



Tuolumne County Community Health Needs Assessment



Sonora Regional Medical Center
— Adventist Health

CONTENTS

INTRODUCTION	1	END OF LIFE	29
Process	1	Falls.....	30
Demographics.....	2	Skilled Nursing and Assisted Living	31
Economy	2	Hospice.....	32
Population.....	3	Longevity.....	33
Racial and Ethnic Diversity	4	Cause of Death.....	34
Summary	4	Suicide Deaths	35
Assessment Committee Members	5	REDESIGNING HEALTHCARE	36
HEALTHY BEGINNINGS.....	6	Primary Care Providers.....	37
Prenatal Care	7	Medical Providers other than Primary Care.....	38
Births to Adolescent Mothers.....	8	Emergency Response	39
Breastfeeding Rate	9	Wait Times - Emergency Department	40
Child Care.....	10	Preventable Hospitalizations	41
Childhood Immunizations	11	All-Cause hospital Readmissions.....	42
Literacy and Math Achievement.....	12	Healthcare Associated Infections (HAI).....	43
Dental Care	13	Access to Health Care.....	44
Physical Fitness	14	Medicare Spending.....	45
Students Who Are Overweight or Obese	15	Medical Expenses Financial Assistance	46
Foster Care.....	16	Burden of Chronic Disease.....	47
Abuse and Neglect.....	17	CREATING HEALTHY COMMUNITIES.....	48
Substance Abuse	18	Food Security	49
LIVING WELL.....	19	Homelessness	50
Health Status.....	20	Homeowners	51
Dietary Status.....	21	Poverty	52
Weight.....	22	Supplemental Social Security Recipients.....	53
Physical Inactivity.....	23	Living Wage.....	54
Smoking Rates.....	24	Employment.....	55
Excessive Alcohol Use.....	25	Crime.....	56
Non-Fatal Overdose Rates	26	Transportation	57
Chronic Disease Rates	27	Education Attainment	58
Cancer Rates	28	Air and Water Quality.....	59
		Civic Participation	60
		Index.....	61

INTRODUCTION

The 2016 Tuolumne County Community Health Needs Assessment presents measurements that allow for a course to be set to improve the public's health. Tuolumne County Public Health and Sonora Regional Medical Center (SRMC) teamed up to work with a large and diverse committee representing Tuolumne County agencies and businesses to build on the 2013 Community Health Assessment. Both documents reflect the content of the Let's Get Healthy California Task Force's guidelines.

The California Department of Public Health released the Let's Get Healthy Task Force Final Report on December 19, 2012. In the document, the governor's Task Force sought to prepare "a ten-year plan for improving the health of Californians, controlling health care costs, promoting personal responsibility for individual health, and advancing health equity." The Task Force Final Report identified indicators to measure and targets achieve. This document provides an opportunity for local health jurisdictions throughout the state to follow suit by reviewing the applicability of these indicators to their own communities and to apply their own selected indicators to an assessment of local health status.

PROCESS

The Tuolumne County Public Health Officer, Dr. Liza M. Ortiz, and the Sonora Regional Medical Center Regional Director of Business Development, Bruce Chan, co-chaired the process. The process was facilitated by Patricia Jones of Patricia Jones Consulting.

An initial meeting of the Tuolumne County Community Health Assessment (TCCHA) Steering Committee was convened in February 2016 to review the 2013 document and discuss what worked with this edition and what could be improved. They also recommended topic-specific committee composition, timelines, content and format. The Steering Committee consisted of local community leaders including business owners, non-profit executive directors, seniors, county and state social service directors, health care providers and community members. The committee members dedicated their time, knowledge, expertise and resources throughout the process.

The Steering Committee confirmed the goals of the Let's Get Healthy California Task Force Final Report as an initial structure for selecting indicators with which to measure the status of health in Tuolumne County.

- 1) Healthy Beginnings: Laying the Foundation for a Healthy Life
- 2) Living Well: Preventing and Managing Chronic Disease
- 3) End of Life: Maintaining Dignity and Independence
- 4) Redesigning the Health System: Efficient, Safe and Patient-Centered Care
- 5) Creating Healthy Communities: Enabling Healthy Living

The topic-specific committee members were asked to review the list of indicators found in the 2013 Health Assessment and modify the content and presentation according to the needs of our county.

The process of data collection was guided by the consultant and Public Health Director, and shared by each of the committees, with data analysis conducted and reviewed by the full Steering Committee and in some cases by other members of the community. Multiple meetings were conducted over a period of six months with in-kind contributions of time and resources from the community members. The data was edited by all committee members to arrive at this final document.

DEMOGRAPHICS

Tuolumne County is in the central eastern section of California. It covers 2,221 square miles and ranges in elevation from about 300 feet in the Sierra Nevada foothills to almost 13,000 feet in the eastern regions. Federal, state, and local governments own approximately 77% of the land in Tuolumne County.

ECONOMY

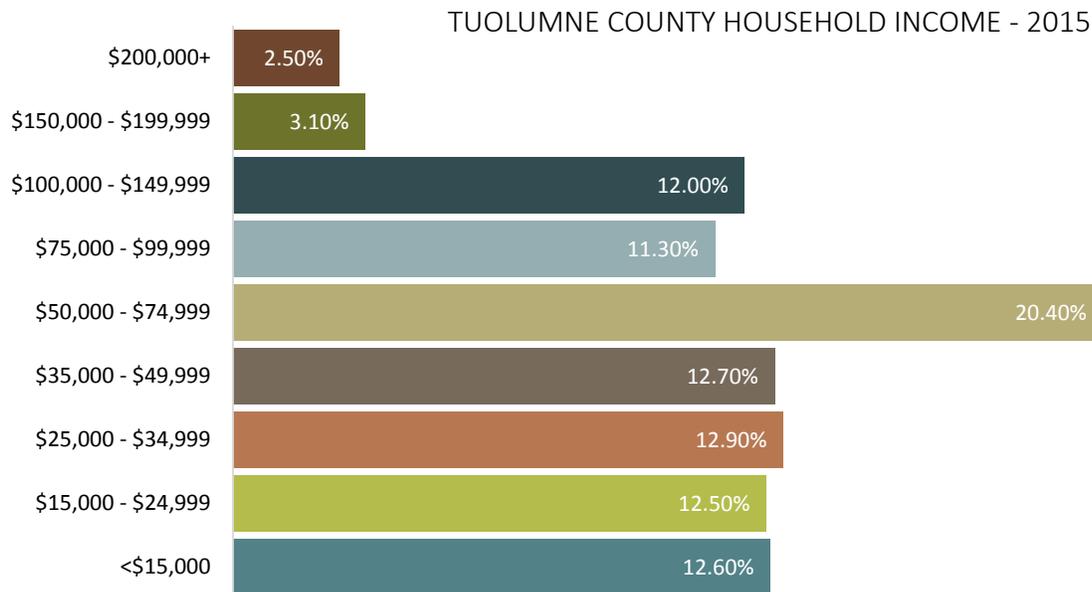
Bordered by rivers to the north and south, by the Sierra Nevada to the east and the San Joaquin valley to the west, Tuolumne County represents a portion of the southern reach of the historic Mother Lode Gold Country. With portions of Yosemite National Park in the southern sectors, tourism drives a significant percentage of the local economy.

- The government is the major employer in Tuolumne County, followed by health and social assistance, and retail trade.
- In July, 2016, the labor force included 22,270 residents, of which 20,820 were employed.¹
- Half of the population has a household income of less than \$50,000; the California median income (2010 to 2014) was \$64,189.²

TUOLUMNE COUNTY INCOME 2015

Median Household Income	\$54,655
Average Household Income	\$70,833
Per Capita Income	\$29,622

Source: California Employment Development Department



Source: California Employment Development Department

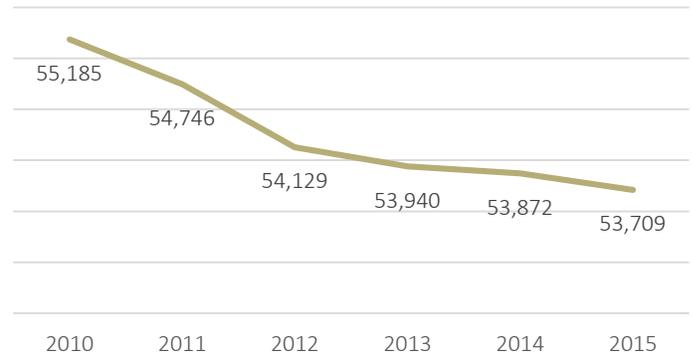
¹ California Employment Development Department

² US Census Bureau, American Community Survey. 2010-14. Source geography: County

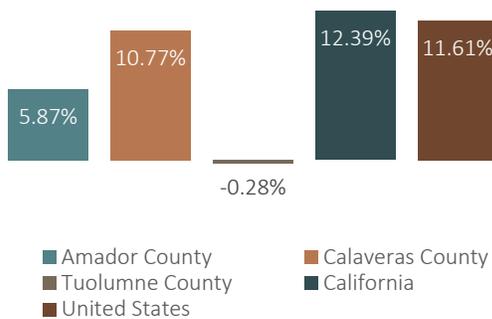
POPULATION

- In the last five years, the county's population has decreased from 55,185 to 53,709.³
- The prison population of approximately 4,300 inmates⁴ is included in the total population number.
- From 2008 to 2013, the prison population decreased by 1,187 to 2,915 inmates. However, in the ensuing years, the inmate population regained that loss; so the decrease in county population cannot be attributed to decrease in incarcerated individuals.

TUOLUMNE COUNTY POPULATION TREND

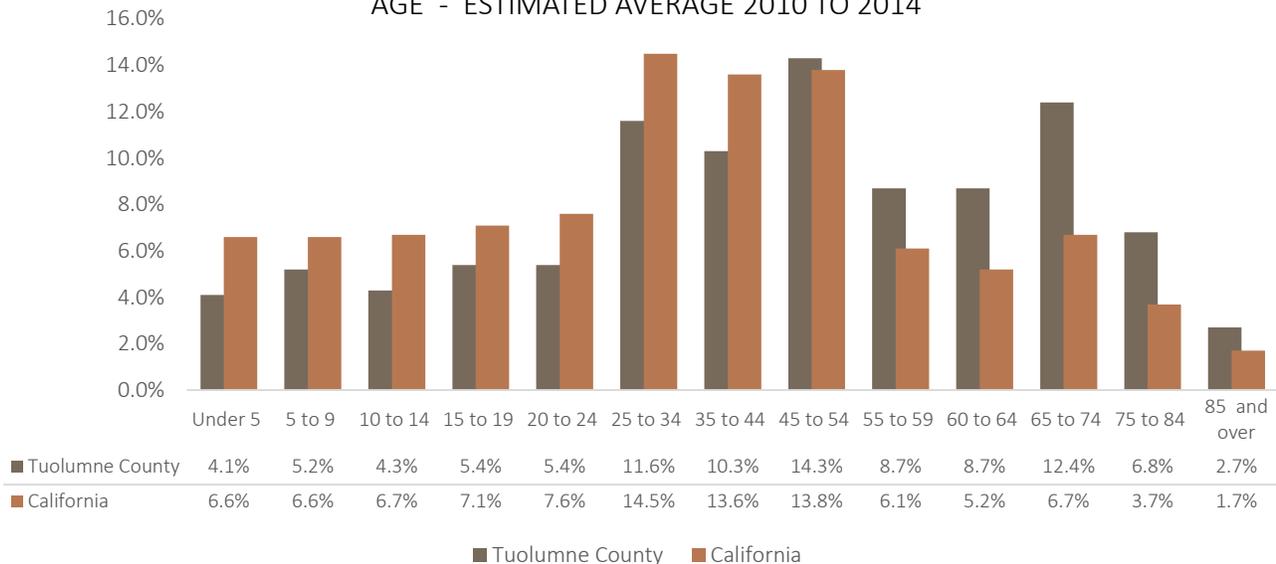


% POPULATION CHANGE 2000 - 2014



- Tuolumne County's 2.8% population decrease in the last 15 years is in contrast to neighboring counties as well as the state in general.
- The county population is older than the state, with 12% of the state being over 65 years old compared to 22% of Tuolumne County being that age.⁵
- Females make up 55% of Tuolumne County residents over 64 years old.⁶

AGE - ESTIMATED AVERAGE 2010 TO 2014



³ American Fact finder, US Census

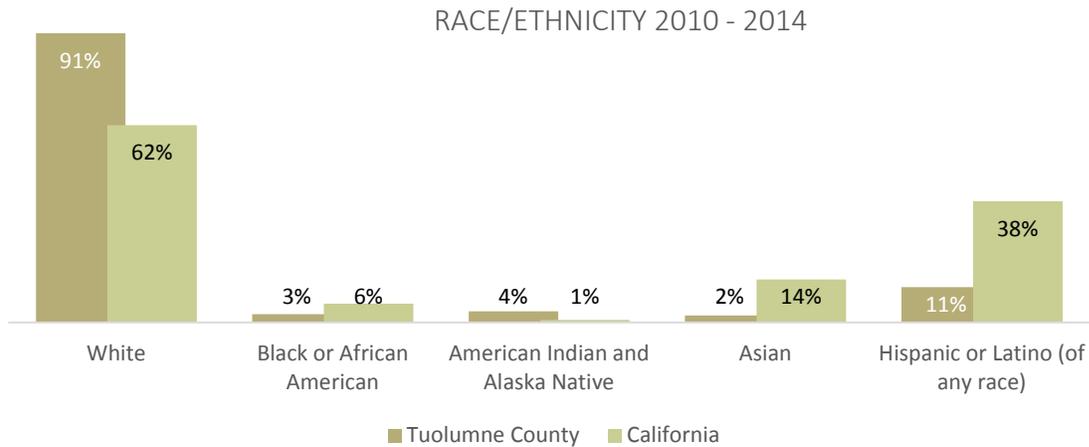
⁴ http://www.cdcr.ca.gov/Facilities_Locator/docs/SB601/SCC-SB601-Quarterly-Statistical-Report.pdf

⁵ American Fact finder, US Census

⁶ American Fact finder, US Census

RACIAL AND ETHNIC DIVERSITY⁷

- Tuolumne County is predominantly of a single ethnicity with 91.1% of its population being White
- California is 62% White



SUMMARY

The beneficiaries of this Community Health Needs Assessment are the residents of Tuolumne County. Some of the insights gained by this project will inspire further study and analysis, some will reassure, and some will reveal gaps in the community infrastructure that demand remediation. This reflection process will be formalized through a Community Health Improvement Plan task force overseen by Sonora Regional Medical Center and the Tuolumne County Health Department. The task force will prioritize areas for improvement, dig deeper into the causative factors and trends, recommend the means to address the top issues, and report back to the community on the evaluation of progress towards meeting goals to augment the health of the community. The overall objective of the work is to guide the development of a community health plan to address the disparities and build on the identified strengths.

A cover page for each of the chapters summarizes the findings. In general, at least one of the criteria is met by Tuolumne County for the indicator to be placed in a category.



Trends are positive
National or State targets are met or exceeded
Tuolumne County does better than other like counties or the state



The trends and/or achieving targets are not evident
Tuolumne County does not fare as well as similar counties or the state



Trends are not consistently good or bad
Comparisons to others and/or targets are not available or inconsistent

⁷ American Fact finder, US Census

COMMUNITY HEALTH NEEDS ASSESSMENT CO-CHAIRS

<i>Bruce Chan</i>	Regional Director of Business Development	Sonora Regional Medical Center
<i>Dr. Liza M. Ortiz</i>	Public Health Officer	Tuolumne County

COMMUNITY HEALTH NEEDS ASSESSMENT COMMITTEE MEMBERS

<i>Leslie Anderson</i>	Emergency Department Nurse	Sonora Regional Medical Center
<i>Rita Austin</i>	Director	Tuolumne County Behavioral Health
<i>Steve Boyack</i>	Assistant Human Services Director	Tuolumne County Human Services Agency
<i>Margie Bulkin</i>	County Superintendent	Tuolumne County Superintendent of Schools Office
<i>Edward Clinite</i>	Chief Medical Officer	Sonora Regional Medical Center
<i>Larry Cope</i>	Executive Director	Tuolumne County Economic Development Authority
<i>Michelle Fuentes</i>	Vice President - Operations	Sonora Regional Medical Center
<i>Mark Gee</i>	Program Supervisor	Tuolumne County Behavioral Health
<i>Jim Gianelli</i>	Attorney at Law	Gianelli Law
<i>Darin Grossi</i>	Executive Director	Tuolumne County Transportation Council Tuolumne County Transit Authority
<i>Shelly Hance</i>	Executive Director	Amador Tuolumne Community Action Agency
<i>Lisa Hieb-Stock</i>	Public Health Program Supervisor	Tuolumne County Department of Public Health
<i>Lynn Kelley</i>	Clinic Manager	Tuolumne Me Wuk Indian Health Center
<i>Julie Kline</i>	Chief Nursing Officer	Sonora Regional Medical Center
<i>Sheila Kruse</i>	Executive Director	First Five
<i>Alex Parnell</i>	Staff Services Analyst	Tuolumne County Public Health Department
<i>Belinda Rolichcheck</i>	Manager, Public Programs	California Health & Wellness
<i>Cathi Ruiz</i>	Hospice Chaplain	Sonora Regional Medical Center
<i>Doreen Schmidt</i>	Planner	Area 12 Agency on Aging
<i>Willow Thorpe</i>	Executive Director	Infant Child Enrichment Services
<i>Shane Tipton</i>	Director of Cancer Services	Sonora Regional Medical Center
<i>Bob White</i>	Executive Director	YES Partnership
<i>Marcia Williams</i>	Early Childhood Services Director	Amador Tuolumne Community Action Agency

PROJECT CONSULTANT

<i>Patricia Jones</i>	Principal	Patricia Jones Consulting
-----------------------	-----------	---------------------------

HEALTHY BEGINNINGS

Ensuring good health in the beginning of life sets the foundation for health throughout the lifespan. A healthy childhood is essential to children having the opportunity to thrive and reach their full potential. This chapter includes key indicators of health from infancy through adolescence.



In 7 of the most recent 10 years of available data, Tuolumne County met or exceeded the Healthy People 2020 Goal of 77.9% of pregnant women receiving **prenatal care**

Births to mothers aged 15 to 19 in California and Tuolumne County have been decreasing (other than in 2013 in Tuolumne County)

Tuolumne County exceeded the Healthy People 2020 National Public Health objective for **infant breastfeeding** of 81.9% at any time, and has an “any” breastfeeding rate higher than the state average

Most children aged 2 to 11 years in the foothill region **see a dentist annually**

Tuolumne County has shown significant improvements in the number of children **meeting fitness standards**



Over the past three years, the number of **child care slots** has reduced on average by approximately 34% each year

Tuolumne County **kindergarten immunization** rates have been around 75%; this is significantly lower than the state average of 90.4%

Tuolumne County students have lower rates of **obesity** than the state average but are much higher than the Let's Get Healthy California 2022 targets of 9% for 0-5 year olds, 8% for 6-11 year olds, and 19% for 12-17 year olds

The current substantiated abuse and neglect rate for Tuolumne County is 19.8 per 1,000 children. The current rate for California is 8.7 per 1,000 children. The 2022 **Target** for Let's Get Healthy California is 3.0 per 1,000 children



Tuolumne County students do not vary greatly in meeting the **literacy and math standards** when compared to the California state average

In all but one year between 2010 and 2014 Tuolumne County exceeded the goal of having 40.5% of **foster children** achieving permanency within 12 months of entering the system

Tuolumne County students in “non-traditional schools” exhibited higher frequency of **substance abuse** than those in traditional schools (see definitions)

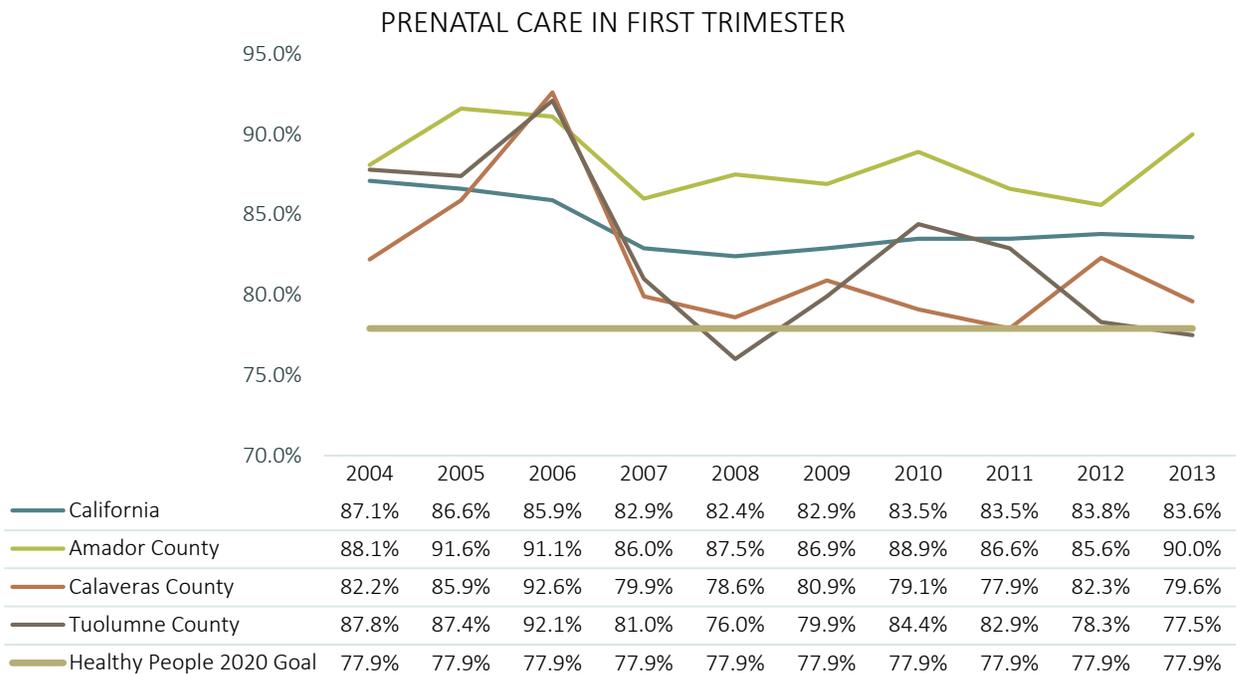
6% of seventh grade students and 33% of eleventh grade students in traditional schools reported **using drugs or alcohol** at least once in the past month

PRENATAL CARE

BACKGROUND

- In 7 of the most recent 10 years of available data, Tuolumne County met or exceeded the Healthy People 2020 Goal of 77.9% of pregnant women receiving prenatal care beginning in the first trimester, defined as the first three months of pregnancy.⁸
- High quality prenatal care can substantially reduce the risk of infant mortality⁹.
- Receiving early prenatal care lowers the risk of adverse birth outcomes, such as low birth weight, developmental delays, and premature birth¹⁰.
- Women less likely to seek or receive early prenatal care are those with unintended pregnancies. This is most prevalent among younger women, those with limited education and/or those living in poverty

DATA



Source: As cited on kidsdata.org, California Dept. of Public Health, Center for Health Statistics, Birth Statistical Master Files

⁸ This goal of 77.9% represents a 10% increase from the average number of prenatal patients receiving prenatal care during the first trimester in 2007

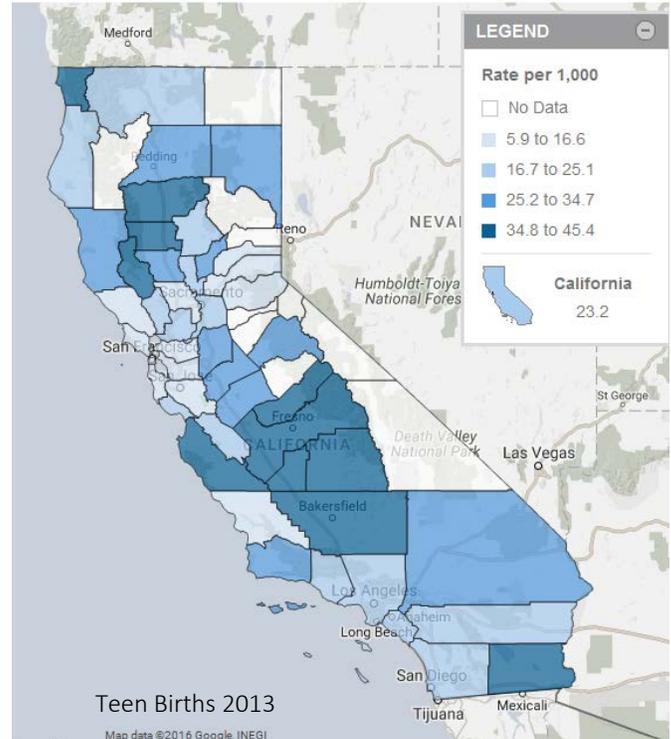
⁹ U.S. Department of Health and Human Services, Office of Women's Health. (2009). PRENATAL CARE FACT SHEET. Retrieved from: <http://www.womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.cfm>

¹⁰ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity, and Obesity. (2011). Pediatric and Pregnancy Nutrition Surveillance System: PNSS health indicators. Retrieved from: http://www.cdc.gov/pednss/what_is/pnss_health_indicators.htm

BIRTHS TO ADOLESCENT MOTHERS

BACKGROUND

- Births to white mothers aged 15 to 19 in California have been decreasing, and increased in Tuolumne County in 2013
- Teen birth rates are considered to be a reflection of access and knowledge of family planning methods
- While many teen pregnancies lead to very healthy outcomes, infants of teen mothers face special challenges and statistically require greater social support than infants of mothers over age 20.¹¹
- Not only do teen pregnancies have a greater rate of complications during delivery, they also tend to create disadvantages for teen parents, such as lower educational attainment and lower income levels.¹²
- Because there are significant correlations between teen pregnancy rates and ethnicity, it is important to compare Tuolumne County rates to a similar state population, in this case, the White non-Hispanic population of California
- When comparing Tuolumne County's teen pregnancy rate to a similar population in the state, the county rate is higher
- This suggests knowledge, access, and use of family planning services for Tuolumne County youth is lagging behind the state average
- On a positive note, Tuolumne County schools have been successful in offering student-parents access to education



TOTAL TUOLUMNE COUNTY BIRTHS TO ALL-AGED MOTHERS¹³

Year	Number of births
2002	442
2003	468
2004	477
2005	446
2006	495
2007	474
2008	486
2009	425
2010	487
2011	430

Source: CA Dept. Public Health

DATA

TEEN BIRTH BY RACE/ETHNICITY - 2009 TO 2013

Race/Ethnicity:	Rate per 1,000				
	2009	2010	2011	2012	2013
White					
California	14.2	13.0	11.3	10.4	9.2
Tuolumne County	18.2	17.3	LNE ¹⁴	LNE	23.6

Source: As cited on kidsdata.org

¹¹ The National Campaign to Prevent Teen Pregnancy. (2010). why it matters: Teen pregnancy and child welfare. Retrieved from: http://www.thenationalcampaign.org/why-it-matters/pdf/child_welfare.pdf

¹² U.S. Department of Health and Human Services. (2011). Healthy People 2020: Family planning. Retrieved from: <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=13>

¹³ <http://www.cdph.ca.gov/data/statistics/Pages/CountyBirthStatisticalDataTables.aspx>

¹⁴ The county-level data reflect the mother's county of residence, not the county in which the birth occurred. LNE (Low Number Event) refers to data that have been suppressed because there were fewer than 20 births in a given racial/ethnic group.

BREASTFEEDING RATE

BACKGROUND

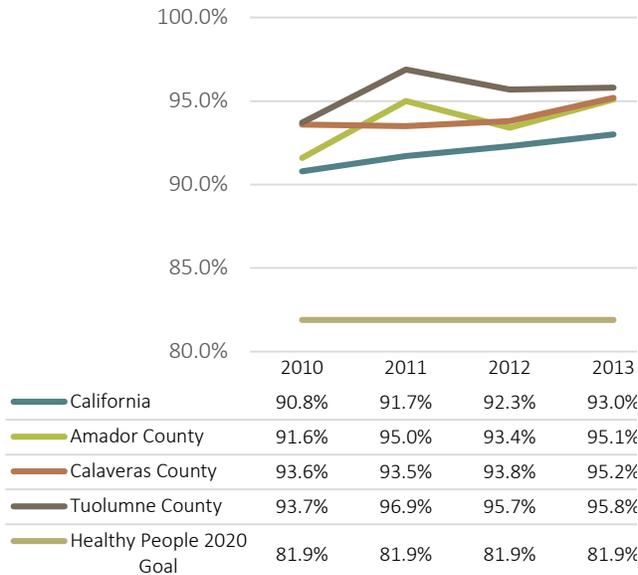
- Tuolumne County exceeded the Healthy People 2020 National Public Health objective for newborn breastfeeding of 81.9% at any time, and has an “any” breastfeeding rate higher than the state average.¹⁵
- Exclusive breastfeeding rate for Tuolumne County has been at or above the state average and above the Healthy People 2020 goal of 46.2%, though in the last year of available data, 2013, the rate has declined to be equal to the state average.
- Tuolumne County may benefit from efforts to raise the rate of exclusive breastfeeding.

We acknowledge that for some women, particularly those who take certain medications, the healthier choice for their children may be to not breastfeed. However, it is well documented that breastfeeding, especially early breastfeeding, has multiple benefits. These benefits include that that breast milk:

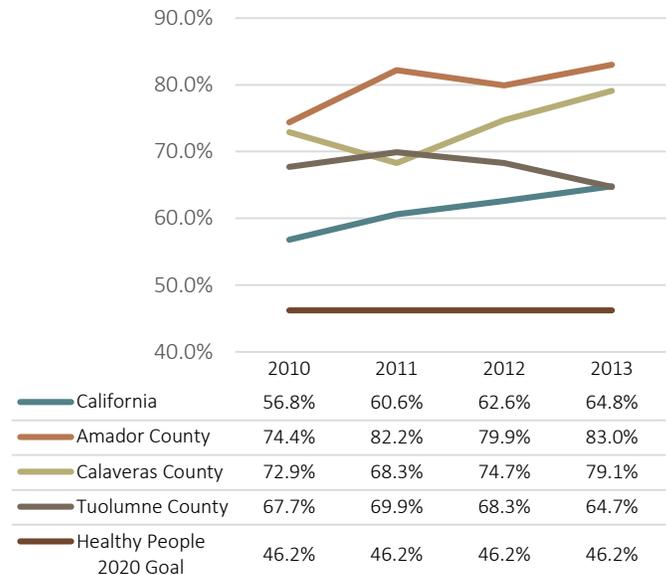
- Protects against allergies, sickness, and obesity
- Protects against diseases, like diabetes and cancer
- Protects against infections, like ear infections
- Is easily digested – less constipation, diarrhea or upset stomach

DATA

ANY BREASTFEEDING OF NEWBORNS



EXCLUSIVE BREASTFEEDING OF NEWBORNS



Data Source: As cited on kidsdata.org, California Dept. of Public Health, Center for Family Health, Newborn Screening Program Data, Breastfeeding Data (May 2015).

¹⁵ The American Academy of Pediatrics reaffirms its recommendation of exclusive breastfeeding for about 6 months, followed by continued breastfeeding as complementary foods are introduced, with continuation of breastfeeding for 1 year or longer as mutually desired by mother and infant. <http://pediatrics.aappublications.org/content/129/3/e827.full#content-block>

CHILD CARE

BACKGROUND

- Over the past three years, the number of child care slots has reduced on average by approximately 34% each year. This has made it extremely difficult for parents to find child care so they can work, go to school, or look for work. Further complexities of finding child care are due to inconvenient locations and/or program schedules that do not meet their needs.
- The majority of the reduction has been the result of the closing of child care centers which represents 32% of the reduced child care slots.
- Weekend and night care is available for only 4% of the estimated number of children needing it
- A child’s experience in his or her early years influences future cognitive development, social adaptation, school readiness, and academic performance.
- A high quality early education experience is linked to a greater likelihood of children completing high school and a decreased likelihood of repeating a grade or being involved in the juvenile justice system.

DATA

- Tuolumne County has 3,741 children under the age of 13 with either both parents, the single father or the single mother in the labor force¹⁶
- Calculations indicate the unmet number of children needing child care is 2,157. However, some families use family members, friends or neighbors to care for their children. Furthermore, some parents choose, out of necessity to work opposite schedules so they are able to offset their need for child care.¹⁷

TUOLUMNE COUNTY SUPPLY IN
LICENSED CHILD CARE

	2014	2015	2016
Under 2 years of age	108	86	60
2 – 4 years of age	712	744	652
5 – 13 years	<u>1,158</u>	<u>911</u>	<u>872</u>
Total	1,978	1,741	1,584

Source: California Child Care & Referral – Tuolumne County Infant Child Enrichment Services and the Tuolumne County Child Care Council’s Child Care Needs Assessment.



¹⁶ 2014 American Community Survey

¹⁷ Infant Child Enrichment Services Child Care Data Base; Tuolumne County Local Child Care Council 2014, 2015, 2016 Child Care Needs Assessment; Invest in Early Childhood Development: Reduce Deficits, Strengthen the Economy; James Heckman; American Community Survey 2014

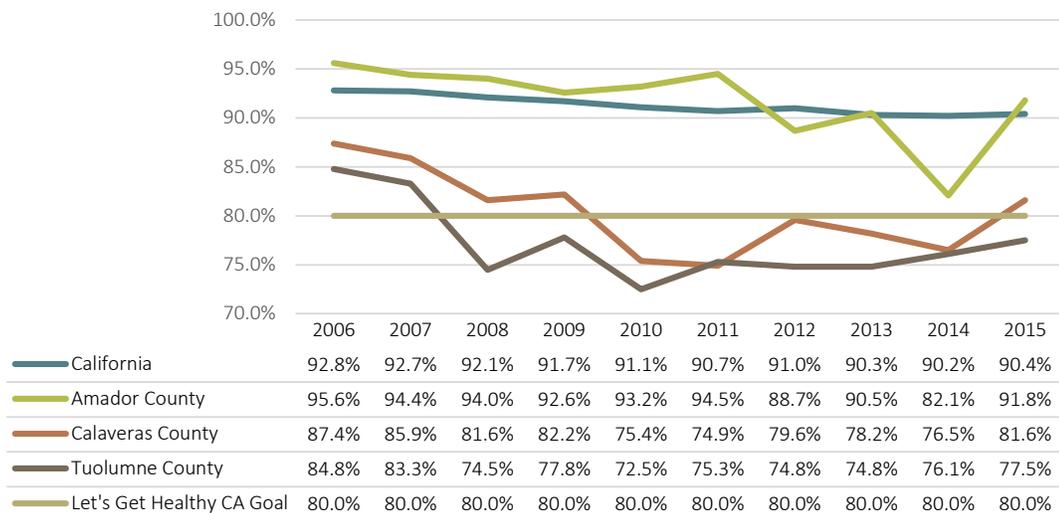
CHILDHOOD IMMUNIZATIONS

BACKGROUND

- Tuolumne County kindergarten immunization rates have been fairly stable at around 75%; this is significantly lower than the state average of 90.4%.
- Immunizations are successful and cost-effective preventive methods to help millions of children avoid contracting many serious and potentially fatal infectious diseases¹⁸.
- Children are far more likely to be seriously injured by a vaccine-preventable disease than by the vaccine itself, particularly in an unvaccinated community.¹⁹
- Tuolumne County schools, both public and private, have had varying levels of accuracy in their reports to the California Department of Public Health.
- Beginning in January 2014, in accordance with Assembly Bill 2109, parents choosing to forego vaccination for their children must receive information about the risks and benefits of vaccination from a health care provider or school nurse. This may have contributed to a small increase in vaccinate rates.
- Senate Bill 277 went into full effect starting July 1, 2016. This bill eliminates the personal belief exemption. It is expected to have a major impact on vaccination rates.

DATA

KINDERGARTNERS WITH ALL REQUIRED IMMUNIZATIONS



Source: As cited on kidsdata.org, California Department of Public Health, Immunization Branch, Kindergarten Assessment Results (Feb. 2015).

¹⁸ U. S. Department of Health and Human Services, Healthy People 2020. (2011). Immunizations and infectious diseases. Retrieved from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=23>.

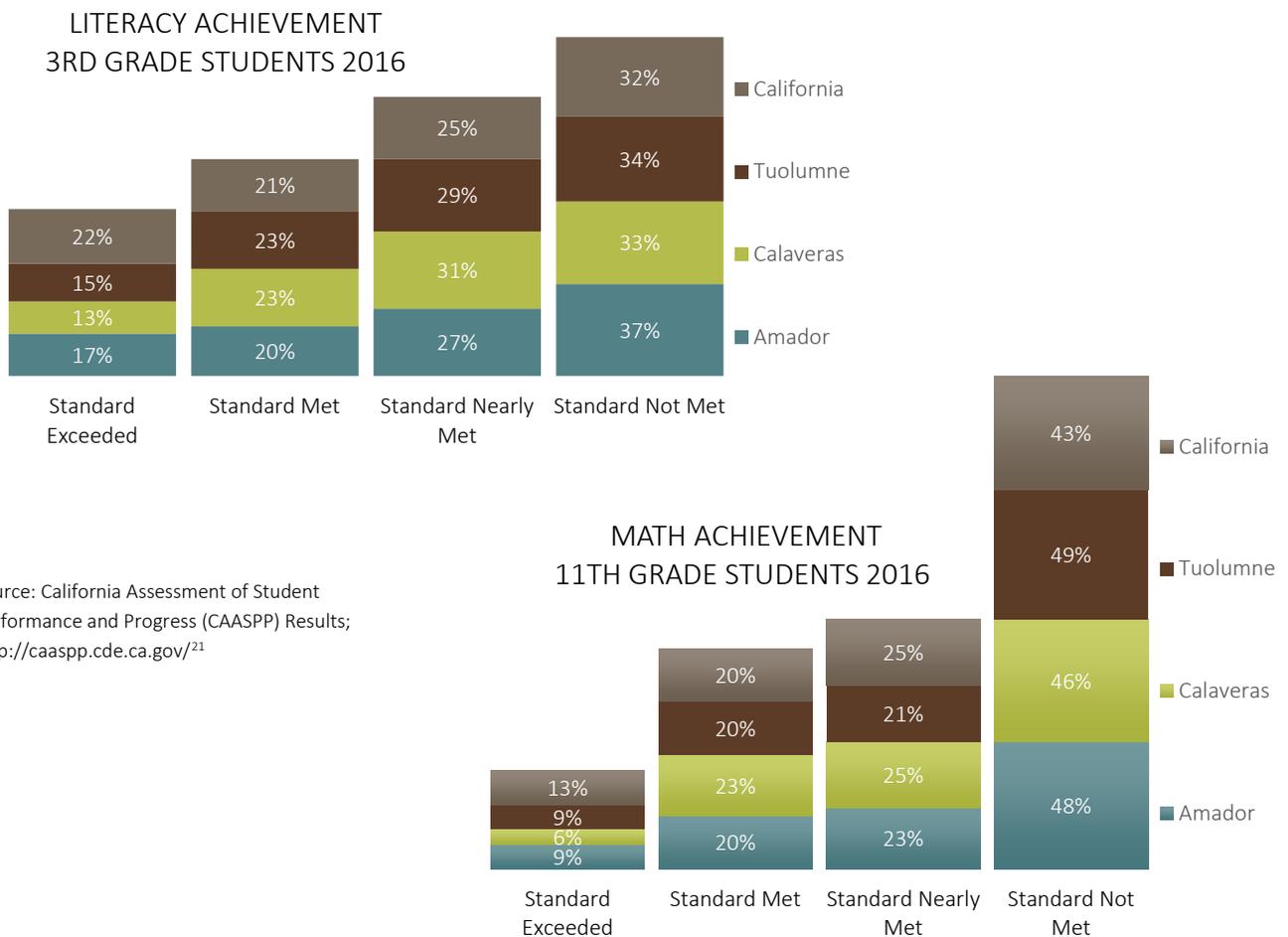
¹⁹ Centers for Disease Control and Prevention

LITERACY AND MATH ACHIEVEMENT

BACKGROUND

- Tuolumne County students do not vary greatly in meeting the literacy and math standards when compared to the California state average.
- Education and literacy, in particular, are highly correlated with health and are considered one of the social determinants of health.
- The World Health Organization recognizes the critical role of literacy in health by listing Primary Education as one of the Millennium Development Goals included in the WHO Global component of health reform that holds great promise for improving the efficiency of our health care system.²⁰
- Here we use third grade literacy achievement as an indicator of educational success as it is correlated with academic success and high school graduation.

DATA



Source: California Assessment of Student Performance and Progress (CAASPP) Results; <http://caaspp.cde.ca.gov/>²¹

²⁰ *Health Literacy: A prescription to End Confusion*, Institute of Medicine, National Academies Press, 2004

²¹ Link to describe what the test means - <http://caaspp.cde.ca.gov/SB2015/UnderstandingCAASPPReports>

DENTAL CARE

BACKGROUND

- Most children aged 2 to 11 years in the foothill region see a dentist annually.
- This is important as tooth decay is the most common chronic disease among children ages 6-18²².
- Untreated dental problems, such as cavities and gum disease, can affect a child's health and quality of life by leading to pain, nutritional and sleep problems, impaired concentration, and increased school absences, as well as lost work hours for parents.

DATA

LENGTH OF TIME SINCE LAST DENTAL VISIT FOR 2 TO 11 YEAR OLD CHILDREN 2015

	California	Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, and Alpine Counties
<i>Less than 6 months ago</i>	74.0%	63.4%
<i>6 to 12 months ago</i>	13.0%	30.4%
<i>More than 12 months ago</i>	4.1%	LNE*
<i>Never had a dental visit</i>	8.9%	3.8%

*LNE (Low Number Event) refers to data that have been suppressed because the sample size was lower than 50 or the estimated percentage was less than 0.1%.

Source: As cited on kidsdata.org, UCLA Center for Health Policy Research, California Health Interview Survey (Dec. 2015).



²² Paradise, J. (2012). Children and oral health: Assessing needs, coverage, and access. Kaiser Commission on Medicaid and the Uninsured. Retrieved from: <http://kff.org/disparities-policy/issue-brief/children-and-oral-health-assessing-needs-coverage>

PHYSICAL FITNESS

BACKGROUND AND DATA

Tuolumne County has shown significant improvements in the number of children meeting fitness standards. This may be attributable to the Fit for the Future Program which started in 2012.

Physical activity is an important aspect of health in children, with many benefits, including:

- Improved heart health
- Increased muscle strength and improved bone health
- Improved weight control
- Decreased risk for many chronic diseases
- Positive effects on mental health
- Inclination to continue healthy lifestyle into adulthood
- Improved education outcomes



PERCENT OF STUDENTS MEETING ALL FITNESS STANDARDS, BY GRADE LEVEL: 2011 - 2015

<i>California</i>	2011	2012	2013	2014	2015
<i>Grade 5</i>	25.2%	25.4%	25.5%	26.6%	26.4%
<i>Grade 7</i>	32.1%	31.9%	32.4%	33.0%	32.5%
<i>Grade 9</i>	36.8%	36.5%	36.5%	38.1%	37.6%
<i>Amador County</i>	2011	2012	2013	2014	2015
<i>Grade 5</i>	22.6%	23.6%	23.0%	22.2%	35.8%
<i>Grade 7</i>	35.0%	35.1%	33.8%	38.1%	38.5%
<i>Grade 9</i>	37.7%	39.9%	36.3%	40.1%	50.6%
<i>Calaveras County</i>	2011	2012	2013	2014	2015
<i>Grade 5</i>	22.6%	34.9%	30.1%	29.6%	30.6%
<i>Grade 7</i>	37.3%	38.3%	31.9%	35.0%	35.3%
<i>Grade 9</i>	33.9%	31.7%	35.9%	35.2%	24.2%
<i>Tuolumne County</i>	2011	2012	2013	2014	2015
<i>Grade 5</i>	30.6%	36.5%	57.1%	57.1%	64.7%
<i>Grade 7</i>	28.9%	40.1%	54.1%	60.7%	63.7%
<i>Grade 9</i>	31.2%	37.4%	34.5%	41.4%	42.8%

Definition: Percentage of public school students in grades 5, 7, and 9 meeting 6 of 6 fitness standards (e.g., 26.4% of California 5th graders met all fitness standards in 2015).

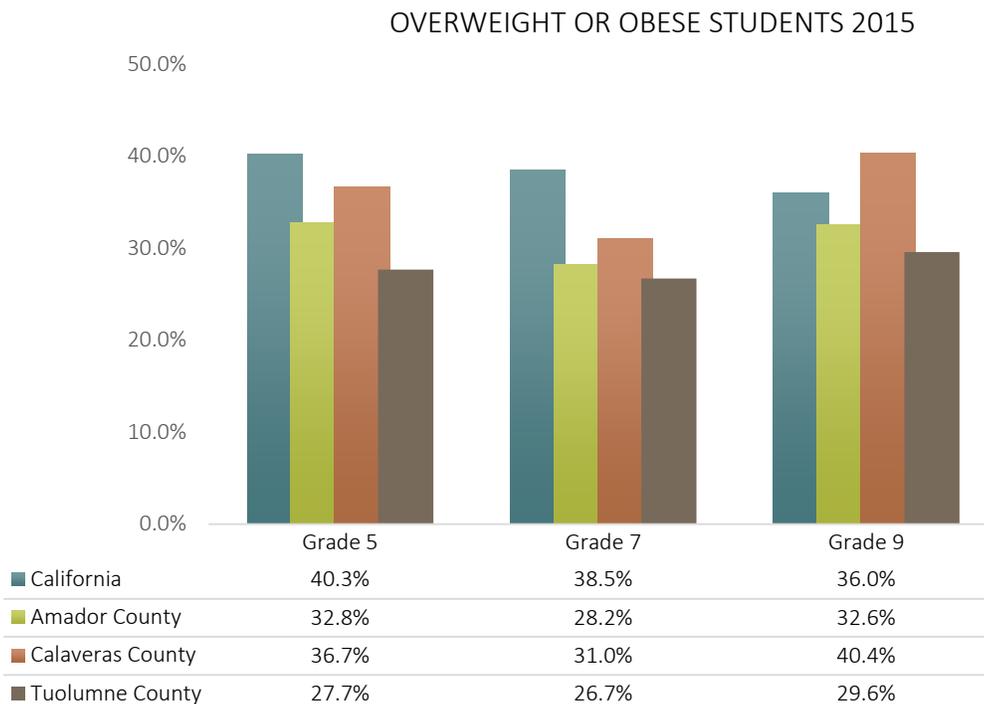
Source: As cited on kidsdata.org, California Dept. of Education, Physical Fitness Testing Research Files (Dec. 2015).

STUDENTS WHO ARE OVERWEIGHT OR OBESE²³

BACKGROUND

- Tuolumne County students have lower rates of obesity than the state average but are much higher than the Let's Get Healthy California 2022 **targets** of 9% for 0-5 year olds, 8% for 6-11 year olds, and 19% for 12-17 year olds.
- Almost 1/3 of U.S. children are overweight or obese.²⁴
- Overweight and obese children are at higher risk for cardiovascular disease, asthma, and some types of cancer, joint and bone problems, sleep apnea, and social and emotional difficulties; they also are more likely to stay overweight or obese as adults.²⁵
- California medical care costs related to adult obesity are estimated to be approximately \$15 billion.²⁶

DATA



Source: As cited on kidsdata.org, California Dept. of Education, Physical Fitness Testing Research Files (Dec. 2015)

²³ Definition: Percentage of public school students in grades 5, 7, and 9 with body composition scores above the Healthy Fitness Zone of the Fitnessgram assessment, by race/ethnicity (e.g., in 2015, 55.5% of Native Hawaiian/Pacific Islander 5th graders in California public schools were overweight or obese).

²⁴ Centers for Disease Control and Prevention Report 2014 (obesity is defined as having a Body Mass Index, BMI, at or above the 95th percentile for age and gender per the 2000 CDC growth charts, and overweight refers to a BMI between the 85th-95th percentiles)

²⁵ Centers for Disease Control and Prevention. (2015). Childhood obesity facts. Retrieved from: <http://www.cdc.gov/healthyschools/obesity/facts.htm>; Healthy Eating Research. (n.d.). The childhood obesity epidemic. Robert Wood Johnson Foundation. Retrieved from: <http://healthyeatingresearch.org/who-we-are/the-childhood-obesity-epidemic>

²⁶ CDPH Nutrition Education and Obesity Prevention Branch. (2014). Obesity in California: The Weight of the State, 2000-2012.

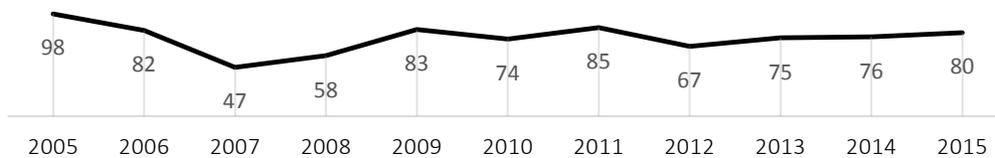
FOSTER CARE

BACKGROUND

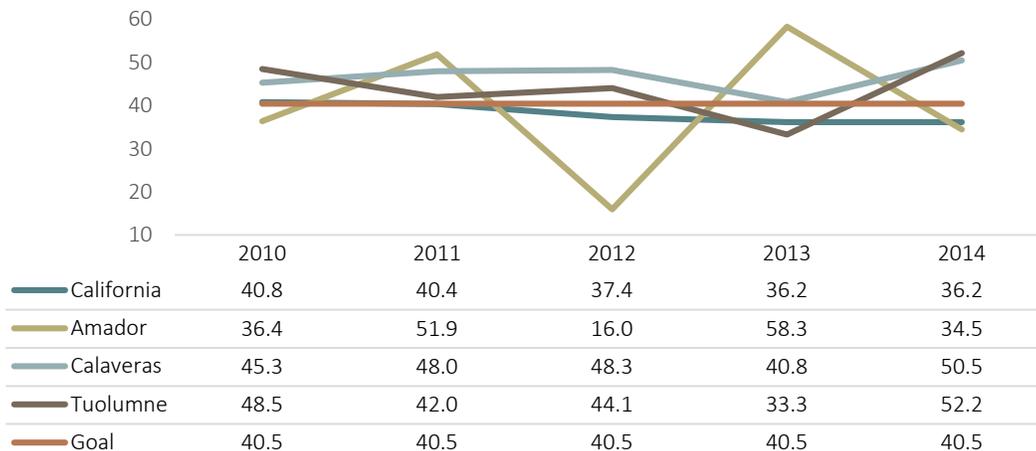
- In 2015, 80 children entered foster care in Tuolumne County; in all but one year between 2010 and 2014 Tuolumne County exceeded the goal of having 40.5% of foster children achieving permanency within 12 months of entering the system.
- More than one-half of children in foster care had experienced caregiver violence or caregiver incarceration and almost two-thirds had lived with someone with an alcohol or drug problem.²⁷
- Adverse Childhood Experiences (ACEs) are traumatic events that occur before the age of 18, and includes the number of survey participants experiencing at least one type of adverse childhood experience.
- Some of the worst health and social problems in our nation can arise as a negative effect of ACEs.²⁸
- Given the higher vulnerability of children in foster care, it is important to assess how many children are in foster care and how many are achieving permanency.

DATA

TUOLUMNE COUNTY CHILDREN ENTERING FOSTER CARE



% OF FOSTER CHILDREN ACHIEVING PERMANENCY WITHIN 12 MONTHS OF ENTERING THE SYSTEM



Data Source: CWS/CMS 2015 Quarter 4 Extract

²⁷ <http://www.cdc.gov/nchs/data/nhsr/nhsr074.pdf>

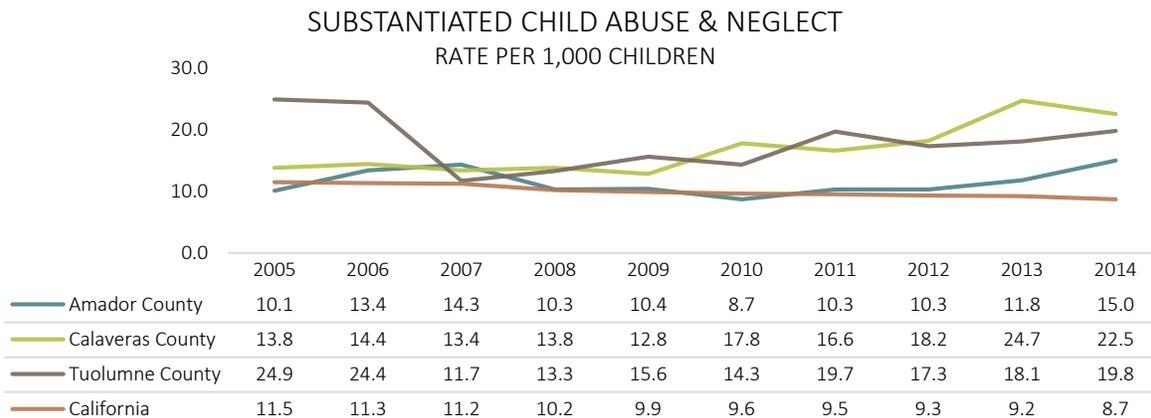
²⁸ . U.S. Department of Justice. (2014, October 22). *Facts about Children and Violence*. Retrieved December 24, 2015, from [justice.gov: http://www.justice.gov/defendingchildhood/facts-about-children-and-violence](http://www.justice.gov/defendingchildhood/facts-about-children-and-violence)

ABUSE AND NEGLECT

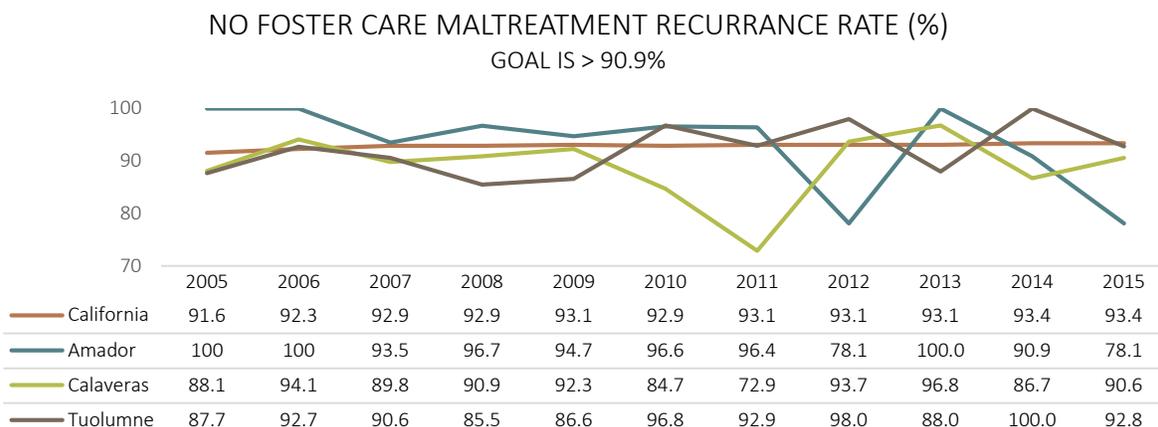
BACKGROUND

- The current substantiated abuse and neglect rate for Tuolumne County is 19.8 per 1,000 children. The current rate for California is 8.7 per 1,000 children. The 2022 **Target** for Let’s Get Healthy California is 3.0 per 1,000 children.
- Child Maltreatment shows the number of incidents of nonfatal child maltreatment (including physical, psychological, neglect, etc.) per 1,000 children.
- Abuse and neglect has been shown to lead to poor physical and mental health well into adulthood. The long term negative effects of maltreatment include poor developmental outcomes for children such as increased risk for anxiety, depression, and aggressive behavior.²⁹
- Abuse and neglect has also been associated with higher levels of child and adolescent obesity and sexual risk-taking as well as poor school performance.³⁰

DATA



Source for both graphs: As cited on kidsdata.org,



²⁹ Center for Disease Control and Prevention. (2014, January 2014). Child Maltreatment: Consequences. Retrieved November 2015, 2015, from [www.cdc.gov: http://www.cdc.gov/violenceprevention/childmaltreatment/consequences.html](http://www.cdc.gov/violenceprevention/childmaltreatment/consequences.html)

³⁰ Ryan Honomichi, S. B. (2009). Predicting and Minimizing the Recurrence of Maltreatment. Davis, CA: California Department of Social Services. Weblink: <http://www.childsworld.ca.gov/res/pdf/LR-PredictingRecurrence.pdf>

SUBSTANCE ABUSE

BACKGROUND

- Tuolumne County students in “non-traditional schools” exhibited higher frequency of use than those in traditional schools (see definitions³¹).
- 6% of seventh grade students and 33% of eleventh grade students in traditional schools reported using drugs or alcohol at least once in the past month.
- This was not substantially different than eleventh grade students’ usage.
- As students get older, their use of alcohol and other drugs increases.
- Youth alcohol and/or drug use can be linked to risky health behaviors such as unprotected sex, as well as poor academic performance, physical and/or dating violence, motor vehicle accidents, crime, overdose and suicide attempts.³²

DATA

2015 TO 2016 TUOLUMNE COUNTY SCHOOL YEAR ALCOHOL AND DRUG USE IN THE PAST 30 DAYS

	% Grade 7	% Grade 9	% Grade 11	% NT ³³
<i>Alcohol (at least one drink)</i>	4	20	26	44
<i>Binge drinking (5 or more drinks in a row)</i>	1	12	15	36
<i>Marijuana</i>	3	17	16	60
<i>Inhalants</i>	1	3	0	4
<i>Prescription medications to get “high” or for reasons other than prescribed</i>	n/a	4	2	16
<i>Other drug, pill, or medicine to get “high” or for other than medical reasons</i>	1	4	1	20
<i>Any drug use</i>	3	20	16	64
<i>Heavy drug user</i>	2	13	9	56
<i>Any AOD Use</i>	6	26	33	68
<i>Two or more drugs at the same time</i>	n/a	7	4	32

Source: California Healthy Kids Survey 2015 - 2016

³¹ Definition: Percentage of public school students in grades 7, 9, and 11 reporting the number of days in which they used alcohol or any illegal drug (excluding tobacco) in the past 30 days. The grade levels included in school district-level data depend on the grades offered in each district, e.g. high school districts do not include 7th grade data.

³² Child Trends. (2012). BINGE DRINKING. Retrieved from: <http://www.childtrendsdatabank.org/?q=node/284>; Federal Interagency Forum on Child and Family Statistics. (2011). AMERICA’S CHILDREN: KEY NATIONAL INDICATORS OF WELL-BEING, 2011. Washington, DC: U.S. Government Printing Office. Retrieved from: <http://www.childstats.gov/pubs/>

³³ NT: “Non-Traditional” students are those enrolled in Community Day Schools or Continuation Education. According to EdSource, nearly 10% of public school students in California are enrolled in these program

LIVING WELL

As we have improved treatment and prevention of infectious disease, people are living longer, and a larger portion of the disease burden can be attributed to chronic disease. It is estimated that more than half of Americans suffer from one or more chronic diseases in their lifetimes (California Economic Burden of Chronic Disease 2015).

Chronic diseases cause the majority of death, including leading to premature death, and contributing the poor quality of life and disability.

According to California Department of Public Health’s 2014 California Wellness Plan, up to 80% of cardiovascular disease, stroke, type 2 diabetes, and over 30% of cancers could be prevented by eliminating tobacco use, unhealthy diet, physical inactivity, and the harmful use of alcohol.

This chapter addresses some key indicators of adult health, including lifestyle and disease burden.



Residents of the foothill region consumed less **fast food** and sugared **soda** than the state average



Residents of the foothill region consumed less **fruit** than the state average
 Approximately 30% of Tuolumne County residents are **obese**; the Let’s Get Healthy California 2022 Target is to lower the rate of adult obesity to 11.0%

Smoking rates in Tuolumne County are significantly higher than the state average
 Tuolumne county rates among the highest in the state regarding self-reported excessive **alcohol** abuse

Tuolumne County had 99 cases of non-fatal alcohol and **drug overdose** hospitalizations in 2014 – this translates into a rate of 184/100,000 population and is highest in the foothill region

Tuolumne County had 329 cases of non-fatal alcohol and **drug overdose** emergency department visits in 2014 – this translates into a rate of 611/100,000 population and is highest in the foothill region

Tuolumne County and the foothill region have higher rates of **cardiovascular disease**, arthritis, asthma, depression, diabetes, and cancer than the state average

Tuolumne County ranks 4th highest in the state in age adjusted **cancer** incidence rate, with 475.9 cases per 100,000, compared to the state average of 417.1 per 100,000



85% of Tuolumne County resident (all ages combined) report good, very good, or excellent **health**. Let’s Get Healthy California **Target** is to increase the number of individuals who report good, very good, or excellent health from the statewide average of 85% to 90% over the next ten years

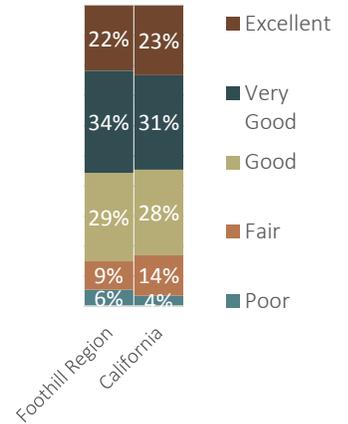
Tuolumne County adults are not significantly less **active** than others in the region or state

HEALTH STATUS

BACKGROUND

- 14% of foothill county seniors over the age of 70 report poor health compared to 9% of Californians of the same age.
- In younger age groups, the region reported slightly better health status than that of the state.
- Self-assessed health is an important factor in considering the health of a community.
- This is particularly true when it comes to assessing chronic diseases, as they are largely influenced by lifestyle and behavior.
- Any improvement in chronic disease is effected by a person’s perception of health.
- Let’s Get Healthy California **Target** is to increase those who report good, very good, or excellent health from 85% to 90% over the next 10 years.

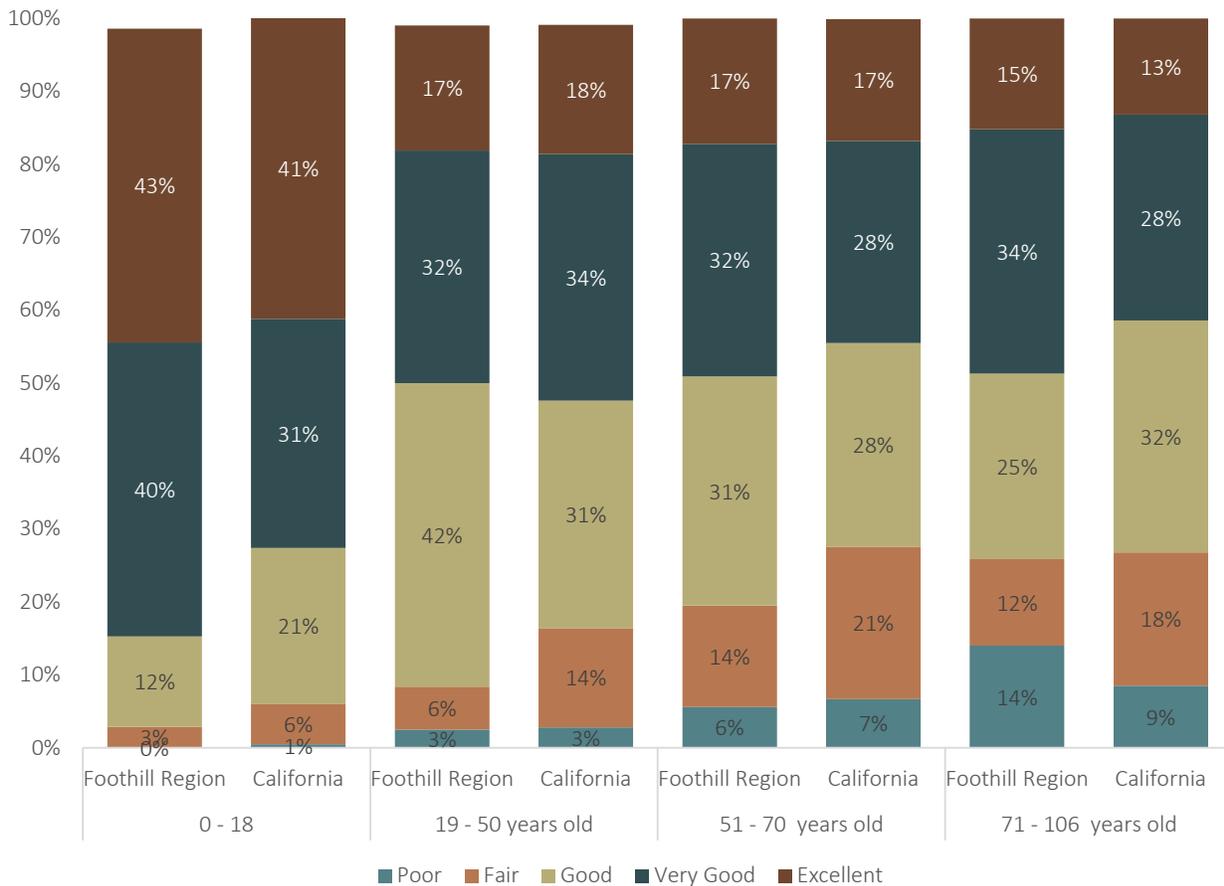
SELF-REPORTED HEALTH STATUS 2014



DATA

Respondents were asked: "In general, would you say your health is excellent, very good, good, fair or poor?"

SELF-REPORTED HEALTH STATUS - BY AGE - 2014



Source: 2014 California Health Interview Survey

DIETARY STATUS

BACKGROUND

Here we examine choices regarding fast food, sugared-soda, and fruit on a regional level.³⁴

- Residents of the foothill region consumed less fast food than the state average.
- Residents of the foothill region consumed less sugared-soda than the state average and less fruit than the state average.

The Let's Get Healthy California 2022 **Target** is to reduce the percentage of adults consuming sugar-sweetened beverages to 10%; recommended to increase fruit and vegetable consumption to 34%.

Diet is a crucial component of preventing and managing many chronic diseases, including cardiovascular disease, diabetes, and some cancers. This assessment finds that there is a major lack of data regarding the diet of Tuolumne County residents.

DATA



AVERAGE
WEEKLY SODA
CONSUMPTION
(2014)

	Foothill Region	California
0 times	76%	61%
1 time	12%	14%
2 - 3 times	5%	11%
4 - 6 times	2%	3%
≥ 7 times	5%	10%

Source: 2014 California Health Interview Survey



FAST FOOD CONSUMED IN
PAST WEEK (2014)

	Foothill Region	California
0 times	50%	35%
1 time	27%	26%
2 times	11%	18%
3 times	6%	10%
≥ 4 times	6%	11%



SERVINGS
OF FRUIT -
PREVIOUS
DAY (2014)

	Foothill Region	California
2 or more servings of fruit	73%	63%
Less than 2 servings of fruit	27%	37%

³⁴ FAST FOOD QUESTION: Respondents (2 years and older) were asked: "In the past 7 days, how many times did {you/he/she} eat fast food? Include fast food meals eaten at work {school}, at home, or at fast food restaurants, carryout or drive through.
SODA QUESTION: Respondents (adults) were asked: "[During the past month,] how often did you drink regular soda or pop that contains sugar? Do not include diet soda."
FRUIT QUESTION: Respondents (children 2 years or older and all adolescents) were asked: "Yesterday, how many servings of fruit, such as an apple or a banana, did {you/he/she} eat?"

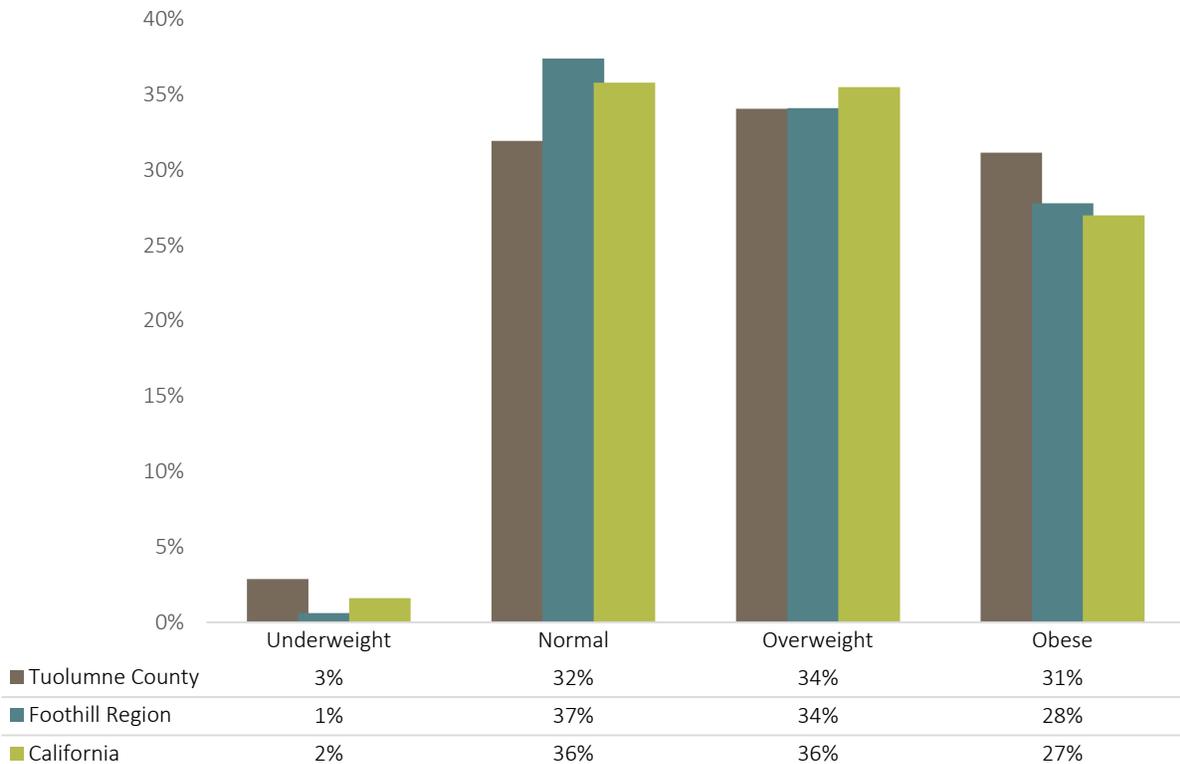
WEIGHT

BACKGROUND

- The residents of the foothill region are not significantly more or less overweight than the state average.
- The CDC states that obesity and inactive lifestyles contribute to heart disease, stroke, type 2 diabetes and certain types of cancer³⁵ and are estimated to be a factor in over 15% of all deaths in the U.S.³⁶
- The Let's Get Healthy California 2022 **Target** is to lower the rate of adult obesity to 11.0%.

DATA

BODY MASS INDEX FOR PEOPLE 18 YEARS AND OLDER - 2014



Source: Tuolumne County residents - Sonora Regional Medical Center records from 21,705; Foothill (Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, Alpine) Region and California - 2014 California Health Interview Survey

³⁵ Polednak AP. Estimating the number of U.S. incident cancers attributable to obesity and the impact on temporal trends in incidence rates for obesity-related cancers. *Cancer Detection and Prevention* 2008; 32(3):190-199

³⁶ Mokdad, AH et. al., *Actual causes of death in the U.S.* JAMA 2004, March 10;291(10):1238-45

PHYSICAL INACTIVITY³⁷

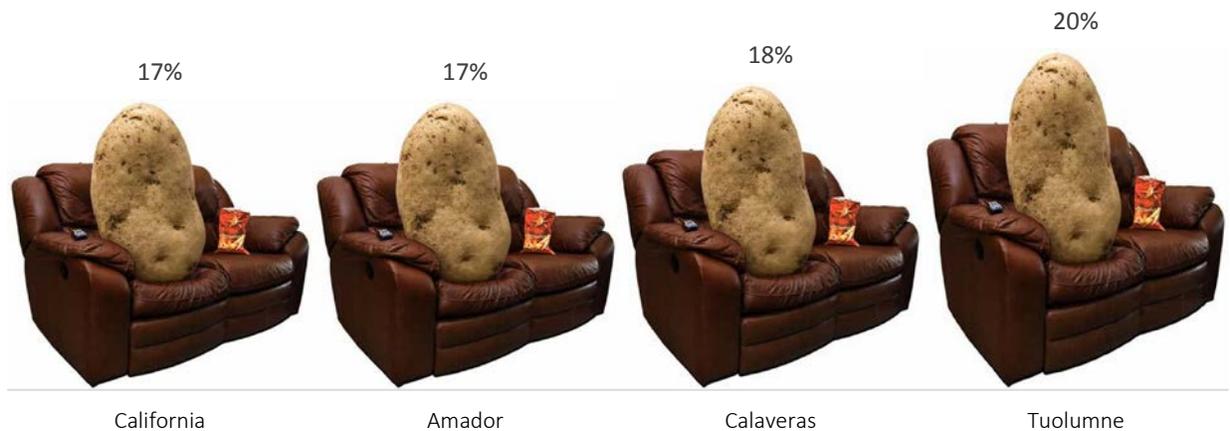
BACKGROUND

- Tuolumne County adults are not significantly less active than others in the region or state.
- The Centers for Disease Control and Prevention indicates that regular physical activity can help:
 - Control weight, reduce risk of cardiovascular disease, type 2 diabetes and metabolic syndrome and some cancers.
 - It can also strengthen bones and muscles, improve mental health and mood, and the ability to do daily activities and prevent falls for older adults.

The Let's Get Healthy California 2022 **Target** is to increase the percentage of Californians meeting the physical activity guidelines to 66%.

DATA

% ADULTS \geq 20 YEARS OLD REPORTING NO LEISURE-TIME ACTIVITY - 2012



Source: County Health Rankings 2015³⁸

³⁷ The Tuolumne County Public Health Department plans to conduct a survey including questions about physical activity in 2016. Results of this survey will be included in the website for this assessment. Until that time, we consider the data available on physical inactivity from the CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. The county-level estimates are based on indirect model-dependent estimates.

³⁸ The National Diabetes Surveillance System provides county-level estimates of obesity, physical inactivity, and diabetes using three years of data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program.

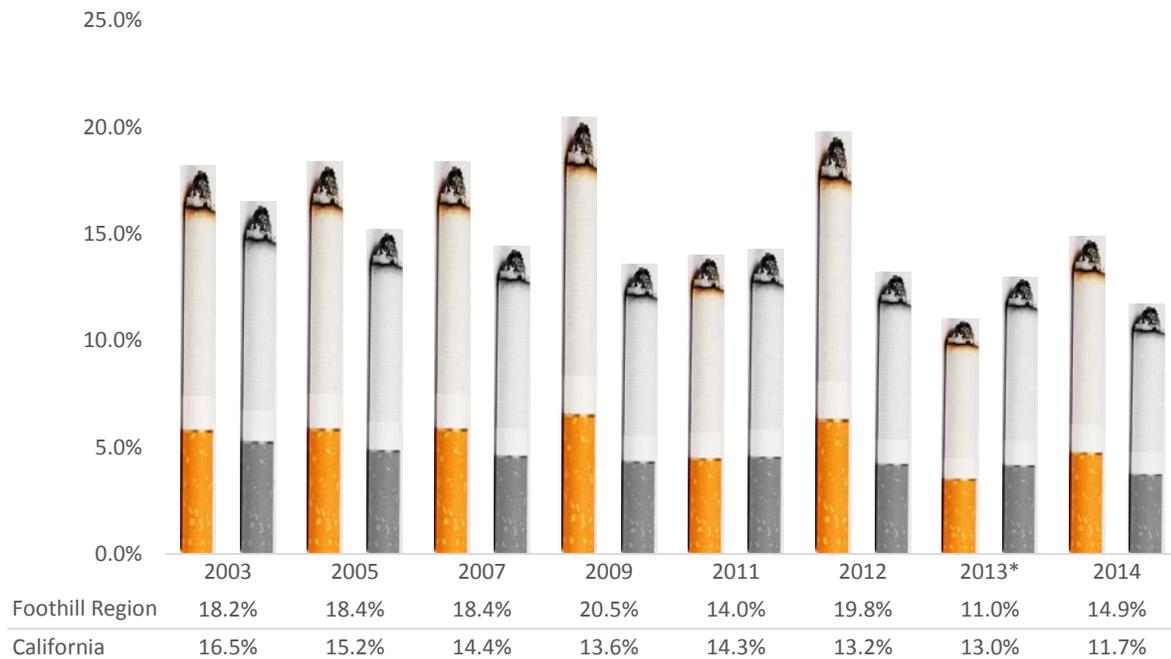
SMOKING RATES

BACKGROUND

- Smoking rates in Tuolumne County are significantly higher than the state average.
- Because smoking causes such significant damage to the body and the smoking rate is so high in Tuolumne County, smoking can be considered one of the largest contributors to chronic disease, poor health, cancer rates, and death in this county.
- The Tuolumne County Public Health Department will be conducting a survey of tobacco use in 2016. The results will be available on the website of this assessment at a later date.
- In the meantime, we examine data from the California Health Interview Survey that includes Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, and Alpine Counties in the foothill region.

DATA

ADULT SMOKERS



Gold cigarette butts are Foothill smokers; **Grey** are those in California

*2013 Foothill data unstable

Source: 2003, 2005, 2007, 2009, 2011, 2012, 2013, 2014 California Health Interview Survey

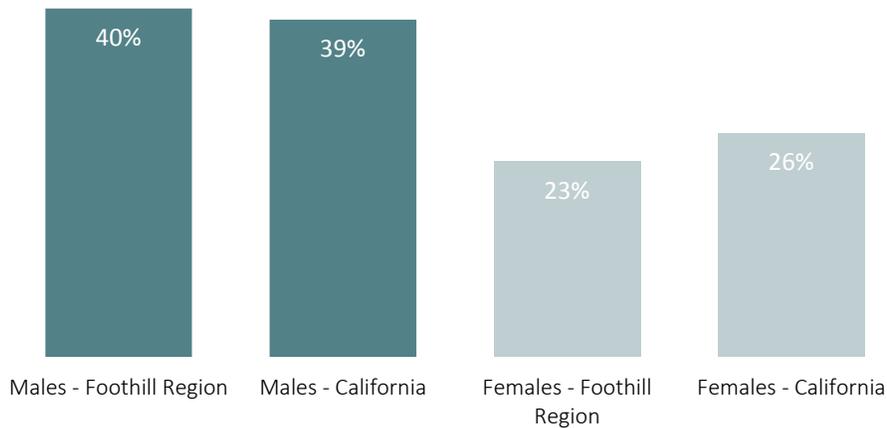
EXCESSIVE ALCOHOL USE

BACKGROUND

- Tuolumne county rates among the highest in the state regarding self-reported excessive alcohol abuse.
- Substance abuse causes a variety of acute and chronic health problems such as:
 - Excessive early death by overdose
 - Increased rates of chronic diseases
 - Motor vehicle accidents.
- This is of concern due to the long term health consequences associated with excessive alcohol consumption.
- A high rate of alcohol misuse also has wide ranging effects on the community, including alcohol related motor vehicle accidents and adverse childhood experiences.
- Respondents were asked a series of questions concerning their alcohol consumption. Males are considered binge drinkers if they consumed 5 or more alcoholic drinks on at least one occasion in the past year. Females are considered binge drinkers if they consumed 4 or more alcoholic drinks on at least one occasion in the past year.

DATA

BINGE DRINKING - PAST YEAR - ADULTS - 2014



Source: 2014 California Health Interview Survey

NON-FATAL OVERDOSE RATES

BACKGROUND

- Tuolumne County had 99 cases of non-fatal alcohol and drug overdose hospitalizations in 2014 – this translates into a rate of 184/100,000 population and is highest in the foothill region and higher than the state.
- Tuolumne County had 329 cases of non-fatal alcohol and drug overdose emergency department visits in 2014 – this translates into a rate of 611/100,000 population and is highest in the foothill region.

DATA

NON-FATAL OVERDOSE HOSPITALIZATIONS

Rates/100,000 population



NON-FATAL OVERDOSE EMERGENCY DEPARTMENT VISITS

Rates/100,000 population



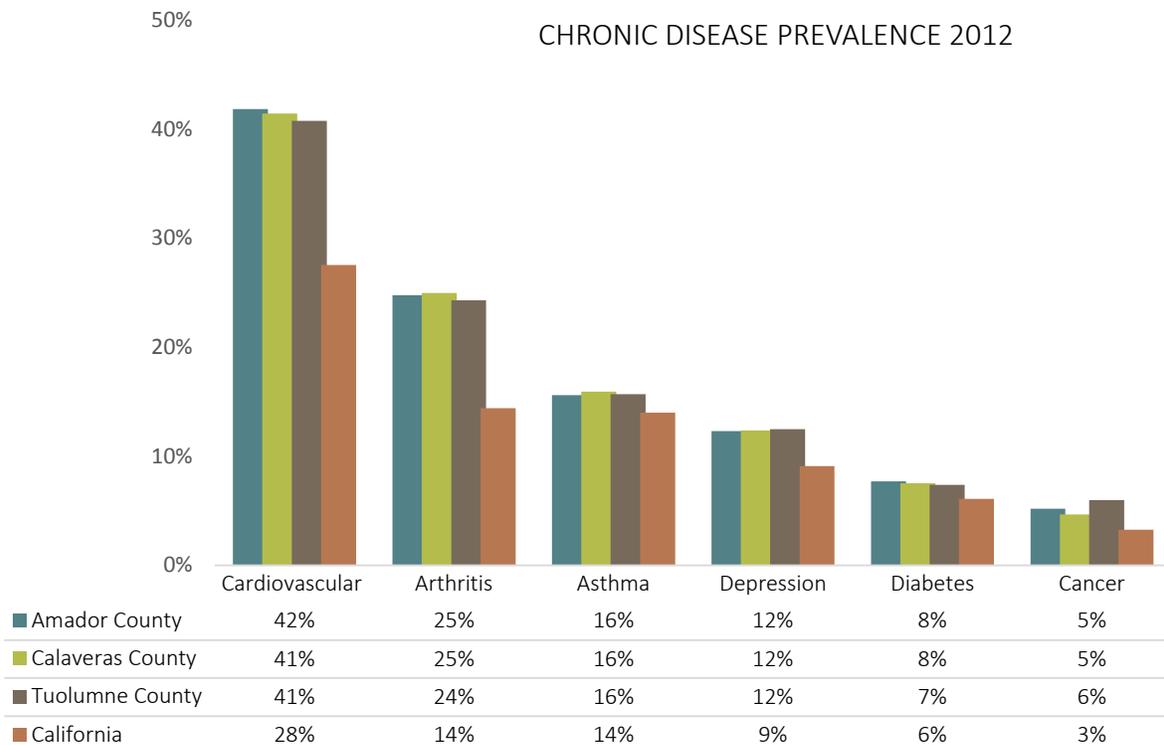
Source: <http://epicenter.cdph.ca.gov/ReportMenus/AlcoholDrugTable.aspx>

CHRONIC DISEASE RATES

BACKGROUND

- Tuolumne County and the foothill region have higher rates of cardiovascular disease, arthritis, asthma, depression, diabetes, and cancer than the state average.³⁹
- The burden is particularly higher in cardiovascular disease, which includes high blood pressure, heart attacks, heart failure, and stroke.

DATA⁴⁰



Source: Brown P, Gonzalez M, Sandhu R. Economic burden of chronic diseases. Accessed on 8/2016 from <http://cbcd.ucmerced.edu/Health/>

³⁹ Data are age, gender and race/ethnicity adjusted

⁴⁰ Cardiovascular disease includes coronary heart disease, congestive heart failure, high blood pressure and stroke

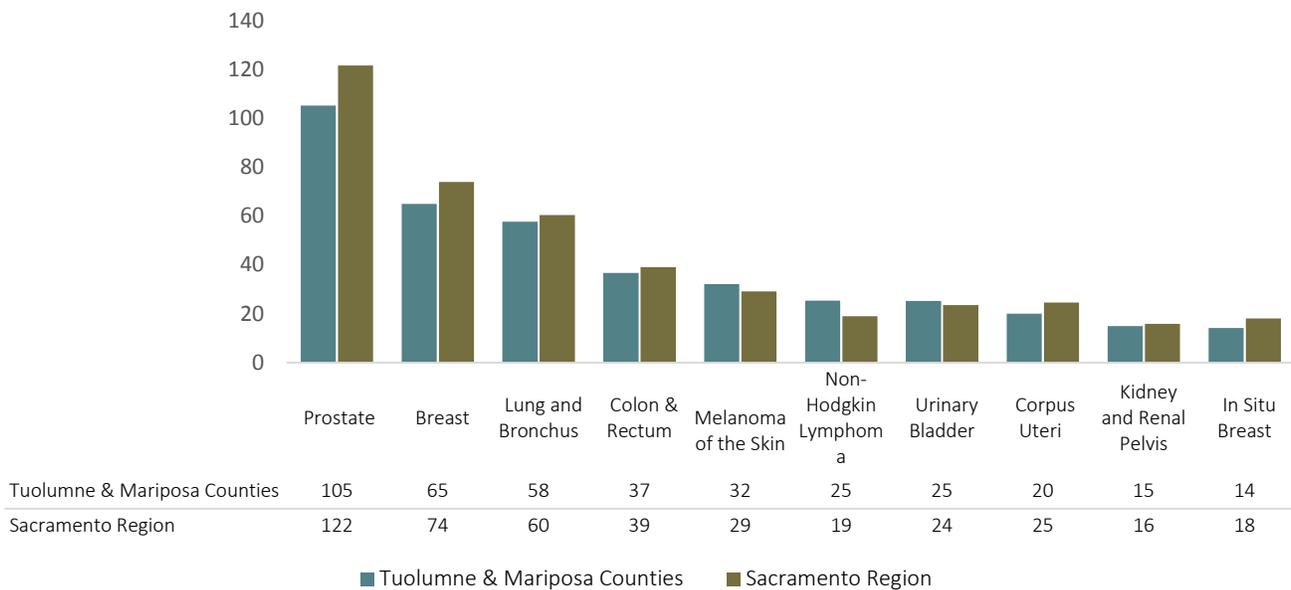
CANCER RATES

BACKGROUND

- Tuolumne County ranks 4th highest in the state in age-adjusted cancer incidence rate, with 475.9 cases per 100,000, compared to the state average of 417.1 per 100,000.
- Consistent with state and national trends, the most common cancer in men is prostate cancer, the most common cancer in women is breast cancer.
- The most common cause of cancer death is due to lung cancer.

DATA

2009-2013 AGE-ADJUSTED CANCER RATES/100,000
Non-Hispanic White Residents



Source: California Cancer Registry

CANCER RATES 2009 - 2013			
Area	Rank Out Of 58 Counties	Age-Adjusted Incidence Rate Cases Per 100,000	Recent Trend
California		417.1	Falling
Tuolumne County	4	475.9	Stable
Amador County	11	449.5	Stable
Calaveras County	30	421.4	Stable

Source: National Cancer Institute

END OF LIFE

The goal of this chapter is to assess major impacts at the end of life, and whether patients are able to obtain the services which enable them to maintain independence and dignity consistent with their wishes.



In general, since 1985, both males and females are **living longer**



Tuolumne County women over 64 years old **fall** more than their male or female peers in the region

Tuolumne County's 3-year average **hospice** utilization rate of 49% is higher than the state average of 43.3%; but significantly less than the The Let's Get Healthy California 2022 target rate is 54%



Tuolumne County has 259 of the 557 **skilled nursing beds** in the three counties; off these 74 are designated for **memory care**. Tuolumne County has 252 of the 529 **assisted living beds** in the three counties

The most common **cause of death** in Tuolumne County is cardiovascular disease; this combines heart disease and stroke

Tuolumne County's 5-year average **suicide rate** of 18.5/100,000 population is equivalent to other rural counties

FALLS

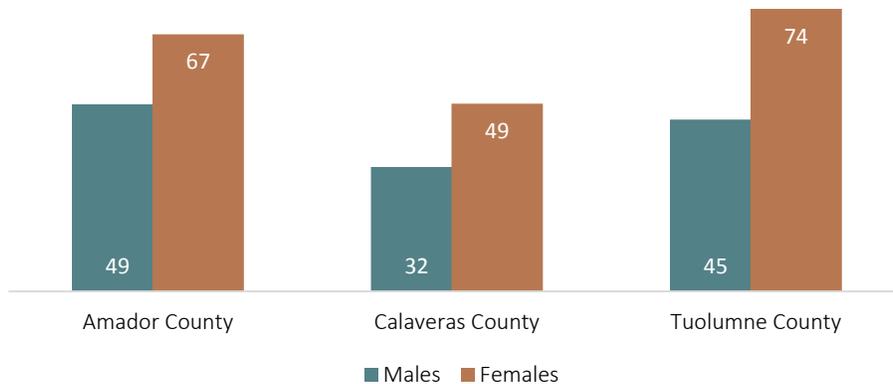
BACKGROUND

- Tuolumne County women over 64 years old fall more than their male or female peers in the region.
- One out of three adults age 65 and older falls each year;⁴¹ but less than half talk to their healthcare providers about it.
- Among older adults (those 65 or older), falls are the leading cause of injury death. They are also the most common cause of nonfatal injuries and hospital admissions for trauma. In the U.S. in 2010, 2.3 million nonfatal fall injuries among older adults were treated in emergency departments and more than 662,000 of these patients were hospitalized.⁴² ⁴³
- Twenty to thirty percent of people who fall suffer moderate to severe injuries such as lacerations, hip fractures, or head traumas. These injuries can make it hard to get around or live independently, and increase the risk of early death.⁴⁴
- Falls are the most common cause of traumatic brain injuries (TBI).⁴⁵

DATA

Non-fatal Emergency Department Visit (treat & release, or transfer to another facility)

UNINTENTIONAL SENIOR FALLS 2014
Falls/1,000 Residents 65 and older



Source: epicenter.cdph.ca.gov/ReportMenus/InjuryDataByTopic.aspx

⁴¹ Hausdorff JM, Rios DA, Edelber HK. Gait variability and fall risk in community-living older adults: a 1-year prospective study. *Archives of Physical Medicine and Rehabilitation* 2001;82(8):1050–6.

⁴² Hornbrook MC, Stevens VJ, Wingfield DJ, Hollis JF, Greenlick MR, Ory MG. Preventing falls among community-dwelling older persons: results from a randomized trial. *The Gerontologist* 1994;34(1):16–23.

⁴³ Alexander BH, Rivara FP, Wolf ME. The cost and frequency of hospitalization for fall-related injuries in older adults. *American Journal of Public Health* 1992; 82(7):1020–3.

⁴⁴ Stevens JA, Corso PS, Finkelstein EA, Miller TR. The costs of fatal and nonfatal falls among older adults. *Injury Prevention* 2006b; 12:290–5.

⁴⁵ Sterling DA, O'Connor JA, Bonadies J. Geriatric falls: injury severity is high and disproportionate to mechanism. *Journal of Trauma-Injury, Infection and Critical Care* 2001; 50(1):116–9.

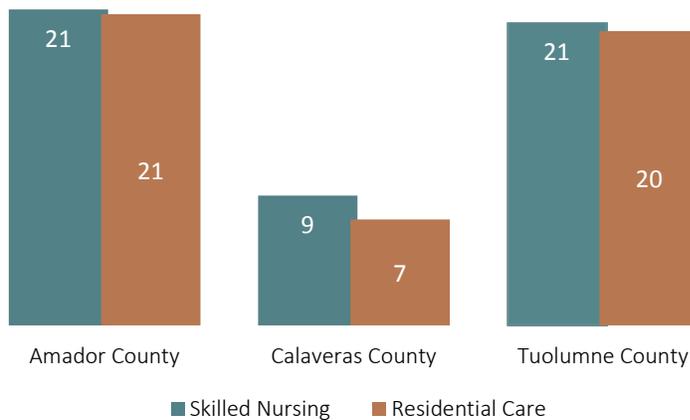
SKILLED NURSING AND ASSISTED LIVING

BACKGROUND

- The three counties combined offer 557 skilled nursing beds, of which 259 skilled nursing bed are in Tuolumne County.
- Tuolumne County has 252 of the 529 assisted living beds in the three counties.
 - Of these 74 are designated for memory care.
- Calaveras and Amador Counties do not have any dedicated memory care beds, but all the facilities take residents with dementia.
 - Of the Tuolumne County beds, 19 in local skilled nursing facilities are designated for memory care and 42 designated for memory care in a Residential Care Facilities for the Elderly.
- Amador and Tuolumne Counties have more assisted living beds per one thousand 65+ than Calaveras County.
- Calaveras County has fewer of both types of care for older adults.

DATA

NUMBER OF SKILLED NURSING AND ASSISTED LIVING BEDS 2016
Per 1,000 Resident 65 Years and Older



Source: Catholic Charities Diocese of Stockton

HOSPICE

BACKGROUND

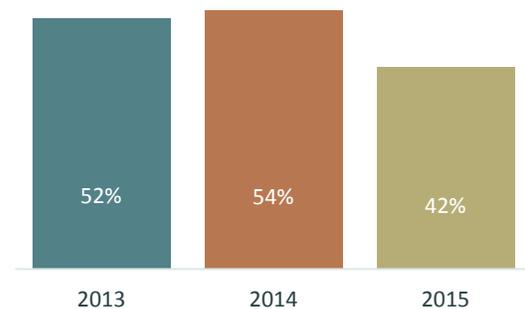
- Tuolumne County’s 3-year average hospice utilization rate of 49% is higher than the state average of 43.3%; The Let’s Get Healthy California 2022 **Target** rate is 54%.
- The majority of patients were enrolled for less than 1 month, which is an area for improvement.
- Hospice care provides medical services, emotional support, and spiritual resources for people who are in the last stages of a terminal illness, such as cancer or heart failure.
- Examining hospice enrollment and length of stay helps us measure the rate of use and determine if under-utilization is occurring.
- Hospice experts often recommend that patients are in Hospice care for at least a month, and preferably 6 months. This avails the patient and the family optimum access to the full benefit of hospice services.⁴⁶
- Tuolumne County’s hospice is strictly an in-home support program, lacking an inpatient service and lacking a residential facility.

DATA

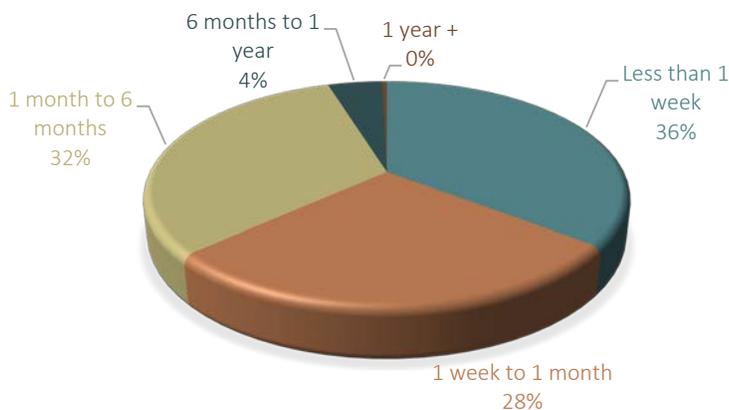
NUMBER OF SRMC HOSPICE PATIENTS⁴⁷

2013	307
2014	313
2015	247

% TUOLUMNE COUNTY DEATHS RECEIVING LOCAL HOSPICE SERVICES



AVERAGE LENGTH OF HOSPICE STAY 2013 - 2015



Source: SRMC Hospice

⁴⁶ Morrison, S et al *Palliative Care*, New England Journal of Medicine, 350:25 2582-90 June 27, 2004

⁴⁷ Unduplicated count.

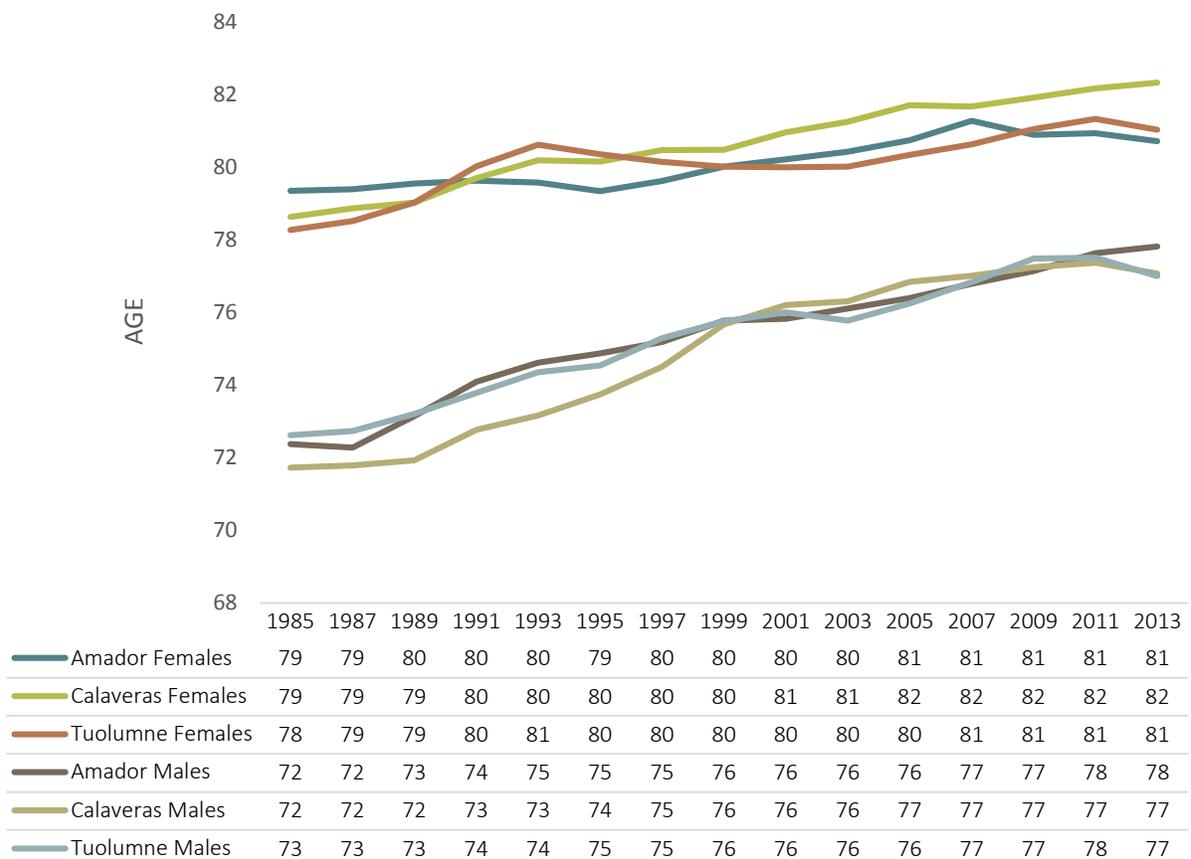
LONGEVITY

BACKGROUND

- In Tuolumne County, both men and women are living longer. Life expectancy for a newborn in Tuolumne County in 2013 is 81 years for a female and 77 years for a male.⁴⁸
- This may be a minor decrease from 2011. Further analysis will determine if this becomes a trend, which may be attributable to diet and physical activity levels in younger generations leading to higher rates of chronic disease. Life expectancy for men at age 65 in the United States is 76.4; for women it is 81.2.⁴⁹

DATA

LONGEVITY IN FOOTHILL COUNTIES



Source: Institute for Health Metrics and Evaluation, University of Washington

⁴⁸ Life Expectancy, Health Metrics and Evaluation at University of Washington and Henry J Kaiser Foundation, <http://www.healthmetricsandevaluation.org/tools/> accessed September 2013

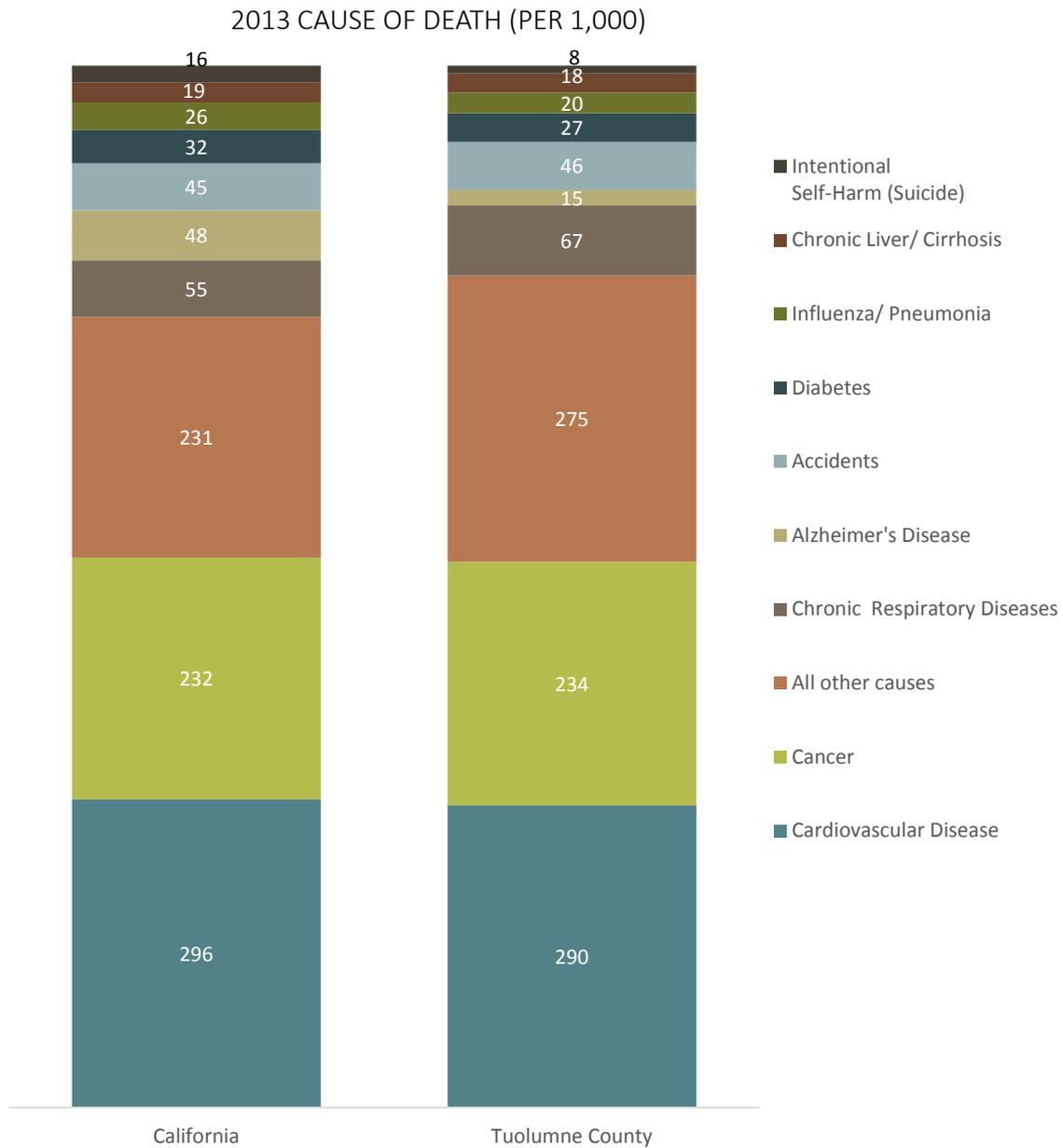
⁴⁹ U.S. Department of Health and Human Services, Health United States 2015

CAUSE OF DEATH

BACKGROUND

- The most common cause of death in Tuolumne County is cardiovascular disease; this combines heart disease and stroke. This is the most common cause of death for California as well.
- Second most common cause of death in Tuolumne County, as with California, is cancer.
- Chronic diseases including heart disease, stroke, cancer, chronic respiratory diseases, Alzheimer's, diabetes, and chronic liver disease cause the majority of death in Tuolumne County and California.

DATA



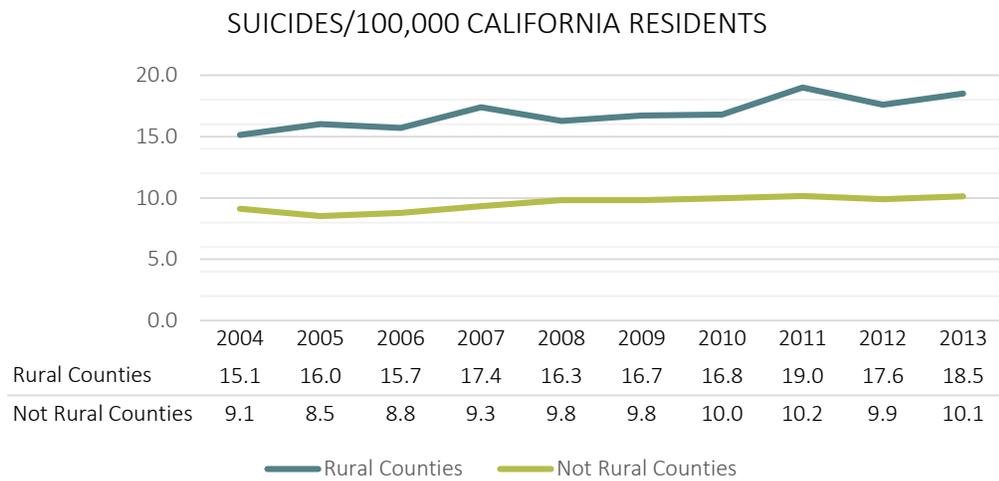
Source: California Department of Public Health

SUICIDE DEATHS

BACKGROUND

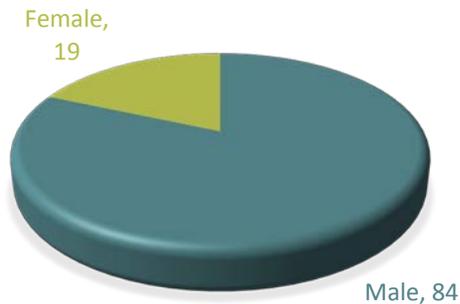
- Tuolumne County’s 5-year average suicide rate of 18.5/100,000 population is equivalent to other rural counties.
- Generally, rural counties have a higher rate of suicide when compared to the state or urban areas. Due to our small population size, the rates can seem to vary greatly year to year.
- What is very clear, however, is that the majority of reported suicides are occurring in middle aged men. This is an important demographic to focus interventions towards.

DATA



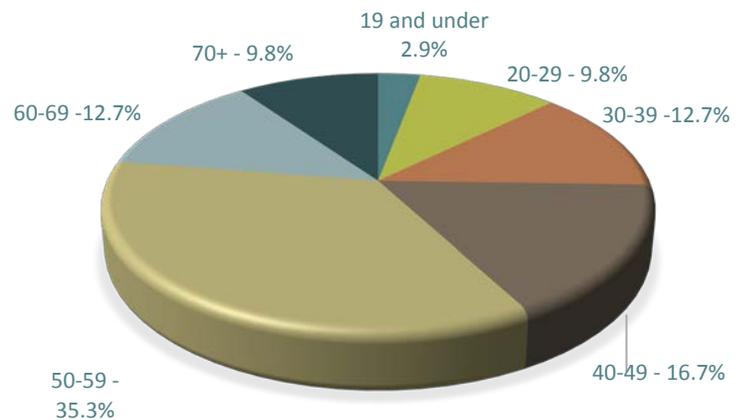
Source: Sacramento Bee citing the CA Dept of Public Health

2007-2015 TUOLUMNE COUNTY SUICIDES BY GENDER



Source: Tuolumne County Health Department, 2013

2007-2015 TUOLUMNE COUNTY SUICIDES BY AGE



REDESIGNING HEALTHCARE

As the needs of the population change, and require more preventive care and coordinated care of chronic disease, the healthcare system will need to adjust to address these needs in an efficient, safe, and patient-centered way. The triple aim is to improve quality, improve health outcomes, and reduce cost. Indicators in these chapters address the healthcare system and the cost of care in Tuolumne County.



We currently have a better ratio of patients to **dentists** than neighboring counties and the state

Our **suburban emergency response** time is better than that recommended by the state

Wait times to be seen by a healthcare professional in the emergency department are lower than the state average

Tuolumne County has a rate of **healthcare associated infections** that is at the national benchmark for all available indicators

Since the advent of the Affordable Care Act, many more local residents have **medical insurance**

As Medi-Cal expansion and other parts of the Affordable Care Act have taken effect, Sonora Regional Medical Center (SRMC) has had less Self-Pay and **Charity** activity



Tuolumne County, as with most rural counties, is experiencing a shortage of **primary care providers**; the county has recently had a reduction in the number of providers, greatly affecting the availability of care for residents

We experience about half the **mental health providers** per patient than the state

Tuolumne County **urban and rural emergency response** times exceed the California EMS Authority EMS System Guideline

Tuolumne County has a high rate of **preventable hospital admissions**, 1,297.3 per 100,000 people; this is higher than the state average of 1,095 per 100,000 people as compared to the state average

When adjusted for age, Tuolumne County **Medicare spending** is higher than the state average



Wait times to be admitted to the hospital from the emergency department are longer than the state and national average

Tuolumne County' 30-day **hospital re-admission** rate, defined as being admitted again within 30 days of hospital discharge for any cause, is 12.7%, which is lower than the state average but higher than the Let's Get Healthy California 2022 **Target** of 11.9%

Tuolumne County has the highest percentage of **healthcare costs attributable to chronic disease** in the state at 63%. This is significantly higher than the state average of 42.4%

PRIMARY CARE PROVIDERS

BACKGROUND

- Tuolumne County, as with most rural counties, is experiencing a shortage of primary care providers.
- This county has recently had a reduction in the number of providers, greatly affecting the availability of care for residents.
- One of the largest concerns among residents in Tuolumne County is the wait time to be seen by a healthcare provider. This has effected people with all types of insurance, from Medi-Cal to private insurance.
- Timely care is important both for the health of the patient and for the sustainability of the healthcare system.
- Getting care early can prevent further progression of disease for the patient.
- Getting care early and in the right setting can prevent excessive use of the ER and prevent hospitalizations.
- The Let's Get Health California **Target** is for 78% of Californians to receive timely primary care.

DATA

August 2016 status:

41 Primary Care Providers⁵⁰ serve Tuolumne County, and Angels Camps and up Highway 4 in Calaveras County.⁵¹

Ten of the 19 medical practices are accepting new patients in some capacity. Some are limited to specific insurance types, gender, or to Native Americans.⁵² Others will accept all types of new patients. However, the wait for new patients to be seen by a primary care provider ranges from a week for one small practice to 2 to at least 5 months out for the majority of those taking new patients.

PRIMARY CARE PROVIDER REQUIREMENTS			
	Estimated 2016 FTE	Needed 2016 FTE	Needed 2021 FTE*
Primary Care Providers	41	53	53

Source: Trueven Health Analytics, Inc. 2016
*Full time equivalent

⁵⁰ Primary care physicians include non-federal, practicing providers (M.D.s D.O.s, NPs, PAs) specializing in general practice medicine, family medicine, internal medicine, and pediatrics.

⁵¹ Sonora Regional Medical Center

⁵² Local Survey conducted by the Public Health Department August 2016

MEDICAL PROVIDERS OTHER THAN PRIMARY CARE

BACKGROUND

- We currently have a better ratio of patients to dentists than neighboring counties and the state. But we experience about half the mental health providers per patient than the state.
- Recruitment of more mental health providers, and needed specialists continues to be a major focus for the community.
- Different models of care and maximizing partners like community health workers and affiliated health professionals continue to be explored.
- One of the largest factors in timely care is provider to patient ratio.

DATA

PATIENT TO DENTIST AND MENTAL HEALTH PROVIDER RATIOS

	California	Amador	Calaveras	Tuolumne
Dentists (2014)	1,260:1	1,220:1	2,030:1	880:1
Mental health providers (2015)	360:1	610:1	780:1	760:1

Source: County Health Rankings and Roadmaps 2016



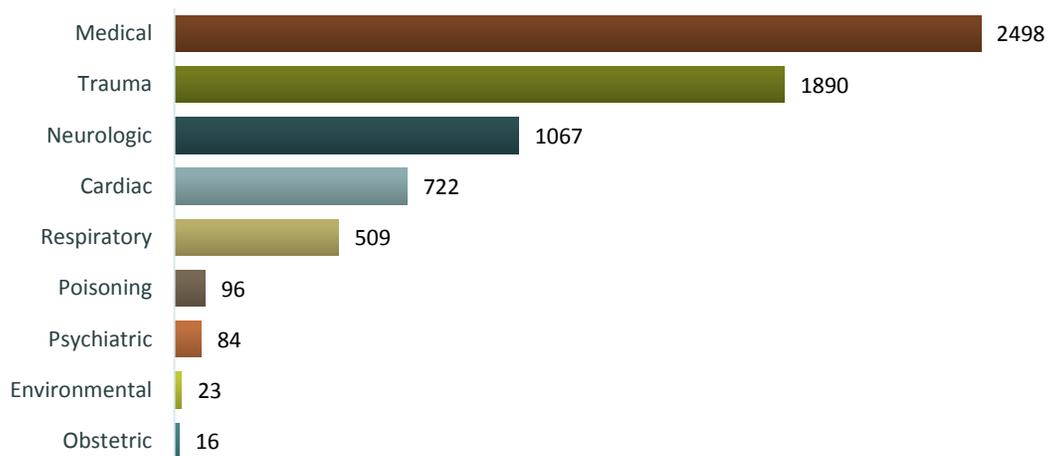
EMERGENCY RESPONSE

BACKGROUND

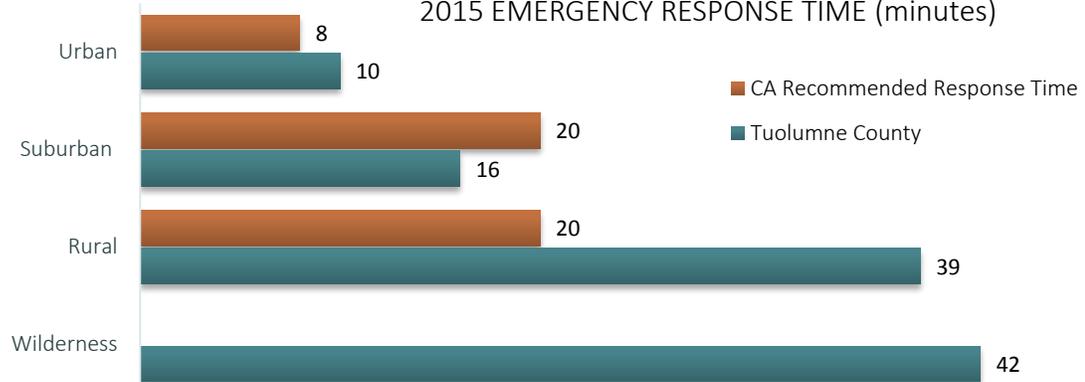
- Tuolumne County urban and rural emergency response times exceed the California EMS Authority EMS System Guideline; our suburban response time is better than the recommended response time.
- The majority of calls to the 911 emergency medical services are for “medical” reasons. This includes allergic reactions, diabetic issues, overdoses, abdominal pain, and excludes events such as heart attacks, strokes, and traumatic injuries. The second most common calls are related to trauma.
- We also include emergency response time. Tuolumne County has a widespread population, including some relatively dense city populations and ranging to sparsely populated and remote wilderness. Wilderness and rural response times clearly necessitate more time.

DATA

2015 EMERGENCY MEDICAL SERVICE CALLS



2015 EMERGENCY RESPONSE TIME (minutes)



Source: Tuolumne County Emergency Services

WAIT TIMES - EMERGENCY DEPARTMENT

BACKGROUND

- Wait times in the emergency room in Tuolumne County vary as compared to the state and national averages.
- Wait times to be seen by a healthcare professional are lower than the state average.
- Wait times to be admitted are longer than the state and national average.

DATA

EMERGENCY DEPARTMENT WAIT TIMES

INDICATOR: <i>A lower number of minutes is better</i>	Sonora Regional Medical Center	California	Nationwide
Average time patients spent in the emergency department before they were seen by a healthcare professional	25 Minutes	30 minutes	26 minutes
Average (median) time patients spent in the emergency department, before they were admitted to the hospital as an inpatient	374 minutes	302 minutes	260 minutes
Average (median) number of minutes before outpatients with chest pain or possible heart attack got an ECG	14 Minutes	9 Minutes	7 Minutes

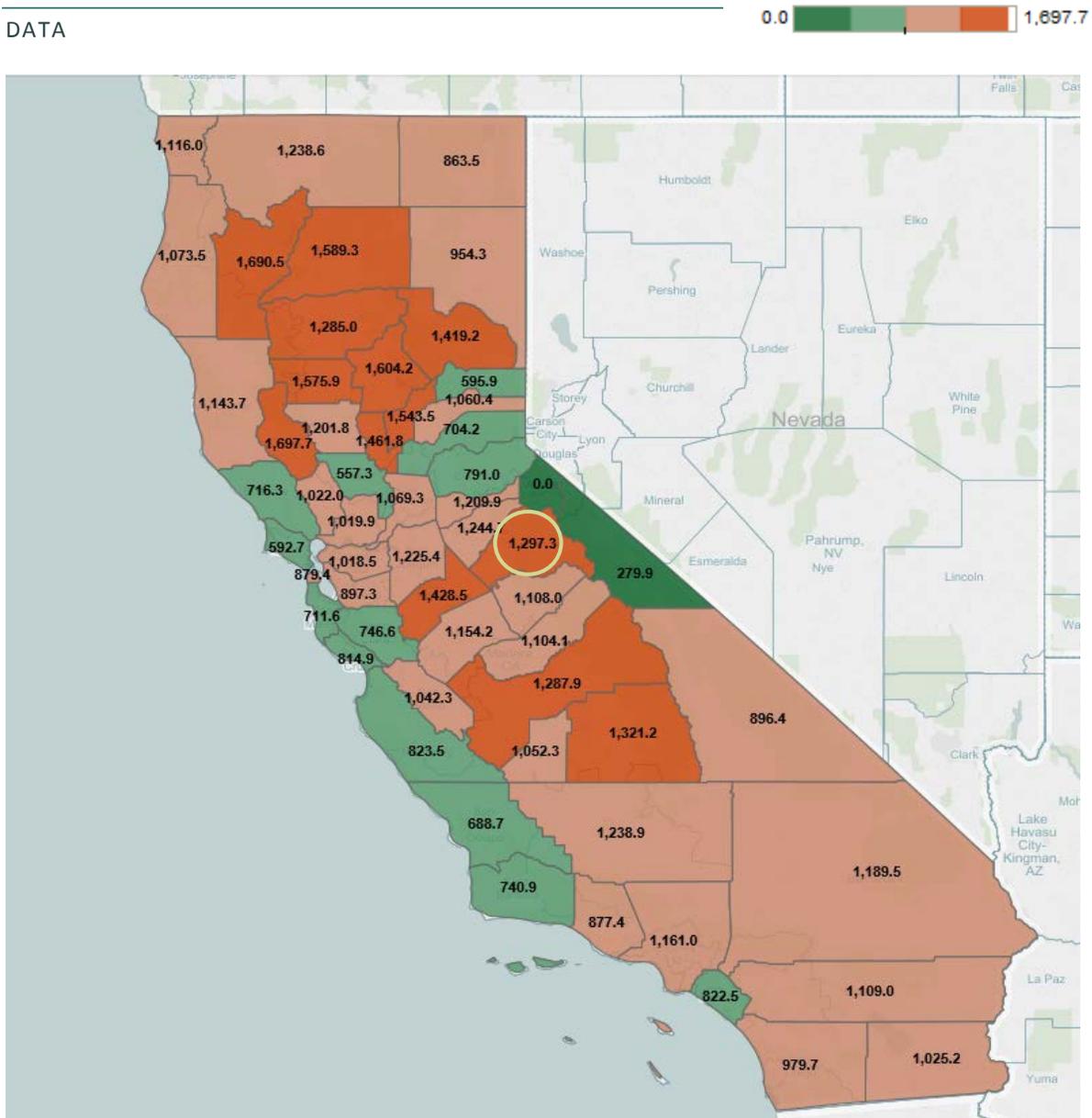
Source: Hospital Compare, CDC

PREVENTABLE HOSPITALIZATIONS

BACKGROUND

- Tuolumne County has a high rate of preventable hospital admissions, 1,297.3 per 100,000 people.
- This is higher than the state average of 1,095 per 100,000 people as compared to the state average.
- The Let's Get Healthy California 2022 **Target** for preventable admission is a rate of 727 per 100,000 people.
- This demonstrates a need to improve access to quality care, including primary care, before people develop diseases which require admission.

DATA



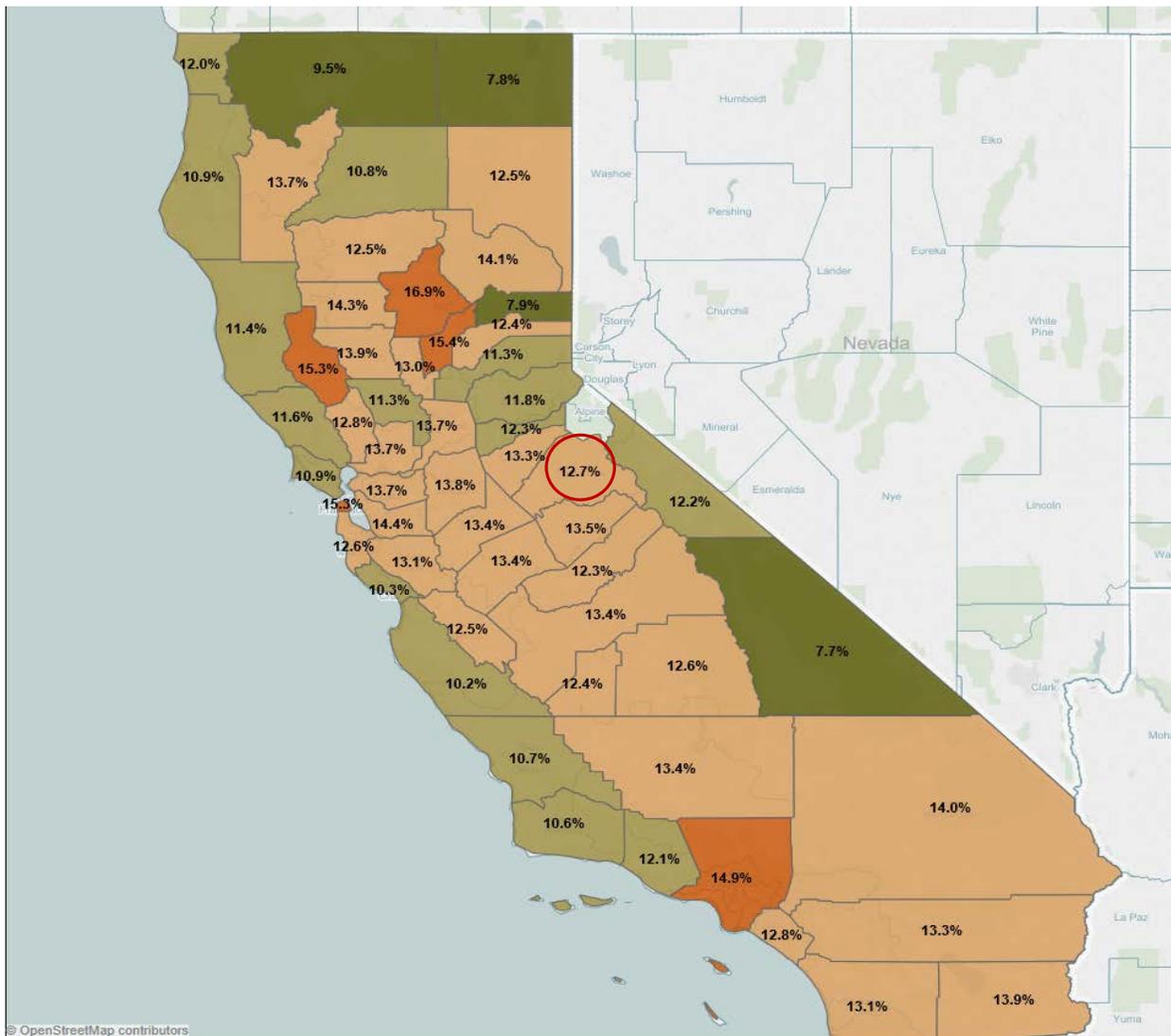
Source: Let's Get Healthy CA

ALL-CAUSE HOSPITAL READMISSIONS

BACKGROUND

- Tuolumne County' 30-day hospital re-admission rate, defined as being admitted again within 30 days of hospital discharge for any cause, is 12.7%, which is lower than the state average but higher than the Let's Get Healthy California 2022 **Target** of 11.9%.
- The California state average 30-day readmission rate is 13.6%.
- Re-admissions are a considered an indicator of the quality of care during admission and the quality of care immediately after discharge.
- If care is well coordinated in the discharge process and patients are able to get timely and quality follow up care, re-admission rates decrease.

DATA



Source: Let's Get Healthy CA

HEALTHCARE ASSOCIATED INFECTIONS (HAI)

BACKGROUND

- Tuolumne County has a rate of healthcare associated infections that is at the national benchmark for all available indicators.
- Healthcare Associated Infections are a major measure of quality care.
- It is estimated that each year there are 722,000 infections, 75,000 deaths, and 1 in 25 hospital patients at any given time has an infection contracted during the course of their hospital care.

DATA

HEALTHCARE ASSOCIATED INFECTIONS Measure Description	SONORA REGIONAL MEDICAL CENTER
Central line-associated bloodstream infections (CLABSI) in ICUs and select wards	No Different than National Benchmark
Central line-associated bloodstream infections (CLABSI) in ICUs only	Not Available (0 infections)
Catheter-associated urinary tract infections (CAUTI) in ICUs and select wards	No Different than National Benchmark
Catheter-associated urinary tract infections (CAUTI) in ICUs only	No Different than National Benchmark
Surgical site infections from colon surgery (SSI: Colon)	No Different than National Benchmark
Surgical site infections from abdominal hysterectomy (SSI: Hysterectomy)	Not Available (0 infections)
Methicillin-resistant <i>Staphylococcus Aureus</i> (MRSA) Blood Laboratory-identified Events (Bloodstream infections)	Not Available (0 infections)
<i>Clostridium difficile</i> (C.diff.) Laboratory-identified Events (Intestinal infections)	No Different than National Benchmark

Source: www.medicare.gov/HospitalCompare; accessed 08.2016

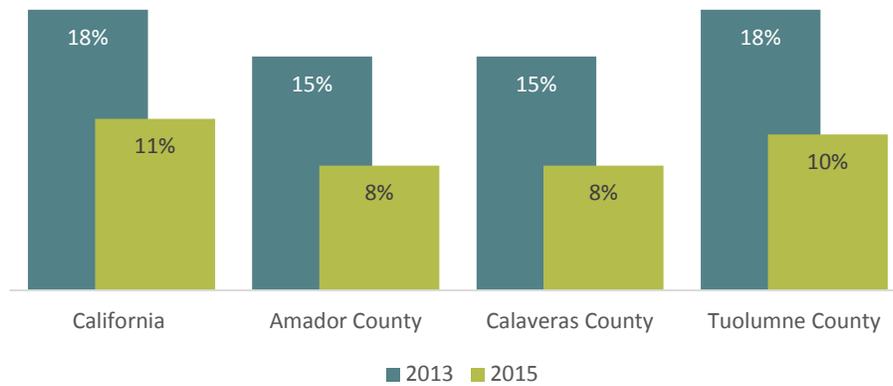
ACCESS TO HEALTH CARE

BACKGROUND

- The percent of uninsured Tuolumne County residents mirrors that of the state as a whole.
- Since the advent of the Affordable Care Act, many more people have medical insurance.

DATA

PERCENT OF POPULATION UNDER 65
WITHOUT HEALTH INSURANCE



Source: Enroll America

% OF POPULATION UNINSURED - 2015

	18 - 34	35 - 44	45 - 54	55 - 64
California	16%	9%	10%	8%
Amador County	12%	7%	7%	6%
Calaveras County	14%	8%	8%	7%
Tuolumne County	15%	9%	9%	8%

Source: Enroll America

ANNUAL MEDICAL EXPENSES 2015

1 Adult	2 Adults (One Working)	2 Adults (One Working) 2 Children	2 Adults (One Working) 3 Children	2 Adults	2 Adults 1 Child	2 Adults 2 Children	2 Adults 3 Children
\$2,099	\$4,817	\$6,215	\$6,182	\$4,817	\$6,151	\$6,215	\$6,182

Source: © 2016 Dr. Amy K. Glasmeier and the Massachusetts Institute of Technology, <http://livingwage.mit.edu/counties/06109>

MEDICARE SPENDING

BACKGROUND

- Tuolumne County Medicare costs are slightly more per capita than other foothill counties, but less than the state average.
- However, when adjusted for age, Tuolumne County Medicare spending is higher than the state average.

DATA

MEDICARE SPENDING AND USAGE 2014

Location	Total Medicare Costs	Actual Per Capita Medicare Costs	Average HCC Score	Standardized Risk-Adjusted Per Capita Costs	Average Age of Beneficiary	Total Number of Beneficiaries
Amador	\$65.7 Million	\$8,699	0.81	\$8,951	72	9,653
Calaveras	\$81.9 Million	\$8,426	0.82	\$8,563	72	11,433
Tuolumne	\$122 Million	\$9,109	0.9	\$9,062	72	14,119
California	\$28.6 Billion	\$10,376	1.01	\$8,532	71	5.11 Million

HCC SCORE: As a social insurance program, it is important for Medicare to calculate patient risk levels, or their susceptibility to illness. The Hierarchical Condition Category, or HCC, score factors demographics and previous diagnoses into a measure that assesses potential fee-for-service program payments (i.e. the patient risk factor). This field measures the average HCC score across patients in the area.

Source: Health Grove

AVERAGE MEDICARE SPENDING PER BENEFICIARY (MSPB) MEASURE

JANUARY 1, 2014 TO DECEMBER 31, 2014

	Sonora Regional Medical Center	State	US
Average Spending per Medicare Episode	\$16,432	\$20,669	\$20,025
Average Medicare Spending per Beneficiary (MSPB) Measure	0.83	0.99	0.98

Source: Medicare.gov/Hospital Compare

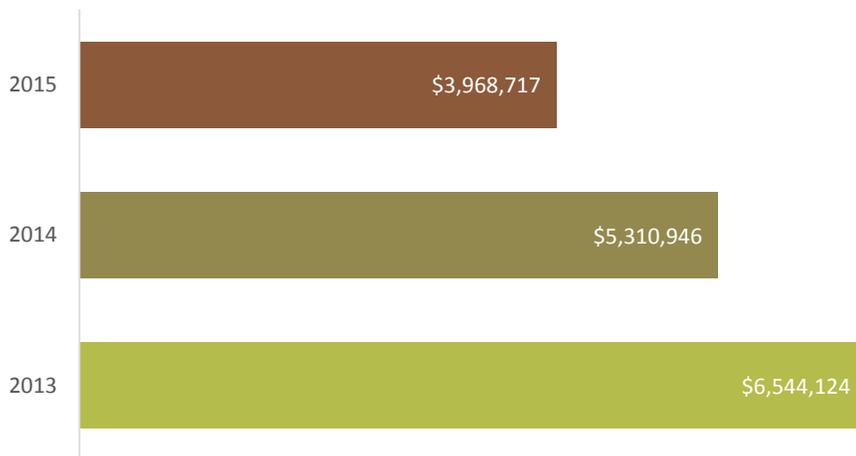
MEDICAL EXPENSES FINANCIAL ASSISTANCE

BACKGROUND

- As Medi-Cal expansion and other parts of the Affordable Care Act have taken effect, Sonora Regional Medical Center (SRMC) has had less Self-Pay and Charity activity.
- Charity care is the portion written off from the patient responsibility for an encounter where the patient has completed a charity care application and it has been approved under SRMC policy guidelines. For an insured patient, this amount can be up to their deductible / co-pay amount, for uninsured patients it can be up to the total charges on the encounter. Because of that application requirement, it somewhat underreports the actual charity care provided – some portion of what the medical center writes off as bad debt would certainly be eligible for charity if the patient would fill out the application.
- Contracted rates from insurers (including Medicare and Medi-Cal) do not fully cover costs are not included in this figure.
- Charity care amounts are included in the overall community benefit total as reported in Sonora Regional Medical Center IRS 990 report.

DATA

SONORA REGIONAL MEDICAL CENTER CHARITY CARE



Source: Sonora Regional Medical Center

BURDEN OF CHRONIC DISEASE

BACKGROUND

- Tuolumne County has the highest percentage of healthcare costs attributable to chronic disease in the state at 63%.⁵³
- This is significantly higher than the state average of 42.4%
- Tuolumne County total healthcare cost on the six chronic conditions in 2010 totaled \$216,388,532.
- The California Department of Public Health and UC Merced examined the costs of six chronic conditions: cardiovascular disease, stroke, diabetes, asthma, depression, and cancer.

DATA

COST BURDEN FOR MAJOR CHRONIC DISEASES (listed in Living Well Chapter) AS CALCULATED IN 2012

	Total Cases	Total Cost	Average Cost per Case	% Total Healthcare Expenditure
Amador County	25,647	\$102,986,452	\$4,015.54	61.90%
Calaveras County	30,813	\$120,839,860	\$3,921.72	60.70%
Tuolumne County	37,335	\$151,736,609	\$4,064.19	62.70%
California	19,506,132	\$69,360,691,507	\$3,555.84	42.40%

SOURCE: Brown P, Gonzalez M, Sandhu R. 2015 Economic Burden of Chronic Diseases, 2015.



⁵³ Data are age, gender, race/ethnicity, and geographically-price adjusted

CREATING HEALTHY COMMUNITIES

Research shows that where you live is the most significant indicator of health. People living in healthy communities have lower rates of heart disease, diabetes, obesity, and are more likely to live a healthier life. (Cal Endowment – Neighborhoods <http://www.calendow.org/neighborhoods/>). Research also shows that the social indicators of health are a strong predictor of population health.

A healthy community is a safe community, where families can be physically active and have access to healthy food, clean water, and clean air. A healthy community has safe, affordable housing, and employment opportunities for residents. Indicators in this chapter address many of the social indicators of health, including economic indicators, as well as the physical environment.



Tuolumne County had 265 residents suffering from **homelessness** in 2015, a decrease from previous years

The **poverty** rate for all persons living in the foothill area (14.7%) is less than the national average of 15.6.

The **poverty** rate for children living in the county (17.7%) is less than the national average of 21.9 %

From 2013 to 2014, Tuolumne County had a decrease in **property crimes**

Tuolumne County had a higher level of **high school graduates** than the state and national averages

Tuolumne County has a higher **adult literacy** rate than the state and national average

The county's **voter turnout** was higher than the statewide turnout



In Tuolumne County, 29% of **renters** spend over 50% of their income on rent

Tuolumne County has 1,737 people receiving **SSI** in 2014; this is 3.2% of the population; this is the highest in the foothills, and similar to the state's 3.4%

The average per capita **income** for Tuolumne County is \$26, 063, which is lower than the state and national average and lower than the per capita income for Amador and Calaveras Counties

The **unemployment** rate in Tuolumne County is 6.5% in July 2016; this is higher than the state and national average

From 2013 to 2014, Tuolumne County had a significant increase in **violent crime**

Tuolumne County has a higher rate of arrests for **DUIs** as compared to neighboring counties and the state

Tuolumne County had a lower percentage of residents with bachelors and **advance degrees**



The county has a higher rate of households receiving supplemental **nutrition assistance** than other foothill counties

Tuolumne County median **home value** is similar to foothill counties, higher than the national average, lower than the state average

FOOD SECURITY

BACKGROUND

- Tuolumne County and Amador County both had similar rates of students eligible at 40%.
- Of the foothill counties, Calaveras had the highest percentage of students eligible for free or reduced price meals.
- The lower table shows that 4,970 households (or 9.1%) received Supplemental Nutrition Assistance Program (SNAP) payments during 2014. During this same period there were 4,849 households (or 90.9%) with income levels below the poverty level that were not receiving SNAP payments.
- Of the foothill counties, Tuolumne County had the highest percentage of households using SNAP, 9.90%. However, 2,203 households below the poverty line in Tuolumne County were not receiving benefits.

DATA

STUDENTS ELIGIBLE FOR FREE OR REDUCED PRICE MEALS Academic Year 2015 - 2016

	All K-12 students	Eligible for Free or Reduced Price Meals	% Eligible for Free or Reduced Price Meals
Amador County	4,060	1,637	40%
Calaveras County	5,649	2,979	53%
Tuolumne County	6,002	2,399	40%
California	6,227,268	3,665,445	59%

Source: California Department of Education <http://www.cde.ca.gov/ds/sd/sd/files.asp>

HOUSEHOLDS RECEIVING SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP) 2014

<i>Report Area</i>	# Households Receiving SNAP Total	% Households Receiving SNAP Percent	Households Receiving SNAP Income Below Poverty	Households Receiving SNAP Income Above Poverty	Households Not Receiving SNAP Income Below Poverty
Amador County	1,280	9.18%	542	738	1,193
Calaveras County	1,495	8.03%	746	749	1,453
Tuolumne County	2,195	9.90%	1,205	990	2,203

Data Source: US Census Bureau, American Community Survey. 2010-14. Source geography: County as cited on CommunityCommons.org

HOMELESSNESS

BACKGROUND

- Tuolumne County had 265 residents suffering from homelessness in 2015, a decrease from previous years.
- Amador and Calaveras counties also saw decreases in the number of people suffering from homelessness, many probably due to the 2015 Butte fire.
- The federal department of housing and urban development oversees the data collection for community surveys of homelessness. This is done through a volunteer effort, and on a limited basis, which may lead to skewed data. It is the largest data collection available on this topic, and as it is conducted in multiple communities, it is useful for comparison.

DATA

HOMELESS PERSONS 2015

		Amador	Calaveras	Tuolumne
2011	0-5	21	23	70
	6-17	33	27	108
	19-30	52	52	77
	31 - 59	86	68	100
	>60	10	3	13
	Unaccompanied	10	9	9
	Unknown/no answer		3	5
TOTAL		212	185	382
2013	0-5	11	10	31
	6-17	24	15	41
	18-24	19	26	34
	25-59	98	75	221
	>60	7	6	31
	TOTAL	159	132	358
2015	0-5	8	6	22
	6-17	6	0	17
	18-24	17	13	29
	25-59	90	62	180
	>60	18	8	15
	Unknown	2	0	2
	TOTAL	141	89	265
Homeless Veterans		Amador	Calaveras	Tuolumne
		16	11	29

Source Central Sierra Continuum of Care, Point-In-Time Homeless Census

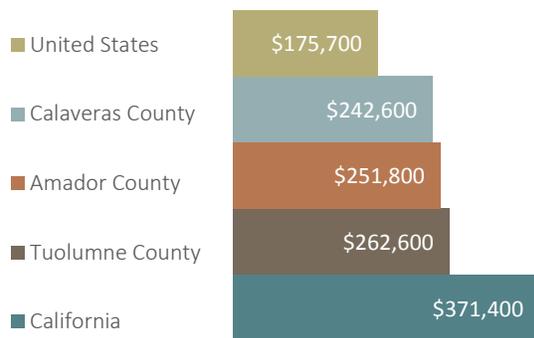
HOMEOWNERS

BACKGROUND

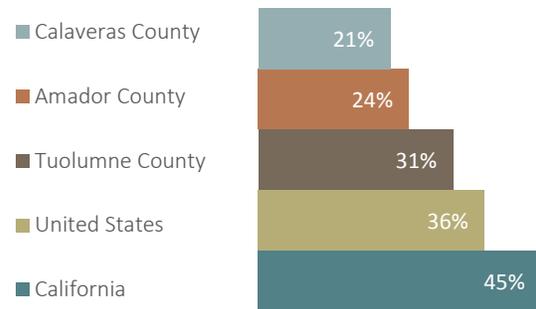
- Tuolumne County median home value is similar to foothill counties, higher than the national average, lower than the state average.
- In Tuolumne County, 24% of residents rent a home. This is lower than the state and national average.
- In Tuolumne County, 29% of renters spend over 50% of their income on rent.
- The majority of rentals in Tuolumne County are between \$750-1,500 a month.
- Safe housing is essential to health. Access to safe housing is addressed here by assessing median home values and the cost of renting a home.

DATA

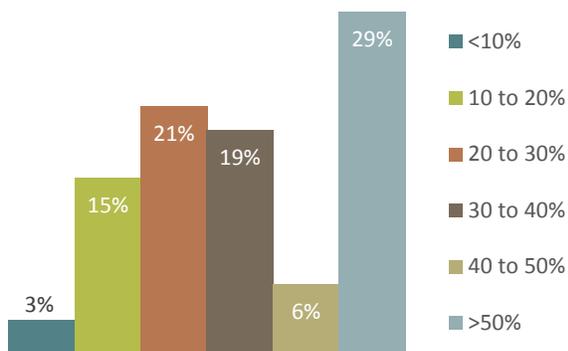
MEDIAN HOME VALUE 2015



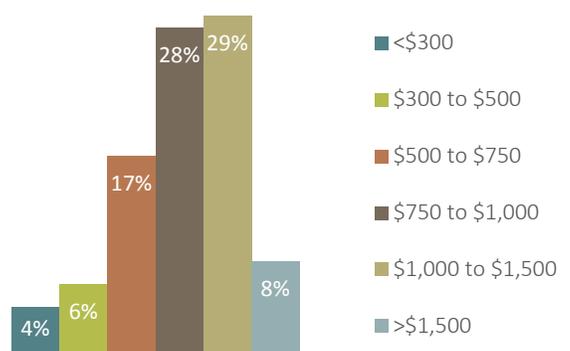
PERCENTAGE OF RENTER HOUSEHOLDS TO TOTAL HOUSEHOLDS 2015



TUOLUMNE COUNTY RENT AS A % OF HOUSEHOLD INCOME 2015



TUOLUMNE COUNTY MONTHLY RENTAL RATES 2015



Source: 2015 data from American Community Survey as cited on Town Charts.com

POVERTY

BACKGROUND

- The poverty rate for all persons living in the foothill area is less than the national average of 15.59 percent.
- The poverty rate for children living in the foothill area is less than the national average of 21.9 percent.
- An average of 13.35 percent of all persons lived in a state of poverty during the 2010 - 2014 period.
- An average of 10.2% of seniors in the state were living in poverty.

DATA

5-YEAR POVERTY ESTIMATES 2010 - 2014			
	Total Population	Population in Poverty	Poverty Rate
Amador County	32,932	4,277	12.99%
Calaveras County	44,223	5,352	12.10%
Tuolumne County	50,714	7,444	14.68%
California	37,323,128	6,115,244	16.38%
United States	306,226,400	47,755,608	15.59%

Data Source: US Census Bureau, American Community Survey. 2010-14. Source geography: Tract

5-YEAR POVERTY ESTIMATES FOR CHILDREN 2010 - 2014			
	Total Population	In Poverty	Poverty Rate
Amador County	5,645	1,230	21.80%
Calaveras County	8,052	953	11.80%
Tuolumne County	9,011	1,596	17.70%
California	9,072,050	2,059,262	22.70%
United States	72,637,888	15,907,395	21.90%

Data Source: US Census Bureau, American Community Survey. 2010-14. Source geography: County

5-YEAR POVERTY ESTIMATES FOR SENIORS 2010 - 2014			
	Total Population	In Poverty	Poverty Rate
Amador County	8,265	513	6.20%
Calaveras County	10,381	737	7.10%
Tuolumne County	11,681	782	6.70%
California	4,521,042	463,096	10.20%
United States	41,871,248	3,926,219	9.40%

Data Source: US Census Bureau, American Community Survey. 2010-14. Source geography: county

SUPPLEMENTAL SOCIAL SECURITY RECIPIENTS

BACKGROUND

- Supplemental Security Income recipients are aged, blind, and disabled people who have little or no income, and receive benefits to meet basic needs for food, clothing, and shelter.
- Tuolumne County has 1,737 people receiving SSI in 2014; this is 3.2% of the population; this is the highest in the foothills, and similar to the state's 3.4%.

DATA

SSI RECIPIENTS/100,000 POPULATION 2014

County	Total	Category			Age		SSI recipients <i>also</i> receiving Old Age Survivors and Disability Insurance (OASDI)
		Aged	Blind and disabled	Under 18	18–64	65 or older	
Amador	2,026	172	1,854	148	1,491	388	904
Calaveras	2,509	169	2,340	205	1,870	434	1,062
Tuolumne	3,196	267	2,929	213	2,324	659	1,463

Source: U.S. Census Bureau, American Community Survey, 2011 Data Release, December 2012. The 2011 American Community Survey 5-year data is an average of data collected from 2007 through 2011.

TOTAL SSI PAYMENTS 2014

County	Total people receiving payments (% of population)	Amount of payments (thousands of dollars) ^a
Amador	753 (2.0% of population)	477
Calaveras	1,127 (2.5% of population)	709
Tuolumne	1,737 (3.2% of population)	1,045

Source: U.S. Census Bureau, American Community Survey, 2011 Data Release, December 2012. The 2011 American Community Survey 5-year data is an average of data collected from 2007 through 2011.

LIVING WAGE⁵⁴

BACKGROUND

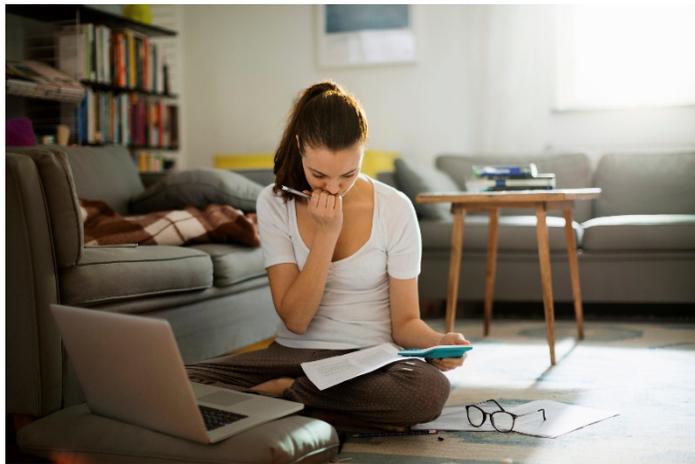
- The average per capita income for Tuolumne County is \$26, 063, which is lower than the state and national average and lower than the per capita income for Amador and Calaveras Counties.
- The living wage shown is the hourly rate that an individual must earn to support their family, if they are the sole provider and are working full-time (2080 hours per year).

DATA

TUOLUMNE COUNTY WAGES 2015

Hourly Wages	2 Adults (One Working) 2 Children
Living Wage	\$23.68
Poverty Wage	\$11.00
Minimum Wage	\$10.00

Source: © 2016 Dr. Amy K. Glasmeier and the Massachusetts Institute of Technology.
<http://livingwage.mit.edu/counties/06109>



INCOME 2010 TO 2014

	Median Household Income	Per Capita Income
Amador County	\$52,964	\$27,373
Calaveras County	\$54,936	\$29,296
Tuolumne County	\$48,493	\$26,063
California	\$61,489	\$29,906
United States	\$53,482	\$28,555

Data Source: US Census Bureau, American Community Survey. 2010-14. Source geography: County

⁵⁴ All values are per adult in a family unless otherwise noted. The state minimum wage is the same for all individuals, regardless of how many dependents they may have. The poverty rate is typically quoted as gross annual income. It has been converted it to an hourly wage for the sake of comparison.

EMPLOYMENT

BACKGROUND

- The unemployment rate in Tuolumne County is 6.5% in July 2016.
 - This is higher than the state and national average.
- Labor force, employment, and unemployment data for each county in the foothill area is provided in the table below. Overall, the area experienced an average 6% percent unemployment rate in April 2016.

DATA

EMPLOYMENT, JULY 2016

	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Amador County	14,970	14,040	930	6.2%
Calaveras County	21,060	19,760	1,300	6.1%
Tuolumne County	22,270	20,820	1,460	6.5%
California	19,369,400	18,234,000	1,135,400	5.9%
United States				4.9%

Data Source: CA Department of Finance (county and state data) and US Department of Labor, Bureau of Labor Statistics. 2016. Source geography: US

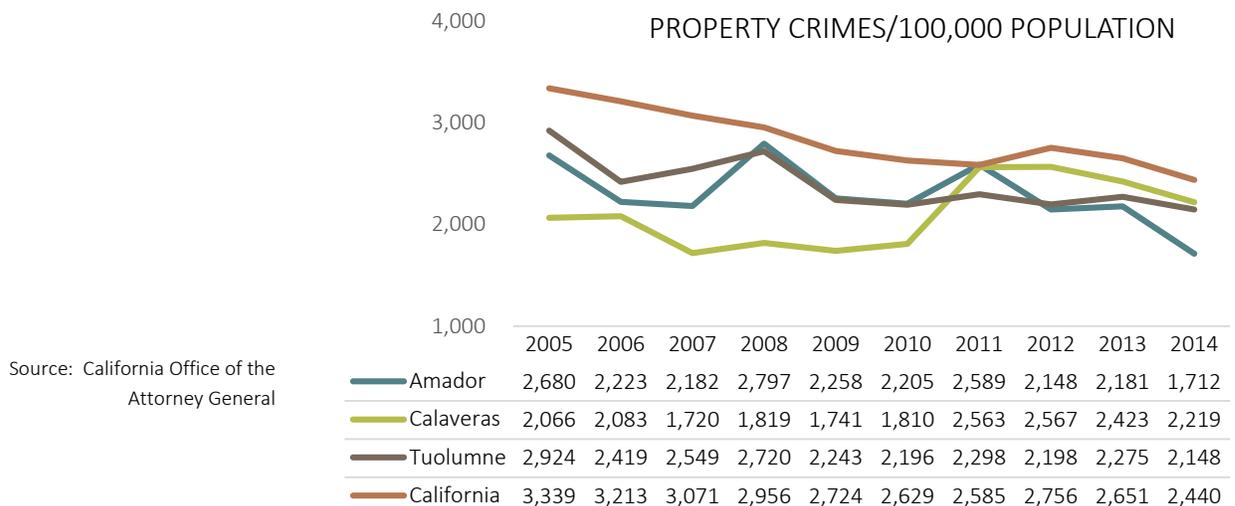
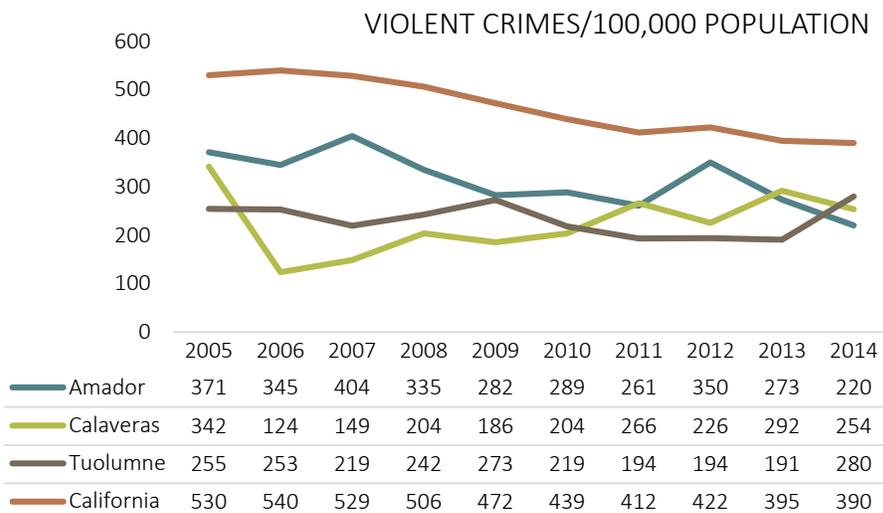


CRIME

BACKGROUND

- From 2013 to 2014, Tuolumne County had an increase in violent crime. Amador and Calaveras counties had decreases.
- From 2013 to 2014, Tuolumne County had a decrease in property crimes. Amador and Calaveras County also had decreases.
- Crime rates are reported as Uniform Crime Reporting rates and are the number of crimes per 100,000 people.
- Feeling safe at home, work and play is essential to enjoying a high quality of life. Sociological literature is replete with examples of an improved sense of wellbeing, a willingness to engage in social interactions and neighborhood activities when residents feel secure. All of these variables have a direct impact on health.

DATA



TRANSPORTATION

BACKGROUND

- Tuolumne County has a higher rate of arrests for DUIs as compared to neighboring counties and the state.
- As motor vehicle accidents are a major cause of injury and death, we evaluate the number of collisions reported in the county.
- Substance use is a major contributor to safe transportation and a major contributor to injury and death by motor vehicle accidents, so we assess rates of arrests for driving under the influence.
- For people with no other means of transportation, access to a public transit system is an important component of health. Access to transit is particularly important for people with physical disabilities.

DATA

Traffic Collisions between January 1, 2010 and December 31, 2013:

- 1195 total traffic collisions
- 1635 total killed or injured victims
- 35 killed victims

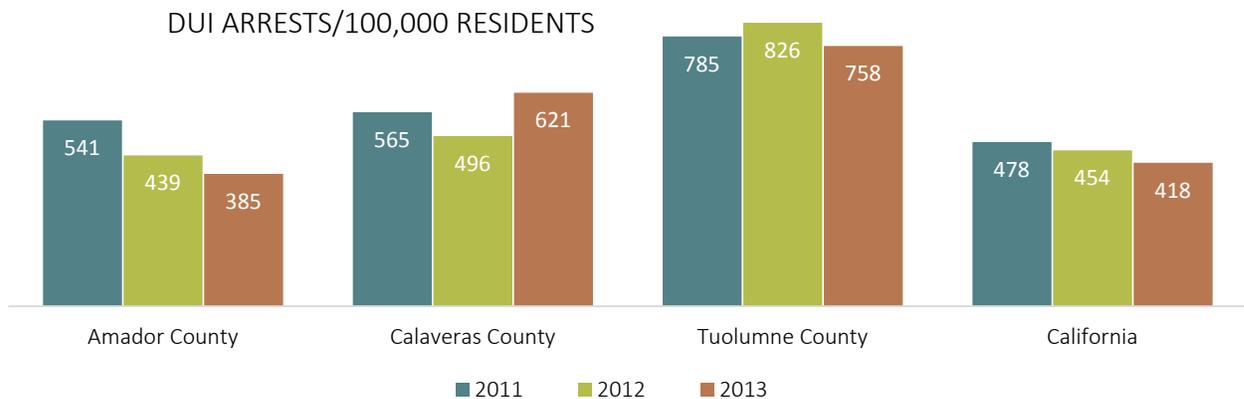
Notable Primary Collision Factors: 14% under the influence of alcohol or drugs, 28% unsafe speed

- 57 traffic collisions involving pedestrians (no bicyclist)
- 59 pedestrians injured
- 3 pedestrians killed
- 12 pedestrians injured age 19 or younger
- 5 pedestrians injured age 65 or older
- 223 traffic collisions involved motorist age 15-20
- 244 traffic collisions involved motorist age 65 or older

Transit Ridership:

- 2014/15 Fixed Route Average Daily trips: 328
- 2014/15 Dial A Ride Average Daily trips: 146
- 2015/16 TRIP Program average rides per month: 90

Source: Tuolumne County Transit



Source: California Highway Patrol

EDUCATION ATTAINMENT

BACKGROUND

Educational Attainment shows the distribution of educational attainment levels. Educational attainment is calculated for persons over 25, and is an average for the period from 2010 to 2014.

- Tuolumne County had a higher level of high school graduates than the state and national averages.
- Tuolumne County had a lower percentage of residents with bachelors and advance degrees.
- Tuolumne County has a higher adult literacy rate than the state and national average.

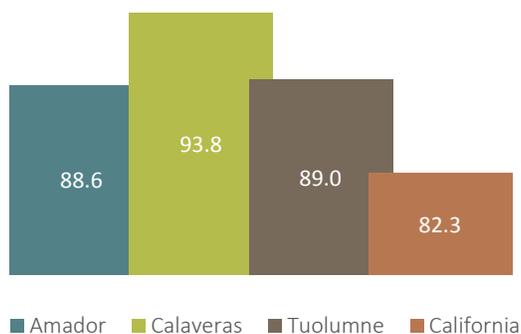
DATA

EDUCATION ATTAINMENT

	Percent No High School Diploma	Percent High School Only	Percent Some College	Percent Associates Degree	Percent Bachelors Degree	Percent Graduate or Professional Degree
Amador County	9.8%	27.8%	32.1%	9.9%	14.2%	6.2%
Calaveras County	11.6%	27.5%	31.0%	9.4%	14.3%	6.2%
Tuolumne County	7.5%	27.0%	33.8%	10.6%	15.0%	6.1%
California	10.4%	28.8%	31.5%	9.6%	13.5%	6.3%
United States	18.5%	20.7%	22.0%	7.8%	19.6%	11.4%

Data Source: US Census Bureau, American Community Survey. 2010-14. Source geography: County

2014 - 2015 HIGH SCHOOL GRADUATION RATES



Source: California Department of Education, Data Reporting Office

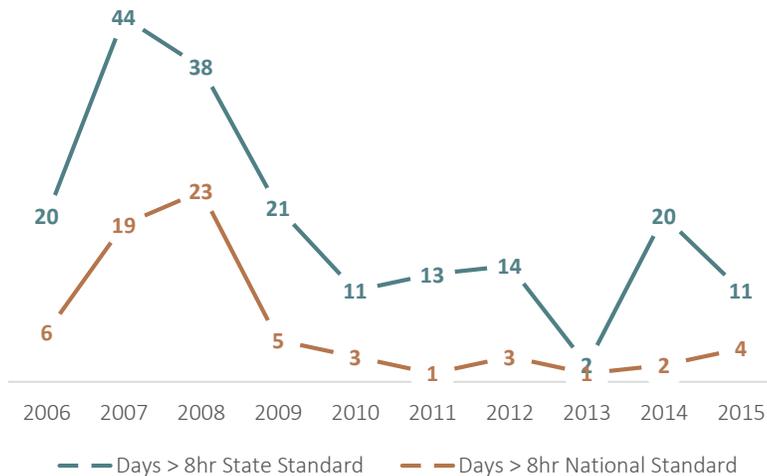
AIR AND WATER QUALITY

BACKGROUND

- Clean air and clean water are essential to health. Here we assess the number of days exceeding state and national standards for air quality. Overall, the quality of air in Tuolumne County generally meets state and national standards.
- Drinking water safety is highly regulated and monitored for biological and chemical contaminants. All public water systems must report biological and chemical contaminants to the California Drinking Water Program. Annual quality reports are available for all major water systems serving the county. Of note, many residents in Tuolumne County rely on private wells for drinking water, and homeowners are responsible for the regular monitoring of private well drinking water. It is recommended that private well owners test their water for biological and chemical contaminants at least every two years.

DATA

OZONE LEVELS - DAYS EXCEEDING STATE AND NATIONAL STANDARDS



Source: California Air Quality Resources Board

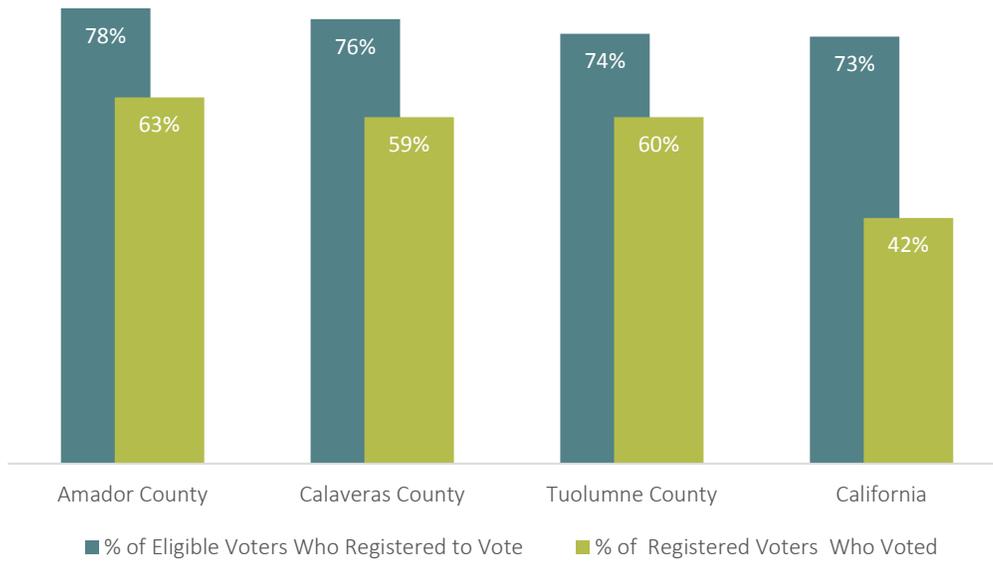
CIVIC PARTICIPATION

BACKGROUND

- The county's voter turnout was higher than the statewide turnout and equivalent to Amador and Calaveras Counties' turnout.
- Voter registration and participation are indicators for how thoughtful and active a community is. It often shows how engaged the population is in current local, regional and national issues.

DATA

2014 STATEWIDE ELECTION VOTER PARTICIPATION



Source: California Secretary of State

INDEX

Assembly Bill 2109, 11
Abuse, 6, 17, 19, 25
Access To Health Care, 44
Affordable Care Act, 36, 44, 46
Alcohol, 6, 16, 18, 19, 25, 26, 57
Alzheimer's, 34
Assisted Living Beds, 29, 31
Asthma, 15, 19, 27, 47
Births, 6, 8
Breastfeeding, 6, 9
Cancer, 9, 15, 19, 22, 24, 27, 28, 32, 34, 47
Cardiovascular Disease, 15, 19, 21, 23, 27, 29, 34, 47
Cause Of Death, 29, 34
Charity, 36, 46
Child Care, 6, 10
Child Maltreatment, 17
Chronic Diseases, 14, 19, 20, 21, 25, 27
Clean Air, 59
Creating Healthy Communities, 48
Crime, 18, 48, 56
Dentists, 6, 13, 36, 38
Depression, 17, 19, 27, 47
Diabetes, 9, 19, 21, 22, 23, 27, 34, 47, 48
Drinking Water, 59
Drug Overdose, 19, 26
Drugs, 6, 18, 57
Duis, 48, 57
Education Attainment, 58
Education Outcomes, 14
Emergency Department Visits, 19, 26
Emergency Department Wait Times, 36, 40
Emergency Response, 36, 39
Employment, 55
End Of Life, 29
Ethnicity, 4, 8, 15
Falls, 23, 30
Fast Food, 19, 21
Fitness, 6, 14
Foster Children, 6, 16
Fruit, 19, 21
Graduates, 48, 58
Health Status, 1, 20
Healthcare Associated Infections, 36, 43
Healthcare Costs Due To Chronic Disease, 36, 47
Healthy Beginnings, 6
Healthy Community, 48
Heart Attacks, 27, 39
Heart Disease, 22, 27, 29, 34, 48
Heart Failure, 27, 32
Heart Health, 14
High Blood Pressure, 27
Home Value, 48, 51
Homelessness, 48, 50
Hospice, 29, 32
Hospital Re-Admission Rate, 36, 42
Housing, 48, 50, 51
Immunization Rates, 6, 11
Incarceration, 16
Income, 2, 8, 48, 49, 51, 53, 54
Introduction, 1
Life Expectancy, 33
Literacy, 6, 12, 48, 58
Liver Disease, 34
Living Wage, 54
Math, 6, 12
Medical Care Costs, 15
Medical Insurance, 36, 44
Medicare Costs/Spending, 36, 45
Memory Care, 29, 31
Mental Health, 14, 17, 23, 36, 38
Mental Health Providers, 36, 38
Neglect, 6, 17
Nutrition Assistance, 48
Obesity/Overweight, 6, 9, 15, 17, 19, 22, 23, 48
Physical Activity, 23, 33
Physically Active, 48
Population, 3
Poverty, 7, 48, 49, 52, 54
Prenatal Care, 6, 7
Preventable Hospital Admissions, 36, 41
Primary Care Providers, 36, 37
Provider To Patient Ratio, 38
Redesigning Healthcare, 36
Renters, 48, 51
Residential Care Facilities, 31
Respiratory Diseases, 34
Skilled Nursing Beds, 29, 31
Smoking, 19, 24
Stroke, 19, 22, 27, 29, 34, 47
Sugared-Soda, 21
Suicide, 18, 29, 35
SNAP, 49
Supplemental Security Income, 43, 48, 53
Teen Pregnancies, 8
Tobacco Use, 19, 24
Traffic Collisions, 57
Transit Ridership, 57
Transportation, 57
Unemployment, 48, 55
Vaccination Rates, 11
Violence, 16, 18
Voter Turnout, 48, 60