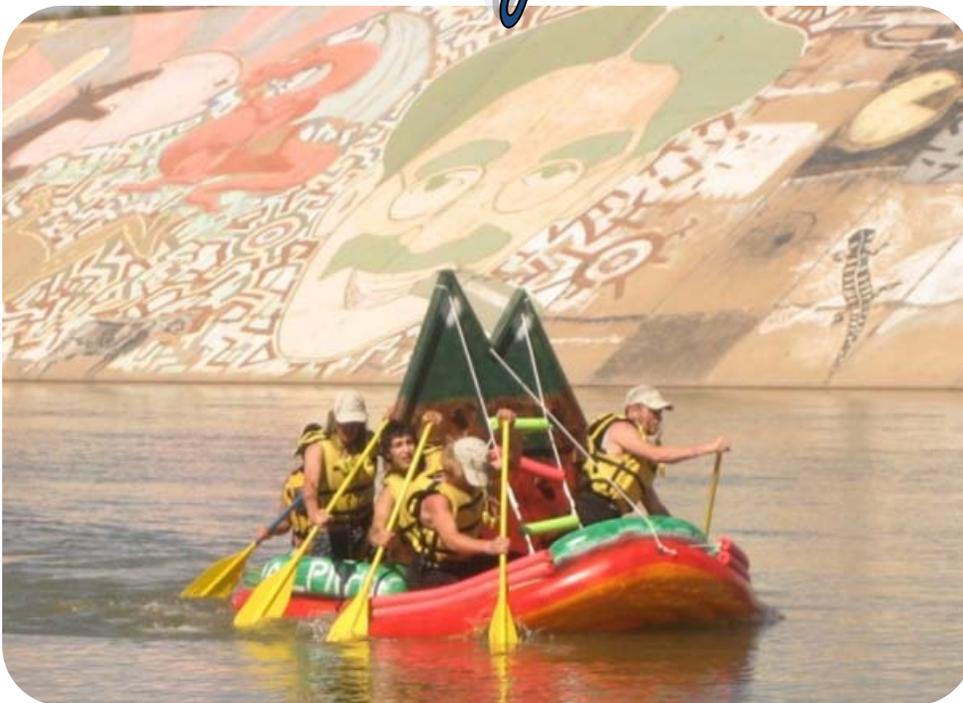




# Pueblo County *Community Health Status Report*

# 2011



## from the **Public Health Director**



The Pueblo City-County Health Department is pleased to present Pueblo's 2011 Community Health Status Report. This is the first public health status report conducted in Pueblo County. This report comes on the heels of many other important assessments done in Pueblo's past, including those that looked at the economy and housing, human investment, and much more.

Pueblo's 2011 Community Health Status Report highlights over 65 public health indicators or data points. Many of these indicators illustrate the strengths and weaknesses of Pueblo's public health system, including access to health care, obesity, mental health, substance abuse, and teen pregnancy. The intention of this report is to serve as a resource for Pueblo's elected officials, public health partners, and the public. In addition, the report will assist the local public health system, partners, and public in the following:

- Planning (determining priorities for actions, identifying areas to invest resources, developing program and policies to address needs)
- Evaluating (assessing results of those decision and actions)

The community health assessment is a systematic process in which data is collected from community members and databases, which reveals public health gaps and strengths within Pueblo County. The health assessment results are an important reference when attempting to develop strategies to mobilize communities and address critical public health issues.

Releasing the findings of Pueblo's 2011 Community Health Status Report is an important first step in creating a healthier Pueblo County. Our community relies on the health and vitality of its members to thrive. Creating and maintaining a healthy community is a team effort in which community members and agencies put forth a vast amount of effort, time, and dedication.

To stay involved with the community health assessment process or to review assessment documents, please visit Pueblo City-County Health Department's website at [www.pueblohealthdept.org](http://www.pueblohealthdept.org)

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# Executive Summary

## *Introduction*

On July 1, 2008, Colorado public health agencies were charged with developing plans and setting priorities under the Colorado Public Health Reauthorization Act, Senate Bill 08-194. The Act's key principle is to assure that consistent standards of quality public health services are available to everyone in Colorado. Local public health agencies are required to prepare a county public health plan that examines data, assesses capacity, and identifies strategies for improving health.

In order to comply with Colorado Senate Bill 08-194, Pueblo City-County Health Department (PCCHD) partnered with various county-wide organizations and individuals to complete the Community Health Status Report. The purpose of the assessment is to assist Pueblo in creating a Public Health Improvement Plan for the next five years, choosing appropriate strategies, and deciding which various public health organizations and partners will help to improve the overall health of Pueblo residents.

As stated in the PCCHD mission, the Health Department is committed to protecting the environment and promoting the health of Pueblo County residents. Established in 1952, PCCHD has been an important entity in the health and livelihood of Pueblo County, providing immunizations, family planning services, environmental health inspections, monitoring water and air quality, health education, disease investigation and more. These services are offered by the Department's four divisions: Operations and Administrative Services, Community Health Services, Disease Prevention and Emergency Preparedness, and Environmental Health Services.

Phase I of the assessment work began in May 2010. Activities included identifying team

members, receiving department support, establishing a budget, and setting goals and timelines. Team members also served on the larger statewide indicators and assessment taskforce, providing important input into the statewide assessment process. Beginning in January 2011, Phase II of the assessment work began and involved establishing relevant public health indicators and collecting qualitative data. This data is the building block for this Community Health Status Report.

Individuals from PCCHD were picked to serve as the Community Health Assessment Team Internal (CHATI) to provide guidance and assistance to the process. CHATI members were comprised of two individuals from each of the four PCCHD divisions. In addition, a Community Health Assessment (CHA) Steering Committee of external partners was established. The intention of this group was to provide advice and reduce assessment and strategy duplication. Both the CHATI and CHA Steering Committee have been integral to structuring and reviewing this Community Health Status Report.

Pueblo's Community Health Status Report data was compared to several similar counties in Colorado. The county comparison is useful to establish best practices, as well as gauge progress in the health indicators areas. Comparisons with counties of similar population and size or geographic proximity can best align local efforts. In other ways, the county comparison can be utilized as a health ranking tool across the state. In this report, Pueblo County indicators are compared to the indicators from El Paso, Fremont, Huerfano, Mesa, Otero, and Weld counties.

# Overview of Past Assessments

Over the last 10 years, several assessments regarding some aspect of the perceived health concerns of Pueblo County have been conducted. Each report provides a unique perspective. Examining these reports for commonalities is important to understanding the health needs of the community. Three such reports were summarized: the Pueblo County Human Investment Plan, the Housing and Community Development Study, and Triple Aim community meeting. All of these assessments provide some insight into the past health concerns of Pueblo.



## Assessment #1

### Pueblo Community Human Investment Plan

The Pueblo Community Human Investment Plan was published in 2001 by the Pueblo Area Council of Governments (PACOG). The report focused on six basic systems, including economic empowerment, personal and community wellness, access to places and resources, youth support, special care, and leadership/networking. Primary data (questionnaires) and secondary data (existing data sets) were used for the report. Questionnaires were distributed in three ways.

The first was sent to randomly selected households (4,000 with a 10% response rate). The second was sent to targeted households (1,170 with a 25% response rate). The final was handed out at key person interviews (information about the number of surveys handed out or the response rate was not discussed for this method of distribution).

The surveys targeted several areas that addressed issues such as household problems, barriers to service, community concerns, and quality of life concerns. For the purpose of this report, the top health concerns facing the community are most relevant. The top five most related to health include:

1. Teen pregnancy
2. The need for more medical services for low income and moderate-income individuals
3. Under-employment
4. Mental health
5. Decline in the integrity of the family structure

## Assessment #2

### 2009 Housing and Community Development Study

The 2009 Housing and Community Development Study was sponsored by the City of Pueblo, Pueblo County, and the United Way. Components of health were identified through some of the key priorities of the report, which included decent housing, suitable living environment, and expanded economic opportunities. Primary research was conducted using three surveys. The surveys were distributed to local social service agencies, households within the county, and donors of the local United Way. In addition, focus groups and stakeholder interviews were held. Secondary research used for the report included data on employment, market

conditions, income, housing gaps, etc. Specific health indicator data was not mentioned.

Results from the surveys discussed above suggested definitively that health services (as identified by totaling all three surveys) had the greatest need of attention in the community.

The top five concerns are listed below:

1. Health services
2. Youth services
3. Education
4. Unemployment
5. Crime prevention

### Assessment #3

#### Triple Aim Community Meeting

Triple Aim is a framework supported by the Institute for Healthcare Improvement (in partnership with Pueblo County) to address three issues:

1. Population health
2. Patient experience
3. Per capita costs

The Triple Aim process is on-going in Pueblo. Through Triple Aim, Pueblo County partners

may use the following outcome measures for these identified areas. They include health/functional status, risk status, disease burden, mortality, patient satisfaction, health costs per person, and hospital and emergency utilization rates. These kinds of measures can therefore be obtained through primary (survey or questionnaires) and secondary data.

A preliminary survey of 30 public health partners was conducted in October 2010. Participants were asked to identify two issues that they felt were most important in each of the three realms of the Triple Aim framework. Survey results from public health partner organizations suggested that the top health concerns included:

1. Obesity and teen pregnancy
2. Substance abuse and mental health
3. Diabetes and heart disease

# Community Description

Pueblo County covers a total area of 2,400 square miles. Surrounding counties include El Paso, Crowley, Otero, Huerfano, Fremont, and Custer. In Pueblo County, there are 10 incorporated towns or cities. The Arkansas River runs through Pueblo County as it heads to the Mississippi River.

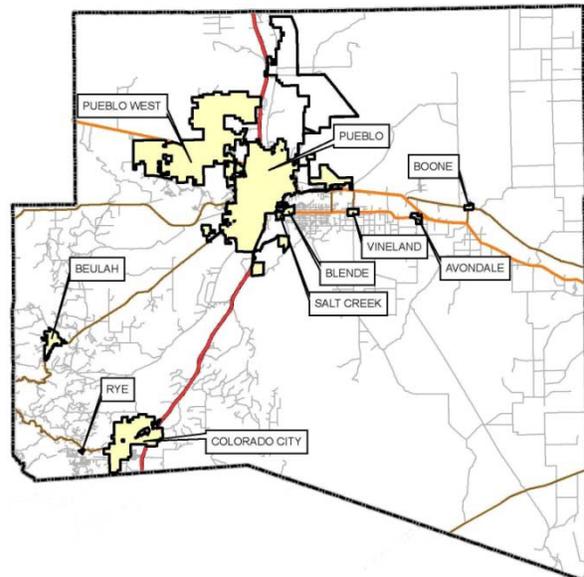
## Population Description

In this section, basic characteristics of Pueblo County's population are described, such as age, gender, and race/ethnicity.

In 2010, the population estimate in Pueblo County was 159,063. The population of Pueblo County increased 1.2 percent from 2000 to 2010. Fifty-one percent of the population is female and 49 percent is male (1).

## Age

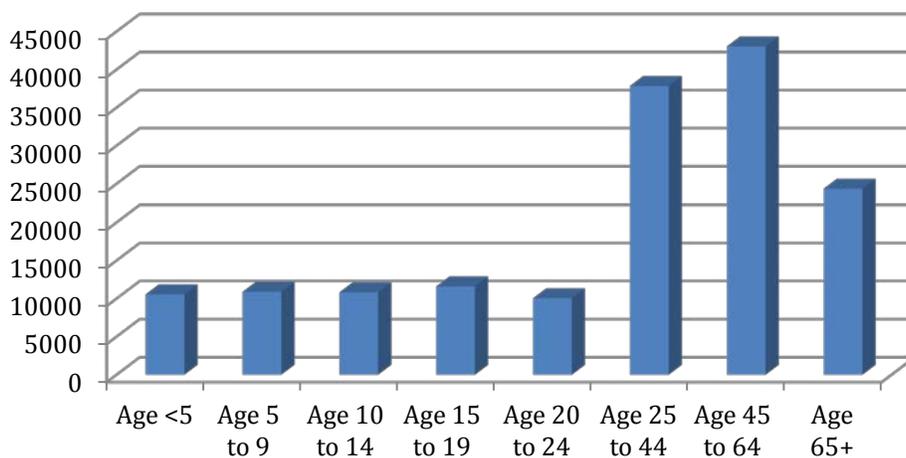
Twenty-seven percent of the population is under 19 years of age and 15 percent is 65 years and older (1, 2).



## Race/Ethnicity

Based on 2010 Census Bureau data, the Hispanic population increased from 2000 to 2010. The percentage of the Hispanic population in Pueblo is 41 percent, 20 percent larger than the State average (3).

**Population by Age in Pueblo County  
2010**



# Social Determinants of Health

## *ECONOMIC INDICATORS*

Economic indicators impact markets, economic performance, and predictions of future performance. Local economic indicators can include unemployment rates, housing statistics, and more. The estimated unemployment in Pueblo County was 9 percent in 2009 (4).

### *Income*

Median household income is defined as the combined income of any individuals 15 years and over living in the household. In 2009, the estimated household median income in Pueblo County was \$38,780. In 1999 it was \$32,775. The household median income in Pueblo County increased 18.3 percent from 1999 to 2009. However, Pueblo County's income ranks far lower than the State average and other counties (4).

### *Poverty*

Poverty is determined by the federal government using income and family size. In 2009, poverty rates for adults and children were high: 16.9 percent of the total population lived below the Federal Poverty Level (FPL) and 26.5 percent of children under 18 years of age lived below the FPL (5).

### *Free and Reduced Lunch Eligibility*

The percentage of students enrolled in free and reduced lunch is often used as an indirect measure of poverty. In Pueblo County, 56.6 percent of students were eligible for free or reduced lunch in 2010. The number of students increased since 2000, when 46.3 percent were eligible (6).

### *Food Stamp Recipients*

In Pueblo County, the average number of food stamp recipients have climbed in the last three years, which is consistent nationwide.

Food stamp recipients spend their benefits to buy eligible food in authorized retail food stores. More individuals in Pueblo County received food stamps in 2010 (13,760) than in 2008 (10,246), possibly an indication of the economic downturn and higher unemployment (7).

## *EDUCATION*

Education is universally recognized as one of the most fundamental building blocks for human development and poverty reduction. Over 42,000 students are enrolled in education (from pre-school to college/university) in Pueblo County. A majority of these students are enrolled in elementary and high school. While 9.7 percent of the population never finished high school in Pueblo County, many Puebloans return to school to receive their GED, high school diploma, associate's, or bachelor's degree at a later date. In addition, the percent of Puebloans with a Bachelor's degree and higher is at 22.4 percent (8)--an increase from 2006-2008.

### *Graduation Rate*

The high school graduation rate in 2010 was 68.3 percent in Pueblo. This rate is approximately 8 percent lower than the State average (6). The graduation rate was higher among females than males in all of Colorado in 2010. In Pueblo County, the graduation rate is 5 percent higher among females than males (6).

2010 graduation rates differ among race/ethnicity. The highest to lowest rates were as follows: Asian (80 percent), Black (76.5 percent), White (75.3 percent), American Indian (71.1 percent), and Hispanic (60.2 percent) (6).

# Physical Environment

## **BUILT ENVIRONMENT**

Built environment includes all of the physical parts of where we live, work, and play (e.g., homes, buildings, streets, open spaces, and infrastructure). A built environment influences a person's level of physical activity (9).

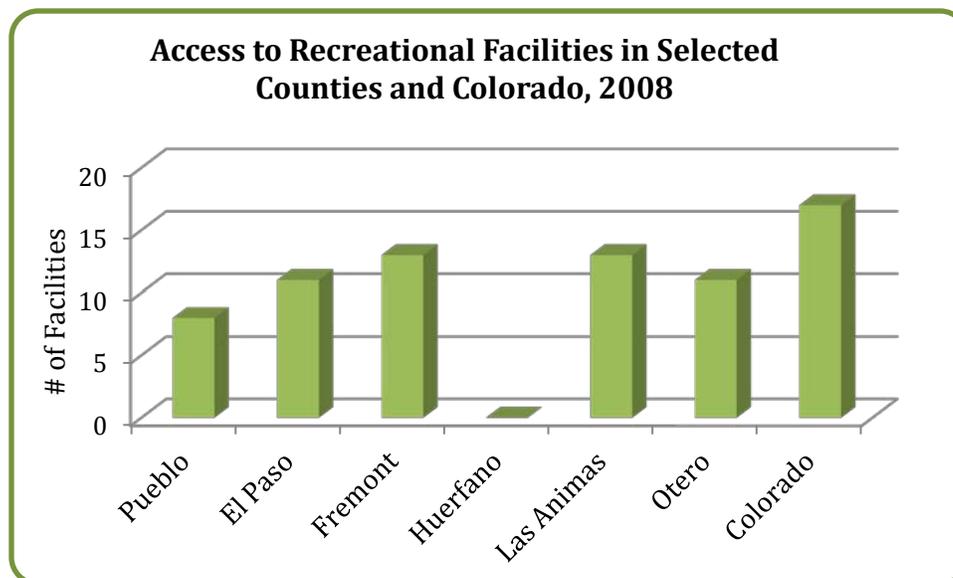
### **Access to Recreation**

The availability of recreational facilities can influence individuals' and communities' choices to engage in physical activity. Recreational facilities are defined as establishments engaged in operating fitness and recreational sports activities. The national benchmark recommends 17 recreational sites per 100,000 people. Pueblo County has only 8 recreational sites per 100,000 people. This count is lower than most surrounding counties and the national benchmark (10).

to El Paso (.65), Fremont (.88), Huerfano (1.55), and Otero (1.18) for every 1,000 people (10).

## **SAFETY**

Conditions in Pueblo County neighborhoods have major health effects. Social, physical, and economic features of neighborhoods have been linked with death, general health status, disability, birth outcomes, chronic conditions, health behaviors and other risk factors (11). For example, pollution or crime in neighborhoods can be hazardous to health. They can also severely limit the choices and resources available to individuals. For example, an individual's ability and motivation to exercise can be constrained by living in a neighborhood that lacks safe areas for exercise and where healthy role models are scarce.



### **Fast Food Restaurant Establishments**

The concept of eating on the go, or fast-food, has increased tremendously since the 1960s. As data shows, an individual's eating habits can affect everything from his/her ability to concentrate in school to other chronic health conditions. Pueblo has .76 fast food establishments per 1,000 people as compared

### **Violent and Property Crime Rates**

Violence is a major public health problem. There were more than 5 million violent crimes nationwide in 2007, including 248,280 sexual assaults and 597,320 robberies (12). In Pueblo County from 2002-2009, rates of juvenile and adult homicide, forcible rape, and aggravated assaults were fairly constant.

“Other assaults”, which is defined by the Colorado Bureau of Investigation as an assault not involving the use of a firearm, knife, cutting instrument, or other dangerous weapon in which the victim did not sustain serious or aggravated injuries started out high in Pueblo County, but eventually dipped after 2007 (13).

### *Property Crime Rates*

Juvenile and adult property crimes have decreased since 2002 with dramatic dips in larceny among both groups in Pueblo County (13).



### *Number of Liquor Stores*

The concentration of liquor stores influences the amount of alcohol advertising and access to alcohol in a community. A high density of liquor stores can also contribute to economic and social disintegration. Studies indicate that the over-concentration of liquor stores increases the perceived lack of safety and limits walkability in the community (14). In 2006, Pueblo County had 2.4 liquor stores per 10,000 people—a rate similar to the Colorado average (15).

## **ENVIRONMENTAL QUALITY**

Environmental quality encompasses both indoor and outdoor measures of health, including household hazards, air quality, and water quality. These are important prerequisites for good health. Having safe food and water and maintaining healthy homes and businesses positively impacts health and quality of life (16).

### *Healthy Housing*

For most Americans, a home represents a place of safety, security, and shelter. Given its importance, it is not surprising that factors related to housing have the potential to help—or harm—our health in major ways. The 2009 United Way Pueblo County Evaluation (17) reported that in Pueblo County there is a large deficit of rental housing for lower socioeconomic status individuals and families. In addition, the portion of Pueblo County households spending more than 30 percent of their incomes on housing increased from 31 to 39 percent from 2000 to 2008.

### *Rental vs. Homeownership*

In 2009, renting in Pueblo County was estimated at 32 percent and home ownership at 68 percent (18).

### *Radon*

Radon is a naturally-occurring, odorless, invisible, radioactive gas that is listed as a Class “A” carcinogen. Radon can be found in outdoor air and indoor air of buildings and homes. You cannot see, smell or taste radon, but it may be a problem in a home. Radon can be found all over the world because it comes from the natural decay or breakdown of uranium and radium in soil, bedrock, rocks and water. Radon is the second-leading cause of lung cancer deaths in the U.S., and the leading cause of lung cancer deaths among non-smokers. The Environmental Protection Agency (EPA) recommends homes be mitigated if the radon level is 4 pCi/L (pico Curies per Liter) or more. Because there is no known safe level of exposure to radon, EPA also recommends that Americans consider mitigating homes for radon levels between 2-4 pCi/L. In Pueblo County, radon levels have been tested as low as 2 pCi/L, while other areas tested as high as 201 pCi/L.

- The average reading for homes in Pueblo County was 8.9 pCi/L.
- Sixty-seven (67) percent of homes in Pueblo tested above 4 pCi/L (19).

### *Housing and Lead*

Lead is a metal that was used for years in many household items because it is pliable and resists

deterioration. Lead and lead compounds are toxic and can present a severe hazard to those who are overexposed to them. Whether ingested or inhaled, lead is readily absorbed and distributed throughout the body. Lead can affect anyone, but children six and younger may have increased negative health effects. Lead-based paint is a common source of lead poisoning. Homes built before 1950 are a greater risk for lead-based paint exposure (20).

- 16,527 homes in Pueblo County were built before 1950 or 32 percent of Pueblo’s housing (21).

## WATER

### Water/Septic Systems

One important potential source of water contamination is sewage. In the higher populated areas of Pueblo County, wastewater plants are used to treat sewage before the effluent is released back into the environment. Not all of Pueblo County’s land areas are served by wastewater treatment plants. Many homes in unincorporated areas of the county have on-site wastewater disposal systems that dispose of sewage into the ground. “Sewage effluent, if not properly treated, can contaminate groundwater. In some instances, wells may be impacted by improper septic system treatment. In Pueblo County, drinking water comes from surface water for the majority of its population. In some instances, drinking water may come

from shallow surface sources or underground wells.” (22).

- In Pueblo County, approximately 16,000 households are on individual septic systems. A majority of these households are located outside of Pueblo City limits (23).

## OUTDOOR AIR QUALITY

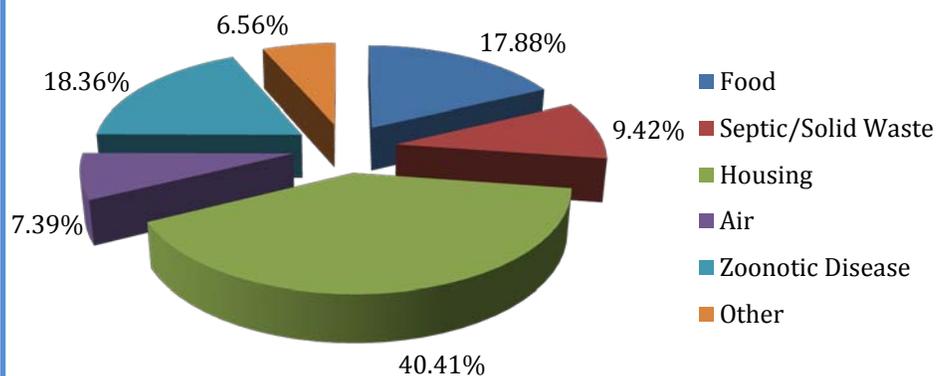
Particulate matter (PM 2.5) is the term given to the tiny particles directly emitted into the air and particles formed in the air by chemical transformation of gaseous pollutants. The main sources of PM 2.5 are cars and trucks. These particles can remain in the lungs for a long time and cause damage to lung tissue. The PM 2.5 concentration levels in Pueblo are very low (24).

- In 2009, the percent of days PM 2.5 was above standard in Pueblo County was 0 percent (25).

## COMPLAINTS

In 2010, over 830 complaints were made to Pueblo City-County Health Department’s Environmental Health Division. The complaints are categorized by type, including housing, food, septic/solid waste, air, and other (includes schools, pools, public accommodations, daycare, body art, and tobacco.) The majority of 2010 complaints (41 percent) concerned housing (26).

**Environmental Health Complaints by Type in Pueblo County, 2010**



# Social Factors



***Per Capita Spending on Public Health***  
 Per capita funds are the sum of monies provided by federal, state and county appropriations, grants, contracts, and fees per person in Pueblo County. Funds directed toward public health provide Pueblo County with comprehensive environmental, health care, nutrition, and health education services. Per capita public health spending in Pueblo County is illustrated below. There was a slight surge in 2010 based on an influx of H1N1 influenza funding for immunization clinics, vaccinations, education, and protective equipment (27).



***Pueblo County Per Capita Spending on Public Health, 2009-2011***

Year	2009	2010	2011
Per Capita Spending Per Person	\$40.74	\$43.42	\$38.69

When compared to Colorado and other surrounding Western States, Pueblo County ranks closely with Colorado. Almost all surrounding states experienced decreases in public health funding in 2011, which is likely related to the economic downturn (28).



# Health Factors and Behaviors

A health behavior is described as an “action taken by a person to maintain, attain, or regain good health and to prevent illness” (29). Health behaviors reflect a person's health beliefs. Some common health behaviors are exercising regularly, eating a balanced diet, and receiving necessary vaccinations (30).

## *Nutrition*

Nutrition is essential for growth, development, health and wellbeing. Dietary factors are also associated with four of the ten leading causes of death: heart disease, some cancers, stroke, and diabetes. Choosing a high fruit and vegetable diet improves health outcomes (31).

## *Eating Fast Food*

An estimate of 77.7 percent of the people in Pueblo County ate fast food at least once in the past week. This is 13.3 percent higher than the State estimate and higher than estimates in Mesa and Weld counties (32).

## *Children Eating Fruits and Vegetables*

Good nutrition helps individuals lead a healthy lifestyle. This includes incorporating fruits and vegetables into a daily diet. Only 24.8 percent of Pueblo's children ages 1-14 years consumed five or more fruits and vegetables a day as per the recommended daily allowance (33).

## *Obesity*

The United States continues to battle the rise in obesity, among children, adolescents, and adults. Obesity can be difficult to deal with on a daily basis, but is a major risk factor for other chronic conditions, certain types of cancer, and Type 2 Diabetes.

## *Adults Overweight/Obese*

The percent of adults who are overweight or obese has been increasing steadily in the United States. In Pueblo County, 23 percent of adults aged 18+ years are overweight or obese; defined as Body Mass Index (BMI) greater than

or equal to 30. This percent is higher than the state ranking at 19 percent, but lower than the National Benchmark at 25 percent. Even though Colorado ranks the lowest among US States for number of obese individuals, the number of obese individuals in Colorado has greatly increased over the past 10 years (52).

## *Children Overweight/Obese*

With the rise in childhood obesity, many experts believe that today's generation of children may be the first to live shorter lives than their parents. In Pueblo, 32.8 percent of children ages 2-14 years are overweight or obese (53).

## *Physical Activity*

Regular physical activity helps improve overall health and fitness, and reduces the risk for chronic diseases. Physical activity is anything that gets your body moving. According to the 2008 Physical Activity Guidelines for Americans (34), both adults and children need to do two types of physical activity each week to improve health, aerobic and muscle-strengthening (35).

## *Physically Active Children*

Current physical activity guidelines for children involve at least 60 minutes or more of physical activity each day. 64.3 percent of Pueblo's children aged 5-14 years engaged in physical activity more than 7 hours per week. Pueblo ranks highest for physical activity in comparison to Mesa and Weld counties and the state (37).

## *Leisure Time Physical Activity in Adults*

In 2009, 22 percent of the respondents in Pueblo County did not engage in leisure time activity. This was a decrease of 6.5 percent from 2007-2008. As compared to Colorado, more Pueblo County people responded they had no physical activity during their leisure time since 2003 (36).

### *Injury*

Each year, one in every three adults age 65 and older falls. Falls can cause moderate to severe injuries, such as hip fractures and head traumas, and can increase the risk of early death. Falls are a public health problem that is largely preventable (40).

- 21.8 percent of adults 65 years and older in Pueblo County reported a fall in the past three months (41).

### *Teen Motor Vehicle Crashes and Hospitalizations*

Motor vehicle crashes are the leading cause of death among U.S. teenagers. Per mile driven, crash rates among drivers 16-19 years are higher than those for all other age groups. In Colorado, 51 percent of all deaths and 31 percent of injury hospitalizations involving 16 to 17-year-olds result from motor vehicle crashes. Two factors commonly mentioned to account for the high motor vehicle crash rates for young drivers are inexperience and risk taking.

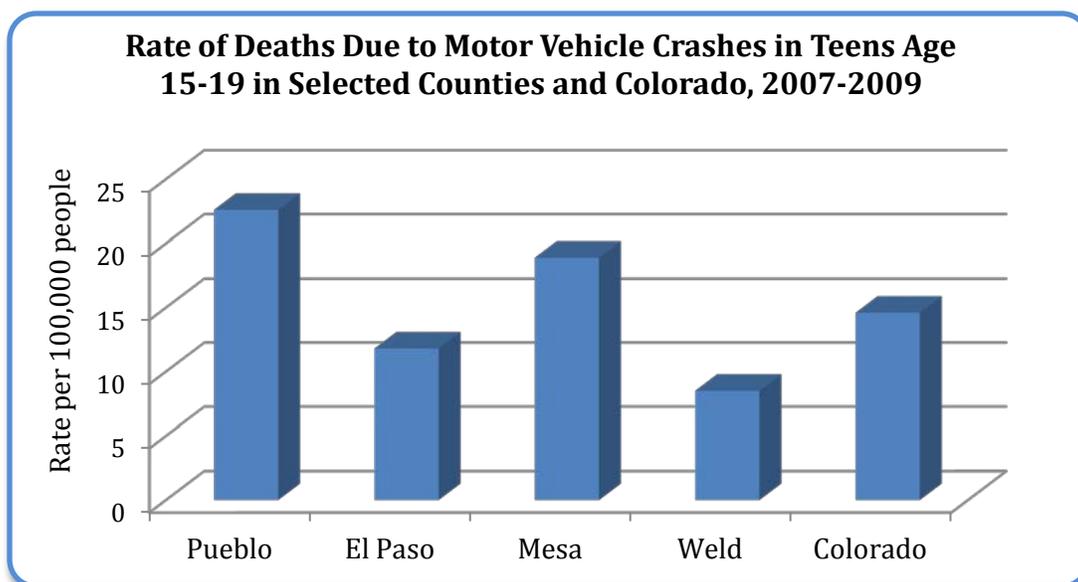
In Pueblo County, the rate of death due to motor vehicle crashes is 22.6 per 100,000 youth 15-19 years and the rate of hospitalizations due to motor vehicle accidents is 144.2 per 100,000 youth 15-19 years (42,43,44), which is higher than the Colorado average.

### *Sexual Health*

Pueblo opted to review specific sexual health indicators related to fertility and unintended pregnancy by age and marital status. Often voted as one of the top issues in Pueblo County, teen pregnancy rates in Pueblo continue to be higher than the Colorado average. In 2009, there were 351 births from teen girls, which represented 17 percent of all live births in Pueblo County (45).

Of more than 6 million pregnancies in the United States in 2001, an estimated 3 million were unintended (46). Increased maternal high-risk behaviors, such as smoking and drinking, have been associated with unintended pregnancies as well as a higher rate of poor health outcomes for the infant. Children born as a result of an unintended pregnancy are at greater risk for child neglect or abuse and developmental delay. For the mothers who experience an unintended pregnancy, there are correlations between lower education levels and socioeconomic status, which have life-long impacts for both mother and child.

56 percent of all pregnancies in Pueblo County from 2005-2008 among teens aged 15-19 were considered unintended compared to 66 percent in Colorado among this same age group.

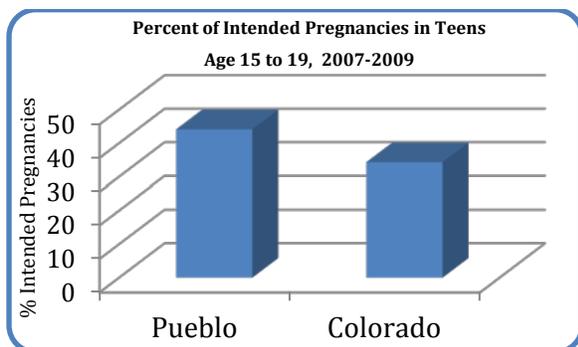


### Fertility Rate by Age

Fertility rate reflects the number of live births per 1,000 women. The fertility rate among women in Pueblo County is highest among 25-29 year olds. However, a great concern is the number of live births among girls age 15-19 years in Pueblo County, specifically among Pueblo's Hispanic population (47).

### Intended Pregnancies by Age

From 2005 to 2008, 44 percent of all pregnancies in Pueblo County among teens aged 15-19 years were considered intended, compared to 34.3 percent in Colorado among this same age group. This indicates a higher number of Pueblo County teens consider their pregnancies "intended." Among the Pueblo County Hispanic population, 49.7 percent of all pregnancies were considered intended (48).

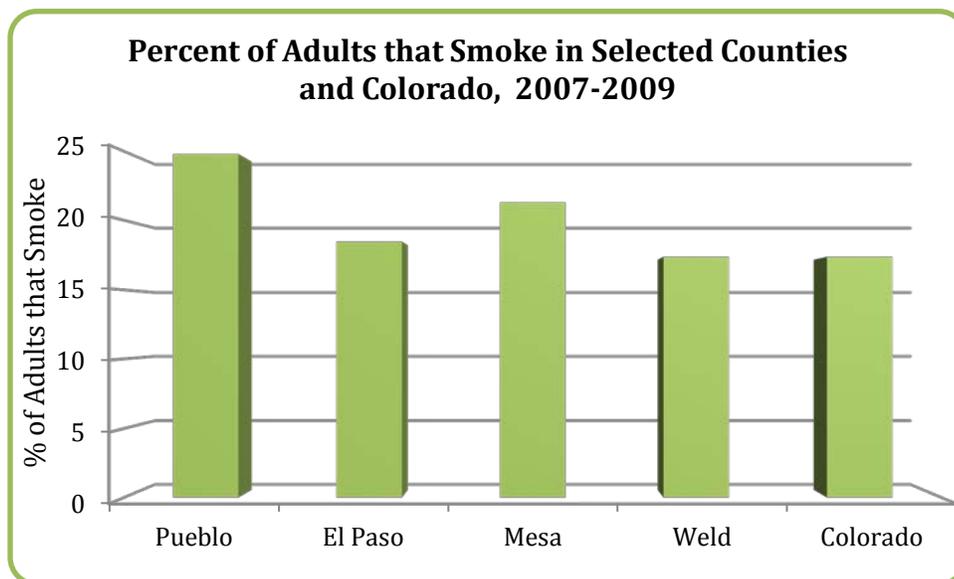


### Low Birth-Weight

Babies born weighing less than 5 pounds, 8 ounces (2,500 grams) are considered low birth-weight. These babies are at increased risk for serious health problems such as lasting disabilities, and even death. About 1 in every 12 babies (or 8.3 percent) in the United States is born low birth-weight (49). In Pueblo County from 2007-2009, 9.3 percent of babies were born low birth-weight (50). The Healthy People 2020 Objective is to reduce low birth weight to 7.8 percent per 1,000 live births (51).

### Smoking

An estimated 46 million people, or 20.6 percent of all adults (aged 18 years and older) in the United States smoke cigarettes. Cigarette smoking is the leading cause of preventable death nationally and accounts for approximately 443,000 deaths or 1 of every 5 deaths in the United States each year (38). While smoking rates in Pueblo have declined over the last 25 years, Pueblo County still has a higher percentage of adults that smoke as compared to selected counties and the Colorado average (39).



# Behavioral Health

## MENTAL HEALTH STATUS

Mental health is how we think, feel and act as we cope with life. It also helps determine how we handle stress, relate to others and make choices. Like physical health, mental health is important at every stage of life, from childhood and adolescence through adulthood. Mental health is often overlooked as a significant public health issue (54).

### Suicide

Suicide is a complex behavior that can be prevented with early recognition and treatment. In Pueblo the suicide rate among youth (5-19 years) was 7.1 per 100,000 and for adults (20 years and older) 24.9 per 100,000. Current national suicide rates in the general population are as high as 11.3 per 100,000. All rates were well above the Healthy People 2020 goal of 10.2 suicides per 100,000 (55, 56, 57).

### Child Behavioral or Mental Health Issues

Childhood and adolescence are marked by dramatic changes in physical, cognitive, and social-emotional skills. Mental health is defined by the achievement of expected developmental, cognitive, social, and emotional milestones as well as satisfying social relationships and effective coping skills (58). There is great concern in Pueblo that the community is not adequately meeting the mental and behavioral health needs of youth. In Pueblo, 24.9 percent of parents reported these problems with their children from 2007-2009 (59).

## SUBSTANCE ABUSE

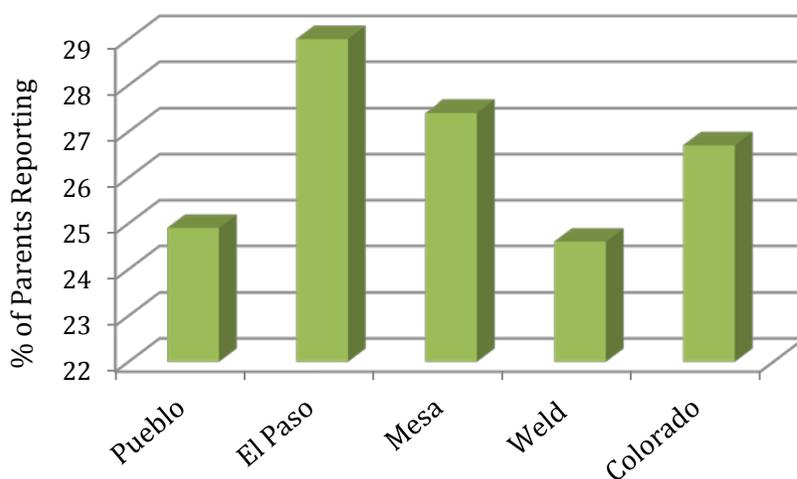
Substance use and its related effects are among society's top health and social concerns.

According to the Alcohol-Related Disease Impact (ARDI) tool, from 2001–2005 there were approximately 79,000 deaths annually attributable to excessive alcohol use. In fact, excessive alcohol use is the third leading lifestyle-related cause of death for people in the United States each year (60). Excessive alcohol consumption can also lead to severe health issues, including cirrhosis of the liver and other diseases. Substance abuse has been cited by the Pueblo community as a public health concern.

### Binge Drinking

Binge drinking is one of the many recognized indicators of substance abuse. It is defined as consuming five or more alcoholic drinks in one occasion in the past month. The Healthy People 2020 objective regarding binge drinking is to “reduce the proportion of persons engaging in binge drinking during the past month—adults aged 18 years and older to 24.3 percent” (61). In Pueblo, 14.5 percent of adults reported binge drinking from 2007-2009 (62)—a rate well below the Healthy People 2020 objective.

**Parents Reporting Behavioral or Mental Health Problems in Children Ages 1-14 in Selected Counties and Colorado, 2007-2009**



### *Drinking Among Teens*

Alcohol use by underage persons is a major public health problem. It is the most commonly used and abused drug among youth in the United States. Although drinking by persons under the age of 21 is illegal, youth (12 to 20 years) drink 11 percent of all alcohol consumed in the United States. Furthermore, more than 90 percent of this alcohol is consumed in the form of binge drinks (63). In Pueblo County, teenage rates of drinking increased with age. Results were similar for years 2005, 2007, and 2009, which indicate that youth are more likely to try alcohol at the ages of 16 or 17 (64).

### *Methamphetamine Use by Teens*

Methamphetamine is a chemical that has stimulant properties similar to adrenaline. Methamphetamine (or meth), is a powerfully addictive stimulant that dramatically effects the central nervous system. Significant numbers of American youth engage in meth use. Only recently has there been a slight decline of meth use among teenagers (63). In Pueblo County, methamphetamine use in youth ages 15-18 years was low (less than 10 percent), but showed signs of increase between 2005 and 2007 for the "15 or younger" category. Following national trends, results from 2009 indicate decreasing methamphetamine usage across the board for all age groups. This may be due to successful prevention interventions, education campaigns about methamphetamine use, or inconsistent self-reporting (64).

### **PERCEIVED HEALTH**

Various criteria are used to assess a person's level of health and quality of life. Objective measures can be noted and counted by a trained observer, while subjective measures of health

depend exclusively on a person's self-evaluation. Perceived general health is a widely used measure of general health and it is one of the methods governments use to assess the positive aspects of health (65).

### *General Health Fair or Poor*

Self-reported health status is a general measure of health-related quality of life in a population. This measure is based on survey responses to the question: "In general, would you say that your health is excellent, very good, good, fair, or poor?" Self-reported health status is a widely used measure of people's health-related quality of life. In Pueblo, 15.9 percent of adults reported having fair or poor health. The national benchmark is 10 percent (66).

### *Mental Health Fair or Poor*

Overall health depends on both physical and mental well-being. Perceived mental health refers to an individual's perception of their general mental health and indicates a person's mental or emotional suffering in a way that is not necessarily reflected in perceived health.

The measure of poor mental health days is based on responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" The national benchmark strives for only 2.3 poor mental health days per month. Pueblo County reported an average of 3.9 poor mental health days in the past 30 days (67).

Bad mental health for longer than 8 days was highest at 31 percent for ages 18-24 (68) in Pueblo County.



# Access, Utilizations, and Quality of Life

## ORAL HEALTH

Many individuals do not understand that good oral health is essential to general health and well-being. For example, oral diseases affect a child's ability to concentrate, learn, speech development, and self-esteem. It can also impact adult employment opportunities and quality of life. While oral diseases are significant, their relationship to overall general health is often overlooked. For example, emerging research indicates a strong relationship between poor oral health in expectant mothers and pre-term/low birth weight deliveries (69).

### Dental Visits by Age

The data for Pueblo showed that dentist and hygienist visits for ages 0-5 years (28 percent) and 18-34 years (33 percent) were far below the Colorado visit levels for these age groups and far below the Healthy People 2020 goal of 49 percent (70, 71).

### Caries Experience for Third Grade Children

Caries are defined as a missing tooth or presence of a cavity or filling. Caries may indicate that opportunities for primary prevention have been missed. Dental caries are the single most common chronic disease of

childhood. In Pueblo County, 51.9 percent of students in the third grade reported a caries experience (72).

## ACCESS TO CARE

Health insurance greatly affects access to health care as well as the financial well-being of families. Nearly half (47 percent) of non-elderly uninsured adults have no regular source of health care. Coupled with a fear of high medical bills, many uninsured and underinsured delay or forgo needed medical and health care. In 2002, over 40 percent of uninsured adults postponed seeking medical care, and 28 percent say they needed medical care but went without such care in the past year (73).

### Uninsured

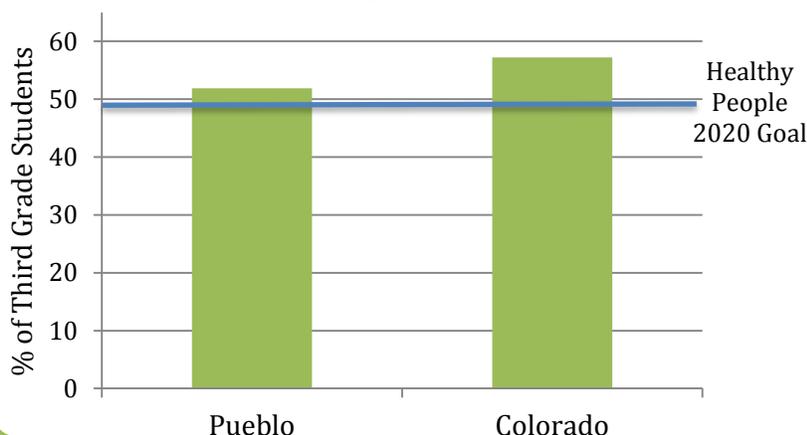
Lack of insurance coverage nationwide is a problem. The federal government estimated that over 45 million individuals across the country lacked health insurance coverage of any kind in 2008. The likelihood of being uninsured varies by age and gender; men age 25-34 are more likely to be uninsured. Nationwide, nearly 20 percent of the uninsured are children (74).

### Insurance for Adults and Children

For both adults and children, Pueblo County ranks lower than the Healthy People 2020 objective of 100 percent health insurance coverage. The total number of uninsured people of any age in Pueblo is 13.6 percent. Among children, however, Pueblo County has done an excellent job enrolling children in public insurance programs through Colorado Health Plan Plus (75).

- Approximately, 95.7 percent of children eligible for Medicaid/CHP+ are enrolled in Pueblo County (76, 77).

**Caries Experience Among Third Grade Students in Pueblo County and Colorado, 2006-2007**



### *Dual Eligible*

Dual eligible patients are individuals who qualify for both Medicare and Medicaid based on income, health, and disability. Generally these patients are poor and have complex healthcare needs. Studies show that compared with other Medicare beneficiaries, dual eligible are more likely to be in poor health, have multiple chronic physical conditions, and more mental/cognitive concerns (78). In addition, they incur nearly twice the level of total health care expenditures compared with other Medicare beneficiaries and account for almost half of all Medicaid spending and more than a quarter of Medicare spending. A high percentage of individuals in Pueblo County (18.8 percent) are dual eligible (71).

	<b>Pueblo</b>	<b>Weld</b>	<b>Mesa</b>	<b>Colorado</b>
% enrolled in Medicare and dual eligible	18.80%	10.90%	17.10%	12.40%
% enrolled in Medicaid or CHP+	18.90%	6.40%	10.90%	7.80%
% uninsured in region (all ages)	13.60%	10.60%	14.70%	13.50%

### *Safety Net Clinics*

A safety net provider is defined by two core characteristics: 1) legal mandate or explicitly adopted mission that they offer care to patients regardless of their ability to pay, and 2) a substantial share of their patient mix is uninsured, Medicaid, and other vulnerable patients. Safety net clinics in Pueblo County encompass a broad range of local non-profit organizations, government agencies, and individual providers who share the common mission of delivering health care to persons who experience barriers to accessing the health care services they need (79, 76).

#### *Safety Net Provider Locations in Pueblo County, 2007*

<b>Type</b>	<b># of Clinics</b>
Rural Health Clinics	0
Community Hospitals and Emergency Departments	2
Safety Net Dental Clinics	1
Safety Net Mental Health Clinics	3
School Based Health Centers	5
Community Health Center Clinic Delivery Sites	5
Other Primary Care Clinics	0
ClinicNet Clinics	1
Public Health Departments and Nursing Services that provide primary care services	1

### *Licensed Providers*

In the United States there are an estimated 2.7 physicians for every 1,000 people (80). Likewise, Colorado and Pueblo County mirrored national statistics having 2.6 physicians for every 1,000 people. The number of licensed Registered Nurses per 1,000 people in Pueblo was 13.2 (a total of 2,100), which is greater than the Colorado average of 10.1 per 1,000 people (76). The rate of Nurse Practitioners in Pueblo was .53 per 1,000 (a total of 84), which is higher than the Colorado average of .51 per 1,000

people. The rate of Physician Assistants in Pueblo was .24 per 1,000 (a total of 38), which is lower than the Colorado average of .38 per 1,000 people (76).

### *Pediatric Providers*

Among pediatric providers in 2011, the total number of practicing pediatric providers in Pueblo County was 14, Mesa County was 17, and Weld County was 22 (81). It is important to note that the definition of pediatric providers for this report includes physician assistants and nurses, but does not include family practitioners. Pueblo County has lower numbers of optometrists, physician assistants, and occupational therapists. The following table provides specifics on the type and number of medical providers in Pueblo County for 2010 (76).

### *Medical Providers in Pueblo County, 2010*

Type of Provider	Count	Rate per 1,000 people
Active Licensed (AL) Physician	413	2.6
Practicing Primary Care Physician	131	.83
AL Optometrist (not including Ophthalmologists)	18	.11
AL Podiatrist	7	.04
AL Physician Assistant	38	.24
AL Certified Nurse Midwife	6	.04
AL Nurse Practitioner	84	.53
AL Registered Nurse	2,100	13.2
AL Certified Nurse Aid	1,811	11.4
AL Dentist	103	.65
AL Dental Hygienist	125	.79
AL Social Worker	6	.04
AL Psychologist	48	.30
Pharmacist	150	.94
AL Occupational Therapist	40	.25
AL Physical Therapist	63	.40
AL Respiratory Therapist	138	.87
Total Emergency Medical Technician	483	3.0
AL Nursing Administration	25	.16
AL Psychiatric Technician	196	1.23
AL Clinical Social Worker	126	.79

# Population Health Outcomes

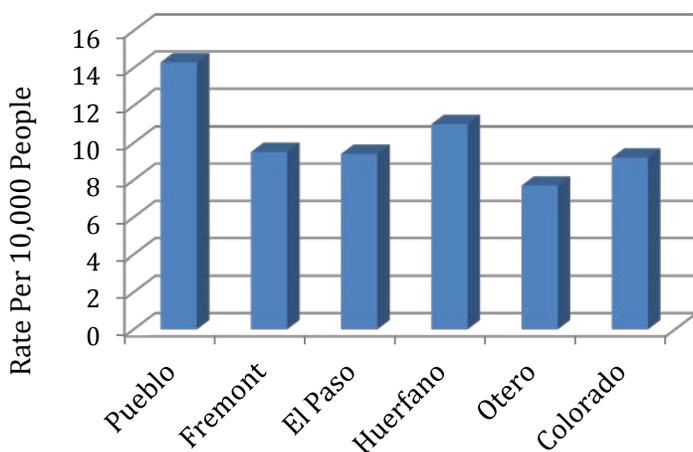
## MORBIDITY

Morbidity is described as a diseased state or symptom, i.e. living with type 2 diabetes, asthma, cancer, cardiovascular disease, sexually transmitted infections, etc. Recent studies have shown although individuals live longer due to medical technologies and medications, their health may actually worsen, especially if they live with a chronic disease (82).

### Asthma

Asthma is a chronic lung disease that inflames and narrows the airways. It causes recurring periods of wheezing, chest tightness, shortness of breath, and coughing. Asthma affects people of all ages, often starting in childhood. In the United States, more than 22 million people are known to have asthma. Nearly 6 million of these people are children (83).

**Rate of Asthma Hospitalizations Adjusted for Age for Selected Colorado Counties, 2009**



### Cancer

Cancer is the general name for a group of more than 100 diseases in which cells in a part of the body begin to grow out of control. There are

many kinds of cancer and when untreated it can cause serious illness and even death (86). When reviewing data on the incidence rate for all cancers by county, Pueblo County has a higher incidence at 478.9 per 100,000 people than the Colorado average of 437.9. Specifically, Pueblo has a high incidence of colon and rectal, lung and bronchial, and prostate cancers (87).

### Diabetes

Type 2 diabetes is the most common form of diabetes. Millions of Americans have been diagnosed with Type 2 diabetes and many more are unaware they are at high risk. Type 2 diabetes is more common among African Americans, Latinos, Native Americans, Asian Americans, Native Hawaiians and other Pacific Islanders, as well as the aged population (88). Pueblo County has a high prevalence of diabetes—about 7.4 percent of Pueblo adults have been told they have Type 2 diabetes (89), which is higher than the Colorado average at 5.4 percent.

### Cardiovascular Disease

Cardiovascular disease or heart disease is used interchangeably to describe diseases that affect the heart. Cardiovascular disease (CVD) generally refers to conditions that involve narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina), or stroke. Many people are not aware they have heart disease until admitted to the hospital. Much of the burden of CVD can be lessened with lifestyle choices (90).

In 2009 Pueblo County had an age-adjusted rate of 1074.2 per 100,000 and Colorado had 961.8 per 100,000 for major cardiovascular diseases. This represents an 11.8 percent greater rate in Pueblo County (91).

### Tuberculosis (TB)

TB is caused by a bacterium called *Mycobacterium tuberculosis*, which usually attacks the lungs. TB is one of the world's deadliest diseases with almost 2 million TB-related deaths worldwide. In total, 11,545 TB cases (a rate of 3.8 cases per 100,000 persons) were reported in the United States in 2009 (92). The rate of TB cases in Pueblo per 100,000 people is lower than the Colorado average (93).

- 1.9 cases per 100,000 in Pueblo County
- 2.3 cases per 100,000 in Colorado

### Chlamydia

Sexually Transmitted Infections (STIs), HIV/AIDS, and unintended pregnancies can result from unprotected sexual activities and behaviors. Chlamydia is a common STI caused by the bacterium *Chlamydia trachomatis*, which can impact both women's and men's reproductive organs. It is the most frequently reported bacterial STI in the U.S. In 2009, over 1.2 million chlamydia infections were reported to Center for Disease Control and Prevention (CDC) from 50 states and the District of Columbia (94). From 2006-2008, Pueblo County had a high rate of positive Chlamydia cases per 100,000 people as compared to the Colorado average (95).

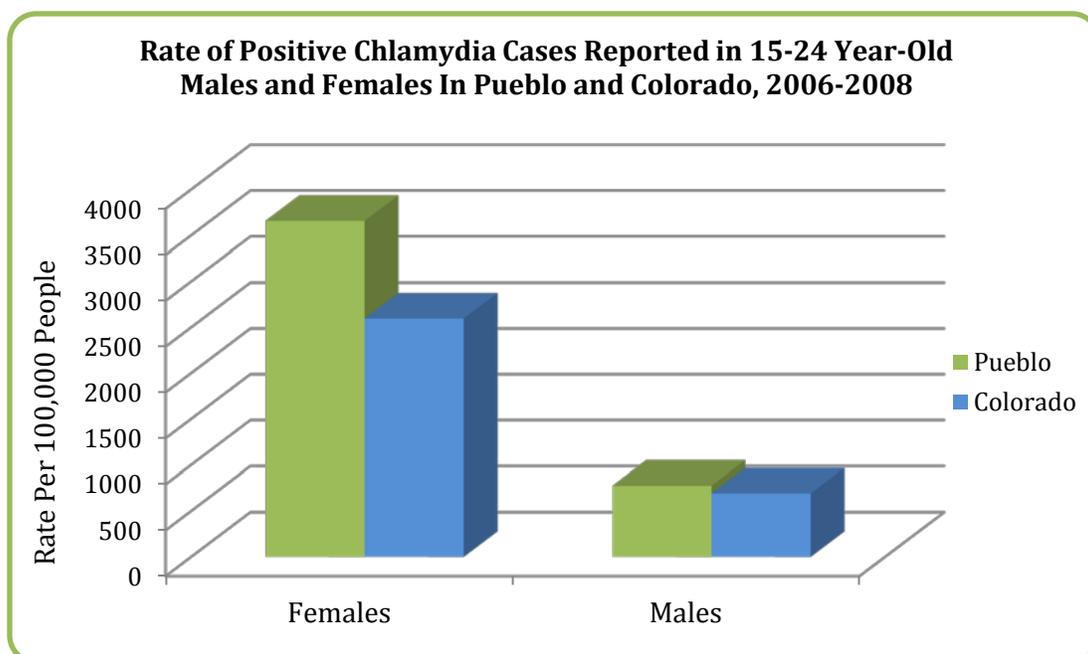
### Gonorrhea

Gonorrhea is a STI caused by the bacterium *Neisseria gonorrhoeae*, which grows in the reproductive tract. It is very common; CDC estimates that more than 700,000 persons in the U.S. get new gonorrhea infections each year. However, less than half of these infections are reported. 301,174 cases of gonorrhea were reported to CDC in 2009 (96). From 2006-2008, Pueblo (98.2) and El Paso (106.3) counties had higher rates of new cases of gonorrhea per 100,000 than the Colorado average of 73.1 (97).

### Influenza Hospitalizations

Influenza is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness, and at times can lead to death. Seasonal influenza is associated with a large number of hospitalizations. Given the substantial health impact of seasonal influenza, there is always a need to ensure vaccination of all people. It is particularly important to protect those at increased risk for influenza complications, such as infants, immune-compromised individuals, and those over 65 years of age (98).

- There were 33 influenza-associated hospitalizations in Pueblo County during the 2010-2011 (99) influenza season as compared to Colorado with 1,027.



### Foodborne Outbreaks

A foodborne disease is caused by consuming contaminated foods or beverages. The most commonly recognized foodborne infections are those caused by the bacteria *Campylobacter*, *Salmonella*, and *E.coli* O157:H7. The CDC estimates that each year roughly 1 in 6 Americans (48 million people) gets sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases. As with most diseases, foodborne illnesses are first reported and investigated by a local team. Only when there is wide-scale outbreak are state and federal teams brought in to assist with the investigation (100).

- In 2010, only one foodborne outbreak was reported in Pueblo County (101).

### MORTALITY

Mortality is the condition of being mortal and susceptible to death, implying a fatal outcome or death. Mortality is distinct from morbidity, which means illness or diseased state (102).

### 10 Leading Causes of Death

Leading causes of death differ somewhat by age, sex, and race. Nationally, heart disease is generally the leading cause of death. Cancer

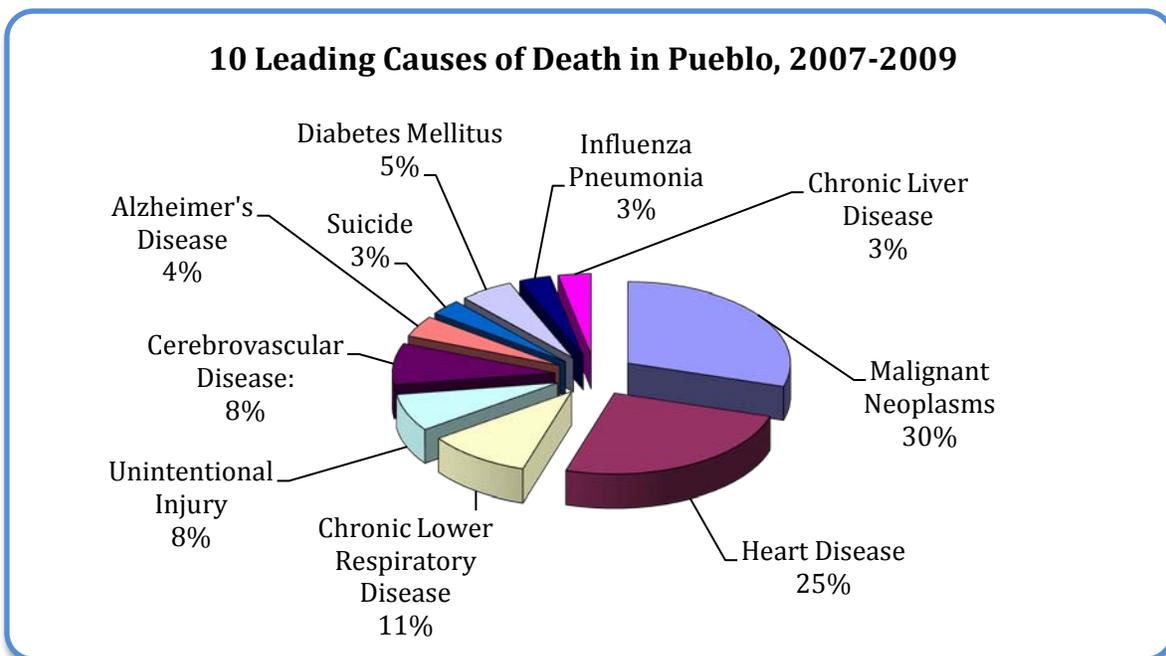
(malignant neoplasms) ranks as the top cause of death and heart disease ranks as the second leading cause of death in Pueblo County (108).

### Infant Mortality

Infant mortality is the number of infants who die during their first year of life. Infant mortality is commonly accepted as a measure of the general health and well-being of a population (103). Pueblo County's infant mortality rate is 6.3, similar to the State of Colorado at 6.2 (104).

### Motor Vehicle Deaths

Motor vehicle deaths include traffic and non-traffic accidents of all types of vehicles. A strong association has been demonstrated between drinking and alcohol-impaired driving with approximately 17,000 Americans killed annually in alcohol-related motor vehicle crashes (105). Though Pueblo County does not have the highest rate of motor vehicle deaths in the state, at 18 per 100,000 it is far higher than the National benchmark of 12 motor vehicle deaths per 100,000 (106).



### *Years of Potential Life Lost (YPLL)*

Premature death is represented by the years of potential life lost before age 75. Every death occurring before the age of 75 contributes to the total number of years of potential life lost. The YPLL measure is presented as a rate per 100,000 people and is age-adjusted to the 2000 U.S. population. Pueblo County had 8,337 YPLL per 100,000 people, it is well above the National benchmark of 5,574 years (107).

### *LIFE EXPECTANCY*

Life expectancy from birth is a frequently utilized and analyzed component of demographic data for the countries of the world. It represents the average life span of a newborn and is an indicator of the overall health of a country. Life expectancy can fall due to problems like famine, war, disease and poor health. Improvements in health and welfare increase life expectancy (109). The higher the life expectancy, the better “shape” a country, county or town is in. Pueblo’s overall life expectancy is 77 years; lower than the Colorado average of 80.1 years. In addition, females are more likely to live longer than males in Pueblo, 82.3 years versus 77.8 years (110).



# Community Perceptions

In collaboration with the Colorado School of Public Health (CSPH), PCCHD hosted a Community Engagement Night on April 11, 2011 to discuss public health issues in the county. Thirty-three participants attended the event, including local public health experts and partners, community members, and the business community. The goal of the night was to collect qualitative information (knowledge, attitude, and perceptions) from the community to identify critical public health issues in Pueblo County and to investigate underlying causes.

## Methods

The nominal group technique allows for a rapid generation of ideas and brief analysis. This technique is a structured variation of a small-group discussion to reach consensus. The nominal group technique is a four-step process that includes idea generation, round-robin recording of ideas, discussing and clarifications of ideas, and ranking of ideas.

Using the nominal group technique, facilitators and moderators at the Community Engagement Night led four groups of community members through two rounds of questions each. The questions for the nominal groups produced a list of leading items for each group. Using a 5-item score, each participant in the groups had 15 points to distribute. The complete list of items and scores were combined and weighted to calculate the total scores of each item.

The first round asked all four groups the same question about the health of the local community.

- What do you think are the major health concerns for Pueblo?

For the second round, two groups each focused on one of two questions:

- Strengths and Themes: What assets does Pueblo have that can be used to improve the community's health?

- Forces of Change: What is occurring or might occur that affects the health of your community?

## Findings

The four groups from the Community Engagement Night were asked to come up with health concerns in the first nominal group round. Each group identified items important to their position in the community and factors that they felt had a negative impact on the overall well-being of Pueblo County. The health concerns results help to inform the health department of what quality of life and health issues are priorities for the community.

Combined with other secondary health indicator data PCCHD has obtained, this information is necessary to better understand the needs of the community and assist in providing further information for the community health assessment. The top five health concerns in order by total score across each of the four groups were as follows:

1. Obesity
2. Mental Health
3. Teen Pregnancy
4. Lack of Access to Health Care
5. Poverty

From the two groups that discussed the strengths and themes analysis, three overarching topics emerged through the process. Information obtained from the strengths and themes segment can be utilized to harness the assets of the community to mitigate negative forces of change and promote positive ones. The top three in order by total score across both groups were as follows:

1. The variety of health facilities
2. The sense of community, pride, and investment in the community
3. The local school system

During the forces of change nominal group process, the participants from both groups identified several factors that are occurring or might occur in the local community that could impact the health of Pueblo County residents. The forces of change issues identified by community members are not as amenable to intervention. PCCHD will be mindful of these factors in the planning process. The top five forces of change, in order by total score were as follows:

1. Lack of school policies and funding for health and wellness
2. Down economy; lack of jobs, low and minimal paying jobs
3. Lack of vision, goals, motivation in youth
4. Parks, community and school gardens, and recreation
5. Policy changes for health



The insight from local key experts at the Community Engagement Night was solution-oriented and showed a strong will to improve services for the Pueblo area.

Many of the discussions hinged on the need for a change in culture and youth mentorship, as well as an emphasis on education to encourage and empower young people to make healthy decisions through health literacy and wellness education. These themes speak to the health concerns and their determinants for which the community members see a need for action.

Overall, by identifying the issues that the community would like to address collectively, goals can be set, and strategies for their achievement implemented. Further analysis of the relationship between the primary qualitative data obtained from the Community Engagement Night and the referenced secondary health indicator quantitative data from Pueblo County will follow.

### ***SUMMARY OF KEY FINDINGS***

PCCHD employees are passionate about improving the health of Puebloans and encouraging behavior change for healthy lifestyles. PCCHD serves over 159,000 residents of Pueblo County and surrounding counties. Most of the population served by PCCHD is identified as low-income, disadvantaged, isolated, and who may face personal health and/or environmental risks. PCCHD provides both direct public health services and prevention education. Every year, PCCHD directly serves over 78,000 individuals through programs in its four Divisions: Operations and Administrative Support, Community Health Services, Disease Prevention and Emergency Preparedness, and Environmental Health.

Summarizing the analysis of the data collected, Pueblo excels in many areas identified. Some examples include:

- collaborative efforts with other agencies or organizations,
- excellent Environmental Health services provided by PCCHD (air quality, food inspections, etc),
- Pueblo's high insured population, and
- communication between public health agencies and community partners.

Along with identifying areas of excellence, the report also provides the statistics for some of the top health concerns that Pueblo needs to take into consideration when developing the Public Health Improvement Plan. The following eight health concerns for Pueblo were identified based on the data collected through the community health assessment process:

- cardiovascular disease
- communicable or infectious disease
- diabetes
- lack of providers/access to care
- mental health
- obesity
- poverty
- teen and unintended pregnancy

There are challenges any health department will encounter when looking at ways to improve the health and wellness of the community.

Resources, including financial, political will, and staffing can play a role in defining what areas or programs can be embarked upon. The new healthcare reform and the potential impact on systems and structures could also contribute to some of the challenges. Last, even though Pueblo has excellent partnerships with other agencies and organizations, the process of aligning existing services with new priorities could challenge current collaborations.

The purpose of the community health assessment is to assist Pueblo in creating a community-wide improvement plan for the next five years. Choosing appropriate strategies and deciding which various public health organizations and partners will help to improve the overall health of Pueblo residents is vital. This summary of key findings briefly touches on the areas of excellence, health concerns and challenges.



# Winnable Battles

## *National*

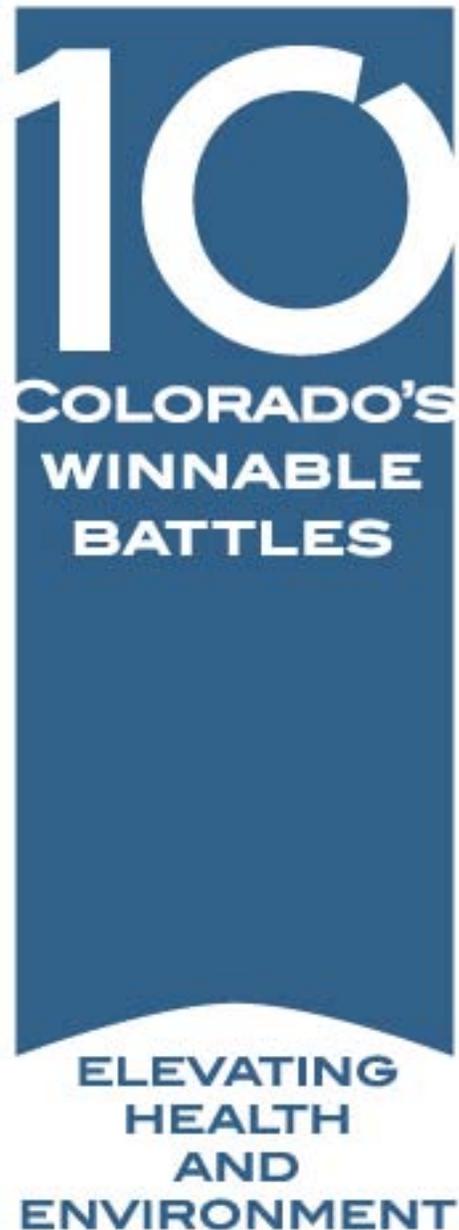
The Center for Disease Control and Prevention (CDC) developed a list of six “Winnable Battles” that describes public health priorities where local, state and federal agencies and partners can make significant progress in a relatively short timeframe. Each identified area is a leading cause of illness, injury, disability or death and/or represents enormous societal costs. In addition, evidence-based, scalable interventions already exist and can be broadly implemented to change the course of these public health concerns. The following have been identified as the Winnable Battles.

- Healthcare associated infections
- Nutrition, physical activity, obesity, and food safety
- HIV
- Teen pregnancy
- Motor vehicle injuries
- Tobacco

## *Colorado*

Colorado’s winnable battles align with CDC’s Winnable Battles and local priorities and are Colorado’s greatest opportunities for ensuring the health of the state’s citizens and visitors. Based on data, the following 10 areas are key public health or environmental issues where progress can be made in the next three years.

- Clean air
- Clean water
- Infectious disease prevention
- Injury prevention
- Mental health and substance abuse
- Obesity
- Oral health
- Safe food
- Tobacco
- Unintended pregnancy



For more information on the CDC and Colorado’s Winnable Battles, see the following websites:  
[www.cdc.gov/WinnableBattles/index.html](http://www.cdc.gov/WinnableBattles/index.html)  
[www.cdphe.state.co.us/hs/winnable.html](http://www.cdphe.state.co.us/hs/winnable.html)

# Healthy People 2020 Objectives



Healthy People 2020 provide science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People 2020 has established benchmarks and monitored progress over time in order to:

- encourage collaborations across sectors,
- guide individuals toward making informed health decisions, and
- measure the impact of prevention activities.

The following are the details of Healthy People 2020 Objectives related to indicators presented in Pueblo's 2011 Status Report. Over the next five to ten years, the Pueblo community will evaluate successful attainment of Healthy People 2020 targets.

## *Access to Health*

- Increase the proportion of persons with health insurance to 100 percent.
- Increase the proportion of persons who have a specific source of ongoing care to 100 percent.

## *Air Quality*

- Reduce the number of days the Air Quality Index (AQI) exceeds 100 to 10 days.

## *Asthma*

- Reduce hospitalizations due to asthma to 18.1 hospitalizations per 10,000 people.

## *Binge Drinking*

- Reduce the proportion of persons engaging in binge drinking—adults aged 18 years and older to 24.3 percent.

## *Cancer*

- Reduce the overall cancer death rate to 160.6 deaths per 100,000 people.

## *Chlamydia*

- Reduce the proportion of females with *Chlamydia trachomatis* infections attending family planning clinics to 6.7 percent.

## *Diabetes*

- Reduce the annual number of newly diagnosed cases of diabetes to 7.2 new cases per 1,000 people aged 18 to 84 years.

## *Gonorrhea*

- Reduce gonorrhea rates for females (15-44 years) to 257 new cases per 100,000 people.
- Reduce gonorrhea rates for males (15-44 years) to 198 new cases per 100,000 people.

## *Healthy Homes*

- For person living in homes at risk for radon exposure, increase the number of homes with an operating radon mitigation system by 30 percent.
- Reduce the number of U.S. homes that are found to have lead-based paint by 10%.

## *Heart Disease*

- Reduce coronary heart disease deaths to 100.8 deaths per 100,000 people.
- Reduce stroke deaths to 33.8 per 100,000 people.

## *Infant Mortality*

- Reduce the rate of infant deaths to 6.0 infant deaths per 1,000 live births.

## *Injury*

- Prevent an increase in the rate of fall-related deaths to 45.3 deaths per 100,000 people.

### *Motor Vehicle Crashes and Injuries*

- Reduce motor vehicle related crash deaths to 12.4 deaths per 100,000 people.
- Reduce non-fatal motor vehicle crash related injuries to 694.4 non-fatal injuries per 100,000 people.

### *Nutrition*

- Increase the contribution of fruits to the diets of the population aged 2 years and older to .9 cup equivalents per 1,000 calories.
- Increase the contribution of total vegetables to the diets of the population aged 2 years and older to .1 cup equivalents per 1,000 calories.

### *Obesity/Overweight*

- Reduce the proportion of adults that are obese to 30.6 percent of population.
- Reduce the proportion of children and adolescents (2-19 years) who are considered obese to 14.6 percent of population.

### *Oral Health*

- Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year to 49.0 percent.
- Reduce the proportion of children and adolescents who have untreated dental decay to less than 21.4 percent.

### *Physical Activity*

- Reduce the number of adults who are physically inactive by 32.6 percent.
- Increase the proportion of adolescents who meet current Federal physical activity guidelines for aerobic physical activity and for muscle-strengthening activity to 20.2 percent.

### *Poor Mental Health Days*

- Reduce the proportion of persons who experience major depressive episodes to 6.1 percent.

### *Safety*

- Reduce homicides by 10 percent.

### *Sexual Health*

- Reduce pregnancy rates among adolescent females (15-17 years) to 36.2 births per 1,000; and reduce pregnancy rates among adolescent females (18-19 years) to 105.9 pregnancies per 1,000.
- Reduce low birth weight to 7.8 percent.
- Increase the proportion of intended pregnancies by 56 percent.

### *Smoking*

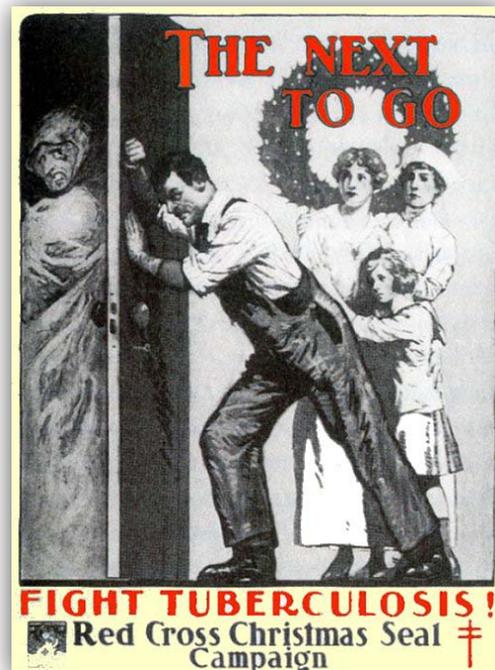
- Reduce cigarette smoking by adults to 12 percent of the population.

### *Suicides*

- Reduce the suicide rate to 10.2 suicides per 100,000 people.

### *Tuberculosis*

- Reduce tuberculosis cases to 1.0 new case per 100,000 people.



# Explanation of Peer County Selection

Pueblo County's community health status report data was compared to counties in Colorado, based on size of population, geographic location, or available data. The county comparison is an important measurement tool to gauge progress in the health indicator areas. Comparisons with counties of similar population and demographics can better align local efforts with prioritized components.

## *El Paso County Background*

El Paso County has a total area of 2,129 square miles. Cities and towns include Colorado Springs, Fountain, Manitou Springs, Monument, and Palmer Lake. It is also well known for historical sites such as Pike's Peak, Garden of the Gods, and more.

Due to a tremendous population surge, the County is the most populous of the 64 counties in the state of Colorado. 2010 estimates showed a total of 622,263 people living in El Paso County in 2010, an increase of about 1.5 percent. In addition, about 15 percent of El Paso County is Hispanic or Latino.

In 2009, median household income was \$55,700. In 2009 the percent of people living below the poverty level was 8.2 percent and 15 percent of children lived below the federal poverty level. Persons aged 25 years and older with less than a high school education was 4.2 percent, which is lower than the Colorado average.

## *Fremont County Background*

Fremont County has an area of 1,533 square miles and is nested along the Arkansas River Valley in South Central Colorado at the foot of the Rocky Mountains. Towns such as Cañon City, Florence, Penrose and Cotopaxi reside within the county.

Fremont County had a population of 46,824 in 2010. From 1990-2000, the population

increased dramatically by 4.2 percent; while in 2010 it increased slightly by 1.47 percent. About 80 percent of the population in Fremont County is white and 12 percent is Hispanic or Latino.

In 2008, the median household income of Fremont County was \$39,155. The percent living below the poverty level was 14.7 percent (2008) and the percent of children below the poverty level was 14.8 percent (2000). Persons 25 years and older with less than a high school education was 14.34 percent which was quite higher than Colorado at 8.45 percent.

## *Huerfano County Background*

Huerfano County has a total area of 1,593 square miles and was named for the local landmark, Huerfano Butte. Local cities and towns include Badito, Calumet, Cuchara, Farista, Gardner, La Veta, Navajo Ranch, and Walsenburg.

Huerfano has a population of 6,677 people in 2010. The population of the County in 2000 was 7,862. The population since 2000 has decreased by 15.1 percent. Reports show Huerfano County has 35.3 percent of individuals who are Hispanic or Latino.

The median household income in Huerfano County from 2005-2009 was \$31,136, which is much lower than the median household income for Colorado. The percentage of the County living below the federal poverty level in 2005-2009 was 16.8 percent. There was 24 percent of children 18 years and under living below poverty level. Estimated unemployment was 10.1 percent from 2005-2009. For adults age 25 years and older, roughly 7.9 percent have less than a high school education (or did not receive a high school diploma).

### *Mesa County Background*

Mesa County has an area of 3,341 square miles. It is located in western Colorado and contains the cities and towns of Grand Junction, Fruita, Palisade, Collbran, and DeBeque. Grand Junction is the largest city and the home of the county seat.

In 2010, the population in Mesa County was 146,723. It grew by 25 percent between 1990 and 2000 and by 26 percent between 2000 and 2009. About 83 percent of the Mesa County population in 2010 was white while approximately 13 percent was Hispanic.

The median household income in Mesa County in 2009 was \$52,290, up from \$37,138 in 2000. Meanwhile, the percentage of people with incomes below 100 percent of the federal poverty line in 2009 was 11.8 percent, with 16.3 percent of children under the age of 18 years 100 percent below the federal poverty line. In 2010 the estimated unemployment was 10.6 percent, up from 8.8 percent in 2009 and 3.9 percent in 2008.

### *Otero County Background*

Otero County has a total area of 1,270 square miles. Cities and towns in Otero include Cheraw, Fowler, La Junta, Manzanola, Rocky Ford, and Swink. The county seat is located in La Junta. The county is well known for its cantaloupe, Bent's Old Fort National Historic Site, and the National Historic Santa Fe Trail.

In 2010, the population of Otero County was 18,831. This is a decrease of 1,480 persons from the 2000 Census or population decline of 7.3 percent. 40 percent of the population is Hispanic or Latino.

Unemployment from 2005-2009 was 8.2 percent and median income is \$32,149, which is lower than the median household income for Colorado. 22 percent of the population lives

below the federal poverty level and 31.2 percent of children 18 years and under live below the federal poverty level. Of those 25 years and older, 10.3 percent do not have a high school degree or diploma.

### *Weld County Background*

Weld County covers 3,999 square miles in north-central Colorado. This county consists of 31 incorporated towns, of which Greeley is the largest. Since 1999, the population of the county has been steadily increasing. According to the Greeley Chamber of Commerce, Greeley contains nearly half of Weld County's 256,980 people. Most of the remaining population is distributed within a 20-30 mile radius of Greeley.

Weld County had a 2008 median income of \$55,845. Weld County's primary industry is manufacturing with agriculture a close second. Weld County is Colorado's leading producer of cattle, grain, and sugar beets. Moreover, Weld County's estimated unemployment rate in 2009 was 8.7 percent as compared to Colorado at 7.7 percent. Weld County unemployment continues to be a full percentage point higher than state figures in 2010 at 9.1 percent, while Colorado is at 8.0 percent.

In 2008, 12.0 percent of the population was at or below 100 percent of the federal poverty level. This number increased to 19.5 percent in 2009 according to the Colorado Health Institute. Also in 2008, 9.7 percent of ages 19-64 years were uninsured. This is 5 percentage points lower than the state in the same year.

# Data Sources and References

## *Community Description*

- 1) Colorado Demography Office. Colorado Census Data. Available from, [www.dola.state.co.us/Demog/CensusData.cfm](http://www.dola.state.co.us/Demog/CensusData.cfm)
- 2) U.S. Census Bureau. Age Groups and Sex. Available from, [www.factfinder2.census.gov/faces/tableservices](http://www.factfinder2.census.gov/faces/tableservices)
- 3) U.S. Census Bureau. Race and Hispanic or Latino Origin. Available from website, [www.factfinder2.census.gov/faces/tableservices](http://www.factfinder2.census.gov/faces/tableservices)

## *Social Determinants of Health*

- 4) U.S. Census Bureau. American Community Survey from American FactFinder. Available from, [www.factfinder.census.gov/servlet](http://www.factfinder.census.gov/servlet)
- 5) States Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2009. Available from, [www.census.gov/did/www/saipe/data/statecounty/data/2009.html](http://www.census.gov/did/www/saipe/data/statecounty/data/2009.html)
- 6) Colorado Department of Education. Available from, [www.cde.state.co.us/index\\_home.htm](http://www.cde.state.co.us/index_home.htm)
- 7) Pueblo County Department of Social Services. Correspondence May 2011.
- 8) U.S. Census Bureau. American Community Survey from American FactFinder. Available from, [www.factfinder.census.gov/servlet](http://www.factfinder.census.gov/servlet)

## *Physical Environment*

- 9) Centers for Disease Control and Prevention (CDC). Children's Health & the Built Environment. Available from, [www.cdc.gov/healthyplaces/healthtopics/children.htm](http://www.cdc.gov/healthyplaces/healthtopics/children.htm)
- 10) USDA Food Environment Atlas, 2008. Available from, [www.ers.usda.gov/foodatlas/](http://www.ers.usda.gov/foodatlas/)
- 11) Robert Wood Johnson Foundation. Available from, [www.rwjf.org](http://www.rwjf.org)
- 12) Robert Wood Johnson Foundation. Public Health Law Research: Hot Spot Policing to Reduce Violent Crimes. Available from, [www.publichealthlawresearch.org/public-health-topics/violence-prevention/evidence-brief](http://www.publichealthlawresearch.org/public-health-topics/violence-prevention/evidence-brief)
- 13) Colorado Bureau of Investigations. Available from, [www.cbi.state.co.us](http://www.cbi.state.co.us)
- 14) LaVeist TA, Wallace JM. August 2000. Health risk and inequitable distribution of liquor stores in African American neighborhood. *Social Science & Medicine*; 51, 4: 613-617
- 15) 2010 County Health Rankings. Pueblo, Colorado. Available from, [www.countyhealthrankings.org/colorado/pueblo](http://www.countyhealthrankings.org/colorado/pueblo)
- 16) CDC. Indoor Environmental Quality. Available from, [www.cdc.gov/niosh/topics/indoorenv](http://www.cdc.gov/niosh/topics/indoorenv)
- 17) Pueblo County United Way. 2009 Pueblo Donor/ United Way of Pueblo County Evaluation. February 2010. Available from, [www.pueblounitedway.org/Default%20Page%20Info/Donor%20Report\\_Web.pdf](http://www.pueblounitedway.org/Default%20Page%20Info/Donor%20Report_Web.pdf)
- 18) U.S. Census Bureau. American Community Survey from American FactFinder. Available from, [www.factfinder.census.gov/servlet](http://www.factfinder.census.gov/servlet)
- 19) PuebloCares. Radon. Available from, [www.pueblocares.org/radon.html](http://www.pueblocares.org/radon.html)
- 20) Occupational Safety and Health Administration. Lead. Available from, [www.osha.gov/SLTC/lead/](http://www.osha.gov/SLTC/lead/)
- 21) U.S. Census Bureau. American Community Survey from American FactFinder. Available from, [www.factfinder.census.gov/servlet](http://www.factfinder.census.gov/servlet)
- 22) University of Maryland Extension. Septic Systems and Their Maintenance. Available from, [www.extension.umd.edu/environment/water/](http://www.extension.umd.edu/environment/water/)
- 23) Pueblo City-County Health Department, Environmental Health Division. 2010 data.
- 24) Environmental Protection Agency (EPA). Particulate Matter. Available from, [www.epa.gov/pm/](http://www.epa.gov/pm/)
- 25) Colorado Department of Public Health and Environment/Air Pollution Control Division. 2009 data.
- 26) Pueblo City-County Health Department, Environmental Health Division. 2010 data.

## *Social Factors*

- 27) Pueblo City-County Health Department/Budget and Finance Office. 2009-2011 data.
- 28) Trust for America's Health. State Data/Public Health Funding Indicators. Available from, [www.healthyamericans.org/states](http://www.healthyamericans.org/states)

## *Health Factors*

- 29) Mosby's Medical Dictionary. Health behavior. Available from, [www.medical-dictionary.thefreedictionary.com](http://www.medical-dictionary.thefreedictionary.com)
- 30) The National Bureau of Economic Research. Trends in Health Behaviors and Health Outcomes. Available from, [www.nber.org/aginghealth/spring07](http://www.nber.org/aginghealth/spring07)
- 31) Healthy People 2010 Conference. Nutrition and Overweight. Available from, [www.vidyya.com/pdfs/1226cvd.pdf](http://www.vidyya.com/pdfs/1226cvd.pdf)
- 32) Behavioral Risk Factor Surveillance Survey (BRFSS). (2009). Available from, [www.cdc.gov/brfss/](http://www.cdc.gov/brfss/)

- 33) CDPHE/Health Statistics Section. (2007-2009). Child Health Survey. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 34) U.S. Department of Health and Human Services. 2008 Physical Activity Guidelines for Americans. Available from, [www.health.gov/paguidelines/](http://www.health.gov/paguidelines/)
- 35) Centers for Disease Control and Prevention (CDC). Physical Activity. Available from, [www.cdc.gov/physicalactivity](http://www.cdc.gov/physicalactivity)
- 36) BRFSS. (Query 2003-2004, 2005-2006, and 2007-2008.) Available from [www.cdc.gov/brfss/](http://www.cdc.gov/brfss/)
- 37) CDPHE/Health Statistics Section. (2007-2009). Child Health Survey. Available from, [www.chd.dphe.state.co.us/](http://www.chd.dphe.state.co.us/)
- 38) CDC. Tobacco. Available from, [www.cdc.gov/tobacco/](http://www.cdc.gov/tobacco/)
- 39) CDPHE. (2007-2009). BRFSS/Regional Health Profiles. Available from, [www.chd.dphe.state.co.us/](http://www.chd.dphe.state.co.us/)
- 40) CDC. Injury and Violence Prevention and Control. Available from, [www.cdc.gov/injury/index.html](http://www.cdc.gov/injury/index.html)
- 41) BRFSS. (Injury data 2008.) Correspondence with CDPHE Health Statistics Section. March 2011.
- 42) CDC/National Center for Health Statistics. Motor Vehicle Crash Rate. Available from, [www.countyhealthrankings.org/colorado/pueblo](http://www.countyhealthrankings.org/colorado/pueblo)
- 43) CDPHE. (October 2005). Injury Prevention Fact Sheet: Deaths and Hospitalizations Involving Teen Drivers in Colorado. Available from, [www.cdphe.state.co.us/pp/injuryprevention/teenfactsheet.pdf](http://www.cdphe.state.co.us/pp/injuryprevention/teenfactsheet.pdf)
- 44) CDPHE. (2007-2009). Hospital discharge data: teen motor vehicle hospitalizations/regional health profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 45) CDPHE/Health Statistics Section. (2009). Pueblo County Births and Deaths. Available from, [www.cdphe.state.co.us/hs/vs/2009/Pueblo.pdf](http://www.cdphe.state.co.us/hs/vs/2009/Pueblo.pdf)
- 46) The National Campaign. Teen Pregnancy and Unintended Births. Available from, [www.thenationalcampaign.org/](http://www.thenationalcampaign.org/)
- 47) CDPHE/Health Statistics Section. (2007-2009.) Vital Statistics/Regional Health Profiles. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 48) Pregnancy Risk Assessment Monitoring System (PRAMS) Survey. (2007-2009). Available from, [www.cdphe.state.co.us](http://www.cdphe.state.co.us)
- 49) March of Dimes. Low Birth weight. Available from, [www.marchofdimes.com/medicalresources\\_lowbirthweight.html](http://www.marchofdimes.com/medicalresources_lowbirthweight.html)
- 50) CDPHE/Health Statistics Section. (2007-2009.) Vital Statistics/Regional Health Profiles. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 51) Healthy People 2020 Objectives. Maternal, Infant, and Child Health. Available from, [www.healthypeople.gov/2020](http://www.healthypeople.gov/2020)
- 52) National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation. BRFSS. (2008). Obesity. Available from, [www.countyhealthrankings.org/colorado/pueblo](http://www.countyhealthrankings.org/colorado/pueblo)
- 53) CDPHE/Health Statistics Section. (2007-2009). Child Health Survey. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)

### ***Mental Health***

- 54) Medline Plus. Mental Health. Available from the, [www.vsearch.nlm.nih.gov](http://www.vsearch.nlm.nih.gov)
- 55) CDPHE/Health Statistics Section. (2000-2009). Death Certificates/Regional Health Profiles. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 56) Healthy People 2020 Objectives. Mental Health and Mental Disorders. Available from, [www.healthypeople.gov/2020](http://www.healthypeople.gov/2020)
- 57) National Institutes of Mental Health. (2007). Suicide in the United States: Statistics and Prevention. Available from, [www.nimh.nih.gov/health/publications](http://www.nimh.nih.gov/health/publications)
- 58) U.S. Public Health Service. Mental Health: A Report of the Surgeon General. Available from, [www.surgeongeneral.gov/library/mentalhealth/toc.html](http://www.surgeongeneral.gov/library/mentalhealth/toc.html)
- 59) CDPHE/Health Statistics Section. (2007-2009). Child Health Survey. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 60) CDC. Alcohol FAQs. Available from, [www.cdc.gov/alcohol/faqs.htm](http://www.cdc.gov/alcohol/faqs.htm)
- 61) Healthy People 2020 Objectives. Substance Abuse. Available from, [www.healthypeople.gov/2020/topicsobjectives2020](http://www.healthypeople.gov/2020/topicsobjectives2020)
- 62) CDPHE/Health Statistics Section. (2007-2009). BRFSS. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 63) Teen Drug Abuse. Available from, [www.teen-drug-abuse.org](http://www.teen-drug-abuse.org)
- 64) Youth Risk Behavioral Surveillance Survey. 2005, 2007, 2009 for Pueblo County. Available from, [www.cdc.gov/healthyyouth/data](http://www.cdc.gov/healthyyouth/data)
- 65) European Union Public Health Information System. Perceived Health. Available from, [www.euphix.org](http://www.euphix.org)
- 66) National Center for Health Statistics using data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), (2007-2009). Poor or Fair Health. Available from, [www.countyhealthrankings.org/colorado/pueblo](http://www.countyhealthrankings.org/colorado/pueblo)
- 67) National Center for Health Statistics using data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), (2003-2009). Poor or Fair Health. Available from, [www.countyhealthrankings.org/colorado/pueblo](http://www.countyhealthrankings.org/colorado/pueblo)
- 68) CDPHE/Health Statistics Section. (2009). BRFSS Survey. Available from, [www.cdphe.state.co.us/cohid/brfss.html](http://www.cdphe.state.co.us/cohid/brfss.html)

### ***Access, Utilizations, and Quality of Life***

- 69) CDPHE. Oral Health Program. Available from, [www.cdphe.state.co.us/pp/oralhealth/oralhealth.html](http://www.cdphe.state.co.us/pp/oralhealth/oralhealth.html)
- 70) Healthy People 2020 Objectives. Oral health. Available from, [www.healthypeople.gov/2020/topicsobjectives2020](http://www.healthypeople.gov/2020/topicsobjectives2020)
- 71) Colorado Department of Health Care and Financing. (2008-2009.) Colorado Household Survey. Available from, [www.colorado.gov/cs/Satellite/HCPF](http://www.colorado.gov/cs/Satellite/HCPF)
- 72) CDPHE. (2011). Oral Health. Pueblo County MCH Data Set.
- 73) Kaiser Family Foundation. Available from, [www.kff.org](http://www.kff.org)

- 74) Robert Wood Johnson Foundation. Cover the Uninsured. Available from, [www.rwjf.org/files/publications/books/2006/chapter\\_03.pdf](http://www.rwjf.org/files/publications/books/2006/chapter_03.pdf)
- 75) Healthy People 2020 Objectives. Access to Health Services. Available from, [www.healthypeople.gov/2020/topicsobjectives2020](http://www.healthypeople.gov/2020/topicsobjectives2020)
- 76) Colorado Health Institute. Pueblo Summary. Available from, [www.datacenter.coloradohealthinstitute.org](http://www.datacenter.coloradohealthinstitute.org)
- 77) CDPHE/Health Statistics Section. (2007-2009). Colorado Children's Campaign & Child Health Survey
- 78) Agency for Healthcare Research and Quality. (2010). Statistical Brief #96, Potentially Preventable Hospitalizations among Medicare-Medicaid Dual Eligible. Available from, [www.hcup-us.ahrq.gov/reports/statbriefs/sb96.pdf](http://www.hcup-us.ahrq.gov/reports/statbriefs/sb96.pdf)
- 79) Institute of Medicine. (2000). Americas Health Care Safety Net: Intact but Endangered. Available from, [www.nap.edu/openbook.php](http://www.nap.edu/openbook.php)
- 80) Organization for Economic Co-operation and Development. (2007). OECD Health Data 2007: Frequently Requested Data. Available from, [www.oecd.org/document](http://www.oecd.org/document)
- 81) Colorado Health Institute (CHI) by personal communication (M. Dwyer, April 27, 2011). They provided the data collected by Peregrine Management Corporation.

### *Population Health Outcomes*

- 82) Crimmons EM, Hayward MD, Saito Y. (February 1994). Changing Mortality and Morbidity Rates and the Health Status and Life Expectancy of the Older Population. *Demography*; 31, 1
- 83) National Heart, Lung, and Blood Institute/NIH. What is Asthma? Available from, [www.nhlbi.nih.gov/health/dci/Diseases](http://www.nhlbi.nih.gov/health/dci/Diseases)
- 84) CDPHE/Colorado Environmental Public Health Tracking. (2009) Asthma Hospitalizations age adjusted rates by county. Available from, [www.coepht.dphe.state.co.us/Health](http://www.coepht.dphe.state.co.us/Health)
- 85) Colorado Child Health Survey, Pueblo County. (2007-2009). Correspondence with CDPHE Health Statistics, March 31, 2011
- 86) American Cancer Society. What is Cancer? Available from, [www.cancer.org/Cancer/CancerBasics/what-is-cancer](http://www.cancer.org/Cancer/CancerBasics/what-is-cancer)
- 87) CDPHE (2005-2007). Colorado Cancer Registry/Regional Health Profiles. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 88) American Diabetes Association. Diabetes Basics. Available from, [www.diabetes.org/diabetes-basics](http://www.diabetes.org/diabetes-basics)
- 89) CDPHE/Health Statistics Section. (2007-2009). BRFSS/Regional Health Profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 90) Mayo Clinic. Heart Disease definition. Available from, [www.mayoclinic.com/health/heart-disease](http://www.mayoclinic.com/health/heart-disease)
- 91) Colorado Hospital Association (2009).
- 92) CDC. Basic TB Facts. Available from, [www.cdc.gov/TB/topic/basics](http://www.cdc.gov/TB/topic/basics)
- 93) CDPHE/Disease Control and Environmental Epidemiology Division (2006-2008). Tuberculosis/Regional Health Profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 94) CDC. STD Facts-Chlamydia. Available from, [www.cdc.gov/std/chlamydia/stdfact-chlamydia.htm](http://www.cdc.gov/std/chlamydia/stdfact-chlamydia.htm)
- 95) CDPHE/Disease Control and Environmental Epidemiology Division (2006-2008). Chlamydia/Regional Health Profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 96) CDC. STD Facts-Gonorrhea. Available from, [www.cdc.gov/std/gonorrhea/stdfact-gonorrhea.htm](http://www.cdc.gov/std/gonorrhea/stdfact-gonorrhea.htm)
- 97) CDPHE/Disease Control and Environmental Epidemiology Division (2006-2008). Gonorrhea/Regional Health Profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 98) Thompson WW, Shay DK, Weintraub E, et.al. (September 2004). Influenza Associated Hospitalizations in the United States 1979 through 2000-2001 Respiratory Seasons. *JAMA.*; 292, No. 11
- 99) CDPHE. (2010-2011). Influenza-Associated Hospitalizations by County by Diagnosis. Available from, [www.cdphe.state.co.us/dc/Influenza/10\\_11Hospital\\_by\\_county.pdf](http://www.cdphe.state.co.us/dc/Influenza/10_11Hospital_by_county.pdf)
- 100) CDC. Foodborne Outbreak Investigations. Available from, [www.cdc.gov/outbreaknet/investigations/](http://www.cdc.gov/outbreaknet/investigations/)
- 101) CDPHE Food borne Outbreaks Reported in Colorado/Summary Data. (2010). Correspondence with Nicole Comstock/CDPHE April 2011.
- 102) Merriam Webster Online Dictionary. Mortality. Available from, [www.merriam-webster.com/dictionary/mortality](http://www.merriam-webster.com/dictionary/mortality)
- 103) City of Milwaukee Health Department. Infant Mortality. Available from, [www.city.milwaukee.gov/InfantMortality.htm](http://www.city.milwaukee.gov/InfantMortality.htm)
- 104) CDPHE/ Vital Stats, Health Statistics Section, (2007-2009). Infant Mortality Rate/Regional Health Profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 105) CDC. Motor Vehicle Safety. Available from, [www.cdc.gov/motorvehiclesafety](http://www.cdc.gov/motorvehiclesafety)
- 106) CDPHE/Health Statistics Section/Vital Statistics Unit. (2007-2009). Motor vehicle deaths/regional health profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 107) CDC/National Vital Statistics System at the National Center for Health Statistics. (2005-2007). Premature death. Available from, [www.countyhealthrankings.org/colorado/pueblo](http://www.countyhealthrankings.org/colorado/pueblo)
- 108) CDPHE/Health Statistics Section/Vital Statistics Unit. (2007-2009). Mortality/Regional Health Profile. Available from, [www.chd.dphe.state.co.us](http://www.chd.dphe.state.co.us)
- 109) CIA. The World Factbook: Life Expectancy. Available from, [www.cia.gov/library/publications/the-world-factbook/rankorder/2102rank.html](http://www.cia.gov/library/publications/the-world-factbook/rankorder/2102rank.html)
- 110) Life Expectancy. Correspondence with CDPHE/Health Statistics on March 31, 2011.