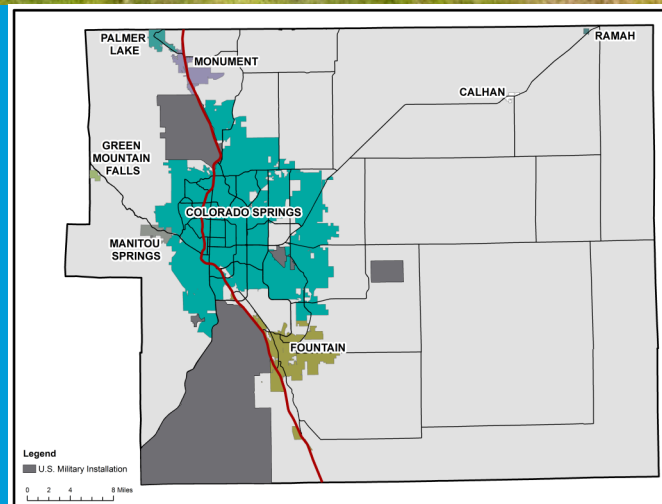


# Community Health Improvement Plan

El Paso County, Colorado



2012—2017



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A special thanks to all EPCPH staff. Your commitment to the community will continue to advance the work of the HCC.

The CHIP is a “living” document that will be revised and enhanced as the CHIP work continues. This document was created by, and will be the responsibility of, EPCPH. The CHIP will be posted on the EPCPH website <http://www.elpasocountyhealth.org/> and will continue to be updated as changes are made. If you have any comments or questions, or want to know how you can be involved in this effort, please contact us through the EPCPH website.



## Executive Summary

On behalf of El Paso County Public Health (EPCPH), I would like to thank everyone in the community who has assisted in the creation of the Community Health Improvement Plan (CHIP). Without this support, the CHIP would not be possible. We are all part of the “Public Health System” working together to assure the community receives the essential public health services.

The CHIP is a long-term, systematic effort to address public health problems on the basis of the results of the community health assessment and the community health improvement process. This plan is used in collaboration with community partners to set priorities and coordinate resources. A CHIP is critical for developing policies and defining actions to target efforts that promote health. The CHIP defines the vision for the health of the community through a collaborative process.

To begin the process of developing the CHIP, in 2011 the Healthy Community Collaborative (HCC) was formed to create an action plan to improve the health of people of El Paso County. HCC is a stakeholder group of community partners which consists of representatives from schools, hospitals, health systems, non-profit organizations, city and county government agencies, public health, medical providers, business, and interested citizens. EPCPH is proud to be a member of HCC and to be a part of the CHIP effort.

HCC has chosen obesity prevention as its focus, targeting community efforts and resources on evidence-based solutions to increase healthy eating and active living. HCC’s goal is to stop the upward trend of overweight and obesity in El Paso County within the next five years and reverse the trend in the coming decade.

Although the CHIP is a local effort, we have an ongoing collaborative relationship with CDPHE and other health agencies in Colorado, and the Centers for Disease Control (CDC) and other organizations throughout the country to share expertise and experiences to enhance our CHIP. Awareness of State priorities and national Public Health Accreditation standards are key to the success of the CHIP. Funding opportunities, quality outcomes, and shared resources will increase the opportunity for successful, sustainable results in El Paso County.

Sincerely,



Jill Law, RN, BSN, MHA  
Public Health Director



## **Community Description: El Paso County, Colorado**

El Paso County is located in the south central region of Colorado. As of July 2010, the county had an estimated 627,096 residents and the population is projected to reach nearly 1 million over the next three decades (Figure 1).<sup>1</sup> El Paso County is a mix of urban, suburban, and rural communities with about two-thirds (419,353) of the population residing within the city of Colorado Springs. The variation in population density throughout the county is demonstrated in Figure 2, which indicates the number of people per square mile.<sup>2</sup>

El Paso County's population is comprised of 50.2 percent females. The median age is 34.1 years, with 26.1 percent of the population under the age of 18 years and 10.0 percent over the age of 65 years (Table 1).<sup>1,3</sup> The racial and ethnic breakdown in the county shows the population to be predominantly non-Hispanic white (73.9 percent), followed by 15.0 percent Hispanic of any race (Figure 3); non-Hispanic black and other non-Hispanic races comprise 6.3 percent and 4.8 percent of the total population, respectively.<sup>1</sup> Vital statistics data showed that during 2010, there were 9,187 live births and 3,530 deaths in El Paso County.<sup>4</sup>

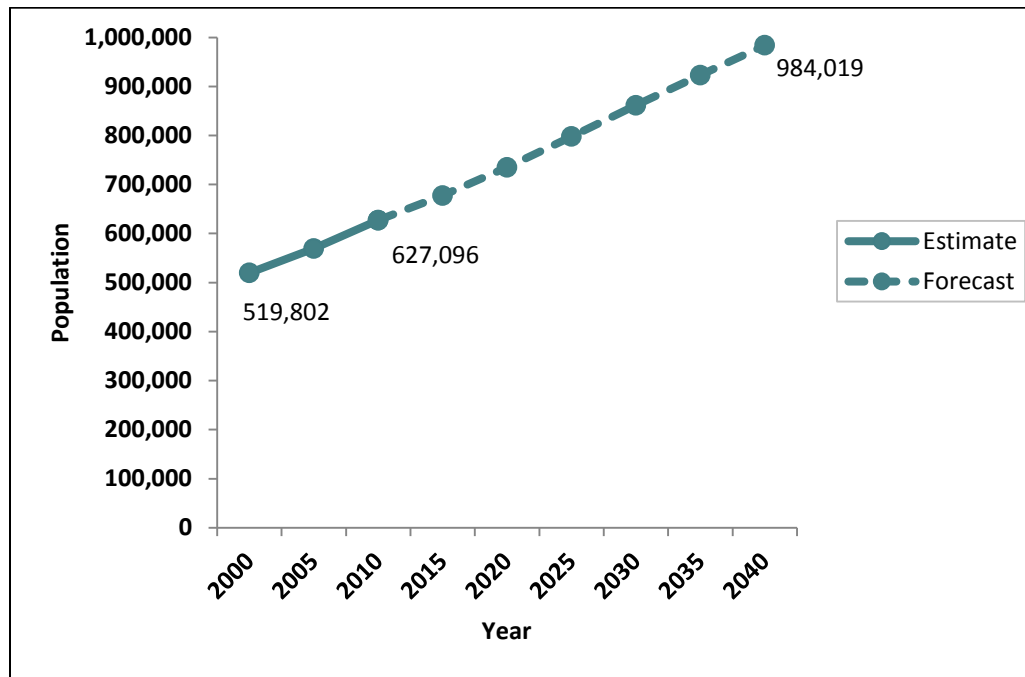
El Paso County has a large military presence, including four military installations – Fort Carson Army Base, Peterson Air Force Base, Schriever Air Force Base, and the United States Air Force Academy. A 2011 report from the Greater Colorado Springs Chamber of Commerce estimates that these four installations employ nearly 40,500 military personnel and approximately 21,000 civilian/contract personnel.<sup>5</sup> Three-quarters of military personnel are estimated to live in communities outside the military bases. El Paso County is home to 58 percent of Colorado's military retiree population, according to this report.

The median household income in El Paso County was \$51,548 in 2010 (Figure 4), with 19.1 percent of children younger than 18 years and 10.4 percent of families living below the Census Bureau's 2010 poverty threshold.<sup>6</sup> Families living in poverty are more concentrated in south Colorado Springs, and south-central and eastern El Paso County (Figure 5). An estimated 8.9 percent of households in El Paso County received Supplemental Nutrition Assistance Program benefits (SNAP, formerly known as food stamps) in 2010; among households receiving SNAP, 56.2 percent were below the poverty threshold and 60.3 percent included children younger than 18 years of age.<sup>7</sup> According to the Colorado Department of Labor and Employment, the average unemployment rate in El Paso County during 2011 was 9.5 percent.<sup>8</sup>

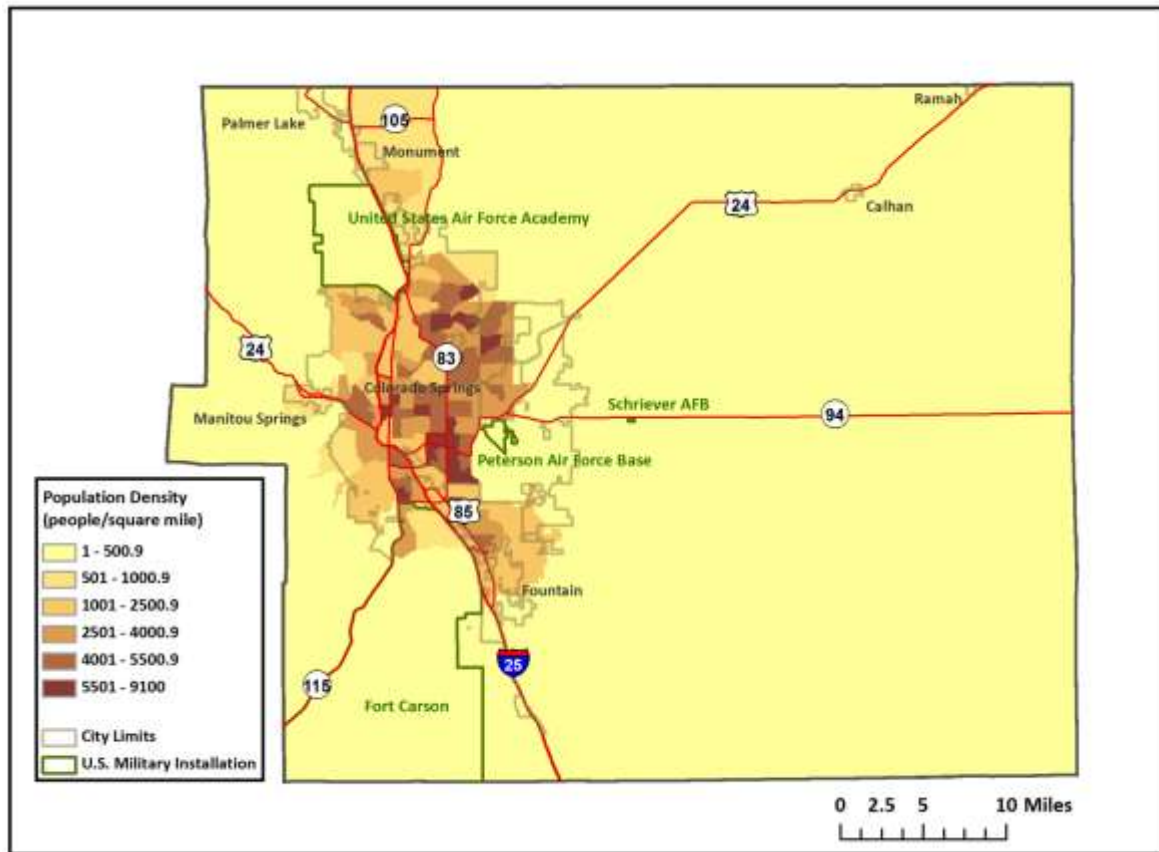
In 2010, 22.0 percent of El Paso County residents ages 25 years and older held a high school diploma or equivalent as their highest degree, and just over one-third held a bachelor's degree or higher (Figure 6).<sup>9</sup> The on-time graduation rate, defined as the number of students who completed high school within four years, for the class of 2010 was 78.4 percent.<sup>10</sup> During the same academic year, 2.1 percent of seventh to twelfth grade students dropped out of school in El Paso County.

An estimated 11.0 percent of people ages 5 years and older in El Paso County spoke a language other than English at home in 2010, with more than half (58.3 percent) being Spanish-speaking.<sup>9</sup> Of those speaking a language other than English at home, 36.2 percent were considered linguistically isolated (defined as speaking English “less than very well”).

**Figure 1. Population estimates and projected forecast, El Paso County 2000 to 2040**



**Figure 2. Population density (people/square mile), by census tract, El Paso County 2010**

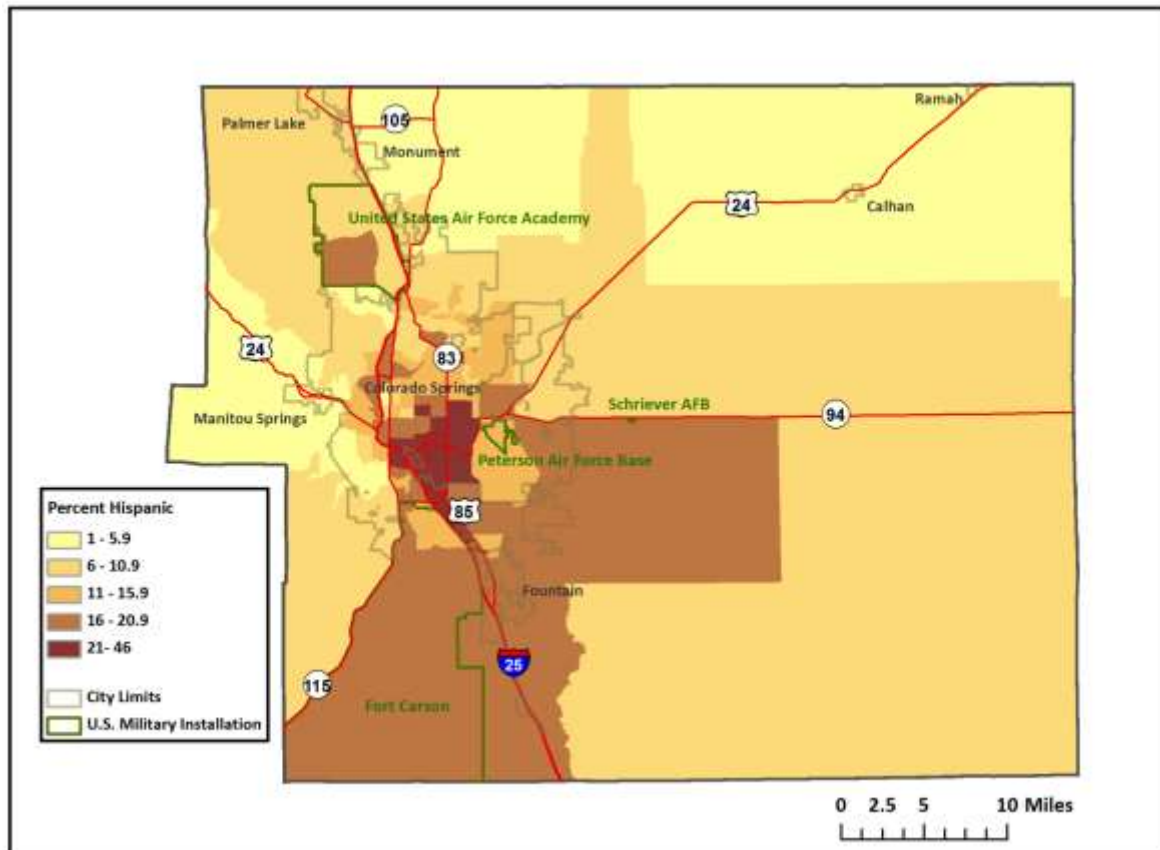


**Table 1. Age distribution of El Paso County population, 2010**

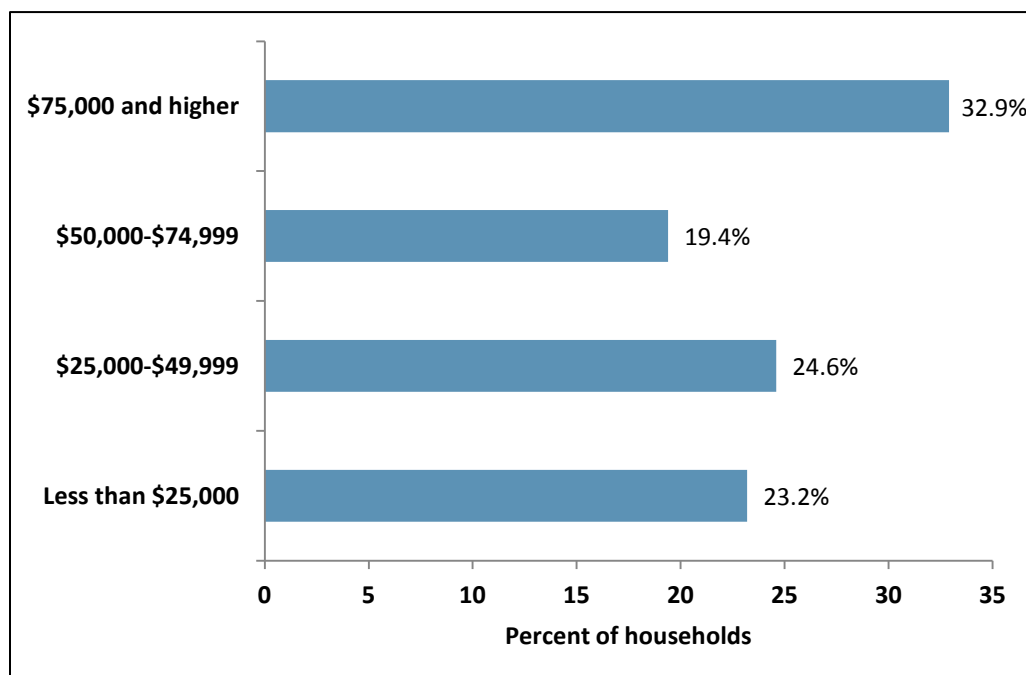
Age	Number	Percent of population
Under 18 years	163,425	26.1%
18 to 24 years	68,648	10.9%
25 to 44 years	170,547	27.2%
45 to 64 years	161,656	25.8%
65 years and older	62,820	10.0%



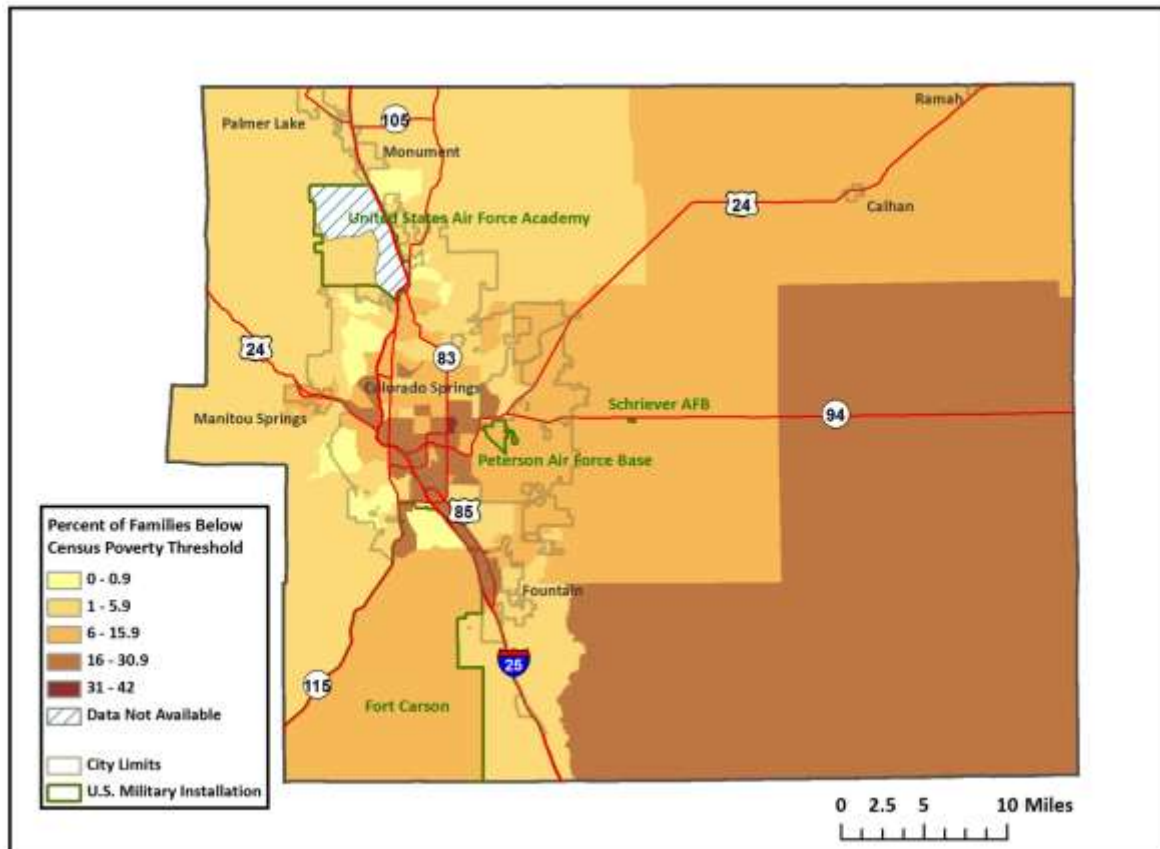
**Figure 3. Hispanic population, percent by census tract, El Paso County 2010**



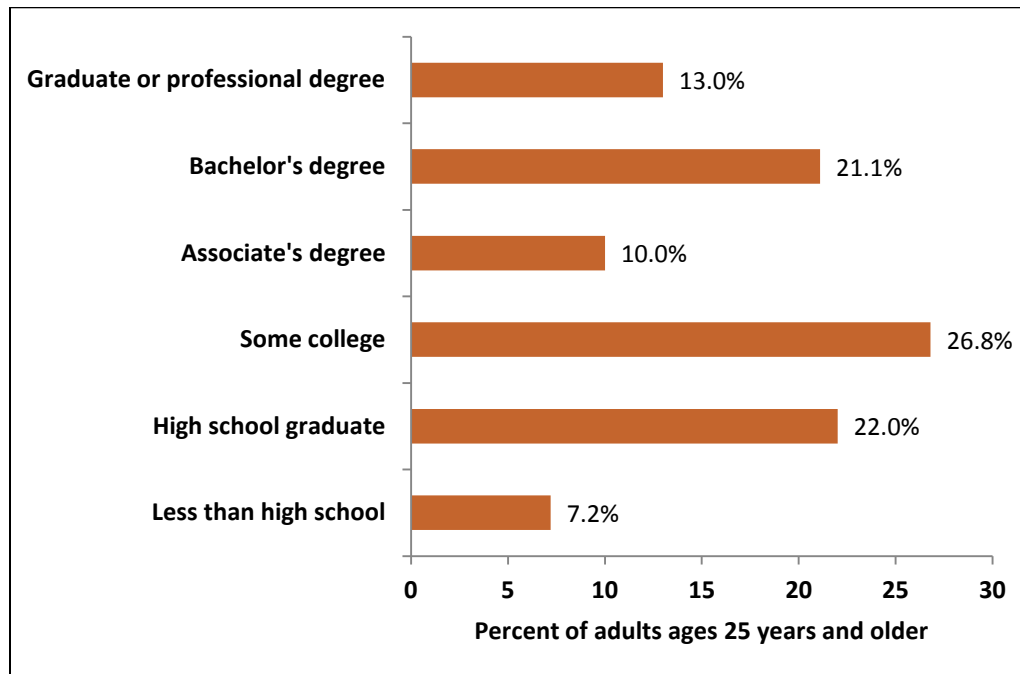
**Figure 4. Annual household income, El Paso County 2010**



**Figure 5. Percent of families below poverty threshold, by census tract, El Paso County 2006 to 2010**



**Figure 6. Educational attainment among adults ages 25 years and older, El Paso County 2010**



<sup>1</sup> Colorado State Demography Office [Internet]. Population Data. Available from: [www.colorado.gov/cs/Satellite/DOLA-Main/CBON/1251593300013](http://www.colorado.gov/cs/Satellite/DOLA-Main/CBON/1251593300013).

<sup>2</sup> U.S. Census Bureau [Internet]. 2010 Census. Population, Housing Units, Area, and Density: 2010 – County – Census Tract (Table GCT-PH1). Available from: <http://factfinder2.census.gov/main.html>.

<sup>3</sup> U.S. Census Bureau [Internet]. 2010 Census. Profile of General Population and Housing Characteristics (Table DP-1). Available from: <http://factfinder2.census.gov/main.html>.

<sup>4</sup> Colorado Department of Public Health and Environment [Internet]. 2010 State and County Birth and Death Summary Tables. Available from: [www.chd.dphe.state.co.us/topics.aspx?q=Maternal\\_Child\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Maternal_Child_Health_Data).

<sup>5</sup> Greater Colorado Springs Chamber of Commerce [Internet]. Colorado's Valuable National Assets: A brief look at Colorado's military [April 2011]. Available from: [www.coloradospringschamber.org/military/](http://www.coloradospringschamber.org/military/).

<sup>6</sup> U.S. Census Bureau [Internet]. 2006-2010 American Community Surveys. Selected Economic Characteristics in the United States (Table DP03). Available from: <http://factfinder2.census.gov/main.html>.

<sup>7</sup> U.S. Census Bureau [Internet]. 2010 American Community Survey. Food Stamps/SNAP (Table S2201). Available from: <http://factfinder2.census.gov/main.html>.

<sup>8</sup> Colorado Department of Labor and Employment [Internet]. 2011 Local Area Unemployment Statistics. Available from: <http://lmigateway.coworkforce.com/lmigateway/default.asp>.

<sup>9</sup> U.S. Census Bureau [Internet]. 2010 ACS. Selected Social Characteristics in the United States (Table DP02). Available from: <http://factfinder2.census.gov/main.html>.

<sup>10</sup> Colorado Department of Education [Internet]. 2009-2010 Colorado Education Statistics. Available from: [www.cde.state.co.us/index\\_stats.htm](http://www.cde.state.co.us/index_stats.htm).

# Public Health

## What is Public Health?

Public health is defined as “the science and practice of protecting and improving the health of a community, as by preventative medicine, health education, control of communicable diseases, application of sanitary measures, and monitoring of environmental hazards.”<sup>i</sup> The role of public health is to protect and improve the health of an entire population rather than individuals. Public health strives to limit health disparities, working toward health care equity for the population it serves.

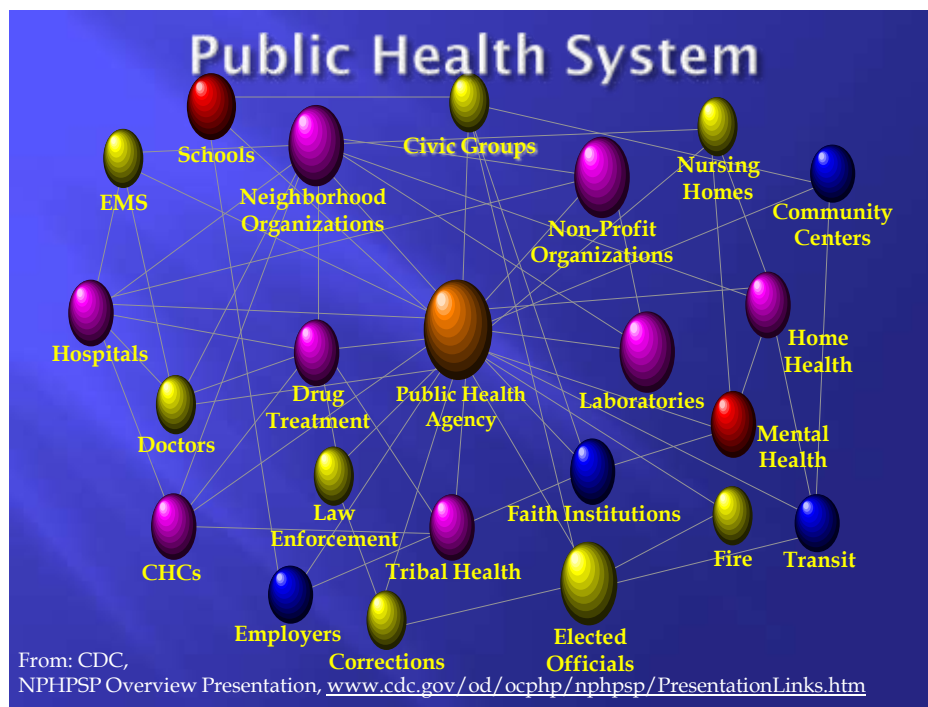
Public health systems are broader than simply the local or state public health agency. In fact, the public health system includes all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction<sup>ii</sup> (Figure 1). In Colorado, public health core services are defined by state legislation and the local public health agency is responsible for assuring the provision of these core services within their jurisdiction, typically within county boundaries. Examples of core public health services include assuring clean air and water, safe food, health education to prevent chronic disease and injury, and investigating infectious disease outbreaks, among other priorities.

In addition to assuring core public health services, local public health agencies are required by the Public Health Act, Colorado Senate Bill 194, to complete a community health assessment (CHA) and a community health improvement plan (CHIP). The CHA and CHIP must be conducted with a multi-agency community group, use current local health indicator data, and align with the statewide public health improvement plan. The National Public Health Accreditation Board (PHAB) requires the CHA, CHIP, and an agency Strategic Plan for the accreditation of local public health agencies. Accreditation is new to public health, but will act similarly to hospital and university accreditation, in that accredited agencies will be recognized as those that provide quality services, are financially accountable, use evidence-based practices, and work with broad community partnerships. El Paso County Public Health (EPCPH) earned national accreditation status by the Public Health Accreditation Board on August 20, 2013.

## Public Health’s “Winnable Battles”

Both the Centers for Disease Control and Prevention (CDC) and the Colorado Department of Public Health and Environment (CDPHE) released a set of “Winnable Battles” for public health where significant progress can be made in the coming decade. Winnable Battles are key public health and environmental issues where substantial progress can be made to improve population health. In Colorado, CDPHE selected ten Winnable Battles that impact a high percentage of the population; involve significant health disparities; impose a large economic burden or risk on quality of life or the environment; and are consistent with state and federally-mandated programs designed to improve and protect the environment and public health (Figure 2). Colorado’s Winnable Battles also were selected because evidence-based strategies with proven impact exist for these population health areas and in many localities there is community-level readiness and support for change.

**Figure 1: The Public Health System**



**Figure 2: Colorado's Ten Winnable Battles**

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

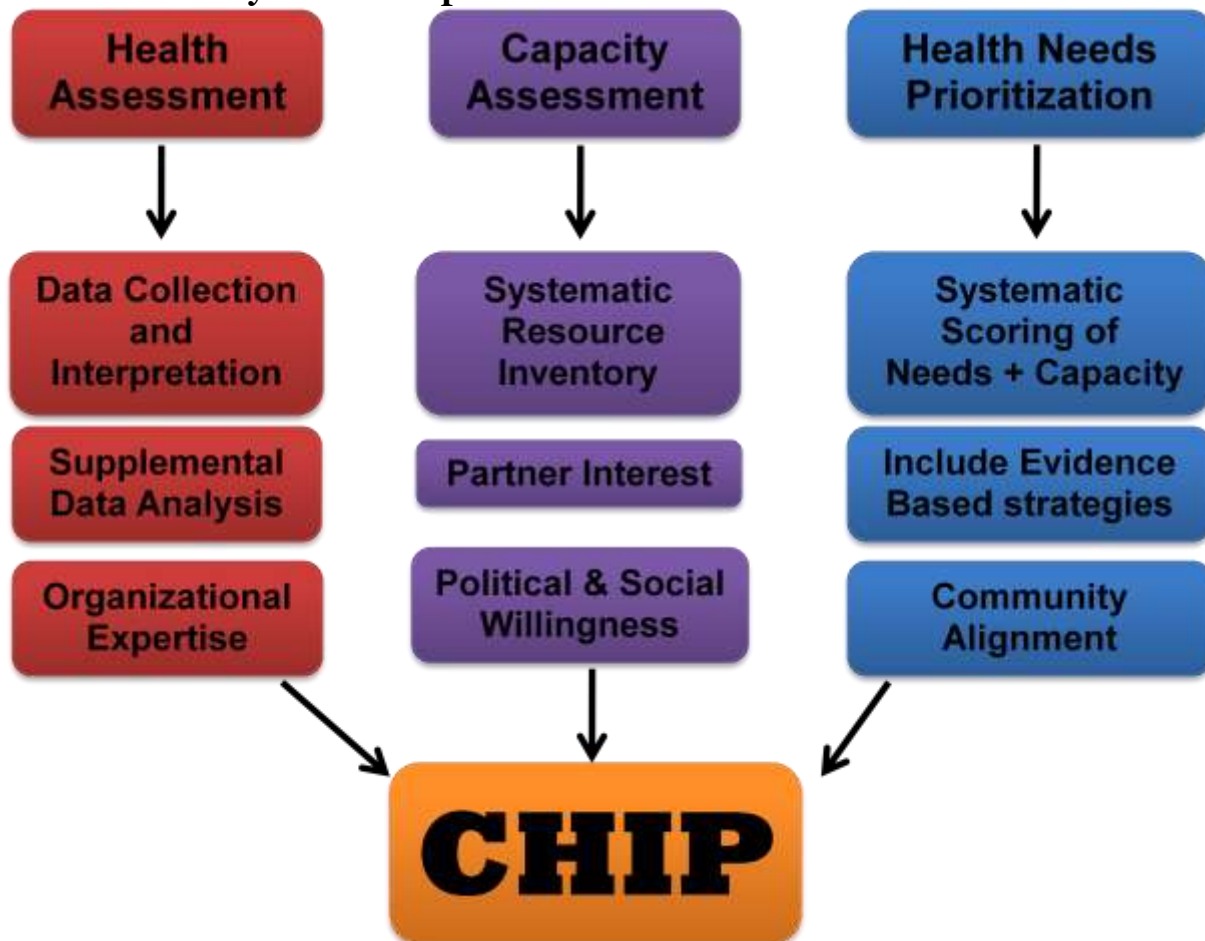
## Community Health Improvement Planning Process

In response to the Public Health Act, also known as Senate Bill 194, enacted by the state legislature in 2008, CDPHE's Office of Planning, Partnerships, and Improvement (OPPI) developed Colorado's Health Assessment and Planning System (CHAPS) process to provide a standard mechanism for assisting local public health agencies in meeting assessment and planning requirements. Senate Bill 194 requires state and local public health agencies to create community health improvement plans (CHIP) for their jurisdictions. The CHIP must be completed every five years and be based upon (Figure 3):

- A community health assessment including local health indicator data;
- A capacity assessment of community resources available to work on community health issues; and
- A prioritization process in which a broad stakeholder group are engaged in determining community priorities.

**Figure 3: The CHAPS Process**

### The Community Health Improvement Plan





EPCPH was selected by CDPHE to work closely with OPPI as a pilot site for the CHAPS process. As a result, EPCPH was able to effectively implement CHAPS in El Paso County based on the following activities and timeline:

- **April 2010:** EPCPH convenes 57 attendees, including 24 partners representing 21 various agencies as well as 33 internal staff members to assess the Local Public Health System through the use of the National Public Health Performance Standards Program (NPHPSP) Local Public Health System (LPHS) Assessment. The LPHS indicated areas for improvement within the local public health system and within EPCPH. One area for improvement noted was to complete a CHA and CHIP and foster better community engagement. EPCPH used this information as it began the CHA and CHIP processes.
- **June 2011:** EPCPH convenes a stakeholder group of roughly 49 community agencies and over 80 members called the Healthy Community Collaborative (HCC). The HCC agrees to a scope of work that includes review of local health indicator data for the CHA, designing and participating in: capacity assessments, key informant interviews, prioritizing community health needs, and creating and implementing a CHIP.

The HCC consists of representatives from schools, hospitals and health systems, non-profit organizations, city and county government agencies, public health, medical providers, and interested citizens. The vision of the HCC is to create and sustain healthier communities by inspiring health and wellness. The HCC will achieve this vision by building an integrated system of community partnerships which puts practices into place that provide people the opportunity to have better health outcomes.

- **July-August 2011:** EPCPH provides local health indicator data to the HCC. Data is presented within the content areas of Colorado's Ten Winnable Battles. Data was stratified by sex, age, income, education, and race/ethnicity to determine where health inequities exist.

Key informant interviews of selected HCC members were conducted by EPCPH staff using a standardized questionnaire focused on population health issues. Twenty-eight key informant interviews were conducted.

- **September-October 2011:** EPCPH develops a capacity assessment survey to measure potentially available resources within the community to address the following population health topics selected by HCC as the most important local issues:
  - Diet and Physical Activity
  - Tobacco Use
  - Mental Health and Substance Abuse
  - Unsafe Sexual Practices and Teen Pregnancy
  - Motor Vehicle Injury

- Oral Health

Fifteen assessments completed by HCC members are returned for evaluation.

EPCPH provides information to the HCC on evidence-based interventions (EBIs) for the selected population health topics. Sources for EBIs include Task Force on Community Preventive Services (The Community Guide), Cancer Control PLANET, Substance Abuse and Mental Health Services Administration (SAMHSA), National Registry of Evidence-Based Programs and Practices (NREPP), and Healthy People 2020.

HCC meets to discuss the burden of disease in the community for each topic area by reviewing health indicator data and national costs of poor health outcomes related to these diseases or conditions. The HCC ranks the relative burden for each topic area based on their determination of the effect of each health issue on the community as a whole. The HCC determines that the most important health issues facing El Paso County are (in order) diet and physical activity, mental health and substance abuse, tobacco, unsafe sexual practices and teen pregnancy, motor vehicle injury, and oral health.

- **November 2011:** The HCC meets to determine priorities for the CHIP. The HCC reviews health indicator data, the burden ranking outcomes, the results of the capacity assessment, potential EBIs, and the community's interest in working in each topic area. The HCC discusses these items and then ranks each health focus area to determine community priorities. Diet and physical activity and mental health are the top two ranked priorities. The HCC determines that it can be most impactful by focusing on one topic area and chooses to focus on improving healthy eating and active living in El Paso County.
- **December 2011:** The preliminary CHA is presented to elected officials, community groups, and posted on EPCPH's website for community feedback and comment.
- **January 2012:** EPCPH and the HCC release a second capacity assessment for healthy eating and active living programs already in existence in El Paso County. The survey was sent to HCC members and other community agencies identified by the HCC. Thirty agencies with fifty initiatives responded to the survey. Based on survey results, an inventory of community initiatives that address healthy eating and active living is created and gaps in services are identified. This information is placed in a sector-based matrix (e.g., child care, school, work place, community, media, food systems, etc.) along with information about EBIs for each sector to allow the HCC to determine how to work to improve healthy eating and active living.
- **February 2012:** The HCC divides into a Steering Committee and sector-based task forces to create the CHIP. From here the CHIP document with goals,

objectives, and activities will be created by the HCC. The HCC and EPCPH will be responsible for implementation and evaluation.

- **March 2012:** The HCC Steering Committee meets to determine the overarching goal for the CHIP. This goal is presented to the HCC and affirmed by the membership. Based on the goal, sector-based task forces were chosen to review what strategies had the best chance at success for achieving the selected goal and objectives. Lead agencies were selected, activities outlined, and evaluation metrics established for short and long term outcomes.

**Overarching goal for CHIP:** HCC will stop the upward trend of overweight and obesity in El Paso County within the next five years and reverse the trend in the coming decade.

- **April 2012:** The HCC meets to form task forces, select leaders, determine communication methods, set meeting norms, set meeting schedule, and identify potential partners for the task forces.
- **May 2012:** Task forces receive training on logic models, evidence-based interventions, literature reviews, and the social determinant of health models.
- **June/July 2012:** Task forces complete literature reviews, review capacity assessments, and use established criteria for determining strategies.
- **August 2012:** Task Forces select strategies, complete logic models, and present logic models to the HCC membership.
- **September 2012:** HCC Steering Committee reviews logic models and gives feedback to task forces and HCC membership at monthly HCC meeting. Strategies are discussed. Population health and common themes from the task force logic models are discussed. There is agreement that further discussion is needed to determine what strategies the HCC will implement. Further discussion at the October 2012 meeting.
- **October 2012:** The HCC meets to view a presentation on Obesity messaging and discuss how we could potentially apply this information to messaging/branding/taglines for HCC. HCC task forces are asked to meet and to brainstorm ideas for messaging/branding/taglines, to submit feedback to the HCC Steering Committee, and to discuss at the January 2013 HCC meeting.
- **December 2012:** The HCC Steering Committee meets to plan the January 2013 HCC meeting. Messaging and logic models will be discussed.

- **January 2013:** The HCC meets to review feedback from task forces on messaging ideas. HCC decides it is too early to proceed with working on messaging/branding/taglines. HCC Steering Committee asks task forces to meet and review the logic models created and presented to HCC in August 2012 using a list of questions designed by the Steering Committee. The task forces are asked to submit this information to the HCC Steering Committee by March 31, 2013. This information will be reviewed by the HCC Steering Committee and feedback given at the May 15, 2013 HCC meeting.
- **February, 2013:** EPCPH submits the most updated version of the CHIP, January 18, 2013, to CDPHE OPPI. Colorado Public Health Act (Senate Bill 194) requires that every local public health department create a CHIP every five years. EPCPH is a pilot site for Colorado's Health Assessment and Planning Process (CHAPS). As part of this pilot, EPCPH is required to submit the CHIP to CDPHE by February 15, 2013. Also required that El Paso County Board of Health review the CHIP. CHIP emailed to EPC BOH on January 18, 2013 for review.
- **April, 2013:** Healthy Community Collaborative (HCC) Committee met and evaluated proposed projects.
- **May, 2013:** HCC meeting announced the projects moving forward: Coordinated School Health Team and Worksite Wellness Challenge Team. Three additional teams have also been created: Messaging Team; Evaluation and Evidence-based Research Team; and Resource Team.
- **June, 2013:** Messaging Team met for the first time. Due to the Black Forest Fire, Steering Committee meetings with project teams were delayed.
- **July, 2013:** Healthy Community Collaborative (HCC) Steering Committee drafted work plan template. HCC Messaging team refined brand and tagline concepts for presentation at the HCC meeting in August.
- **August, 2013:** HCC Steering Committee finalized work plan template for presentation to project teams in September. HCC Messaging team presented and solicited feedback on brand and tagline concepts.
- **September, 2013:** HCC Evaluation and Evidence Based Research team met to develop a strategy to assist project teams with developing work plans. HCC Steering Committee met with project teams. Work plan template was presented and HCC Evaluation and Evidence Based Research team supports were explained to project teams.

- **December, 2013:** HCC Steering Committee and School Health task force members met with a representative from the Colorado Department of Public Health and Environment to discuss state efforts with regards to Coordinated School Health. The meeting provided a greater understanding of Coordinated School Health and how the HCC coordinated school health project may align with or be supported by the state.
- **January, 2014:** HCC Steering Committee members and Public Health officials met to discuss HCC resources and initiatives for 2014. Attendees discussed moving HCC forward with a population based unified community-wide initiative named, “Let’s Go! 5-2-1-0” <http://www.letsgo.org/>. “Let’s Go! 5-2-1-0” is an evidence-based, educational, healthy eating and active living campaign that could be promoted throughout the HCC. HCC Steering Committee members decided to seek HCC task force lead and co-lead input regarding proceeding with the promotion of the “Let’s Go! 5-2-1-0” campaign HCC-wide prior to making a final decision.
- **February, 2014:** Input was requested from HCC task force leads and co-leads regarding moving the HCC forward in a unified effort promoting the “Let’s Go! 5-2-1-0” initiative.
- **March, 2014:** HCC Steering Committee members reviewed HCC task force leads and co-leads input regarding moving the HCC forward in a community-wide effort with the promotion of the “Let’s Go! 5-2-1-0” initiative. HCC Steering Committee members voted to move forward with HCC “Let’s Go! 5-2-1-0” efforts.
- **May, 2014:** HCC meeting was held. EPCPH’s 2013 Annual Report and obesity information were presented by the EPC Public Health Director. Members were given a presentation on the “Let’s Go! 5-2-1-0” campaign. The City of Colorado Springs presented on “Let’s Go! 5-2-1-0” initiatives within their Community Centers. Members supported moving HCC forward in the community with the “Let’s Go! 5-2-1-0” campaign.
- **August, 2014:** HCC meeting was held. The interim EPC Public Health Director was introduced to the HCC. A presentation on the implementation of the “Let’s Go! 5-2-1-0” campaign was given.
- **December, 2014:** The HCC submitted a Letter of Support to City Council of Colorado Springs for the passing of a resolution to make the City of Colorado Springs a Healthy Eating Active Living (HEAL) designated city. The City Council passed the resolution.
- **January, 2015:** HCC Steering Committee members met with EPCPH leadership to discuss formalizing the process for operation of the HCC and defining the roles of the HCC Steering Committee members. The Steering Committee suggested

that the HCC be surveyed for potential additional directions. A HCC was held and were updated about the status of the HCC and a presentation on “Let’s Go! 5-2-1-o” in the EPCPH’s Maternal and Child Health Program was provided.

- **February, 2015:** HCC Steering Committee members met and discussed the member survey in greater detail. The Steering Committee discussed the possibility of expanding to include additional key stakeholders.
- **March, 2015:** HCC Steering Committee members met and discussed the HCC survey results. EPCPH’s role was defined as the facilitator and director of the HCC, but that it should not be solely responsible for all work pertaining to the goals created by the HCC.
- **April, 2015:** HCC meeting was held. The survey results were provided to the HCC. One of the main goals of the HCC to come out of the survey was that it should be a place where community organizations could discuss what they are working toward, so that others that would like to be involved can network with them. Other goals identified were: engaging and supporting school districts; engage local funders; develop shared metrics; interest in grant opportunities; political engagement & advocacy at the political level.
- **May, 2015:** HCC provided a Letter of Support for the BUILD Health Challenge grant, a collaborative effort between Livewell Colorado, EPCPH, and Penrose-St. Francis Hospital that is working to improve health in a specific neighborhood in Colorado Springs.
- **June, 2015:** HCC meeting was held. Presentations by United Way on the 211 Health Navigators and by the Colorado Department of Public Health and the Environment on recent overweight and obesity data for Colorado and El Paso county were given.
- **August, 2015:** HCC meeting was held. A presentation by GP Red was given on a survey opportunity for middle schools to obtain information on social determinants of health was given. EPCPH facilitated a discussion on what health indicators are important to HCC members to see in the next Community Health Assessment.
- **September, 2015:** HCC Steering Committee members met and discussed the steps needed to move forward. A partner tool for evaluating collaboration was discussed for use with the HCC members. EPCPH will be the lead agency of the HCC and will give partners the baseline and provide benchmarks for the future of the collaboration.



# Improving Healthy Eating and Active Living in El Paso County

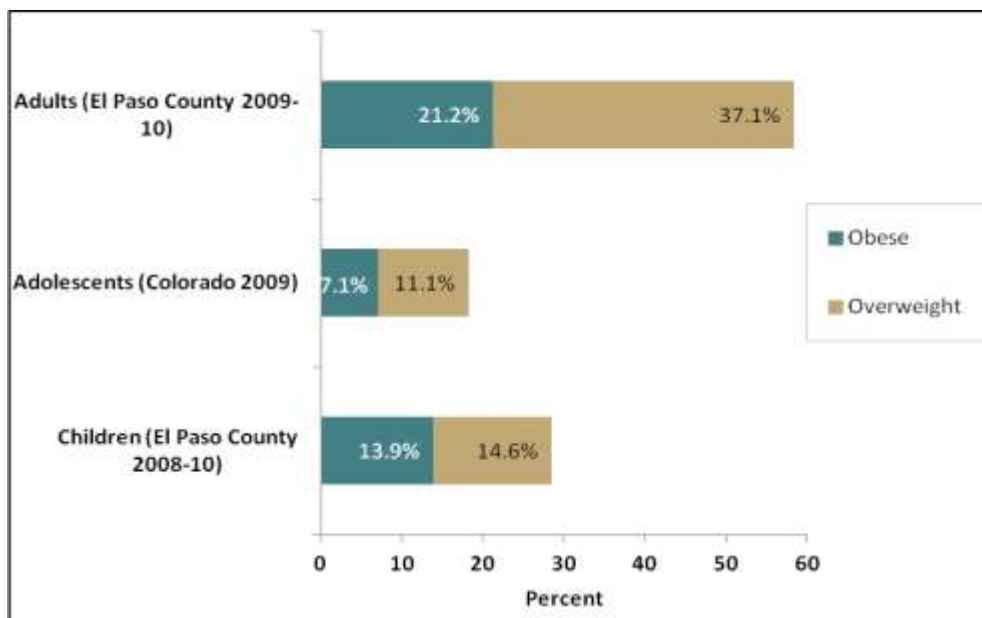
## The growing problem of overweight and obesity

Although Colorado continues to rank as one of the leanest states in terms of weight indicators, it has not escaped the national obesity epidemic. This is true for El Paso County as well, where an estimated 37.4 percent of the adult population in El Paso County was overweight and 20.5 percent, or 1 in 5 adults, was obese in 2010 to 2012 (Figure 1).<sup>iii</sup>

For children ages 2 to 14 years in El Paso County, 28.5 percent were of excessive weight between 2008 and 2010.<sup>iv</sup> Figure 1 also shows that almost one in five Colorado high school students were at an unhealthy weight in 2009 (7.1 percent obese and 11.1 percent overweight).<sup>v</sup>

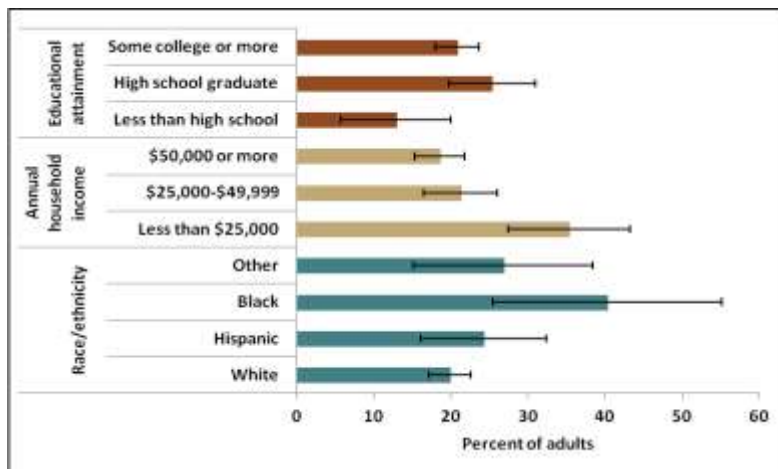
Disparities exist for people who are overweight and obese based on income, education, and race (Figure 2). There is a trend, although not statistically significant, for black adults to have higher prevalence of obesity as compared to white or Hispanic adults. Also, obesity is more common among people in households earning less than \$25,000 per year and, interestingly, is higher in people who graduated high school or have a more advanced degree.<sup>6</sup>

**Figure 1. Percent of population with unhealthy weight, El Paso County and Colorado 2010 to 2012**



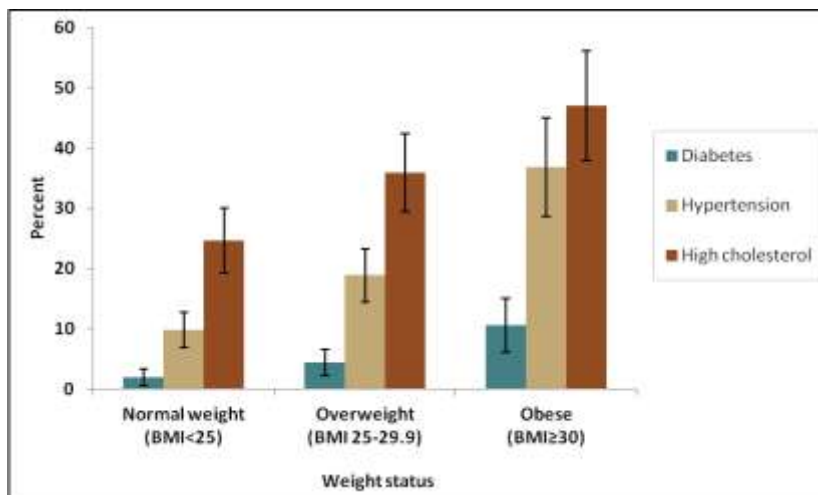
The growing trend of overweight and obese children and adults is putting people at risk for poor health outcomes including hypertension, high cholesterol, and non-gestational diabetes. In El Paso County, the number of adults with these conditions has increased substantially in the past decade, paralleling trends in obesity. Between 2003 and 2009, hypertension among adults has risen from 14.7 percent to 19.2 percent, and high cholesterol rose from 25.5 percent to 34.5 percent among those who had their cholesterol levels checked.<sup>5</sup> The prevalence of non-gestational diabetes increased from 3.8 percent among adults in 2003-2004 to 5.4 percent in 2009-2010, representing a 42 percent increase overall. Figure 3 illustrates that people with unhealthy BMI are substantially more likely to suffer from hypertension, high cholesterol, and non-gestational diabetes.<sup>vi</sup>

**Figure 2. Percent of adults 18 years and older who are obese, by selected characteristics, El Paso County 2009 to 2010**



Error bars represent the 95% margin of error for each value.

**Figure 3. Percent of adults 18 years and older with co-existing conditions based on weight status, El Paso County 2009**



Error bars represent the 95% margin of error for each value.

Eating, physical activity, and sedentary behaviors of children and youth impact the risk of being overweight and obese. Statewide, nearly two thirds of children under 14 years of age regularly eat fast food and a substantial proportion engage in sedentary activities for two or more hours per average school day (Figure 4).<sup>8</sup>

The U.S. Preventive Services Task Force presented evidence that breastfeeding provides substantial health benefits for children, with improved health outcomes being related to the duration and exclusivity of breastfeeding.<sup>vii</sup> For example, children who were not breastfed were more likely to have asthma, type 2 diabetes, and obesity. Interestingly, data shows that in El Paso County nearly 90 percent of new mothers initiate breastfeeding after birth, although nearly one-third of those mothers do not continue breastfeeding beyond 2 months.<sup>viii</sup>

Physical activity measures indicate that many adults are meeting recommended guidelines. In El Paso County in 2009, 57.0 percent of adults reported engaging in two hours and 30 minutes of moderate physical activity (e.g., brisk walking) or one hour of vigorous physical activity (e.g., running) per week.<sup>ix</sup> In contrast, fewer children and youth are meeting the recommendation for daily physical activity. Only 38.0 percent of Colorado children ages 5 to 14 met the recommended daily amount of moderate physical activity in 2010.<sup>8</sup> Just over one-quarter of Colorado high school students met the recommended daily amounts of exercise in 2009 (Figure 4).<sup>9</sup>

**Figure 4. Percent of children engaging in selected eating and recreational behaviors, Colorado 2009 to 2010**

	Ages 1-14 years (2010)	Ages 15-19 years (2009)
Consuming less than recommended daily amount of fruit and vegetables <sup>a</sup>	81.3%	75.6%
Eating fast food one or more times per week <sup>b</sup>	63.3%	n/a
Engaging in recommended daily physical activity <sup>c</sup>	38.0% (ages 5-14)	26.9%
Watching TV or videos two or more hours on average school day <sup>d</sup>	34.1% (ages 5-14)	45.6%
Playing video games or using computer <sup>d</sup> two or more hours on average school day	11.0% (ages 5-14)	35.2%

<sup>a</sup> Five or more servings per day.

<sup>b</sup> Food is paid for at a counter or drive thru, before being eaten.

<sup>c</sup> 60 minutes of physical activity per day.

<sup>d</sup> Unrelated to school

n/a: Measure unavailable for age group

## **Working to reverse the trend**

The Healthy Community Collaborative (HCC) chose to focus its community health improvement efforts on healthy eating and active living because the group wanted to work on initiatives that would have broad impact on the health of the community. The health benefits associated with a healthy diet and regular exercise include:

- Decreased risk of chronic diseases such as type 2 diabetes, hypertension, and certain cancers
- Decreased risk of overweight and obesity
- Decreased risk of vitamin and mineral deficiencies<sup>x</sup>

A healthful diet includes a variety of nutrient-dense foods within and across the food groups, especially whole grains, fruits, vegetables, low-fat or fat-free dairy products, and lean protein sources. A healthful diet also limits the intake of saturated and trans fats, cholesterol, added sugars, sodium, and alcohol.

Physical activity reduces risks of cardiovascular disease and diabetes beyond that produced by weight reduction alone. In addition, physical activity helps to:

- Reduce high blood pressure
- Reduce risk for type 2 diabetes, heart attack, stroke, and several forms of cancer
- Reduce arthritis pain and associated disability
- Reduce risk for osteoporosis and falls
- Reduce symptoms of depression and anxiety<sup>xi</sup>

In 2008, the U.S. Department of Health and Human Services released guidelines for physical activity.<sup>xii</sup> Adults ages 18 to 64 years should engage in two hours and 30 minutes of moderate-intensity, or one hour and 15 minutes of vigorous-intensity, aerobic physical activity each week. Children and adolescents (ages 6–17 years) should engage in one hour of physical activity every day. Both age groups are advised to participate in muscle-strengthening activities at least twice weekly.

## Goals and Measurable, Time-Framed Objectives

In order to set a strong foundation for this process, it is important to engage all sectors of the community and create a coordinated, thoughtful plan that fosters sustainable change to achieve the HCC goal. In this first year of the CHIP, the HCC is building capacity among stakeholders in the four sectors selected: schools, worksites, community outlets, and food systems. To assure the HCC is making progress toward its goals, the measurable objectives for the first year will focus on depth of collaboration, action plan creation, and process measures. These foundational steps are critical components of the CHIP planning process.

### Overarching Goal

*HCC will stop the upward trend of overweight and obesity in El Paso County within the next five years and reverse the trend in the coming decade.*

### Objectives Timeline

The objectives and their outcomes below include both the planning phase and implementation of the CHIP. The planning process occurred over more than a two-year period and was intentionally methodical and comprehensive. All of the objectives and their outcomes are a result of the CHIP process and will lead to a community-driven, evidence-based approach to implementation and sustainability of the strategies identified and developed by the HCC.

HCC members will continue to review strategies and as a collaborative determine what strategies will be implemented by the HCC. This will include discussion of resources needed to implement the strategies including funding, the creation of work plans which include goals, objectives, activities, persons/individuals responsible for implementing the strategies, timeframes, and measureable outcomes. The annual HCC work plan and subsequent year work plans will include these elements.

#### **1. Convene Community Partners to assess the Local Public Health System**

- **April 2010:** EPCPH convened 57 attendees, including 24 partners representing 21 various agencies as well as 33 internal staff members to assess the Local Public Health System through the use of the National Public Health Performance Standards Program (NPHPSP) Local Public Health System (LPHS) Assessment. The LPHS indicated areas for improvement within the local public health system and within EPCPH. One area for improvement noted was to complete a CHA and CHIP and foster better community engagement. EPCPH used this information as it began the CHA and CHIP processes.

#### **2. Convene stakeholder group to react to indicator data**

- **June /August 2011:** EPCPH convened the Healthy Community Collaborative (HCC). The HCC agreed to a scope of work that included review of local health indicator data for the CHA, designing and

participating in capacity assessments, conducting key informant interviews, prioritizing community health needs, and creating and implementing a CHIP. EPCPH provided local health indicator data to the HCC. Data was presented within the content areas of Colorado's Ten Winnable Battles. Data was stratified by sex, age, income, education, and race/ethnicity to determine where health inequities exist.

**3. Conduct key informant interviews**

- **July/August 2011:** Twenty-eight Key Informant interviews of selected HCC members were conducted by EPCPH staff using a standardized questionnaire focused on population health issues.

**4. Develop and conduct a Community Resource Capacity Assessment**

- **September-October 2011:** EPCPH developed a capacity assessment survey to measure potentially available resources within the community to address the following population health topics selected by HCC as the most important local issues:
  - Diet and Physical Activity
  - Tobacco Use
  - Mental Health and Substance Abuse
  - Unsafe Sexual Practices and Teen Pregnancy
  - Motor Vehicle Injury
  - Oral Health

Fifteen assessments were completed by HCC members and returned for evaluation.

**5. Present information to HCC on evidence-based interventions**

- **September 2011 to August 2012:** EPCPH provided information to the HCC on evidence-based interventions (EBIs) for the selected population health topics. Sources for EBIs included: Task Force on Community Preventive Services (The Community Guide), Cancer Control PLANET, Substance Abuse and Mental Health Services Administration (SAMHSA), National Registry of Evidence-Based Programs and Practices (NREPP), and Healthy People 2020.

**6. Determine CHIP priorities**

- **November 2011:** The HCC determined that the most important health issues facing El Paso County are (in order) diet and physical activity, mental health and substance abuse, tobacco, unsafe sexual practices and teen pregnancy, motor vehicle injury, and oral health. The HCC reviewed health indicator data, the burden ranking outcomes, the results of the capacity assessment, potential EBIs, and the community's interest in working in each topic area. The HCC discussed these items and then ranked each health focus area to determine community priorities. Diet and physical activity and mental health were the top two ranked priorities. The HCC determined that it can be most impactful by focusing on one topic



area and chose to focus on improving healthy eating and active living in El Paso County.

7. **Develop and conduct a capacity assessment of Community healthy eating and active living programs**
  - **January 2012:** EPCPH and the HCC released a second capacity assessment for healthy eating and active living programs already in existence in El Paso County. This information was placed in a sector-based matrix (e.g., child care, school, work place, community, media, food systems, etc.) along with information about EBIs for each sector to allow the HCC to determine how to work to improve healthy eating and active living.
8. **Form HCC Steering Committee**
  - **February 2012:** HCC Steering Committee was formed with the purpose of maintaining oversight for the task force activities, assuring evaluation components and data collection were appropriate, assuring timelines were met, and served as technical support for the HCC task forces.
9. **Determine overarching goal for CHIP**
  - **March 2012:** The HCC Steering Committee met to determine the overarching goal for the CHIP. This goal was presented to the HCC and affirmed by the membership.  
**Overarching goal for CHIP:** HCC will stop the upward trend of overweight and obesity in El Paso County within the next five years and reverse the trend in the coming decade.
10. **Choose sector-based task forces**
  - **April 2012:** The HCC met to form task forces, select leaders, determine communication methods, set meeting norms, set meeting schedule, and identify potential partners for the task forces.
11. **Train Task Forces on evidence-based interventions, literature search, social determinants of health, and logic models**
  - **May 2012:** Task forces received training on logic models, evidence-based interventions, literature review, and social determinant of health models.
12. **Task Forces investigate evidence-based strategies to address obesity and create logic models**
  - **June to August 2012:** Task Forces investigated evidence-based strategies to address obesity in each community setting; created logic models based on the selected strategies, and presented logic models to HCC at large.
13. **HCC Steering Committee reviews logic models**

- **September 2012:** HCC Steering Committee met and reviewed logic models.
- 14. HCC Steering Committee gives feedback to HCC regarding logic models**
    - **September 2012:** HCC Steering Committee gave feedback, on strategies in logic models submitted by task forces, to HCC membership at HCC monthly meeting, September 19, 2012. Discussion with HCC about method for choosing strategies for CHIP.
  - 15. Task Forces review logic models for feasibility of implementation using questions developed by HCC Steering Committee**
    - **January-March 2013:** HCC Steering Committee requests feedback from HCC task forces on the feasibility of implementing the logic models the task forces created and presented to HCC in August 2012. The feedback is based on questions designed by the Steering Committee that reflect the contents of a future work plan.
  - 16. Review HCC strategies**
    - **January-May, 2014:** HCC strategies were re-evaluated. HCC members will move forward with one unified initiative. “Let’s Go! 5-2-1-0” is an evidence-based, educational, healthy eating and active living campaign that will be promoted throughout the HCC.
  - 17. Re-engage HCC Members**
    - **March-Septem, 2015:** The HCC Steering Committee is working on strategies to re-engage members who were not necessarily interested in the 5-2-1-0 Let’s Go! campaign. The committee is working to support the initiatives of our community partners and strengthen relationships.

## **Continuing Improvement**

### **Policy Change**

Policy change has been discussed with the HCC. It is unknown if there will be need for policy changes. There is expertise within the HCC membership and other partners in the community and State of Colorado related to policy work. These partners will serve as a resource in discussions, and potentially implementation, of policy for the CHIP.

### **Monitoring of Performance Measures and Progress on Health Indicators**

To assure that the goals and objectives of the CHIP are being met in the designated timeframes, the following reporting schedule will be followed:

- Task forces are responsible for meeting deliverables and timelines for their goals and objectives.
- EPCPH will participate on Task Forces.
- EPCPH will participate on the HCC Steering Committee.
- EPCPH will document progress on meeting CHIP work plan goals and objectives.

## Annual Reports of Progress

- Office of Planning, Partnerships, and Accreditation (OPPA) will report to PHAB the status of the CHIP deliverables on an annual basis as a PHAB requirement.
- OPPA will document for PHAB all requested information related to the progress toward CHIP goals and objectives.
- EPCPH will report to the El Paso County Board of Health, the HCC, and the El Paso County community on the progress of the HCC work as appropriate and at least annually.
- EPCPH will provide updates to the Colorado State Board of Health on the El Paso County CHIP as required and requested.

## Plan for updating the CHIP

The CHIP is a living document. It will be reviewed at least twice a year and will be updated annually at a minimum to meet the requirements of PHAB National Public Health Accreditation. Currently the CHIP plan resides at EPCPH and is the responsibility of the OPPA to update.

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<sup>i</sup> The American Heritage Dictionary, 4<sup>th</sup> edition, 2006, 2000, Houghton Mifflin Company.

<sup>ii</sup> United States Department of Health and Human Services, Centers for Disease Control and Prevention, National Public Health Performance Standards Program, User Guide, Fall 2007, page 6

<sup>iii</sup> Colorado Department of Public Health and Environment (CDPHE). 2009-2010 Behavioral Risk Factor Surveillance System. Provided by CDPHE Health Statistics on Aug 30, 2011.

<sup>iv</sup> Colorado Department of Public Health and Environment [Internet]. Maternal and Child Health Data: 2010 Colorado Child Health Survey. Available from:

[www.chd.dphe.state.co.us/topics.aspx?q=Maternal\\_Child\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Maternal_Child_Health_Data).

<sup>v</sup> Colorado Department of Public Health and Environment [Internet]. Adolescent Health Data: 2009 Youth Risk Behavior Survey. Available from:

[www.chd.dphe.state.co.us/topics.aspx?q=Adolescent\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent_Health_Data).

<sup>vi</sup> Colorado Department of Public Health and Environment (CDPHE). 2009 Behavioral Risk Factor Surveillance System. Provided by CDPHE Health Statistics on July 14, 2011.

<sup>vii</sup> U.S. Preventive Services Task Force. *Primary Care Interventions to Promote Breastfeeding: U.S. Preventive Services Task Force Recommendation Statement* [Internet]. Available from:

[www.uspreventiveservicestaskforce.org/uspstf08/breastfeeding/brfeedrs.htm](http://www.uspreventiveservicestaskforce.org/uspstf08/breastfeeding/brfeedrs.htm).

<sup>viii</sup> Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset: 2008-2010 Pregnancy Risk Assessment Monitoring System. Available from:

[www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy\\_Risk\\_Assessment\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy_Risk_Assessment_Data).

<sup>ix</sup> Centers for Disease Control and Prevention [Internet]. 2009 Selected Metropolitan/Micropolitan Area Risk Trends: Behavioral Risk Factor Surveillance System City and County Data. Available from:

<http://apps.nccd.cdc.gov/BRFSS-SMART/SelMMSAPrevData.asp>.

<sup>x</sup> Centers for Disease Control and Prevention [Internet]. Nutrition Resources for Health Professionals. Available from: [www.cdc.gov/nccdphp/dnpao/index.html](http://www.cdc.gov/nccdphp/dnpao/index.html).

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

<sup>xii</sup> U.S. Department of Health and Human Services [Internet]. 2008 Physical Activity Guidelines [Oct 2008]. Available from: [www.health.gov/paguidelines/guidelines/default.aspx#toc](http://www.health.gov/paguidelines/guidelines/default.aspx#toc)

## Other Important Public Health Issues

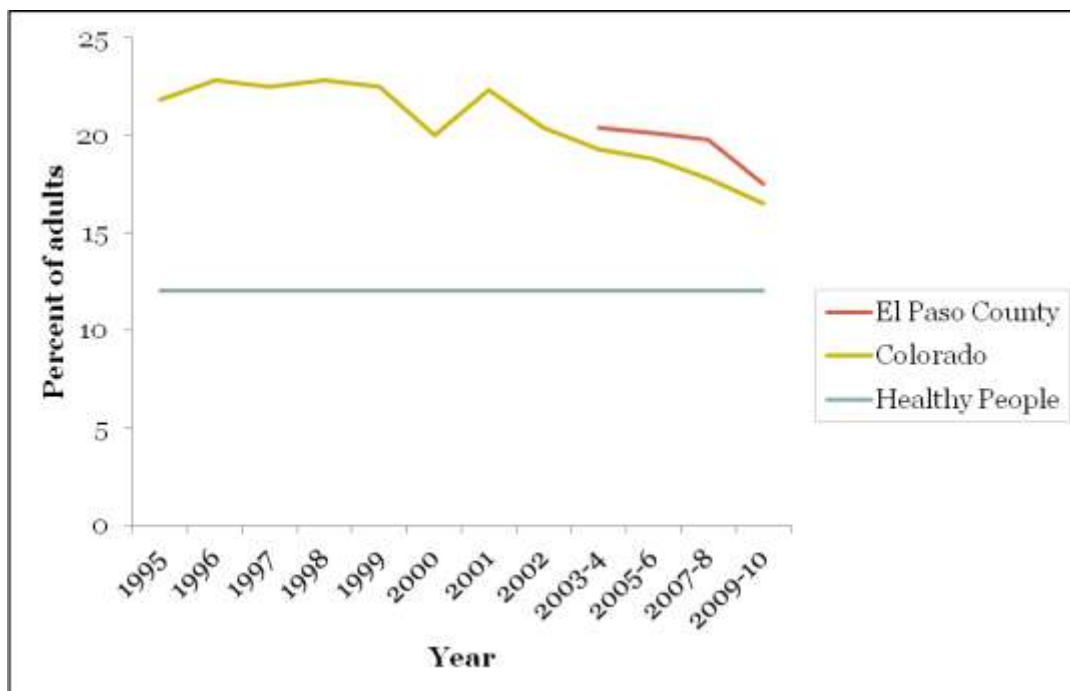
While much effort will be directed by the community to promote healthy eating and active living, work on other key public health issues will continue at EPCPH and at other agencies around the county. In addition, EPCPH and partner agencies will work to identify and reduce health disparities and work with high risk populations to prevent diseases and conditions before they occur through education and health promotion.

### Tobacco

Smoking rates among adults in El Paso County have declined in recent years; however, nearly 1 in 5 adults age 18 and older are current smokers. This smoking rate is higher than the Colorado average for adult smokers and significantly higher than the Healthy People 2020 goal of approximately 1 in 10 adults (Figure 1).<sup>1,2</sup>

Youth smoking data for Colorado shows a decrease in cigarette use by high school students since 2005 with approximately 18% of youth identifying themselves as current users of cigarettes in 2009. Youth smoking prevalence is slightly higher than the Healthy People 2020 goal of 16%.<sup>3</sup>

**Figure 1. Prevalence of adults aged 18 years and older who currently smoke cigarettes**



**Figure 2. Tobacco use by youth, grades 9 through 12, Colorado 2009**

	Prevalence in 2009	Percent change from 2005
Used tobacco* in the past 30 days	26.5%	+ 1.5%
Smoked cigarettes in the past 30 days	17.7%	- 5.3%
Underage current smokers who typically obtained cigarettes by buying in a store or gas station	12.6%	+ 12.5%
Current smokers who tried to quit within the past 12 months	53.2%	+ 2.7%

\* Tobacco includes cigarettes, cigars, cigarillos, little cigars, chewing tobacco, snuf, and dip

#### Strategies that work

- **Increase the unit price for tobacco products** through municipal, state, or federal legislation that raises the excise tax on these products. Such increases make the use of tobacco products less attractive to young people who have limited incomes and a variety of ways to spend their money.
- **Reduce exposure to environmental tobacco smoke** through smoking bans and restrictions. Smoking bans and restrictions are policies, regulations, and laws that limit smoking in workplaces and other public areas. Smoking bans entirely prohibit smoking in geographically defined areas; smoking restrictions limit smoking to designated areas.
- **Increasing tobacco use cessation** through provider intervention and reminders. These strategies include efforts to educate and to prompt providers to identify and intervene with tobacco-using clients, as well as to provide additional educational materials. The components of this intervention are a provider reminder system and a provider education program with or without client education materials such as self-help cessation manuals.

## Oral Health

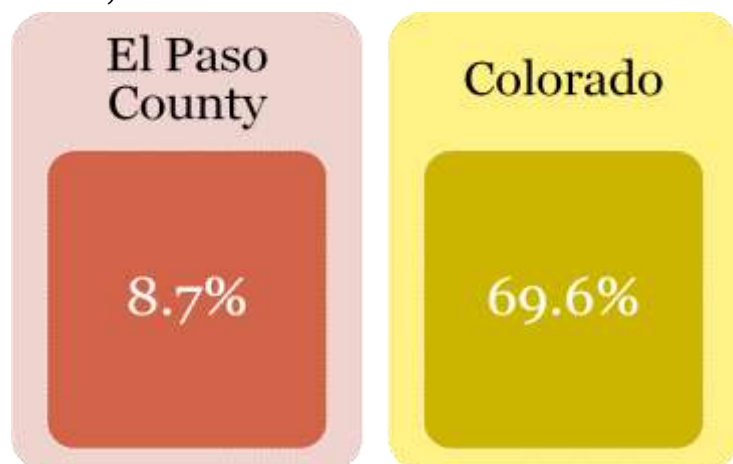
In 2010, fewer than 1 in 10 El Paso County children under the age of five had seen a dentist before age two and 1 in 3 had never seen a dentist (Figure 3).<sup>4</sup> The American Academy of Pediatric Dentistry recommends that all children see a dentist between six months and one year of age, or when the first tooth arrives. This helps establish a dental home and routine of care for a child to help prevent future tooth decay.<sup>5</sup>

Optimal fluoride levels range from 0.7 to 1.2 parts fluoride per million parts water. Scientific studies have concluded that fluoridated public water supplies can prevent and even reverse tooth decay by enhancing remineralization, the process by which fluoride “rebuilds” tooth enamel that is beginning to decay.<sup>6</sup> In El Paso County, only 8.7 percent of the population has access to a public water supply with water fluoride levels at or above 0.7 parts per million.<sup>7</sup>

**Figure 3. First dental visit of children ages 1 to 5 years, Colorado 2010**



**Figure 4. Percent of public water supply population receiving fluoridated\* water, 2010**



\* Water fluoride levels at or above 0.7 parts per million



### Strategies that work

- **Community water fluoridation** involves adding fluoride (which prevents tooth decay) to community water sources, then adjusting and monitoring the amount of fluoride to ensure that it stays at the desired level.
- **School-based or -linked sealant delivery programs** provide direct delivery of dental sealants to children in school-based or school-linked (clinic or private practice) settings. Sealants help prevent cavities and tooth decay.
- **Provider and community education regarding dental visits for children under one year of age** will help parents establish and promote good dental practices for children.

## Motor Vehicle Injury and Fatality

In 2010, El Paso County had the highest number of motor vehicle fatalities out of all Colorado counties. Among alcohol-related fatal crashes, seven percent occurred in El Paso County, ranking it third worst overall on this measure. Residents who ride motorcycles are ten percent more likely than other motorcyclists statewide to be involved in an injury crash, resulting in the County's rank of twelfth worst. The total cost of all crashes and fatalities in 2010 in El Paso County is estimated at nearly \$2.8 million.<sup>8</sup>

Teens accounted for 12.2 percent of motor vehicle fatalities in 2010 despite the fact that approximately 89 percent of teens wear seatbelts (Figure 5).<sup>9</sup> Adolescent driving behaviors may contribute to poor outcomes for this age group. Survey data from 2009 shows that nearly 8 percent of Colorado high school students reported driving after consuming alcohol and approximately one in four students admitted to getting in a car with someone they knew to have consumed alcohol.<sup>10</sup>

**Figure 5: Characteristics of motor vehicle traffic fatalities in El Paso County, 2010**

Vehicle and driver-related factors	Percent of total fatalities
Occupant in a passenger vehicle (all seat positions)	73.1%
Unrestrained driver or passenger	46.7% of passenger vehicle occupant fatalities
Motorcycle	19.5%
Driver or rider not wearing helmet	75.0% of motorcycle fatalities
Alcohol-impaired driver (BAC = 0.08+)	39.0%
Speeding-related crash	43.9%
Teen fatalities (ages 15-19)	12.2%

### Strategies that work

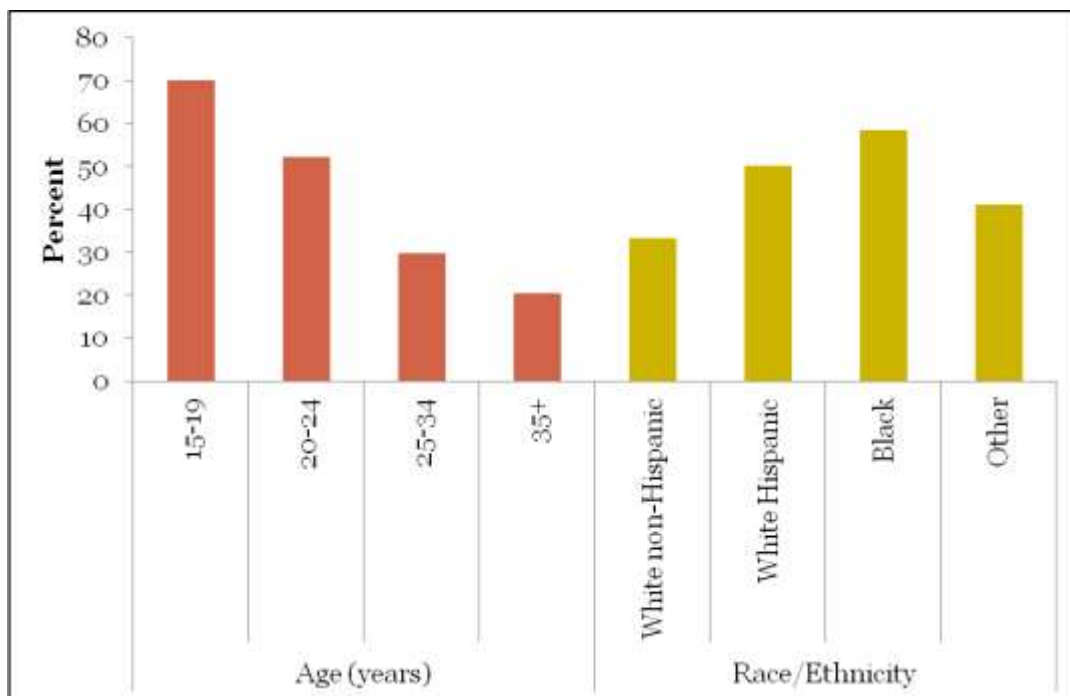
- **Reduce alcohol-impaired driving through mass media campaigns** intended to reduce alcohol-impaired driving are designed to persuade individuals either to avoid drinking and driving or to prevent others from doing so.
- **Primary (vs. secondary) laws for seatbelt use** allow police to stop motorists solely for being unbelted. Secondary safety belt laws permit police to ticket unbelted motorists only if they are stopped for other reasons such as speeding.
- **Safety gear laws** for all motorcycle riders, including passengers, would mandate the use of helmets and allow police to stop motorcyclists for being unhelmeted.

## Sexually Transmitted Infections and Teen Pregnancy

Figure 6 illustrates the proportion of pregnancies resulting in live birth that are unintended in El Paso County. Unwanted or mistimed pregnancies generally indicate the efficacy of a person's safe sexual practices. From 2008-2010, an estimated 70% of pregnancies for young women age 15-19 were unintended. For all women who gave birth in El Paso County in 2010, 36.2% of pregnancies were unintended.<sup>11</sup>

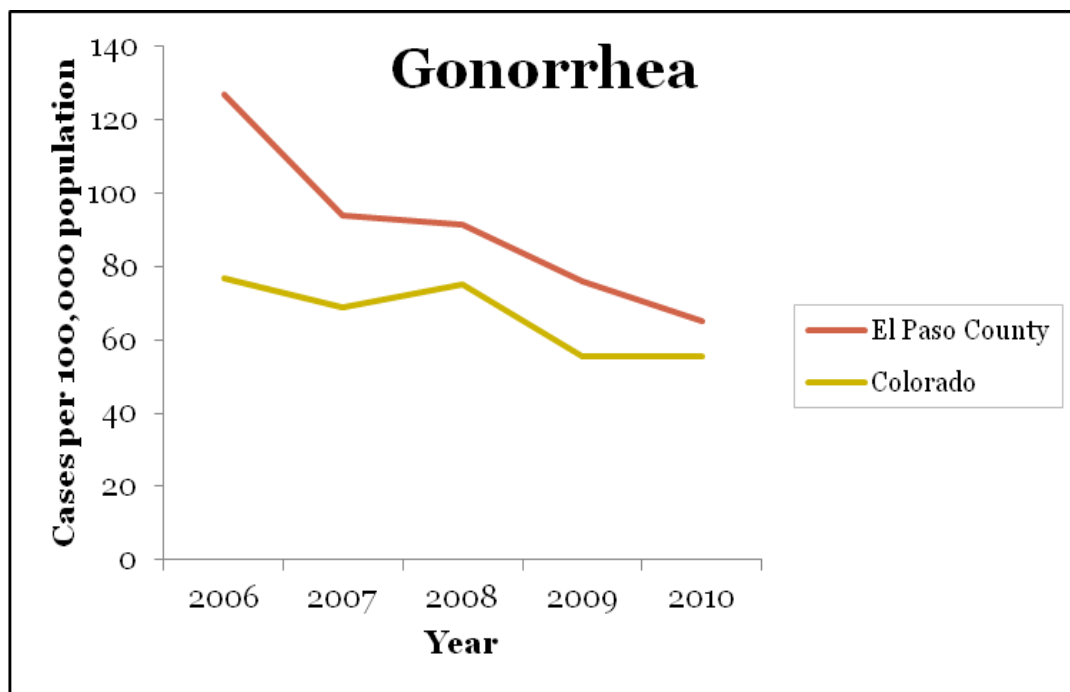
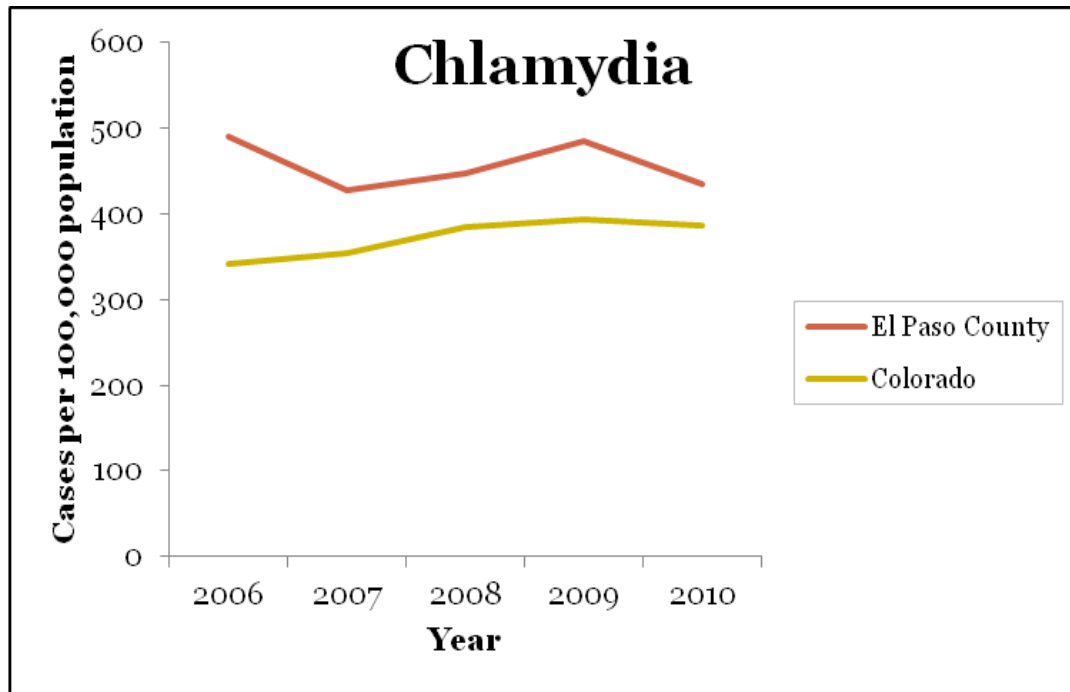
The rates of sexually transmitted infections for all ages in El Paso County are higher than the state average (Figure 7). While the numbers have been trending down in the past decade for gonorrhea, the trend for Chlamydia infections has remained relatively unchanged. In 2010, the rate of Chlamydia infection among all ages is 435.4 per 100,000 population and the rate of gonorrhea infection among all ages is 65.2 per 100,000 population.

**Figure 6. Proportion of pregnancies\* that were unintended, by age and race/ethnicity, El Paso County 2008 to 2010**



\*Resulting in a live birth

**Figure 7. Rates of sexually transmitted infections, all ages**



### Strategies that work

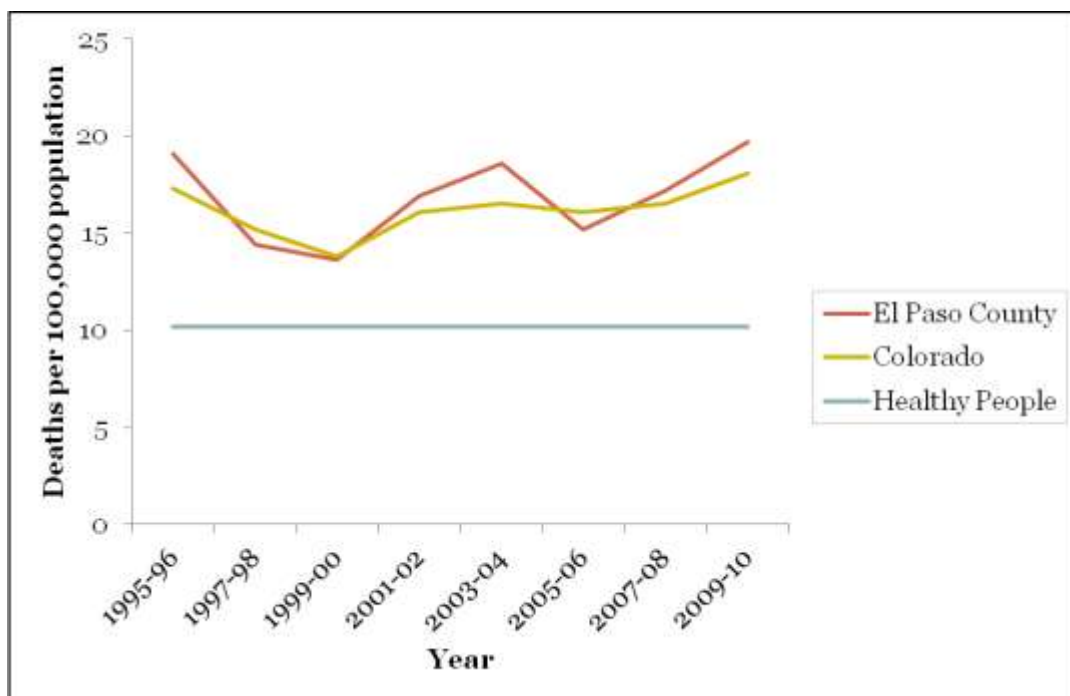
- **Group-based comprehensive risk reduction interventions for adolescents** promote behaviors that prevent or reduce the risk of pregnancy, HIV, and other sexually transmitted infections. These interventions may suggest a hierarchy of recommended behaviors that identifies abstinence as the best method but also provides information about sexual risk reduction strategies
- **School-linked reproductive health services** combines education, counseling, and reproductive services into a comprehensive intervention for youth. Services are provided by a team of nurses and social workers who divide their time between the schools and clinic.
- **Youth development behavioral interventions** employ a holistic approach to adolescent health and wellness, and may or may not include components that are focused directly on pregnancy and STI prevention. Community service provides extended opportunities for adolescents to interact with adults in the community and have a sense of membership in a group with explicit rules and responsibilities.

## Mental Health and Substance Abuse

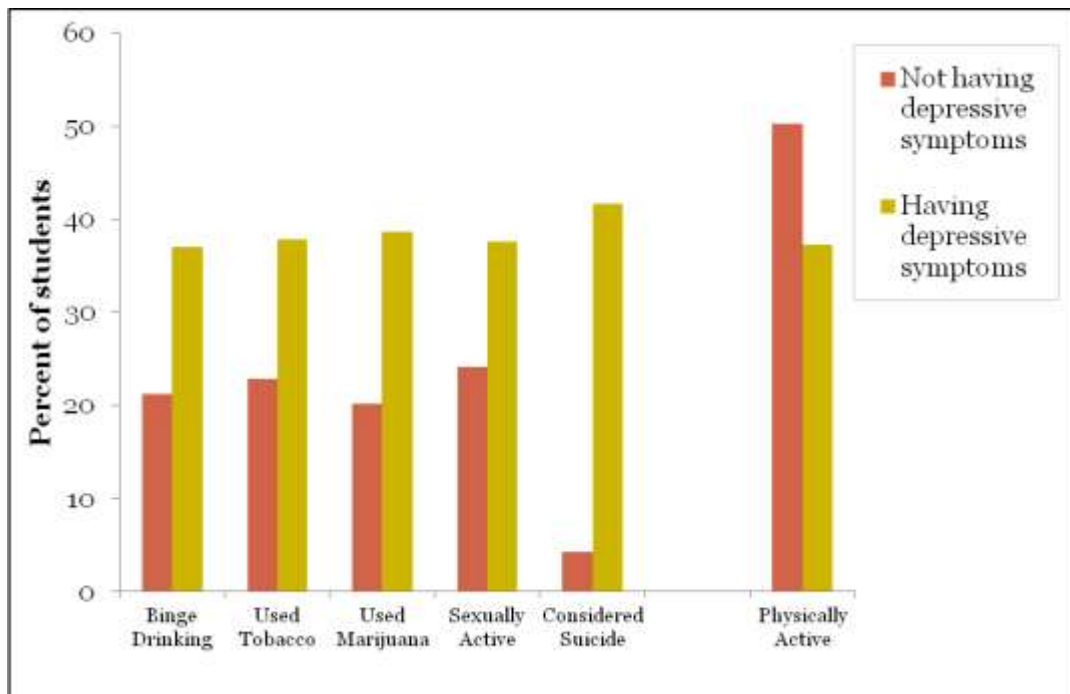
In El Paso County, suicide rates have fluctuated in the past 15 years from a high of 19.1 per 100,000 population in 1995-6, to a low of 13.6 per 100,000 population in 1999-2000, and back to a high of 19.7 per 100,000 in 2009-10 (Figure 8).<sup>12</sup> More females than males are hospitalized because of suicide attempts. However, more males than females die as a result of a suicide attempt.<sup>13</sup>

Poor mental health can be correlated with other risky behaviors such as substance use, sexual activity, and whether or not the respondent has considered suicide. Figure 9 shows that in 2009 the propensity for high school youth to binge drink, use tobacco, and use marijuana is significantly higher if the youth has reported symptoms of depression in the past year. Those who report depressive symptoms are ten times more likely to consider suicide than their peers who do not feel sadness for two or more weeks per year. Finally, youth who report depressive symptoms are less likely to engage in protective behavior such as physical activity.<sup>14</sup>

**Figure 8. Suicide rate, all ages**



**Figure 9. Correlations between depressive symptoms and other behaviors among ninth through twelfth graders, Colorado 2009**



#### Strategies that work

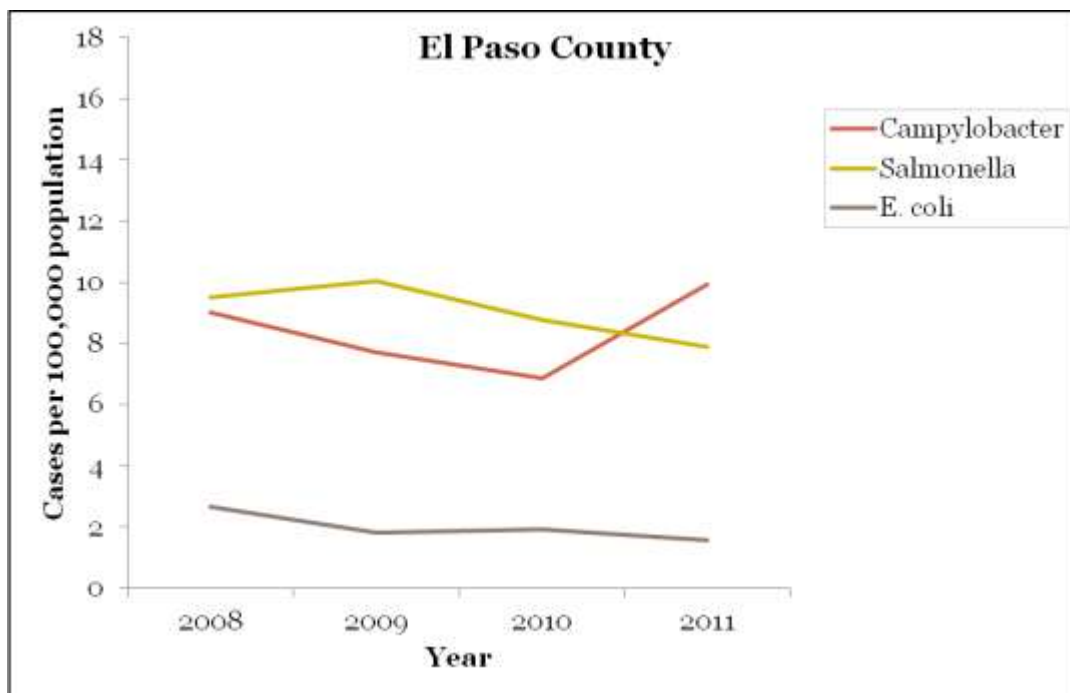
- **Coping And Support Training (CAST)** is a high school-based suicide prevention program targeting youth 14 to 19 years old. CAST delivers life-skills training and social support in a small-group format (6-8 students per group).
- **Collaborative care for the management of depressive disorders** is a multi-component, healthcare system-level intervention that uses case managers to link primary care providers, patients, and mental health specialists. These processes are frequently coordinated by technology-based resources such as electronic medical records, telephone contact, and provider reminder mechanisms.
- **Enhanced enforcement of laws prohibiting sales to minors** initiate or increase the frequency of retailer compliance checks for laws against the sale of alcohol to minors in a community. Retailer compliance checks, or “sting operations,” are conducted by, or coordinated with local law enforcement or alcohol beverage control agencies, and violators receive legal or administrative sanctions. Enhanced enforcement programs are often conducted as part of multi-component, community-based efforts to reduce underage drinking, such as media campaigns.

## Food Safety

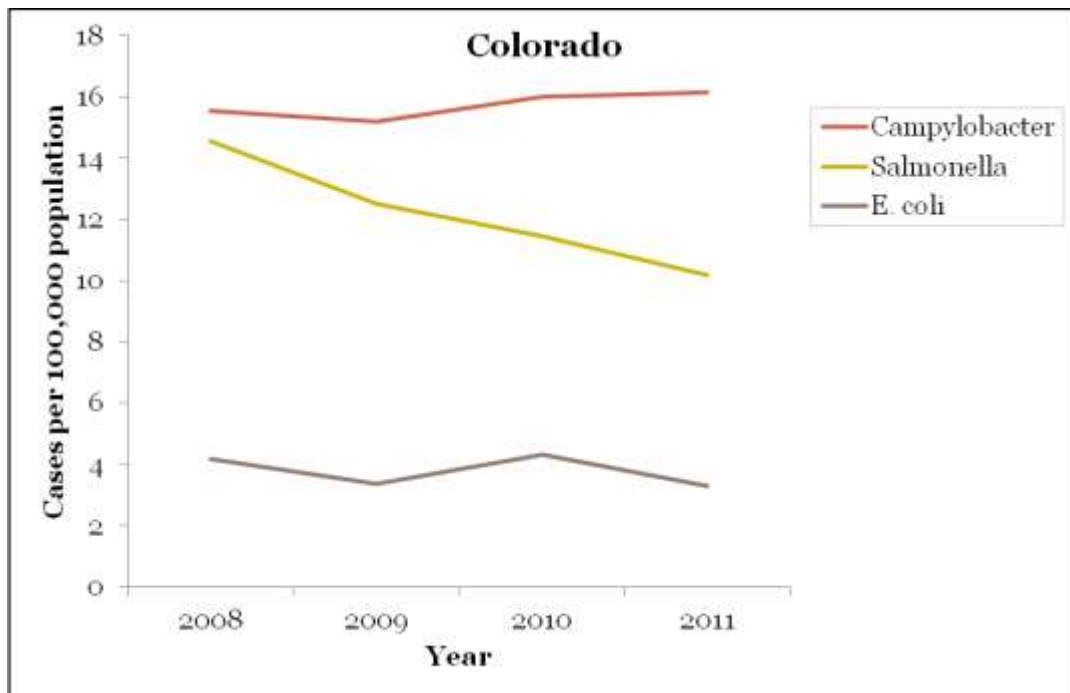
The pathogens which account for the majority of reported cases of foodborne illnesses are norovirus, Salmonella, Campylobacter, and shiga-toxin producing E. coli (also referred to as 'STEC'). Preliminary data from 2011 shows 123 reported cases of Salmonella, Campylobacter, and E. coli identified in El Paso County and 1,518 in Colorado.<sup>4</sup> Overall disease rates are higher in Colorado as compared to El Paso County (Figure 10) and only Salmonella has shown a sustained decrease in incidence since 2008.<sup>15</sup>

In El Paso County, licensed retail food establishments typically undergo a regular inspection every six months. There was an average of 1.54 critical violations per regular inspection in 2010. The rate has declined slightly in 2011 with 1.41 critical violations per regular inspection. This rate ranges from 0.33 to 2.88 depending on facility type, with 100-200 seat restaurants and grocery stores with delis having the highest rates of critical violations.<sup>16</sup>

**Figure 10. Incidence of common foodborne illness pathogens, El Paso County and Colorado 2008 to 2011\***







\* 2011 data is preliminary

### Strategies that work

**To keep food safe from harmful bacteria while at home,** follow these four simple steps:

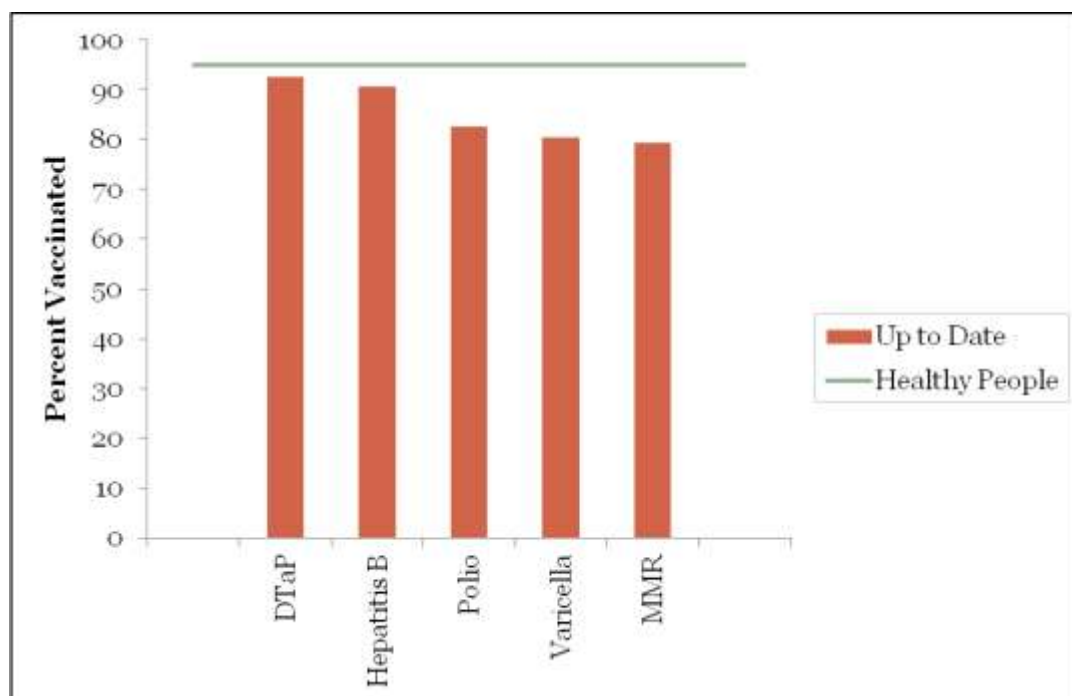
- **Clean:** Wash hands and surfaces often. Wash hands with warm water and soap for 20 seconds before and after handling food. Wash cutting boards, dishes, utensils, and counter tops with hot soapy water after preparing each food item and before you go on to the next food. Rinse fruits and vegetables under running tap water, including those with skins and rinds that are not eaten.
- **Separate:** Don't cross-contaminate. Cross-contamination is how bacteria spread. Keep raw meat, poultry, and seafood and their juices away from ready-to-eat foods.
- **Cook:** Cook to proper temperatures. Food is safely cooked when it reaches a high enough internal temperature to kill the harmful bacteria that causes illness. Use a food thermometer — you can't tell food is cooked safely by how it looks.
- **Chill:** Refrigerate promptly. Keep your refrigerator at 40° F or below. Use a thermometer to monitor.<sup>17</sup>

## Infectious Diseases

The Colorado Board of Health currently requires children entering kindergarten to have received vaccinations for diphtheria-tetanus-acellular pertussis antigen (DTaP); measles, mumps, rubella (MMR); polio; hepatitis B; and Varicella (chickenpox), unless an exemption has been made for religious or medical reasons.<sup>18</sup> Colorado is below the Healthy People 2020 goal of 95 percent of kindergartners receiving all required shots, and well below the goal for MMR and Varicella (Figure 11).

There are recommendations for adolescent immunizations as well. Some adolescent immunizations are recommended in order to boost immunity that has been lost over time from childhood immunizations (e.g., MMR). Other immunizations are recommended for adolescents because this age group is more susceptible to certain diseases (e.g., bacterial meningitis, human papillomavirus). Approximately, 92 percent of Colorado youth are getting the recommended doses of MMR. Fewer than 60 percent of youth are receiving the vaccine to prevent meningitis however (Figure 12).

**Figure 11. Percent of Colorado kindergartners up to date on required immunizations at school entry, by vaccine, 2010-11 school year**



**Figure 12. Percent of adolescents ages 13 to 17 years vaccinated, by type of vaccine, Colorado 2010**

Vaccine	Percent
Tdap	85.7
Meningitis	59.6
MMR	92.6
HPV (females only)	40.9

Strategies that work

- **Vaccination requirements as a condition of child care, school, and college attendance** are laws or policies requiring vaccinations or other documentation of immunity for children and adolescents enrolling in child care or school facilities. In order to work efficaciously, these policies must be consistently enforced and exemptions rigorously documented.
- **Home visits intended to increase vaccination rates of universally recommended vaccines** can provide vaccinations to clients in their homes, or promote recommended vaccinations with referral to available immunization services. Home visits may be conducted by either vaccination providers, such as nurses, or other providers, such as social workers.
- **Reducing out-of-pocket costs to families for vaccinations or administration of vaccinations** can be implemented by paying for vaccinations or administration, providing insurance coverage, or reducing copayments for vaccinations at the point-of-service.

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- <sup>1</sup> Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset: Behavioral Risk Factor Surveillance System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral\\_Risk\\_Factors](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Behavioral_Risk_Factors).
- <sup>2</sup> Centers for Disease Control and Prevention [Internet]. Behavioral Risk Factor Surveillance System: Prevalence and Trends Data. Available from: <http://apps.nccd.cdc.gov/brfss/>.
- <sup>3</sup> Colorado Department of Public Health and Environment [Internet]. Adolescent Health Data: Youth Risk Behavior Survey. Available from: [http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent_Health_Data).
- <sup>4</sup> Colorado Department of Public Health and Environment [Internet]. Maternal and Child Health Data: Colorado Child Health Survey. Available from: [http://www.chd.dphe.state.co.us/topics.aspx?q=Maternal\\_Child\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Maternal_Child_Health_Data).
- <sup>5</sup> The American Academy of Pediatric Dentistry [Internet]. Available from: <http://www.aapd.org/publications/brochures/babycare.asp>
- <sup>6</sup> National Cancer Institute [Internet]. Available from: <http://www.cancer.gov/cancertopics/factsheet/Risk/fluoridated-water>
- <sup>7</sup> Centers for Disease Control and Prevention [Internet]. Oral Health Maps for Water Fluoridation. Available from: <http://apps.nccd.cdc.gov/gisdoh/waterfluor.aspx>.
- <sup>8</sup> Colorado Department of Transportation [Internet]. FY 2011 Problem Identification Report. Available from: [http://www.coloradodot.info/programs/safety-data-sources-information/2011%20Problem%20Identification\\_DRAFT1.pdf/view](http://www.coloradodot.info/programs/safety-data-sources-information/2011%20Problem%20Identification_DRAFT1.pdf/view)
- <sup>9</sup> Colorado Department of Transportation [Internet]. 2010 Seat Belt Surveys. Available from: <http://www.coloradodot.info/library/surveys>.
- <sup>10</sup> Colorado Department of Public Health and Environment [Internet]. Adolescent Health Data: 2009 Youth Risk Behavior Survey. Available from: [www.chd.dphe.state.co.us/topics.aspx?q=Adolescent\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent_Health_Data).
- <sup>11</sup> Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset: Pregnancy Risk Assessment Monitoring System. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy\\_Risk\\_Assessment\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Pregnancy_Risk_Assessment_Data).
- <sup>12</sup> Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset: 1999-2010 Death Data. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Death\\_Data](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Death_Data).
- <sup>13</sup> Colorado Department of Public Health and Environment [Internet]. Colorado Health Information Dataset: 2008-2010 Injury Hospitalizations. Available from: [http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury\\_Hospitalizations](http://www.chd.dphe.state.co.us/cohid/topics.aspx?q=Injury_Hospitalizations).
- <sup>14</sup> Colorado Department of Education [Internet]. Healthy Kids Colorado Survey, 2009 State Report [Dec 2010]. Available from: <http://www.cde.state.co.us/HealthAndWellness/download/CSHReport2009.pdf>.
- <sup>15</sup> Colorado Department of Public Health and Environment, Disease Control and Environmental Epidemiology Division. Colorado Electronic Disease Reporting System. Accessed on Apr 2, 2012.
- <sup>16</sup> El Paso County Public Health (EPCPH). 2011 Retail Food Establishment Inspection Data. Provided by EPCPH Environmental Health on Feb 16, 2012.
- <sup>17</sup> Centers for Disease Control and Prevention [Internet]. Winnable Battles: Food Safety. Available from: <http://www.cdc.gov/WinnableBattles/FoodSafety/FreeResources.html>
- <sup>18</sup> Colorado Department of Public Health and Environment [Internet]. 2010-2011 Immunization School Survey Assessment. Available from: <http://www.cdphe.state.co.us/dc/immunization/11-12schoolYear/School%20Imm%20Survey%209-16-11%20B.pdf>.

## Resources

**Below are listed some of the resources used in the creation of the El Paso County, Colorado Community Health Improvement Plan:**

### **Behavioral Risk Factor Surveillance System**

The Centers for Disease Control and Prevention (CDC) is responsible for administering the Behavioral Risk Factor Surveillance System (BRFSS), which is the world's largest, on-going telephone health survey system, tracking health conditions and risk behaviors in the United States yearly since 1984. The Colorado Department of Public Health and Environment collects, reports, and analyzes Colorado's BRFSS data in partnership with the CDC.

<http://www.cdc.gov/brfss/>

### **Colorado Department of Public Health and Environment**

The department provides public health and environmental protection services to the people of Colorado; collects and makes available health data; and identifies and responds to emerging issues that could affect Colorado's public and environmental health.

<http://www.colorado.gov/cdphe>

### **El Paso County Public Health**

The El Paso County Public Health website provides local health data, services and community resources, public health information, and health education resources. People may report health concerns and request health information online.

[www.elpasocountyhealth.org](http://www.elpasocountyhealth.org)

### **The Guide to Community Preventive Services**

A free resource sponsored by the Centers for Disease Control and Prevention to help select effective, evidence-based programs and policies to improve health and prevent disease in a community.

<http://www.thecommunityguide.org/index.html>

### **Healthy People 2020**

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

<http://www.healthypeople.gov/2020/default.aspx>

### **National Prevention Strategy**

The National Prevention Strategy is a comprehensive plan that will help increase the number of Americans who are healthy at every stage of life. The Strategy recognizes that good health comes not just from receiving quality medical care but from stopping disease before it starts. Good health also comes from clean air and water, safe outdoor spaces for physical activity, safe worksites, healthy foods, violence-free environments and healthy homes.

<http://www.cdc.gov/Features/PreventionStrategy/>

### **National Registry of Evidence-Based Programs and Practices**

National Registry of Evidence-Based Programs and Practices is a searchable online registry of more than 210 interventions supporting mental health promotion, substance abuse prevention, and mental health and substance abuse treatment. The registry, maintained and reviewed by Substance Abuse and Mental Health Services Administration, connects members of the public to intervention developers so they can learn how to implement these approaches in their communities.

<http://www.nrepp.samhsa.gov/>

### **Patient Protection and Affordable Care Act**

The Patient Protection and Affordable Care Act (PPACA) is a United States federal statute signed into law by President Barack Obama on March 23, 2010. PPACA reforms certain aspects of the private health insurance industry and public health insurance programs, increases insurance coverage of pre-existing conditions, and expands access to insurance to over 30 million Americans.

<http://www.healthcare.gov/>

### **U.S. Preventive Services Task Force**

The U.S. Preventive Services Task Force works to fulfill its mission of making evidence-based recommendations on clinical preventive services to empower health care professionals, health care systems, and the American people to make informed decisions about their health and health care. The Task Force makes its recommendations based on comprehensive, systematic reviews and careful assessment of the available medical evidence.

<http://www.uspreventiveservicestaskforce.org/index.html>

# Glossary of Terms

## **Behavioral Risk Factor Surveillance System**

The Colorado Behavioral Risk Factor Surveillance System (BRFSS) is a system of telephone surveys sponsored by the CDC to monitor lifestyles and behaviors related to the leading causes of mortality and morbidity. In recent years, health professionals and the public have become increasingly aware of the role of such lifestyle factors as cigarette smoking, overweight, sedentary lifestyle, and the nonuse of seat belts in contributing to injury, illness, and death.

## **Colorado's 10 Winnable Battles**

Key public health or environmental issues with known prevention or reduction strategies identified by the Colorado Department of Public Health and Environment. The Winnable Battles are:

1. Clean Air
2. Clean Water
3. Injury Prevention
4. Mental Health and Substance Abuse
5. Obesity
6. Oral Health
7. Prevent Infections
8. Safe Food
9. Tobacco
10. Unintended Pregnancy

## **Community Health Assessment (CHA)**

A strategic process of collecting, analyzing, and using data to educate and mobilize the community, develop priorities, garner resources, and plan actions to improve the public's health.

## **Community Health Improvement Plan (CHIP)**

A long-term, systematic effort to address issues identified by the CHA and community health improvement process. A solid CHIP can be used by partners to identify local public health needs and priorities.

## **Evidence-Based Practice**

Evidence-based practice (EBP) is the preferential use of health interventions for which systematic empirical research has provided evidence of statistically significant effectiveness as treatments for specific problems. EBP promotes the collection, interpretation, and integration of valid, important, and applicable patient-reported, clinician-observed, and research-derived evidence.

## **Health Indicators**

A characteristic of an individual, population, or environment which is subject to measurement and can be used to describe one or more aspects of the health of an individual or population. Can be used to define public health problems at a particular point in time, to indicate change over time in the level of the health of a population or individual, to define differences in the health of populations, and to assess the extent to which the objectives of a program are being reached.

### **Healthy Community Collaborative (HCC)**

A collaboration of partners addressing population-based health issues in El Paso County.

### **Healthy People 2020**

A national agenda from the Department of Health and Human Services that communicates a vision for improving health and achieving health equity with a set of specific measureable objectives with targets to be achieved over the decade.

### **Incidence**

Measures the occurrence of new disease and is used to describe the number of health-related events in a population which occur within a specified period of time.

### **Population-Based Health**

The health outcomes of a group of individuals including the distribution of such outcomes within the group. It is an approach to health to improve the health of an entire population.

### **Poverty**

Income thresholds developed by the U.S. Census Bureau which vary by family size and composition to determine who is in poverty. If a family's income is less than the family's threshold, then that family and each individual member is considered in poverty. These thresholds are updated annually to account for inflation, and differ from the poverty guidelines issued by the Department of Health and Human Services.

### **Prevalence**

Measures the existence of current disease and is used to describe the proportion of a population that has a disease, condition, or other attribute.

### **Proportion**

The ratio of a part to the whole, commonly expressed as a percentage.

### **Public Health Accreditation**

Process to measure the performance of a health department against defined standards and measures with the purpose to advance quality and performance within the public health department. EPCPH earned national accreditation status by the Public Health Accreditation Board on August 20, 2013.



**Public Health System**

A public health system is defined as all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction. All of the entities within a Public Health System contribute to the health and well-being of the community or state.

**Rate**

A measure of frequency often used to describe how fast a health-related event is occurring in a population.

**Senate Bill 194**

In July 2008, Colorado Senate Bill 08-194, the Public Health Act (the Act), was passed. The main purpose of the Act is to assure that core public health services are available to every person in Colorado with a consistent standard of care. Under Senate Bill 194, EPCPH is required to conduct a CHA and develop a CHIP.