



# **Jefferson County, Colorado Community Health Improvement Plan 2014 - 2017**

Partnering to enhance and promote health for all  
in Jefferson County



<b>Acknowledgements .....</b>	<b>2</b>
<b>Executive Summary .....</b>	<b>5</b>
<b>Introduction.....</b>	<b>6</b>
<b>Community Description .....</b>	<b>7</b>
<b>General Characteristics .....</b>	<b>7</b>
Age distribution.....	7
Income.....	7
Education.....	8
Racial and ethnic distribution.....	8
<b>Beyond the General Characteristics .....</b>	<b>8</b>
Low-income households .....	8
Jefferson County’s older adults and young children .....	9
Graduation rates by race and ethnicity .....	9
<b>The Community Health Improvement Planning Process .....</b>	<b>10</b>
<b>Assessing Health in Jefferson County.....</b>	<b>10</b>
Process.....	10
Results.....	11
<b>Assessing the Public Health System’s Capacity.....</b>	<b>11</b>
Process.....	11
Results.....	12
<b>Identifying Health Priorities.....</b>	<b>12</b>
Process.....	12
Results.....	13
<b>Working toward Strategies.....</b>	<b>14</b>
Process.....	14
Results.....	15
<b>The Economic Benefit of Community Health Improvement Planning.....</b>	<b>15</b>
<b>Health Issues in Jefferson County .....</b>	<b>16</b>
<b>Healthy Food Access.....</b>	<b>17</b>
What is access to healthy food and why is it important? .....	17
Eating healthy food in Jefferson County .....	18
<b>Physical Activity .....</b>	<b>19</b>
What is physical activity and why is it important? .....	19
Being physically active in Jefferson County .....	20
<b>Psychosocial Stress .....</b>	<b>21</b>
What is psychosocial stress and why is it important? .....	21
Psychosocial stress in Jefferson County.....	22
<b>The Community Health Improvement Plan.....</b>	<b>23</b>
<b>Goals and Objectives.....</b>	<b>23</b>
<b>Alignment with State and National Priorities .....</b>	<b>31</b>
<b>Resources to Develop and Implement the CHIP .....</b>	<b>31</b>
Development of the CHIP .....	31
Implementation of the CHIP .....	31
<b>Evaluating Progress.....</b>	<b>32</b>
<b>Conclusion .....</b>	<b>32</b>
<b>References .....</b>	<b>33</b>

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December 23, 2013

Dear Jefferson County Resident,

Community health improvement plans are as old as organized communities themselves. But just as society has grown exponentially more complex over the millennia, so, too, the process of planning for the health of society is now an extremely complex and complicated process.

In an effort to make community health planning as effective and efficient as possible, legislation at both the state and federal levels has established new guidelines and mandates for this activity. In Colorado, public health departments have been identified as the governmental entities responsible for assessing the health of their communities and convening broad-based assemblies of residents, public health professionals, businesses, elected officials, and the range of local agencies and organizations that shape health to develop community health improvement plans.

Rather than being a definitive document, what follows represents Jefferson County's preliminary community health improvement plan for 2014. Honoring the complexity of community health planning, it outlines the steps the *Healthy People Healthy Places Jeffco* initiative will take over the coming months to develop a robust multi-year action plan to increase access to healthy food and physical activity in our County. This document is based on the best health data currently available and represents ongoing dialogue and deliberation by members of the public, health professionals and experts, partners, and health department staff.

While this initial plan symbolizes a new beginning, it is in fact only the latest step in an ongoing and never-ending journey. It calls for our community to focus its attention and resources on some of our greatest health needs, and if we do, it promises us a healthier tomorrow. As we progress, we will continue to survey our community, consult with our residents and experts, identify and prioritize our changing health needs, and revise old and establish new action plans in our quest to improve the health of Jefferson County.

The journey will last well beyond our efforts, but I invite you to join us in what must certainly be one of humanity's greatest pursuits – a truly healthy community.

Mark B. Johnson, MD, MPH  
Executive Director, Jefferson County Public Health

# Executive Summary

Since late 2011, Jefferson County Public Health has been working with partners and community members to develop a countywide community health improvement plan. Working under the premise that health starts in the places where we live, learn, work, and play, the *Healthy People Healthy Places Jeffco* initiative brings together partners from a variety of sectors to enhance and promote health for all of our residents, workers, and visitors.

To develop the community health improvement plan, we began by assessing health in our county, as well as the capacity of the local public health system. The local public health system includes all of the agencies and organizations in the county that shape health. The community health assessment revealed that chronic diseases such as cardiovascular diseases and cancers are the leading causes of death in the county, and that these leading causes of death are linked by five common risk factors. We then took this information to the public and asked them to rank the five risk factors – poor diet, physical inactivity, tobacco use and exposure, alcohol use, and psychosocial stress – underlying the leading causes of death in the county. The results of this community engagement were clear: residents feel that physical inactivity, poor diet, and psychosocial stress are the most important health issues in the county. Work groups focusing on access to healthy food and physical activity through the lens of psychosocial stress have identified low-income households with children ages 0-18 as our priority population.

Healthy eating, physical activity, and psychosocial stress all relate directly to chronic disease and obesity prevention. The benefits of healthy eating and active living are well documented, while the neighborhood and economic factors that contribute to psychosocial stress present barriers to making healthy choices. Focusing on our residents who face the most stressors and barriers to healthy eating and physical activity will have the greatest impact on health in our county. Further, by identifying solutions that impact policies, environments, and systems, our work will make healthy choices easier.

We have identified four preliminary goals to increase access to healthy food and physical activity, using psychosocial stress as a lens. Over the next year, we will work to implement the collective impact framework to support healthy eating and active living in Jefferson County. This framework will allow us to collaborate successfully across sectors to have the greatest impact possible. We will also work to develop transparent communication with our partners and the public to share our progress toward increasing access to healthy food and physical activity. Finally, we hope to increase access to healthy food and physical activity among our target populations by the end of 2017. As we continue to build relationships with partners, our objectives and strategies will become more concrete; we are committed to updating this document regularly to reflect our progress.

# Introduction

Health starts long before you set foot in the doctor's office. Neighborhood factors like sidewalk connectivity and housing quality, the food choices at our worksites and schools, our income and education levels, and many other details of our everyday lives all influence our health.<sup>1</sup> By working with partners at the local level, we can take many steps to improve health in our community. Here in Jefferson County, we are working collaboratively to improve health through the *Healthy People Healthy Places Jeffco* initiative.

*Healthy People Healthy Places Jeffco* is a collaboration of community organizations, government agencies, businesses, and residents committed to building a healthier Jefferson County by developing and implementing a countywide community health improvement plan (CHIP). We recognize that improving health in our county will require collective action by many diverse partners. Our mission is to partner across sectors to enhance and promote health for all in Jefferson County.

Jefferson County Public Health (JCPH) initiated *Healthy People Healthy Places Jeffco* in response to Senate Bill 08-194, the Public Health Act of 2008, which requires each public health department in the state to develop a CHIP every five years. The goal of this law is to ensure that core public health services are available to all Coloradans across the state, and to increase the quality of these services. Developing a CHIP provides us the opportunity to assess health in our county, identify our strengths and weaknesses as a public health system, work with the community to identify health priorities, and address those priorities with evidence-based strategies. Moreover, it provides the opportunity to work with the range of agencies and organizations in the county that shape health to ensure that we are aligning our efforts and resources to have the greatest impact. Working as a public health system, rather than as individual organizations operating in silos, will allow us to reduce redundancies and impact health at the population scale. To further increase the impact of this initiative, the collaborative seeks “upstream” solutions that affect policies, systems, and environments and make healthy choices easier across the county.

This document meets the requirements of Senate Bill 08-194. The following sections introduce our community, outline our process, describe the leading health concerns in our county, and define the actions the collaborative intends to take to address these health concerns. We see the CHIP as a living document and are committed to updating it continuously as our work progresses. We hope that this plan will serve as a guide for community partners and residents to engage actively in making Jefferson County a healthier place to live, learn, work, and play.

# Community Description

## General Characteristics

The Great Plains meet the Rocky Mountains in Jefferson County, Colorado, also known as the “Gateway to the Rocky Mountains.” Once an agricultural and mining area, Jefferson County is now a thriving suburban and mountain county on the west side of the Denver metro region with vibrant business, industrial, and residential communities.

Jefferson County is the 4<sup>th</sup> largest county in Colorado, with 545,358 residents in 2012 and a landmass that covers 764.21 square miles.<sup>2</sup>

### Age distribution

In 2012, the median age in Jefferson County was 40.8 years. That year, 29% of all households had one or more people under the age of 18; 24% of all households had one or more people 65 years and older. Of the total population, 21% was under 18 years and 14% was 65 years and older.<sup>3</sup>

### Income

In 2012, Jefferson County’s median annual household income was \$67,512 and the per capita income was \$35,249. That year, 9.2% of all residents in Jefferson County were living below the federal poverty line. A little over one-third (37.7%) of Jefferson County households earn less than \$50,000 a year, and 16.5% of households make under \$25,000 a year.<sup>4</sup>

Denver metro area counties household income in the past 12 months, 3-year estimate, 2010-2012. (In 2012 inflation-adjusted dollars)	
Denver	\$49,049
Adams	\$55,004
Arapahoe	\$59,978
Boulder	\$66,783
<b>Jefferson</b>	<b>\$67,060</b>
Broomfield	\$77,239
Douglas	\$98,327
<i>Source: U.S. Census Bureau, 2010-2012 American Community Survey 3-Year Estimates</i>	

Figure 2: Household income by county, 2010-2012



Figure 1: Map of Jefferson County

The cost of living in Jefferson County is relatively high. To be self-sufficient (i.e., to meet all basic needs without public or private supports), a family of four (two adults and two children) living in Jefferson County would need to earn \$62,952 a year.<sup>5</sup> In contrast, if both adults worked 40 hours a week at minimum wage with no days off, they would only earn \$32,365 to support their family. To meet the self-sufficiency standard, each adult would need to earn a minimum of \$14.90 hourly.



## Education

Jefferson County residents are well-educated overall. Almost 15% of Jefferson County residents aged 25 and older hold a graduate or professional degree, 26.7% hold a bachelor's degree, and 8.4% have an associate's degree. Meanwhile, 21.1% completed high school (or equivalency), 4.6% completed some high school but did not graduate, and only 1.7% of residents have less than a 9<sup>th</sup> grade education.<sup>6</sup>

## Racial and ethnic distribution

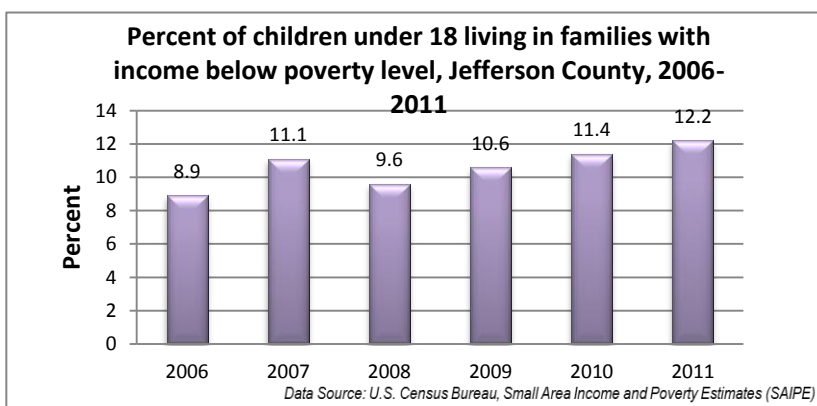
The majority (90.8%) of Jefferson County residents are white. Asians account for 2.5% of the population, African-Americans for 1.2%, and American Indian/Alaska Natives for 1.0%. Another 2.8% of the population identifies with two or more races, and 1.7% identifies as other. Latinos make up 14.9% of the population. Our Latino population increased 30% between 2000 and 2010.<sup>7</sup>

## Beyond the General Characteristics

On the surface, Jefferson County is an affluent bedroom community of Denver. We have the third highest median income in the state. Our school district has one of the highest high school graduation rates in the nation for a district its size. Yet when you look more closely, you see that these aggregate statistics hide some more startling numbers, with significant implications for our residents' health.

## Low-income households

Jefferson County is a relatively affluent community, with a median household income of \$67,512 in 2012.<sup>8</sup> Yet many households earn significantly below this median income. In 2012, 38% of Jefferson County households earned less than \$50,000 and 12% of households earned less than \$20,000.<sup>9</sup> In 2011, 12.2% of children under 18 lived in families with incomes below the federal poverty line (\$22,350 for a family of four), up from 8.9% before the recession.<sup>10</sup> At the same time, the self-sufficiency wage in 2011 for a family of four in Jefferson County was \$62,952.<sup>11</sup> Families with incomes above the poverty line but below the self-sufficiency wage may still struggle to get by in our county.



Lower income is associated with poorer health, with chronic conditions like type 2 diabetes and high blood pressure disproportionately impacting people with limited incomes.<sup>12</sup> As the graph below shows, obesity and high blood pressure rates are higher for Jefferson County residents with lower incomes.<sup>13</sup> By recognizing that increasing numbers of children in our county

live in low-income households,<sup>14</sup> we can act to ensure that their health is not diminished by the economic challenges their families face.

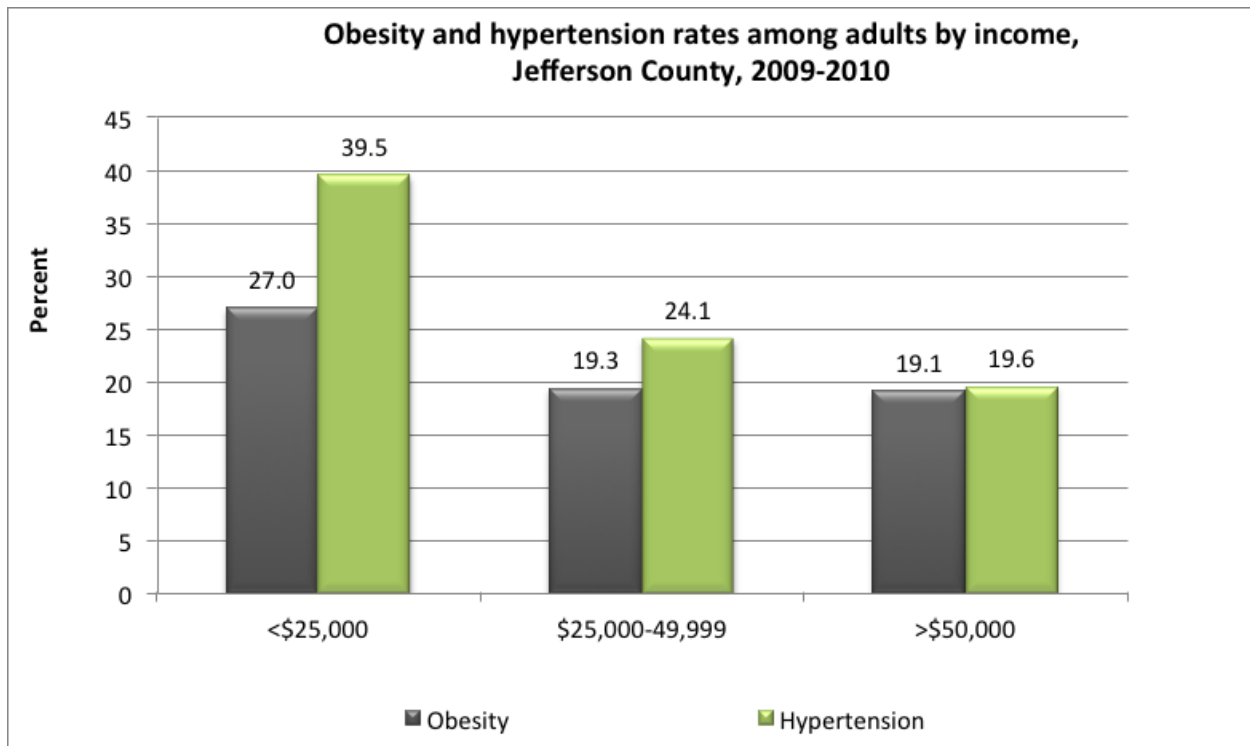


Figure 4: Obesity and hypertension rates among adults by income, Jefferson County, 2009 - 2010

### Jefferson County's older adults and young children

Jefferson County has the highest proportion of residents over 65 years old in the Denver metro area. Planning for increasing numbers of seniors will be critical for the county.

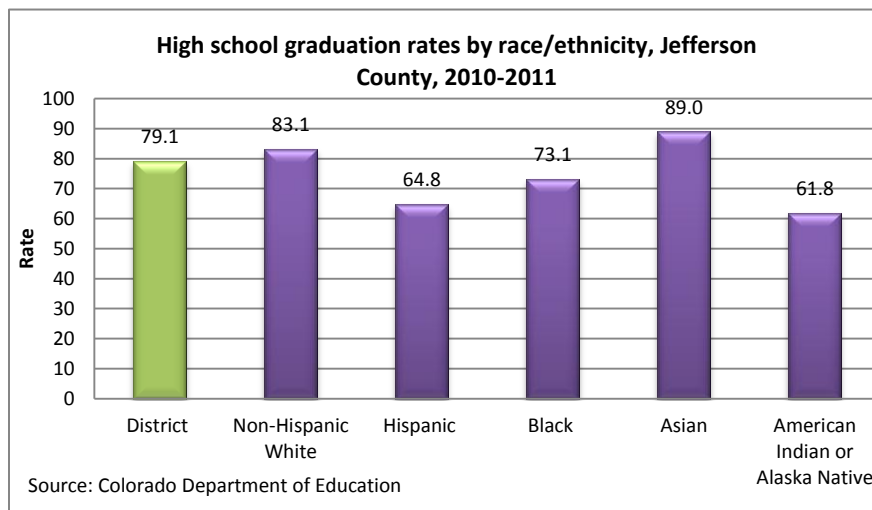
At the same time, Jefferson County continues to attract young families and has many children under the age of 18. In 2012, 21.4% (116,869) of Jefferson County's 545,358 residents were under 18, while 13.6% (72,104) of the population was 65 or older.<sup>15</sup> Investing in the health of Jefferson County's children will set our population up to lead long, healthy lives.

### Graduation rates by race and ethnicity

Jefferson County's school district boasts high graduation rates – 79.1% in 2011. At the same time, there are large racial and ethnic disparities in graduation rates. During the 2010-2011 school year, graduation rates were highest for Asian (89%) and non-Hispanic white students (83.1%), yet much lower for Hispanic (64.1%) and American Indian/Alaska Native (61.8%) students.<sup>16</sup> High school graduation is crucial for future employment. According to the Bureau of Labor Statistics, the jobless rate for recent high school dropouts in 2012 was 49.6%, compared with 34.4% for recent high school graduates not enrolled in college.<sup>17</sup>

Education is also important for health. Studies show that better-educated people have lower death rates from the most common chronic diseases, independent of basic demographic and employment factors.<sup>18</sup> Ensuring that all students complete high school, regardless of their race or

ethnicity, is essential to supporting health and ensuring the long-term economic vitality of Jefferson County.



**Figure 5: High school graduation rates by race/ethnicity, Jefferson County, 2010 - 2011**

## The Community Health Improvement Planning Process

Developing a Community Health Improvement Plan (CHIP) requires extensive research to assess the health of the community as well as engagement with members of the public and representatives of partner organizations. The following sections describe the process to develop Jefferson County's CHIP.

### Assessing Health in Jefferson County

#### Process

In late 2011, JCPH began a process to assess the health of Jefferson County and to develop and implement a plan to improve the overall health of the community. The process began in response to a statutory requirement under Senate Bill 08-194 to develop a community health improvement plan and quickly grew into an effort to engage JCPH staff, partners, and the community to generate true change in the county's health.

First, we established a steering committee comprised of JCPH staff from all divisions to help guide the process. We also partnered with the Colorado School of Public Health (CSPH) to guide us through an initial employee engagement process, interview key community stakeholders, and summarize county demographic information.

Next, we collected and analyzed data that would clearly define the health of our community. Using robust data from the Colorado Department of Public Health and Environment, we identified the leading causes of death in the county. This approach allowed us to work backward to identify the root causes of poor health and disease in the county. Research has found that certain risk factors – tobacco use and exposure, poor diet, physical inactivity, and alcohol consumption – play a large role in the leading causes of death in our nation.<sup>19</sup> It quickly became clear that most of the leading causes of death here in Jefferson County did indeed have a few related underlying risk factors.

In early 2012, the steering committee began drafting the community health assessment (CHA). The committee reviewed data to identify the top health issues that could be impacted by the public health system and helped define partners outside of JCPH who impact the health of the community. Outputs of committee meetings included a draft of the CHA and a list of partners to invite to join our process.

In early 2013, JCPH invited these partners to join a Health Council that would help guide the health assessment and planning process. The Health Council includes top executives from businesses, nonprofits, hospitals, and local governments, as well as elected officials. Bringing together decision makers helps ensure successful implementation of the CHIP. The Health Council met four times in 2013 and helped prioritize health concerns, suggested areas of focus, and assigned members of their staff to serve on CHIP work groups.

## Results

Technical experts within JCPH reviewed the final draft of the community health assessment. We released the CHA in May 2013 at a public event at Jefferson High School that attracted roughly 50 community members and partners. The CHA focuses on six of the county's nine leading causes of death in 2011: cardiovascular disease (1), cancer (2), unintentional injuries (3), chronic lower respiratory diseases (4), suicide (6), and diabetes (8). These causes of death were selected because they are preventable, share common risk factors, and impact significant numbers of our residents. In addition, most of these causes of death result from chronic conditions that diminish our residents' quality of life and earning potential. The remaining three leading causes of death for Jefferson County in 2011 were Alzheimer's disease (5), chronic liver disease (7), and influenza and pneumonia (9).<sup>20</sup>

## Assessing the Public Health System's Capacity

### Process

In addition to assessing health within the county, we assessed the capacity of the public health system to impact health. The capacity assessment was performed using the National Public Health Performance Standards (NPHPS) tool, which helps state and local jurisdictions evaluate their performance against a set of optimal standards. The tool is based on the 10 essential public health services and is intended to measure the capacity not only of the local public health department, but the entire public health system. Through this tool, partners assessed the components, activities, competencies, and capacities of the public health system, encompassing the activities of all public, private, and voluntary entities that contribute to public health within the community.

To complete the assessment, questions from the NPHPS tool were input into a filterable Excel file for ease of organization. JCPH staff involved in the CHIP process answered the questions they felt they could answer with confidence. We also enlisted the help of the Board of Health and JCPH leadership, including directors and supervisors, to help answer many of the questions.

Unanswered questions were assigned to partner organizations whose work most closely relates to the issues. In order to simplify the process and use partners' time as effectively as possible, we conducted the capacity assessment using a QuestionPro online survey. To gather candid responses, we did not require that participants give their name. However, we did ask that they provide their sector so we were able to see from what area of the public health system their response came. Participants were asked to rank the public health system's level of capacity for each question as no activity, minimal, moderate, significant, or optimal and provide a brief explanation for their response or note strengths, weaknesses, or gaps in the system. Survey participants could also choose "unsure" to ensure greater accuracy by eliminating guess responses.

## Results

The assessment showed that Jefferson County's public health system has significant activity in three areas: diagnosing and investigating health problems and health hazards in the community; informing, educating, and empowering people about health issues; and linking people to needed personal health services and assuring the provision of health care when otherwise unavailable. On the other hand, significant improvements are needed on the evaluation, effectiveness, accessibility, and quality of personal and population-based health services, as well as the development of community partnerships.

Public Health's 10 Essential Services	
1.	<b>Monitor</b> health status.
2.	<b>Diagnose and investigate</b> health problems and hazards.
3.	<b>Inform, educate, and empower</b> people.
4.	<b>Mobilize</b> community partnerships.
5.	<b>Develop policies and plans</b> that support health.
6.	<b>Enforce</b> laws and regulations that protect health and safety.
7.	<b>Link</b> people to personal health services.
8.	<b>Assure</b> a competent public health workforce.
9.	<b>Evaluate</b> effectiveness, accessibility, and quality of personal and population-based health services.
10.	<b>Research</b> for new insights and innovative solutions.

Figure 6: Public health's 10 essential services

As this was Jefferson County's first system-wide capacity assessment, we are still learning where our strengths and weaknesses lie. We will continue to refine the definition of our public health system and what working as a system entails. This CHIP is an opportunity for greater collaboration as a health system as we develop our strengths, find opportunities for growth and improvement, and build a stronger, healthier community for Jefferson County residents.

## Identifying Health Priorities

### Process

In order to identify health priorities for the CHIP, we took the information from the 2013 community health assessment out to the public. The community health assessment describes health in Jefferson County and some of the factors that influence health.<sup>21</sup> Most of the leading causes of death in Jefferson County – including cardiovascular disease, cancer, unintentional

injury, chronic lower respiratory diseases, suicide, and diabetes – are preventable and share common risk factors. We identified five underlying risk factors (poor diet, physical inactivity, tobacco use and exposure, alcohol use, and psychosocial stress) for these leading causes of death and sought input from the public to rank them. We knew we would have a greater impact on the population’s overall health by focusing our CHIP on a few risk factors with multiple health consequences rather than on one or two causes of mortality.

To gather this input, we held community meetings, engaged our Health Council, and ran an online webinar and survey. We held five community meetings across Jefferson County between July and August 2013, with JVA Consulting as a neutral facilitator. In order to reduce barriers to participation in these meetings, we provided a healthy dinner at each session. In addition, we provided free child care at two meetings, and one meeting had simultaneous English- and Spanish-language sessions. Venues were geographically dispersed across the county, with meetings in Edgewater, Columbine, Conifer, Arvada, and Lakewood, and most venues were accessible by public transportation. Our community outreach included the placement of ads in local newspapers and social media, press releases, targeted invites to local organizations, flyer drops in neighborhoods and local businesses, and e-mail blasts to partners and engaged residents. The meetings attracted 99 community members.

Each meeting included a 15-minute presentation about the CHIP process, the leading causes of death in the county, and their underlying risk factors. Participants were then asked to divide \$100 in play money across the five risk factors according to their perception of each risk factor’s importance to health in their community. After a few minutes of individual brainstorming, participants broke into small groups, came to consensus around how to spend the \$100 and why, and reported out to the large group. Thirty members of the Health Council participated in a similar activity, spending more time discussing why they decided to allocate the money in a particular way. We also engaged the public through an online webinar and survey that contained the same information as the presentation given at meetings and asked the same question: how would you spend \$100 across the five risk factors and why? Survey participants were recruited through e-mail, social media, and a press release. The survey drew 117 participants, of whom 74 completed the full survey. To participate in the survey, individuals were required to live or work in Jefferson County.

## Results

The results of this community process were consistent across all settings, with physical inactivity, psychosocial stress, and poor diet of greatest general concern. Based on all responses combined, if we divided \$100 among the five risk factors, \$27.37 would be spent on physical inactivity, \$26.24 on psychosocial stress, \$25.84 on poor diet, \$10.64 on alcohol use, and \$9.91 on tobacco use. Physical inactivity and poor diet were seen as key contributors to the leading causes of death and disease in the county, while psychosocial stress was seen as a contributor to poor health behaviors.

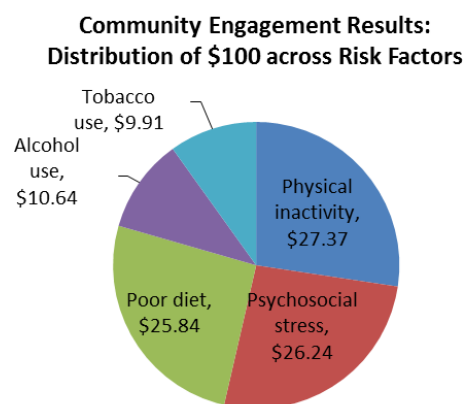


Figure 7: Community engagement results



Participants felt that tobacco and alcohol already had significant investments, whereas work to promote healthy eating and physical activity was lacking in the county. We therefore selected physical inactivity and poor diet as our priorities, with psychosocial stress as a lens to address these issues.

Following the selection of priorities, we conducted additional outreach to include more voices. This additional engagement included asking the Jefferson County Head Start Policy Council about the barriers Head Start families face in eating healthy food and being physically active, and the Jefferson County Student Health Advisory Council and Youth Leadership Jefferson County about ways to promote healthy eating and physical activity at schools.

## **Working toward Strategies**

### **Process**

With the results of our public meetings and online survey clearly showing that the public sees poor diet, physical inactivity, and psychosocial stress as the most pressing health issues in Jefferson County, we set up two working groups to identify ways to increase access to healthy food and physical activity while reducing stress. Given the complex nature of these topics, we wanted the work groups to include members from many sectors. To recruit members, we reached out to our Health Council and other regional partners, as well as to the community members who participated in the prioritization phase. Members were divided into two groups: access to healthy food (19 members), and physical activity (22 members). Each group sought to address psychosocial stress by considering the barriers to eating healthy food and being physically active, particularly among those with the greatest burden of poor health.

Initially, we had hoped that these work groups would select the strategies that would form the framework of this CHIP's action plan; however, we quickly realized as we began to plan the meetings that our timeline was too compressed to accomplish that goal. Healthy eating and active living can be approached through myriad strategies, and without narrowing our focus within these areas we would have overwhelmed our work group members. Moreover, we did not feel we had the relationships in place to gain commitments from other organizations to implement pieces of an action plan, nor had we worked with partners to identify a specific goal we could all agree to work toward.

Rather than rush through our process, we chose to focus on building relationships and consensus within these groups. The groups met seven times between September and December, with the goal of identifying specific populations who would most benefit from CHIP interventions. We believe this work will set the stage nicely for targeted conversations with specific partners to identify strategies to increase access to healthy food and physical activity. Most importantly, we expect that this upfront work to build relationships will help us gain commitments from partners to implement pieces of the initiative's action plan in the future. The goals and strategies section outlines the steps we plan to take to identify these strategies and gain commitments from partners in early 2014.

To demonstrate our neutrality in the process and ensure that everyone's time was well used, we contracted Spark Policy Institute to facilitate the work groups. Work group meetings included

presentations on the CHIP process; policy, systems, and environmental change; local health data related to socioeconomic factors, healthy eating, and physical activity; and the results of a survey of local decision makers' opinions related to healthy eating and active living (HEAL) work. Each meeting included small group as well as large group discussion.

## Results

To identify target populations, members participated in an online survey that asked them to rank various population groups stratified by age, race/ethnicity, education level, and income using six criteria: likelihood of health impact, expected reach, external political support, community support, capacity to implement, and impact on health disparities. Survey results demonstrated a nascent consensus among participants, and through discussion each group came to consensus on focus populations. The Healthy Food Access Work Group identified low-income households with children ages 0 to 18 as their focus population, and the Physical Activity Work Group identified low-income whites and Latinos ages 2-18 as their focus population.

The groups came together for a final meeting to plan for next steps. Group members saw significant benefit in maintaining distinct work groups, but meeting as a larger group more frequently to ensure the strategies the groups identify align well and are implemented in the same settings. We concluded that one overarching target population would best facilitate this collaboration: low-income households with children ages 0-18, with an emphasis on the Latino community.

# The Economic Benefit of Community Health Improvement Planning

The CHIP process is an effective way to translate data into action by building partnerships, focusing on key priorities, and targeting resources. Ultimately, our goal is to improve the health of all Jefferson County residents and workers; we believe we can only achieve this goal through collective and collaborative action. While improving health in and of itself is a justifiable outcome, targeting resources around prevention also makes tremendous financial sense.

The US spends \$2.6 trillion on medical care each year,<sup>22</sup> 48% more per capita than any other nation,<sup>23</sup> and yet we have poorer health outcomes and shorter life expectancies than many other industrialized nations. Not only does this indicate a poor return on investment, these expenditures also have an opportunity cost: for every health dollar that is invested ineffectively, less money is available to invest in other services like education or infrastructure. Moreover, the majority of gains in household incomes over the past decade have been eroded by higher health insurance premiums, out-of-pocket medical care costs, and health-care-related taxes.<sup>24</sup> As a result, for many households this opportunity cost means less money to save for retirement or spend on goods and services.

More than 75% of our health care dollars are spent on preventable chronic diseases. Obesity alone is responsible for 20% of medical care cost increases over the past decade.<sup>25</sup> Each obese person costs our health care system \$1,429 – or 42% – more than a healthy-weight person. In



2008, our nation spent an estimated \$147 billion on medical costs related to obesity. Most of this money was spent on treating preventable diseases that are caused by obesity, like diabetes.<sup>26</sup>

Half of business earnings today are spent on employees' health care costs. Two-thirds of US workers are overweight or obese, meaning they have higher health care costs. In addition, employers lose \$153 billion annually due to absenteeism of employees with chronic diseases.<sup>27</sup>

Not even the military has been spared the costs of the obesity epidemic. An organization of retired military generals and admirals has called the obesity epidemic a threat to national security. Today, 1 in 4 young Americans is too overweight to join the military, and many new recruits require special additional training to increase their fitness or have weakened bones due to poor diets. Furthermore, the military spends \$1 billion a year on obesity-related medical care for active-duty personnel, their dependents, and veterans.<sup>28</sup>

Public health prevention strategies that target the root causes of disease and impact the health of populations rather than individuals are an important and cost-effective approach to reducing health care costs.<sup>29</sup> A \$1 investment in proven community-based interventions to increase physical activity and healthy eating and reduce smoking will yield a \$5.60 return on investment over five years in lowered medical costs.<sup>30</sup> Worksite wellness programs can reduce sick leave, workers' compensation claims, and medical costs by 25%. Reducing unhealthy behaviors (e.g.: smoking, poor diet) by only 1% would save businesses \$83 to \$103 in medical costs per employee per year.<sup>31</sup>

Addressing health at the population scale has the greatest impact for the least cost. This type of approach involves changes to policies, systems, and environments, with the goal of making healthy choices easier for everyone.<sup>32</sup> Our CHIP takes this population-based approach to make the most of limited resources. Additionally, our CHIP brings together partners from a range of sectors to coordinate our efforts and align resources. Investments in housing, education, transportation, and many other social sectors all will improve health.<sup>33</sup> By bringing together partners from multiple sectors, not only do we know we can make the greatest impact on health, we also can do so cost-effectively.

## Health Issues in Jefferson County

Overall, Jefferson County residents are relatively healthy, but some of the trends that emerged in the community health assessment are concerning. In particular, our obesity rate increased 59% and our diabetes rate increased by 89% between 2001 and 2010. In 2010, 34.4% of Jefferson County adults were overweight, and 20.4% were obese.<sup>34</sup> Nationwide, Colorado is one of only three states that saw increases in obesity among preschool-aged children from low-income families between 2008 and 2011.<sup>35</sup> Obesity is associated with higher levels of death and disease. Among children, higher weights are associated with higher blood pressure and cholesterol levels, as well as type 2 diabetes and nonalcoholic fatty liver disease. Among adults, obesity is associated with diabetes, cardiovascular disease, cancer, nonalcoholic fatty liver disease, high blood pressure, high cholesterol, musculoskeletal disorders, and disability.<sup>36</sup> Cardiovascular diseases and cancer account for nearly half of all deaths in Jefferson County,<sup>37</sup> and our increasing

rates of overweight and obesity suggest that chronic diseases will continue to diminish our residents' quality of life until we reverse that trend. This CHIP provides the opportunity to reduce obesity and chronic diseases now before they weigh down our local economy.

Our community engagement process showed that Jefferson County residents overwhelmingly support work to reduce obesity and chronic disease through increasing access to healthy food and physical activity, and reducing psychosocial stress. The following sections describe these three priority health issues and how they impact our residents.

## Healthy Food Access

### What is access to healthy food and why is it important?

Food is among our most basic human needs. Diets rich in fruits, vegetables, whole grains, and low-fat proteins have been found to decrease mortality from all causes, as well as chronic conditions such as cardiovascular disease and cancer.<sup>38</sup> The Dietary Guidelines for Americans recommend a diet rich in fruits and vegetables, whole grains, beans and legumes, low-fat dairy products, and lean proteins. They also recommend limiting sodium, saturated fats, and cholesterol; avoiding *trans* fats entirely; and reducing calories from solid fats, sugars, and refined grains.<sup>39</sup> Yet the typical American diet looks nothing like this. Instead, too many of us get our calories from processed foods high in sugar, salt, and fat, and low in fiber, vitamins, and minerals.<sup>40</sup>

While the roots of the obesity epidemic are complex, increasing access to healthy foods is a key component of reducing weight and increasing health.<sup>41</sup> Healthy food is accessible when it is affordable, nutritious, easy to get to, and culturally appropriate.<sup>42</sup> A variety of factors can reduce access to healthy food. First, healthy foods tend to cost more than unhealthy foods, creating a financial barrier. Low-income urban areas often lack supermarkets, making healthy foods less available locally. Finally, residents without access to a car may face transportation barriers to accessing healthy food.<sup>43</sup> Across the US, low-income neighborhoods have 25% fewer supermarkets than do middle-income neighborhoods, while predominately African-American neighborhoods on average have half the number of supermarkets found in predominately white neighborhoods.<sup>44</sup> Although low-income neighborhoods may have smaller food stores, fresh fruits and vegetables generally cost more, are of lower quality, and are less available at small stores than at supermarkets or large grocery stores. Price in particular is correlated with diet: as the price of fresh fruits and vegetables rises, consumption decreases.<sup>45</sup> People who live near supermarkets or other food stores that sell fresh produce eat more fresh fruits and vegetables and have lower rates of chronic diseases than people with limited access to healthy food.<sup>46</sup>

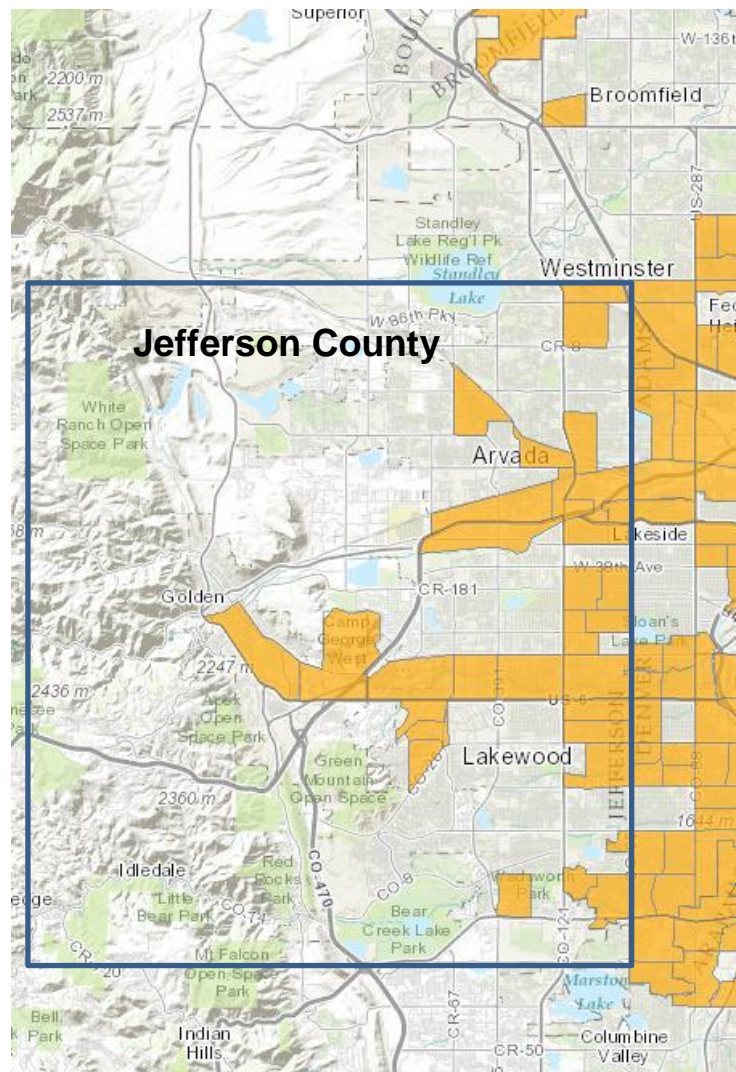
Financial access also is a significant barrier to healthy eating. The word “hunger” conjures images of starving children in drought-stricken regions of Sub-Saharan Africa, or grungy Depression-era American children. Today, however, hunger and food insecurity – uncertain or limited access to adequate and nutritious food – are largely hidden by the fact that they tend to lead to overweight rather than underweight. For example, food insecure women in particular are more likely to be obese than are food secure women.<sup>47</sup> In part, this is because processed foods high in sugar, salt, and fat provide more calories for less money than do fresh fruits and vegetables, whole grains, and lean meats.<sup>48</sup> In addition to the negative health effects of obesity,

food insecurity harms cognitive development in children. Children from food insecure households have diminished reading and math skills compared to classmates from food secure households, and girls from food insecure homes have impaired social skills.<sup>49</sup>

### Eating healthy food in Jefferson County

The rising obesity rates in Jefferson County are in part a reflection of poor diets. In 2009, only 26.2% of Jefferson County adults ate the recommended five or more vegetables per day.<sup>50</sup> All Jefferson County residents should improve their diets, but for our residents with lower incomes or who live farther from grocery stores, accessing healthy food is more challenging. Food insecurity in the county is not insignificant: as of September 2013, 15,501 (7%) Jefferson County households received Supplemental Nutrition Program (SNAP, formerly known as Food Stamps) benefits.<sup>51</sup> Moreover, 24,991 students – 31% of Jefferson County Public School students – qualify for free or reduced-price lunches through the National School Lunch Program. These hungry kids are not evenly distributed: at 22% of Jefferson County schools, 60% or more of students qualify for free or reduced-price lunches, with over 80% of students qualifying at nine schools.<sup>52</sup>

The map to the right, from the US Department of Agriculture,<sup>53</sup> captures the uneven distribution of food outlets in our county. Census tracts where residents live more than 0.5 miles from a grocery store (or more than 10 miles in rural areas) are considered “food deserts,” highlighted in orange on the map. As the map shows, Jefferson County’s food deserts are concentrated along our eastern border with Denver, as well as along US Highway 6 and Interstate 70. Working to increase access to healthy food in Jefferson County means working particularly in our neighborhoods where access is most limited by geography and income.



**Figure 8: Food deserts in Jefferson County.** Residents living in the orange census tracts are more than 0.5 miles from the nearest grocery store. Jefferson County’s food deserts fall within the blue rectangle.

# Physical Activity

## What is physical activity and why is it important?

Any type of bodily movement that is produced by muscles and that uses energy is considered physical activity. We often use the terms “physical activity” and “exercise” to mean the same thing, but in fact exercise is a specific type of physical activity. Exercise is physical activity that is planned and repeated with the intention of increasing endurance, strength, or flexibility, while physical activity includes a range of activities at a range of intensity levels, from gardening to walking the dog to rowing.<sup>54</sup>

The Department of Health and Human Services has set physical activity guidelines for Americans. They recommend that children and adolescents engage in moderate- to vigorous-intensity physical activity for at least 60 minutes every day. Adults – including those over 65 – should engage in moderate-intensity aerobic activity for at least 150 minutes per week. People of all ages with chronic conditions or disabilities should be as active as their conditions allow. It’s important to note that some physical activity is better than none, even if it is less than the recommended amount, while more physical activity leads to more health benefits.<sup>55</sup>

Physical activity has many health benefits for people of all ages, backgrounds, and skill levels. Some of these benefits include:<sup>56</sup>

- Lower risk of dying younger than average from leading causes of death like heart disease and cancer.
- Healthier hearts, lungs, and blood vessels, leading to a lower risk of heart disease and stroke as well as lower blood pressure and cholesterol.
- Lower risk of developing type 2 diabetes or metabolic syndrome (high blood pressure, large waistline, high levels of triglycerides, and reduced glucose tolerance).
- Increased success losing excess body weight and keeping it off.
- Healthier bones, joints, and muscles, leading to healthy bone development in children and lower risk of falls and fractures in older adults.
- Lower risk of developing some types of cancer, including colon and breast, among adults who are physically active for more than the recommended 150 minutes per week.
- Improved mental health, including lower risk of depression among adults, reduced symptoms of depression and anxiety among children and adolescents, and lower risk of cognitive decline among older adults.

In addition to these health benefits, physical activity improves children’s academic performance. In-school physical education is associated with improved cognitive skills and attitudes, while recess is associated with improved classroom behavior and attention. In addition, short bursts of physical activity led by a teacher during class may improve cognitive function, behavior, and academic performance. Finally, students who participate in sports or other physical activities after school tend to have lower dropout rates and higher grades than do students who are not active after school. Time devoted to physical activity during or after the school day does not reduce performance on standardized tests.<sup>57</sup>

## Being physically active in Jefferson County

Our rising obesity rates indicate that Jefferson County residents are not active enough, adding to the effects of poor diets. Only 57.7% of Jefferson County adults<sup>58</sup> and 39.0% of children aged 5-14<sup>59</sup> met the physical activity guidelines in 2009.

Physical activity is linked to features in the built environment. For example, people are more likely to walk for recreation in neighborhoods that have sidewalks and are perceived as being safe, while mixed land uses and a variety of nearby destinations are associated with increased walking for transportation. Moreover, neighborhoods that support walking or that provide greater access to recreational facilities are associated with lower BMI.<sup>60</sup> Nearly 90% of Jefferson County residents say that their neighborhood has sufficient sidewalks or shoulders to safely walk, run, or bike.<sup>61</sup> However, 86.6% of Jefferson County residents either drive to work alone or carpool, and only 4.3% walked or took public transportation to work,<sup>62</sup> which suggests that our built environment is geared toward cars. Given that most of us have limited leisure time, active commuting can be one way to increase physical activity. The recent opening of the West Rail Line and the development of the Gold Line increase transit connectivity between Jefferson County and other areas of the Denver metro region, and may increase more active forms of commuting among our residents.

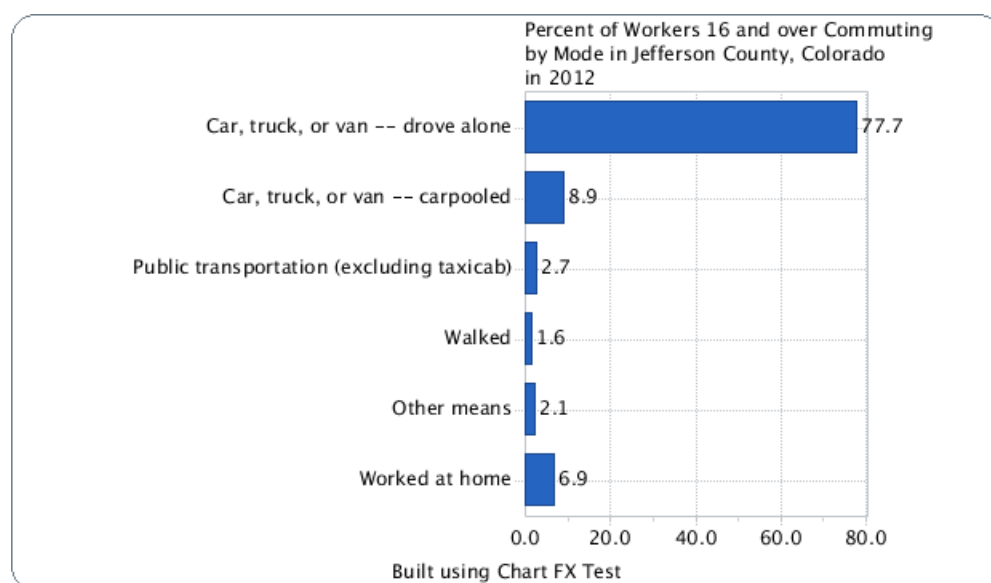


Figure 9: Percent of workers 16 and over commuting by mode in Jefferson County, 2012

Access to parks and playgrounds is associated with lower childhood obesity rates.<sup>63</sup> Jefferson County's open space system includes more than 52,000 acres of land and 227 miles of trails, providing ample opportunities for residents to get outside.<sup>64</sup> Although Jefferson County is fortunate to have extensive open space amenities, 14.5% of Jefferson County adults engaged in no leisure time physical activity at all in 2010.<sup>65</sup> Further, the majority of this open space is on the western side of the county, which means that residents on the eastern border may not have easy access to open spaces. Interestingly, participants at our public meeting in Conifer emphasized that residents in mountain communities may not use open spaces due to limited transportation or knowledge. This group perceived that Jefferson County's open spaces are primarily used by



Denver residents. To reduce obesity in our county, we will work to increase physical activity among all residents by identifying and reducing barriers to being active.

## Psychosocial Stress

### What is psychosocial stress and why is it important?

Stress is a physical response to help protect us from danger. When we perceive a threat or demand that appears dangerous or that overwhelms our resources, our body releases hormones to prepare us to fight or flee. Modern life is full of ongoing, everyday stressors, which means our bodies are constantly swimming in these “fight or flight” hormones.<sup>66</sup> Modern-day life can trigger ongoing mental arousal, or stress, especially for people who live paycheck to paycheck or in unsafe neighborhoods.<sup>67</sup>

Chronic, everyday stress has greater effects on the body than does short-term stress. Chronic stress often leads to changes to emotional, physiological, and behavioral responses that increase the risk of developing a range of diseases, including depression, cardiovascular disease, and some cancers.<sup>68</sup> Chronic stress also diminishes creativity, memory, and attention and impairs problem-solving abilities.<sup>69</sup>

Where you live impacts your stress levels and your health. In some neighborhoods more than others, residents worry about crime or violence, experience high levels of pollution or noise, or have limited access to amenities like grocery stores or public transportation. Individual residents have little control over these neighborhood stressors, which impact health across the lifespan. Residents in neighborhoods with high levels of stressors suffer from poorer self-rated health and emotional problems,<sup>70</sup> and are more likely to be overweight or obese.<sup>71</sup> In addition, neighborhood stressors like litter, crumbling infrastructure, or discrimination are associated with higher risk of depression.<sup>72</sup> People who live in low-income neighborhoods are more likely to experience neighborhood stressors than are those who live in middle-income or wealthier neighborhoods.<sup>73</sup> While affluent neighborhoods appear to protect people from depression, poor neighborhoods have a negative impact on mental health, regardless of individual socioeconomic status.<sup>74</sup>

Your work also impacts your health. Individuals with lower education levels have fewer employment opportunities, and therefore are likely to work in jobs where they have limited control over their tasks and low reward for their work. This type of work environment creates more stress among employees and is associated with higher levels of cardiovascular disease, depression, alcoholism, and poor self-rated health.<sup>75</sup> In addition, their lower incomes impact the types of neighborhoods they can afford to live in, putting them at greater risk of living in neighborhoods with more stressors.

We tend to think of health as being based largely on our individual behaviors, yet health starts in the places where we live, learn, work, and play.<sup>76</sup> In fact, 40% of our health is impacted by social and economic factors, including income, education, neighborhood factors, etc.<sup>77</sup> These social and economic factors may lead to psychosocial stress: people who have trouble paying their rent, lack safe neighborhoods to play in, or lack opportunities to get a good education live with higher levels of chronic, psychosocial stress. Many of the social and economic factors that underlie

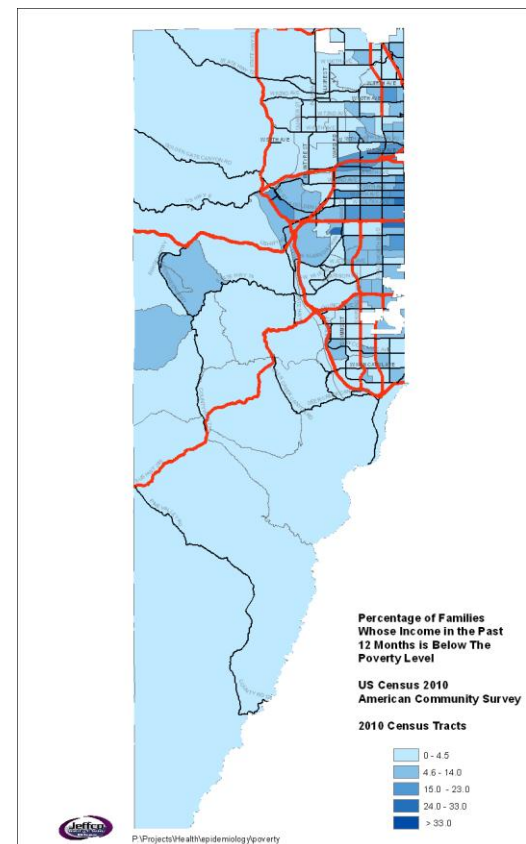
stress also make it harder for individuals to make healthy choices: people who live in lower-income neighborhoods tend to be surrounded by liquor stores and corner stores that sell junk food and cigarettes, but they are less likely to have places nearby to buy healthy food and exercise safely. These social and economic factors, known as the social determinants of health, lead to disparities in health outcomes between the “haves” and the “have-nots” in our society.<sup>78</sup>

### Psychosocial stress in Jefferson County

Although Jefferson County is one of the most affluent counties in Colorado, our rising rates of childhood poverty<sup>79</sup> and food insecurity<sup>80,81</sup> point to the presence of lower-income neighborhoods where residents may have higher levels of psychosocial stress. Similarly, the cost of living in our county is high,<sup>82</sup> and affordable housing is difficult to come by.<sup>83</sup> Some residents may struggle to pay rent and purchase healthy food on limited incomes.

Moreover, our dependence on cars to get to work<sup>84</sup> suggests that Jefferson County residents who cannot afford cars may face difficult commutes. Transportation is typically the second-largest household expense after housing, and is roughly equal to household spending on health care and food combined.<sup>85</sup> For working poor families, finding affordable housing that is still accessible to jobs, child care, and other needs can be challenging. These families often face tough decisions and may end up choosing higher housing costs to reduce commuting time or to locate on a public transportation line. Similarly, access to transportation may limit employment opportunities.<sup>86</sup>

All of these factors contribute to stress in Jefferson County. Our CHIP seeks to address psychosocial stress in concert with increasing access to healthy food and physical activity. Stress may lead people to eat unhealthy food as a coping mechanism, while increasing physical activity can reduce stress.<sup>87</sup> Thus, stress has a synergistic relationship with obesity. More importantly, we intend to use stress – and the social determinants of health more broadly – as a lens to approach our work on healthy eating and active living. We believe that all of our residents should have the opportunity to access healthy food and be physically active, regardless of their neighborhood or income level. In this way, we will actively work to remove barriers to healthy eating and active living, particularly among those with the greatest burden of poor health. In so doing, we also expect to reduce stress among these residents.



**Figure 10: Percentage of families whose income in the past 12 months is below the poverty level, Jefferson County, 2010**

# The Community Health Improvement Plan

The remaining sections describe our approach to improving health in Jefferson County. As we continue to build relationships with partners, we will update the goals, objectives, and strategies below.

## Goals and Objectives

Barriers to accessing healthy food, physical inactivity, and psychosocial stress all have complex roots. Finding solutions to these problems will require concerted effort by multiple organizations working together across sectors toward the same goal. As our capacity assessment revealed, partnerships are currently weak across the local public health system. Collaboration across sectors will require ongoing work not only to build trust across these organizations, but also to expand the way these organizations think of health so that they see how their work impacts health. Moreover, our interest in identifying solutions “upstream” requires a shift from focusing on individual interventions to identifying interventions at policy, systems, and environmental scales. This type of approach – working across sectors to achieve policy, systems, and environmental changes – is new for Jefferson County. To ensure success, this initial plan focuses on establishing the infrastructure for collaboration required to meaningfully impact healthy eating and active living in Jefferson County.

To facilitate successful collaboration, we are using a collective impact approach, which is characterized by five common factors:<sup>88</sup>

- ***Common agenda*** – All participants share a common understanding of the issue and how to address it.
- ***Shared measurement systems*** – All participants agree on how success will be measured and reported.
- ***Mutually reinforcing activities*** – Each participant takes on specific activities that support the overarching plan for success.
- ***Continuous communication*** – Communication must be consistent and open across participants in order to foster trust and collaboration.
- ***Backbone support organization*** – An organization with dedicated staff to plan, manage, and support the initiative is necessary.

The following goals and objectives describe the steps we will take by the end of 2017 to increase healthy eating and physical activity in Jefferson County. Year 1 focuses on developing the collective impact and communication infrastructure needed to support healthy eating and active living work in our county, as well as developing multi-sector action plans to increase access to healthy food and physical activity.



## Jefferson County CHIP Action Plan: Phase 1

<b>Goal 1: Implement the collective impact approach in Jefferson County to increase healthy eating and active living (HEAL)</b>	
<b>Objective 1.1: By December 2014, develop an infrastructure to support the collective impact approach to HEAL in Jefferson County and implement collective impact through 2017</b>	
Background: Barriers to accessing healthy food, physical inactivity, and psychosocial stress all have complex roots. Finding solutions to these problems will require concerted effort by multiple organizations working together across sectors toward the same goal. Collective impact provides a framework to facilitate this collaboration.	
<b>Strategy 1.1.1</b>	Continue the multi-sector stakeholder coalition to facilitate collaboration across sectors (Jefferson County Health Council)
Activity 1.1.1a	Meet with members/organizations to increase understanding of health issues facing Jeffco and the role partner organizations play in improving health
Activity 1.1.1b	Align strategic priorities across community health needs assessments (CHNAs) and the community health improvement plan (CHIP)
Activity 1.1.1c	Assess readiness of Health Council members/organizations to participate in and commit to HEAL strategies and build the business case for HEAL
Activity 1.1.1d	Gain commitments from all member organizations to implement mutually reinforcing activities in support of HEAL
Activity 1.1.1e	Monitor outcomes of the stakeholder coalition on an ongoing basis and alter approach as needed
<b>Strategy 1.1.2</b>	Jefferson County Public Health (JCPH) will continue to function as the backbone organization to support the successful implementation of the CHIP (ongoing)
Activity 1.1.2a	Convene and facilitate work groups to develop a multi-year action plan to implement strategies to support HEAL in Jefferson County using the collective impact framework by July 2014
Activity 1.1.2b	Align internal resources, functions, and organizational priorities to ensure JCPH has the capacity to serve as the backbone organization for the CHIP by September 2014
Activity 1.1.2c	Build the business case for continued funding for the CHIP and HEAL
Activity 1.1.2d	Evaluate barriers within the backbone organization to supporting CHIP process quarterly
<b>Strategy 1.1.3</b>	Identify common data measures to monitor progress toward improving health outcomes and address data gaps

Activity 1.1.3a	Establish a multi-sector data work group to identify data needed to track health outcomes
Activity 1.1.3b	Inventory data available in the county and facilitate data sharing across partners
Activity 1.1.3c	Identify gaps in available data, build business case for acquiring more data, and develop report to share with partners
Activity 1.1.3d	Engage Jeffco's 11 municipalities and unincorporated areas to secure resources to oversample the Behavioral Risk Factor Surveillance Survey (BRFSS) within their municipal boundaries (on-going)
Activity 1.1.3e	Work with Jeffco Public Schools, parent and wellness groups, elected officials, etc. to increase support for and ensure participation in the Healthy Kids Colorado Survey (HKCS) for the 2015-2016 school year
<b>Strategy 1.1.4</b>	Identify and acquire resources to support the implementation of the CHIP (ongoing)
Activity 1.1.4a	Build the business case for funding HEAL with funders and policymakers
Activity 1.1.4b	Establish a multi-sector work group that will identify and apply for funding opportunities to implement and support CHIP efforts
Activity 1.1.4c	Conduct an assessment to identify currently resourced policies, activities, programs, and initiatives that support HEAL in Jefferson County
Activity 1.1.4d	Develop MOUs and shared working agreements with partners to collaboratively resource CHIP efforts, including developing a protocol for providing in-kind, matching, and leveraged resources to support a collective approach to HEAL
Activity 1.1.4e	Interview key partners to identify readiness to fund the CHIP, e.g., Kaiser, TCHF, LWC, Jeffco Foundation, Jeffco Economic Development Corporation, business sector, health care system community benefits, etc.
Activity 1.1.4f	Assess acquisition of resources to support the CHIP on an ongoing basis
<b>Strategy 1.1.5</b>	Increase community and partner capacity and readiness to implement a plan that draws on the health equity and collective impact frameworks, and that uses evidence-based strategies to change policies, environments, and systems (PES) (ongoing)
Activity 1.1.5a	Assess the readiness of partners and target populations to use evidence-based strategies that focus on HEAL through the lens of the social determinants of health and PES change
Activity 1.1.5b	Provide resources, data, and technical assistance to partners to increase capacity and readiness to implement evidence-based strategies that focus on HEAL through the lens of the social determinants of health and PES change
Activity 1.1.5c	Encourage local municipalities to adopt a Health in All Policies (HiAP) framework

Activity 1.1.5d	Identify community leaders who can provide insights about and access to low-income Latino families with children
Activity 1.1.5e	Establish a county coalition to advocate for PES changes to increase HEAL and reduce health disparities among low-income households with children ages 0-18
Activity 1.1.5f	Work with the Jeffco School District Health Advisory Committee
Activity 1.1.5g	Identify principals who will implement PES changes to increase HEAL and reduce health disparities in their schools
Activity 1.1.5h	Assess adoption of evidence-based strategies and HiAP by partners annually

<b>GOAL 2: Ensure transparent and regular communication to report progress in the implementation of the CHIP</b>	
<b>Objective 2.1: By Dec 2017, 100% of Jefferson County residents, agencies, and community partners will have access to CHIP progress reports and be able to track measures</b>	
Background: Consistent, continuous communication across partners is vital to ensuring the success of our CHIP implementation. Transparent communication with the public will also build trust and support for CHIP efforts.	
<b>Strategy 2.1.1</b> Ensure that success is measured and reported consistently across partners	
Activity 2.1.1a	Acquire, maintain, and house a cloud-based platform (InsightVision) to track, monitor, and report on local health data and indicators, and share accomplishments and progress related to CHIP implementation
Activity 2.1.1b	Share cloud-based platform user licenses with partners who have an active role in implementing the strategies to address HEAL
Activity 2.1.1c	Provide technical assistance to support partners' use of the cloud-based system
Activity 2.1.1d	Monitor use of cloud-based system by partners monthly
<b>Strategy 2.1.2</b> Develop a communication plan to promote the CHIP	
Activity 2.1.2a	Set up a cloud-based platform to share information and track results (InsightVision)
Activity 2.1.2b	Work with partners to promote public awareness of the CHIP
Activity 2.1.2c	Monitor page views of CHIP-related websites monthly
<b>Strategy 2.1.3</b> Develop consistent health promotion strategies and a communication plan to promote HEAL in Jefferson County	
Activity 2.1.3a	Align HEAL strategic communication with national and regional messages
Activity 2.1.3b	Align HEAL messaging, including the business case for HEAL, across all Jefferson County Public Information Officers and with outside partners
Activity 2.1.3c	Monitor HEAL messaging within Jefferson County quarterly

<b>GOAL 3: Increase physical activity rates in low-income households with children ages 0 to 18</b>	
<b>Objective 3.1: By August 2014, Jefferson County will begin to implement a multi-year action plan to increase physical activity in low-income households with children ages 0 to 18</b>	
Background: Physical activity has many health benefits for people of all ages, backgrounds, and skill levels. These benefits include healthier hearts, lungs, blood vessels, bones, joints, and muscles, as well as reduced risk of heart disease, cancer, diabetes, depression, and premature death. Physical activity also helps people maintain healthy body weights. Increasing physical activity was identified as a top priority for the county through our community engagement process.	
<b>Strategy 3.1.1</b>	Develop and implement a multi-year action plan to increase physical activity with a focus on health disparities and psychosocial stressors
Activity 3.1.1a	Convene multi-sector work groups to develop a multi-year action plan that includes evidence-based strategies focused on policy, environment, and systems changes to increase access to environments that promote physical activity regardless of income, geography, etc.
Activity 3.1.1b	Identify indicators to measure progress toward increasing physical activity
Activity 3.1.1c	Work with partners and community members to implement the action plan
Activity 3.1.1d	Create a multi-sector continuous quality improvement (CQI) work group that aligns CQI evaluation with the CHIP/CHNAs
<b>Strategy 3.1.2</b>	Develop consistent social marketing and health promotion/education messages in the county to promote physical activity and access to environments that promote physical activity regardless of income, geography, etc.
Activity 3.1.2a	Choose two of the Colorado Department of Public Health and the Environment's (CDPHE) Early Childhood Obesity Prevention (ECOP) messages for communication across all divisions within JCPH
Activity 3.1.2b	Align communication with CDPHE and regional public health partners
Activity 3.1.2c	Monitor HEAL messaging within the county quarterly

<b>GOAL 4: Increase healthy food access in low-income households with children ages 0 to 18</b>	
<b>Objective 4.1: By August 2014, Jefferson County will begin to implement a multi-year action plan to increase healthy food access in low-income households with children ages 0 to 18</b>	
<p>Background: Food is among our most basic human needs. Diets rich in fruits, vegetables, whole grains, and lean proteins have been found to decrease mortality from all causes, as well as chronic conditions such as cardiovascular disease and cancer. The Dietary Guidelines for Americans recommend a diet rich in fruits and vegetables, whole grains, beans and legumes, low-fat dairy products, and lean proteins. The guidelines also recommend limiting sodium, saturated fats, and cholesterol; avoiding <i>trans</i> fats entirely; and reducing calories from solid fats, sugars, and refined grains. Yet the typical American diet looks nothing like this; instead, too many of us get our calories from processed foods high in sugar, salt, and fat, and low in fiber, vitamins, and minerals. Healthy food is accessible when it is affordable, nutritious, easy to get to, and culturally appropriate. Increasing healthy eating was identified as a top priority for the county through our community engagement process.</p>	
<b>Strategy 4.1.1</b>	Develop and implement a multi-year action plan with a focus on health disparities and psychosocial stressors
Activity 4.1.1a	Convene multi-sector work groups to develop a multi-year action plan that includes evidence-based strategies focused on policy, environment, and systems changes to increase access to healthy foods and to environments that promote healthy eating regardless of income, geography, etc.
Activity 4.1.1b	Identify indicators to measure progress toward promoting healthy eating and access to healthy food
Activity 4.1.1c	Work with partners and community members to implement the action plan
Activity 4.1.1d	Create a multi-sector continuous quality improvement (CQI) work group that aligns CQI evaluation with the CHIP/CHNAs
Activity 4.1.1e	Research current SNAP and WIC enrollment and identify barriers to participation
<b>Strategy 4.1.2</b>	Develop consistent social marketing and health promotion/education messages in the county to promote healthy eating and access to healthy food regardless of income, geography, etc.
Activity 4.1.2a	Choose two of the Colorado Department of Public Health and the Environment's (CDPHE) Early Childhood Obesity Prevention (ECOP) messages for communication across all divisions within JCPH
Activity 4.1.2b	Align communication with CDPHE and regional public health partners
Activity 4.1.2c	Monitor HEAL messaging within the county quarterly

<b>Objective 4.2: By December 2017, develop a plan to increase healthy beverage consumption in Jefferson County</b>	
<b>Strategy 4.2.1</b>	Collaborate with regional and state partners on healthy beverage initiatives
Activity 4.2.1a	Continue to participate in the Denver metro region group of local public health agencies working on increasing healthy beverage consumption
Activity 4.2.1b	Continue to participate in the statewide initiative of local public health agencies working on increasing healthy beverage consumption to decrease childhood obesity
<b>Strategy 4.2.2</b>	Increase breastfeeding rates and duration
Activity 4.2.2a	Provide breastfeeding training and support for expecting and new mothers through WIC
Activity 4.2.2b	Participate in state and local coalitions to advocate for breastfeeding-friendly environments
Activity 4.2.2c	Build technical expertise related to breastfeeding education and promotion
Activity 4.2.2d	Build the business case for breastfeeding
Activity 4.2.2e	Build awareness of state and federal laws that require lactation support at worksites
Activity 4.2.2f	Monitor breastfeeding rates and duration annually

## Alignment with State and National Priorities

Our community health improvement work focuses on increasing access to healthy food, increasing physical activity, and reducing psychosocial stressors. These focus issues align well with national and state priorities. Healthy eating and active living are priority areas of the National Prevention Strategy and our lens of stressor reduction correlates with the strategic direction of eliminating health disparities.<sup>89</sup> As we make progress on these issues, we expect to reduce obesity, one of Colorado's winnable battles.<sup>90</sup> JCPH also participates in a statewide initiative of local public health agencies seeking to reduce childhood obesity, and will align the CHIP with that initiative as strategies are identified.

## Resources to Develop and Implement the CHIP

### Development of the CHIP

JCPH has led the development of the CHIP with limited resources. The department's public health planner coordinates the CHIP process, with the support of the executive director, the directors of administrative services and health promotion and lifestyle management divisions, the department epidemiologist, and the policy analyst under the CCPD grant. The public health planner, however, is the only FTE devoted to this process, and moreover, the position is only funded through December 2014. All other participating staff members contribute to the process in addition to their normal duties. Through JCPH's internal strategic plan, it is hoped that additional resources will be shifted to support the development and implementation of the CHIP.

In addition to the staff resources described above, JCPH will have funds from CDPHE's Office of Planning and Partnerships in 2014 to support the development of the CHIP action plan. While we are pleased overall with the process we have taken to develop the CHIP, the process has been slowed in part by limited staff time to devote to building relationships with partners.

### Implementation of the CHIP

Successfully implementing the CHIP will require more significant investments of resources. By developing a collective impact infrastructure, the *Healthy People Healthy Places Jeffco* initiative will be well-positioned to apply for grants from major funders, including the Colorado Health Foundation, Kaiser Permanente, and the federal government. In addition, aligning with the local nonprofit hospitals' community health needs assessments may provide opportunities to share resources. The initiative will also look beyond financial resources to identify other types of in-kind resources that partners may be able to contribute. For example, the Jefferson County Housing Authority has offered to identify and share land for community gardens, while joint use agreements with local schools could allow community members to use school recreational facilities during non-school hours. Attaching values to these types of non-traditional resources may be challenging, and their use may be limited by regulatory barriers; however, identifying non-traditional and in-kind resources will be an important method of meaningfully collaborating with our partners within the context of limited resources.



## Evaluating Progress

*Healthy People Healthy Places Jeffco* will continue to measure the health status of our community by conducting a community health assessment every three years. Using our InsightVision software, we will continuously monitor our implementation of the community health improvement plan, and will routinely extract pertinent indicators and measures. We will generate an annual report for the community and our partners to share our progress. The CHIP is a living document that we will update continuously as we identify new partners, objectives, and strategies. In addition, we plan to release a new CHIP every three to five years. By evaluating health in our county regularly, monitoring our progress toward reaching our goals, and incorporating lessons learned, we will build continuous quality improvement into our CHIP process.

Current data gaps limit our ability to assess our progress among certain segments of the population. For example, the county does not collect adolescent health data through the Healthy Kids Colorado Survey, which is particularly concerning because adolescents are part of our target population. Identifying and filling our data gaps would support our evaluation efforts, and our health improvement efforts more broadly. Our action plan includes creating both a multi-sector data group to identify indicators and measures and a continuous quality improvement group to increase our effectiveness and ultimately the health of our community.

## Conclusion

In sum, Jefferson County is relatively healthy, yet some troubling trends have emerged with the potential to significantly impact health in our county and to decrease our quality of life and economic prosperity. By acting now, we can reverse these trends before their effects are too widely felt.

Over the past two years, we have worked with partners to assess the health of our residents, identify health priorities, and work toward strategies to address those priorities. The initial plan described above outlines the steps we will take by the end of 2017 to formalize these partnerships into a collective impact framework to support healthy eating and active living in our county, communicate our work with our partners and the public, and develop actionable plans to increase healthy eating and physical activity in our county. We will update this document as our plan evolves.

The ultimate goal of our CHIP is to create environments that foster healthy behaviors across Jefferson County. We will be working on this CHIP and future iterations for many years. We are excited to embark on this work and look forward to the many partnerships that will develop as we work to increase the health and vitality of our community.

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