

# El Paso County



## Health Indicators 2017 Report



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# Introduction

Welcome to the El Paso County Health Indicators 2017 Report. This report provides objective information regarding the health of our residents and identifies health trends and issues that may be of concern in our county. This report was compiled by El Paso County Public Health (EPCPH) epidemiology staff, who collected, verified, and analyzed population-based health data from reliable sources at the national, state, and local level.

In order to assure that the health data presented here is relevant and relatable to the community, EPCPH shared this data and collected feedback from the Healthy Community Collaborative. The Healthy Community Collaborative, facilitated by EPCPH, has been meeting since 2011 to discuss health issues, create and implement community-based solutions, and monitor and evaluate progress. This collaboration consists of more than 60 representatives from health, education, social service, economic development, nonprofit, and for profit organizations. The Healthy Community Collaborative also provided qualitative information as the data was presented, which helped put these health indicators into context from a variety of agency perspectives. We are grateful to have had the guidance and support of the Healthy Community Collaborative for this process. More information about the Healthy Community Collaborative, including how to join this effort, can be found [here](#).

El Paso County Public Health's mission is to promote and protect public health and environmental quality across El Paso County through people, prevention and partnerships.

Health indicator information in this report is approximately organized around Colorado's 10 Winnable Battles. Winnable Battles are public health and environmental priorities that have known, effective solutions which can bring about positive change within 10 years. Several state agencies are working together to address these public health priorities and our local partners are joining together, too.

## Colorado's 10 Winnable Battles are:

- Clean Air
- Clean Water
- Infectious Disease Prevention
- Injury Prevention
- Mental Health and Substance Abuse
- Obesity
- Oral Health
- Safe Food
- Tobacco
- Unintended Pregnancy

Also included for discussion in this report is information about the social determinants of health, health disparities, and health equity to provide context for the health data. Health data is shaped by long-term social, economic, and environmental circumstances that may not be equal across communities or populations and it is important to consider the impact of these conditions and the inequities they create. EPCPH and the Healthy Community Collaborative understand that the context for health in our community is as important as quality clinical care in affecting our health outcomes. This understanding has created two complementary visions for EPCPH and for the Healthy Community Collaborative.

# EPCPH's Vision

Our mission is for all El Paso County residents to live in thriving communities where every person has the opportunity to achieve optimal health.

## Healthy Community Collaborative Vision

Increase healthy life expectancy for all in El Paso County by offering opportunities and removing barriers that prevent people from achieving optimal health by:

- Reversing the upward trend of obesity by addressing its root causes.
- Decreasing the incidence of poor mental health and substance use and misuse.

Thank you for reading this report. We welcome your feedback and questions, which you may provide anytime [here](#).



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Dan Martindale, MPA  
El Paso County Public Health Director  
December 2017

# Methodology

## Data Sources

Population-based health data is routinely and systematically collected by a number of national and state agencies. Information on birth, death, disease, injury, hospitalization, health-risk behaviors, and sociodemographic characteristics are accessible at the county level for El Paso County or at the state level. Data for the El Paso County Health Indicators 2017 Report was obtained primarily from standardized data sources, which included:

### Population counts and other administrative data

- Colorado State Demography Office
- Colorado Department of Labor and Employment
- Colorado Department of Education

### Birth and death data

- Colorado Department of Public Health and Environment
- National Highway Traffic Safety Administration
- Colorado Hospital Association

### Socioeconomic data

- United States Census Bureau
- Colorado Department of Labor and Employment

### Disease or injury surveillance data

- Colorado Department of Public Health and Environment (CDPHE)

### Health survey data

- American Community Survey (ACS)
- Behavioral Risk Factor Surveillance System (BRFSS)
- Colorado Child Health Survey (CCHS)
- Colorado Health Access Survey (CHAS)
- Healthy Kids Colorado Survey (HKCS)
- National Immunization Survey (NIS)
- National Survey on Drug Use and Health
- Pregnancy Risk Assessment Monitoring System (PRAMS)

This is not an exhaustive list of all data sources used in this report. Citations are provided at the end of each chapter with references to the original data source.

## Technical Notes

Some data sources only had information available at the state level due to sampling limitations, and those values are used as surrogate measures where county level data was not available. In some instances, when analyzing county level or census tract level data, multiple years of data were combined to provide more stable estimates, particularly when using health survey data. These estimates represent an annual average during the specified time frame, usually no more than five years.

# Systems that Influence our Health

## The Social Determinants of Health

The context for health begins in our homes, schools, places of work, community spaces, and our neighborhoods, cities, or towns. These places influence our health in ways not always obvious. Some examples include: the safety of workplaces, the cleanliness of our water and air, the quality of schools, the ability to earn a living wage locally, transportation options, access to quality, affordable child care, healthy food choices, and safe spaces to recreate and be physically active. These factors help explain why some people are healthier than others in our county, and why, in general, El Paso County residents may not be as healthy as they could be.<sup>1</sup> These issues are collectively referred to as the social determinants of health. The World Health Organization notes that the social determinants of health are largely responsible for health disparities, which are the avoidable differences in health status between populations of people in a community closely linked to economic, social, or environmental disadvantages.<sup>2</sup>

**Figure 1: Determinants of Health and Their Contribution to Premature Death**

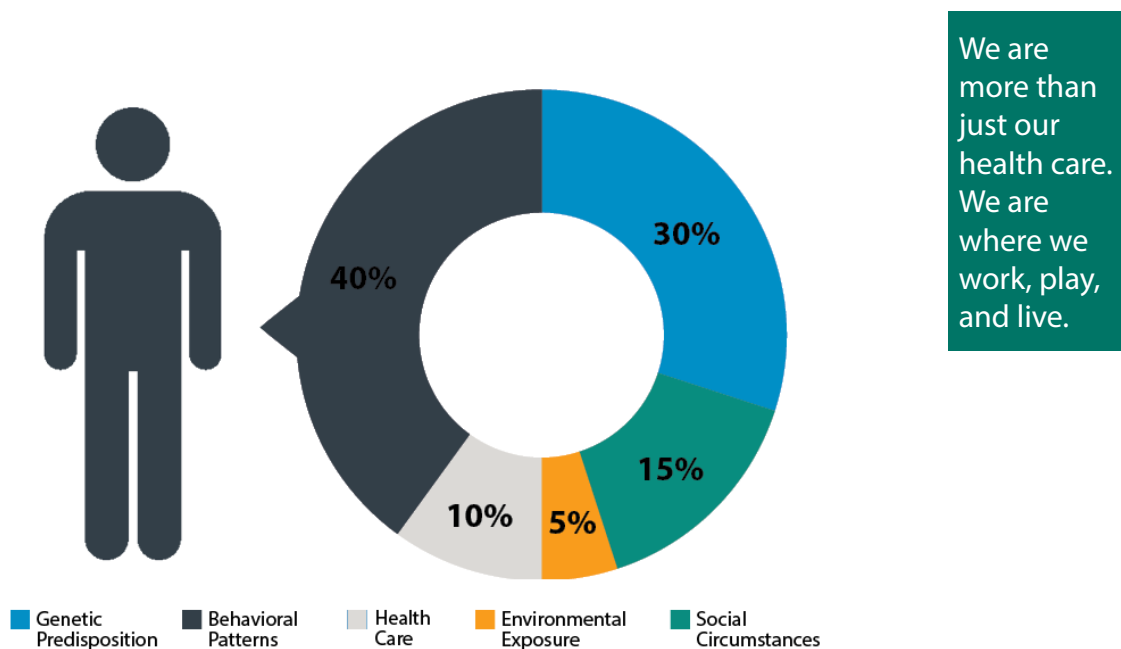


Figure 1 shows the impact of different factors on our health and well-being.<sup>3</sup> The impact of the social determinants of health is responsible for between 20 percent and 60 percent of health outcomes, if we assume that some individual health behaviors are the result of the systemic issues described above and not solely based on the choices a person makes about their health. By describing the social determinants and the role they play in a person's ability to make healthy choices, we recognize that not all choices exist equally across the community with respect to limitations in housing, transportation, economic opportunity, and educational opportunities.

<sup>1</sup>U.S. Department of Health and Human Services. Healthy People 2020 [Internet]. Social Determinants of Health. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>.

<sup>2</sup>The World Health Organization [Internet]. Social Determinants of Health. Available from: [http://www.who.int/social\\_determinants/sdh\\_definition/en/](http://www.who.int/social_determinants/sdh_definition/en/).

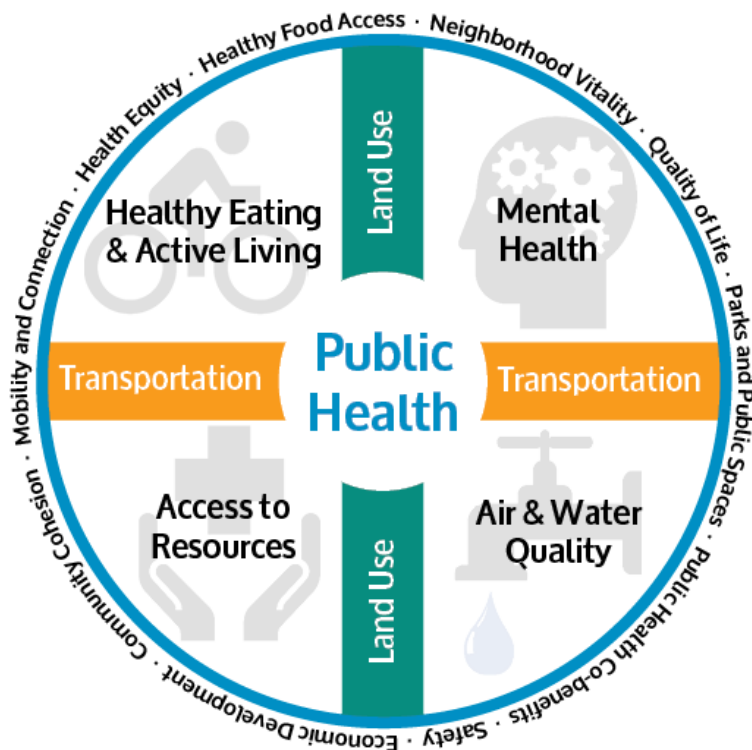
<sup>3</sup>Schroeder, MD, Steven A: We Can Do Better - Improving the Health of the American People: N Engl J Med 2007; 357:1221-1228; Sept 20, 2007.

# Built Environment and Transportation

The field of public health has its origins in the built environment. During the latter half of the 19th century, public health efforts emerged in response to a rise in infectious diseases as more and more people moved into cities; overcrowded urban areas and unsanitary conditions promoted the spread of infection and a decrease in life expectancy.<sup>1</sup> Even today, though the concerns are more in the form of chronic disease than infectious disease, public health is returning to its roots to understand and address how our physical surroundings are contributing to our greatest health threats. Figure 1 describes how EPCPH views the built environment and its intersections with health and quality of life outcomes.<sup>2</sup>

According to the Centers for Disease Control and Prevention (CDC), healthy places are those designed and built to improve the quality of life for all people who live, work, worship, learn, and play within their borders—where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options.<sup>3</sup> Physical surroundings can have an effect on choices and behaviors that contribute to chronic diseases like diabetes, high blood pressure and asthma. The built environment refers to our man-made surroundings—the places where we live, work, learn, and play—and is important in how it influences human activity. Sidewalks and streets (infrastructure), public transit, parks, community centers (buildings), and landscaping are all examples of elements of the built environment. How we interact with the surrounding environment impacts our ability to be physically active, access healthy food and other resources, and interact socially—all of which determine our overall quality of life and well-being. That's why **a child's life expectancy is determined more by his zip code than by his genetic code.**<sup>4</sup>

**Figure 1: The Relationship Between Physical Space and Healthy Populations**

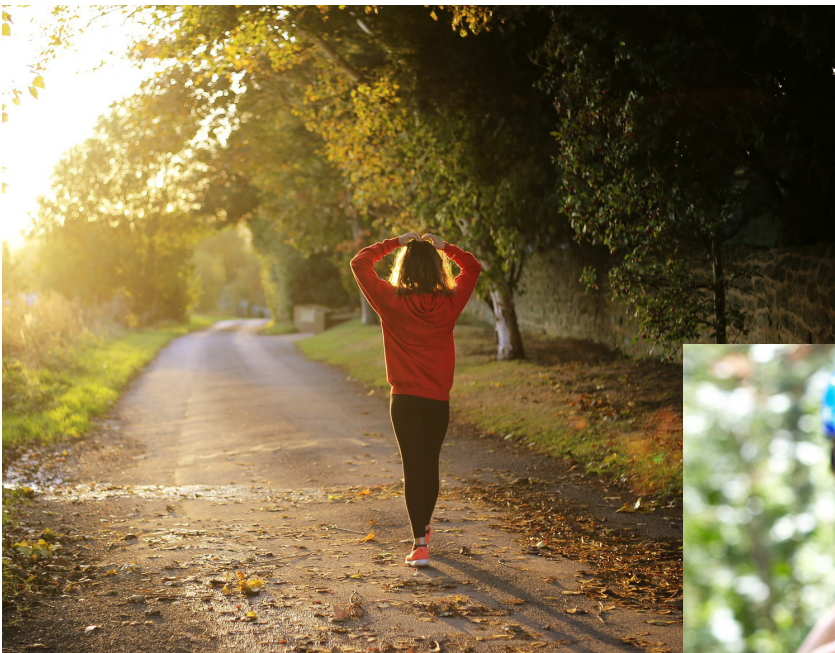


To reverse this trend, the built environment must promote, rather than hinder, healthy choices and engagement in healthy behaviors. Fortunately, with its partners, public health can shape the design of communities in a way that improves health outcomes. Sedentary lifestyles, poor nutrition, and exposure to toxins are all risk factors for the chronic diseases plaguing our population in the modern era. A well-designed environment that promotes physical activity and proper nutrition and reduces exposure to toxins has the potential to alleviate the burden of disease in communities.<sup>5</sup>



Certain land use and transportation patterns can be maximized for better health. Many urban environments, for instance, inadvertently promote the use of alcohol and tobacco products through outdoor advertising and lack safe open spaces that encourage exercise. There are feasible measures a community can take to flip that scenario so that green space is more abundant and advertising and exposure to risky behaviors are minimized. Similarly, zoning procedures can create the conditions in which grocery stores, where people can purchase nutritious food, outnumber convenience stores and establishments that serve fast food. Compact, dense communities with a mix of spaces also decrease the reliance on automobiles, which increases time spent walking from place to place and decreases pollution and the opportunity for motor-vehicle related injury and death. In El Paso County, where the average commute time is 22 minutes and more than three-quarters of the population travel to work via automobile, these implications merit consideration.<sup>6</sup>

Communities everywhere are successfully demonstrating better quality of life for their residents by fostering environments that increase safe access to several things: play and active recreation; affordable nutritious foods; green and natural environments; social support and interaction; and safe routes to walk and bike.<sup>7</sup> Improvements to the built environment offer a promising approach to impacting health on a broad scale by changing the context to make the healthy choice the easy choice.



<sup>1</sup>Perdue WC, Stone LA, Gostin LO. The Built Environment and Its Relationship to the Public's Health: The Legal Framework. American Journal of Public Health. 2003;93(9):1390-1394.

<sup>2</sup>El Paso County Public Health - internal data. And Health by Design [Internet]. Available from: <http://healthbydesignonline.org/>.

<sup>3</sup>Centers for Disease Control and Prevention [Internet]. Healthy Places - About Healthy Places. Available from: <https://www.cdc.gov/healthyplaces/>.

<sup>4</sup>Lavizzo-Mourey R. Why Health, Poverty, And Community Development Are Inseparable. Robert Wood Johnson Foundation [Internet]. Available from: <https://www.rwjf.org/content/dam/farm/books/books/2012/rwjf401342>.

<sup>5</sup>Perdue WC, Stone LA, Gostin LO. The Built Environment and Its Relationship to the Public's Health: The Legal Framework. American Journal of Public Health. 2003;93(9):1390-1394.

<sup>6</sup>Data USA [Internet]. El Paso County, CO. Available from: <https://datausa.io/profile/geo/el-paso-county-co/>.

<sup>7</sup>Project for Public Spaces [Internet]. The Case for Healthy Places. Available from: <https://www.pps.org/wp-content/uploads/2016/12/Healthy-Places-PPS.pdf>.

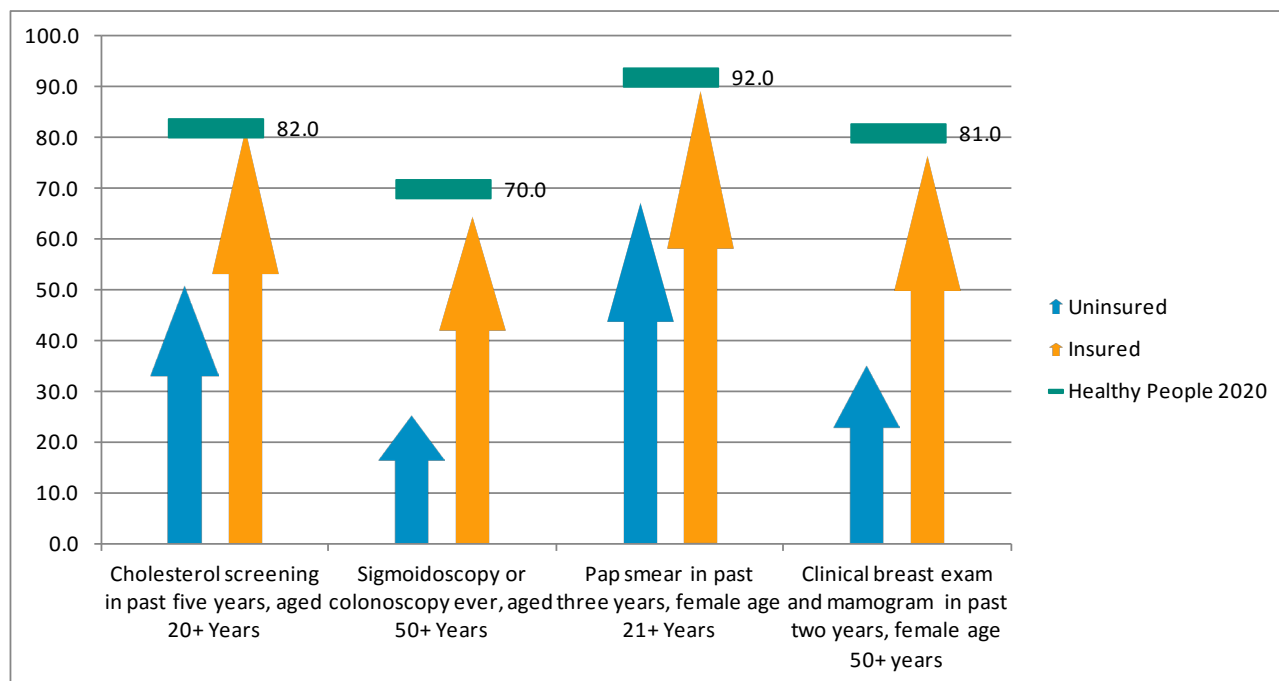


# Access to Care

Access to health care encompasses a broad concept related to the availability, affordability, and accessibility of health services.<sup>1</sup> Health services may include inpatient and outpatient care, preventive and primary care, specialty care, behavioral care, and emergency treatment. While having health insurance provides a gateway toward accessing the health care system, insurance alone may not ensure the necessary levels of access. Insurance coverage must be comprehensive and affordable in terms of out-of-pocket expenses, and access is dependent upon having adequate numbers and types of providers who accept an individual's health insurance. Health care providers should also be geographically, physically, and culturally accessible, and offer services that are adequate to meet the needs of clients.

Evidence shows that uninsured and underinsured individuals experience more adverse health outcomes, including death, as compared to insured individuals.<sup>2</sup> The impact of health insurance status is demonstrated in Figure 1, which shows that uninsured adults receive preventive cancer screenings and cholesterol screenings at a significantly lower rate than their insured counterparts.<sup>3</sup> Those without insurance are more likely to be younger, of minority race or ethnicity, unemployed or underemployed, have lower levels of education or income, and use tobacco. These factors are co-contributors to being uninsured that, in turn, impact an individual's ability to seek care when needed, have a regular source of care (other than in an acute care setting), and maintain continuity of care. Other factors that impact an individual's ability to access the health care system include lack of transportation, long wait times to get an appointment, and difficulties with language or literacy.

**Figure 1: Screening Behavior of Adults by Insurance Status, Colorado 2014 – 2015**



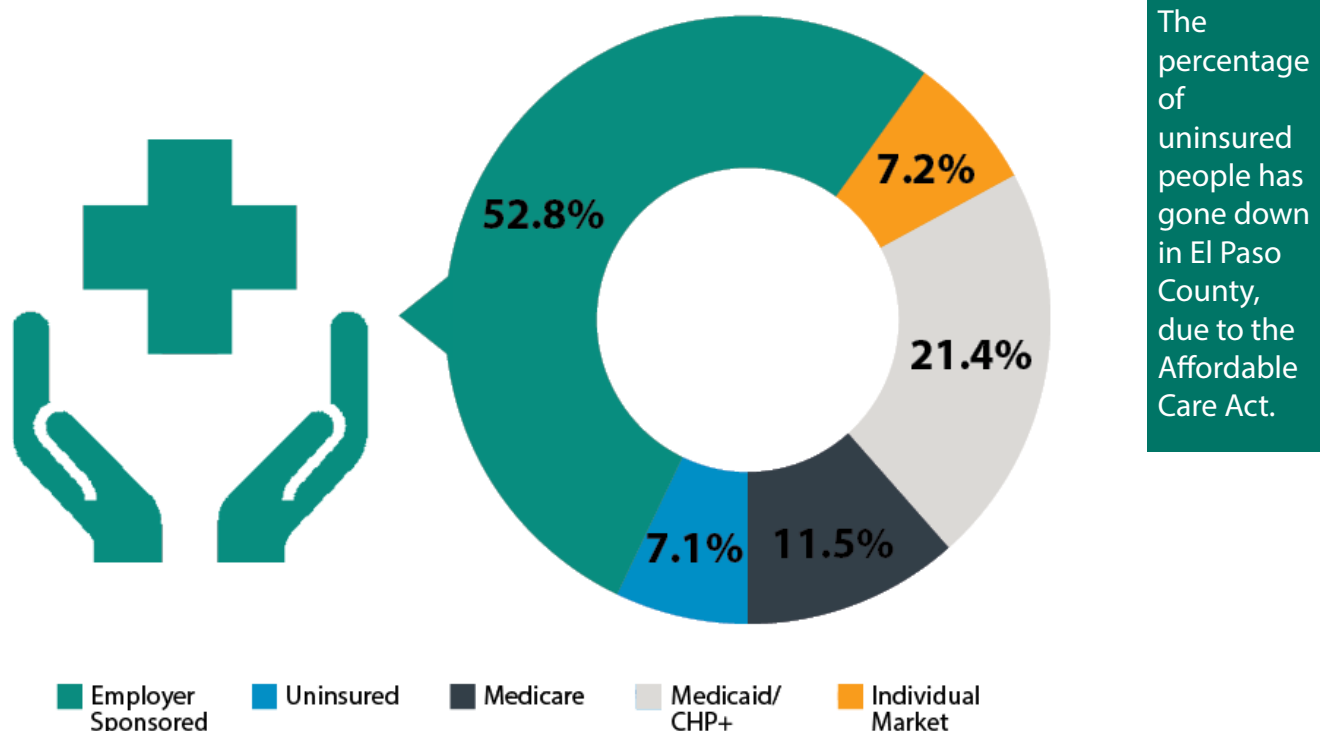
If you are uninsured, you are less likely to get preventive screening.

While health insurance does not ensure access to care, having some form of coverage is a widely accepted proxy for measuring health care access. Health insurance is commonly classified into private or public. In this report, private insurance represents employer-sponsored, direct purchase, and military-based plans, while public insurance represents federal and state government-based public plans, including Medicaid, Medicare, and Child Health Plan Plus (CHP+). Individuals with health insurance may still be underinsured, which is defined as having out-of-pocket medical expenses that exceed an insured individual's ability to pay from usual sources of family income.

Passage of the 2010 Patient Protection and Affordable Care Act, often called "Obamacare" or the "ACA", has changed the access to care landscape in El Paso County and Colorado. The ACA dramatically reformed health insurance by requiring health insurers to cover certain essential benefits, creating transparency in premium rate setting, and creating transparency in how coverage works. Additionally, Colorado opted to create a health insurance marketplace where individuals and small businesses could purchase federally-subsidized health plans, and to expand Medicaid coverage to adults up to 138 percent of the federal poverty level (FPL). The ACA is largely responsible for the decrease in El Paso County's uninsured rate from roughly 13 percent in 2011 to 7.1 percent in 2015. Participation in Medicaid and CHP+ increased from 9.7 percent in 2011 to 21.4 percent in 2015 (Figure 2).<sup>4</sup>

There is still potential to further reduce the number of people uninsured in El Paso County by reaching out to individuals who qualify for Medicaid or CHP+ but are not enrolled (Figure 3).<sup>5</sup> CHP+ is health insurance coverage for low-income children and pregnant women whose family income is too high to qualify for Medicaid.

**Figure 2: El Paso County Health Insurance Status, 2015**



**Figure 3: Eligible for Public Assistance But Not Enrolled, El Paso County, 2015**

Program	Age Group	Total # Eligible	Not Enrolled
Medicaid	≤ 18 Years	65,253	3,102 (4.8%)
	19 - 64 Years	69,439	17,801 (25.6%)
CHP+	≤ 18 Years	9,722	4,358 (44.8%)



<sup>1</sup>Robert Wood Johnson Foundation [Internet]. 2011 County Health Rankings: Access to Care. Available from:

<http://www.countyhealthrankings.org/>.

<sup>2</sup>Wilper AP, Woolhandler S, Lasser KE, et al. Health insurance and mortality in US adults. Am J Public Health 2009;99:2289-2295.

<sup>3</sup>Colorado Department of Public Health & Environment [Internet]. Behavioral Risk Factors Surveillance Survey. Available from:

[http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors).

<sup>4</sup>Colorado Health Institute [Internet]. The Health Coverage Landscape. Available from:

<http://www.coloradohealthinstitute.org/research/mapping-data-z-coverage-landscape>. Accessed August 18, 2017.

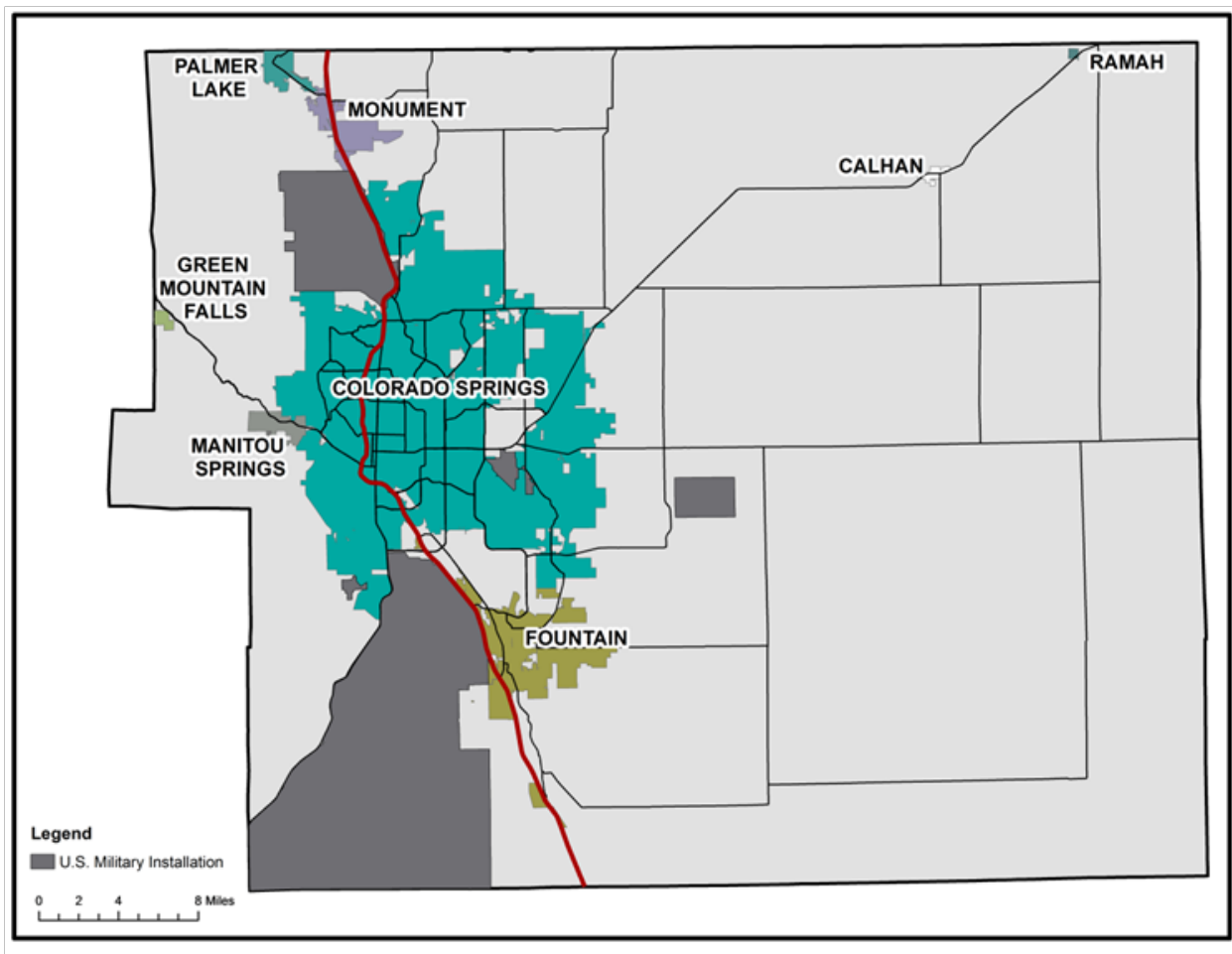
<sup>5</sup>Colorado Health Institute [Internet]. 2015 Uninsured, Health Coverage and Access Data: Eligible but not Enrolled Children and Adults. Available from:

<https://www.coloradohealthinstitute.org/data>.

# Demographic and Socioeconomic Data

El Paso County lies in east central Colorado and, depending on the year, is either the most populous county in Colorado or the second most populous county behind Denver County. The U.S. Census Bureau estimates that El Paso County's population grew by 10.6 percent between 2010 and 2016.<sup>1</sup> In 2015, El Paso County had an estimated 677,022 residents with 66.7 percent of the population living in Colorado Springs.<sup>2</sup> Unique in Colorado, El Paso County is home to several large military installations, such as Fort Carson Army Base, the United States Air Force Academy, two air force bases, and the Cheyenne Mountain defense complex (Figure 1).

**Figure 1: El Paso County Jurisdictional Boundaries**



El Paso County is mostly rural, but the majority of people live in densely populated urban areas.

<sup>1</sup>U.S. Census Bureau [Internet]. QuickFacts: El Paso County, Colorado. Available from:

<https://www.census.gov/quickfacts/fact/table/elpasocountycolorado/PST045216>.

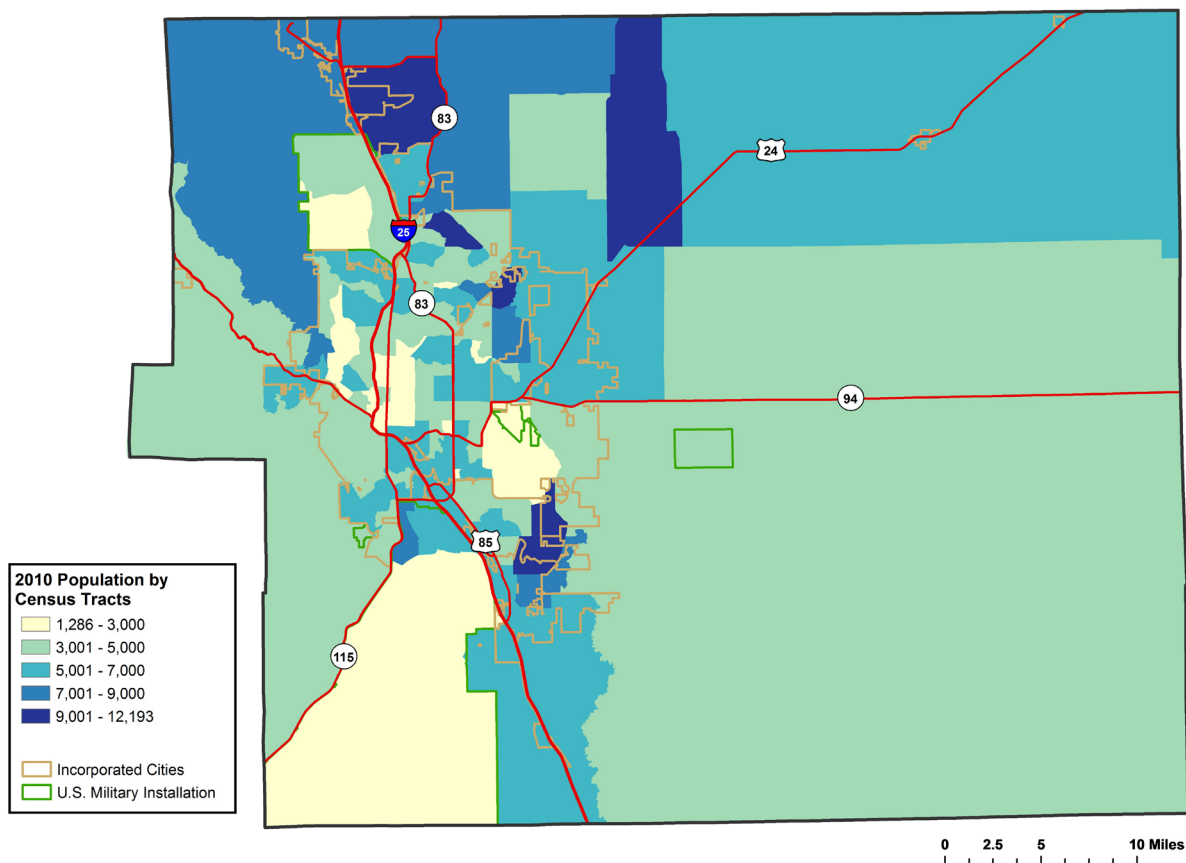
<sup>2</sup>Colorado State Demography Office [Internet]. County and Municipal Population Time Series. Available from:

<https://demography.dola.colorado.gov/population/data/county-muni-timeseries/>.

# Gender, Age, and Ethnicity

El Paso County traditionally has slightly more males than females year over year, with 50.5 percent of the population male and 49.5 percent of the population female in 2015. The median age in El Paso County in 2010 was 34.1 years. Population growth by age group indicates that adults ages 60 years and older and adults ages 20-29 are the two fastest growing age groups, each growing their population since 2012 by 17.3 percent and 16.7 percent respectively.<sup>1</sup> Figure 2 illustrates the population density by census tract in 2010.<sup>2</sup>

**Figure 2: El Paso County Population by Census Tract, 2010**

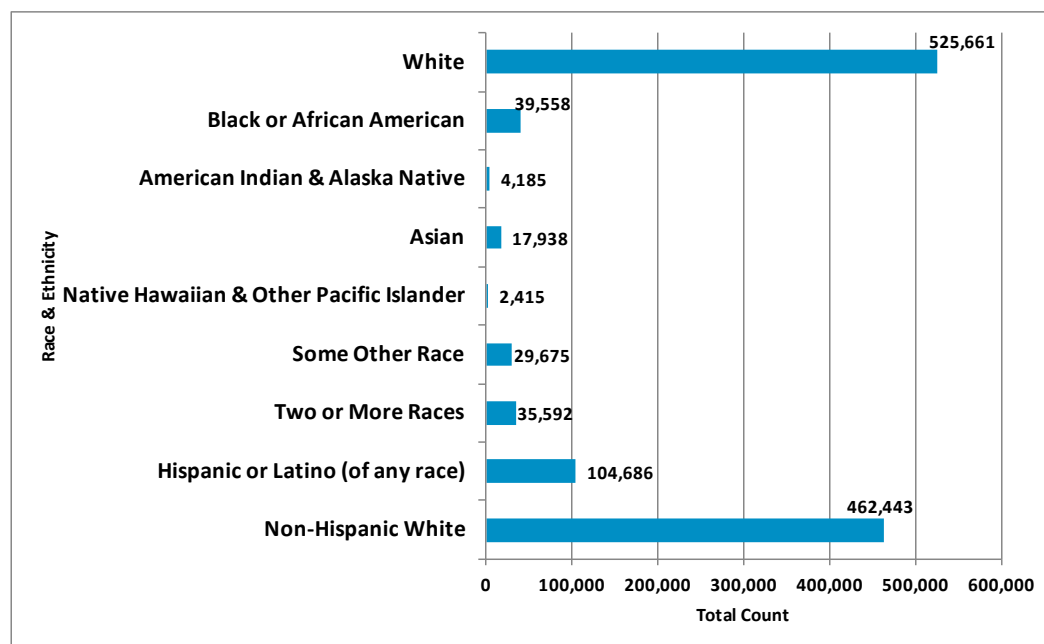


Population growth in El Paso County is due to both the number of births outpacing the number of deaths (natural increase) and to more people moving into the county than moving out. In 2015, natural increase in population was 5,286 and net migration brought another 5,944 new people to El Paso County.<sup>3</sup>

The U.S., Colorado, and El Paso County are becoming more culturally diverse, and the definitions of race and ethnicity are changing to reflect variations in ways in which people self-identify their racial or ethnic make-up.<sup>4,5</sup> As the cultural landscape changes, the survey tools used by government and others must also adapt to capture more complex, often self-ascribed racial and ethnic information in order to more accurately report demographic information. Figure 3 combines racial and ethnic identity data to create a more complete picture of how residents self-identify.<sup>6</sup> Because of the variation in collecting this data, the numbers in each category may not add up to 100 percent; however, the data shows that at least two-thirds of El Paso County residents identify as either White or Non-Hispanic White, and all other racial and ethnic categories are smaller. Figure 4 illustrates where people live by Hispanic or Non-Hispanic identity.<sup>7</sup>

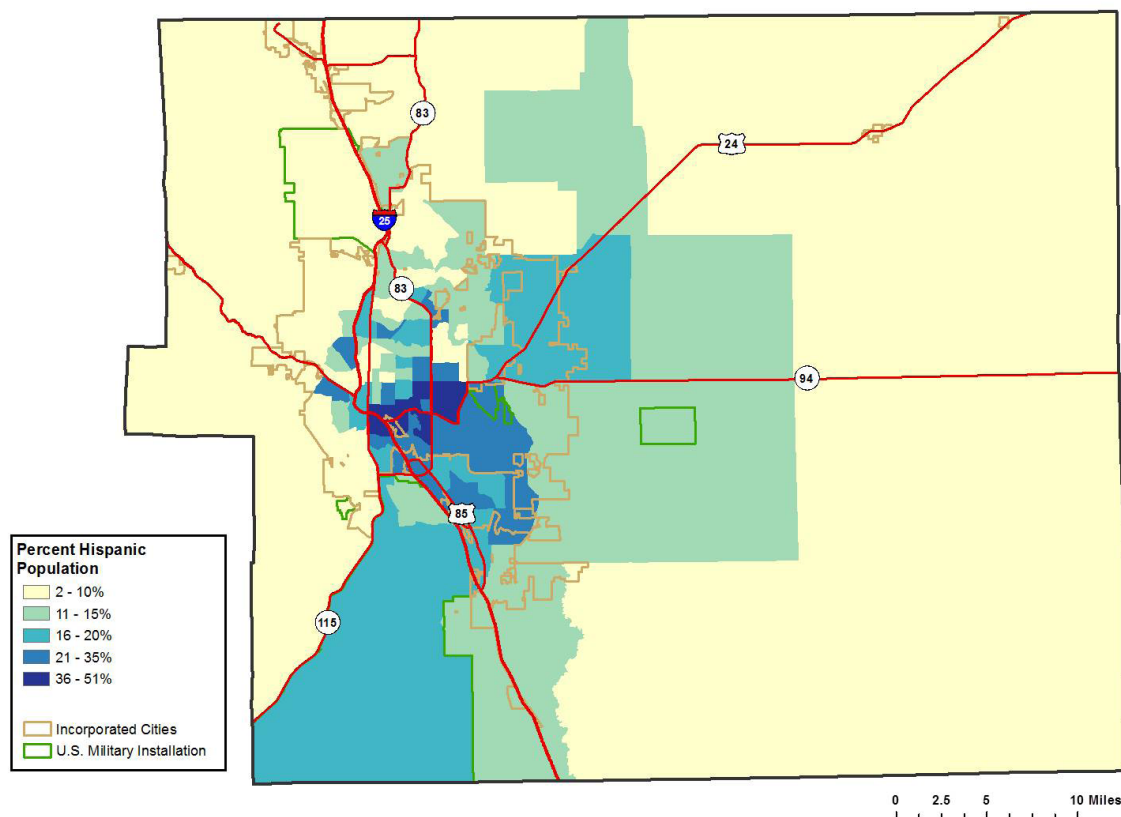


**Figure 3: El Paso County Population, Race & Ethnicity, 2015**



At least two-thirds of El Paso County residents identify as either White or Non-Hispanic White.

**Figure 4: El Paso County Hispanic Population by Census Tract, 2010**



Hispanic populations are generally concentrated in central or southcentral Colorado Springs and other urban areas.

<sup>1</sup>U.S. Census Bureau [Internet]. American Community Survey-5 Year Estimates. Available from:

<https://www.census.gov/programs-surveys/acs/>.

<sup>2</sup>Colorado Department of Public Health and Environment [Internet]. Geospatial Data and Resource Library. Available from:

<http://data-cdphe.opendata.arcgis.com/>.

<sup>3</sup>Colorado State Demography Office [Internet]. Demographic Profiles. Available from:

<https://demography.dola.colorado.gov/population/data/profile-county/>.

<sup>4</sup>U.S. Census Bureau [Internet]. Research to Improve Data on Race and Ethnicity. Available from:

<https://www.census.gov/about/our-research/race-ethnicity.html>.

<sup>5</sup>Gendered Innovations in Science, Health & Medicine, Engineering, and Environment (Stanford University). Race & Ethnicity [Internet]. Available from:

<https://genderedinnovations.stanford.edu/terms/race.html>.

<sup>6</sup>Colorado Department of Public Health and Environment [Internet]. Geospatial Data and Resource Library. Available from:

<http://data-cdphe.opendata.arcgis.com/>.

<sup>7</sup>Colorado Department of Public Health and Environment [Internet]. Geospatial Data and Resource Library. Available from:

<http://data-cdphe.opendata.arcgis.com/>.

# Income and Poverty

Income directly impacts health outcomes because income can dictate if a person has health insurance or can afford co-pays, prescriptions, and other needed medical items; can access healthy food and safe places for physical activity; can live in safe housing; and can access reliable transportation.

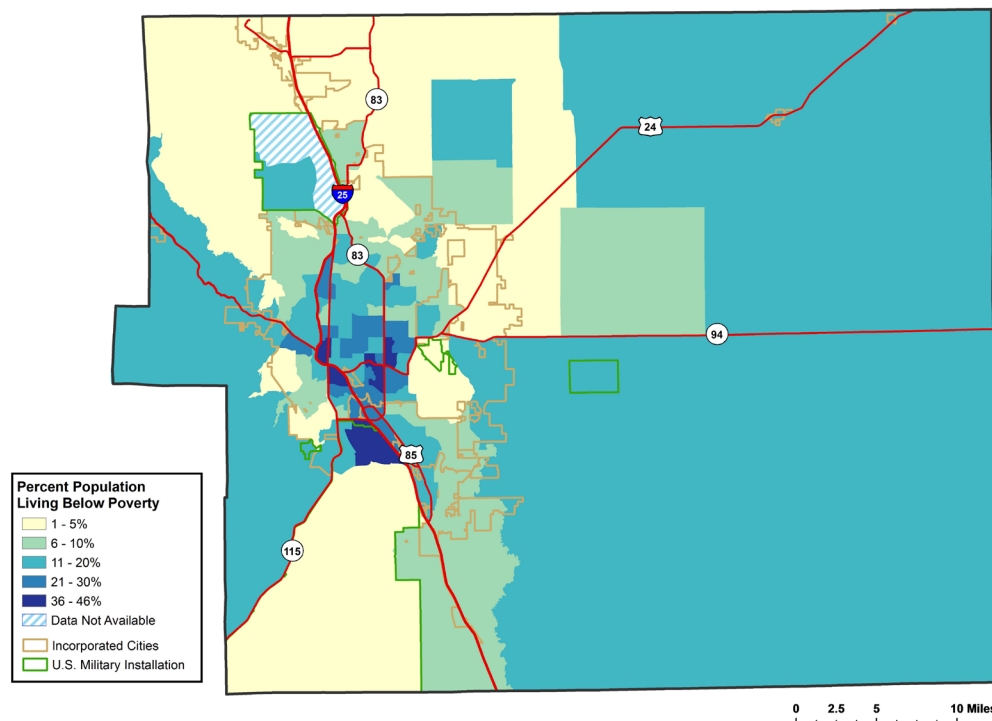
El Paso County adults earning less than \$25,000 annually report poor health status three times more frequently than do adults earning \$50,000 or more .

Income is generally described as a percent of the Federal Poverty Level (FPL) or “poverty guidelines”, which is loosely defined as the income level required to meet basic food, shelter, and clothing requirements. FPL is calculated every year by the U.S. Department of Health and Human Services and is often used by federal, state, and local governments and nonprofits to determine which people are eligible for certain assistance programs. In 2017, a single-person household was defined as living in poverty if income is at 100 percent FPL, or \$12,060. The 2017 poverty guideline for a family of three is \$20,420 and for a family of four is \$24,600.<sup>1</sup> Academics and other scholars consider those living at 200 percent or less of the FPL to be low-income and “economically vulnerable” due to escalated costs of living that are not reflected in the calculation of the FPL.<sup>2,3</sup>

Figure 5 illustrates how poverty is distributed across El Paso County, with higher rates of household poverty in rural communities and older neighborhoods of Colorado Springs.<sup>4</sup> Figure 6 shows the geographic distribution of children ages 0 to 18 years old living in poverty.<sup>5</sup> Figure 7 shows unemployment by race in El Paso County, with higher rates of unemployment among people identifying as Two or More Races, Black or African-American, and American Indian or Alaska Native.<sup>6</sup>

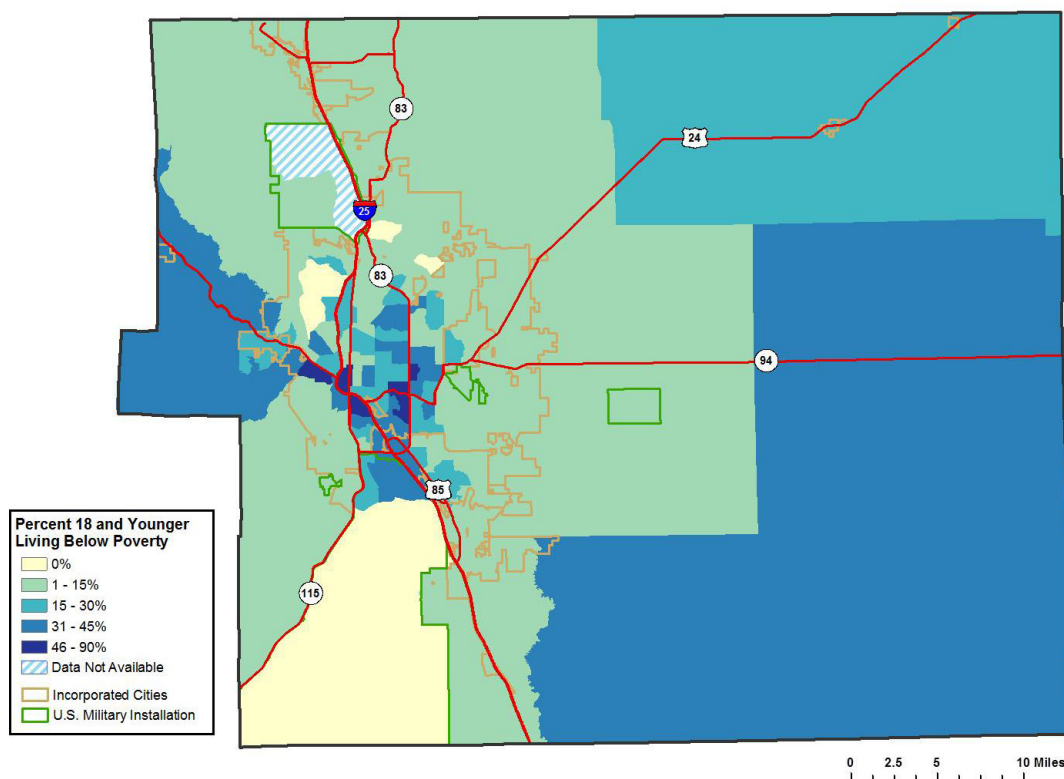
Self-reported health status is measured using a valid survey question that asks respondents to rate their overall health as excellent, good, fair, or poor. Research shows the answer to this question to be a reliable predictor of a person’s actual health, including the presence of chronic diseases and behavioral health conditions. In El Paso County, there are stark differences between health status by income. For example, 23.4 percent of people earning less than \$25,000 per year reported fair or poor health status compared to 6.8 percent of people earning \$50,000 or above. This is nearly a 3 to 1 difference.<sup>7</sup>

**Figure 5: El Paso County Population Below 100% FPL by Census Tract, 2010-2014**

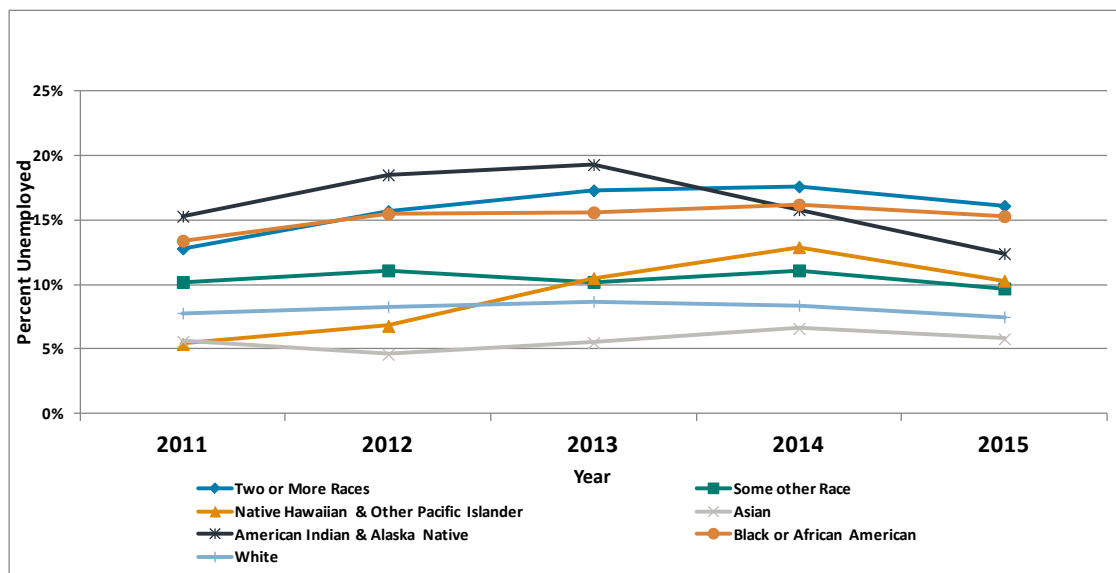


There are higher rates of poverty in older urbanized areas and some rural communities.

**Figure 6: El Paso County Children Ages 0 to 18 in Households Below 100% FPL by Census Tract, 2010-2014**



**Figure 7: El Paso County Unemployment Rate Trend by Race, 2011-2015**



<sup>1</sup>U.S. Department of Health and Human Services [Internet]. Poverty Guidelines. Available from: <https://aspe.hhs.gov/poverty-guidelines>.

<sup>2</sup>Came, Deb and Gardner, Eric (2007). Comparing Economic Standards of Economic Distress [Internet]. Office of Financial Management; Washington State. Available from: [http://www.ofm.wa.gov/humanserv/poverty/economic\\_distress.pdf](http://www.ofm.wa.gov/humanserv/poverty/economic_distress.pdf).

<sup>3</sup>National Center for Children in Poverty [Internet]. Young Children at Risk. Available from: [http://www.nccp.org/publications/pub\\_1073.html](http://www.nccp.org/publications/pub_1073.html).

<sup>4</sup>Colorado Department of Public Health and Environment [Internet]. Geospatial Data and Resource Library. Available from: <http://data-cdphe.opendata.arcgis.com/>.

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Geospatial Data and Resource Library. Available from: <http://data-cdphe.opendata.arcgis.com/>.

<sup>6</sup>U.S. Census Bureau [Internet]. American Community Survey 5-Year Estimates 2010-2014. Available from: <https://www.census.gov/programs-surveys/acs/>.

<sup>7</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance Survey. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors).

# Education

Access to quality pre-kindergarten through high school education, high school graduation rates, and having some college education all impact health outcomes. The links between health and education are not simple. Achieving higher education leads to better jobs and incomes, which in turn leads to better access to care, changes in health behaviors, and higher health literacy.<sup>1</sup> Also, having poor physical, mental, or oral health, and/or learning disabilities can impact a person's ability to be present at school and to concentrate while in school.<sup>2</sup>

El Paso County adults without a high school diploma report poor health outcomes at rates four times higher than adults with some college or more.

El Paso County's educational attainment for adults ages 25 years and older is shown in Figure 8, where 72.7 percent of the population has had some college or an associate, bachelor, graduate or other post-baccalaureate degree.<sup>3</sup> Education level can impact employment opportunities as shown in Figure 9, where individuals with some college or a degree experienced lower rates of unemployment between January 2016 and January 2017.<sup>4</sup>

In El Paso County, there also exist statistically significant differences in self-reported health status by education level. The 37.8 percent of people with less than a high school diploma reported fair or poor health status compared to 17.2 percent of people with a high school diploma—half the proportion of poor health if a person completes high school. Self-reported poor health reduces by half again between people with a high school diploma and people with some college or more. This difference equates to four to one between people without a high school diploma and people with some college or more.<sup>5</sup>

**Figure 8: El Paso County Educational Attainment, Ages 25 Years & Older, 2015**

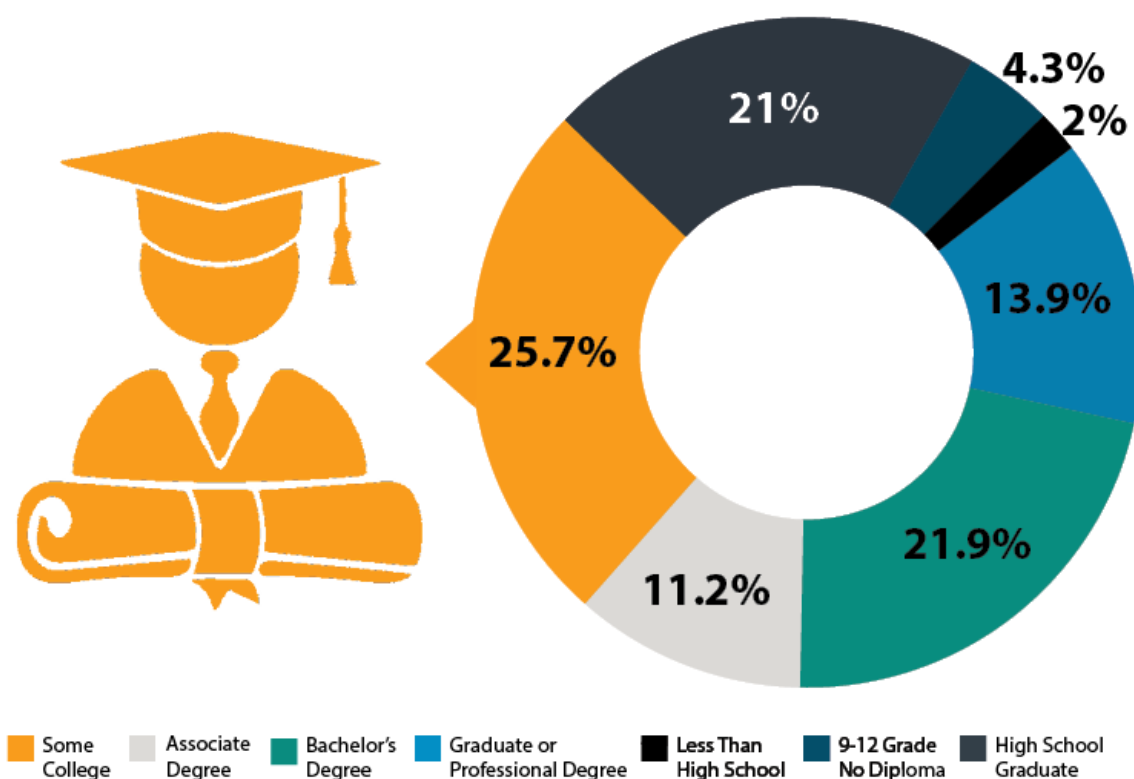
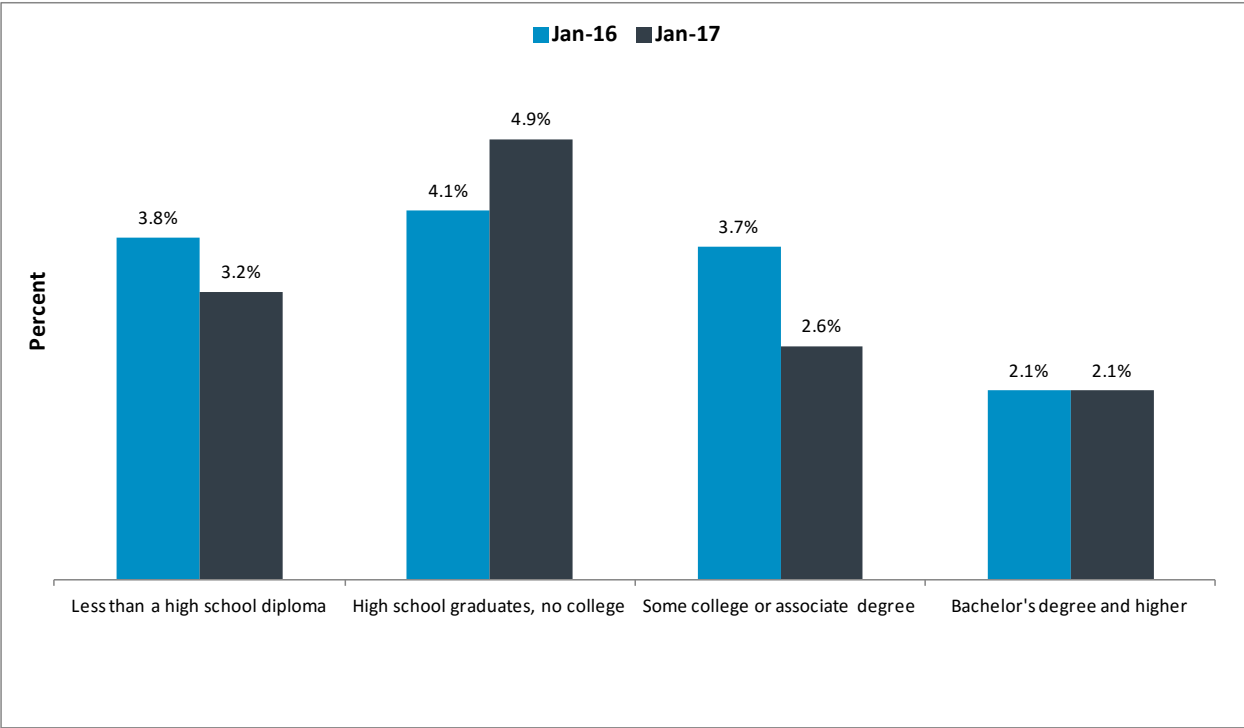


Figure 9: Colorado Unemployment Rate by Educational Attainment (25+ Years), 2017



The highest unemployment rates are among those who have no college education.

<sup>1</sup>Robert Wood Johnson Foundation [Internet]. Why Does Education Matter So Much to Health? Issue Brief: March 2013. Available from: [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2012/rwjf403347\\_](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf403347_)

<sup>2</sup>Center on Society and Health [Internet]. Why Education Matters to Health: Exploring the Cause. Issue Brief: April 2014. Available from: <http://societyhealth.vcu.edu/media/society-health/pdf/test-folder/CSH-EHI-Issue-Brief-2.pdf>

<sup>3</sup>U.S. Census Bureau [Internet]. 2011-2015 American Community Survey 5-Year Estimates. Available from: <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

<sup>4</sup>Colorado Department of Labor and Employment [Internet]. Available from: <https://www.colorado.gov/pacific/cdle>

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance Survey. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)



# Health Indicators

## Life Expectancy

Life expectancy is a key indicator of the overall health and quality of life that exists in a community. Increasing life expectancy involves reducing disability, injury, diseases that cause premature death, and addressing all factors that contribute to our health outcomes, including some factors that are potentially controllable such as access to quality clinical care, individual choices or health behaviors, and social determinants of health factors. Some contributing factors to life expectancy are not controllable, such as genetics. Life expectancy in El Paso County varies by gender, with women living an average of 81.74 years while men live an average of 77.85 years.<sup>1</sup> Figure 1 illustrates the difference in life expectancy across El Paso County that may be related to income, education, ethnicity, access to care, and neighborhood safety.<sup>2</sup>

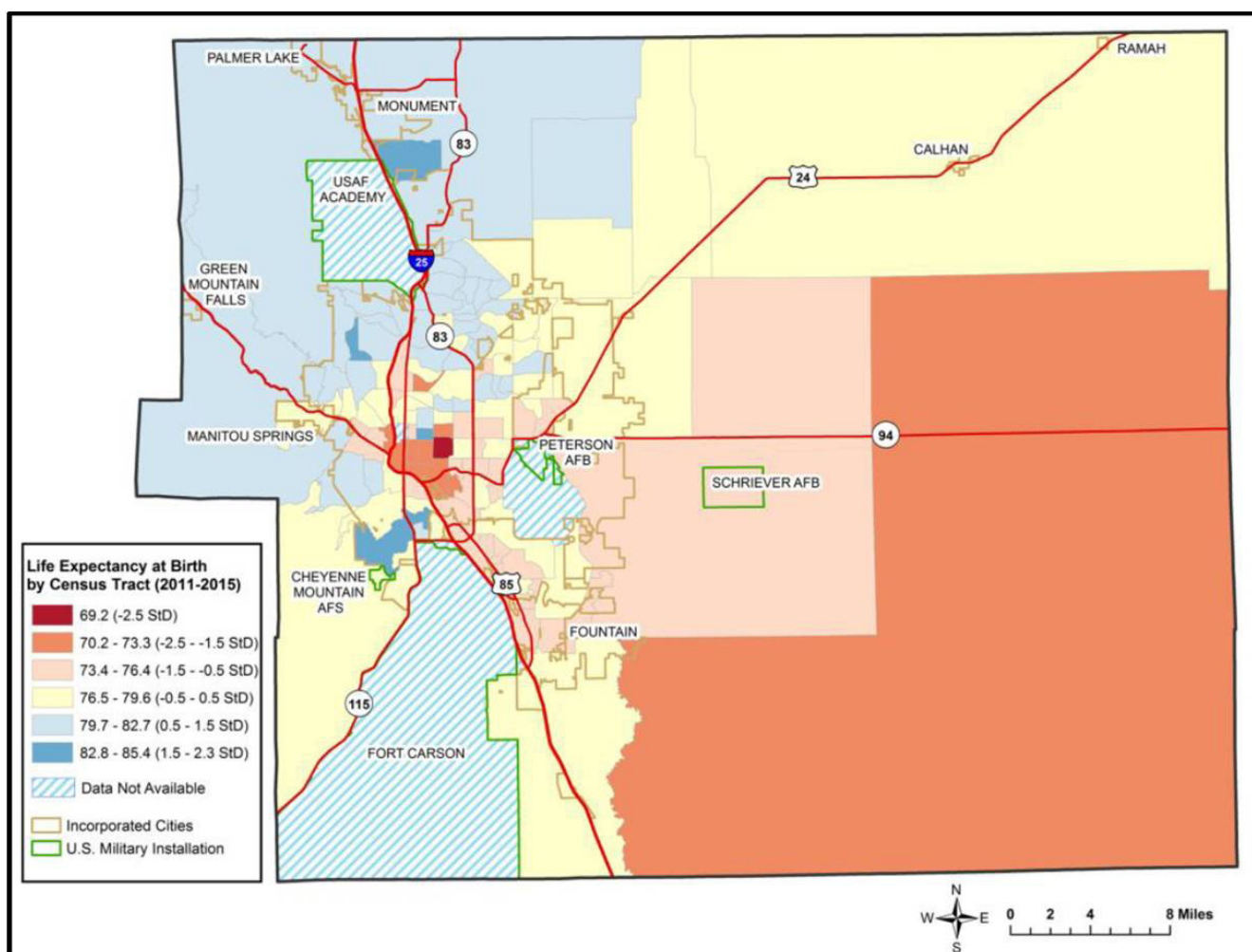
In El Paso County, there exists a 16.1 year difference in life expectancy across census tracts. Life expectancy is as low as 69.3 years in some neighborhoods and as high as 85.4 years in other neighborhoods.

### How are we doing in El Paso County?

The leading causes of death in El Paso County have remained the same for the past decade: cancer, heart disease, and unintentional injury. Contributing health conditions to cancer and heart disease include potentially controllable factors such as tobacco use, diet, exercise, access to quality clinical care, access to healthy food options, and access to safe places for physical activity. Unintentional injury includes motor vehicle accidents, falls, drownings, and accidental poisonings. Prevention resources can potentially reduce accidental death, such as seatbelt and child restraint use in automobiles, removing fall hazards inside homes and in the community, and removing access to poisons or other substances that can cause death when eaten, injected, or inhaled.

The impact of certain conditions or diseases may be better understood when examined by age group (Figure 2).<sup>3</sup> In El Paso County in 2015, the leading causes of death for people aged 15-44 were accidents, followed by suicide. For children ages 1-14, the leading causes of death were reversed, with suicide first and accidents second.

**Figure 1: Life Expectancy in El Paso County by Census Tract, 2011-2015**



**Figure 2: El Paso County Leading Causes of Death by Age, 2015**

Rank	Infants <1 Year	1-14 Years	15-24 Years	25-44 Years	45-64 Years	65+ Years
1	Short Gestation	Suicide	Accidents	Accidents	Malignant Neoplasms	Heart Disease
2	Congenital Anomalies	Accidents	Suicide	Suicide	Heart Disease	Malignant Neoplasms
3	Accidents	Homicide	Homicide	Malignant Neoplasms	Accidents	Chronic Lower Respiratory Diseases
4	Placenta, Cord, Membranes Complications	Malignant Neoplasms	Malignant Neoplasms	Heart Disease	Chronic Liver Disease and Cirrhosis	Cerebrovascular Disease
5	Complications of pregnancy, labor & delivery	Congenital Anomalies	Heart Disease	Homicide	Suicide	Alzheimer's Disease

The top two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years.

<sup>1</sup>Institute for Health Metrics and Evaluation [Internet]. Population Health Metrics, July 2013. Available from: <http://www.healthdata.org/research-article/left-behind-widening-disparities-males-and-females-us-county-life-expectancy-1985>.

<sup>2</sup>The Measure of America [Internet]. American Human Development Report: 2013-2014. Available from: <http://www.measureofamerica.org/>.

<sup>3</sup>Centers for Disease Control and Prevention [Internet]. WONDER online database. Available from: <https://wonder.cdc.gov/>.

# Clean Air and Clean Water

El Paso County's natural resources, including the water and viewsheds of Pikes Peak and the Front Range, are important to our economy, our local identity, and our health. Air and water quality are known to have both short- and long-term impacts on health outcomes. Outdoor air quality is linked to certain cancers, cardiovascular diseases, and respiratory diseases, such as asthma.<sup>1</sup> Drinking water quality is associated with certain contaminants, such as bacteria and viruses that can cause acute gastrointestinal illness, or natural or human-introduced chemicals that may become a health concern after years of exposure to levels above standards set by the Environmental Protection Agency (EPA). These chemicals are associated with some reproductive health problems and neurological disorders.<sup>2</sup>

Air quality data is collected and reported for El Paso County by the Colorado Department of Public Health and Environment (CDPHE). CDPHE uses air monitoring stations around the state to collect data on surface ozone levels and particulate matter measuring 2.5 micrometers (PM<sub>2.5</sub>) and smaller, which includes very small particles of dust, dirt, smoke, and soot that can get deep into the lungs. The National Ambient Air Quality Standards are federal limits for allowable levels of these air pollutants. Because the values are measured from fixed geographic points, the data can only reflect air quality at those specific locations, not the actual air quality of the entire county.

For drinking water, CDPHE collects data from certified laboratories that perform required testing of public drinking water systems according to standards set by the EPA for regulated contaminants. People receiving drinking water from private wells—roughly 12 percent of El Paso County residents—are not subject to EPA requirements, but can have their water tested for certain bacteria and chemicals at a certified laboratory (including EPCPH's laboratory).

## How are we doing in El Paso County?

El Paso County generally has excellent air quality with both the amount of particulate matter (PM<sub>2.5</sub>) and ozone falling well below national standards. El Paso County's 2015 average ozone concentrations of 0.057 – 0.062 parts per million (ppm) was below the U.S. standard of 0.075 ppm.<sup>3</sup> Additionally, Figure 1 shows the annual average levels of PM<sub>2.5</sub> from 2010 to 2014 as well below the U.S. standard of 35 micrograms per cubic meter of air (ug/m<sup>3</sup>).<sup>4</sup>

Roughly 82.9 percent of El Paso County residents receive drinking water in their homes via a city, county, or town water supply system. Colorado Springs Utilities (CSU) serves the majority of El Paso County with more than 500,000 customers. CSU's 2016 Drinking Water Report, reported to CDPHE, noted that the water provided to its customers met or exceeded all safe drinking water standards.<sup>5</sup> Lead levels, which are measured at the consumer's tap, were recorded at 7.2 micrograms per liter (ug/L)<sup>6</sup> in 2014 and 6.2 ug/L<sup>7</sup> in 2015, which is well below the national action level of 15 ug/L.

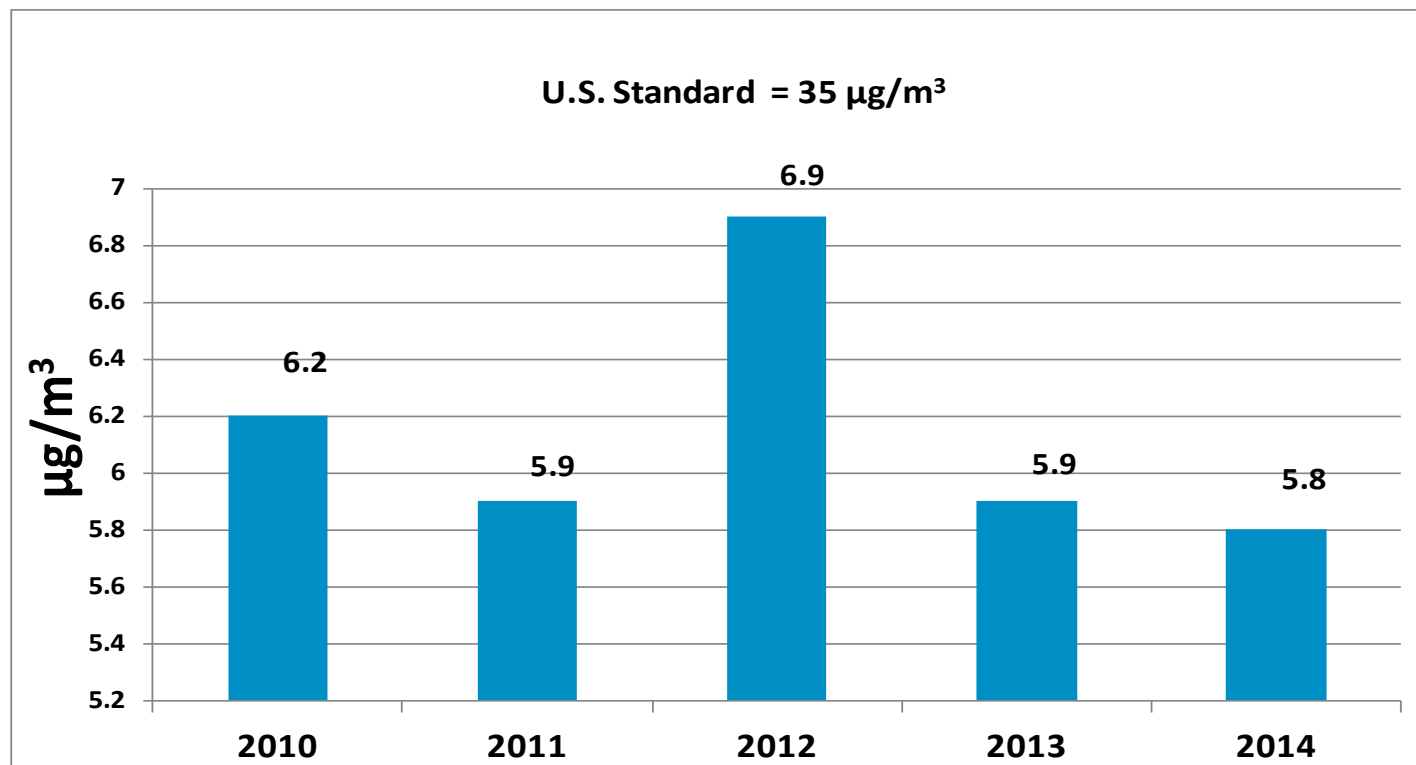
## Emerging Issues

In 2016, local and state public health officials learned about the presence of perfluorinated compounds (PFCs) in the Widefield Aquifer. The Widefield Aquifer, southeast of Colorado Springs near Fountain Creek and Windmill Gulch, supplies water to private wells, small drinking water systems, and three large water districts serving an estimated 71,000 people (Figure 2).<sup>8</sup>

PFCs are human-made chemicals that do not occur naturally in the environment. These compounds are found in firefighting foams, coating additives and surface protection products for carpets and clothing, and other common commercial products. The presence of PFCs in the aquifer at levels exceeding recently lowered EPA standards was first reported in early 2016. The health effects of PFCs depend on many factors, including duration and amount of PFC exposure, and personal factors including age, lifestyle, and state of health. Some studies suggest a link between PFCs and low birth weight, as well as a possible link with kidney and testicular cancers.

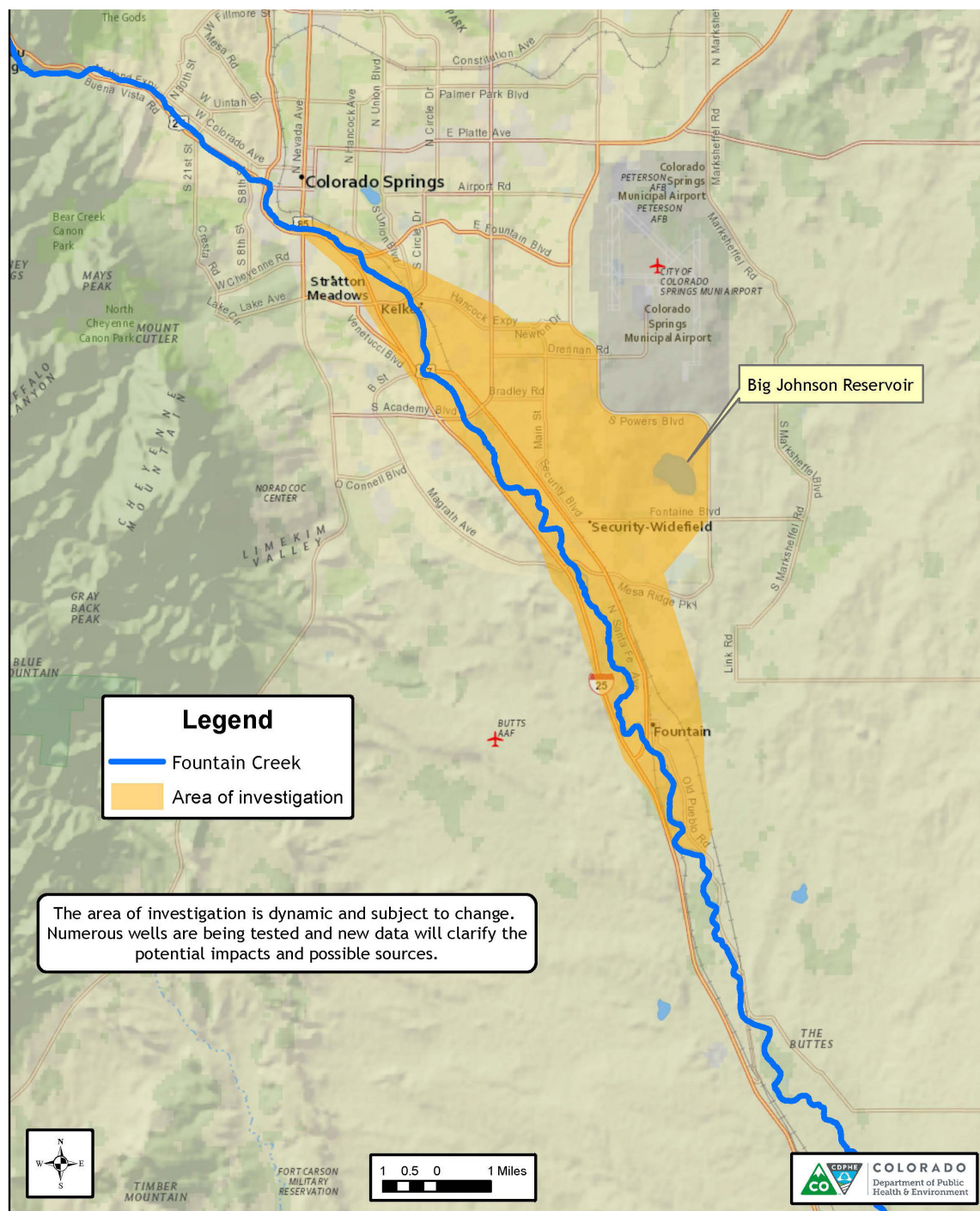
EPCPH conducted an educational campaign to encourage homeowners to test their well water. Public Health arranged for PFC testing at no cost to residents through a grant from the EPA and CDPHE. Of the 60 wells tested in 2016, 32 were above the EPA health advisory. Residents with well water showing levels of PFCs above the health advisory were provided bulk water delivery, reverse osmosis systems, and an under-the-sink treatment option through a rapid response effort. The public water districts are currently only using surface water that does not contain PFCs, and are exploring treatment options to remove PFCs from their public wells.

**Figure 1: Air Quality: Annual Average Levels of PM<sub>2.5</sub>, El Paso County, 2010-2014**





**Figure 2: Perfluorinated Compounds, Area of Investigation**



<sup>1</sup>The World Health Organization [Internet]. Available from: <http://www.who.int/mediacentre/factsheets/fs313/en/>.

<sup>2</sup>Centers for Disease Control and Prevention [Internet]. Available from:

[https://www.cdc.gov/healthywater/drinking/public/water\\_diseases.html](https://www.cdc.gov/healthywater/drinking/public/water_diseases.html).

<sup>3</sup>Colorado Department of Public Health and Environment. 2015 Ambient Air Monitoring Network Assessment.

<sup>4</sup>Colorado Department of Public Health and Environment. Colorado Environmental Public Health Tracking.

<sup>5</sup>Colorado Springs Utilities [Internet]. 2016 Drinking Water Report. Available from:

<https://www.csu.org/CSUDocuments/waterqualityreport2016.pdf>.

<sup>6</sup>Colorado Springs Utilities [Internet]. 2015 Drinking Water Report. Available from:

<https://www.csu.org/CSUDocuments/waterqualityreport2015.pdf>.

<sup>7</sup>Colorado Springs Utilities [Internet]. 2016 Drinking Water Report.

Available from: <https://www.csu.org/CSUDocuments/waterqualityreport2016.pdf>.

<sup>8</sup>Colorado Department of Public Health and Environment [Internet]. PFCs - Maps and Data. Available from:

<https://www.colorado.gov/pacific/cdphe/PFCs/maps-and-data>.



# Food Safety

The Centers for Disease Control and Prevention (CDC) estimates that one in six Americans get sick from contaminated food or beverages each year.<sup>45</sup> Preventing foodborne illness, commonly called “food poisoning”, has been a focus of public health since the passage of the Pure Food and Drug Act of 1906. Today’s public health focuses on preventing contamination through food inspections, consumer education, and using sophisticated data collection and surveillance to quickly respond to outbreaks.

Data on the incidence of foodborne illness or outbreaks, which are reportable conditions in all states, are tracked over time to help measure the overall effectiveness of food safety measures. Data is also collected regarding retail food inspections, critical and non-critical violations, public complaints, and follow-up investigations.

## How are we doing in El Paso County?

In Colorado and El Paso County, norovirus, Salmonella, Campylobacter, and Shiga-toxin producing E. coli are the pathogens responsible for the majority of reported cases of foodborne illnesses. In 2015, El Paso County reported illness rates lower than the state rates for Campylobacter (11.8 per 100,000 population), Salmonella (7.0 per 100,000 population)<sup>46</sup>, and E. coli (1.2 per 100,000 population). A total of 230 consumer complaints regarding retail food establishments were investigated in 2016, resulting in 27 verifiable foodborne illness outbreaks.

Although foodborne illness can happen with foods prepared in homes, retail food establishments are the most common setting for foodborne illness outbreaks. There are more than 2,500 retail food establishments in El Paso County, all of which are inspected and monitored regularly to improve food safety. In 2016, EPCPH conducted 4,814 regular, follow-up, and pre-operational inspections of restaurants, food trucks, grocery stores, convenience stores, and caterers. Inspections identify critical violations that must be immediately corrected, such as cross-contamination, inadequate food temperature controls, personnel hygiene practices, and use of foods from approved sources. In 2016, the most frequently cited primary critical violations were for failure to hold cold foods at the proper temperature, handwashing and toilet facilities, and hygienic practices.<sup>47</sup>

## Risk-Based Inspection and Monitoring

In May 2015, EPCPH implemented a risk-based inspection process for retail food establishment inspections. This process assigns a risk value to each retail food establishment based on menu complexity and the food safety practices observed during inspection. The risk value determines how frequently an establishment should be inspected to protect public health. Of the 2,516 currently licensed establishments, the inspection frequency is distributed as follows:

- 41 percent are inspected every 360 days (1 time/year)
- 52 percent are inspected every 180 days (2 times/year)
- 7 percent are inspected every 90 days (4 times/year)

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<sup>45</sup>Centers for Disease Control and Prevention [Internet]. Available from: <https://www.cdc.gov/foodsafety/cdc-and-food-safety.html>

<sup>46</sup>Colorado Electronic Disease Reporting System. El Paso County Public Health internal data.

<sup>47</sup>EnvisionConnect. El Paso County Public Health internal data.

# Healthy Eating and Active Living

A healthy diet and regular physical activity are essential to good health. When an individual's energy intake (calories from food) is greater than his or her energy output (physical activity), he or she is likely to become overweight or obese and experience an increased risk of poor health outcomes such as type 2 diabetes; hypertension (high blood pressure); certain cancers; heart disease (including heart attack and stroke); high cholesterol; vitamin and mineral deficiencies; arthritis pain and associated disability; osteoporosis and falls; and certain symptoms associated with depression and anxiety.<sup>1</sup> While some risk factors for these conditions are non-modifiable, like an individual's genetics, there are many behavioral, environmental, and societal factors that can be altered to reduce the risk of becoming overweight or obese.

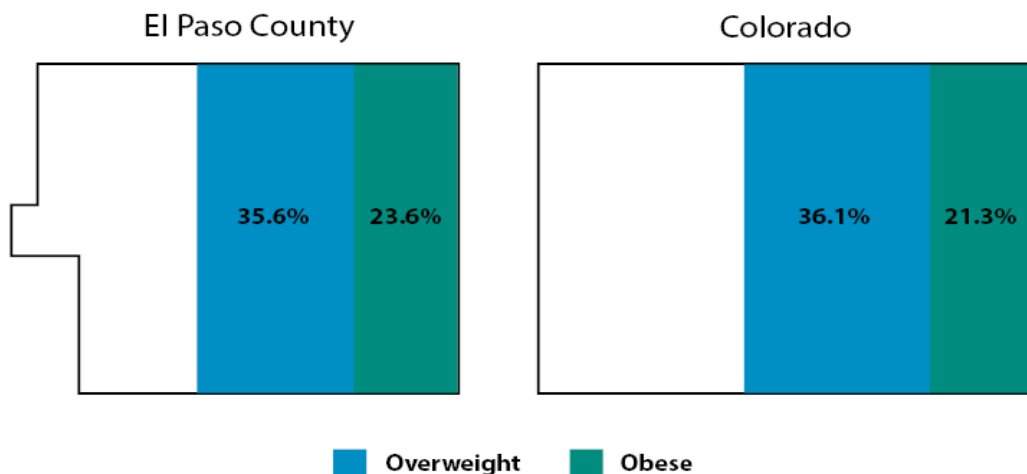
Every five years, the U.S. Department of Agriculture and the Department of Health and Human Services jointly publish a report containing dietary guidelines for the general public.<sup>2</sup> These guidelines encourage consumption of a variety of whole, nutrient-dense foods and limit intake of saturated and trans fats, cholesterol, added sugars, sodium, and alcohol. In addition, the Department of Human Services releases guidelines for physical activity, encouraging children and adolescents ages 6 to 17 years to engage in one hour of physical activity every day, and adults ages 18 to 64 to engage in two hours and thirty minutes of moderate-intensity, or one hour and fifteen minutes of vigorous activity, each week, in addition to muscle-strengthening activities.<sup>3</sup>

## How are we doing in El Paso County?

Even though Colorado continues to rank as one of the leanest states in terms of weight indicators, we have not escaped the national obesity epidemic. One out of every two adults in El Paso County is either overweight or obese and one out of every five is obese (Figure 1).<sup>4</sup> This measure is based on body mass index (BMI), which is calculated using a person's height and weight because, for most, it correlates with their amount of body fat. An adult who has a BMI between 25 and 29.9 is considered overweight and an adult who has a BMI of 30 or higher is considered obese. Additionally, obesity rates in El Paso County rose from 20.5 percent of the population obese in 2010 to 23.6 percent of the population obese in 2016,<sup>5</sup> causing El Paso to climb above average when compared to all other counties in Colorado.<sup>6</sup>

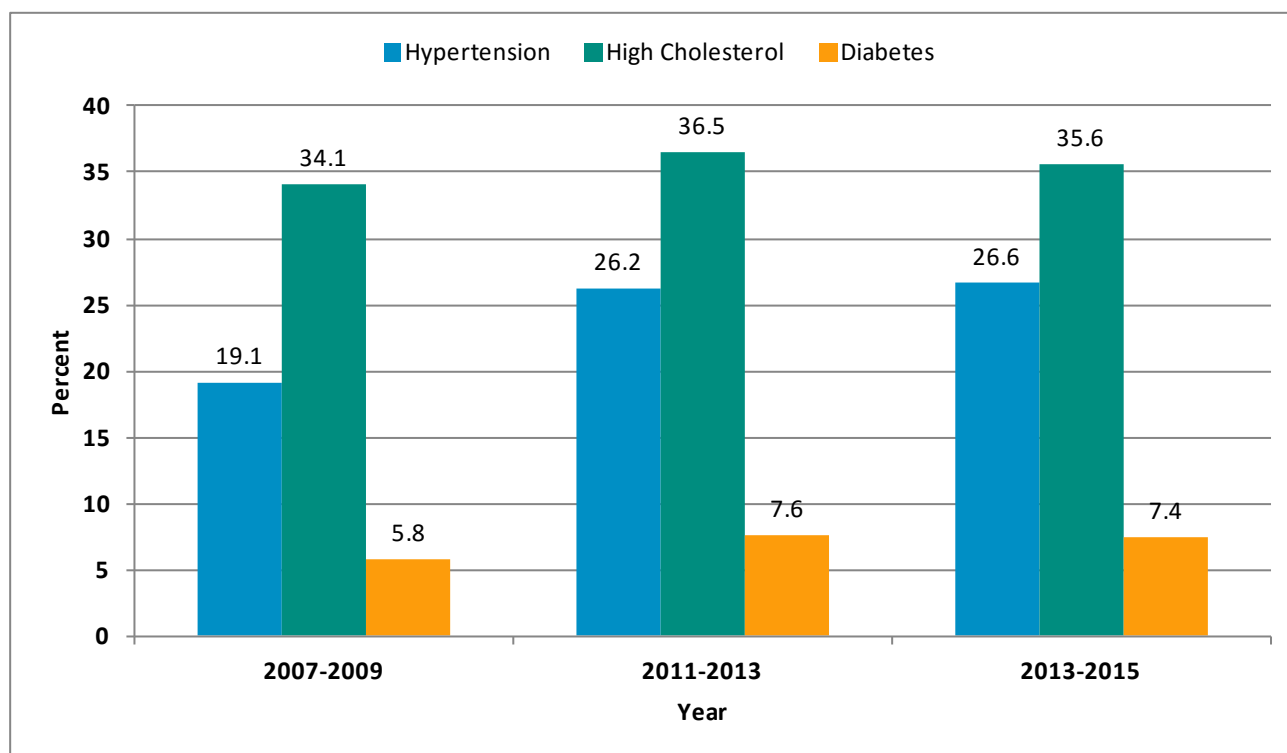
One out of every two adults in El Paso County is either overweight or obese and one out of every five adults is obese.

**Figure 1: Percentage of Adults at an Unhealthy Weight in El Paso County, 2016**

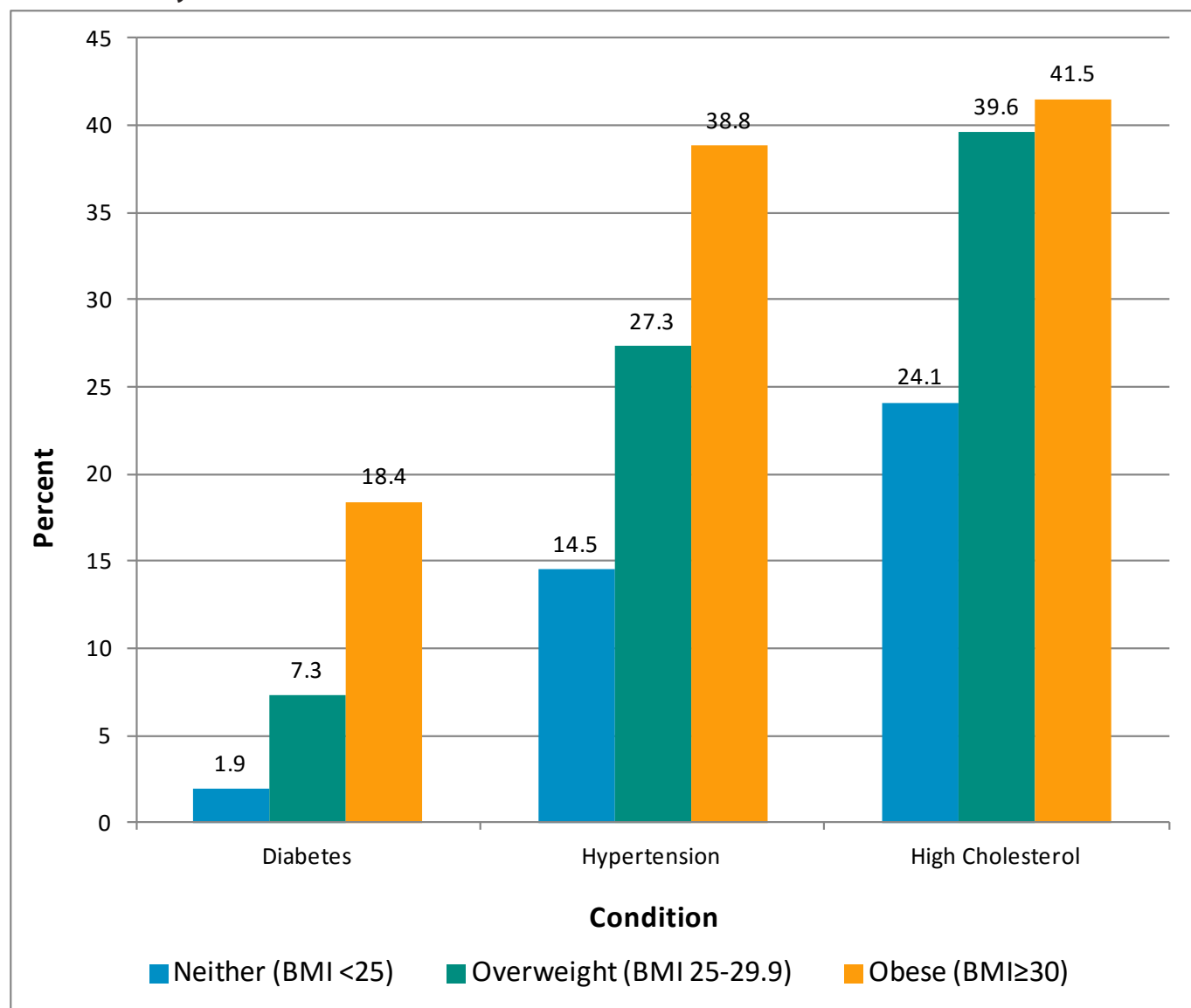


As previously noted, people who are overweight or obese are at risk for a multitude of poor health outcomes. In El Paso County, the number of adults with hypertension, high cholesterol, and type 2 diabetes has significantly increased in the past decade (Figure 2),<sup>7</sup> paralleling the county's obesity trend. Those who have a BMI of less than 25 and are considered neither overweight nor obese have a considerably smaller prevalence of these three specific conditions when compared to those who are considered overweight. Those who are obese have the highest occurrence of these co-existing conditions (Figure 3).<sup>8</sup>

**Figure 2: Prevalence of Hypertension, High Cholesterol & Diabetes Among Adults in El Paso County, 2007-2015**



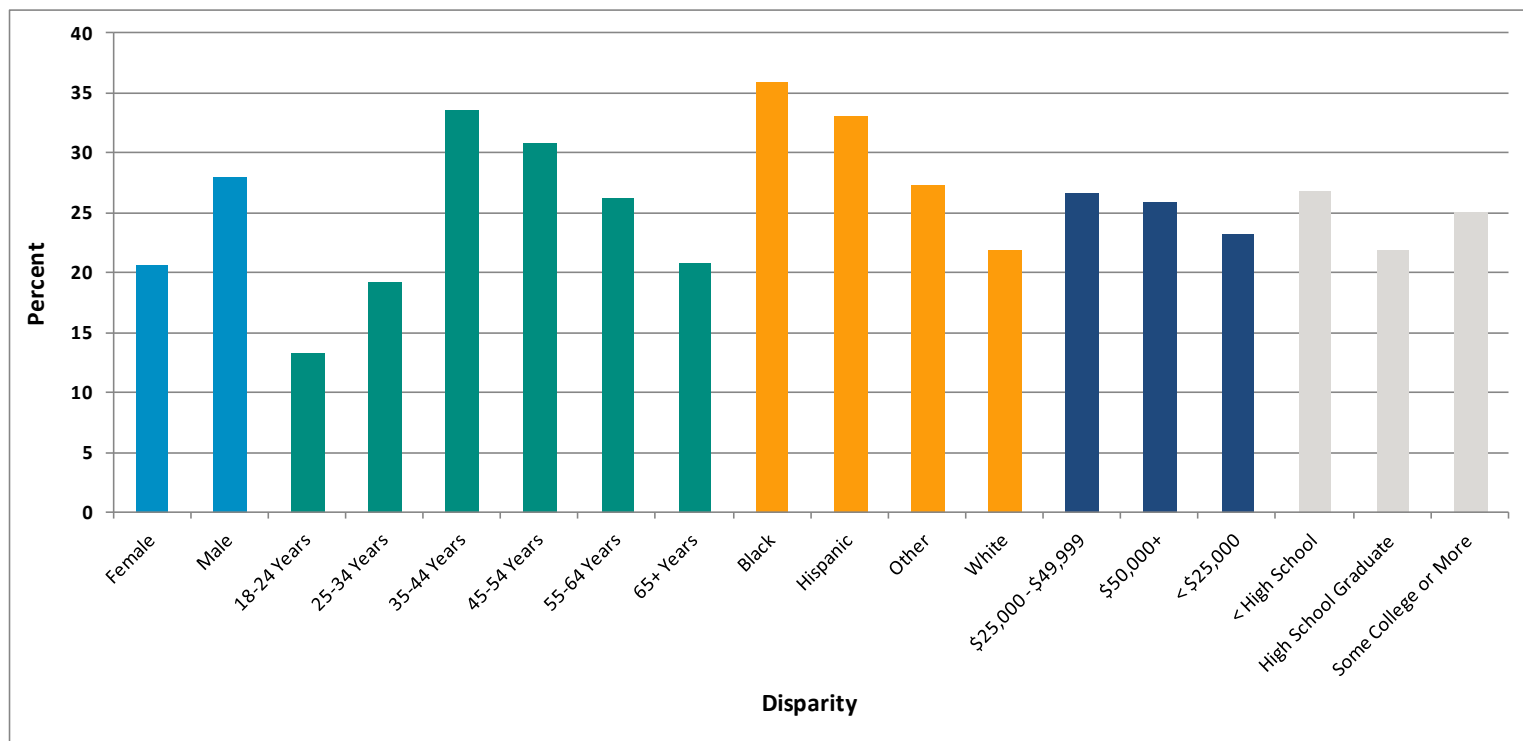
**Figure 3: Prevalence of Co-Existing Conditions by Weight Status, Adults Aged 18+ Years, El Paso County, 2015**



Disparities exist for people who are obese based on gender, age, and race & ethnicity (Figure 4).<sup>9</sup> Males tend to have higher rates of obesity than females, and those who are middle-aged (35-54 years) have higher rates than other age groups. Most significantly, statistics show that African-American and Hispanic adults have a higher prevalence of obesity when compared to White adults.

Geographic and socioeconomic characteristics of a community may create barriers to healthy eating. For example, where people live impacts the availability of nearby full-service grocery stores or markets that sell fresh fruits and vegetables, which can then influence food choices. In 2014, El Paso County scored 7.0 on the Food Environment Index of factors that contribute to a healthy food environment—defined as the availability of economical, close and nutritious food options in a community—ranking it the lowest among peer counties across Colorado and below Colorado and the National benchmark (Table 1).<sup>10</sup>

**Figure 4: El Paso County Adult Obesity Rates By Gender, Age, Race, Ethnicity, Income and Education, 2013-2014**



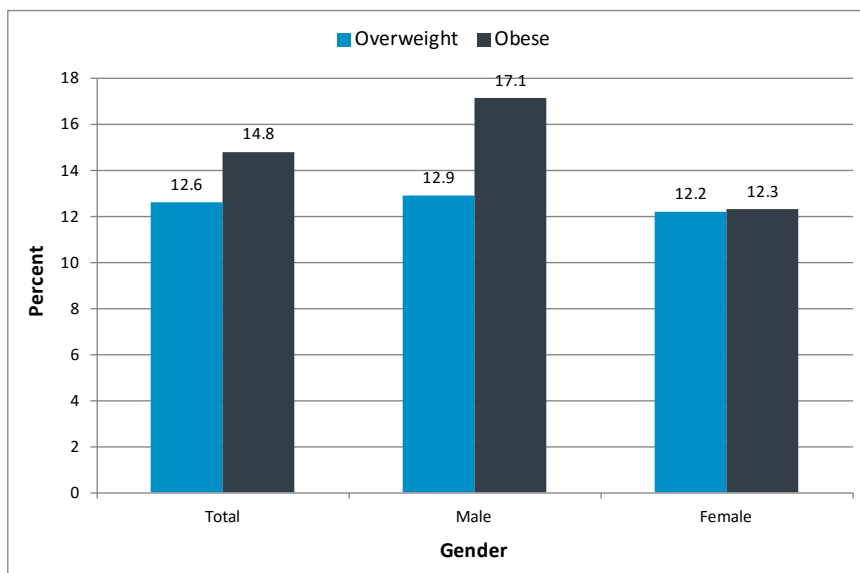
**Table 1: Accessibility of Healthy Foods and Recreational Facilities, 2014**

Place	Food Environment Index* (out of 10)	Percent of Population that has Access to Exercise Opportunities**
<b>Colorado</b>	<b>7.7</b>	<b>91.0%</b>
Adams County	8.2	95.0%
Arapahoe County	7.7	99.0%
Denver County	7.2	100.0%
Douglas County	8.8	99.0%
El Paso County	7.0	94.0%
Jefferson County	8.1	100.0%
Larimer County	7.5	92.0%
Pueblo County	6.7	75.0%
Weld County	8.2	80.0%
<b>National Benchmark***</b>	<b>8.4</b>	<b>91.0%</b>
<p>*Index of factors that contribute to a healthy food environment defined as the availability of economical, close and nutritious food options in a community (0 = worst &amp; 10 = best)</p> <p>** Exercise Opportunities are defined as close and convenient settings for physical activity (within a half mile of a park, or within 1 mile (urban) or 3 miles (rural) of a recreational facility)</p> <p>***90th Percentile (i.e. only 10% of all counties are at or above this mark)</p>		

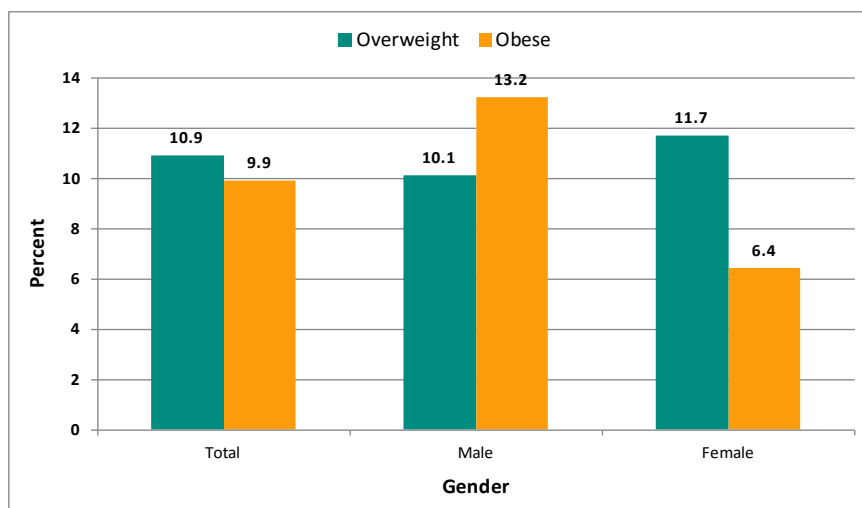


Unfortunately it is not just adults who are at an increased risk of poor health outcomes related to being overweight or obese. Children are affected by the same outcomes and contributing factors. Figure 5 shows the percentage of children in Colorado aged 2-14 years reported being at an unhealthy weight.<sup>11</sup> In 2014, 12.6 percent of children were reported as overweight and 14.8 percent were reported as obese. There are also gender disparities among this age group, with 17.1 percent of males reported as obese compared to 12.3 percent of females, a 28 percent difference.

**Figure 5: Percent of Children Aged 2-14 Years at an Unhealthy Weight By Gender Colorado, 2014**



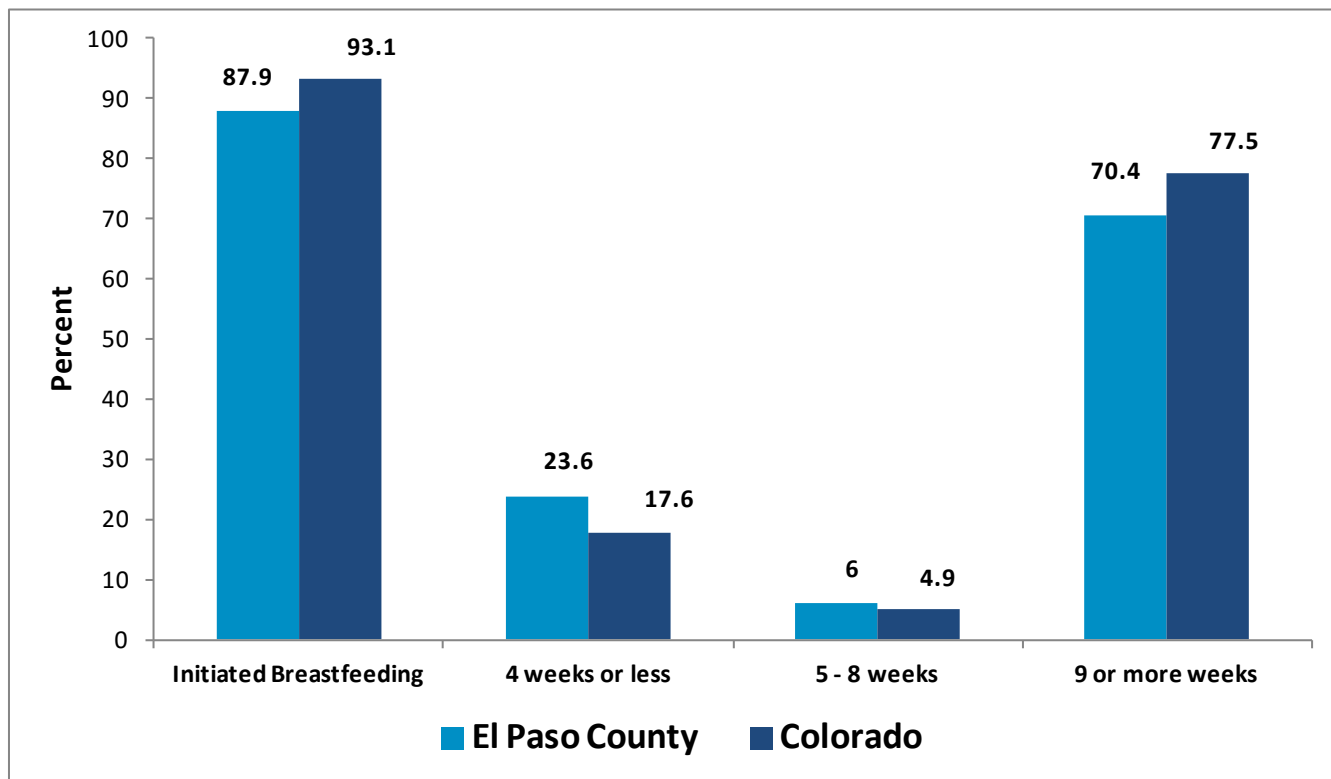
**Figure 6: Percent of High School Students Grades 9-12 at an Unhealthy Weight By Gender, Colorado 2015**



In 2015 in Colorado, 10.9 percent of high school students in grades 9-12 were overweight and 9.9 percent were obese (Figure 6).<sup>12</sup> Gender disparities exist among high school students in Colorado, with 13.2 percent of males reporting obesity compared to 6.4 percent of females, a difference of almost 52 percent. The Healthy People 2020 obesity target is 14.5 percent for children and adolescents aged 2-19 years.<sup>13</sup>

Evidence has been presented that breastfeeding provides substantial health benefits for children, with improved health outcomes related to the duration and exclusivity of breastfeeding. For example, children who were not breastfed were more likely to have asthma, type 2 diabetes, and be obese. El Paso County data shows that almost 90 percent of new mothers initiate breastfeeding after birth, but nearly one-third of those mothers do not continue breastfeeding beyond 9 weeks. This is slightly less than the Colorado average of 93.1 percent who initiate and 77.5 percent who continue beyond 9 weeks (Figure 7).<sup>14</sup>

**Figure 7: Percent of New Mothers who Breastfed Their Infants by Duration, El Paso County & Colorado, 2014**



<sup>1</sup>Centers for Disease Control and Prevention [Internet]. Physical Activity for a Healthy Weight. Available from: [https://www.cdc.gov/healthyweight/physical\\_activity/index.html](https://www.cdc.gov/healthyweight/physical_activity/index.html).

<sup>2</sup>United States Department of Agriculture Center for Nutrition Policy and Promotion [Internet]. Available from: <https://www.cnpp.usda.gov/dietary-guidelines>

<sup>3</sup>United States Department of Health and Human Services [Internet]. 2008 Physical Activity Guidelines for Americans. (Oct. 2008). Available from: <https://health.gov/paguidelines/pdf/paguide.pdf>

<sup>4</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)

<sup>6</sup>Robert Wood Johnson Foundation [Internet]. County Health Rankings & Roadmaps. Colorado, Adult Obesity. Available from: <http://www.countyhealthrankings.org/app/colorado/2017/measure/factors/11/data>

<sup>7</sup>Colorado Department of Public Health and Environment [Internet]. VISION: Behavioral Risk Factors Surveillance System. Available from: <https://www.colorado.gov/pacific/cdphe/vision-data-tool>

<sup>8</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factor Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)

<sup>9</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)

<sup>10</sup>Robert Wood Johnson Foundation [Internet]. County Health Rankings & Roadmaps 2017. Available from: <http://www.countyhealthrankings.org/app/colorado/2017/measure/factors/132/map>

<sup>11</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)

<sup>12</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Healthy Kids Colorado Survey 2015. Available from: <https://www.cohealthdata.dphe.state.co.us/>

<sup>13</sup>Healthy People 2020 [Internet]. Nutrition and Weight Status. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status/objectives>

<sup>14</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID). Pregnancy Risk Assessment Monitoring System (PRAMS). Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy\\_Risk\\_Assessment\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy_Risk_Assessment_Data)

# Mental Health and Substance Abuse

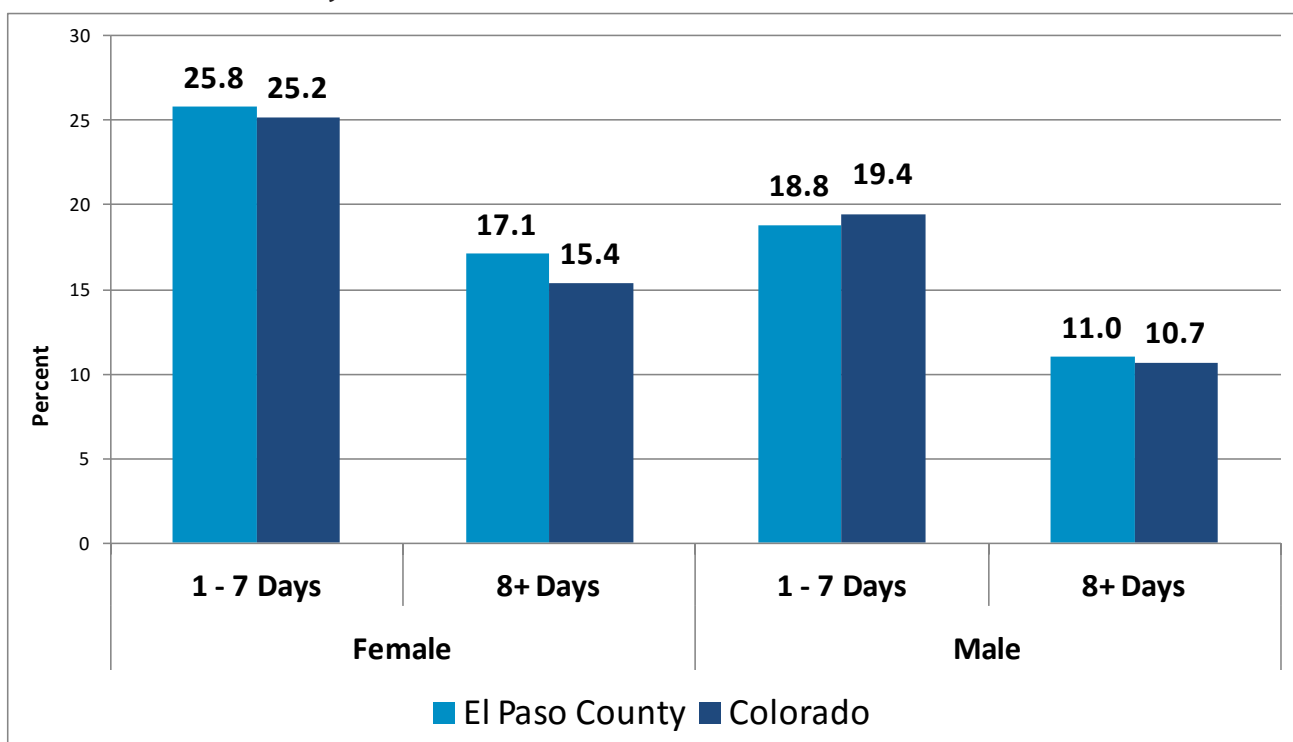
Mental health is an integral component of health and fundamental to our collective and individual ability as humans to think, emote, interact with each other, earn a living, and enjoy life.<sup>1</sup> Mental illness is defined as “collectively all diagnosable mental disorders” or “health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning.”<sup>2</sup> Depression is the most common type of mental illness and in 2015, an estimated 16.1 million adults ages 18 or older in the United States had at least one major depressive episode in the past year.<sup>3</sup> Evidence has shown that mental illness disorders, especially depression, are strongly related to many chronic diseases such as diabetes, cancer, cardiovascular disease, asthma, and obesity; they can impact risk behaviors associated with these diseases, like physical inactivity, smoking, insufficient sleep, and excessive substance use.<sup>4,5</sup>

Substance abuse is the consumption of mind and behavior-altering substances that have negative behavioral and health outcomes.<sup>6</sup> Substance abuse may involve excessive alcohol, tobacco, and marijuana use; the misuse of prescription drugs, such as opioids; or the use of illicit drugs like heroin, cocaine, and methamphetamines. Mental disorders and substance abuse have substantial comorbidity, meaning that people can, and frequently do, suffer from both conditions at the same time.

## How are we doing in El Paso County?

In El Paso County, between 2013 and 2014, 25.8 percent of female adults 18 years and older reported having one or more days of poor mental health that lasted for less than a week within the past month, and 18.8 percent of males reported the same (Figure 1).<sup>7</sup> Also, 17.1 percent of females reported these poor mental health symptoms lasting for more than eight days, and 11 percent of males reported the same. These findings are comparable to the Colorado average and show that women report experiencing more days of poor mental health, and for a longer period of time, than men.

**Figure 1: Percent of Adults Aged 18+ Years Reporting >1 Day of Poor Mental Health in Past 30 Days By Gender, El Paso County & Colorado, 2013-2014**



Women report experiencing more days of poor mental health, and for a longer period of time, than men.

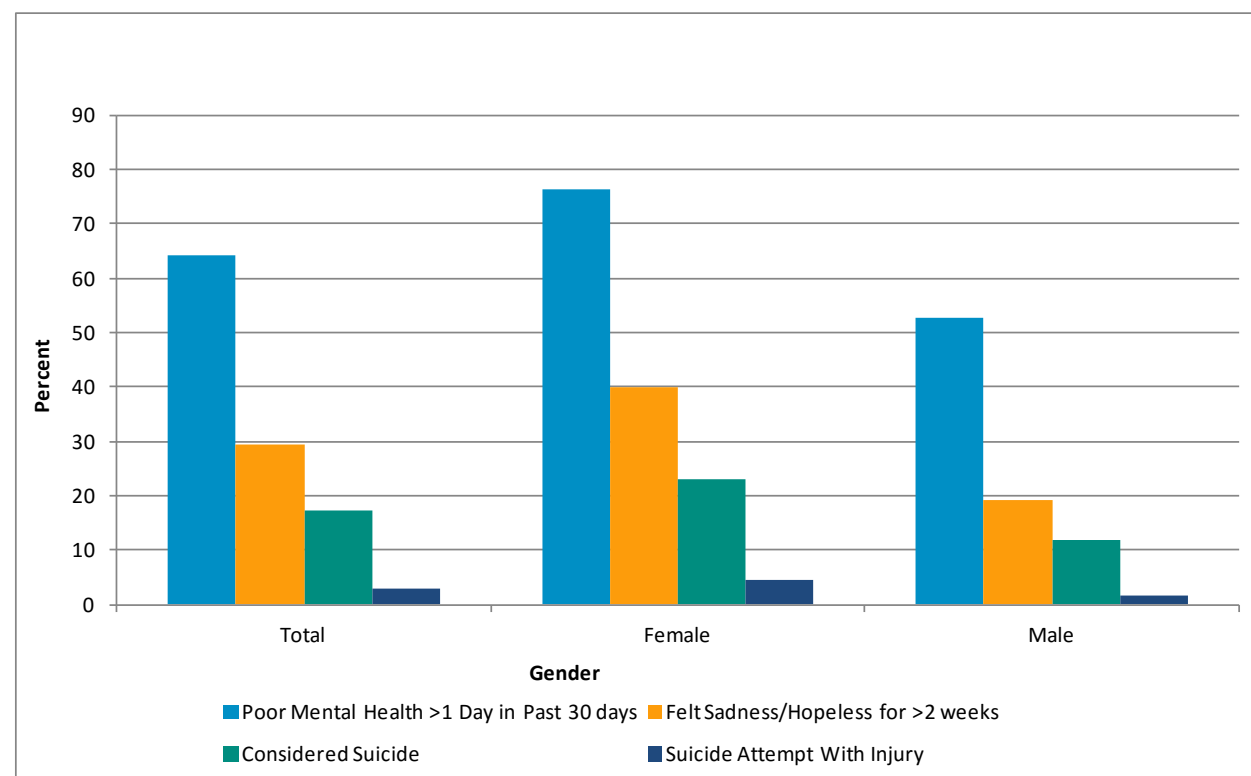
For depression specifically, 10.5 percent of adults ages 18 to 25 and 6.7 percent of adults aged 26 and older in Colorado reported having more than one major depressive episode in 2015 (Table 1).<sup>8</sup> This table also shows that Colorado has slightly higher percentages of adults who experience serious mental illness, any mental illness, and had serious thoughts of suicide when compared to the national average, with adults aged 18 to 25 consistently having higher rates of occurrence.

**Table 1: Adults Experiencing Mental Illness within the Past Year by Age 2015**

2015		Age	
		18 - 25 Years	26+ Years
Serious Mental Illness*	Colorado	5.3%	4.1%
	United States	5.0%	3.9%
Any Mental Illness**	Colorado	24.3%	18.8%
	United States	21.7%	17.2%
Had Serious Thoughts of Suicide	Colorado	8.6%	3.8%
	United States	8.3%	3.3%
Had > 1 Major Depressive Episode***	Colorado	10.5%	6.7%
	United States	10.3%	6.1%
* Diagnosable mental, behavioral, or emotional disorder resulting in serious functional impairment ** Diagnosable mental, behavioral, or emotional disorder *** Period of ≥ 2 weeks characterized by a depressed mood or loss of interest/pleasure in daily activities and a majority of specified depression symptoms			

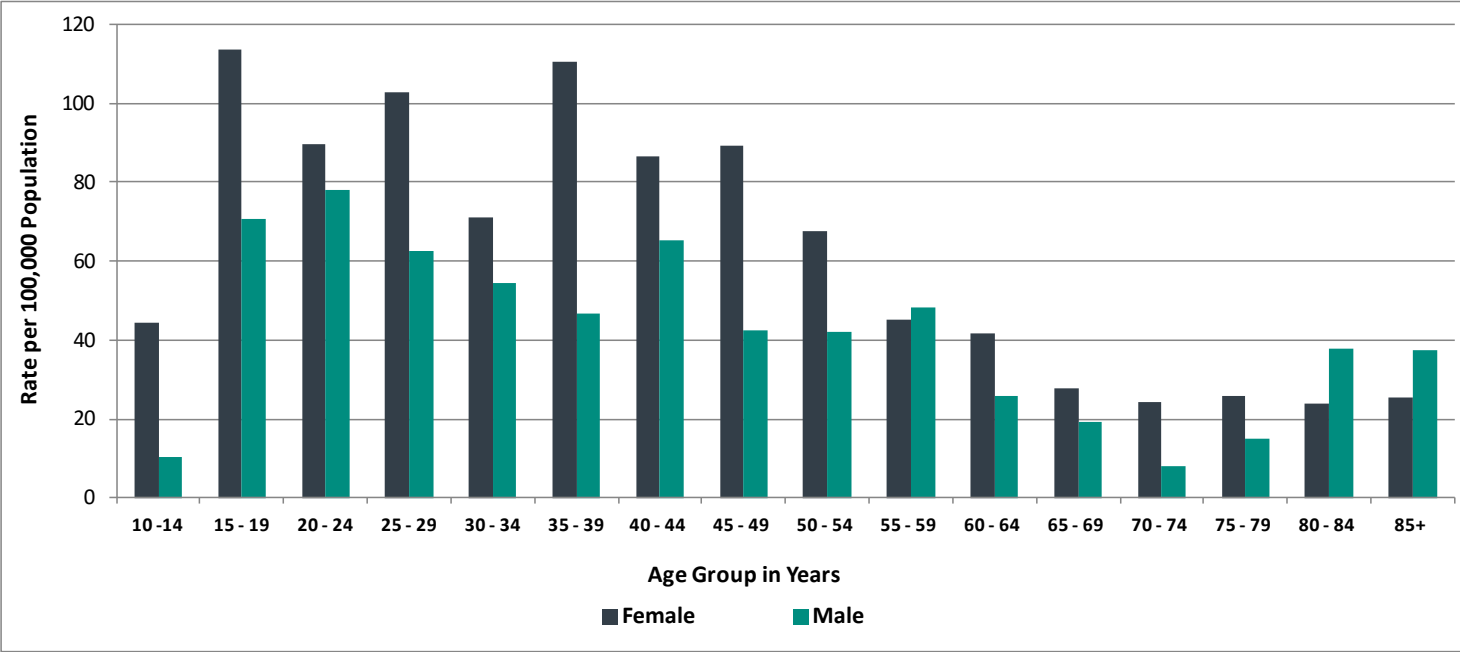
In 2015, mental health data for Colorado adolescents shows that 64.3 percent of high school students describe having poor mental health lasting more than a day within the last 30 days; 29.5 percent experienced depression-like symptoms for more than two weeks; and 17.4 percent considered suicide.<sup>9</sup> As illustrated in Figure 2, these results are all significantly more common among females than males.

**Figure 2: High School Students Grades 9 - 12 Experiencing Mental Illness in the Past Year, Colorado 2015**



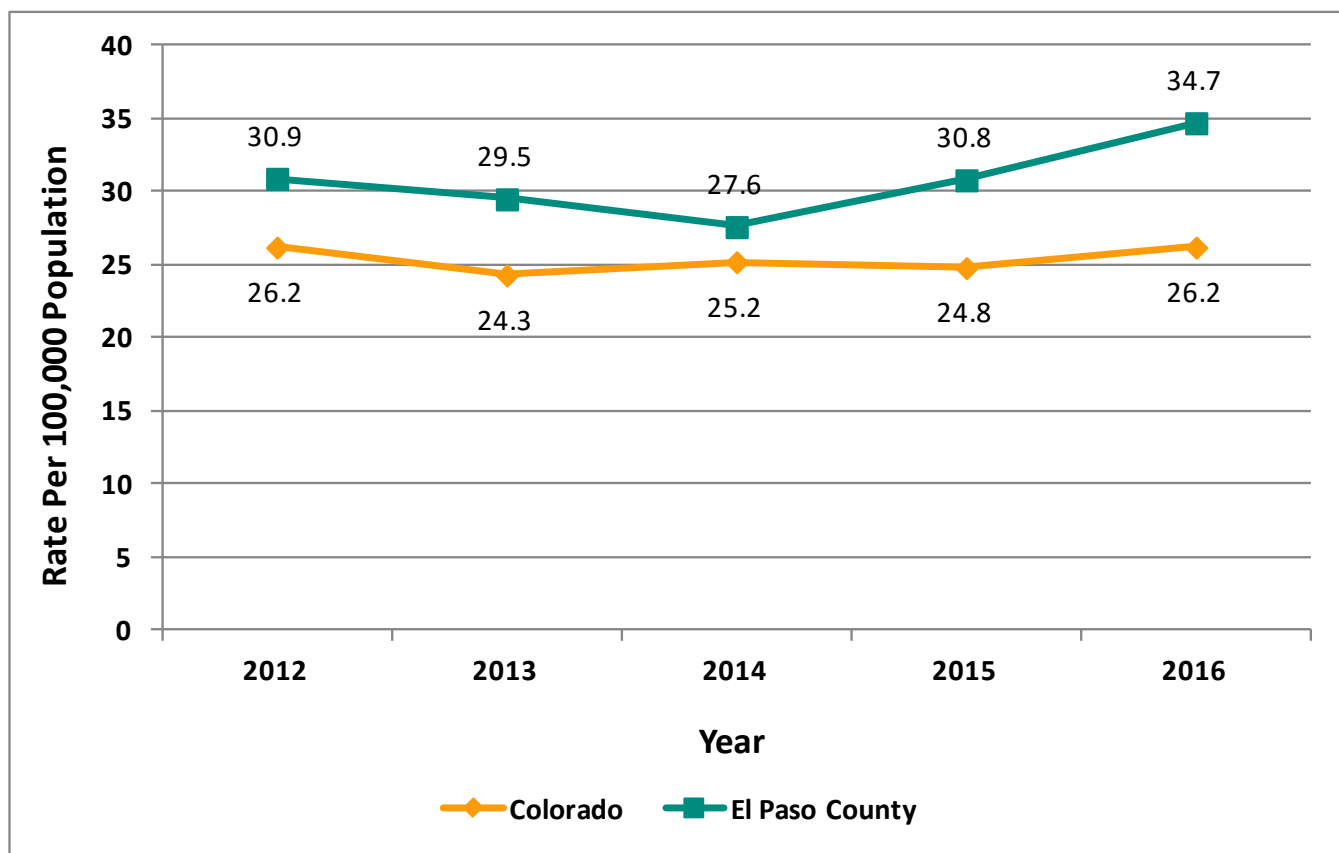
Among children and youth under the age of 18 years, suicide was the second leading cause of death in Colorado in 2015.<sup>10</sup> In 2014, Colorado had the fifth highest adult suicide rate and the sixth highest youth suicide rate in the country. Severe, untreated depression and other mental illnesses may lead people to contemplate, attempt, or ultimately die from suicide. In El Paso County, higher rates of suicide attempts resulting in hospitalization are found for females aged 15 to 49 years and males aged 15 to 24 years (Figure 3).<sup>11</sup> The rate per 100,000 population of adult suicide deaths in El Paso County has ranged from 30.9 in 2012 to 34.7 in 2016. In Colorado these same population rates have remained at 26.2 between 2012 and 2016, with slight decreases between 2013 and 2015 (Figure 4).<sup>12</sup> Notably, in El Paso County, the suicide rate among youth ages 10 to 19 years has increased by almost 55 percent between 2010 and 2016, from a total of 11 suicide fatalities in 2010 to 17 suicide fatalities in 2016 (Figure 5).<sup>13</sup>

**Figure 3: Rates of Suicide Attempts Resulting in Hospitalization, By Age and Gender, El Paso County 2010-2014**

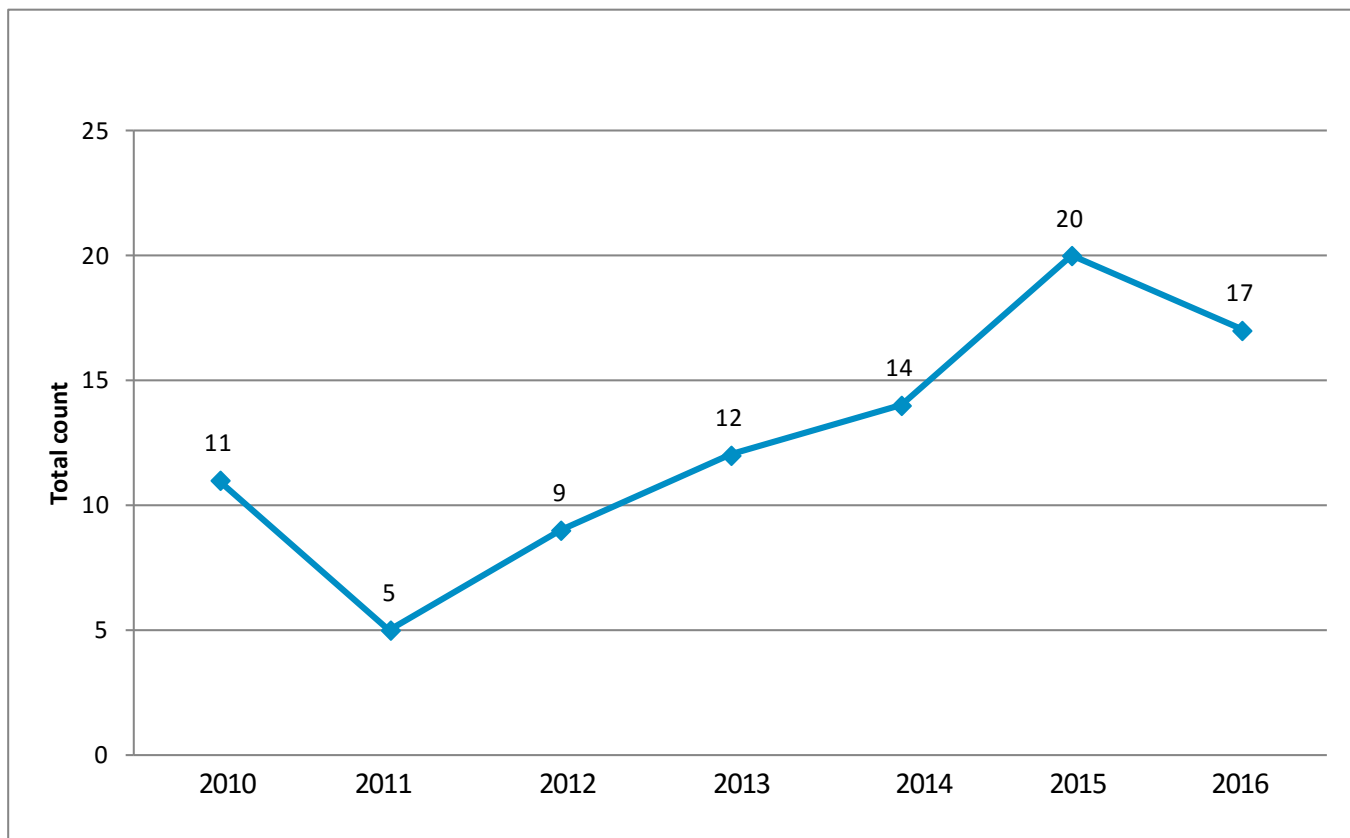




**Figure 4: Adults Aged 20+ Years, Suicide Fatality Rates, El Paso County, 2012-2016**

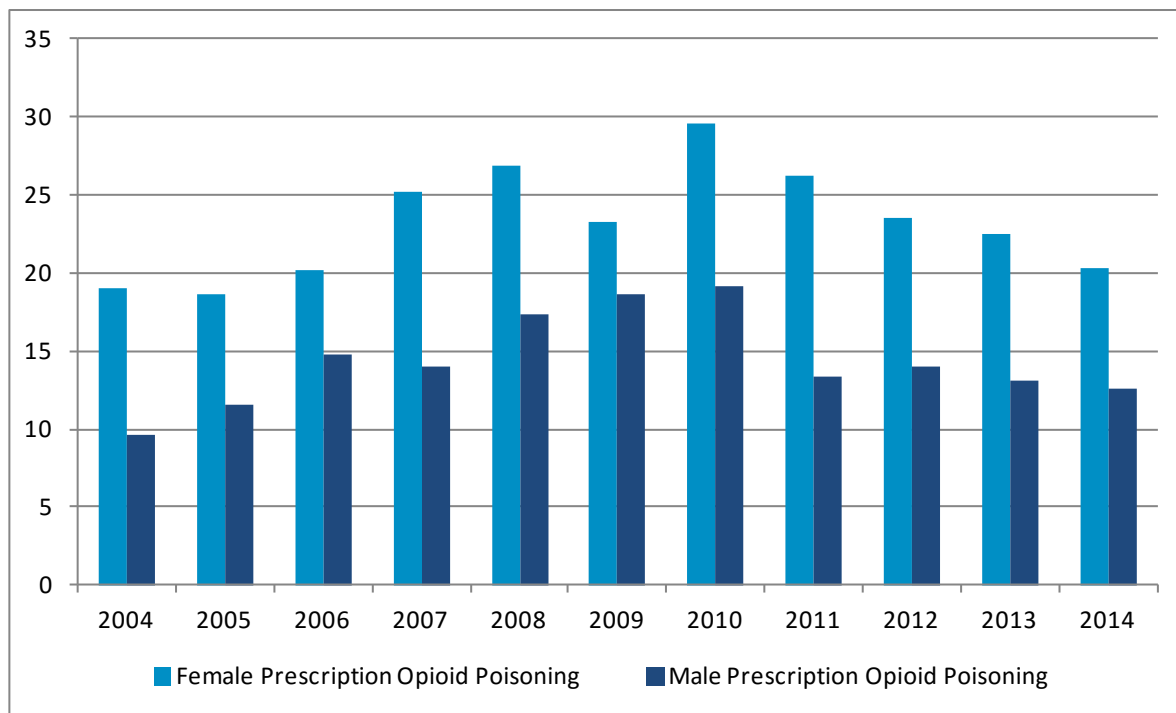


**Figure 5: El Paso County Youth Aged 10-19 Years, Suicide Fatalities, 2010-2016**

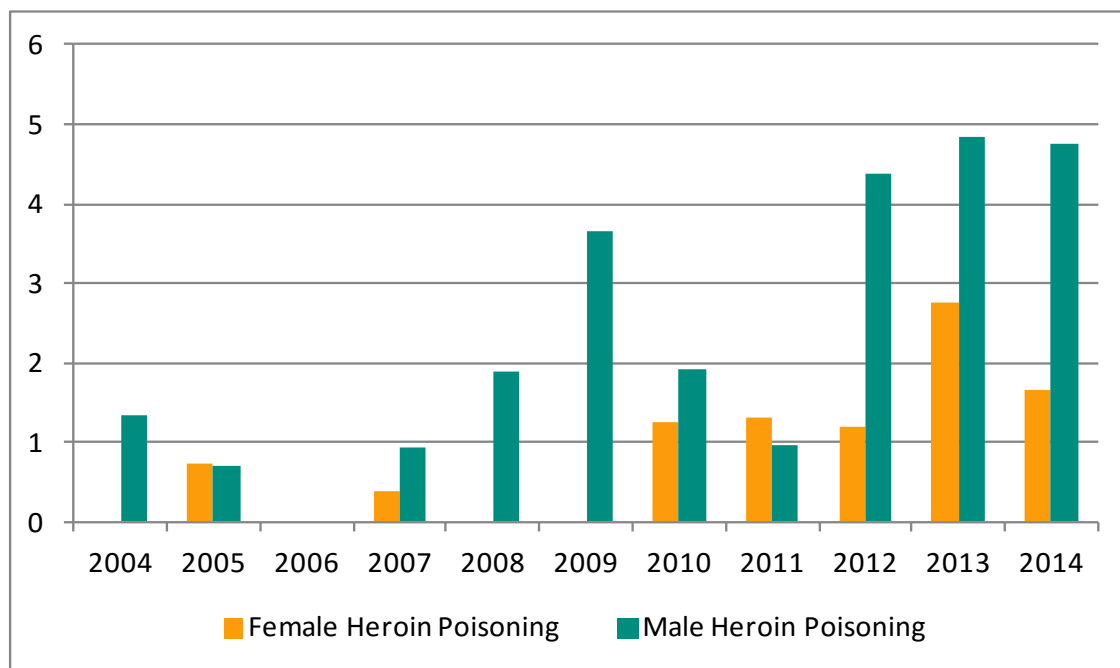


Since 2002, both Colorado and El Paso County have had higher age-adjusted death rates for drug poisoning than the U.S. By 2008, El Paso County had surpassed Colorado in death rates for drug poisoning and continues to widen the gap.<sup>14</sup> Statistically in El Paso County, drug-induced deaths are more common among people ages 25-44, and more common in the White Hispanic population. When looking at opioid-related hospitalizations in the county, adult females had significantly more hospitalizations than adult men, and both saw considerably more hospitalizations for opioids than for heroin (Figures 5 and 6).<sup>15</sup>

**Figure 6: Age-Adjusted Hospitalizations Rate Caused by Opioid Poisoning, By Gender, El Paso County, 2004-2014**



**Figure 7: Age-Adjusted Hospitalizations Rate Caused by Heroin Poisoning, By Gender, El Paso County, 2004-2014**



Among Colorado high school students grades 9 to 12 in 2015, 16.6 percent reported binge drinking (consuming five or more alcoholic beverages on one occasion) and 21.2 percent reported using marijuana in the past 30 days (Table 2).<sup>16</sup> Between two and five percent reported using cocaine, heroin, or methamphetamines during their lifetime.

**Table 2: Substance Use Disorder Among High School Students, Grades 9-12, Colorado, 2015**

Timeframe	Substance	Colorado Percent
Use in Past 30 Days	Binge drinking*	16.6%
	Marijuana	21.2%
Lifetime Use	Marijuana	38.0%
	Cocaine	5.6%
	Inhalants	6.2%
	Heroin	2.0%
	Methamphetamines	2.4%
	Ecstasy	5.5%

<sup>1</sup>World Health Organization [Internet]. Mental Health: Strengthening our Response. Available from: <http://www.who.int/mediacentre/factsheets/fs220/en/>.

<sup>2</sup>U.S. Department of Health and Human Services. Mental Health: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services; Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

<sup>3</sup>National Institute of Mental Health [Internet]. Major Depression Among Adults. Available from: <https://www.nimh.nih.gov/health/statistics/prevalence/major-depression-among-adults.shtml>.

<sup>4</sup>Chapman DP, Perry GS, Strine TW. The vital link between chronic disease and depressive disorders. *Prev Chronic Disease* 2005;2(1):A14.

<sup>5</sup>Centers for Disease Control and Prevention [Internet]. Mental Health Basics. Available from: [www.cdc.gov/mentalhealth/basics.htm](http://www.cdc.gov/mentalhealth/basics.htm).

<sup>6</sup>Healthy People 2020 [Internet]. Substance Abuse. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse>

<sup>7</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factor Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors)

<sup>8</sup>Substance Abuse and Mental Health Services Administration. [Internet]. Available from: <https://www.samhsa.gov/data/>

<sup>9</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Healthy Kids Colorado Survey 2015. Available from: <https://www.cohealthdata.dphe.state.co.us/>

<sup>10</sup>Colorado Child Fatality Prevention System [Internet]. 2017 Annual Legislative Report. Available from: <http://www.cochildfatalityprevention.com/p/reports.html>

<sup>11</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Injury Hospitalization Statistics, 2014. Available from: <https://www.colorado.gov/pacific/cdphe/injury-data-and-epidemiology>

<sup>12</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID). Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Death\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Death_Data). Rates are per 1000,000 population based on most current year estimates from State Demography Office: Colorado Department of Local Affairs [Internet]. Available from: <https://demography.dola.colorado.gov/>

<sup>13</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID). Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Death\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Death_Data).

<sup>14</sup>Centers for Disease Control and Prevention [Internet]. National Center for Health Statistics: National Vital Statistics System. Available from: <https://www.cdc.gov/nchs/nvss/index.htm>

<sup>15</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Injury Hospitalization Statistics, 2014. Available from: <https://www.colorado.gov/pacific/cdphe/injury-data-and-epidemiology>

<sup>16</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Healthy Kids Colorado Survey 2015. Available from: <https://www.cohealthdata.dphe.state.co.us/>.

# Oral Health

Good oral health is defined as being free of chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, gum disease, tooth decay and tooth loss, and other diseases and disorders that affect the mouth and oral cavity.<sup>1</sup> Behaviors that negatively impact oral health include unhealthy diet, tobacco use, excessive alcohol use, and poor oral hygiene. These are the same risk factors for other chronic diseases like diabetes, cardiovascular disease, chronic respiratory disease, and certain cancers.

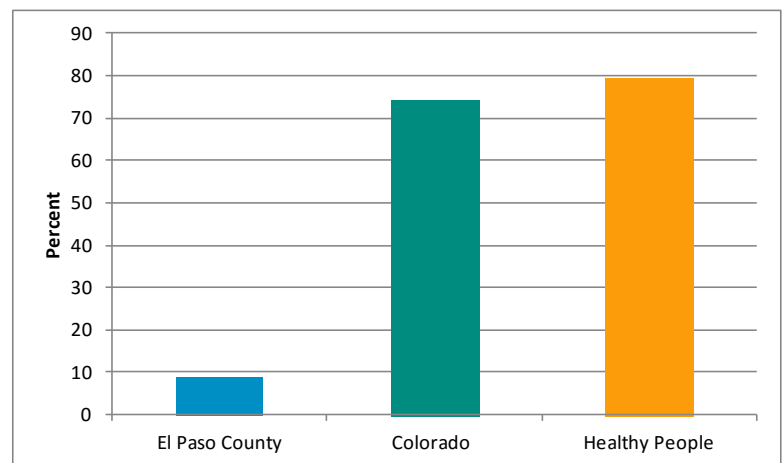
## How are we doing in El Paso County?

With the inclusion of an adult dental benefit into Colorado's Medicaid insurance, the number of adults who reported having dental insurance was 65.0 percent in 2012-2014, which is greater than the Colorado average of 59.4 percent. El Paso County adults also fared slightly better than the state for the loss of teeth due to decay or gum disease between 2012-2014, with 36.1 percent of El Paso County adults reporting tooth loss while the state average was 36.8 percent. For children in El Paso County, approximately 12.5 percent of third graders had untreated decay, and 50.1 percent of third graders had received protective sealant on at least one permanent molar, compared to the state average of 44.9 percent.<sup>2</sup> Dental sealants can prevent up to 80 percent of tooth decay on treated teeth.<sup>3</sup> The Healthy People 2020 goal for children ages 6-9 with dental sealants is 28.1 percent.

## Fluoridated Water: an Oral Health Prevention Tool

Community water fluoridation is the easiest, safest, and most effective way to minimize tooth decay and the incidence of cavities. Studies show that community water fluoridation reduces the incidence of tooth decay by as much as 40 percent.<sup>4</sup> Optimally fluoridated water, which is 1 part per million fluoride, is especially helpful for children who may not have regular access to dental care. Figure 1 shows how many people in El Paso County have access to fluoridated water from their public or private drinking water systems.<sup>5</sup> El Paso County's access to fluoridated water rate of 8.7 percent is significantly lower than the state rate of 74 percent and the Healthy People 2020 goal of 79.6 percent. This means that children and adults should talk with their dentists about proper fluoridation from other sources, such as fluoridated toothpastes and dental rinses, and the proper methodology for brushing to protect teeth.

**Figure 1: Percent of Public Water Supply Population Receiving Optimally Fluoridated Water, 2014**



<sup>1</sup>World Health Organization [Internet]. Oral Health. Fact Sheet Number 318; April 2012. Available from: [www.who.int/mediacentre/factsheets/fs318/en/index.html](http://www.who.int/mediacentre/factsheets/fs318/en/index.html).

<sup>2</sup>Colorado Department of Public Health and Environment [Internet]. VISION: oral health, data by county. Available from: <https://www.colorado.gov/pacific/cdphe/vision-data-tool>.

<sup>3</sup>Healthy People 2020 [Internet]. Oral Health. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health>.

<sup>4</sup>Healthy People 2020 [Internet]. Oral Health. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health>.

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Fluoride Facts. Available from: <http://www.cofluoridefacts.org/>

# Tobacco Use

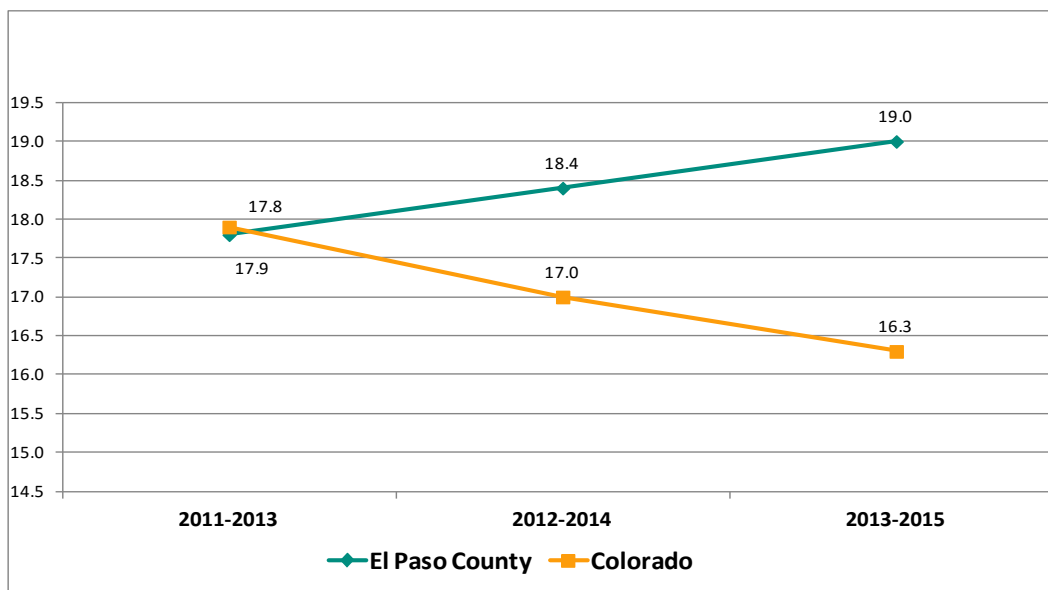
Tobacco use is the leading cause of preventable death in the United States, causing approximately 443,000 Americans to die from tobacco-related illnesses each year.<sup>1</sup> Smoking harms nearly every organ and system in the body and has a causative relationship with a multitude of diseases and negative health outcomes, including many cancers, especially lung cancer, heart disease, stroke, asthma, type 2 diabetes, and chronic obstructive pulmonary disease.<sup>2</sup> Females who smoke are at an increased risk for infertility, preterm delivery, or having a baby with low birth rate, and their infants are at a higher risk for Sudden Infant Death Syndrome (SIDS).

Second-hand smoke, which is exposure to smoke from a burning tip of a cigarette or other smoking device, or smoke exhaled from a smoker's lungs, exposes non-smokers to the same toxins and carcinogens as smokers.<sup>3</sup> It is estimated that secondhand smoke causes nearly 34,000 heart disease deaths and 7,300 lung cancer deaths each year among adult nonsmokers in the United States.<sup>4</sup> Nonsmokers who are exposed to secondhand smoke at home, work, or other public places increase their risk of developing heart disease by 25 to 30 percent, and increase their risk of lung cancer by 20 to 30 percent.

## How are we doing in El Paso County?

Although cigarette smoking rates among adults in Colorado have declined in recent years, they are steadily increasing in El Paso County (Figure 1).<sup>5</sup> In 2015, 19 percent of adults ages 18 and older were current smokers. This smoking rate was higher than the Colorado average of 16.3 percent and substantially higher than the Healthy People 2020 goal of 12 percent.<sup>6</sup>

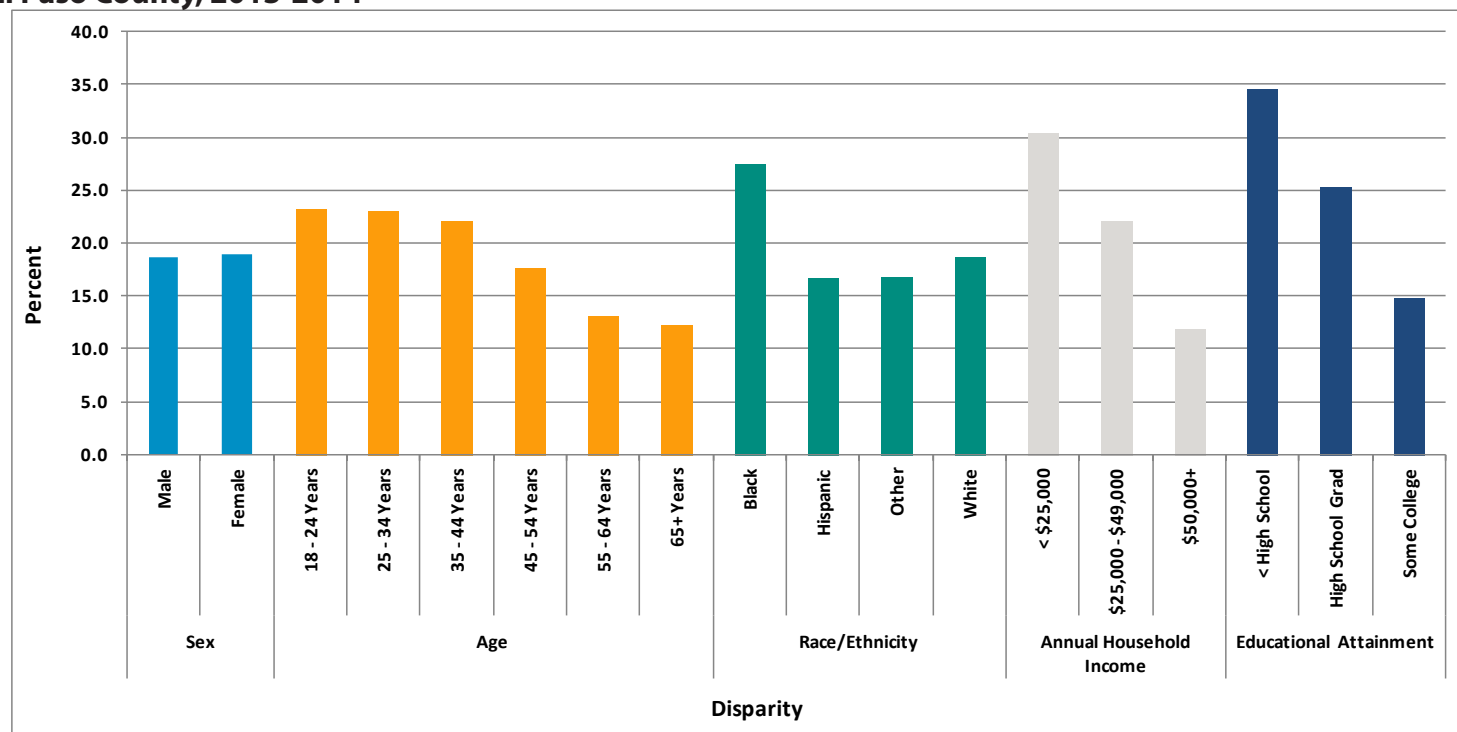
**Figure 1: Current Smoking Adults Aged 18+ Years, El Paso County and Colorado, 2011-2015**



There are disparities among people who smoke in El Paso County, based on age, race/ethnicity, and socioeconomic factors such as annual household income and level of education. As Figure 2 indicates, smoking rates are highest in adults ages 18 to 34 with a significant decline in smoking rates in adults age 45 and older.<sup>7</sup> African-Americans have higher rates of smoking than other ethnicities, at 27.4 percent of adult smokers. Those with a household income of less than \$25,000 per year were almost three times more likely to smoke when compared to people who have a household income of \$50,000 or more per year. Congruently, more adults with less than a high school education are smokers (34.5 percent), whereas those who graduated high school and those who had some college education had much lower rates of smoking (25.3 and 14.8 percent, respectively).



**Figure 2: Prevalence of Current Adult Smokers Aged 18+ Years, by Sex, Age, Income & Education, El Paso County, 2013-2014**



Among pregnant smokers, the highest percentage of women who smoke before, during, and after pregnancy are women ages 20 to 24 years.<sup>8</sup> In 2014, 33 percent of females reported smoking prior to pregnancy in this age range, compared to 19 percent of women ages 15 to 19, 17.4 percent of women ages 25 to 34, and 21.8 percent of women age 35 and older. Most mothers, regardless of age, tend to stop smoking or cut back the amount they smoke during pregnancy, but some, especially those ages 20-24, begin smoking again after their baby is born.

Youth tobacco use data, illustrated in Table 1,<sup>9</sup> shows that in 2015, 22.4 percent of high school students in Colorado had used tobacco products in the past 30 days. This is a 5.1 percent increase from 2013, where only 17.3 percent of high school students reported using tobacco products.<sup>10</sup> The number of students who reported smoking cigarettes in 2015 decreased by 2.1 percent from the amount in 2013, but the percent of students who tried an e-cigarette increased substantially.

**Table 1: Tobacco Use Among High School Students, Grades 9-12, Colorado, 2015**

	Prevalence in 2015	Percent Change from 2013
Used Tobacco* in the Past 30 Days	22.4%	5.1%
Smoked Cigarettes in the Past 30 Days	8.6%	-2.1%
Have Ever Tried E-Cigarettes	46.2%	32.2%
Underage Current Smokers Who Typically Obtained Cigarettes by Buying in a Store or Gas Station	7.7%	-0.3%
Current Smokers Who Tried to Quit Within the Past 12 Months	54.0%	1.9%
*Tobacco includes cigarettes, cigars, cigarillos, little cigars, chewing tobacco, snuff and dip		

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<sup>1</sup>Healthy People 2020 [Internet]. Tobacco Use. Available from:

<https://www.healthypeople.gov/2020/topics-objectives/topic/tobacco-use>.

<sup>2</sup>Centers for Disease Control and Prevention [Internet]. Health Effects of Cigarette Smoking Fact Sheet. Available from:

[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/health\\_effects/effects\\_cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm).

<sup>3</sup>Centers for Disease Control and Prevention [Internet]. Second Hand Smoke Fact Sheet. Available from:

[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/secondhand\\_smoke/general\\_facts/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/general_facts/index.htm).

<sup>4</sup>Centers for Disease Control and Prevention [Internet]. Tobacco Related Mortality. Available from:

[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/health\\_effects/tobacco\\_related\\_mortality/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/tobacco_related_mortality/index.htm).

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors).

<sup>6</sup>Healthy People 2020 [Internet]. Tobacco Use. Available from:

<https://www.healthypeople.gov/2020/topics-objectives/topic/tobacco-use>.

<sup>7</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors).

<sup>8</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Behavioral Risk Factors Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy\\_Risk\\_Assessment\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy_Risk_Assessment_Data).

<sup>9</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Healthy Kids Colorado Survey 2015. Available from: <https://www.cohealthdata.dphe.state.co.us/>.

<sup>10</sup>Colorado Department of Public Health & Environment [Internet]. Colorado Health Information Dataset (CoHID): Healthy Kids Colorado Survey 2015. Available from: <https://www.cohealthdata.dphe.state.co.us/>. And Healthy Kids Colorado 2015 Survey [Internet]. Executive Summary. Available from: [https://www.colorado.gov/pacific/sites/default/files/PF\\_Youth\\_HKCS-Exec-Summary-2015.pdf](https://www.colorado.gov/pacific/sites/default/files/PF_Youth_HKCS-Exec-Summary-2015.pdf).

# Unintentional Injury

Nearly 30.6 million people visit the emergency room and 135,928 die from an unintentional injury or accident in the United States each year.<sup>1</sup> An unintentional injury has no predetermined intent and causes include motor vehicle crashes, falls, accidental poisonings, burns, drowning, choking, hypothermia, blunt force trauma, and anaphylaxis. Non-fatal injuries, depending on the cause and severity, can lead to chronic pain and disability and affect an individual's family, work, and social life. Motor vehicle crashes, unintentional poisonings, and falls are typically three of the main causes of accidental deaths among all ages in the U.S., and can be preventable in almost all situations.

## How are we doing in El Paso County?

Unintentional or accidental injuries are the leading cause of death among youth and adults ages 1 to 44 in El Paso County (2012-2014 data),<sup>2</sup> and are listed as one of the top five causes of death for all other age groups. The county saw more than 5,500 hospitalizations due to unintentional injuries from 2013 to 2014.<sup>3</sup> Figure 1 shows the top five leading causes of unintentional injury deaths in El Paso County from 2010 to 2014, listed by age group.<sup>4</sup> Motor vehicle accidents are consistently the first or second cause of death in every age group, with falls and accidental poisonings often the second or third leading cause of death.

Adults ages 20-24 and those age 65 and older saw the highest rates of hospitalization due to motor vehicle traffic injuries from 2012-2014 in both Colorado and El Paso County.<sup>5</sup> Motor vehicle traffic fatalities in El Paso County spiked in 2013 at 63 deaths, but have since been declining. There were 48 motor vehicle traffic fatalities in El Paso County in 2015, compared to 547 statewide.<sup>6</sup> This is still well below the Healthy People 2020 goal of 12.4 deaths per 100,000 population.

When delving into the characteristics of the 48 motor vehicle traffic fatalities that El Paso County saw in 2015, almost half of all fatalities were occupants in a passenger seat of the vehicle (all seat positions) (Table 1).<sup>7</sup> Eighty-two percent were unrestrained, meaning they were not wearing a seatbelt properly, or not wearing one at all; 20.8 percent were motorcycles, and of those (passenger or driver), more than half (60 percent) were not wearing a helmet. Alcohol was involved in 35.4 percent of fatalities, and speeding was involved in 31.3 percent.

**Table 1: Characteristics of Motor Vehicle Traffic Fatalities, El Paso County, 2015**

	Total (n=48)	Percent of All Fatalities
Passenger Vehicle Occupant (all seat positions)	22	45.8%
Unrestrained Vehicle Occupant	18	81.8%
Motorcycles	10	20.8%
Unhelmeted Motorcyclist or Rider	6	60.0%
Alcohol Involved	17	35.4%
Speeding-Related	15	31.3%

**Figure 1: Top 5 Leading Causes of Accidental Death in El Paso County, 2014**

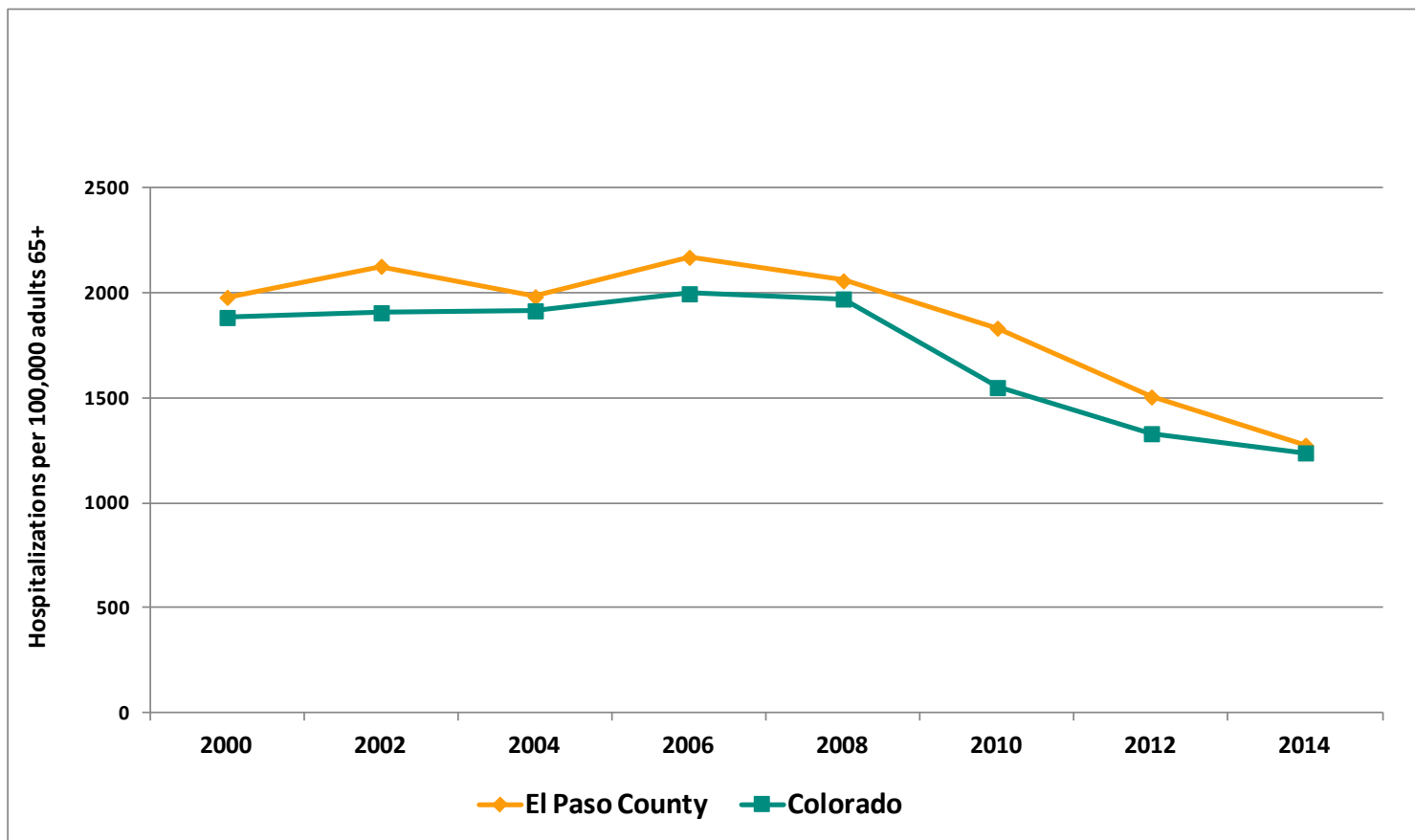


\*Other non-transport accidents include death by explosion, electricity, hot substance, lightning, flood, or avalanche

\*\*Unspecified non-transport accidents, in these categories, include blunt force trauma, hypothermia, exsanguination, anaphylaxis, among others

Falls are the leading cause of injuries and deaths from injuries among older Americans. Fall-related injuries are costly in monetary terms, and have a negative impact on family life and independence, especially for older adults.<sup>8</sup> As shown in Figure 1, falls are the number one cause of accidental death for adults aged 65 and older in El Paso County. The rate of fall-related hospitalizations has been declining since 2008 (Figure 2).<sup>9</sup> In 2014, there were 1,274.8 hospitalizations per 100,000 population, which is only slightly above the statewide average of 1,238.1 hospitalizations per 100,000 population.

**Figure 2: Rate of Fall-Related Hospitalization Adults Aged 65+ Years, El Paso County and Colorado, 2000-2014**



<sup>1</sup>Centers for Disease Control and Prevention [Internet]. Accidents or Unintentional Injuries. Available from:

<https://www.cdc.gov/nchs/fastats/accidental-injury.htm>.

<sup>2</sup>Colorado Department of Public Health and Environment [Internet]. CO Health and Environmental Data. Infographics and Reports/Injury Surveillance/ Reports/Injury in Colorado 2012-2014. Available from: <https://drive.google.com/file/d/0B2nM-3jK5N8pTEFxdzdDRGx1QW8/view>.

<sup>3</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID). Injury Hospitalizations. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury\\_Hospitalizations](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury_Hospitalizations).

<sup>4</sup>Colorado Department of Public Health and Environment [Internet]. CO Health and Environmental Data. Infographics and Reports/Injury Surveillance/ Reports/Injury in Colorado 2012-2014. Available from: <https://drive.google.com/file/d/0B2nM-3jK5N8pTEFxdzdDRGx1QW8/view>.

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID). Injury Hospitalizations. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury\\_Hospitalizations](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury_Hospitalizations).

<sup>6</sup>National Highway Traffic Safety Administration [Internet]. Fatality Analysis Reporting System (FARS). Available from: <https://www-fars.nhtsa.dot.gov/States/StatesCrashesAndAllVictims.aspx>.

<sup>7</sup>U.S. Department of Transportation: National Highway Traffic Safety Administration [Internet]. Traffic Safety Facts El Paso County Colorado 2011-2015 Available from: <http://www.cdacweb.com/Portals/0/TSRP/Prevention/2015%20traffic%20safety%20facts.pdf>

<sup>8</sup>Colorado Department of Public Health and Environment [Internet]. Falls Among Older Adults in Colorado Fact Sheet. Available from: <https://www.cohealthdata.dphe.state.co.us/chd/Resources/pubs/falls2.pdf>

<sup>9</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID). Injury Hospitalizations. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury\\_Hospitalizations](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury_Hospitalizations).



# Unsafe Sexual Practices and Unintended Pregnancy

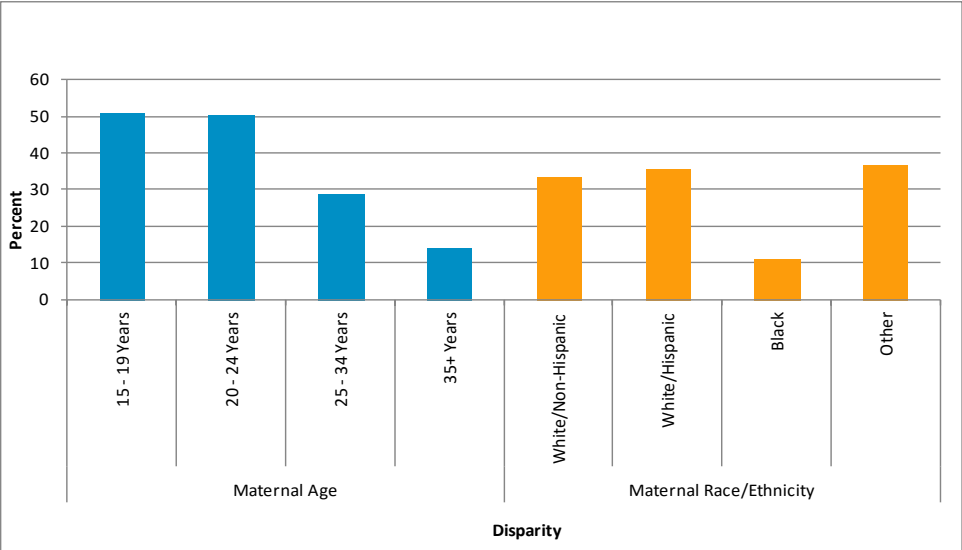
Unsafe sexual practices lead to adverse outcomes such as unintended pregnancy (especially for adolescents) and sexually transmitted infections (STIs), both of which are largely preventable. Unintended pregnancies are those that are unwanted or mistimed and are related to the individual behaviors and methods used to prevent pregnancy, and can be associated with negative health outcomes for both the mother and the children. Unintended pregnancy can happen at any age. Teen pregnancy and teen mothering are of special concern as they have been associated with repeat pregnancies and poor fetal or infant outcomes.<sup>1</sup> Long-term socioeconomic effects related to teen pregnancy also impact future health outcomes and are a result of the increased potential for single parenthood, marital instability, school dropout and lower educational attainment, unemployment, and welfare dependency.

STIs are contracted from unprotected sex with an infected partner. The majority of STIs are asymptomatic or produce symptoms so mild that they go unnoticed, leading to many serious health problems. Women suffer more frequent and more serious complications than men, including infertility, pelvic inflammatory disease, ectopic pregnancy, and cervical cancer.<sup>2</sup> These infections can also cause low birth weight, severe infection, and brain damage in newborns. It is estimated that there are 110 million total infections among men and women in the U.S. and 20 million new cases each year.<sup>3</sup> Half of those new cases are among young people ages 15-24 years, even though they represent just 25 percent of the sexually experienced population.<sup>4</sup>

## How are we doing in El Paso County?

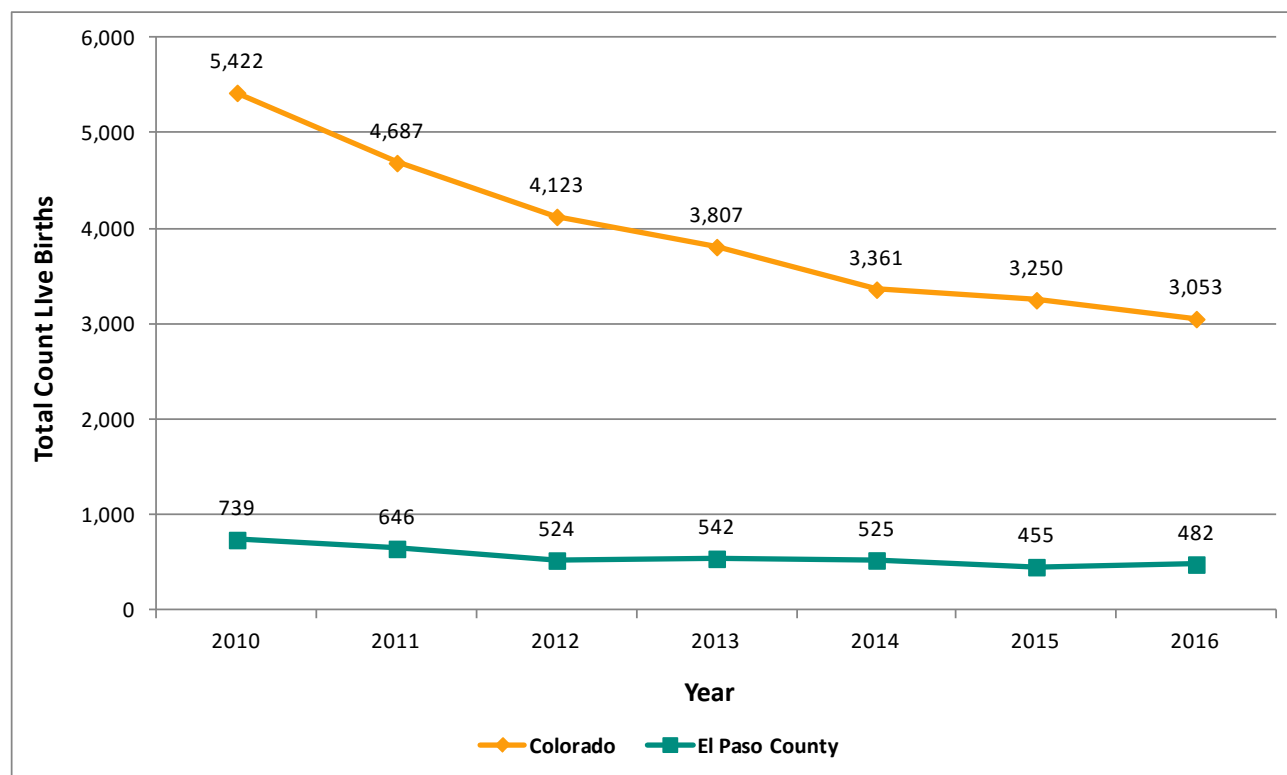
In El Paso County in 2014, 33 percent, or 1 in 3, pregnancies were unintended. Figure 1 illustrates the existing disparities among these unintended pregnancies.<sup>5</sup> Among women ages 15-19 years, just over half of pregnancies were unintended. The same rate exists among mother's ages 20-24 years. The rate of unintended pregnancies decreases among older age groups, with approximately 14 percent of all pregnancies among women aged 35 years or older reported as being unintended. Race and ethnicity also play a role statistically, as African-American women experience unintended pregnancy rates of 11.2 percent, which is three times lower than White/Hispanic, White/Non-Hispanic, and other race/ethnicity populations that experience rates between 33 and 37 percent.

**Figure 1: Unintended Pregnancies By Maternal Age, Race, and Ethnicity, El Paso County, 2014**



Teen birth rates in El Paso County and in Colorado have been trending downward in the past decade. Between 2010 and 2016, teen births among women ages 15 to 19 years in El Paso County declined almost 35 percent from 739 in 2010 to 482 in 2016 (Figure 2).<sup>6</sup>

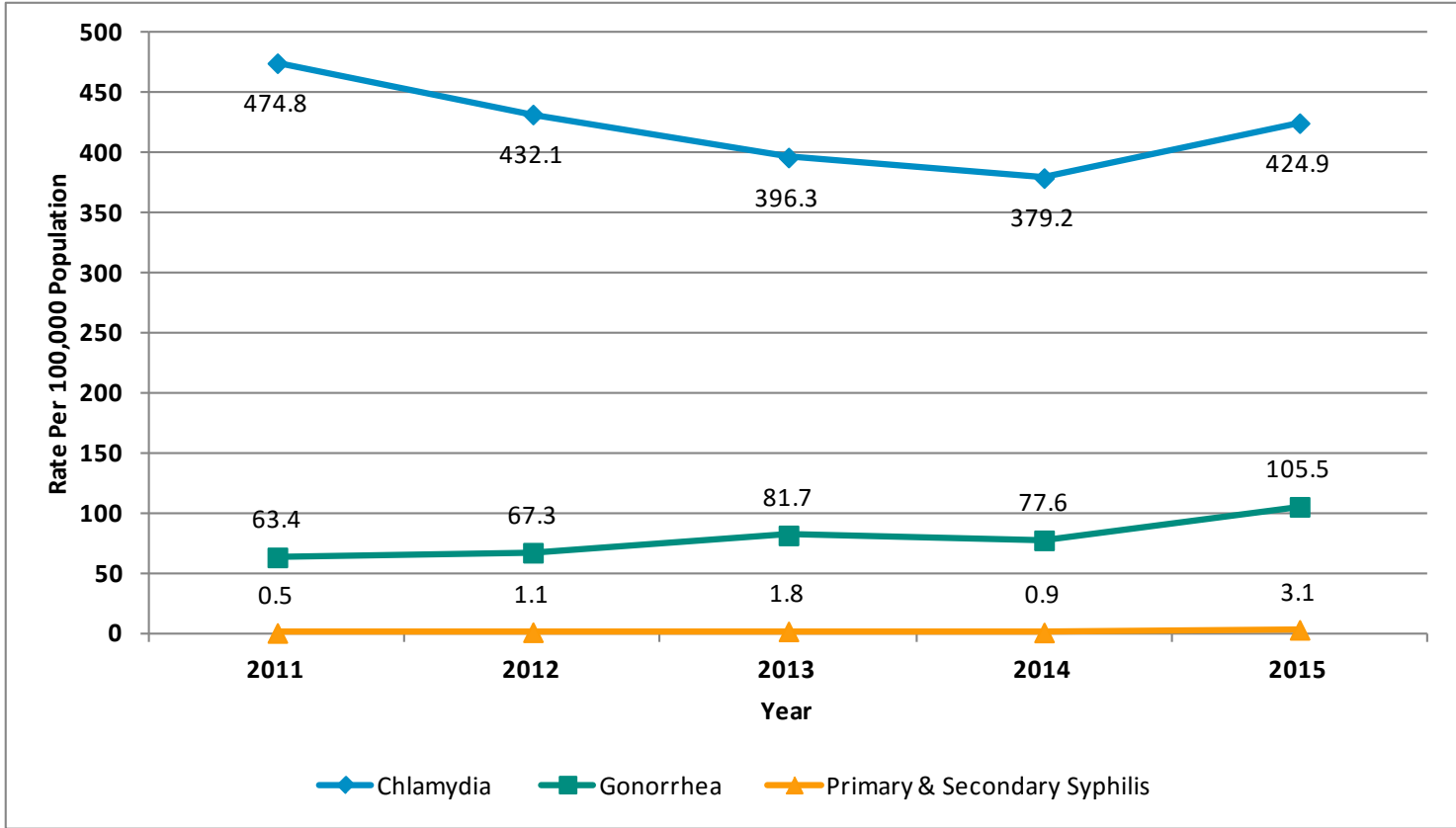
**Figure 2: Teen Births Among Women Aged 15-19 Years, El Paso County & Colorado, 2010-2016**



According to data from the Healthy Kids Colorado Survey 2013, just over 26 percent, or one in four, of high school students in El Paso County reported ever having sexual intercourse, compared to 33 percent, or one in three, of high school students in Colorado. This percentage had risen slightly to 35 percent in Colorado by 2015. Both rates are much lower than the national average of almost half (46.8 percent).<sup>7</sup> One in four students in Colorado in 2015 reported being sexually active in the past three months with one or more people. However, more students are putting themselves at risk of unintended pregnancy or contracting an STI as a result of decreased condom use. Only 60 percent of Colorado high school students reported using (or their partner using) a condom the last time they had sex, compared to 70.8 percent in 2011.

The rates of STIs for all ages in El Paso County increased between 2014 and 2015 (Figure 3).<sup>8</sup> Syphilis infections rose from 0.9 per 100,000 population in 2014 to 3.1 in 2015. Gonorrhea had the steepest rise of 36.0 percent, increasing from a rate of 77.6 per 100,000 population in 2014 to 105.5 in 2015. The most prevalent STI in El Paso County is chlamydia. Although chlamydia declined by 20 percent from a rate of 474.8 per 100,000 in 2011 to 379.2 in 2014, the rate increased by 12 percent in 2015 to 424.9 per 100,000.

Figure 3: Age-Adjusted Sexually Transmitted Infection Rates El Paso County, 2011-2015



Unsafe sexual practices also contribute to the incidence of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS). In El Paso County, there were 27 new diagnoses of HIV in 2015 and it is estimated that 428 people are living with HIV and an additional 308 are living with AIDS.<sup>9</sup> The rate of HIV infection in El Paso County is lower than Denver, Arapahoe, and Adams Counties.

<sup>1</sup>Robert Wood Johnson Foundation [Internet]. County Health Rankings. Sexual Activity. Available from: <http://www.countyhealthrankings.org/explore-health-rankings/what-and-why-we-rank/health-factors/health-behaviors/sexual-activity>

<sup>2</sup>Healthy People 2020 [Internet]. Sexually Transmitted Diseases Overview. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/sexually-transmitted-diseases>

<sup>3</sup>Centers for Disease Control and Prevention [Internet]. Sexually Transmitted Disease Surveillance 2016. Available from: [https://www.cdc.gov/std/stats16/CDC\\_2016\\_STDS\\_Report-for508WebSep21\\_2017\\_1644.pdf](https://www.cdc.gov/std/stats16/CDC_2016_STDS_Report-for508WebSep21_2017_1644.pdf)

<sup>4</sup>Centers for Disease Control and Prevention [Internet]. CDC Fact Sheet: Incidence, Prevalence, and Cost of Sexually Transmitted Infections in the United States. Available from: <https://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf>

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset (CoHID): Pregnancy Risk Assessment Monitoring System (PRAMS). Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy\\_Risk\\_Assessment\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy_Risk_Assessment_Data)

<sup>6</sup>Colorado Department of Public Health & Environment [Internet]. Colorado Health Information Dataset (CoHID). Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Birth\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Birth_Data)

<sup>7</sup>Colorado Department of Public Health & Environment [Internet]. Colorado Health Information Dataset (CoHID): Healthy Kids Colorado Survey. Available from: <https://www.cohealthdata.dphe.state.co.us/>

<sup>8</sup>Colorado Department of Public Health & Environment [Internet]. STI/HIV Data & Trends. Available from: <https://www.colorado.gov/pacific/cdphe/stihiv-data-and-trends>

<sup>9</sup>Colorado Department of Public Health & Environment [Internet]. STI/HIV Data & Trends. Available from: <https://www.colorado.gov/pacific/cdphe/stihiv-data-and-trends>

# Vaccine-Preventable Infectious Diseases

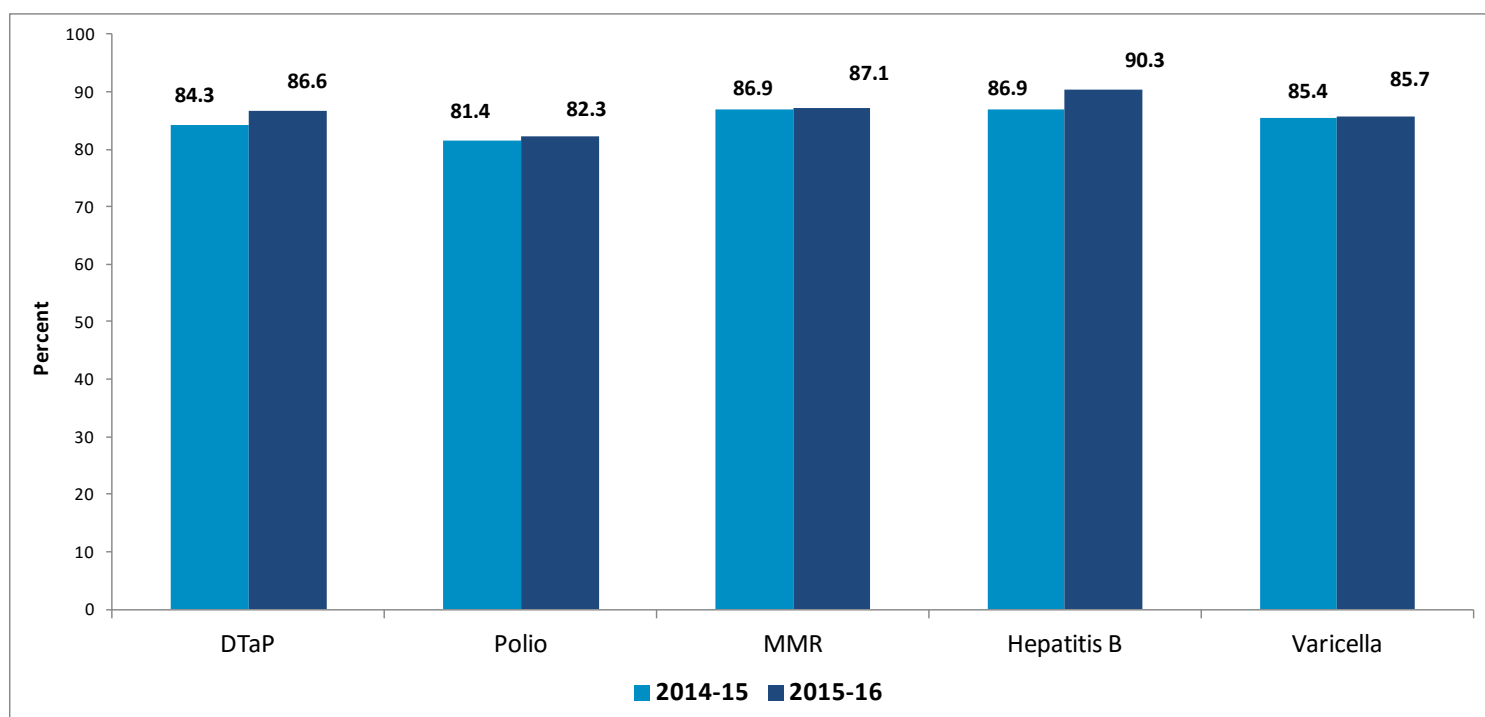
Immunizations are largely responsible for the increase in life expectancy in the United States during the 20th century because of their ability to increase childhood survival of certain diseases.<sup>1</sup> Immunizations are widely available for once common childhood infectious diseases such as polio, tetanus, measles, mumps, varicella (chickenpox), and pertussis (whooping cough). Vaccines protect individuals by inducing the production of protective antibodies against the germ, which either prevent infection from occurring or reduce the severity of illness. However, immunized people also help protect those in their home and community who are vulnerable to infectious diseases, including people with weakened immune systems that cannot receive vaccines or babies who are too young to receive vaccines. Despite generally high rates of vaccinations for many infectious diseases, pockets of unvaccinated and undervaccinated populations exist in communities and create an increased risk for outbreaks of vaccine-preventable diseases. Measles and pertussis outbreaks have spread across the country largely due to unvaccinated and under-vaccinated populations.<sup>2</sup>

## How are we doing in El Paso County?

Children entering Colorado schools and licensed child care centers must have received diphtheria-tetanus-pertussis (DTaP), polio, measles-mumps-rubella (MMR), Hepatitis B, and chickenpox vaccines according to the schedule adopted by the Centers for Disease Control and Prevention Advisory Council on Immunization Practices (ACIP).<sup>3</sup> Children may be exempted from vaccination requirements for medical, religious, or personal reasons so long as documentation is provided annually. In Colorado, vaccine uptake among kindergartners is rising slightly with 86.6 percent of children receiving the required doses of DTaP in 2015 compared to 81.6 percent in 2010 and 84.3 percent in 2014.<sup>4</sup> Figure 1 shows either a slight increase or level vaccination rates for DTaP, polio, MMR, Hepatitis B, and varicella from the 2014-15 school year to the 2015-16 school year.<sup>5</sup> For the 2015-16 school year, 4.3 percent of Colorado children claimed an exemption from vaccination, slightly less than the 5.4 percent claiming an exemption in the 2014-15 school year. The Healthy People 2020 goal is 95 percent of kindergartners having received the required vaccines prior to starting kindergarten.



**Figure1: Percent of Colorado Kindergartners Receiving Immunizations, 2014-2016**

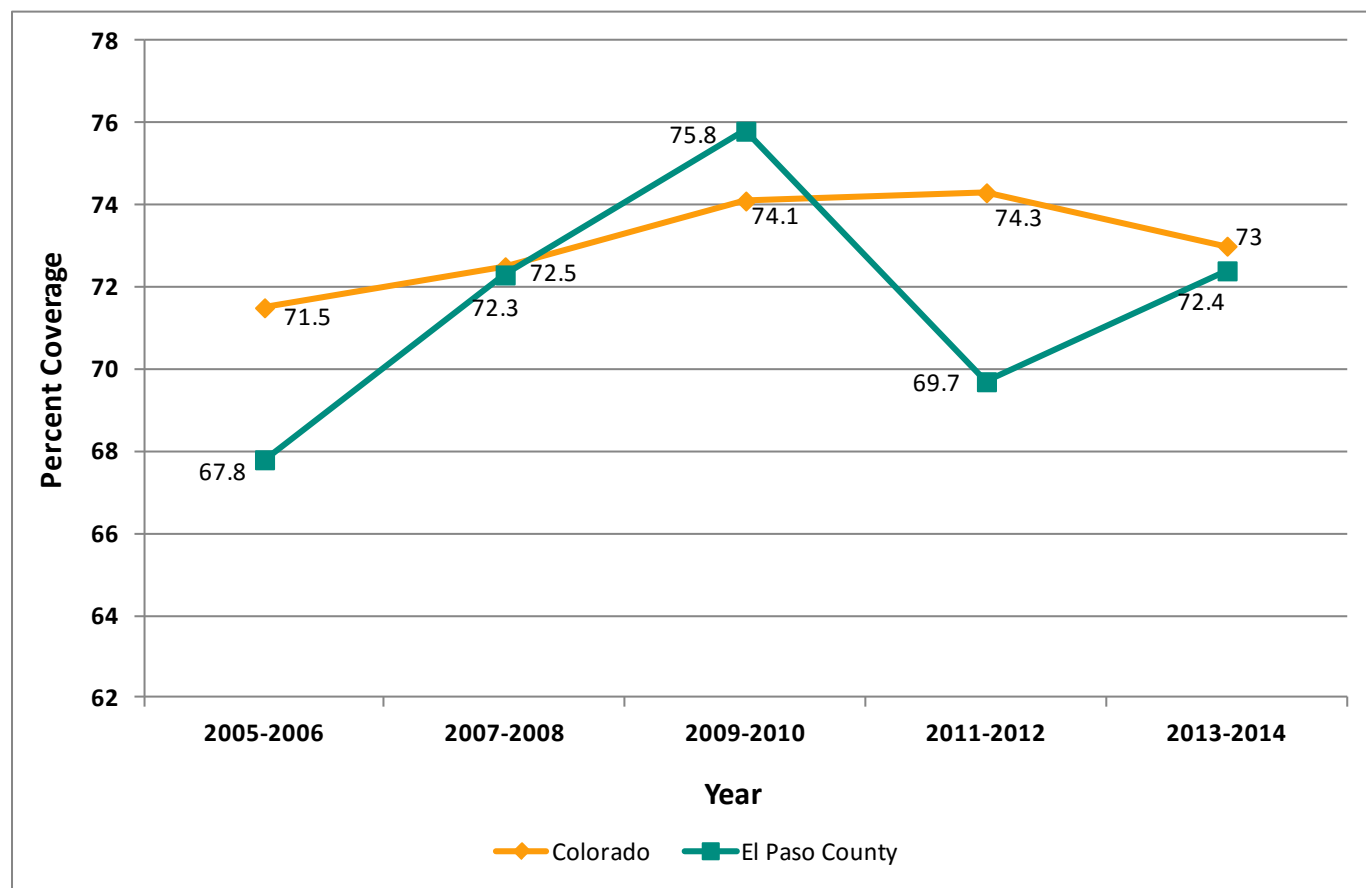


Data on immunization rates for adolescents (ages 13 to 17 years) shows more variability, in part because newer vaccines have just recently been recommended and more time is needed before a vaccine is commonly used in the population. Certain adolescent vaccines serve to boost immunity that has been lost over time from childhood immunizations (e.g., MMR). Other immunizations are recommended for adolescents because this age group is more susceptible to certain diseases (e.g., meningitis, human papillomavirus). In 2015, between 61 and 70 percent of adolescents have received the MMR and pertussis (TDaP) booster doses, approximately 70 percent have received the vaccine to prevent meningitis, approximately 30 percent of females have received the complete series of human papillomavirus (HPV) vaccine, and between 10 and 20 percent of adolescent males have received the HPV series.<sup>6</sup>

For adults over age 65 years, the pneumococcal vaccine is recommended to protect against the bacteria, which is contagious when people are in close contact, and can lead to serious health problems such as pneumonia and meningitis. Illnesses caused by pneumococcal bacteria can be deadly for people over age 65 years, people with chronic health conditions, and people with immune systems weakened by disease or by some medicines.<sup>7</sup> In El Paso County, uptake of the pneumococcal vaccine among adults age 65 years and older has increased from 67.8 percent in 2005 to 72.4 percent in 2014 (Figure 2).<sup>8</sup> El Paso County's rate is approximate with the overall state rate of 73.0 percent of adults.



**Figure 2: Pneumococcal Vaccination Coverage Rate, Adults Ages 65 Years or Older, El Paso County and Colorado, 2005-2014**



<sup>1</sup>Centers for Disease Control and Prevention. Achievements in public health, 1900–1999: Control of infectious diseases. MMWR. 1999 Jul 30;48(29):621-9.

<sup>2</sup>Healthy People 2020 [Internet]. Immunization and Infectious Diseases. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases>.

<sup>3</sup>Colorado Department of Public Health and Environment [Internet]. Vaccine Exemptions. Available from: <https://www.colorado.gov/pacific/cdphe/vaccine-exemptions>.

<sup>4</sup>El Paso County Public Health [Internet]. El Paso County Health Indicators 2012 Report. Available from: <https://www.elpasocountyhealth.org/sites/default/files/files/Vaccine.pdf>.

<sup>5</sup>Colorado Department of Public Health and Environment [Internet]. Kindergarten School Immunization Survey 2015-2016. Available from: <https://drive.google.com/file/d/0B780P7IZRsVvTWM1R2JTSkN3eHFSbV96ZDhaYnZ0NUI1RURZ/view>

<sup>6</sup>Colorado Department of Public Health and Environment [Internet]. Colorado Immunization Information System. Available from: [https://cohealthviz.dphe.state.co.us/t/DCEED\\_Public/views/CountyRateMaps/](https://cohealthviz.dphe.state.co.us/t/DCEED_Public/views/CountyRateMaps/)

<sup>7</sup>Centers for Disease Control and Prevention [Internet]. Adults: Protect Yourself with Pneumococcal Vaccines. Available from: <https://www.cdc.gov/features/adult-pneumococcal/index.html>.

<sup>8</sup>Colorado Department of Public Health and Environment [Internet]. Behavioral Risk Factor Surveillance System. Available from: <http://www.chd.dphe.state.co.us/cohid/Default.aspx>

# Glossary of Terms

**Age-adjusted Rate:** Rate of a disease or health condition for a given population that has been standardized to control for the influence that different age groups might have on health-related events when comparing populations. Age-adjusted rates are commonly used when comparing death data between two populations.

**Age-specific Rate:** Rate of a disease or health condition for a particular age group within a given population. Teen fertility rates are one example.

**Census Tract:** A small, relatively permanent statistical subdivision of a county created for the purpose of presenting data. Census tracts are designated by the United States Census Bureau and intended to be homogeneous with respect to population characteristics, economic status, and living conditions. Census tracts usually have between 2,500 and 8,000 persons and do not cross county boundaries. The spatial size of census tracts varies widely depending on the density of a particular settlement.

**Healthy People 2020:** Health goals defined at the national level by the Department of Health and Human Services, which communicate a vision for improving health and achieving health equity with a set of specific measurable objectives; these objectives are defined as targets to be achieved by the year 2020.

**Incidence:** Measures the occurrence of new cases of a disease, health condition, or health-related event that occurs within a specified population over a period of time (commonly on an annual basis). For example, the number of Colorado children newly diagnosed with asthma during 2011. Incidence is commonly reported as a rate of disease or condition per 100,000 population.

**Margin of Error/Error Bars:** When measurements are calculated from a sample of people within a population, these values are subject to a level of uncertainty or error. This uncertainty can be represented through the use of a margin of error, which indicates a range of values for which there is a 95 percent probability of containing the true value for the entire population.

**Morbidity:** A general term used to describe the occurrence of disease or health conditions. Morbidity does not include death.

**Poverty Threshold:** Income thresholds developed by the United States Census Bureau that incorporate the size and composition of a family to determine who is in poverty. If a family's income is less than the family's poverty threshold, then that family and each individual member is considered to be in poverty. These thresholds are updated annually to account for inflation. The Census Bureau's poverty thresholds are calculated differently than the poverty guidelines issued by the Department of Health and Human Services to determine eligibility for public assistance.

**Prevalence:** Measures the presence of existing cases of a disease, health condition, or other attribute within a population at a specific point in time. For example, the proportion of Colorado adults who were current smokers in 2011.

**Proportion:** The ratio of a part to the whole, commonly expressed as a percent.

**Rate:** A measure of frequency used to describe how often a disease, health condition, or health-related event is occurring in a population. Fertility rates, incidence rates, and mortality rates are common examples.