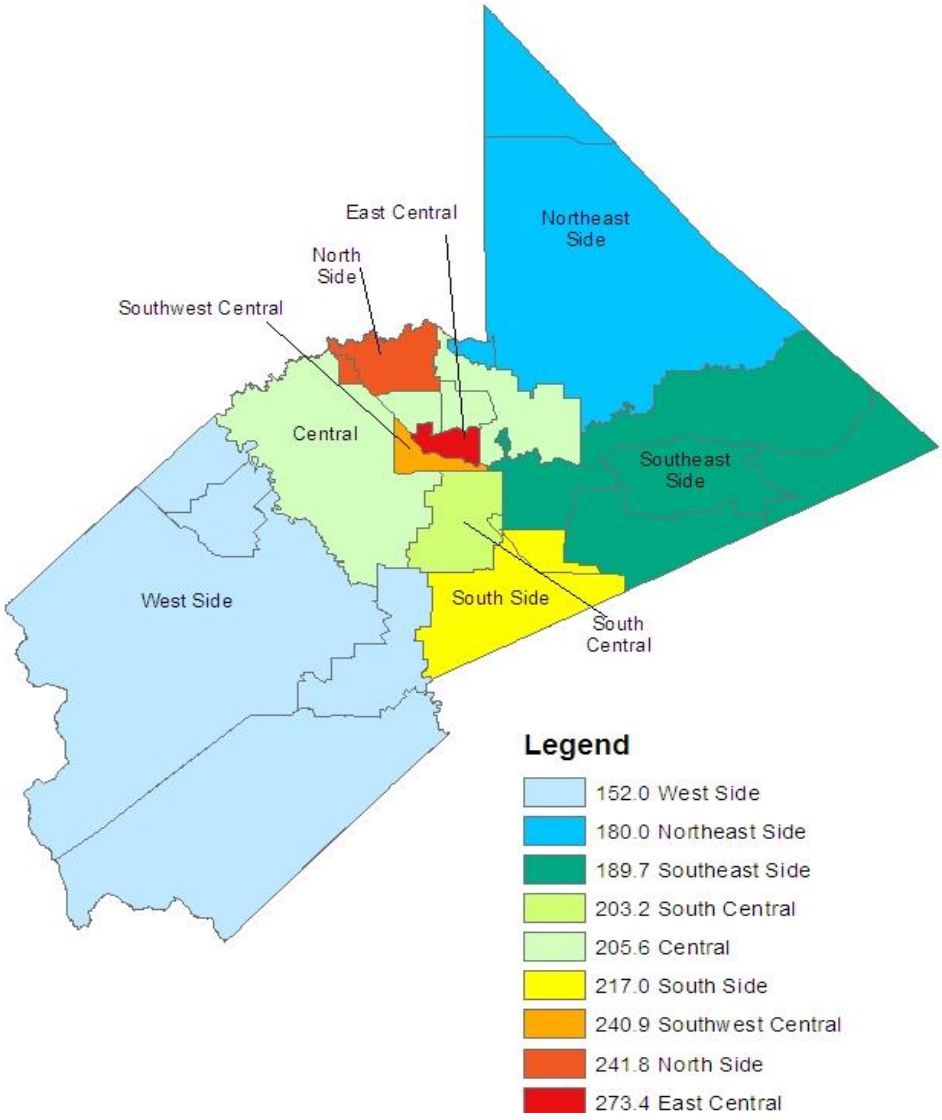


Figure 81: Age-Adjusted Hospitalization Rates for Hypertension, Stanislaus County, 2006-2010

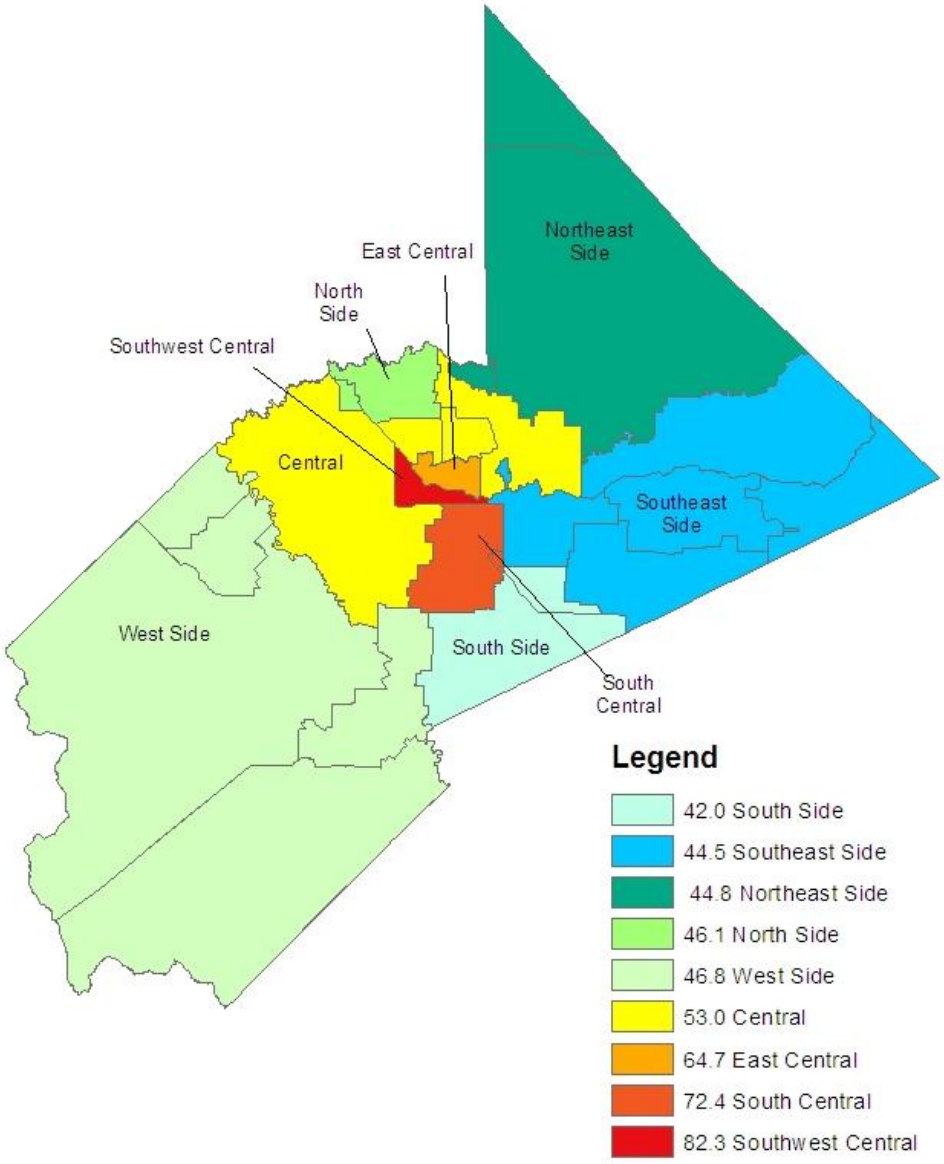
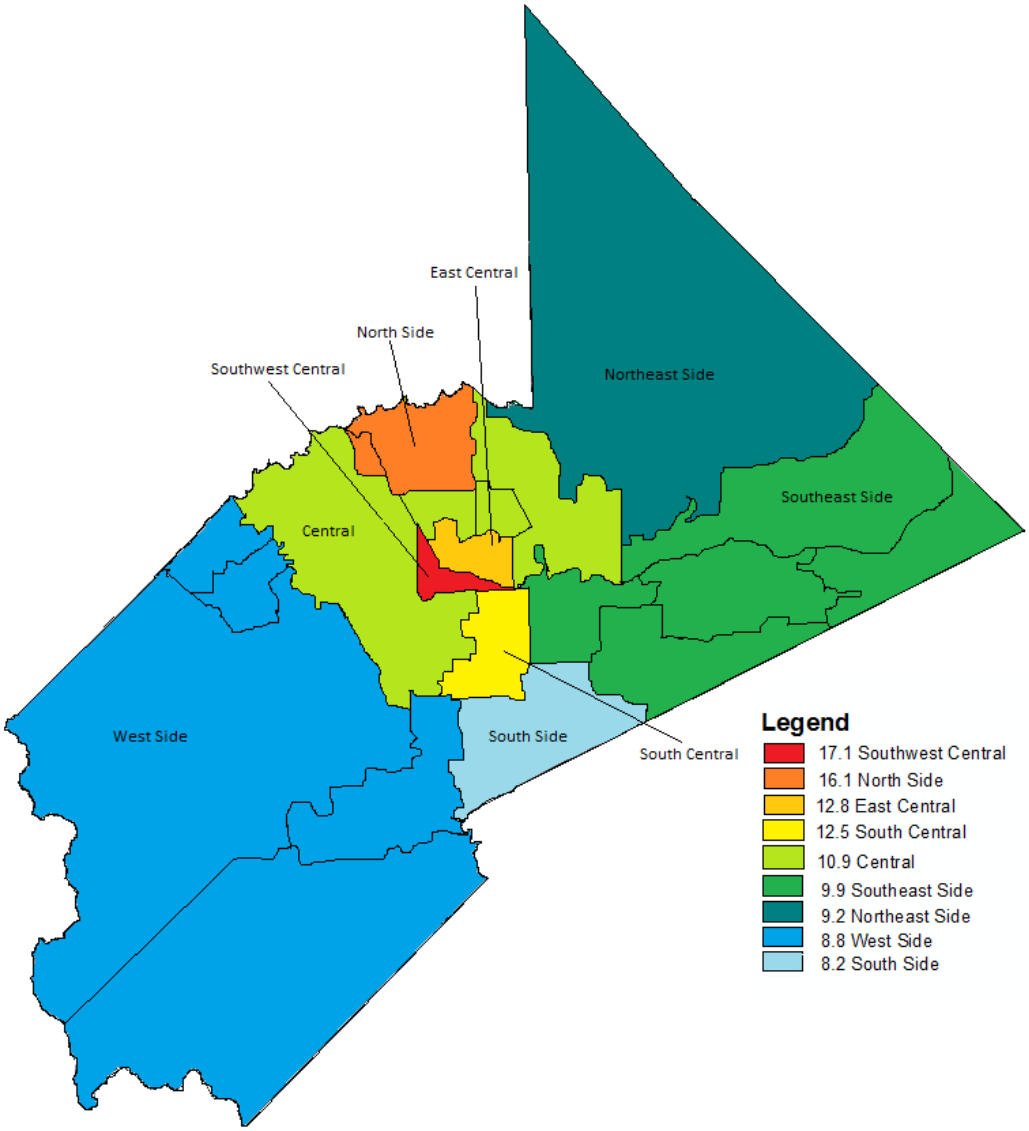
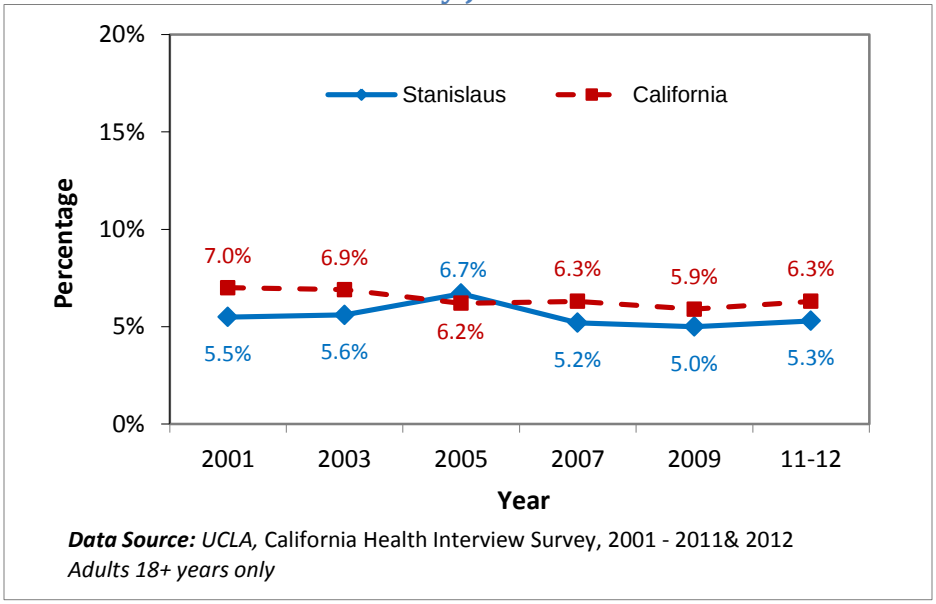


Figure 82: Age-Adjusted Mortality Rate for Essential Hypertension and Hypertensive Disease, Stanislaus County, 2008-2012



- ***Heart Disease***
  - *Overview:* Nationally, 12% of adults have been diagnosed with heart disease (Hoyert & Xu, 2012). Heart disease is the leading cause of death in the U.S. (Hoyert & Xu, 2012).
  - *Trends in Prevalence*
    - In 2013, 6.1% of the respondents of the CHA primary survey reported having been diagnosed with heart disease by a health care professional.
    - Between 2001 and 2011/2012, the percentage of Stanislaus residents diagnosed with heart disease was fairly steady, with CHIS estimates varying between 5.0% and 6.7%.
    - The prevalence of heart disease among adults in California has generally been slightly higher than in Stanislaus (see Figure 83).

Figure 83: Trends in the Percentage of Adult Residents Ever Diagnosed with Heart Disease by Jurisdiction

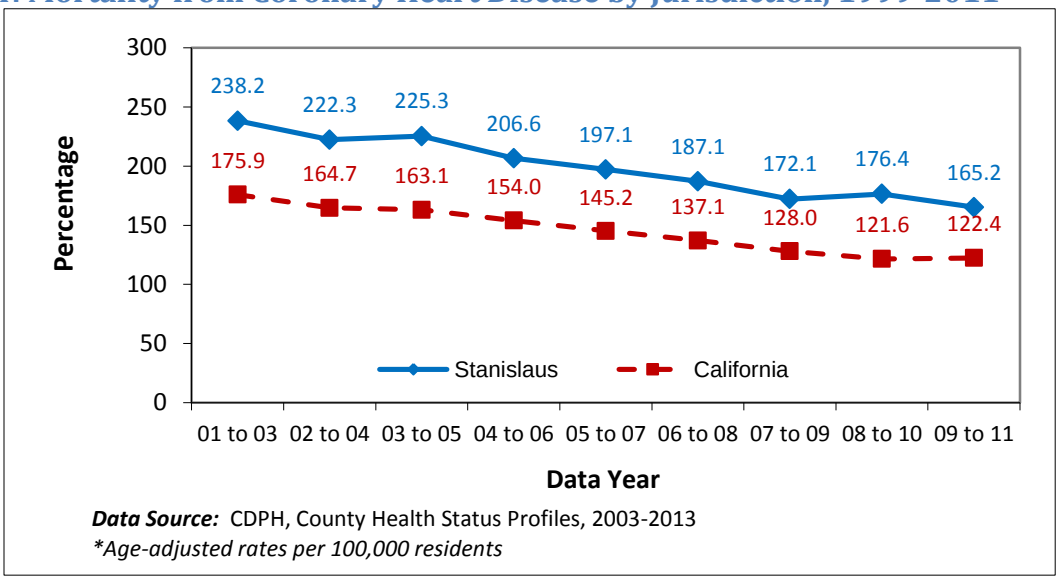


Data Source: *UCLA,* California Health Interview Survey, 2001 - 2011& 2012
Adults 18+ years only

  - *ED Visit Findings:* On average, over 1,250 ED visits by Stanislaus residents for heart disease (defined as International Classification of Disease version 9 codes 410.0-414.9 corresponding to Ischemic Heart Disease) occur each year for an age-adjusted ED visit rate of 87.3 per 100,000 (2008-2010 EDAS).
  - *Trends in Hospitalizations*
    - On average, 2,278 hospitalizations of Stanislaus County residents for heart disease occur each year, making heart disease the 3rd most common primary cause of hospitalization in Stanislaus County (2008-2010 PDDF).
    - Between 2008 and 2010, each hospitalization, for a Stanislaus County resident with a primary diagnosis of heart disease, cost an average of $143,514, for an annual cost to county residents of nearly 1 billion dollars ($980,629,089).

- *Mortality*
  - Heart disease (defined as International Classification of Disease version 10 codes I0.0, I 9.9, I11.0, I 11.9, I20.0 or I51.9, corresponding to Diseases of the Heart) is the number one cause of death in Stanislaus, with an average of 1,110 deaths due to heart disease annually (2010-2012 DSMF). The average age-adjusted mortality rate is 226.3 deaths per 100,000 residents.
  - Between 2010 and 2012, 26.7% of Stanislaus residents' deaths had heart disease as their underlying cause.
  - Heart disease is also a leading cause of years of potential life lost (YPLLs) in the County, causing a total of over 5,700 years of potential life lost by Stanislaus County residents each year.
  - However, heart disease mortality is decreasing. Between 2001-2003 and 2009-2011, the age-adjusted heart disease mortality rate dropped locally by 30.6% (see Figure 84).

Figure 84: Mortality from Coronary Heart Disease by Jurisdiction, 1999-2011



Data Source: CDPH, County Health Status Profiles, 2003-2013
**Age-adjusted rates per 100,000 residents*

- *Disparities:*
  - *Age:* The risk of heart disease and need for health care services to treat and manage it increases with age (Go et al, 2013).
  - *Gender*
    - As reviewed in the previous sub-section, there are no local statistically significant differences in hypertension prevalence by gender (2009 & 2011/2012 CHIS).
    - However, men are at higher risk of hospitalization and mortality due to heart disease than women, and also experience significantly more YPLLs than women due to the condition.

- *Ethnicity*
  - Countywide data from CHIS was too unstable to provide reliable ethnic prevalence rates of diagnosed heart disease. However, the 2010 National Health Interview Survey (Centers of Disease Control and Prevention, 2012c) found that nationally Non-Latinos have a slightly higher prevalence than Latinos (11.9% vs. 8.3%).
  - In Stanislaus, Non-Latinos are at greater risk of ED visits, hospitalizations and death due to heart disease.
  - However, Latinos suffer significantly more YPLLs from heart disease.
- *Race*
  - Countywide data from CHIS was too unstable to provide reliable race-specific prevalence rates of diagnosed heart disease.
  - However, data from the 2010 National Health Interview Survey (Centers for Disease Control and Prevention, 2012d) indicates that nationally a higher percentage of Blacks have ever been diagnosed with heart disease than Whites and Asians, while a higher percentage of Whites reported having been diagnosed compared to Asians.
  - Nationally, Asians have a statistically significantly lower risk of death due to heart disease than do African Americans/Blacks or Caucasians/Whites; the latter two groups do not differ significantly (Centers for Disease Control and Prevention, 2012d).
- *Income/Poverty*
  - Countywide CHIS estimates of the prevalence of heart disease stratified by poverty status were too unstable to provide reliable information. However, nationally, education and poverty level are inversely associated with heart disease prevalence (Centers for Disease Control and Prevention, 2012d). As education level increases, the percentage of adults with heart disease decreases.
  - A higher percentage of adults living below the federal poverty level (FPL) reported having heart disease in the 2010 National Health Interview Study than did adults who were not poor (Centers for Disease Control and Prevention, 2012d).
- *Geography:* Table 49 shows the County Regions with the highest age-adjusted ED visit rates, hospitalization rates and mortality rates for heart disease. See Figure 85 for the regional map of the age-adjusted ED visit rates, Figure 86 for the regional map of the age-adjusted hospitalization rates and Figure 87 for the regional map of the age-adjusted mortality rates of heart disease in Stanislaus residents.

Table 49: Geographic Disparities in Heart Disease Morbidity and Mortality

Medical Care and Mortality Outcomes for Heart Disease	County Region
Highest Age-Adjusted ED Rate	Northeast Side
Highest Age-Adjusted Hospitalization Rate	Southeast Side
Highest Age-Adjusted Mortality Rate	East Central

Figure 85: Age-Adjusted ED Visit Rates for Ischemic Heart Disease, Stanislaus County, 2006-2010

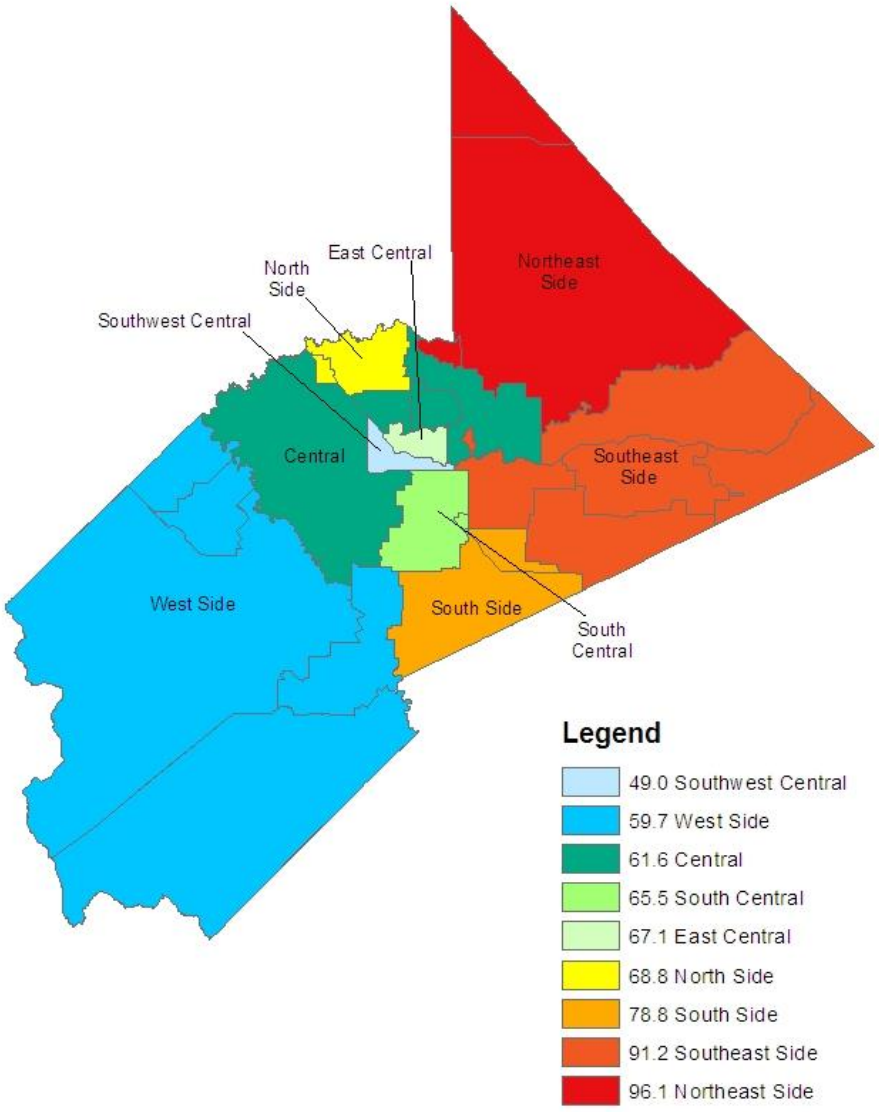


Figure 86: Age-Adjusted Hospitalization Rate for Ischemic Heart Disease, 2006-2010

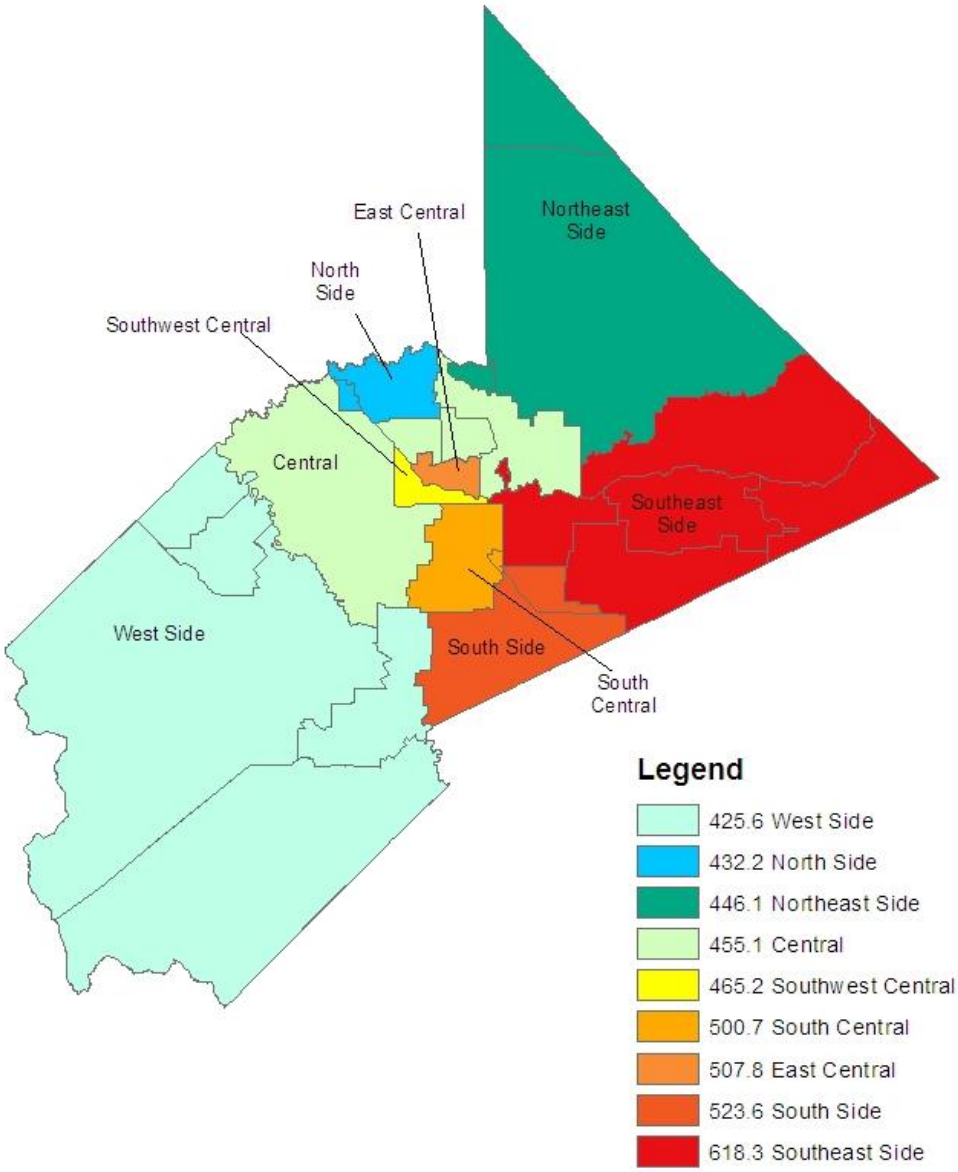
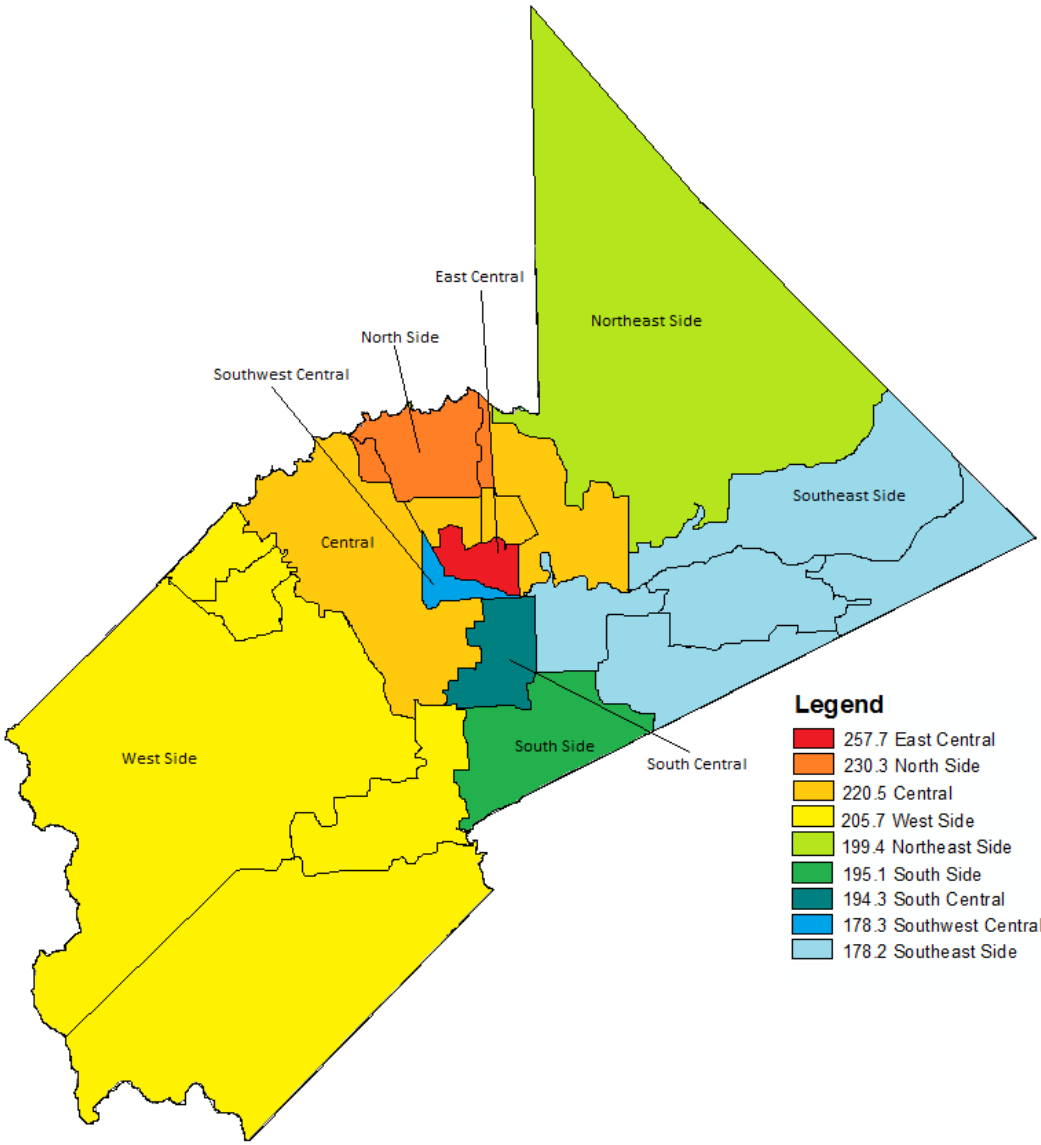
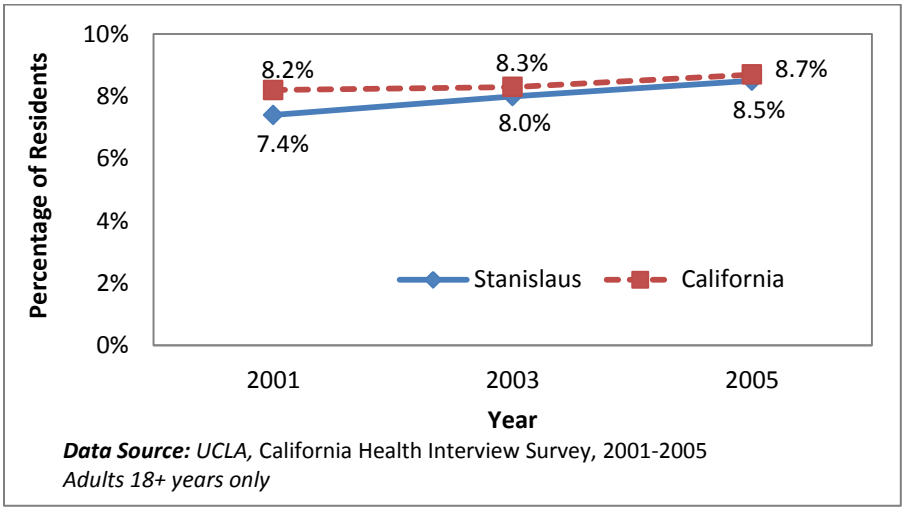


Figure 87: Age-Adjusted Mortality Rate from Diseases of the Heart, 2006-2010



- ***Cancer***
  - *Overview*
    - Cancer is characterized by the uncontrolled growth of abnormal cells (California Department of Public Health, 2013a)
    - Many types of cancer are curable if detected early and treated properly.
    - The risk of developing cancer can be reduced by lifestyle changes, such as tobacco cessation, sun avoidance, being physically active and adopting healthier eating habits.
  - *Trends in Prevalence*
    - In 2013, 5.3% of respondents of the CHA primary survey reported having been diagnosed with cancer by a health care professional.
    - The California Health Interview Survey has not consistently tracked the prevalence of cancer (overall) or of individual types of cancer. However, examining older data shows a similar prevalence among adults in California and Stanislaus County (see Figure 88).

Figure 88: Percentage of Adult Residents Ever Diagnosed with any Kind of Cancer, by Jurisdiction



Data Source: *UCLA,* California Health Interview Survey, 2001-2005
Adults 18+ years only

  - *ED Visit Findings*
    - Each year, approximately 120 visits, on average, are made by Stanislaus County residents to an emergency department due to some type of cancer (defined as International Classification of Disease version 9 codes 140.0-209.9 or 230.0-234.9).
    - The local age-adjusted ED visit rate for cancer is 25.2 per 100,000 (2006-2010 EDAS).
  - *Trends in Hospitalization*
    - Typically, more than 1,560 Stanislaus residents are hospitalized due to cancer annually, making cancer (all types) the 6th most common primary cause of hospitalization (defined with the same ICD-9 codes as above) in Stanislaus County from 2008-2010.

- The age-adjusted hospitalization rate for cancer is 323.0 per 100,000 (2006-2010).
- Between 2006 and 2010, each hospitalization of a Stanislaus County resident with a primary diagnosis of cancer (any type) cost $79,469, for an annual cost of $307,227,248.

- *Mortality*
  - Cancer (defined as International Classification of Disease version 10 codes ICD 10 codes I60.0 – I69.8) is the 2nd most frequent cause of death in Stanislaus County, causing on average over 850 deaths per year (20.8% of all deaths). The average age-adjusted mortality rate from cancer is 178.9 deaths per 100,000 residents.
  - Cancer causes an average of 7,433 years of potential life lost (YPPL) per year in the County, 8.6 years per death. This indicates that cancer is a major source of mortality for younger people.
  - Stanislaus County saw a 14.9% decline in the age-adjusted mortality rate from cancer between 2001-2003 (188.8 per 100,000) and 2008-2010 (161.7 per 100,000; California Health Status Profiles, 2005, 2013).
- *Disparities*
  - *Age:* Like most chronic diseases, mortality from cancer increases dramatically with age, with the highest rates in the 65+ age group (2010-2012 DSMF).
  - *Gender:* Females have a higher hospitalization rate for cancer than males. Males, however, have a much higher mortality rate from cancer than females.
  - *Ethnicity:* In Stanislaus County, Non-Latinos have significantly higher age-adjusted rates of ED visitation, hospitalization and mortality due to cancer than do Latinos. However, Latinos have a higher average YPLL from cancer than do Non-Latinos, indicating that they are typically dying at a younger age.
  - *Race:* Whites have statistically significantly higher ED visit rates for cancer than Asians. Whites have higher hospitalization rates than Blacks, who in turn have higher hospitalization rates than Asians. Asians have significantly lower mortality rates from cancer, while African Americans and Caucasians/Whites do not differ. However, Whites lose statistically fewer YPLLs due to cancer than Asians or Blacks.
  - *Geography:* Table 50 shows geographic disparities in cancer burden. See Figure 89 for the regional map of the age-adjusted ED visit rates, Figure 90 for the regional map of the age-adjusted hospitalization rates and Figure 91 for the regional map of the age-adjusted mortality rates of cancer in Stanislaus residents.

Table 50: Geographic Disparities in Cancer Morbidity and Mortality

Medical Care and Mortality Outcomes for Cancer	County Region
Highest Age-Adjusted ED Rate	East Central
Highest Age-Adjusted Hospitalization Rate	Southeast
Highest Age-Adjusted Mortality Rate	West Side

Figure 89: Age-Adjusted ED Visits for Cancer, Stanislaus County, 2006-2010

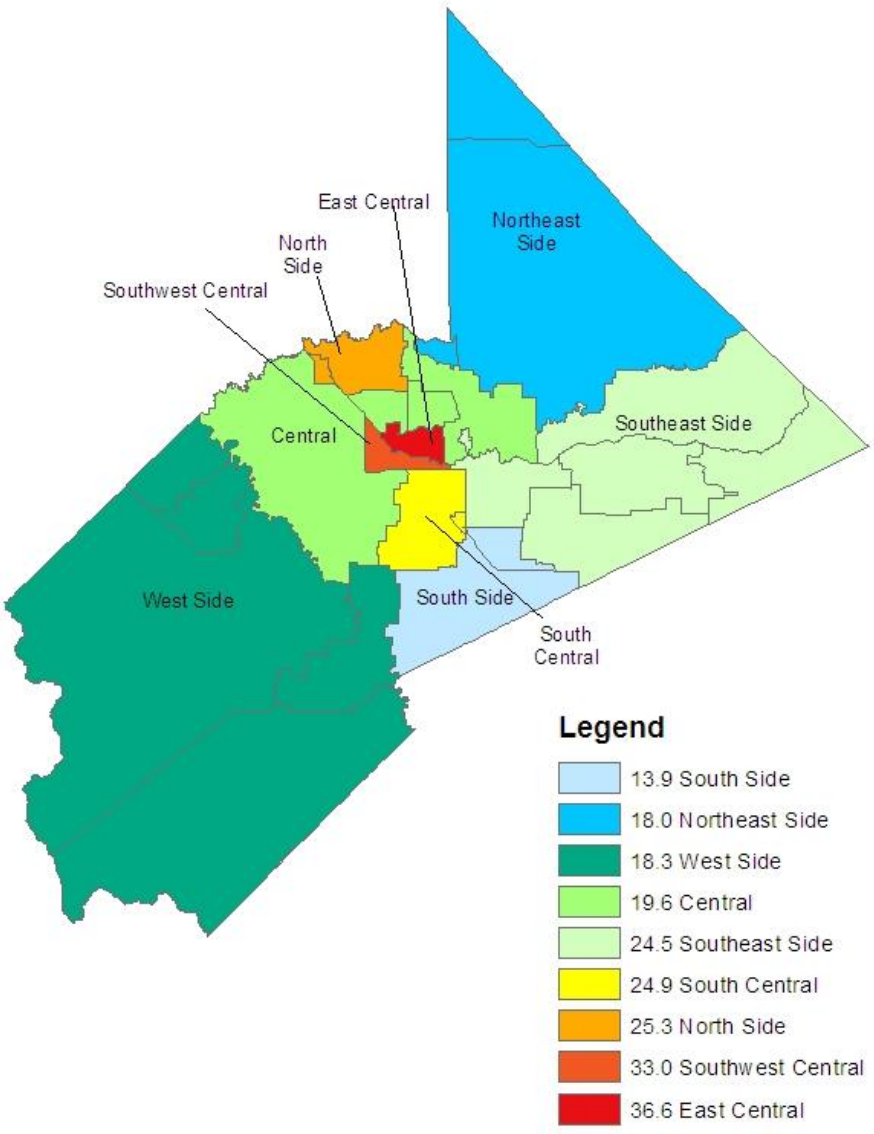


Figure 90: Age-Adjusted Hospitalization Rates for Cancer, Stanislaus County, 2006-2010

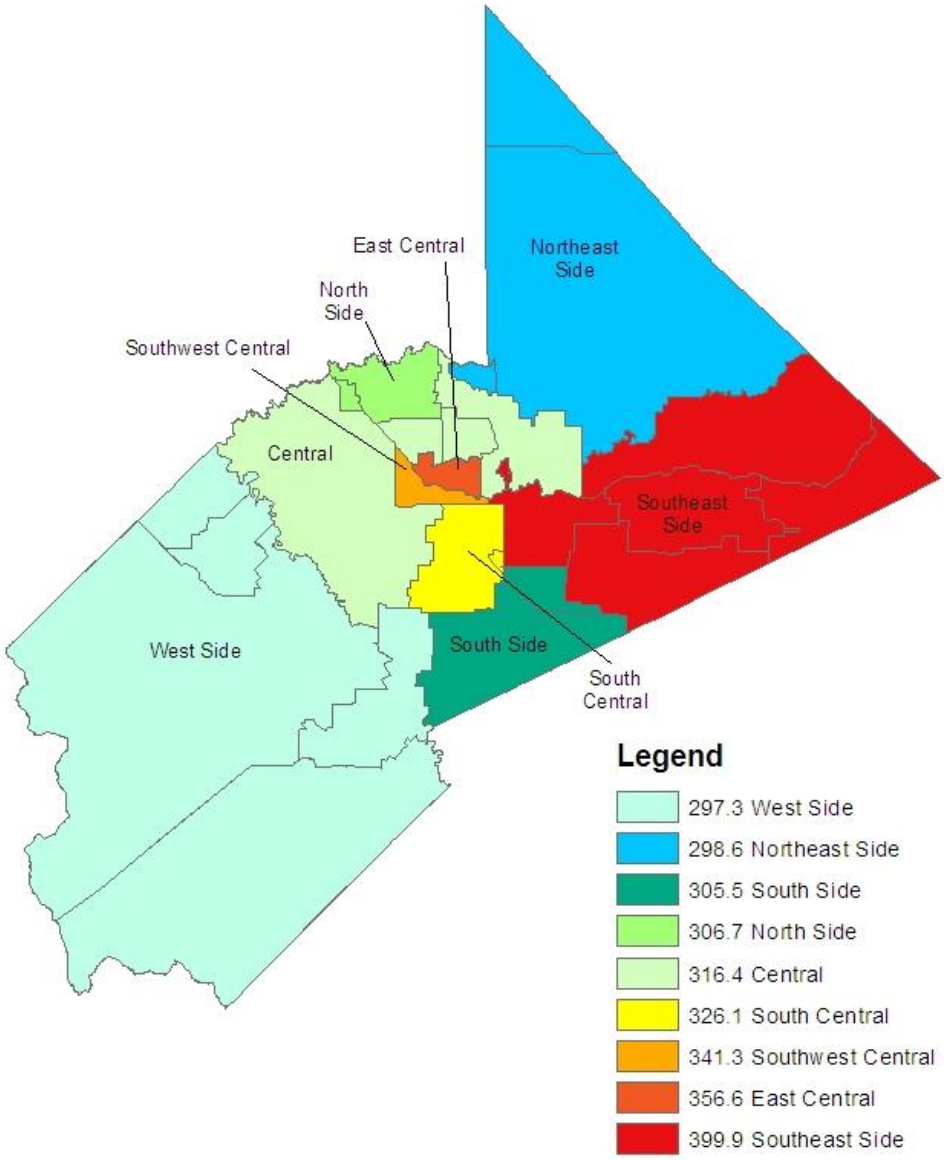
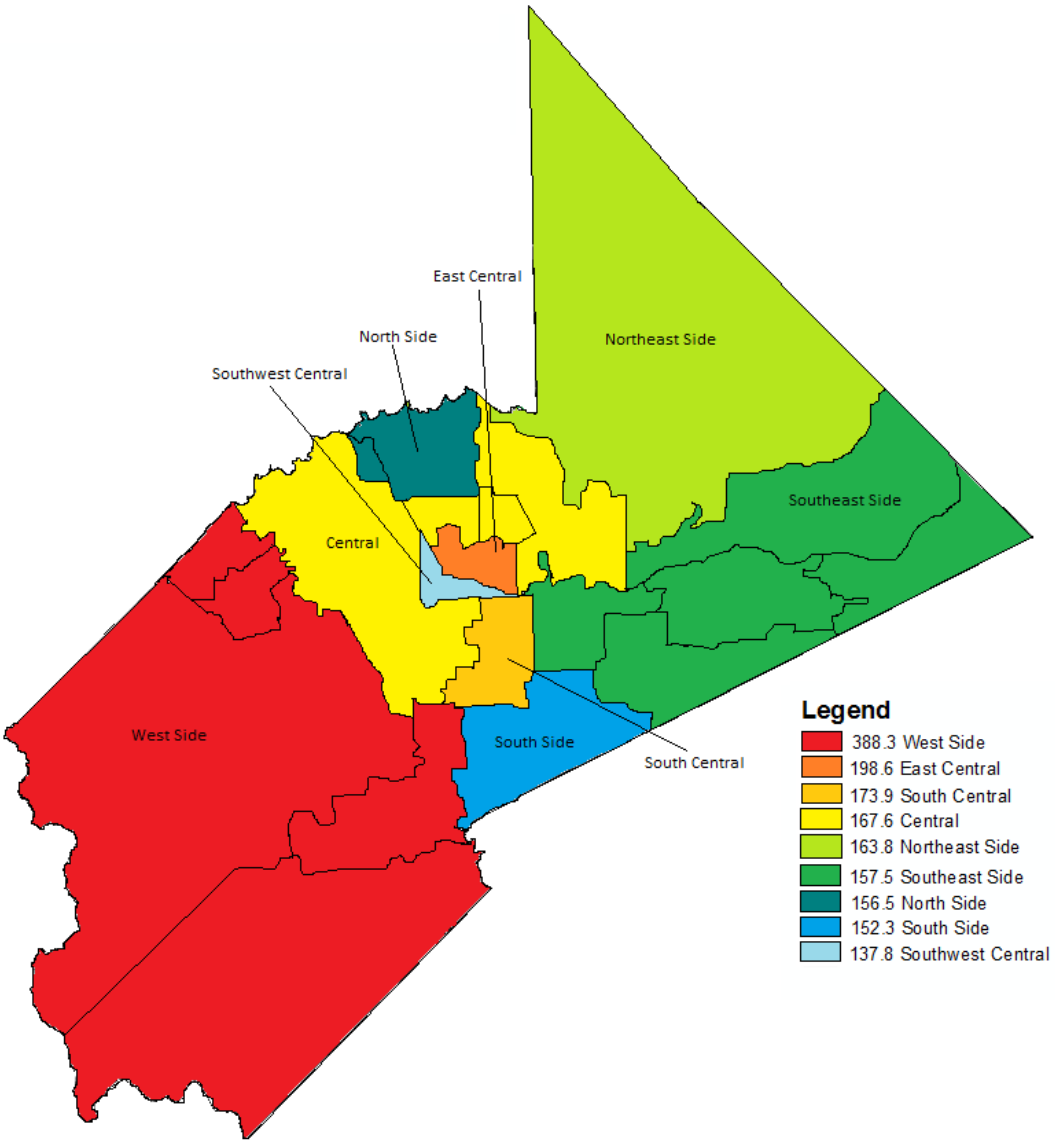
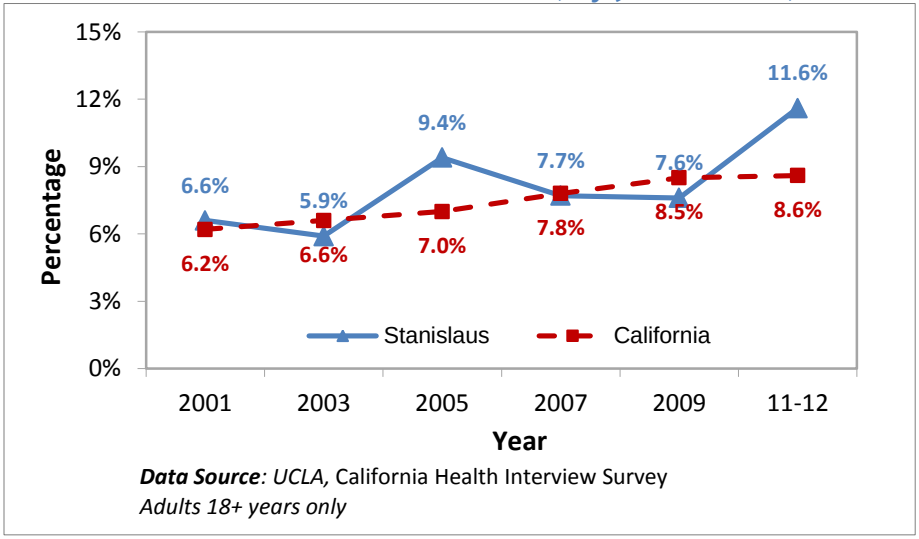


Figure 91: Age-Adjusted Mortality Rates for Cancer, Stanislaus County, 2008-2012



- ***Diabetes***
  - *Overview:*
    - Diabetes comes in two common forms: Type I, or what formerly was called juvenile-onset diabetes, and Type II, also termed adult-onset diabetes.
      - Type I diabetes occurs when the body's immune system destroys pancreatic beta cells which produce insulin. It is not known whether Type I diabetes can be prevented.
      - Type II diabetes, however, is preventable through adopting a healthier lifestyle. According to the Centers for Disease Control and Prevention (2011b), diabetes affects 8.3% of the US population, or 25.8 million Americans.
    - Diabetes complications include kidney disease, hypertension, amputations and blindness (Centers for Disease Control and Prevention, 2011b).
    - Diabetes is the seventh leading cause of death in the US and is a major cause of heart disease and stroke (Centers for Disease Control and Prevention, 2011b).
  - *Trends in Prevalence*
    - In the 2013 CHA community survey, 12.0% of respondents reported having been diagnosed with diabetes by a health care professional.
    - CHIS findings from the past decade show an increasing prevalence of diabetes (see Figure 92).
      - The percentage of Californians ever diagnosed with diabetes increased by 39% between 2001 and 2011/2012 (6.2% to 8.6%).
      - While CHIS data for Stanislaus County shows more variability due to the much smaller sample size, it is consistent with a rising trend in diabetes prevalence, with an increase in 76% over this time (6.6% to 11.6%).

Figure 92: Trends in Adult Diabetes Prevalence, by Jurisdiction, 2001-2011/2012



- *ED Visit Findings*
  - Each year, Stanislaus County residents make more than 1,500 ED visits, on average, due to diabetes (defined as International Classification of Disease version 9 codes 250.00- 250.99 or 648.0).
  - The age-adjusted ED visit rate for diabetes was 325.8 per 100,000 (2008-2010).
- *Trends in Hospitalization*
  - Typically, 816 Stanislaus residents are hospitalized due to diabetes complications annually, making diabetes (type I or II) the 9th most common primary cause of hospitalization (defined as above) in Stanislaus County from 2008-2010.
  - Between 2008 and 2010, each hospitalization of a Stanislaus County resident with a primary diagnosis of diabetes (type I or II) cost $79,469, for an annual cost of $307,227,248.
- *Mortality*
  - Diabetes (defined as International Classification of Disease version 10 codes E10.0-E14.9) is the 7th ranked cause of death in Stanislaus County, causing on average 112 deaths per year (2.7% of all deaths). The average annual age-adjusted mortality rate from diabetes is 23.6 deaths per 100,000 residents.
  - Diabetes causes an average of 774 years of potential life lost (YPLL) annually in the County, 6.7 years per death.
  - Unlike heart disease, no real improvement in age-adjusted mortality from diabetes was seen between 2001-2003 and 2009-2011 (California Department of Health Services, 2005 & California Department of Public Health, 2013b).

- *Disparities*
  - *Age:* Type I diabetes usually begins in early childhood, while Type II diabetes develops later in life (Centers for Disease Control and Prevention, no date-c).
    - However, national and international research has shown a dramatic increase in the frequency of Type I diabetes in adults (Skordis, Efstanthiou, Savvidou, Savva, Phylactou, Shammas & Neocleous, 2012). Between 2005 and 2009, the percentage of Stanislaus adults with Type I diabetes (formerly called juvenile-onset diabetes) increased 62.2% while those with Type II diabetes decreased 23.2%.
    - Diabetes Type I prevalence has also been rising among children globally (Ehehalt, Blumenstock, Willasch, Hub, Ranke & Neu, 2008; Gyurus, Patterson & Soltesz, 2012; Jarosz-Chobot, Polanska, Szadkowska, Kretowski, Bandurska-Stankiewicz, Ciechanowska, Deja, Mysliwiec, Peczynska, Rutkowska, Sobel-Maruniak, Fichna, Chobot & Rewers, 2011). Local diabetes prevalence information is unavailable for children.
  - *Gender:* Nationally, the percentage of men diagnosed with diabetes was slightly higher than that of women in 2010 (U.S. Department of Health and Human Services, 2012).
    - There is no evidence of a local gender disparity in diabetes prevalence (2009 & 2011/2012 CHIS) or mortality from diabetes (2010-2012 DSMF).
    - Locally, diabetic males are more likely to be overweight or obese (CHIS), and are at higher risk of hospitalization than diabetic females (2006-2010 PDDF).
  - *Ethnicity:* In Stanislaus County, there is no significant ethnic difference in diabetes prevalence or mortality. Non-Latinos have significantly higher age-adjusted rates of ED visitation.
  - *Race:* CHIS data are too unstable to determine if racial differences exist locally in diabetes prevalence. However, age-adjusted ED visit rates and hospitalization rates are higher for Blacks than Whites and for Whites than Asians. Asians have a lower age-adjusted mortality rate from diabetes than do either African Americans/Blacks or Caucasians/Whites.
- *Income/Poverty:* Nationally, a higher percentage of adults living in poverty have diabetes (12.4%) compared to adults who are not in poverty (7.8% diagnosed diabetes; U.S. Department of Health and Human Services, 2012). Local data from CHIS are based on a small sample, and thus differences are not statistically stable.

- *Geography:* Table 51 shows geographic disparities in diabetes burden. See Figure 93 for the regional map of the age-adjusted ED visit rates, Figure 94 for the regional map of the age-adjusted hospitalization rates and Figure 95 for the regional map of the age-adjusted mortality rates of heart disease in Stanislaus residents.

Table 51: Geographic Disparities in Diabetes Morbidity and Mortality

Medical Care and Mortality Outcomes for Diabetes	County Region
Highest Age-Adjusted ED Rate	Southwest Central
Highest Age-Adjusted Hospitalization Rate	Southwest Central
Highest Age-Adjusted Mortality Rate	West Side

Figure 93: Age-Adjusted ED Visit Rates for Diabetes, Stanislaus County, 2006-2010

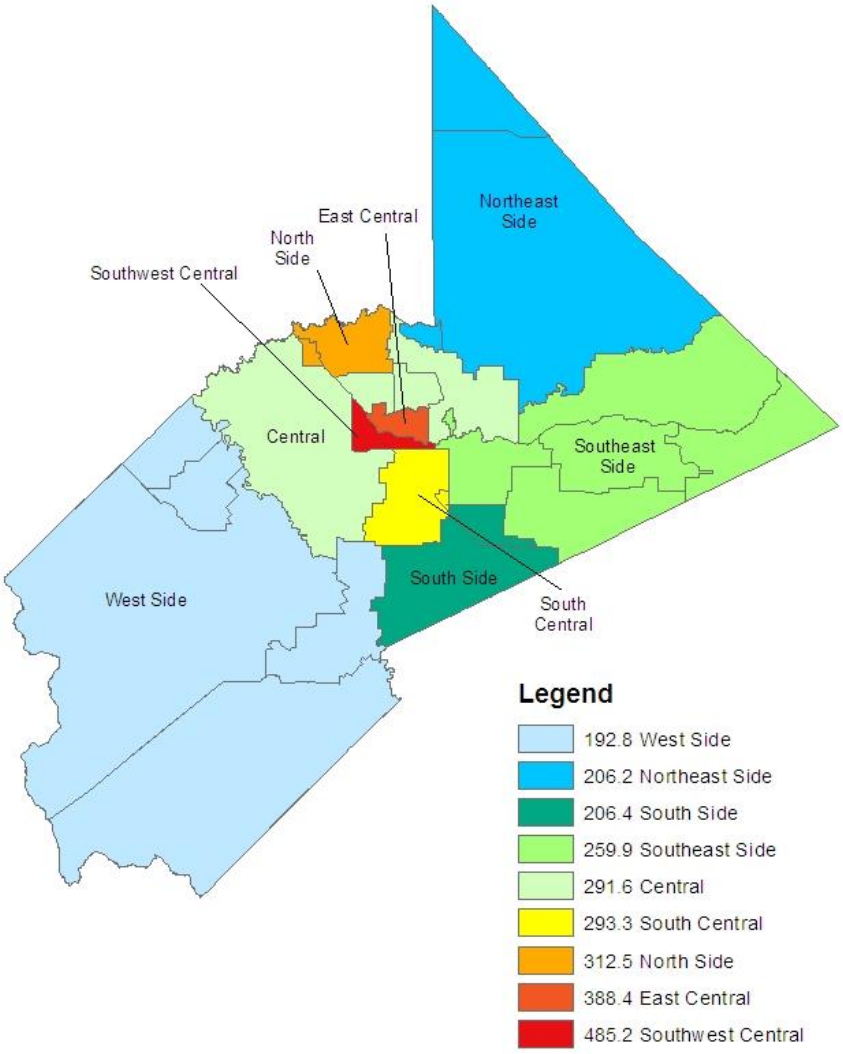


Figure 94: Age-Adjusted Hospitalization Rates for Diabetes, Stanislaus County, 2006-2010

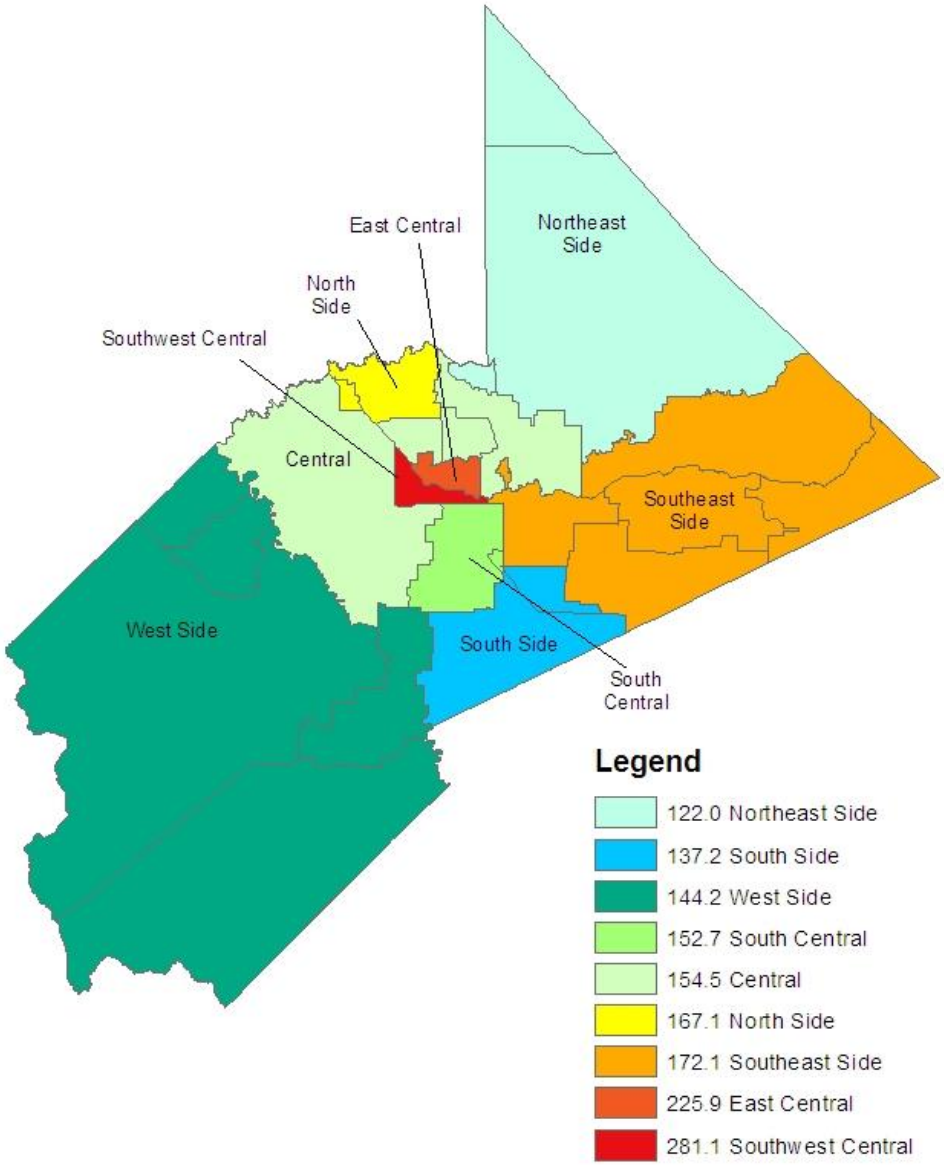
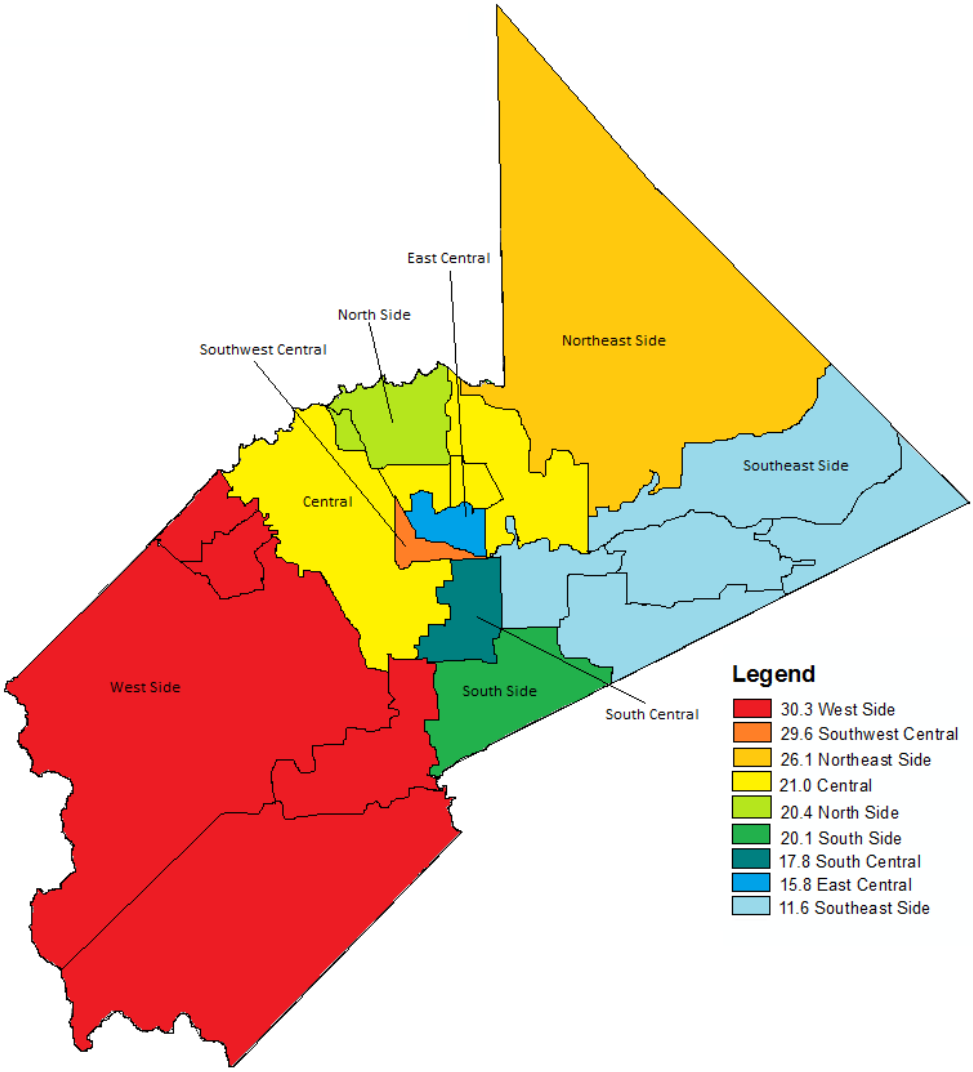
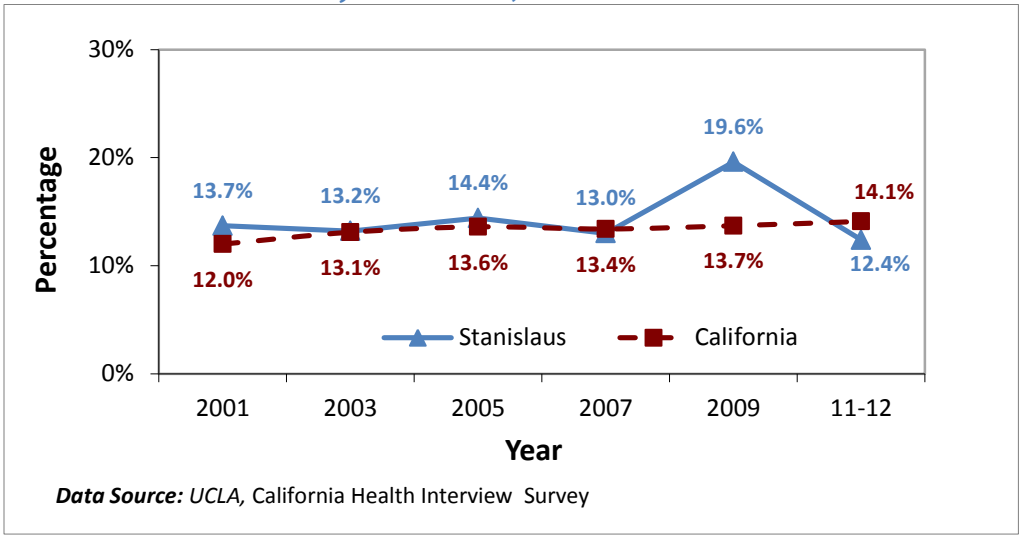


Figure 95: Age-Adjusted Mortality Rates for Diabetes, Stanislaus County, 2008-2012



- ***Asthma:*** Asthma is characterized by the inflammation of the airways and lungs. Causes of asthma are currently unknown. Lifetime asthma prevalence (for both children and adults) has been increasing both nationally and in California (United States EPA, no date).
    - *Trend*
        - In 2013, 14.6% of the CHA primary survey respondents reported having been diagnosed with asthma by a health care professional.
        - Data looking at the past decade indicate a slightly rising prevalence of asthma in California (see Figure 96). Stanislaus County data is more variable.

Figure 96: Trends in Lifetime Asthma Prevalence among Adults (Ages 18+) by Jurisdiction, 2001-2009



Data Source: *UCLA,* California Health Interview Survey

- *Disparity*
    - *Gender:* Within Stanislaus County, the percentage of females reporting that they suffer from asthma is slightly higher than males, but the difference is not statistically significant (see Table 52). State and national research indicate that adult females have a higher prevalence of asthma than adult males while juvenile males have a higher prevalence than juvenile females (U.S. Department of Health and Human Services, 2012).

Table 52: Trends in Lifetime Prevalence of Adults Suffering from Asthma, by Gender

	Year					
Gender	**2001**	**2003**	**2005**	**2007**	**2009**	**2011/2012**
Male	10.5%	13.7	9.1%	10.2%	21.5%	12.3%
Female	16.9%	14.6%	14.7%	17.6%	22.1%	12.4%

Data Source*: UCLA,* California Health Interview Survey

- *Ethnicity:* While small sample sizes in CHIS make racial and ethnic comparisons difficult, there is a suggestion that Non-Latinos have a higher rate of diagnosed asthma than Latinos.
- *Geography:* Table 53 shows the County regions with the highest age-adjusted ED rates and hospitalization rates and mortality rates for asthma. See Figure 97 for the regional map of the age-adjusted ED visit rates and Figure 98 for the regional map of the age-adjusted hospitalization rates for asthma in Stanislaus adult residents.

Table 53: Geographic Disparities in Asthma Morbidity and Mortality

Medical Care and Mortality Outcomes for Asthma	County Region
Highest Age-Adjusted ED Rate	Southwest Central
Highest Age-Adjusted Hospitalization Rate	Southwest Central
Highest Age-Adjusted Mortality Rate	NA*

**Rates are statistically unreliable due to small numbers of deaths due to asthma.*

Figure 97: Age-Adjusted ED Visit Rate for Asthma, Stanislaus County, 2006-2010

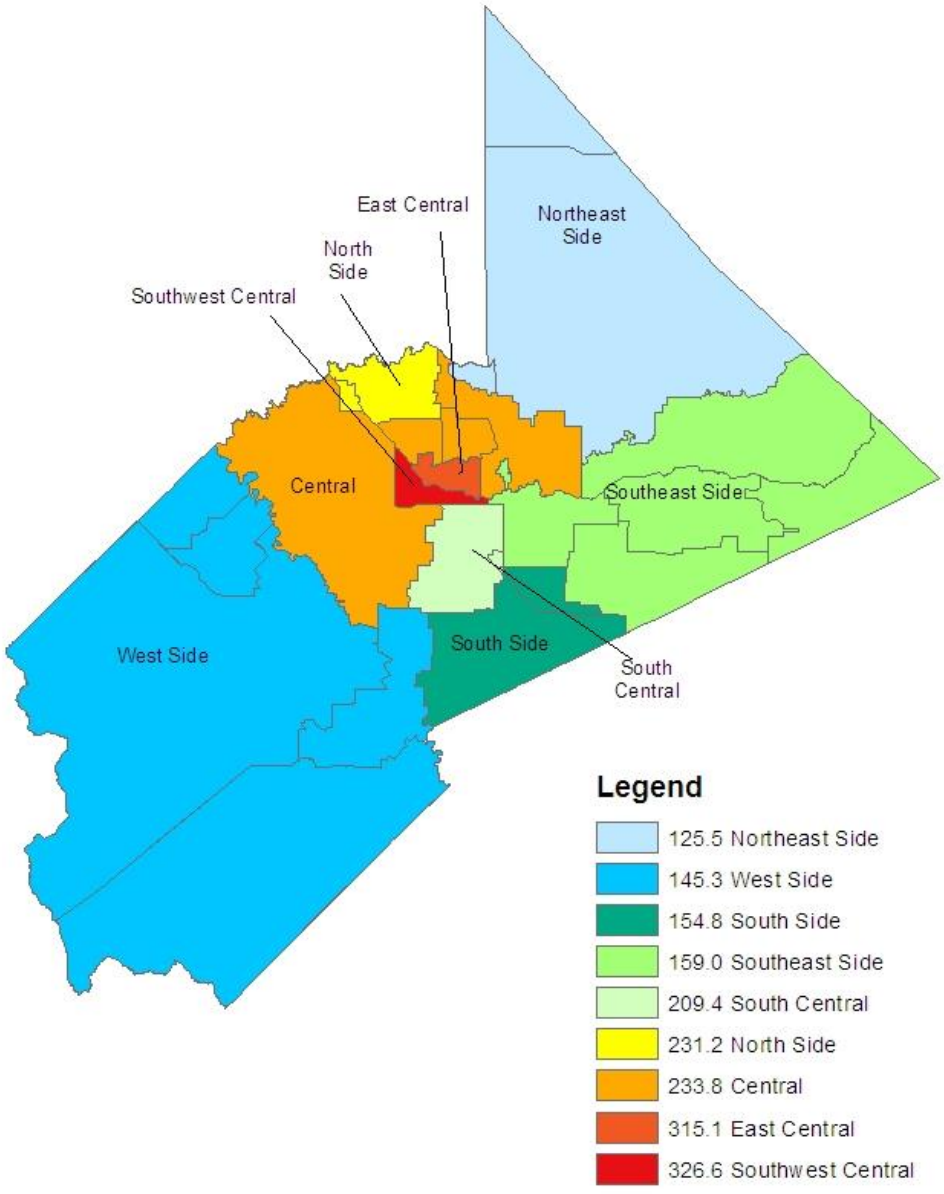
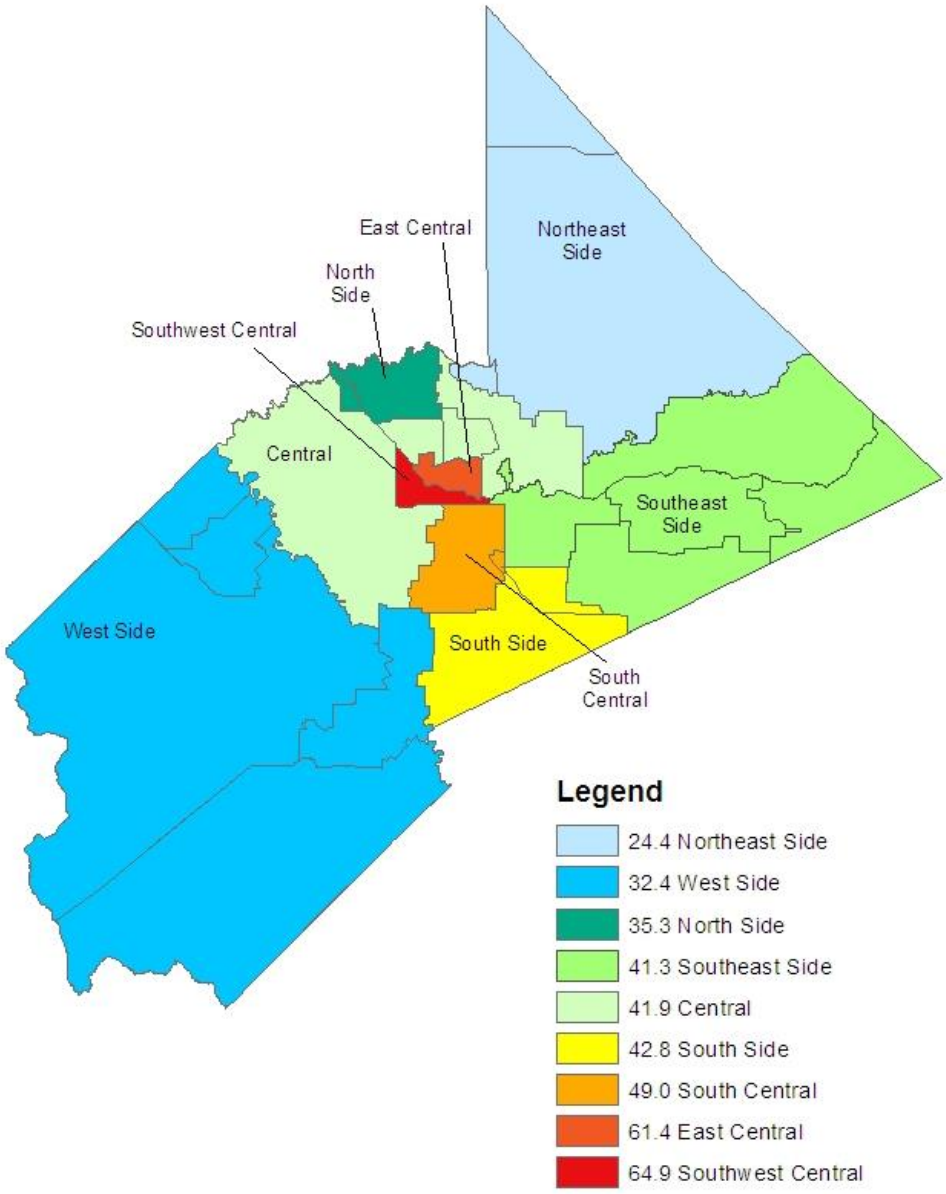


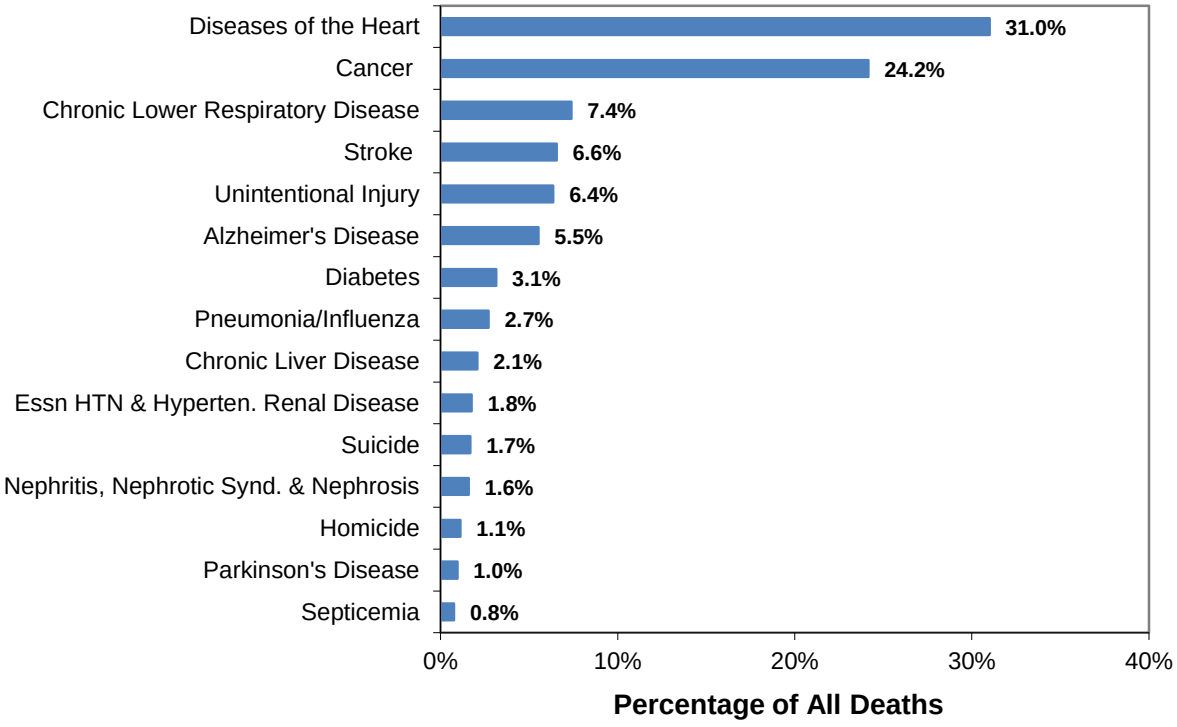
Figure 98: Age-Adjusted Hospitalization Rates for Asthma, Stanislaus County, 2006-2010



Major Causes of Death

Each year, approximately 3,000 Stanislaus County residents die, on average. Well over half of residents die from a chronic disease or condition. As shown in Figure 99, the four most common causes of death in the County are chronic diseases. Unintentional injury (including motor vehicle crashes, falls and drowning), pneumonia and influenza, and intentional injury (both suicide and homicide) are also among the most frequent 15 causes of death.

Figure 99: Top 15 Causes of Death in Stanislaus County, 2010-2012



Data Source: *CDPH,* Death Statistical Master Files, 2010-2012
Rates calculated by H.S.A. staff.

Disparities in Mortality

- Males have higher average annual age-adjusted mortality rates overall than females in Stanislaus County, 986.8 vs. 723.5 deaths per 100,000 residents (2010-2012 DSMF). Mortality rates for many underlying causes are statistically significantly higher for males than females, although females have a higher mortality rate from Alzheimer's Disease than do men (see Table 54).
- Non-Latinos also have a higher average annual age-adjusted mortality rate overall than do Latinos and have significantly higher mortality rates for many underlying causes (873.1 vs. 607.7 per 100,000 residents; see Table 55).
- Finally, average age adjusted mortality rates are higher for African American/Black and Caucasian/White individuals than for Asians/Pacific Islanders, although the patterns differ by underlying cause of death (983.4 vs. 913.1 vs. 482.6 per 100,000, respectively; see Table 56).

Table 54: Gender Disparities in Mortality Rates* from Top-Ranked Underlying Causes of Death

Underlying Cause of Death	Male Rate* (95% CI)	Female Rate* (95% CI)	Significant Difference?
Alzheimer's Disease	32.0 (27.3 – 36.6)	43.8 (38.7 – 48.8)	F>M
Cancer (any type)	209.2 (198.0 – 220.4)	154.8 (146.0-163.7)	M>F
Chronic Liver Disease	20.6 (17.3 – 23.9)	9.0 (6.9 – 11.2)	M>F
Chronic Lower Respiratory Disease	61.5 (55.2 – 67.8)	52.6 (47.4 – 57.7)	None
Diabetes	29.3 (25.0 – 33.6)	19.0 (15.9 – 22.1)	M>F
Diseases of the Heart	270.3 (257.4 – 283.2)	185.1 (174.9-195.2)	M>F
Essential Hypertension & Hypertensive Renal Disease	13.0 (10.1 – 15.8)	12.5 (9.9 – 15.1)	None
Homicide	13.8 (11.2 – 16.5)	1.8 (0.8 – 2.7)	M>F
Nephritis & Nephrotic Syndrome	13.2 (10.3 - 16.1)	10.8 (8.4 – 13.2)	None
Parkinson's Disease	11.0 (8.2 – 13.7)	4.8 (3.1 – 6.4)	M>F
Pneumonia & Influenza	22.8 (19.0 – 26.5)	17.4 (14.3 – 20.5)	None
Septicemia	6.6 (4.6 – 8.6)	4.9 (3.3 – 6.5)	None
Stroke	49.0 (43.5 – 54.6)	46.8 (41.8 – 51.8)	None
Suicide	19.6 (16.4 – 22.8)	4.8 (3.2 – 6.3)	M>F
Unintentional Injury	57.3 (51.9 – 62.8)	31.8 (27.8 – 35.8)	M>F

Data Source: *CDPH,* Death Statistical Master Files 2010-2012; *calculations by H.S.A. staff*
**Rates are average annual age-adjusted mortality rates per 100,000 residents. 95% CI refers to the 95% confidence intervals around the rate.*
Note: Pink color indicates a higher female mortality rate than male; blue indicates a higher male mortality rate than female.

Table 55: Ethnic Disparities in Mortality Rates* from Top-Ranked Underlying Causes of Death

Underlying Cause of Death	Latino Rate* (95% CI)	Non-Latino Rate* (95% CI)	Significant Difference?
Alzheimer's Disease	21.0 (15.3 – 26.8)	43.1 (39.4 – 46.7)	NL>L
Cancer (any type)	124.8 (112.4 – 137.1)	182.2 (174.6 – 189.8)	NL>L
Chronic Liver Disease	18.2 (14.0 – 22.5)	12.6 (10.6 – 14.6)	Marg: L>NL
Chronic Lower Respiratory Disease	23.1 (17.3 – 28.8)	62.2 (57.7 – 66.7)	NL>L
Diabetes	29.7 (23.1 – 36.2)	21.4 (18.8 -24.0)	Marg: L>NL
Diseases of the Heart	135.2 (121.9 - 148.6)	237.1 (228.5 – 245.7)	NL>L
Essential Hypertension & Hypertensive Renal Disease	11.3 (7.2 – 15.4)	12.9 (10.9 – 14.8)	None
Homicide	9.7 (7.4 – 12.0)	6.0 (4.4 – 7.7)	Marg: L>NL
Nephritis & Nephrotic Syndrome	12.5 (8.3 – 16.8)	11.3 (9.4 – 13.2)	None
Parkinson's Disease	4.3 (1.6 – 7.0)	7.9 (6.3 – 9.5)	None
Pneumonia & Influenza	14.9 (10.4 – 19.4)	20.6 (18.1 0 23.2)	None
Septicemia	6.0 (3.1 – 8.8)	5.4 (4.0 – 6.7)	None
Stroke	45.3 (37.4 – 53.1)	47.7 (43.8 – 51.6)	None
Suicide	5.3 (3.5 – 7.1)	14.0 (11.7 – 16.2)	NL>L
Unintentional Injury	35.2 (30.1 -40.3)	46.6 (42.5 – 50.7)	NL>L

Data Source: *CDPH,* Death Statistical Master Files 2010-2012; *calculations by H.S.A. staff*
**Rates are average annual age-adjusted mortality rates per 100,000 residents. 95% CI refers to the 95% confidence intervals around the rate. Marg indicates a marginally statistically significant difference.*
Note: Purple color indicates a higher Latino mortality rate; blue indicates a higher Non-Latino mortality rate

Table 56: Racial Disparities in Mortality Rates* from Top-Ranked Underlying Causes of Death

Underlying Cause of Death	Asian Rate* (95% CI)	Black Rate* (95% CI)	White Rate* (95% CI)	Significant Difference?
Alzheimer's Disease	5.1 (1.8 – 8.4)	15.0 (1.9 – 28.2)	43.1 (39.5 – 46.6)	W>(B=A)
Cancer (any type)	98.8 (78.2 – 119.4)	212.4 (161.9–262.9)	194.2 (186.4–202.0)	(W=B)>A
Chronic Liver Disease	12.3 (4.3 – 20.4)	11.1 (1.4 – 20.9)	16.5 (14.2 – 18.7)	None
Chronic Lower Respiratory Disease	11.2 (4.3 – 18.1)	60.2 (31.6 – 88.9)	62.4 (58.0 - 66.9)	(B=W)>A
Diabetes	9.3 (2.9 – 15.8)	40.2 (17.4 – 62.9)	25.2 (22.4 – 28.0)	(W≈B)>A
Diseases of the Heart	146.8 (122.8-70.9)	246.3 (192.3-300.3)	237.4 (229.0-245.8)	(W=B)>A
Essential Hypertension & Hypertensive Renal Disease	8.5 (3.5 – 13.5)	35.7 (14.6 – 56.8)	12.7 (10.8 – 14.7)	B>(W≈A)
Homicide	5.8 (1.2 – 10.5)	25.9 (11.2 – 40.5)	8.3 (6.6 – 9.9)	B>(W≈A)
Nephritis & Nephrotic Syndrome	2.4 (0.6 – 4.1)	25.8 (8.9 – 42.6)	12.2 (10.2 – 14.1)	(B≈W)>A
Parkinson's Disease	6.8 (0.8 – 12.7)	0.0 (NA)	7.9 (6.3 – 9.4)	(W=A)>B
Pneumonia & Influenza	8.1 (2.8 – 13.3)	33.6 (11.6 – 55.5)	21.1 (18.6 – 23.7)	W>A
Septicemia	6.0 (0.7 – 11.2)	10.0 (0 – 21.3)	5.6 (4.3 – 6.9)	None
Stroke	40.8 (27.5 – 54.1)	56.1 (29.5 – 82.8)	50.9 (47.0 – 54.8)	None
Suicide	17.7 (8.4 – 26.9)	3.7 (0 – 8.7)	13.5 (11.4 – 15.6)	W>B
Unintentional Injury	22.2 (12.0 – 32.5)	32.4 (15.4 – 49.3)	51.1 (47.1 – 55.1)	W>A

Data Source: *CDPH,* Death Statistical Master Files 2010-2012; *calculations by H.S.A. staff*
**Rates are average annual age-adjusted mortality rates per 100,000 residents. 95% CI refers to the 95% confidence intervals around the rate.*

- There are many regional differences in age-adjusted mortality rates (see Figure 101 through Figure 108).

Figure 100: Average Annual Age-Adjusted Mortality Rates for Alzheimer's Disease by Region

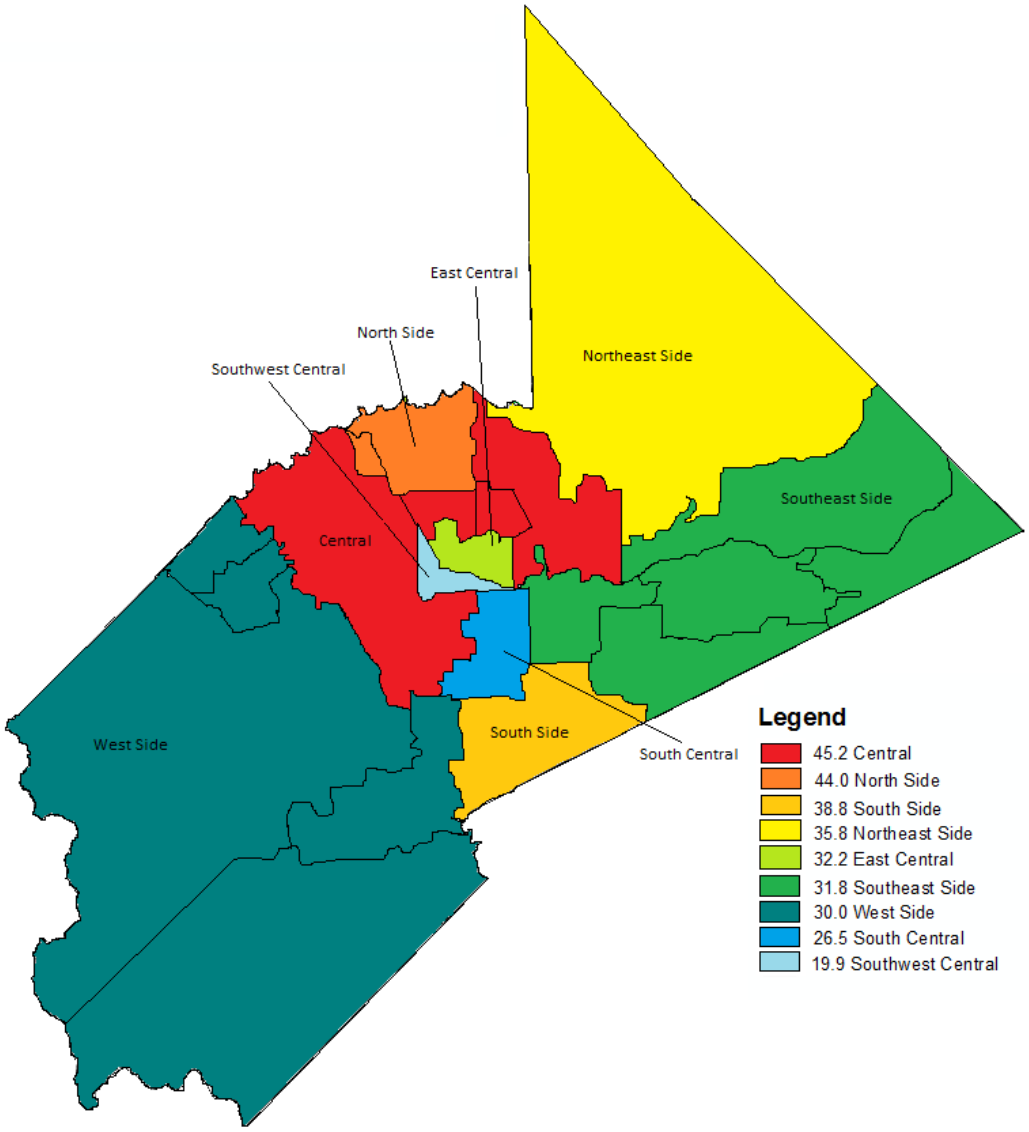


Figure 101: Average Annual Age-Adjusted Mortality Rates for Chronic Liver Disease by Region

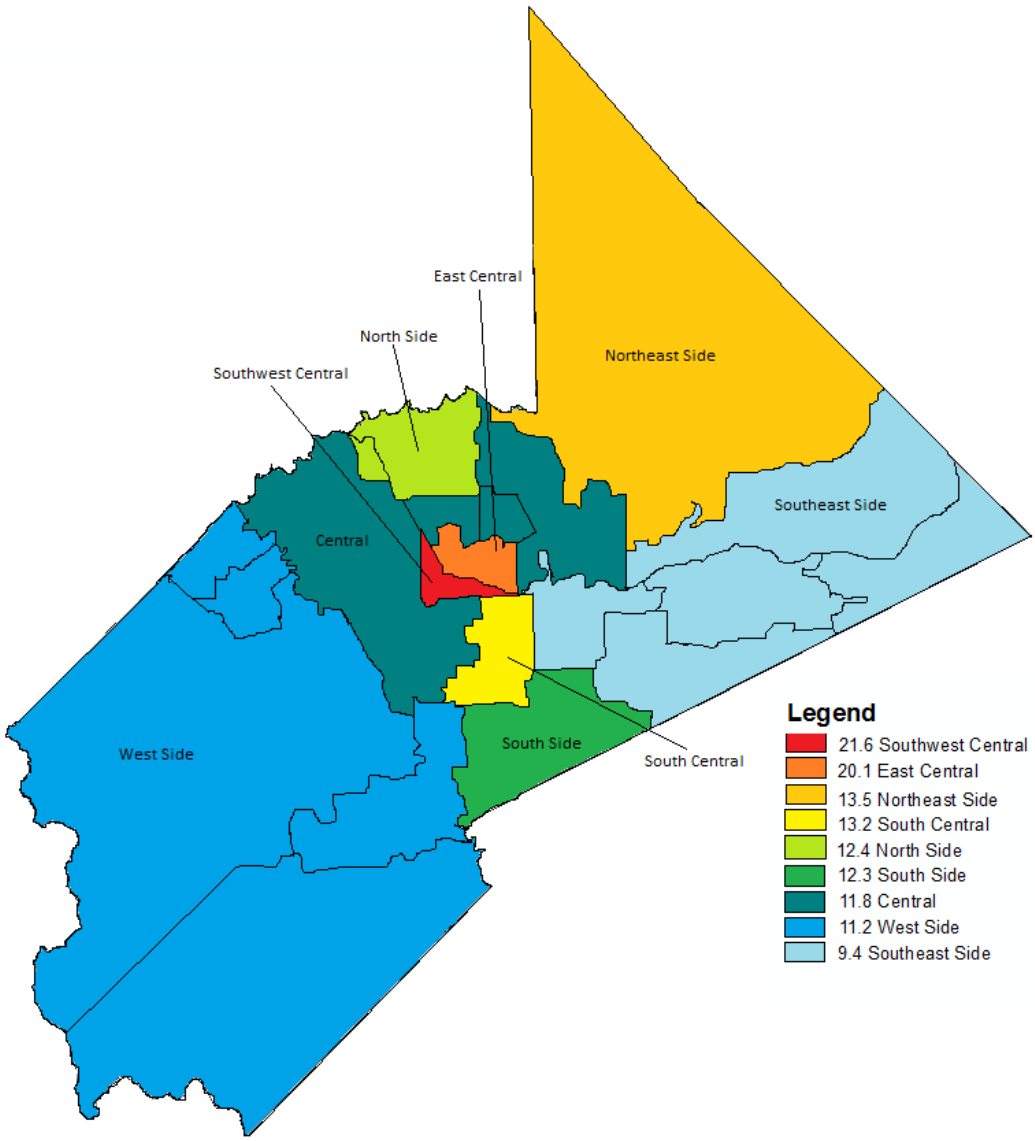


Figure 102: Average Annual Age-Adjusted Mortality Rates from Chronic Lower Respiratory Disease by Region

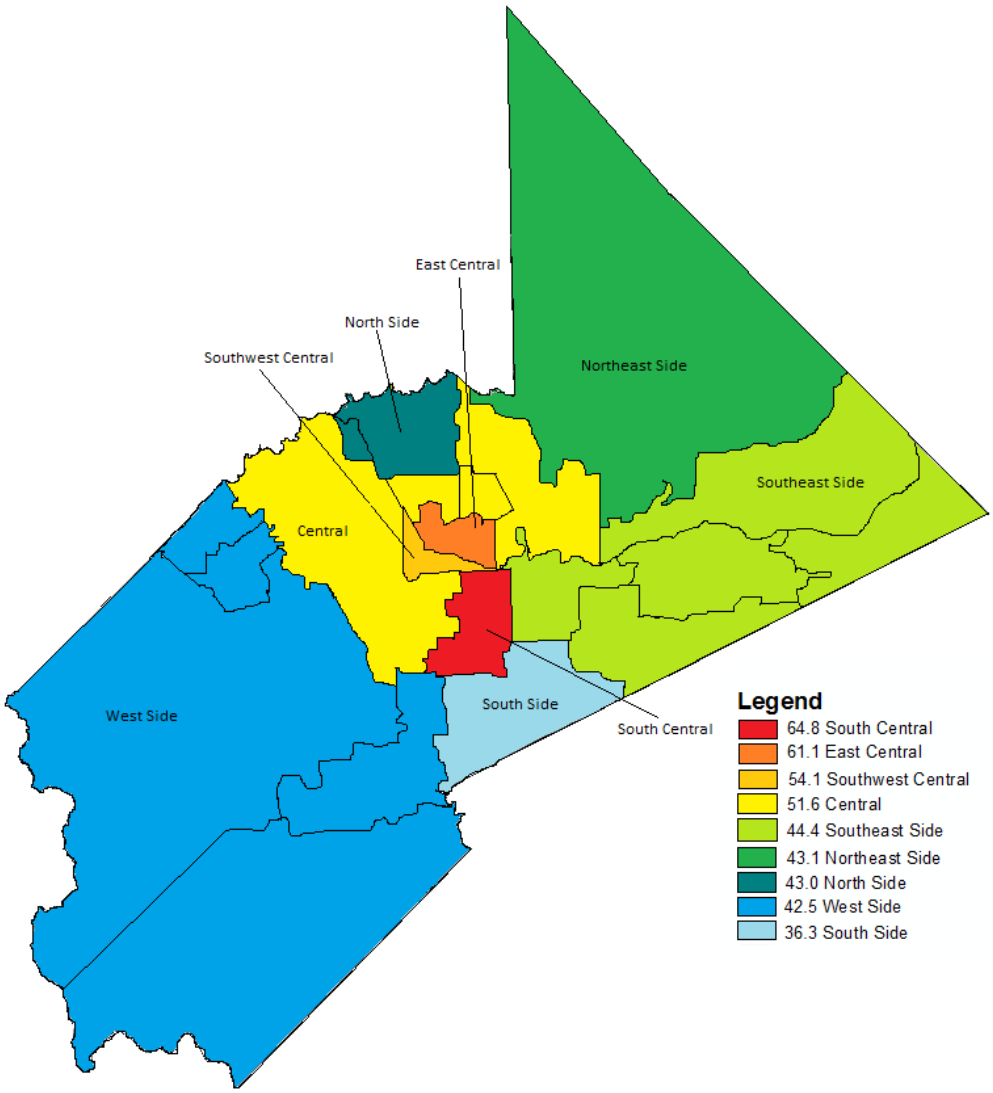


Figure 103: Average Annual Age-Adjusted Mortality Rates from Homicide by Region

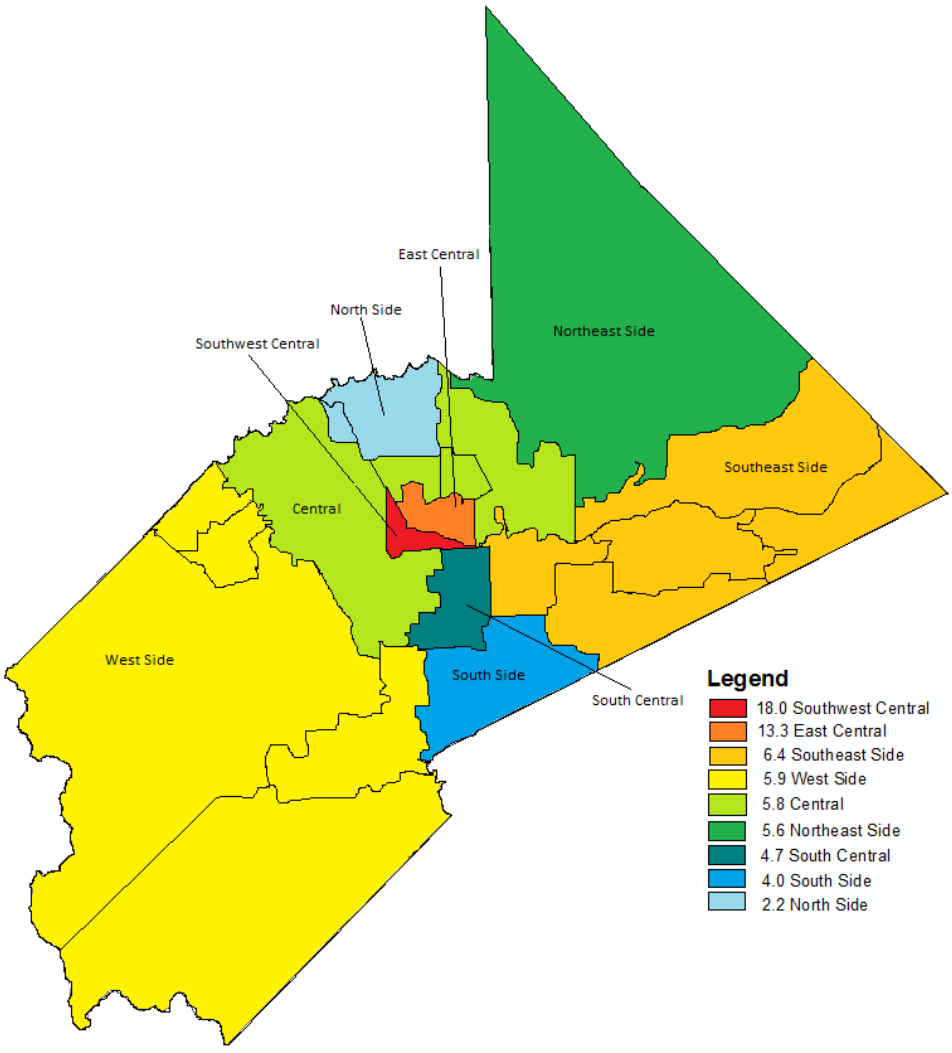
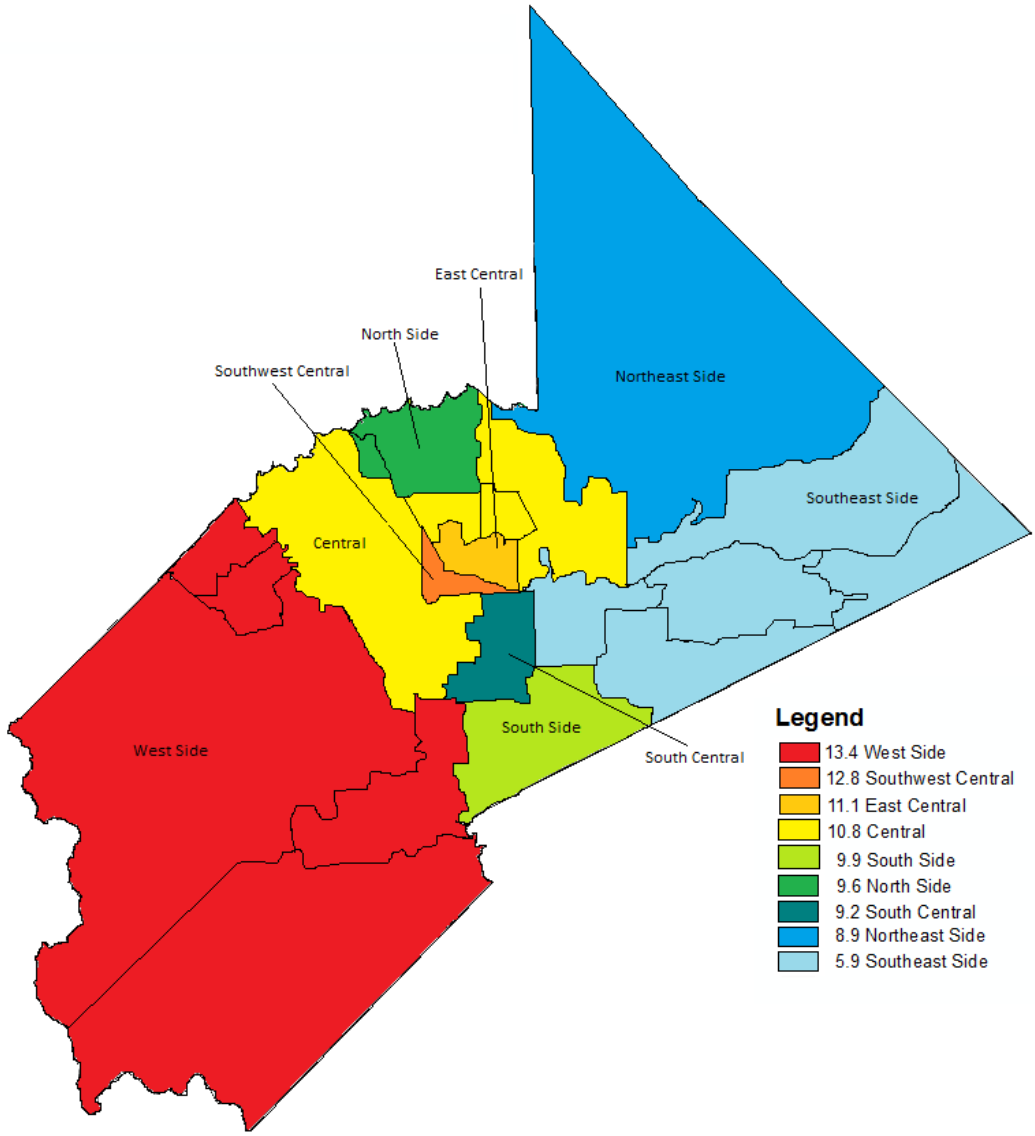


Figure 104: Average Annual Age-Adjusted Mortality Rates from Kidney Conditions* by Region



**Nephritis, Nephrotic Syndrome & Nephrosis*

Figure 105: Average Annual Age-Adjusted Mortality Rates from Parkinson's Disease by Region

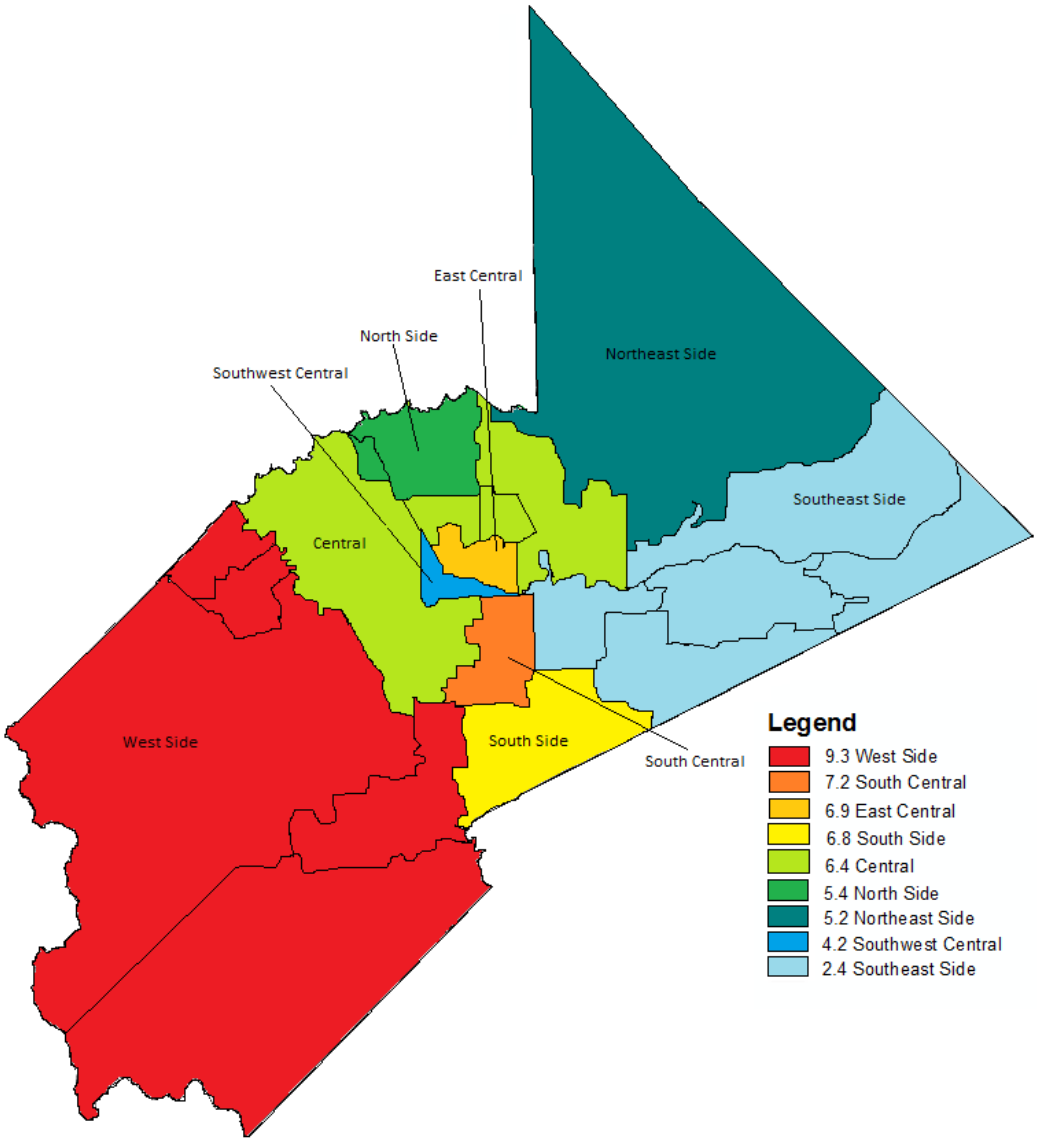


Figure 106: Average Annual Age-Adjusted Mortality Rates from Pneumonia & Influenza by Region

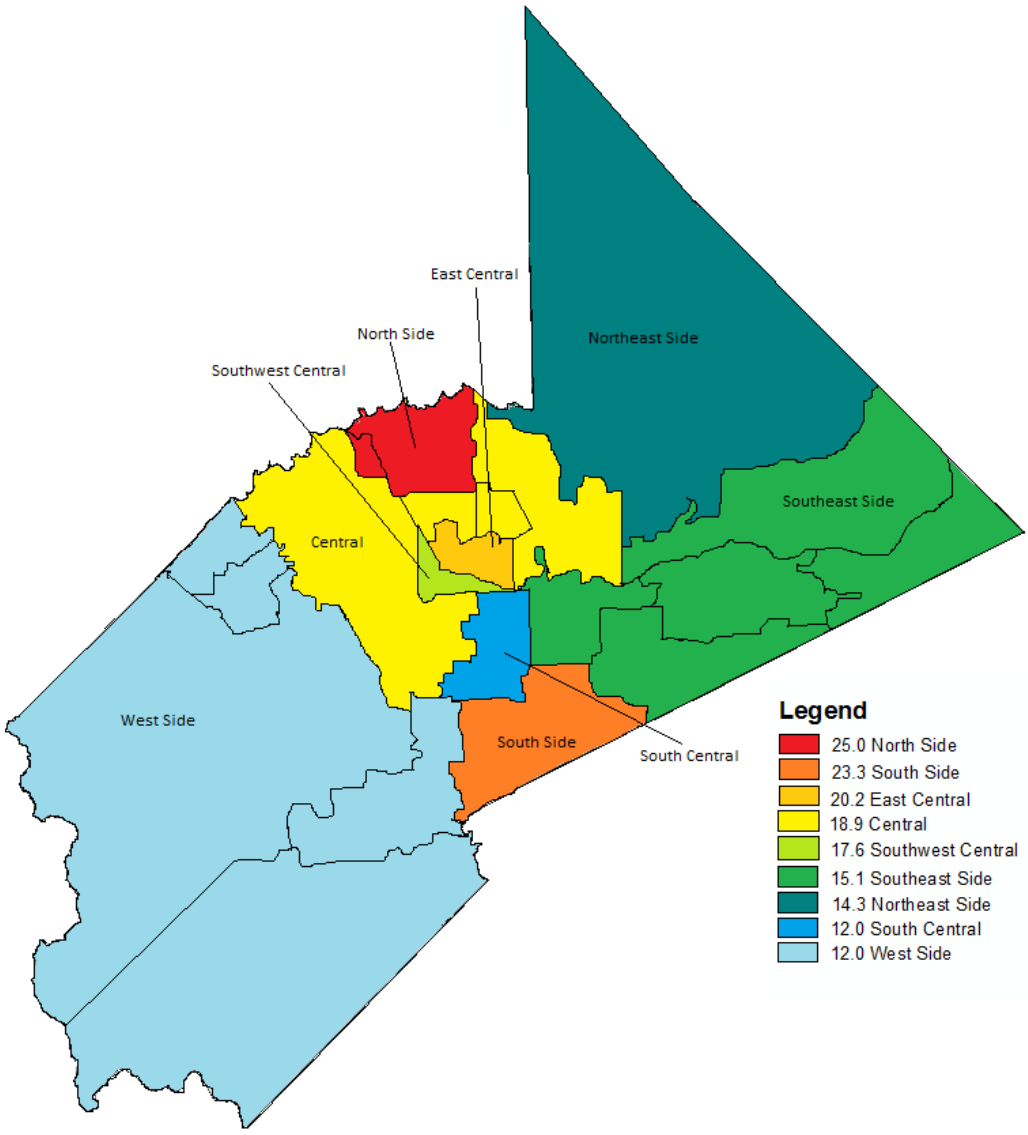


Figure 107: Average Annual Age-Adjusted Mortality Rates from Suicide by Region

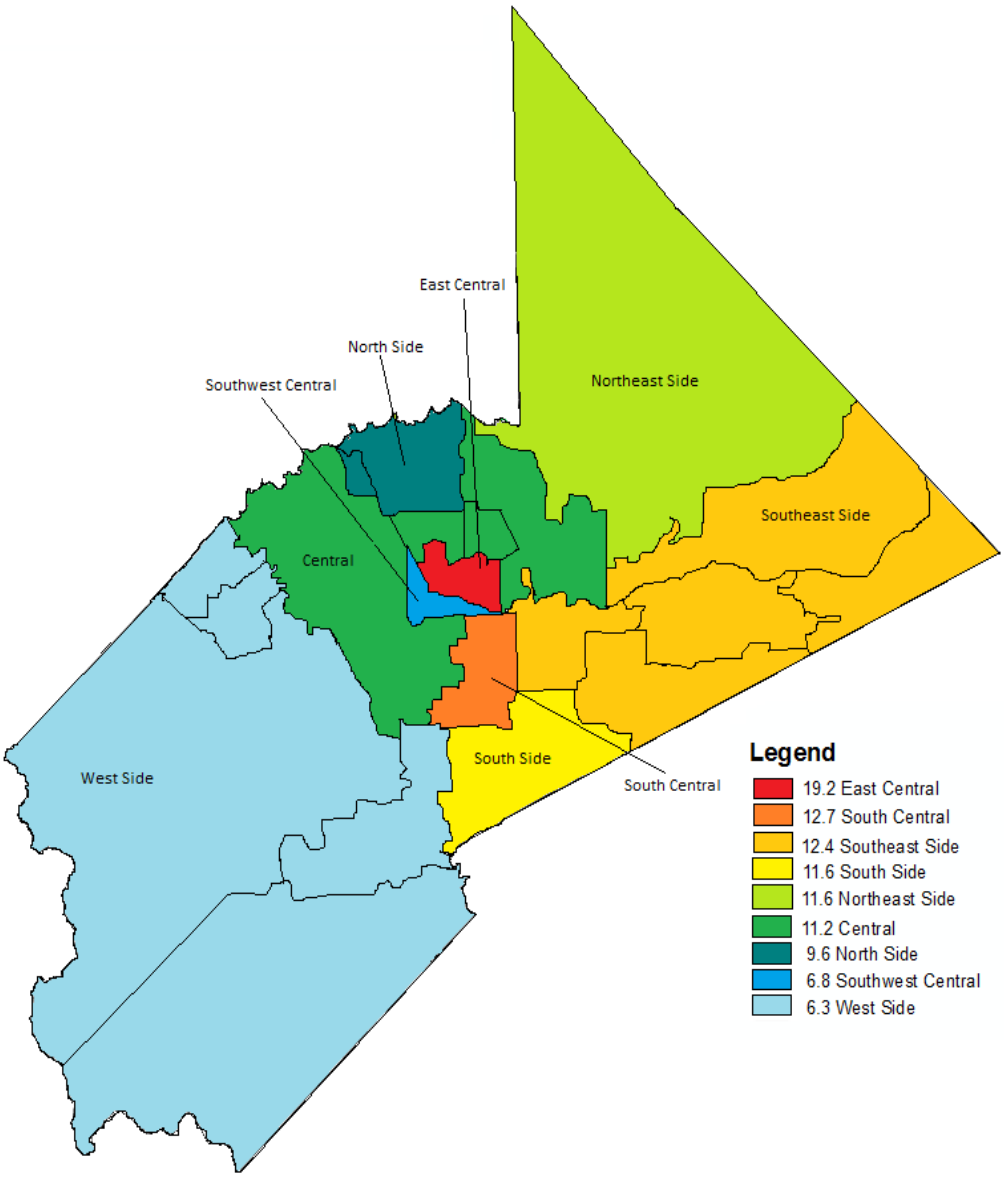
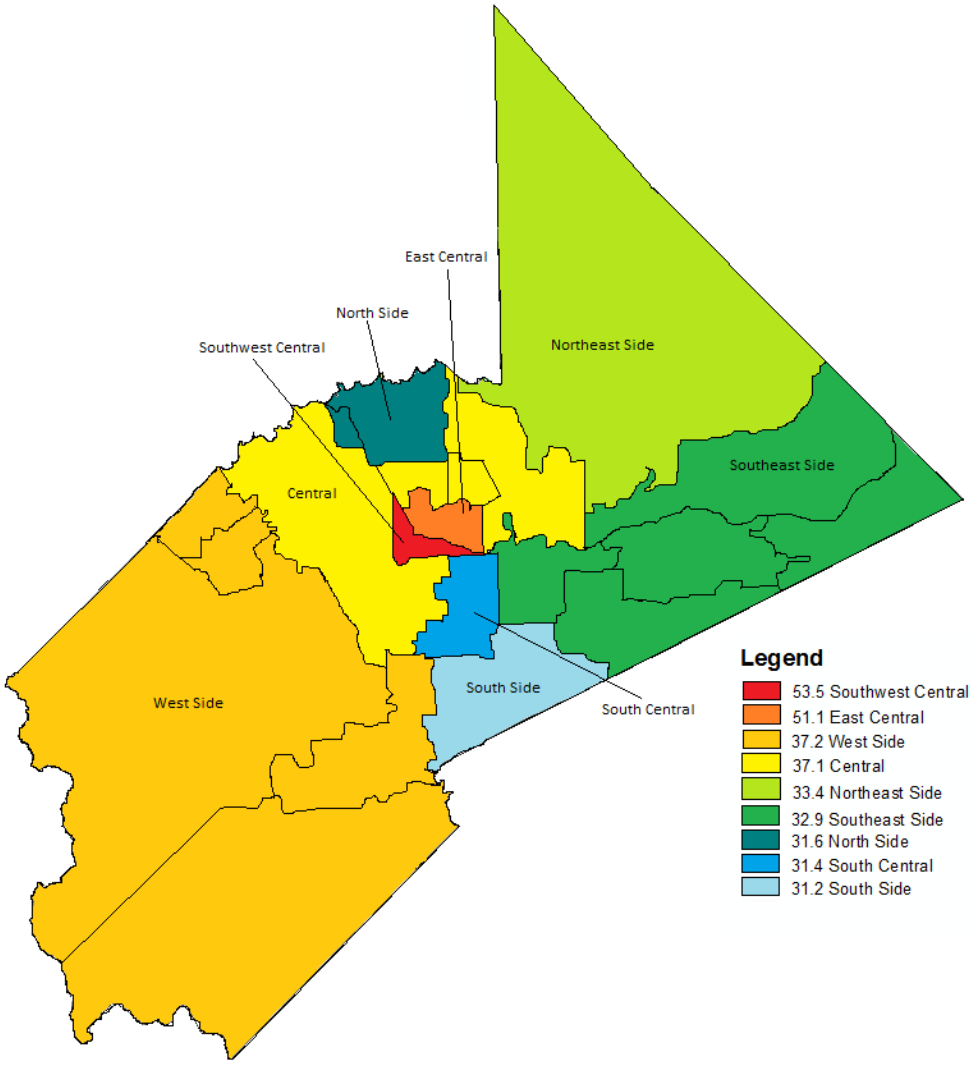


Figure 108: Average Annual Age-Adjusted Mortality Rates from Unintentional Injury by Region



Life Expectancy at Birth

Life Expectancy at Birth (LEB) is the number of years a newborn infant is projected to live if mortality patterns at the time of its birth were to remain the same throughout its life (World Bank, 2013). It is a measure of the overall quality of life in a nation or other jurisdiction. LEB in Stanislaus County (based on 2008-2010 age-adjusted mortality rates) is 77.1 years (H.S.A. calculations based on CDPH's death statistical master files), slightly lower but comparable to that of the U.S. as a whole (78.0 years; CIA World Factbook, 2013; 2013 estimates).

Disparities

- ***Gender:*** Females have a higher LEB than males; both in Stanislaus County and the U.S. (see Table 57).
- ***Ethnicity:*** Latinos have a higher LEB than Non-Latinos in Stanislaus County (see Table 57).
- ***Race:*** Individuals of Asian/Pacific Islander heritage have a statistically significantly longer LEB than those of Caucasian heritage, who in turn have a statistically significantly longer LEB than those of African American heritage (see Table 57). While all racial groups in the County have a lower LEB than nationally, the biggest differences are seen for Asian/Pacific islanders and Caucasian/Whites.

Table 57: Life Expectancy at Birth by Jurisdiction and Demographic Factors

Demographic Factor	LEB in Stanislaus County (years)	LEB in USA (years)	Difference*(years)	Pattern of Statistically Significant Differences
Gender				
Male	74.7	76.3	1.6	Female > Male
Female	79.4	81.3	1.9	
Total	77.2	78.9	1.7	
Race				
Asian/ Pacific Islander	79.9	86.5	6.6	Asian > White > Black
African American / Black	73.5	74.6	1.1	
Caucasian / White	75.8	78.6	2.8	
Ethnicity				
Latino	82.2	82.8	0.6	Latino > Non-Latino
Non-Latino	75.8	NA	NA	

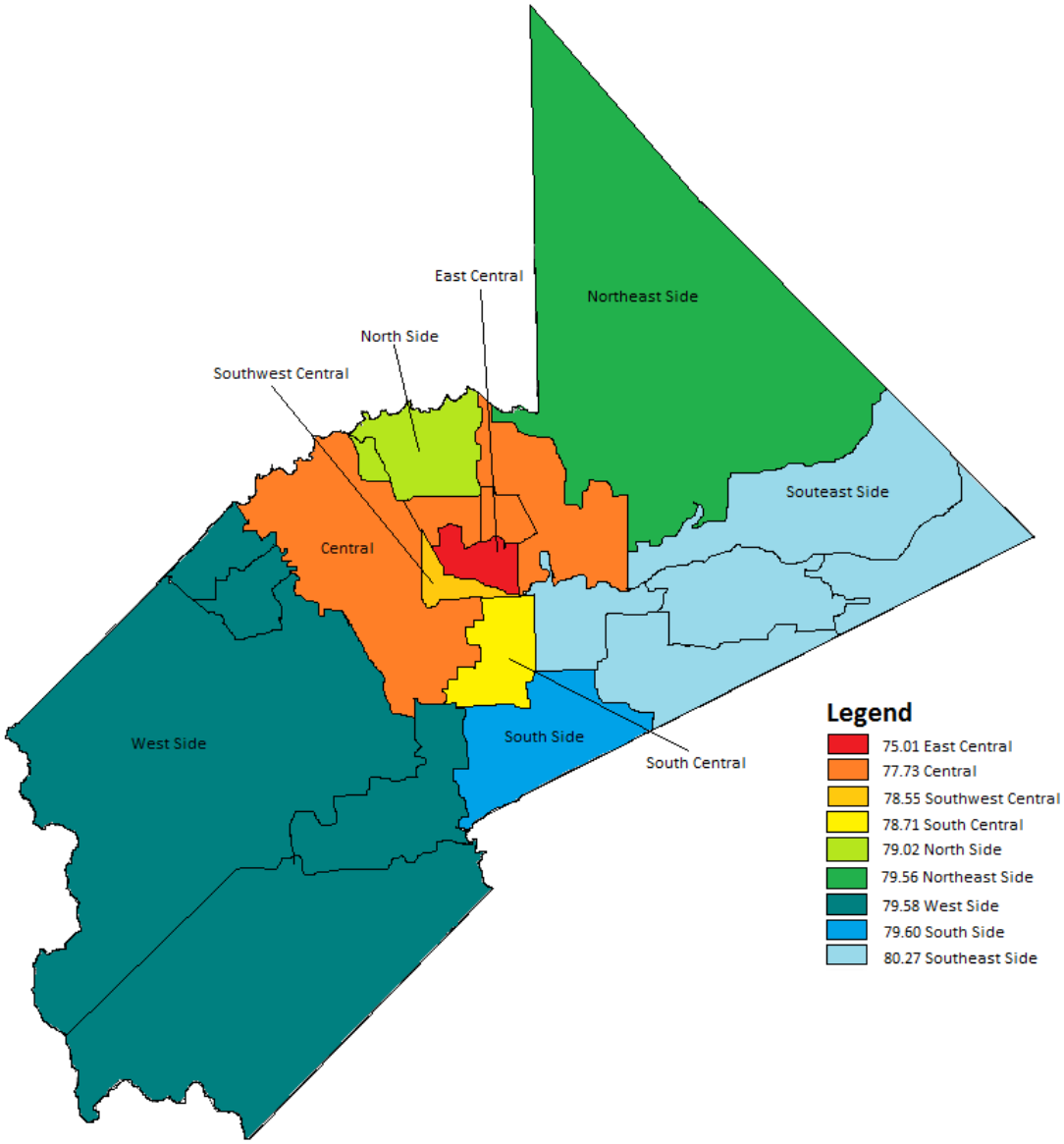
Data Sources: *Stanislaus County death data come from CDPH's* Death Statistical Master Files *for 2010-2012); population data come from the US Census Bureau's* 2010-2012 ACS *(ACS 2012 3-year aggregated data).*
Stanislaus County calculations were performed by H.S.A. staff following the Chiang method.
**Difference calculated as Stanislaus LEB – USA LEB.*

- ***Geography:*** LEB in the County varies by geographic region (see Figure 109). LEB in Stanislaus County tends to be shorter in urban areas than rural. To help put these

differences in context, regional LEBs are compared to nations from around the world.

- The predominantly rural Southeast Side of the County has the highest life expectancy at birth (LEB = 80.3), comparable to Germany's LEB of 80.3 and closely followed by the rural West Side (LEB = 79.6) and Northeast Region (LEB = 79.6), along with the mixed areas of the South (LEB = 79.6) and North Sides (LEB = 79.0).
- The region in the County with the lowest LEB is the urban East Central Region (75.0), which has a LEB equivalent to Colombia (75.0) and lower than the nations of Syria (75.1), Libya (75.8), Sri Lanka (76.2) and Croatia (76.2).

Figure 109: Life Expectancy at Birth within Stanislaus County, 2008-2012



Mental and Behavioral Health and Well-Being

The World Health Organization defines mental health as "not just the absence of mental disorder." It is defined as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (World Health Organization, no date).

According to the California Health Care Almanac (California HealthCare Foundation, 2013), almost 1 in 6 Californian adults has a mental health need. Nearly 1 in 20 Californian adults suffer from a serious mental illness that impacts the ability to carry out major life activities. In children ages 17 and under, 1 out of 13 suffers from a mental illness that limits participation in daily activities. In Stanislaus, 4.9% of adults have a serious mental illness (California HealthCare Foundation, 2013).

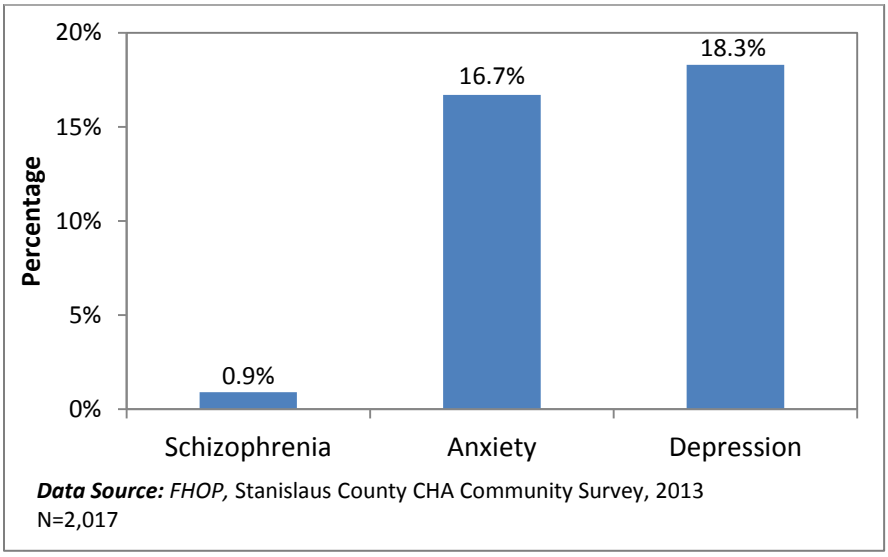
Prevalence of Mental Illness

Public health surveillance systems for mental illness are poor and non-systematic. Thus, local data on the prevalence of common conditions, such as depression and anxiety, are unknown (CHIS does not include these topics). To close this data gap, questions concerning depression, anxiety and schizophrenia were included in the 2013 CHA community survey.

When asked "if you have ever been told by a health care provider that you have anxiety, depression, schizophrenia" in the 2013 CHA community survey; see Figure 110),

- 16.7% of respondents said yes to anxiety;
- 18.3% of respondents said yes to depression; and
- 0.9% of respondents said yes to schizophrenia.

Figure 110: Has a health care provider ever told you that you have ... (Behavioral or Mental Health Issue)

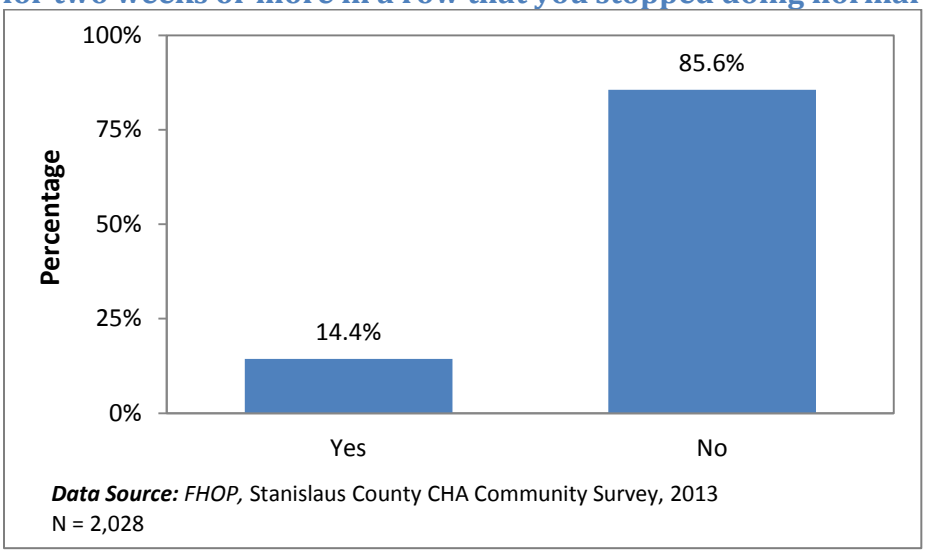


Data Source: *FHOP,* Stanislaus County CHA Community Survey, 2013
N=2,017

Since individuals may not have access to health care in order to be diagnosed, or may not accurately remember a diagnosis, a question was also asked to see whether participants may have had a major depressive episode in the past year. 14.4% of adults answered in the affirmative (see Figure 111).

- This percentage is lower than that found in the 2008 CHA, 30.4% (Applied Survey Research, 2008). This discrepancy may be due to several factors.
    - As reviewed in the *Economic Health* section, rates of unemployment and foreclosure, major stressors during the recession, have gone down.
    - In addition, the sampling methodologies of the two CHA community surveys were different, resulting in a different participant pool; the 2013 participants were less likely to be poor or of a racial/ethnic minority group than those from 2008.

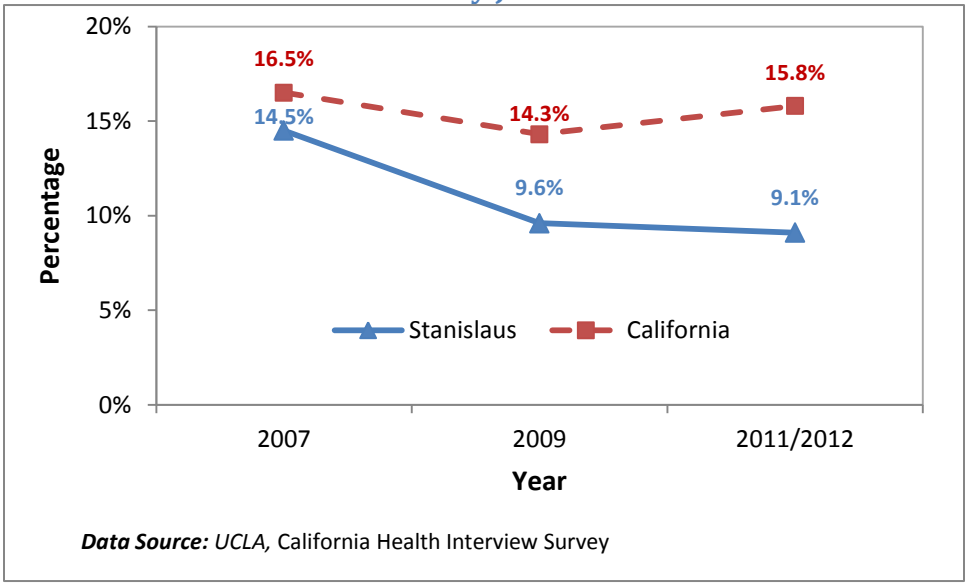
Figure 111: During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing normal activities?



According to CHIS, statistically significantly fewer Stanislaus County residents self-reported needing help for emotional or mental health problems, including the use of alcohol or drugs, in 2011/2012 than California residents: 9.1% vs. 15.8% (see Figure 112).

- The percentage of residents self-reporting needing help for such problems decreased from 2007 for both jurisdictions.

Figure 112: Trends in the Prevalence of Needed Help for Emotional or Mental Health Problems by Jurisdiction



Data Source: *UCLA,* California Health Interview Survey

- Of Stanislaus residents who reported needing help in 2011/2012, only 62.9% sought some sort of help, and just 11.8% saw a healthcare provider to obtain such help (CHIS).
- The CHIS survey does not contain information on why so few individuals who said they needed help failed to get any help, and why such a small percentage saw a healthcare professional. However, the 2013 CHA community survey included questions designed to identify residents' reasons for forgoing health care.
- Of the 10.2% of participants in the 2013 CHA community survey who indicated having to go without needed health care, 22.1% reported having had to go without mental or behavioral health care.
    - Reasons given by participants are shown in Table 58 (note that participants could give more than one reason, so the table does not add up to 100%).
    - The most common reasons included not having health insurance (86.7%), not being able to afford some or all of the needed care (76.4%) and having their needs not covered by their insurance plan (52.7%).
    - Given the mental health parity requirements in the Patient Protection and Affordable Care Act (ACA; see discussion in *Access to Health Care* section), the individual health insurance mandate scheduled to be implanted in January 2014 may sharply reduce the number of individuals having to forgo mental or emotional health care due to lack of insurance or insurance not covering such services.

Table 58: Reasons Residents Went without Needed Mental/Behavioral Health Care

Reason	Percentage*
Had no health insurance	86.7%
Could not afford some/all care needed	76.4%
Insurance would not cover it	52.7%
Did not know where to go	41.8%
Was uncomfortable asking for help	38.6%
Unable to find provider accepting or part of insurance/plan	26.1%
Transportation issues	20.8%
Unable to schedule convenient appointment time	15.6%
Had a bad experience and did not want to go back	9.7%
Inadequate translation services or communication problems	6.5%
No child care	3.0%

Data Source: *FHOP,* Stanislaus County Community Health Assessment, 2013
**Participants could give more than one reason, so percentages do not add to 100%.*

Prevalence of Substance Abuse Problems

Alcohol Use

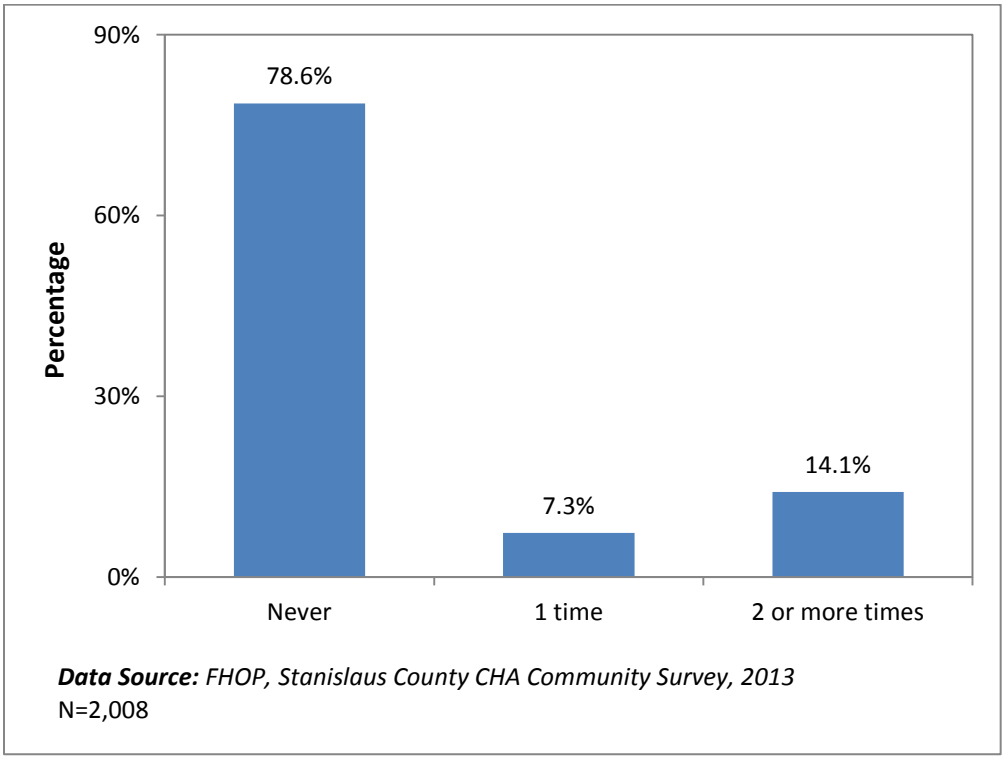
While consumption of alcohol is legal for adults aged 21 and older, misuse of alcohol is a common problem in the U.S. (Centers for Disease Control and Prevention, 2013b). The immediate risks of excessive alcohol include traffic injuries, domestic violence and child abuse, risky sexual behavior, and alcohol poisoning. Long-term health risks include neurological, cardiovascular and psychiatric problems, liver disease, and cancer. Social problems, such as unemployment, loss of productivity, and family problems, can result of excessive alcohol consumption (Centers for Disease Control and Prevention, 2013b).

The costs to society are also great. The economic cost of alcohol misuse is $223.5 billion nationally (Centers for Disease Control and Prevention, 2013b). To put that into perspective, the cost of excessive alcohol consumption is about $1.90 per drink in the United States due to various ill effects including loss of productivity, health care costs and crime (Bouchery, Harwood, Sacks, Simon, & Brewer, 2006). Additionally, excessive drinking costs federal, state and local governments about 62 cents per drink while the income from taxes totaled only 12 cents per drink (Bouchery, Harwood, Sacks, Simon, & Brewer, 2006). For every alcohol-related death, about 30 years of potential life are lost (Centers for Disease Control and Prevention, 2013b).

- ***Initiation of Alcohol Consumption***
  - According to the 2009-2011 California Healthy Kids Survey (2009-2011), 26% of Stanislaus 7th graders have ever used alcohol in their lifetime.
  - The percentage rises with grade level: 51% for 9th graders and 63% for 11th graders.
  - An even higher percentage of youth in alternative education programs, 82%, report having tried alcohol at least once.
  - These percentages are slightly higher than those for California students as a whole.

- ***Youth Use of Alcohol***
  - 14% of Stanislaus 7th graders reported having used alcohol in the past 30 days (2009-2011 CHKS).
  - The percentage of recent alcohol users rises with grade level: 27% for 9th graders and 34% for 11th graders.
  - 56% of youth in alternative education programs report having used alcohol in the past 30 days.
- ***Binge Drinking***
  - Of teens (aged 12-17 years), 3.6% admitted to binge drinking in the past year (2011-2012 CHIS).
  - In 2011/2012, 33.3% of Stanislaus County adults self-reported having, at some point in the last year, consumed at least 5 drinks (males) or 4 drinks (females) on one occasion, a common definition of binge drinking (CHIS).
  - The 2013 CHA community survey asked participants about consumption of five or more alcoholic drinks within two hours in the past month. Not unexpectedly, a somewhat lower percentage of CHA participants (21.4%) self-reported ever binge drinking in the past 30 days (see Figure 113) than reported ever binge drinking in the past year (CHIS).

Figure 113: Prevalence of Self-Reported Binge Drinking in Past Month



Data Source: *FHOP, Stanislaus County CHA Community Survey, 2013*
N=2,008

Illegal Drug Use

Illegal drugs cause a variety of ill effects on the individual but the illegal drug use also has overreaching effects and places an immense burden on American citizens and society. According to estimates from 2004 (Office of National Drug Control Policy, 2004), illegal drugs burden our healthcare system (at $11 billion per year in healthcare costs), our

criminal justice system (at $61 billion per year in investigation, prosecution, incarceration and victim costs) and, most severely, our workplaces (at $120 billion in lost productivity). The total cost nationally was estimated at $193 billion per year (Office of National Drug Control Policy, 2004).

Substance abuse is associated with crime, domestic violence, absenteeism, delinquency, high-risk sexual behaviors, and reckless driving. Research has shown that interventions targeted at drug use initiation and those that are early in the drug-use career are the most effective (National Drug Intelligence Center, 2011). For these reasons, it is especially important to understand illegal drug use among youth. Illegal drug use among Stanislaus County youth has been slightly higher than California levels for all grades and all drugs (CHKS). Table 59 shows the percentage of Stanislaus County students at different grade levels who self-reported different types of drug use.

Table 59: Percentage of Stanislaus County Students Self-Reporting Illegal Drug Use by Grade Level, 2009-2011

	Marijuana		Inhalants		Cocaine		Metham-phetamine	
Grade Level	Ever	Past Month	Ever	Past Month	Ever	Past Month	Ever	Past Month
7th	13%	8%	13%	29%	NA	NA	NA	NA
9th	33%	17%	13%	34%	5%	3%	4%	2%
11th	39%	21%	9%	34%	6%	3%	4%	2%
Non-Traditional*	78%	53%	26%	37%	30%	16%	16%	11%

Data Source: California Healthy Kids Survey report for Stanislaus County, 2009-2011
**Note: Non-traditional students are alternative education students from 7th-12th grades, but are not divided into grade levels.*

- ***Marijuana Use***
  - Locally, experimentation with marijuana increases with age (see Table 59). In 2009-2011, 13% of Stanislaus 7th graders, 33% of 9th graders and 39% of 11th graders reported ever having used marijuana (CHKS).
  - An even higher percentage, 78%, of youth in alternative education programs, report having ever used marijuana (CHKS).
  - A smaller percentage of CHKS participants reported having used marijuana in the past month: 8% of 7th, 17% of 9th, 21% of 11th graders, and 53% of non-traditional students.
  - These findings contrast with those of CHIS (2011-2012), which found that 7.2% of teens aged 12-17 reported having used marijuana in the past year, and 6.1% within the past month.
    - It is important to note the differences in methodologies of the two studies in comparing their findings. CHKS is administered on paper in school anonymously. CHIS conducts surveys by telephone and only interviews children with parental permission. Thus, fewer teens may wish to self-report drug use in CHIS.

- ***Inhalant Use***
  - In 2009-2011, 13% of Stanislaus 7th graders, 13% of 9th graders, and 9% of 11th graders reported ever having used inhalants (CHKS).
  - Fewer students report having used inhalants in the past 30 days: 6% of 7th graders, 5% of 9th graders, and 3% of 11th graders (CHKS).
  - These findings may indicate a rising use of inhalants among younger students, or just be statistical artifacts of a small sample size.
  - 26%, of youth in non-traditional programs, report having ever used inhalants (CHKS).
- ***Cocaine Use***
  - Experimentation with cocaine is frequent among alternative education students (30% have tried it in their lifetimes), but rare among other students (5% of 9th graders and 6% of 11th graders).
  - 16% of alternative education students report having used cocaine in the past month.
  - Compared to California, cocaine use among Stanislaus youth is 4% higher for both lifetime use and use in the past month. Cocaine has the largest jurisdictional disparity among all illegal drugs.
- ***Methamphetamine Use***
  - Similar to cocaine, methamphetamine use is more common among alternative education students (16% have tried it in their lifetimes) compared to traditional school students (4% of 9th graders and 4% of 11th graders).
  - 11% of alternative education students report having used methamphetamines in the past 30 days. Usage is much lower in traditional schools; 2% of 9th graders and 2% of 11th graders report use in the past 30 days.

Emergency Department Visits for Mental and Emotional Health Issues

From 2006-2010, on average, the following number of ED visits occurred annually with a primary diagnosis of a common mental illness or condition

- 2,725 for addiction or substance abuse;
- 1,832 for anxiety or phobia;
- 360 for depression; and
- 122 for schizophrenia.

From 2006-2010, the age-adjusted ED visit rates for these common mental illnesses were

- 368.3 per 100,000 for anxiety or phobia;
- 109.0 per 100.000 for addiction or substance abuse;
- 72.7 per 100,000 for depression; and
- 24.3 per 100,000 for schizophrenia.

Hospitalization for Mental and Emotional Health Issues

From 2006-2010, on average, the following number of Stanislaus residents were hospitalized due to a common mental illness annually

- 1,015 for depression;
- 677 for schizophrenia;
- 289 for anxiety or phobia; and
- 89 for addiction or substance abuse.

From 2006-2010, the age-adjusted annual hospitalization rates for these common mental illnesses were

- 201.1 per 100,000 for depression;
- 137.2 per 100,000 for schizophrenia;
- 18.2 per 100.000 for addiction or substance abuse; and
- 11.4 per 100,000 for anxiety or phobia.

Mortality from Mental and Emotional Health Issues

Suicide (or intentional self-harm) is the 11th ranked cause of death in Stanislaus County (from 2010-2012), responsible for, on average, 60 deaths per year (1.7% of all deaths).

- The average annual age-adjusted county-wide suicide rate increased between 2005 and 2012, peaking in 2011 (see Table 60).

Table 60: Suicide in Stanislaus County by Year

	Year of Death							
Death Statistic	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Frequency@	41	44	49	56	58	50	72	58
Percentage#	1.1%	1.2%	1.4%	1.5%	1.7%	1.4%	1.7%	1.3%
Rate$	8.6	8.7	10.0	11.4	11.4	9.9	14.3	11.2
95% CI^	6.1 to 11.2	6.1 to 11.2	7.3 to 12.7	8.5 to 14.3	9.1 to 15.0	7.2 to 12.6	11.1 to 17.5	8.3 to 14.1

Data Source: *CDPH, Death Statistical Master Files, 2005- 2012; Calculations performed by H.S.A. staff*
@Frequency is the raw number of suicides by Stanislaus County residents per year.
#Percentage is the number of suicides divided by the total number of deaths to Stanislaus County residents per year.
$Rate is the average annual age-adjusted rate per 100,000 residents.
^95% CI is the 95th percentile confidence interval around the rate.

Disparities in Mental and Emotional Health

Age

- Use of alcohol, tobacco and illegal drugs often starts in youth, but typically increases in adulthood.
- The suicide rate increases by age group, until the oldest age category (65+ years), for whom the rate is somewhat lower than the 45-64 year age rage.

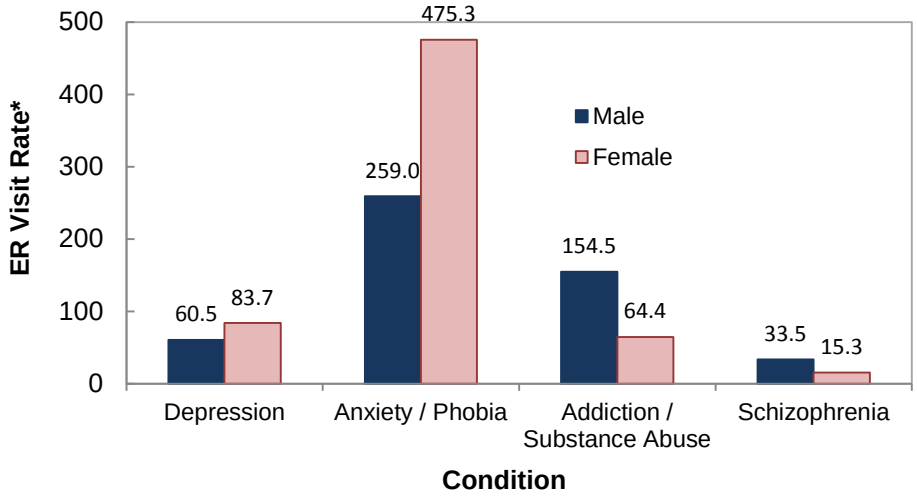
Gender

- ED visit rates and hospitalization rate for depression are higher among females than males (see Figure 114 and Figure 115). However, the age-adjusted mortality rate by suicide is more than four times higher for males (19.6 per 100,000 deaths) than females (4.8 per 100,000 deaths; 2010-2012 DSMF). This contrast is common nationally, as males who are intent on self-harm are more likely to choose more

lethal methods (e.g. firearm) than females (e.g. medication overdose; see Canetto & Sankinosfsky, 1998).

- The ED visit rate for anxiety/phobia is higher for Stanislaus County females than males (see
- Figure 114). There are no significant gender differences in hospitalization rates for anxiety/phobia.
- The ED visit rates and hospitalization rates for addiction/substance abuse and schizophrenia are higher for males than females (see Figure 114 and Figure 115).

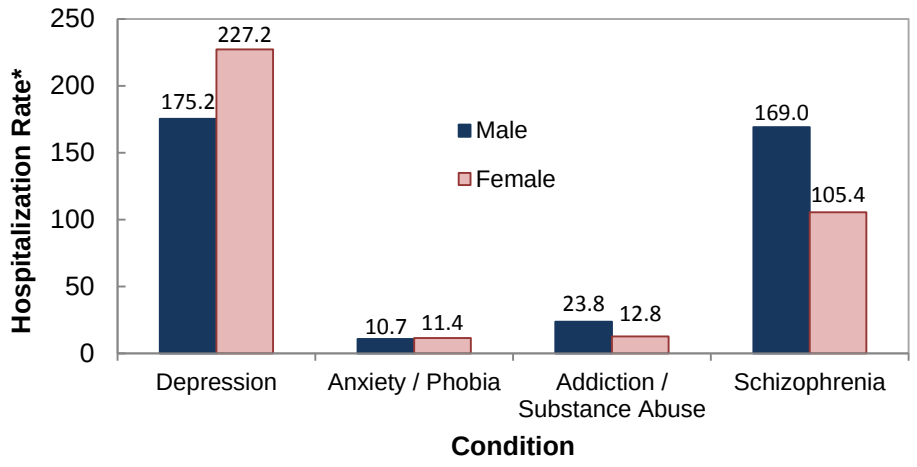
Figure 114: ER Visit Rates for Mental Illness by Gender, 2006-2010



Data Source: *Office of Statewide Health and Planning Department,* ED and Ambulatory Surgery Data Files, 2006-2010

**Average annual age-adjusted rate of ER visits for specific condition per 100,000 total ER visits.*

Figure 115: Gender Differences in Hospitalization Rates for Common Mental Illnesses, 2006-2010



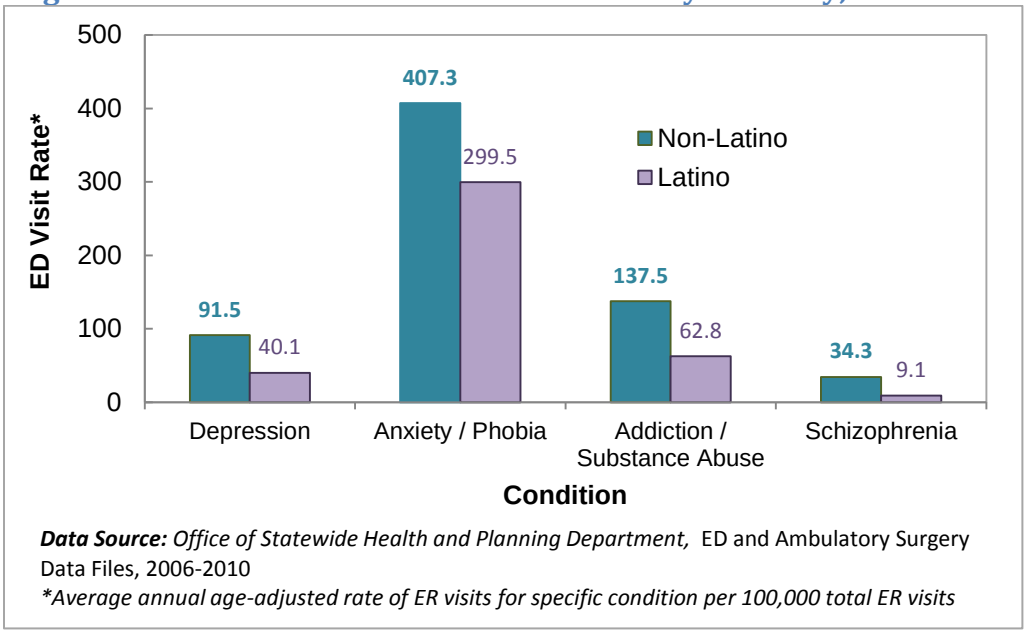
Data Source: *Office of Statewide Health and Planning Department,* Patient Discharge Data Files, 2006-2010

**Average annual age-adjusted rate of hospitalizations for specific condition per 100,000 total hospitalizations.*

Ethnicity

ED visit and Hospitalization rates for depression, anxiety and phobia, addiction/substance abuse, and schizophrenia are statistically significantly higher among Non-Latinos than they are among Latinos (see Figure 16 and Figure 17).

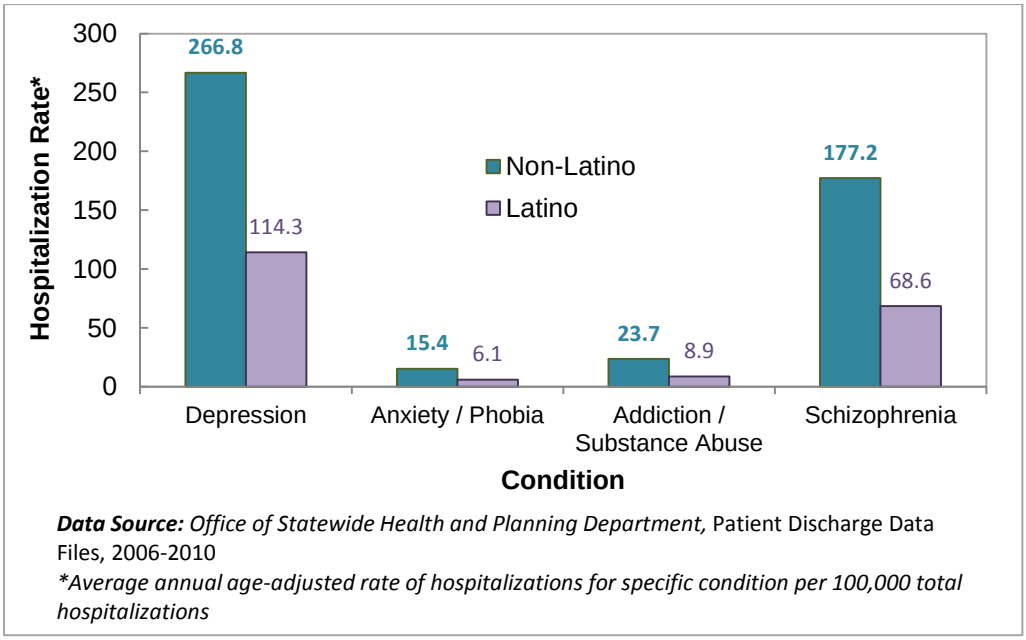
Figure 116: ED Visit Rates for Mental Illness by Ethnicity, 2006-2010



Data Source: *Office of Statewide Health and Planning Department,* ED and Ambulatory Surgery Data Files, 2006-2010

**Average annual age-adjusted rate of ER visits for specific condition per 100,000 total ER visits*

Figure 117: Hospitalization Rates for Mental Illness by Ethnicity, 2006-2010



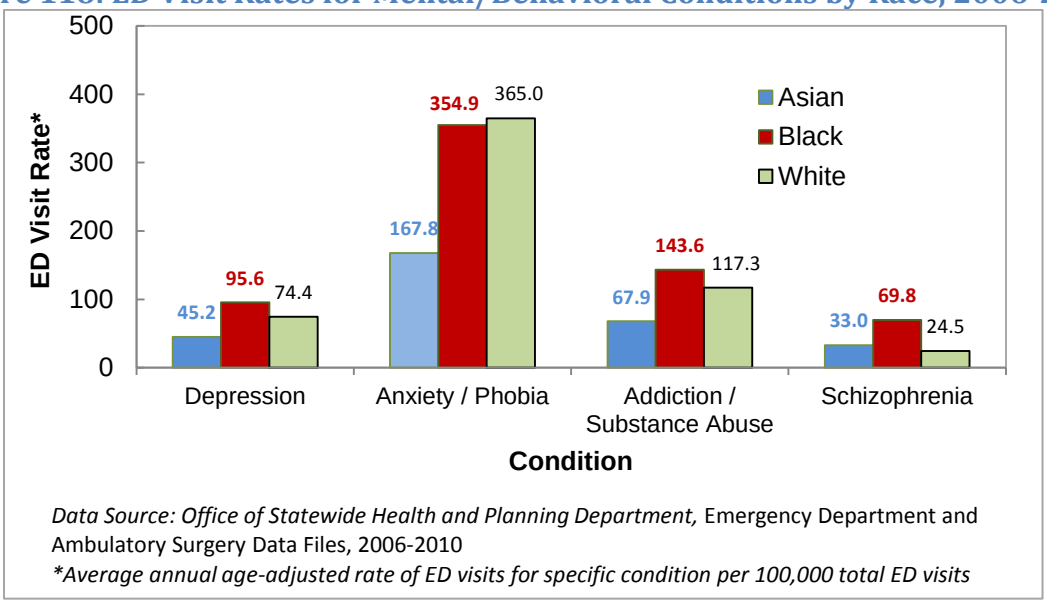
Data Source: *Office of Statewide Health and Planning Department,* Patient Discharge Data Files, 2006-2010

**Average annual age-adjusted rate of hospitalizations for specific condition per 100,000 total hospitalizations*

Race and Ethnicity

- As shown in Figure 118, Asians have lower rates of ED visitation for depression, anxiety/phobia, substance abuse and schizophrenia than do Black, and lower ED visit rates for all these conditions other than schizophrenia than Whites.

Figure 118: ED Visit Rates for Mental/Behavioral Conditions by Race, 2006-2010

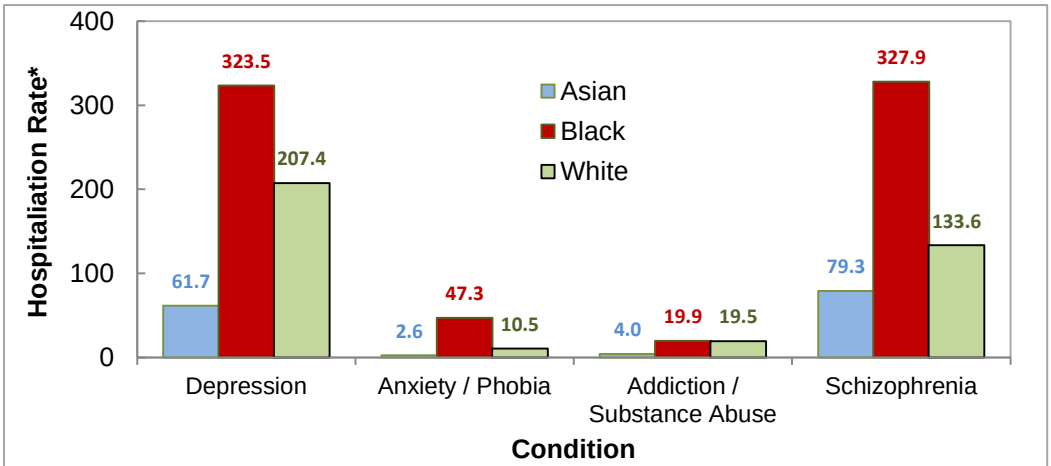


Data Source: Office of Statewide Health and Planning Department, Emergency Department and Ambulatory Surgery Data Files, 2006-2010

**Average annual age-adjusted rate of ED visits for specific condition per 100,000 total ED visits*

- As shown in Figure 122, African American/Blacks have a significantly higher rate of hospitalization for depression than Caucasian/Whites, who in turn have a significantly higher rate than Asian/Native Hawaiian/Pacific Islanders (323.5 vs. 207.4 vs. 61.7 per 100,000 hospitalizations).
    - As discussed in the *Major Causes of Death* section above, the average annual age-adjusted suicide rate is statistically significantly higher among Non-Latinos than Latinos (14.0 per 100,000 deaths vs. 5.3 per 100,000 deaths; 2010-2012 DSMF; see Table 55).
    - As shown earlier in Table 56, Asian/Native Hawaiian/Pacific Islanders have the highest suicide mortality rate in the county (17.7 per 100,000), but it does not statistically differ from that of Caucasians/Whites (13.5 per 100,000), while African Americans/Blacks have a the lowest suicide mortality rate (3.7 per 100,000; 2010-2012 DSMF).
- The statistically significant racial differences in hospitalization rates for anxiety and phobia match those of depression: African American/Blacks have the highest rate, followed by Caucasian/Whites, and then Asians/Native Hawaiians/Pacific Islanders (47.3 vs. 10.5 vs. 3.6 per 100,000 hospitalizations).
- African American/Blacks and Caucasian/Whites had similar rates of hospitalization for addiction/substance abuse (19.5 and 19.9 per 100,000 hospitalizations, respectively), both statistically significantly higher than the rate for Asians/Native Hawaiians/Pacific Islanders (4.0 per 100,000 hospitalizations).

Figure 119: Hospitalization Rates for Mental/Behavioral Conditions by Race, 2006-2010



Data Source: *Office of Statewide Health and Planning Department,* Patient Discharge Data Files, 2006-2010

**Average annual age-adjusted rate of hospitalizations for specific condition per 100,000 total hospitalizations*

Geography

- ***Urban vs. Rural***
  - ED visit rates for each of the four mental illnesses in question are highest in Stanislaus County regions classified as primarily urban. Mixed (urban/suburban/rural) areas had the next highest rates, except for depression, for which the mixed and rural areas did not differ.
  - Hospitalization rates for depression and schizophrenia were highest in Stanislaus County regions classified as urban, lower for areas classified as mixed and lowest in areas classified as rural.
- ***Regions:*** ED visit and hospitalization rates for these mental/behavioral conditions differed across the nine geographic regions of the county (see Table 6 and Table 62 and Figure 120 through Figure 127). Suicide mortality rates in Stanislaus County residents were shown in Figure 107 in the *Major Causes of Death Section*.

Table 61: ED Visits Rates* for Mental Illness by Geographic Region, 2006-2010

Region	Depression	Anxiety and Phobia	Addiction and Substance Abuse	Schizophrenia
Central	67.5	316.9	96.0	28.8
East Central	**92.0**	**427.0**	**221.7**	42.5
Southeast	60.7	310.5	73.3	9.6
Northeast	69.6	315.1	32.9	19.2
North Side	91.2	339.3	58.8	28.3
Southwest Central	83.9	388.8	164.1	**44.9**
West Side	49.0	240.7	63.1	7.4
South Central	55.0	334.4	105.4	10.1
South Side	73.6	417.2	136.5	14.6

Data Source: *Office of Statewide Health Planning and Development, Emergency Department and Ambulatory Survey Files (Model Data Set), 2006-2010; calculations by H.S.A. staff*

**Average annual age-adjusted hospitalization rates for specific conditions per 100,000 hospitalizations.*

Note: The highest regional hospitalization rate for each condition is bolded.

Table 62: Hospitalization Rates* for Mental Illness by Geographic Region, 2006-2010

Region	Depression	Anxiety and Phobia	Addiction and Substance Abuse	Schizophrenia
Central	238.1	12.4	22.4	165.3
East Central	**352.3**	**20.4**	**24.0**	207.2
Southeast	188.2	10.0	9.7	50.9
Northeast	159.5	7.2	13.8	117.1
North Side	157.2	9.9	21.8	83.5
Southwest Central	258.2	10.4	11.4	**319.9**
West Side	102.7	7.7	12.9	39.8
South Central	175.3	10.0	21.8	127.8
South Side	159.8	11.1	15.2	70.6

Data Source: *Office of Statewide Health Planning and Development, Patient Discharge Data Files (Model Data Set), 2006-2010; calculations by H.S.A. staff*

**Average annual age-adjusted hospitalization rates for specific conditions per 100,000 hospitalizations.*

Note: The highest regional hospitalization rate for each condition is bolded.

Figure 120: Age-Adjusted ED Visit Rates for Depression, Stanislaus County, 2006-2010

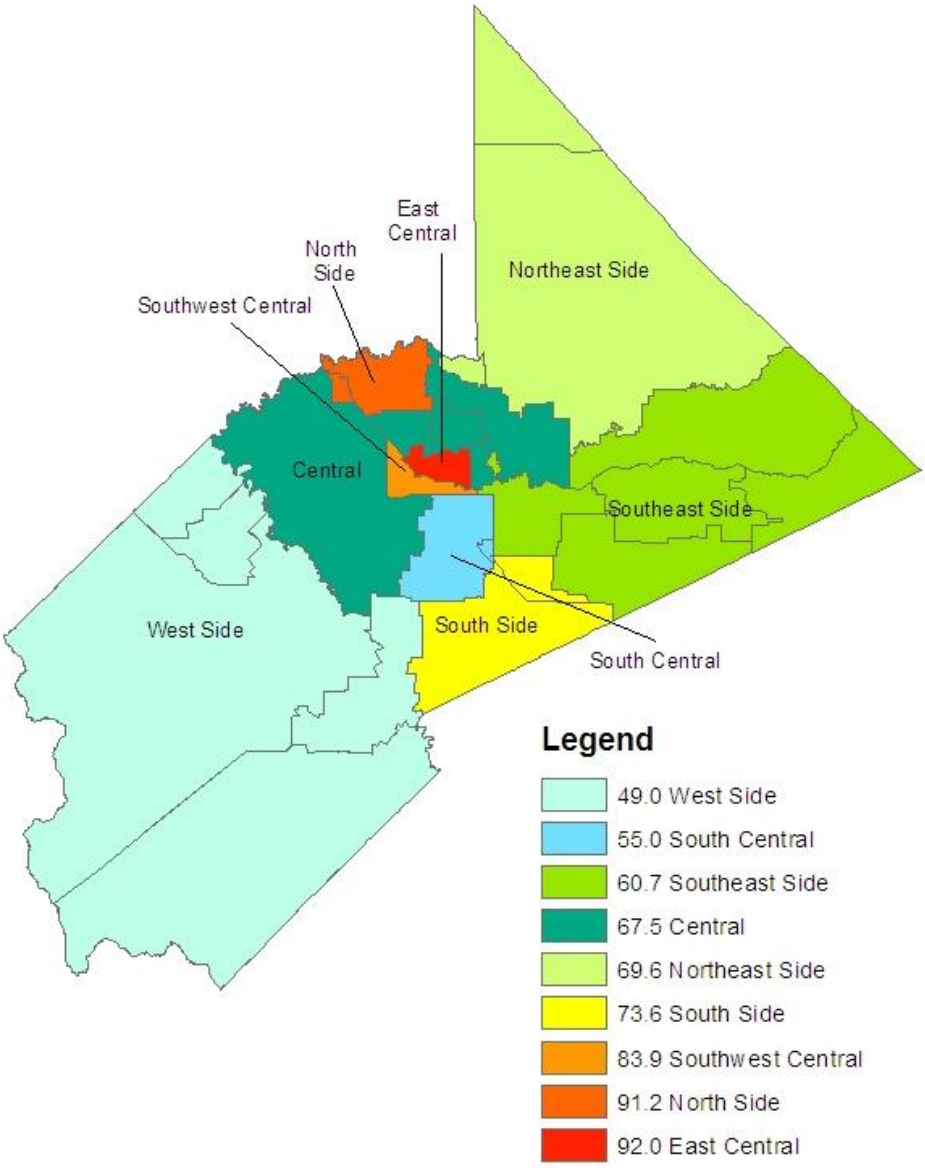


Figure 121: Age-Adjusted ED Visit Rates for Anxiety/Phobia, Stanislaus County, 2006-2010

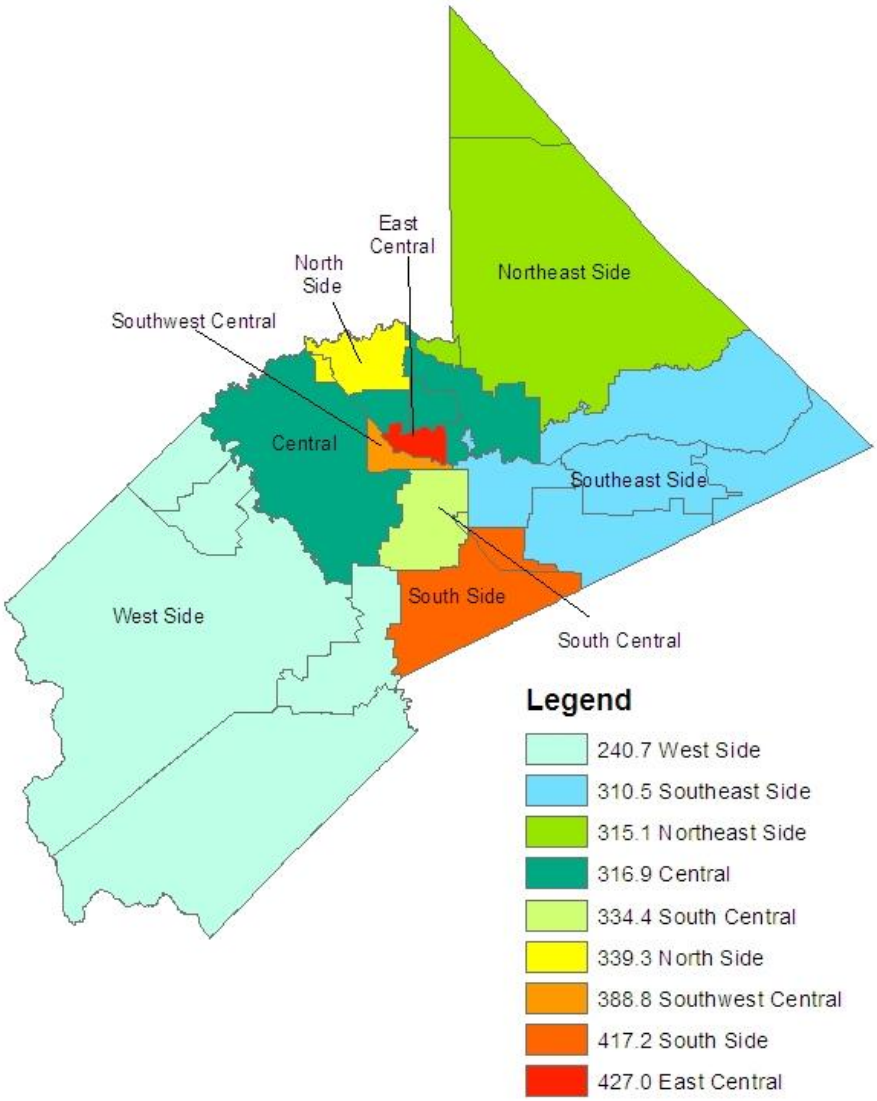


Figure 122: Age-Adjusted ED Visit Rates for Addiction/Substance Abuse, Stanislaus County, 2006-2010

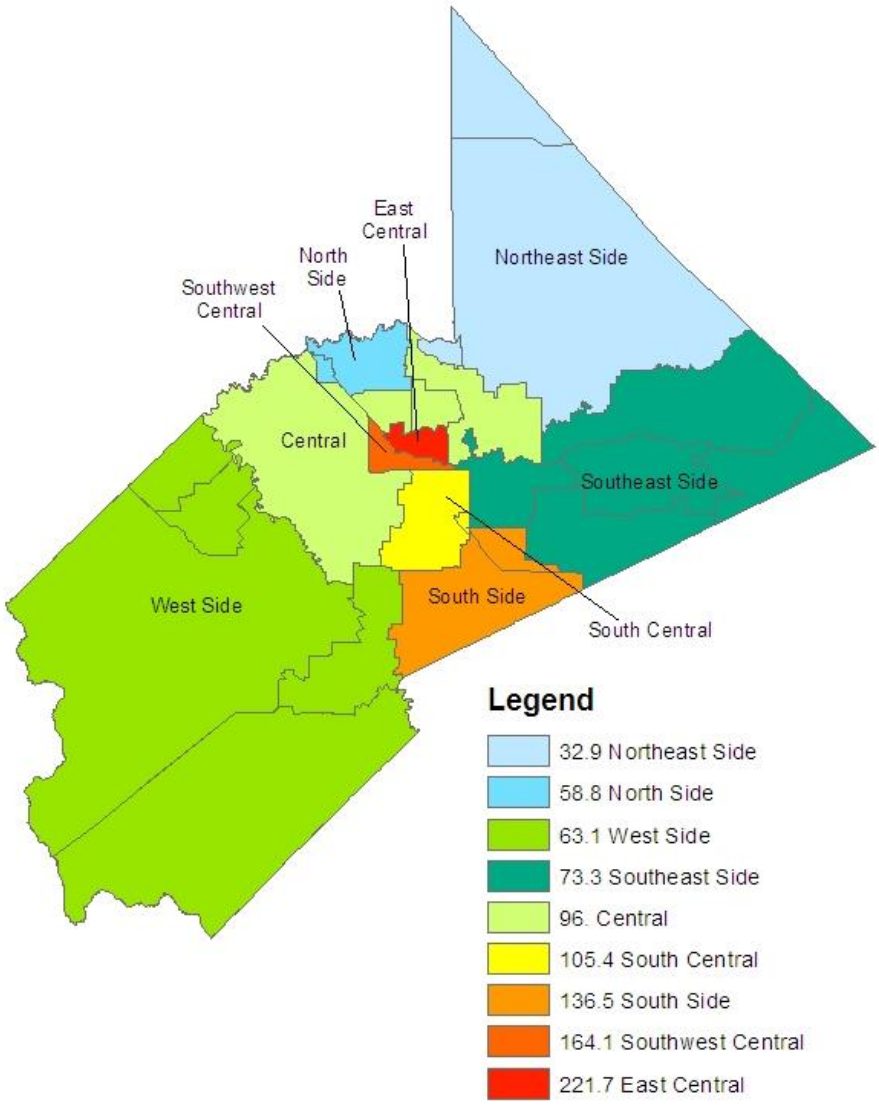


Figure 123: Age-Adjusted ED Visit Rates for Schizophrenia, Stanislaus County, 2006-2010

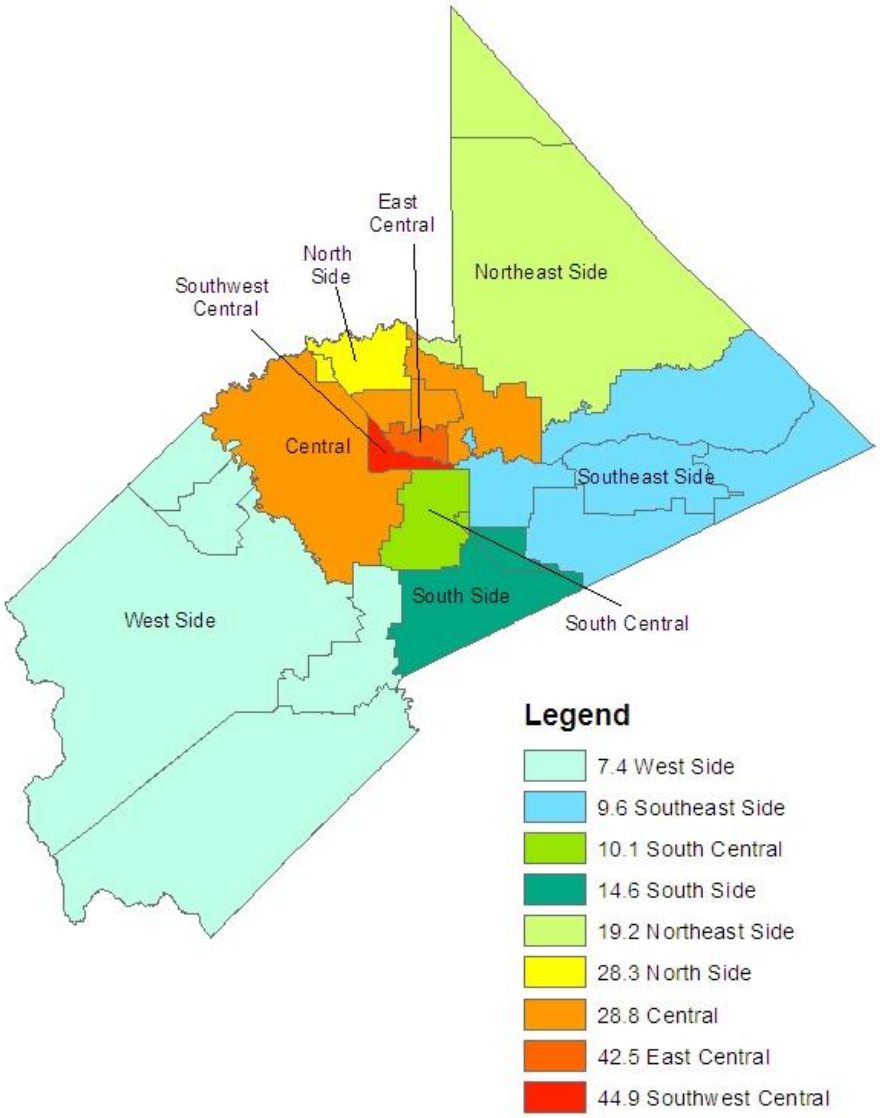


Figure 124: Age-Adjusted Hospitalization Rates for Depression, Stanislaus County, 2006-2010

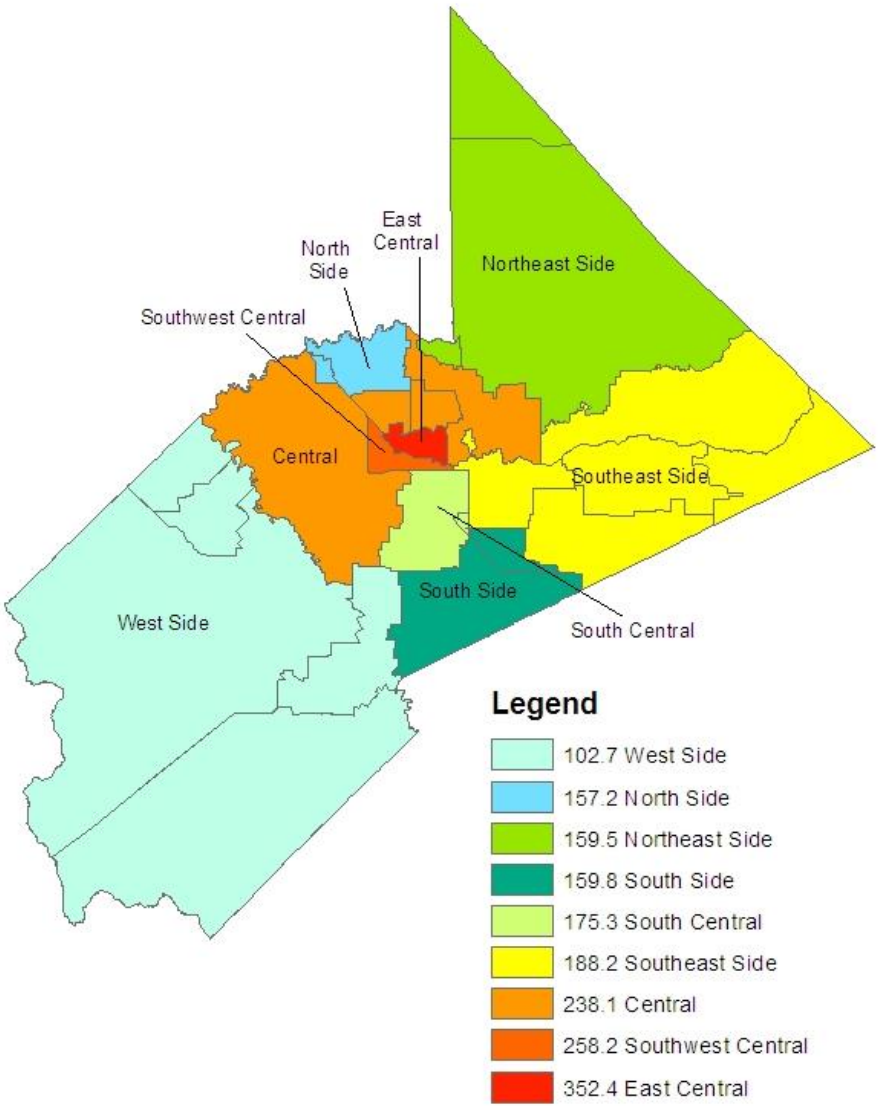


Figure 125: Age-Adjusted Hospitalization Rates for Anxiety/Phobia, Stanislaus County, 2006-2010

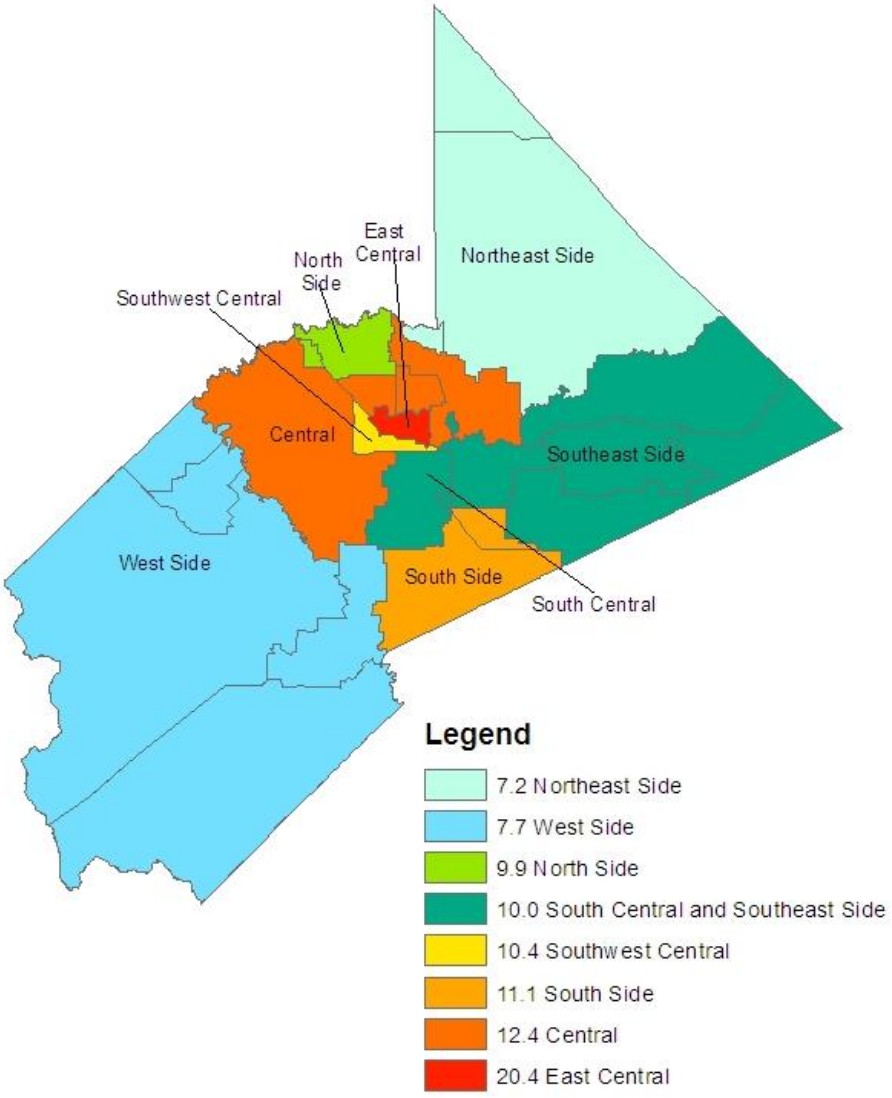


Figure 126: Age-Adjusted Hospitalization Rates for Addiction/Substance Abuse, Stanislaus County, 2006-2010

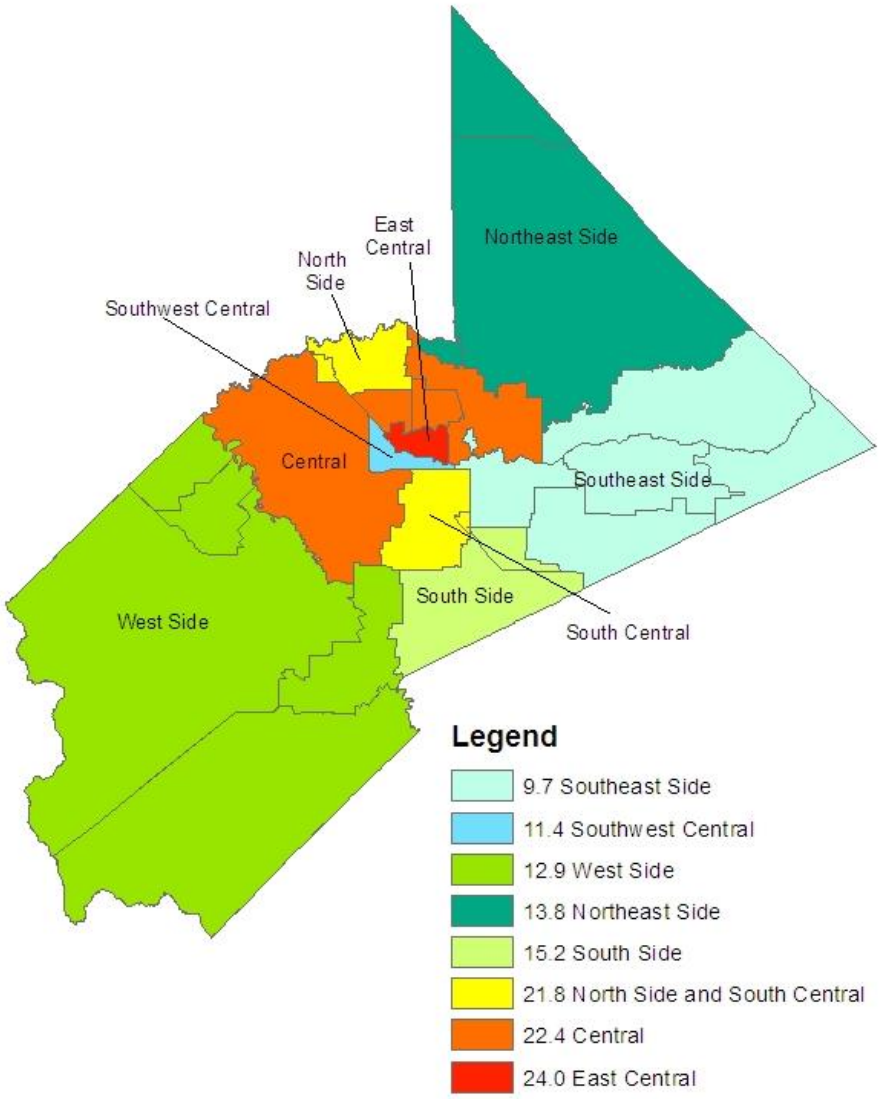
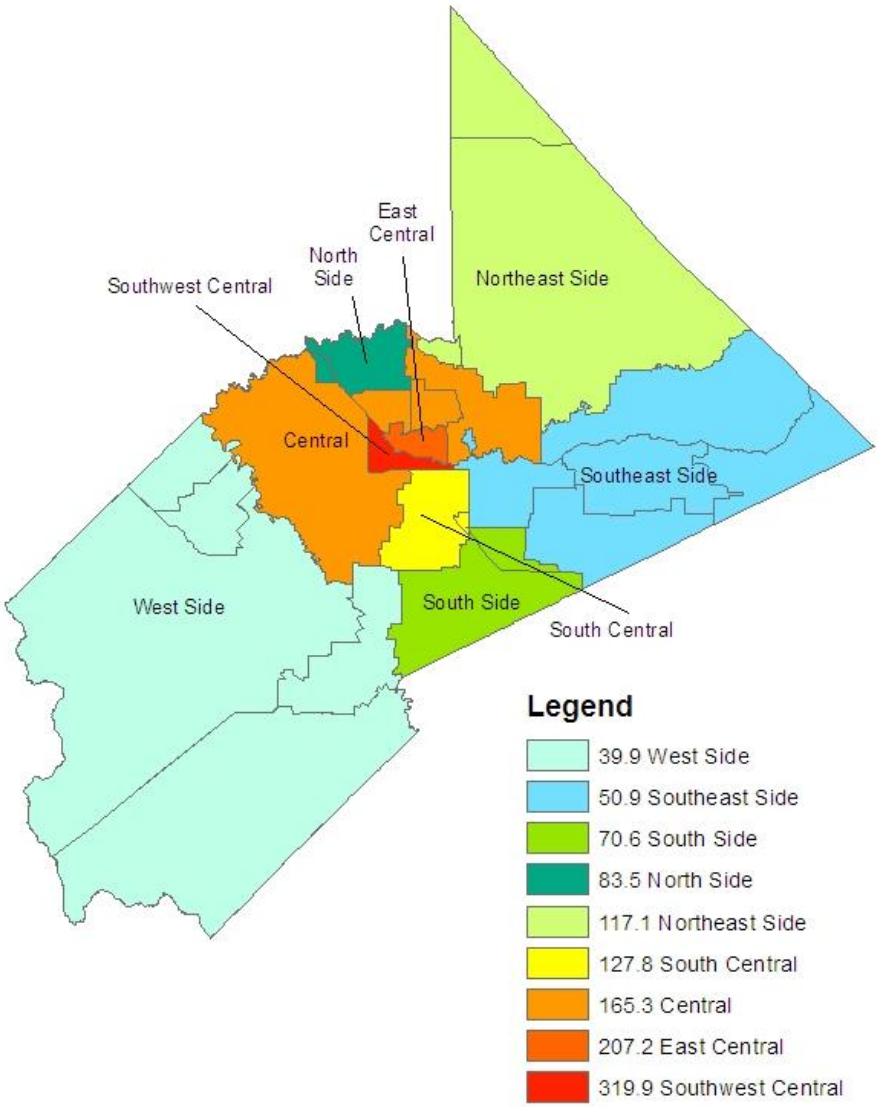


Figure 127: Age-Adjusted Hospitalization Rates for Schizophrenia, Stanislaus County, 2006-2010



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Appendix A: CHA Methodology

Part I: Data Indicators

For the data indicators deemed important by the Steering Committee but not available from any identified secondary data source, H.S.A. staff conducted exhaustive literature reviews to ensure appropriate questions were included in the 2013 community survey. The draft survey questions were then presented to the Steering Committee for review and approval.

Data indicators which were available from a satisfactory secondary source were generally not included as part of the primary community survey. Exceptions (where a question with a satisfactory secondary data source was included in the community survey) occurred when: 1) demographic information was collected to ensure a representative sample was obtained (e.g. - age, gender, county region), or 2) more than one CHA Steering Committee members wanted to use data for sub-group comparison purposes within the primary survey findings (e.g. health insurance coverage by age).

Part II: Primary Data Collection

Community Survey

Languages and Formats

The community survey questionnaire was created with two language versions: English and Spanish. Paper copies were printed on legal-sized paper. An electronic survey version in English was also created using SurveyMonkey on the internet.

Survey Methodology

Members of the CHA Steering Committee who had expertise in survey design and collection worked to determine how sampling would be conducted for the primary community survey. Due to lack of sufficient funds, a true random sample could not be obtained; for example, the price of a random digit-dial telephone survey was more than twice the funds available. Thus, the Survey Methodology Committee decided to set targets for the demographic characteristics of the community survey, using data from the 2010 US Census (for gender, age, race and ethnicity) and the 2006-2010 American Community Survey (for poverty level) across the County as a whole and for each of the nine regions.

Community Survey Collection

Partners and volunteers were recruited for assistance with survey distribution and collection. These surveyors were trained in March 2013. More than 30 people, from 13 organizations (mostly Family Resource Centers) were trained as survey collectors. This training was conducted to ensure the following was understood

- the intended uses, purpose and content of the survey,
- the meaning of each survey item,
- the importance of protecting respondents' confidentiality,
- techniques to reduce bias in responses,
- techniques to recruit respondents,

- how to assist individuals with vision problems and those who do not read English or Spanish, legal requirements for reporting suspected child or elder abuse encountered during data collection, and
- resources and referrals for respondents in need.

In March 2012, a Survey Distribution Subcommittee was formed to help coordinate data collection. This subcommittee compiled a list of community events where community surveys could be disseminated and distributed the list to Family Resource Center personnel, who were paid to disseminate surveys in the community. The subcommittee also implemented tracking of individual collectors and events attended.

Paper-based surveys were collected between April and August 2013. These surveys were collected at community events, door-to-door in neighborhoods or businesses in the target areas. In addition, the Survey Distribution Subcommittee distributed the electronic version of the survey to partners, including health coalitions, charitable organizations and major employers in an effort to increase respondent numbers and recruit potential participants from higher income brackets. Paper-based surveys were collected between April and August 2013. Respondents who agreed to participate in the survey were offered their choice of a small donated incentive: a wooden spoon, a magnetized note pad, shoelaces, or a pedometer. Paper surveys were collected from surveying partners every one or two weeks and entered into a separate SurveyMonkey account.

Community Survey Analysis

H.S.A. staff entered paper survey responses into SurveyMonkey. Surveys that did not include gender, age, poverty status, or both city and zip code were excluded from the analysis. Contractor staff imported the surveys into Statistical Analysis Software (SAS) from SurveyMonkey. FHOP staff then obtained frequencies and percentages of responses for each question. In all, 2,056 surveys were collected from adults living in Stanislaus County.

The contractor also examined the final sample to determine whether it matched the demographic targets set from the 2010 US Census and the 2006-2010 American Community Survey (five-year 2010 ACS). Overall, female respondents and respondents not living in poverty were over-represented in the surveys, while surveys from certain geographic areas were under-represented, despite attempts to ensure survey respondents' demographics matched that of the survey plan.

To make the survey data more representative of the County's population, FHOP staff applied statistical weighting to the survey data set. Weights were calculated as the ratio of the "target population" percentage divided by the "actual" sample percentage. To do so, FHOP staff calculated weights for each of the 36 levels defined by three factors: region (9 categories), gender (2 categories), and poverty status (2 categories). Over-represented categories were given a weight of less than one; under-represented categories were given a weight greater than one. The weights ranged from a minimum of 0.196 to a maximum of 7.4. By applying the weights to the survey data set, this ensured that the weighted frequency of the demographic groups matched that of the County's population.

Target percentages for all 36 combinations of these factors were obtained from the 2010 Census and the 2006-2010 American Community Survey. They represented the population distribution of the set of demographic characteristics mentioned in the paragraph above. The demographic variables used were: total population by gender, number with known poverty status, and number in poverty by zip code. These were totaled into nine County geographic regions. The poverty rate within each region was calculated by dividing the number in poverty by the number with known poverty status. The poverty rate multiplied by the total population yielded an estimate of the true number in poverty by region.

To obtain the further breakdown by gender, FHOP staff multiplied by the percent female given poor (52.8%), or the percent female given not poor (49.4%). These percentages were calculated from poverty rates by gender (23% for female and 21% for male) found on the Kaiser Family Foundation website "Adult Poverty Rate by Gender." This calculation used Bayes Rule with a prior assumption of 50% female in the population of Stanislaus County within the age range of the study.

These calculated weights were then applied to the actual frequency of responses obtained in the survey to achieve weighted frequencies. This procedure ensured that the weighted frequency of the demographic groups matched that of the County's population.

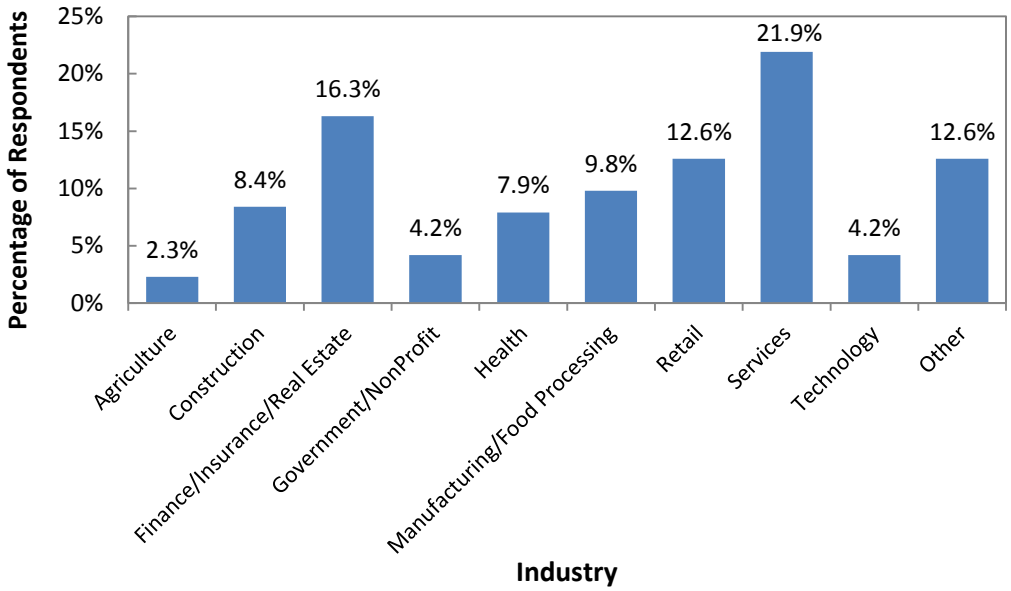
Once weighted frequencies were calculated, the contractor sent the findings in the form of SAS outputs and Excel files to H.S.A. staff. The H.S.A. staff created graphs and tables and reported the findings.

Employer Survey

The CHA Steering Committee was interested including information about local employers' current practice of and future plans for offering health insurance to their employees. The Survey Subcommittee and H.S.A. staff worked with the Stanislaus Economic Development and Workforce Alliance to collect relevant data. Each year, the Business Resource Center of the Alliance conducts a survey of local employers through its January newsletter. For the *2013 Employer Survey*, the Alliance asked standard questions on company size and industry, and also added three questions concerning plans for the implementation of the employer mandate of the Patient Protection and Affordable Care Act in 2014.

In 2013, nearly 4,000 county businesses were emailed the Alliance newsletter containing the employer survey. Of those 4,000 businesses, 215 employers completed the survey. This represents a 5% response rate, which is similar to response rates in previous years. As shown in Figure 129, the largest percentage of respondents fell into the "services" industry, including hospitality, food preparation and service, and building and grounds maintenance. However, government is actually the largest employer in the county (Stanislaus County, 2011); such respondents were under-represented in the survey.

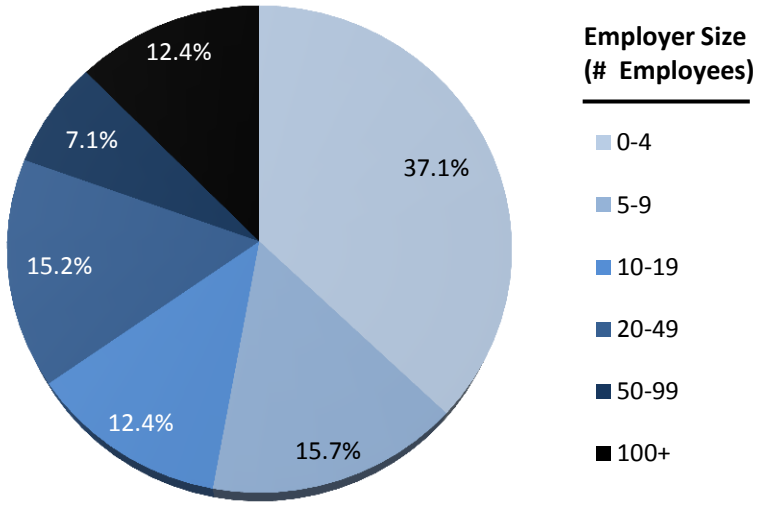
Figure 128: Industry Representation in 2013 Employer Survey



***Data Source**: Stanislaus Economic Development and Workforce Alliance's* 2013 Employer Survey
N=215

The Alliance staff reported that the distribution group for the newsletter over-represented larger employers in the county. As shown in Figure 129, 37.1% of respondents were from very small firms, with between 0 to 4 employees, compared to 49.9% of businesses found by the US Census Bureau (2012 ACS); 12.4% of employer survey participants were from firms with 100 or more employees, compared to 2.0% in the 2012 ACS.

Figure 129: Size of Employers that Participated in the 2013 Employer Survey



***Data Source:** Stanislaus Economic Development and Workforce Alliance,* 2013 Employer Survey
N=215

Languages and Formats

The employer survey was only offered in English. All surveys were administered electronically. To see the actual questions asked in the Employer Survey, see Appendix B.

Survey Collection

The employer survey was sent to local employers in the form of a link to SurveyMonkey from the Alliance's January 2013 newsletter. Survey collection was completed in February 2013.

Employer Survey Analysis

Alliance personnel analyzed the employer survey results using SurveyMonkey and shared these with H.S.A. staff, who created additional tables and graphs, and wrote up the findings.

Part III: Secondary Data

Major Secondary Data Sources

Census 2010 and the American Community Survey (ACS)

The United States (U.S.) government is mandated by the Constitution to count every resident in the United States every 10 years via a census. Previous decennial census (1940 to 2000) 'long' forms were lengthy, asking 53 questions of each respondent, and collected every 10 years. In 2010, the decennial census was reduced to a single questionnaire with 10 questions given to all U.S. households to be completed for all residents. The response rate for Census 2010 was 74%. Zip code level data is available for general demographics characteristics and housing characteristics.

Questions previously asked on the long-form decennial census are now asked by the annual *American Community Survey* (ACS). This survey includes questions that are not asked by the census and is administered to a small sample (1%) of residents. Topics include: age, gender, race, family and relationships, income and benefits, health insurance, education, veteran status, disabilities, work location and means of transportation to work, location of residence and percentage of income spent on housing costs. ACS survey data is available at the county level as single year estimates, three-year aggregates or five-year aggregates.

California Health Interview Survey (CHIS)

CHIS is the largest state health survey in the nation. It is conducted by UCLA Center for Health Policy Research, in collaboration with the California Department of Public Health and the Department of Health Care Services. Data from CHIS provides state-wide and county-wide information on the health and healthcare needs of those who live in California. CHIS is a telephone survey administered to a random and representative sample of households; computers randomly draw telephone numbers from 44 geographic areas which represent 41 individual counties (the most populated). The remaining 17 counties are grouped into three different regions. The survey is conducted in five languages: English, Spanish, Chinese, Korean and Vietnamese. Beginning in 2007, cell phone numbers were included in the random digit dial methodology. Data are issued every two years and are available statewide, by certain regions, and for certain counties, including Stanislaus.

Before 2010, data were also collected only every two years, but beginning in 2010, data collection switched to a continuous mode.

There are limitations to using CHIS data. In 2009, only 534 households (662 individuals and their children) in Stanislaus were surveyed. Prevalence percentages by county were calculated based on California Department of Finance population projections (which are less accurate as time passes from the decennial census) and may not be truly representative of the health and health care needs of the county. CHIS data is often statistically unreliable due to the small sample size for Stanislaus County, especially for less prevalent conditions (i.e. seizure or epilepsy) and risk factors. County data stratified by race is usually statistically unstable and CHIS strongly recommends against reporting such data. The issue of statistical instability was sometimes avoided by pooling two years of data together (larger sample size); however there were instances where pooled data were still unstable. Such unstable data was presented in several instances in this report, marked as such, and should be interpreted with caution.

California Healthy Kids Survey (CHKS)

The CHKS is a paper and pencil survey of 5th, 7th, 9th, 11th graders as well as non-traditional students developed by WestEd for the California Department of Education. Administered anonymously at school on an annual basis by school staff, the CHKS includes a general, core set of questions, plus a series of supplementary modules covering specific topics. Schools can customize their survey modules depending on local needs and interests. CHKS collects data on attitudes, behaviors and school-related experiences through various learning and health-related indicators. Some of the topics covered include: school connectedness, developmental supports and opportunities, safety, violence and harassment, substance use, and physical and mental health.

In Stanislaus County from 2009-2011, 2,479 students responded at the elementary level and 14,506 students responded at the secondary level. Reports are available at district, county and state levels. It is important to interpret the results with caution because they can be highly impacted by response rates, parental consent, gender differences, and regional variations.

County Health Status Profiles

Each year, the California Department of Public Health issues the *County Health Status Profiles*, a report which measures performance of the state and 58 counties on selected health status indicators, as recommended by the U.S. Department of Health and Human Services. The *County Health Status Profiles* monitors state and local county progress toward achieving a small set of the goals set forth in the *Healthy People 2020* report. Select perinatal health outcomes and age-adjusted rates aggregated for three-year periods (either 2009-2011 or 2010-2012, depending on availability) for several mortality indicators appear in this report.

Birth Statistical Master Files (BSMF)

Births in California are required to be reported via a birth certificate to the Vital Statistics Office of the county in which the birth took place. Birth certificate data that the local vital statistics registrars receive from the hospitals (or directly from parents) are then

forwarded to the State for further data cleaning, validation and re-allocation. Mothers who give birth outside their official county of residence need to be re-allocated to their county of residence by the State. The final data files are called the *Birth Statistical Master Files* (BSMF) for a particular year and jurisdiction. County-specific files can then be obtained by each county health department for analysis. However, there is generally a lag of 12 months between the baby's birth and when that data becomes available to county departments for summary and further analysis. 2012 BSMF data were analyzed for this report, along with earlier years in some cases for time trending.

Emergency Department Data Files (EDASF)

California hospitals with emergency departments (ED) are required to report particular data elements concerning emergency department visits to the California Office of Statewide Health Planning and Development (OSHPD). Model data sets for Stanislaus County residents (who visited an ED within the state of California) were the basis for the ED visit data presented in this report. These data files were imported and aggregated by H.S.A., after which the principal diagnosis, charges and certain demographic variables were analyzed.

Privacy protections put into place by OSHPD complicate the calculation of the number of unique residents who have visited the ED. Due to the difficulty of determining a unique count and the fact that the same person could have different ED visits for different reasons (e.g. broken arm, dehydration, asthma attack), the analyses presented here are based on total visits, not on counts of unique patients.

It should also be noted that variables were analyzed for this report exactly as they were found in the OSHPD *Emergency Department and Ambulatory Survey Data Files (EDASF)*. To the extent that different procedures are used by different hospitals to classify or report variables, error may be introduced. The variables for race and ethnicity are particularly likely to have measurement error, based in part on differences in how these are obtained and then classified at each facility.

To present a comprehensive view of major causes of ED visits, the Major Diagnostic Category variable was used. To make clear that these categories of disease/conditions are precisely defined by ICD-9 codes, these category names are capitalized throughout this section of the report.

For the purposes of comparison across groups, ED visit rates were age-adjusted for this report, following the procedure outlined in the Report Conventions subsection below. To examine the differential burden of ED visits among different demographic groups, average annual age-adjusted cause-specific rates were examined for the period 2008-2010, using the 2008-2010 *American Community Survey* population estimates, except for analyses involving race and geographic region. Because subdividing ED visits by race and geographic region resulted in very small numbers, at least for certain diseases, data from a five-year period, 2006-2010 were used to examine racial differences in ED visits. All rates are presented per 100,000 persons.

Patient Discharge Model Data Files (PDDF)

California hospitals are required to report particular data elements concerning inpatient care to the California Office of Statewide Health Planning and Development (OSHPD). Model data sets for Stanislaus County residents (hospitalized anywhere within California between 2000 and 2010) were the basis for the hospitalization data presented in this report. These patient discharge data files were imported and aggregated by H.S.A., after which the principal diagnosis, charges, length of stay and certain demographic variables were analyzed.

As for emergency department visits, privacy protections put into place by OSHPD complicate the calculation of the number of unique residents hospitalized. The analyses presented here are based on total patient discharges, not on counts of unique patients.

Variables were analyzed for this report exactly as they were found in the OSHPD *Patient Discharge Data File (PDDF)*. To the extent that different procedures are used by different hospitals to classify or report variables, error may be introduced. The variables for race and ethnicity are particularly likely to have measurement error, based in part on differences in how these are obtained and then classified at each facility.

To present a comprehensive view of major causes of hospitalization, the Major Diagnostic Category variable was used. To make clear that these categories of disease/conditions are precisely defined by ICD-9 codes, these category names are capitalized throughout this section of the report.

To examine the differential burden of hospitalizations among different demographic groups, average annual age-adjusted cause-specific rates were examined for the period 2008-2010, using the 2008-2010 *American Community Survey* population estimates, except for analyses involving race and geographic region. Data from a five-year period, 2006 to 2010, were used to examine racial and geographic differences in hospitalizations. All rates are presented per 100,000 population.

EpiCenter Injury Data

The California Department of Public Health compiles state injury data in Epicenter a searchable online database. EpiCenter includes fatal and non-fatal injuries, with distinctions made between hospitalizations and emergency department (ED) visits. Data is not systematically collected on injuries treated in an outpatient setting, at school, work or home. Injury data can be retrieved using ICD-9 or ICD-10 diagnostic codes, injury cause category, county, race/ethnicity and age.

Data for fatal injuries is from the CDPH Death Statistical Master File (DSMF; see below for a description) while data for non-fatal injuries comes from the California Office of Statewide Health Planning and Development Patient Discharge Data and Emergency Department Data (see above for a description). California's violent death data comes from California's Violent Death Reporting System (CalVDRS) and California's Electronic Violent Death Reporting System (CalEVDRS). Motor-vehicle crash data is sourced from Linked Crash Medical Outcomes Data (CMOD). Lastly, the population data comes from the California Department of Finance. Note that rates reported from EpiCenter may differ from those calculated from EDASF, PDDF and DSMF, for which the U.S. Census Bureau was used as the population.

Death Statistical Master File (DSMF)

Deaths occurring in California are required to be reported to the Vital Statistics Office of the county in which the death occurred by the coroner, the funeral home or the doctor who signed the death certificate. The signer of the death certificate must list the underlying cause of death and may also list other contributing causes. All deaths, including the information listed on the death certificate, are reported by the county registrar to the California Department of Public Health (CDPH). CDPH has agreements with the other forty-nine states so that deaths of California residents occurring in other states are reported to California for review. CDPH then reallocates deaths to the county (or state) of residence of the decedent. The underlying cause of death listed on each death certificates is reviewed and then coded by experts at CDPH using the International Classification of Diseases, Tenth Revision (ICD-10) system from the World Health Organization. Finally, CDPH creates the *Death Statistical Master Files* (DSMF) for California and for each jurisdiction. The 2010 to 2012 versions of the *Death Statistical Master File* containing only deaths of Stanislaus County residents served as the main source of information for the Mortality section of the report; 2008 to 2012 DSMF data were used for regional calculations. To ensure consistent grouping of causes of death, the National Center for Health Statistics' lists of 50 ranked causes of death for adults (Heron & Tejada-Vera, 2009) were used to group causes of death in this report.

This report follows the field's standard practice to present mortality rates as the number of deaths due to a particular cause per 100,000 residents. To ensure statistical stability, three-year (2010-2012) aggregated and age-adjusted rates are presented, using the 2000 US population as the standard population.

Prevention Quality Indicators (PQI)

Prevention Quality Indicators (PQIs), one out of four types of Quality Indicators (QI), are hospitalization rate measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for ambulatory care-sensitive conditions (ACSCs). ACSCs are conditions for which early intervention and good outpatient care can prevent hospitalizations. These PQIs can be used to assess the accessibility, effectiveness and quality of primary care. Some chronic health conditions (i.e. short-term and long term complications of diabetes, congestive heart failure, hypertension, adult asthma, chronic obstructive pulmonary disease and uncontrolled diabetes) are deemed ambulatory care-sensitive conditions. Statewide and countywide data are available from the Office of Statewide Health Planning and Development website.

Healthcare Effectiveness Data and Information Set (HEDIS) 2011 and 2012 Aggregate Report for the Medi-Cal Managed Care Program in California

This publication reports on a set of performance measures developed by the National Committee for Quality Assurance (NCQA) as a tool to measure health plans' performances on various dimensions of care and service. The data in that report for the two Medi-Cal managed care plans in Stanislaus County for 2011 and 2012 (or an earlier year, if needed) served as the data for this section. HEDIS measures quantify effectiveness and quality of care in terms of: adolescent well-care visits, screening for breast and cervical cancer, weight assessment and counseling for nutrition and physical activity for children and adolescents, timeliness of prenatal and postpartum care, care provided to members with

chronic diseases such as diabetes, use of imaging studies for low back pain, appropriate treatment for other conditions such as upper respiratory infection (URI) in children and acute bronchitis in adults. For each performance measure, Minimum Performance Levels (MPLs) and High Performance Levels (HPLs) are established. MPLs are based on the national Medicaid 25th percentile. HPLs are based on national Medicaid 90th percentile.

Additional Data Sources

- Measures of the number of health care providers per jurisdiction were gathered from research literature and the University of Wisconsin Population Health Institute's *County Health* Rankings (Population Health Institute, 2011 &2012).
- Health insurance information and projections was obtained from the U.S. Census Bureau (multiple dates), Henry J. Kaiser Foundation (2010 & 2013), U.S. Chamber of Commerce (no date), U.S. Centers for Medicaid and Medicare Services (2013), the White House (2013), and research literature.
- Health care professional guidance and standards were obtained from the Agency for Healthcare Research and Quality (no date.), American Academy of Family Physicians (2012),California Maternal Quality Care Collaborative (2007) and the U.S. Preventive Services Task Force (2007, 2008a, 2008b, 2009, & 2011).
- Other health information and statistics were obtained from the American Psychological Association (2009), California Health Care Foundation (2013), Centers for Disease Control and Prevention (CDC, multiple dates), Central Intelligence Agency (2013), Kaiser Permanente's *2010 Stanislaus County Community Health Assessment* (Brutschy & Stevens, 2010), March of Dimes (2013a, 2013b, 2013c, 2013d), Mayo Clinic (2011), Memorial Medical Center's *2013 Community Health Needs Assessment* (Tong & Hutchins, 2013), Milken Institute (2007), National Capitol Poison Center (2012), National Drug Intelligence Center (2011), National Prevention Council (2011), Stanislaus County Community Services Agency (2013), U.S. Census Bureau (2013a), U.S. Department of Health and Human Services (multiple dates), U.S. Environmental Protection Agency (no date), World Health Organization (note date, 2005) and research literature.
- Additional education information was obtained from the Alliance for Excellent Education (2011), Child Trends (2013) and the Public Policy Institute of California (2009).
- Child care information was obtained from the California Child Care Resource and Referral Network (2013).
- Crime data came from the (State of California Department of Justice, 2013 and 2013a), National Center of Elder Abuse (2013), U.S. Department of Justice (2012), the Stanislaus County Community Services Agency, *The Modesto Bee (*no date; Stafford, 2013, Stapely, 2013; Tracey, 2013) and research literature.
- Information on environmental conditions affecting health was obtained from the American Lung Association (2013) and the California Center for Public Health Advocacy (2007).
- Housing information was obtained from the National Alliance to End Homelessness (2012), National Health Care for the Homeless Council (2014), National Coalition for the Homeless (2009), *The Modesto Bee* (Sbranti, 2013), RealtyTrac (2011, 2013a,

2013b, 2013c, 2013d), Zillow (2013) and U.S. Department of Housing and Urban Development (2013).

- Unemployment and other economic information was obtained from Alameda County Social Services Agency (2013), the California Employment Development Department, Center on Hunger and Poverty (no date), Feeding America (2013), Gallup Economy (2014), Insight Center for Community Economic Development (2011), U.S. Congress (2013) and the U.S. Department of Labor (2013).

Part IV: Report Conventions

Statistical Stability

Several of the local secondary (pre-existing) data sources examined have small sample sizes. This fact was exacerbated when subgroup analyses were performed to examine health disparities. Due to small sample sizes, findings and data trends observed were often not statistically significant. When possible, data was aggregated across two or more years to obtain statistical stability. Given the importance of having data for local decision makers to base their strategic planning, statistically non-significant or unstable results were sometimes reported within this report and have been clearly marked as such. Caution is urged when interpreting these results.

Age-Adjustment

Age-adjustment is a statistical procedure used to compare findings across populations of different age structures. It is especially important because many health conditions vary by age. For example, people at different ages tend to become ill and die from very different causes (e.g. people who die young are more likely to die from unintentional injuries compared to older individuals who are more likely to die from chronic diseases). The direct method of age-adjustment was performed for this report, using the 2010 US standard population for ER visit rates, hospitalization rates and mortality rates.

Privacy Concerns

In order to protect the identity of individuals, results for groups of less than 10 individuals, in which some demographic or other potentially identifying piece of information (following federal guidelines established in the Health Insurance Portability and Accountability Act [HIPAA]) was given, are suppressed in this report (i.e. reported as ≤10). Data for other "cells" was also suppressed when the real values could be used to calculate a suppressed value.

Appendix B: Stanislaus Economic Development and Workforce Alliance's 2013 Employer Survey

- Do you currently offer employer-based medical coverage?
- Will you offer medical coverage in 2014?
- How confident are you that your organization has enough information to plan for 2014 health care reform mandates?
- *Select the single category that best describes your business:*
  - Agriculture
  - Construction
  - Finance and Insurance
  - Food Processing
  - Government
  - Nonprofit Health
  - Information
  - Manufacturing
  - Real Estate
  - Retail
  - Services
  - Technology
  - Other
- How many employees do you have, including full and part-time staff?

Appendix C: Agency for Healthcare Research and Quality, Prevention Quality Indicators, 2011

2011 AHRQ Prevention Quality Indicators	Stanislaus Hospitalization Rate*
Chronic obstructive pulmonary disease (COPD)	515.1
Congestive heart failure	358.5
Bacterial pneumonia	336.4
Urinary tract infection	198.9
Diabetes long term complications	140.4
Dehydration	110.9
Diabetes short term complications	84.8
Hypertension	45.7
Asthma in younger adults	40.8
Perforated appendix	31.5
Angina without procedure	23.1
Lower-extremity amputation among patients with diabetes	19.8
Uncontrolled diabetes	16.0

Data Source: *OSHPD,* Prevention Quality Indicators, *see* http://www.oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/pqi_overview.html

**Rate = per 100,000 county population, excepted for PQI for perforated appendix, which is per 100 appendicitis cases. All rates are age- and sex-adjusted.*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