

January 2019 Public Health Improvement Plan





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The work on the Northeast Colorado Health Department's (NCHD's) Public Health Improvement Plan (PHIP) was completed with the help of numerous individuals over the course of the past year. We would like to gratefully acknowledge the following citizens and agencies who participated in our process, including:

NCHD's in-house PHIP project Management Team:

Michelle Pemberton, Jessa Hatch, Kandice Kramer, Sherri Yahn, and Trish McClain

PHIP Steering Committee:

Heather Hasenuer, Kendra Anderson, Dawn Garcia, Liz Hickman, Trampas Hutches, Dr. Robert Fillion, Ruth Seedorf, Linda Thorpe, and Jennie Sullivan

Key Informant Meeting Agency Participants:

20/20, Baby Bear Hugs, Banner Health, Centennial AHEC, Centennial Mental Health Center, Colorado Access, Early Childhood Council of Logan, Phillips, and Sedgwick, East Morgan County Hospital, East Morgan County Library, Eastern Colorado Services for the Developmentally Disabled, Holyoke Chamber of Commerce, Journal-Advocate, Logan County Heritage Center, Melissa Memorial Hospital, Morgan County Department of Human Services, Morgan County OEM, Morgan County Sheriff, Phillips

County Commissioners, Sedgwick County Department of Human Services, Senator Gardner's Office, The William Stretsky Foundation, Town of Akron, Town of Wiggins, UC Health, WRAC, Washington County Ambulance, Washington County OEM, Wray Community District Hospital, and Yuma County Administrator.

Community members from across Northeast Colorado:

Thank you for providing your feedback on the community health surveys.

NCHD would also like to extend our appreciation to:

Alison Grace Bui, Public Health Data Coordinator at the Health Surveys and Evaluation Branch of the Colorado Department of Public Health and Environment for her expertise and technical assistance with the quantitative health data.

Linda Saxton, master's student intern from the Colorado School of Public Health for her technical assistance with gathering the quantitative data.

Office of Planning, Partnerships and Improvement at the Colorado Department of Public Health and Environment for their expertise and technical assistance during this entire process.

INTRODUCTION TO PHIP

The Northeast Colorado Health Department's Public Health Improvement Plan (PHIP) is our strategic plan for improving the health and environment for the residents across our six county health district through 2023.

All local health agencies were charged with developing a local public health improvement plan based on a community health assessment and a capacity assessment as a requirement of the 2008 Public Health Act. NCHD is following the Colorado Health Assessment and Planning System (CHAPS) to assist in the community health assessment and development of our plan. CHAPS is a standard mechanism for assisting local and state public health agencies in meeting the assessment and planning requirements of the Public Health Act.

This report will provide an outline of the planning process we undertook in conducting our community health assessment including a profile of the health status of residents in the six county region, explain data collection and methodology used and discuss conclusions that resulted from the data. In addition, this document will describe the results from the capacity assessment and prioritization of the key public health issues and identify relevant strategies to address those key issues.

We could not have put this information together without the help of our community stakeholders, partners and the residents we serve. Thank you to everyone that participated and provided input on this process.

Any questions regarding material found in this report and plan should be directed to Michelle Pemberton, NCHD's Public Health Planning and Grants Specialist, email michellep@nchd.org or phone (970) 522-3741 ext. 1239.



COLORADO HEALTH ASSESSMENT & PLANNING SYSTEM (CHAPS)

Completed- Phase 1 – Plan the Process

- Develop a time line (January 2017)
- Create a project management team-- selected an internal team made of NCHD employees (January 2017)

Completed- Phase 2 – Identify and Engage Stakeholders

- Clarify goals
- Identify a steering committee-- selected a 10-person committee made up of integral NCHD staff and medical director as well as several regional agency directors and other key staff from Centennial Mental Health Center, Otis School District, Baby Bear Hugs, Melissa Memorial Hospital, East Morgan County Hospital, Wray Community Hospital. (August 2017)
- Recruit stakeholders-- identified key stakeholders/informants from each county representing health, human services, schools, faith based agencies, Centennial Mental Health Center, Rural Solutions, and BOCES (August 2017)

Completed- Phase 3 – Conduct a Community Health Assessment

- Distribute electronic and hard copy community assessment survey (July- December 2017)
- Key Informant Meetings-- held seven meetings across the six counties (November 2017)
- Gather Health Data-- compiled data from CDPHE Colorado Health Indicators website, as well as data from survey, key informant meetings and community partners. (November 2017- February 2018)

Completed- Phase 4 – Conduct a Capacity Assessment

- Complete a Capacity Assessment-- distributed survey to key informants, steering committee members, and other organizations in Northeast Colorado covering three key topics that were identified through all of the qualitative and quantitative data that was gathered. (April 2018)

Completed- Phase 5 – Prioritize issues with the steering committee

- Prioritize key issues-- had steering committee members complete analysis using a prioritization tool from Colorado Department of Public Health and Environment (January - March 2018)

Completed- Phase 6 – Create a Public Health Improvement Plan (June 2018 - October 2018)

Phase 7 – Implement and monitor the plan (January 2019 - December 2023)

Phase 8 – Inform the statewide plan

DATA COLLECTION AND ANALYSIS

The data collection, analysis and reporting process was managed by the Northeast Colorado Health Department’s Public Health Improvement Plan project team. The most recent data available at the time of publication are presented in this report.

Data Sources

The majority of the data presented comes from the Colorado Department of Public Health and Environment (CDPHE) and are publicly available on their website: www.colorado.gov/pacific/cdphe/data. CDPHE’s Colorado Health Indicator Data website includes county, regional and state level data. Due to the smaller population size of some of our counties, data is often suppressed because fewer people were surveyed and therefore not enough data was collected to generate statistically reliable estimates. As a result, the data presented in this report is primarily based on a regional level. The six counties of Logan, Morgan, Phillips, Sedgwick, Washington and Yuma comprise Health Statistics Region 1 (HSR 1).

In addition, data is also presented from the Northeast Colorado Health Department’s Community Health Survey. The survey was designed to assess the health status and health needs of county residents. The survey asked residents about their perceived overall health and included questions about individual health status, health habits, lifestyle factors and screening rates. In addition, the survey asked about healthcare services in their county, environmental health issues and community health

issues and concerns. The survey was disseminated during the summer and fall of 2017 and was made available through a variety of means (i.e., online by email and NCHD website, hard copy at meetings and community events) to all residents 18 years and older in the six county region. A total of 771 responses were received across the six counties. This statistical method is known as a convenience sample. An advantage to this method is that the data can be gathered quickly and a disadvantage is that the sample may not represent the population as a whole.

Other data sources include:

- The U.S. Census Bureau, American Community Survey
- Bureau of Labor Statistics
- Environmental Protection Agency
- Colorado Healthy Kids Survey Data
- Colorado Secretary of State
- Colorado Health Institute
- Centers for Disease Control and Prevention
- CDPHE Colorado Suicide Dashboard



STATISTICAL DEFINITIONS

Confidence Intervals

Confidence intervals are statistics used to describe the possible margin of error in a reported rate. Calculating a confidence interval provides a better indication of what the “true” rate might be. A 95 percent confidence interval indicates that the “true” rate will be a value between the lower and upper limits of the confidence interval 95 percent of the time. A narrow confidence interval indicates a more stable number or rate.

Statistical Significance

When comparing values between groups of a population or across time periods, if confidence intervals overlap, there is no statistically significant difference between the values. If the confidence intervals do not overlap, then there is a statistically significant difference between the measured values. It is important to note that statistical significance is not indicative of the size of the difference; both small and large differences can be statistically significant. In this report, statistically significant differences are noted.

Frequency

The number of times a given value of an observation occurs

Proportion

The number of observations with the characteristic of interest divided by the total sum of observations

Percentage

A proportion multiplied by 100

Rate

A proportion associated with a multiplier, called the base (i.e., 1,000, 10,000, 100,000) and computed over a specific period

Crude rate

A rate for the entire population that is not specific or adjusted for any given subset of the population

Age (Sex, Race, etc.)-Specific rate

The number of events in a specified group divided by the total population in the specified group

Age-adjusted rates

A rate that has been standardized to the age distribution of a particular population so that it is, in effect, independent of the age distribution of the population it represents

A more detailed document called “Data Definitions” is available online under “Resources” on the Colorado Health Indicators Website: <https://www.colorado.gov/pacific/cdphe/colorado-health-indicators>.



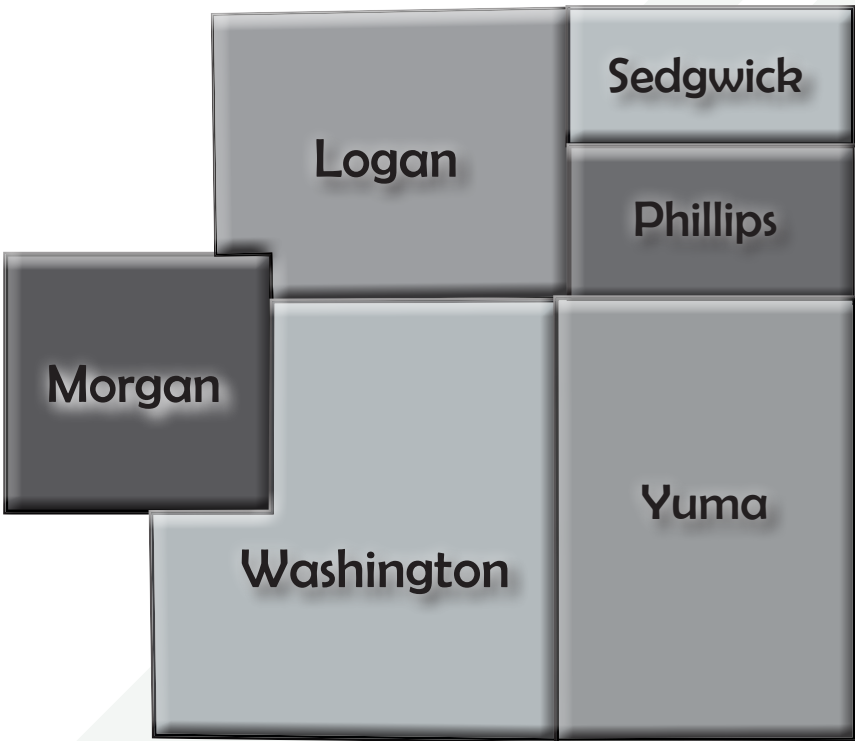
HEALTH EQUITY FRAMEWORK MODEL

LIFE COURSE	DETERMINANTS OF HEALTH			HEALTH FACTORS			POPULATION HEALTH OUTCOMES
	Economic Opportunity	Physical Environment	Social Factors	Health Behaviors & Conditions	Mental Health	Access, Utilization, & Quality Care	
Pregnancy	Income	Built Environment	Participation	Nutrition	Mental Health Status	Health Insurance Coverage	Quality of Life
Early Childhood	Employment	• Access to recreational facilities	Social network/ Social Support	Physical Activity	Substance Abuse	Received Needed Care	Morbidity
Childhood	Education	• Access to healthy food	Leadership	Tobacco Use	Functional Status	Provider Availability	Mortality
Adolescence	Housing	• Transportation	Political influence	Injury	Suicide	Preventive Care	Life Expectancy
Older Adults		Safety	Organizational networks	Child Health			
		Environmental Quality	Violence	School Health			
				Health Conditions			



QUANTITATIVE HEALTH DATA

The Northeast Colorado Health Department has been serving the local public health needs of the six counties on the plains of northeast Colorado since 1948. With a staff of approximately 40 members, we are the largest geographical health district in the state of Colorado, spanning 9,200 square miles. Our counties are a mix of rural and frontier and we serve a population of just over 72,000. Our six counties make up Health Statistics Region 1 (HSR1) in the state of Colorado, which is how the majority of the data will be presented in this report.



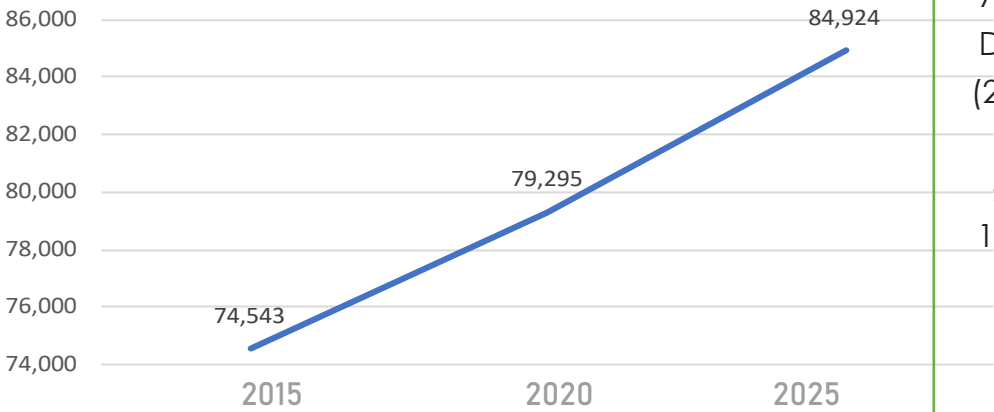
COMMUNITY CHARACTERISTICS

Population
Race/Ethnicity
Language
Age



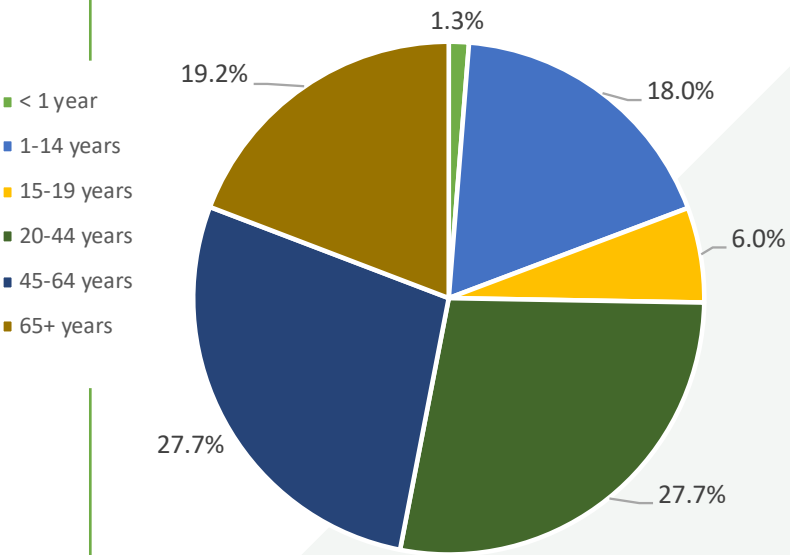
COMMUNITY CHARACTERISTICS

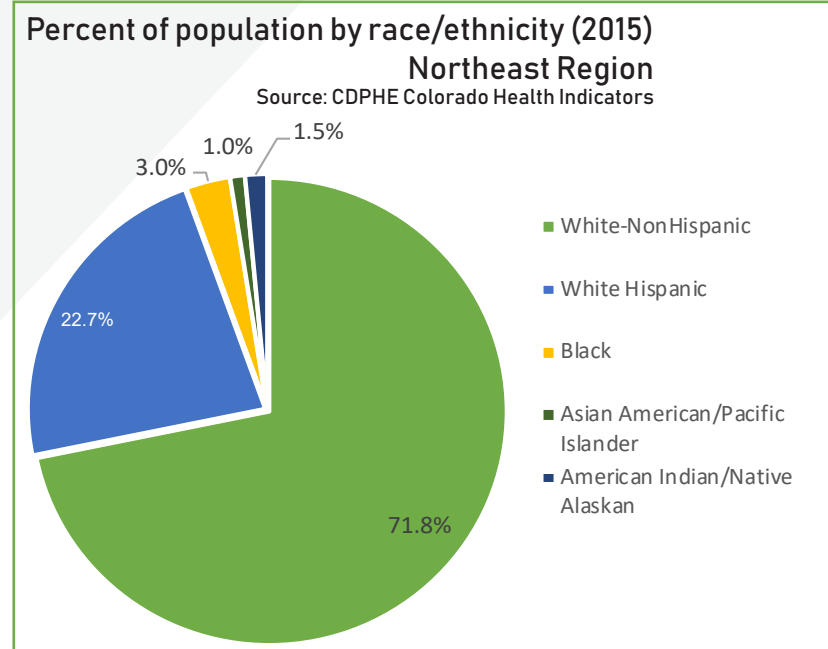
Population Forecasts for the Northeast Region
Source: CDPHE Colorado Health Indicators



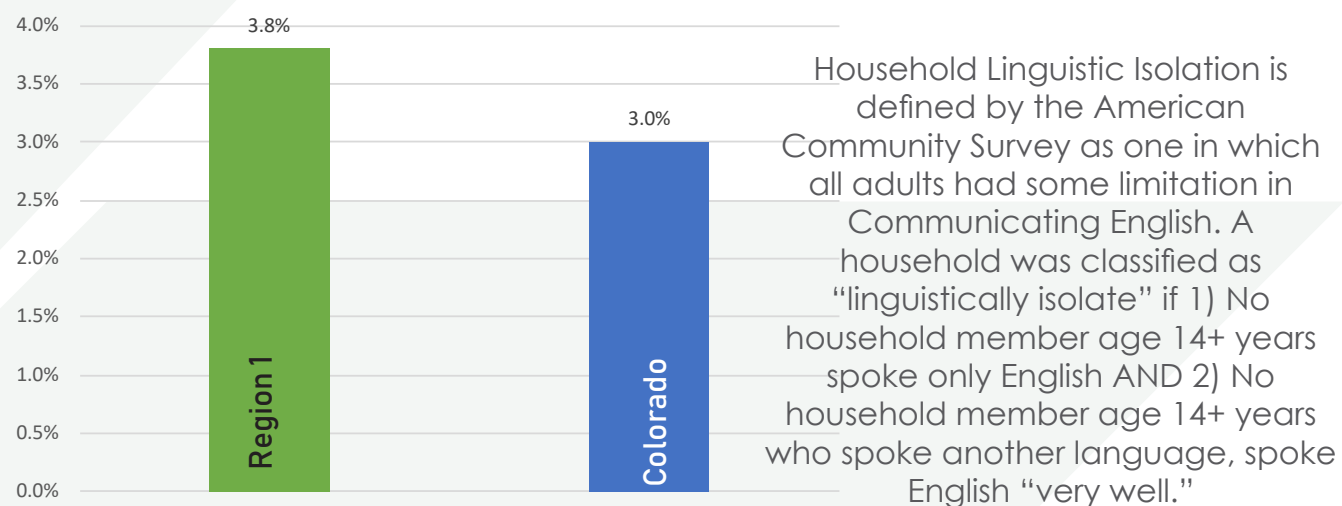
According to the Colorado Department of Local Affairs (2016), the population of the northeast region has only grown by 16.2% over from 1990-2016 compared to the 40.3% that the State of Colorado has grown over the same time period.

Percent of population by age (2015)
Northeast Region
Source: CDPHE Colorado Health Indicators





Percent of households Linguistically Isolated (2011-2015) Northeast Region
 Source: CDPHE Colorado Health Indicators



Languages other than English that were primarily spoken in the home
 Source: CDPHE Colorado Health Indicators

Spanish	7.6%
Chinese	0.4%
African Languages	0.4%

Other languages that are spoken in Northeast Colorado, but not pervasive enough to make it into the regional data include:

- German (Logan and Morgan County)
- Tagalong (Phillips County)
- French (Phillips and Sedgwick County)
- Portuguese (Yuma County)

SUMMARY

COMMUNITY CHARACTERISTICS

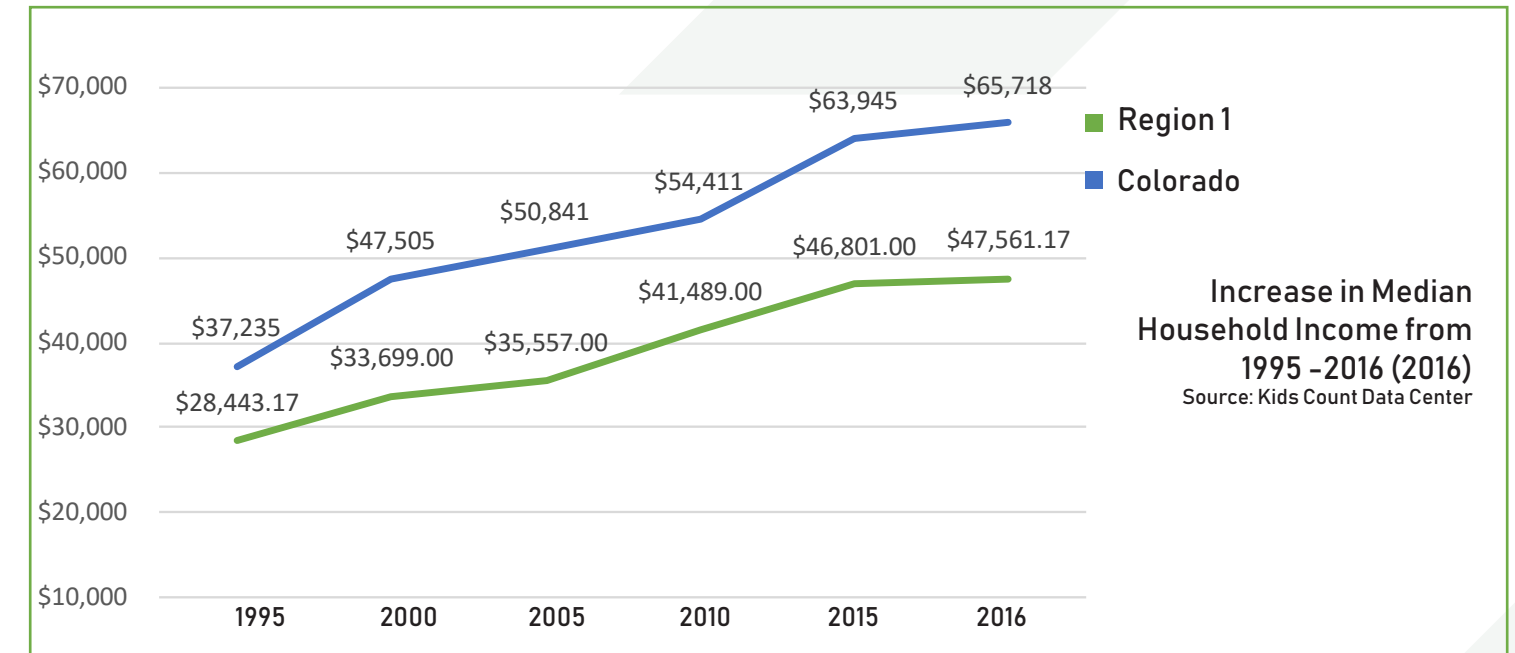
SUMMARY

- HSR 1 has a higher percentage of linguistically isolated households than the state
- Over 70% of the population in HSR 1 is White Non-Hispanic
- The population of the state has increased by 40% since 1995, while the population of HSR1 has only increased by 16%
- Largest minority represented in HSR 1 is White Hispanic
- The largest populations in HSR 1 are between 20-44 years and 45-64 years.

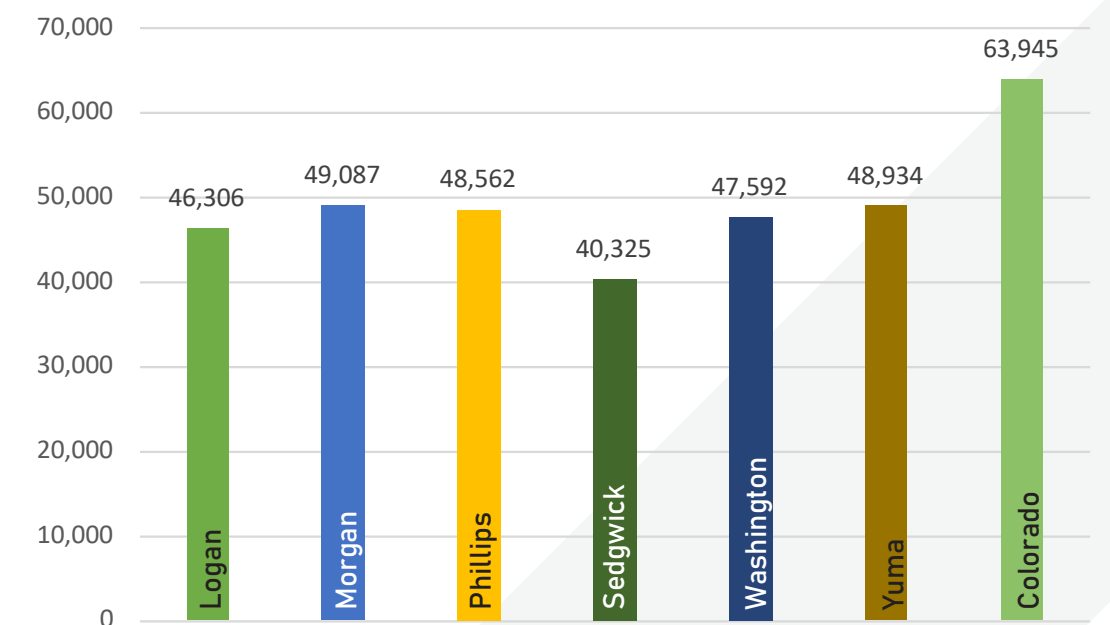
ECONOMIC OPPORTUNITY

DETERMINANTS OF HEALTH		
Economic Opportunity	Physical Environment	Social Factors
Income	Built Environment	Participation
Employment	• Access to recreational facilities	Social network/ Social Support
Education	• Access to healthy food	Leadership
Housing	• Transportation	Political influence
	Safety	Organizational networks
	Environmental Quality	Violence

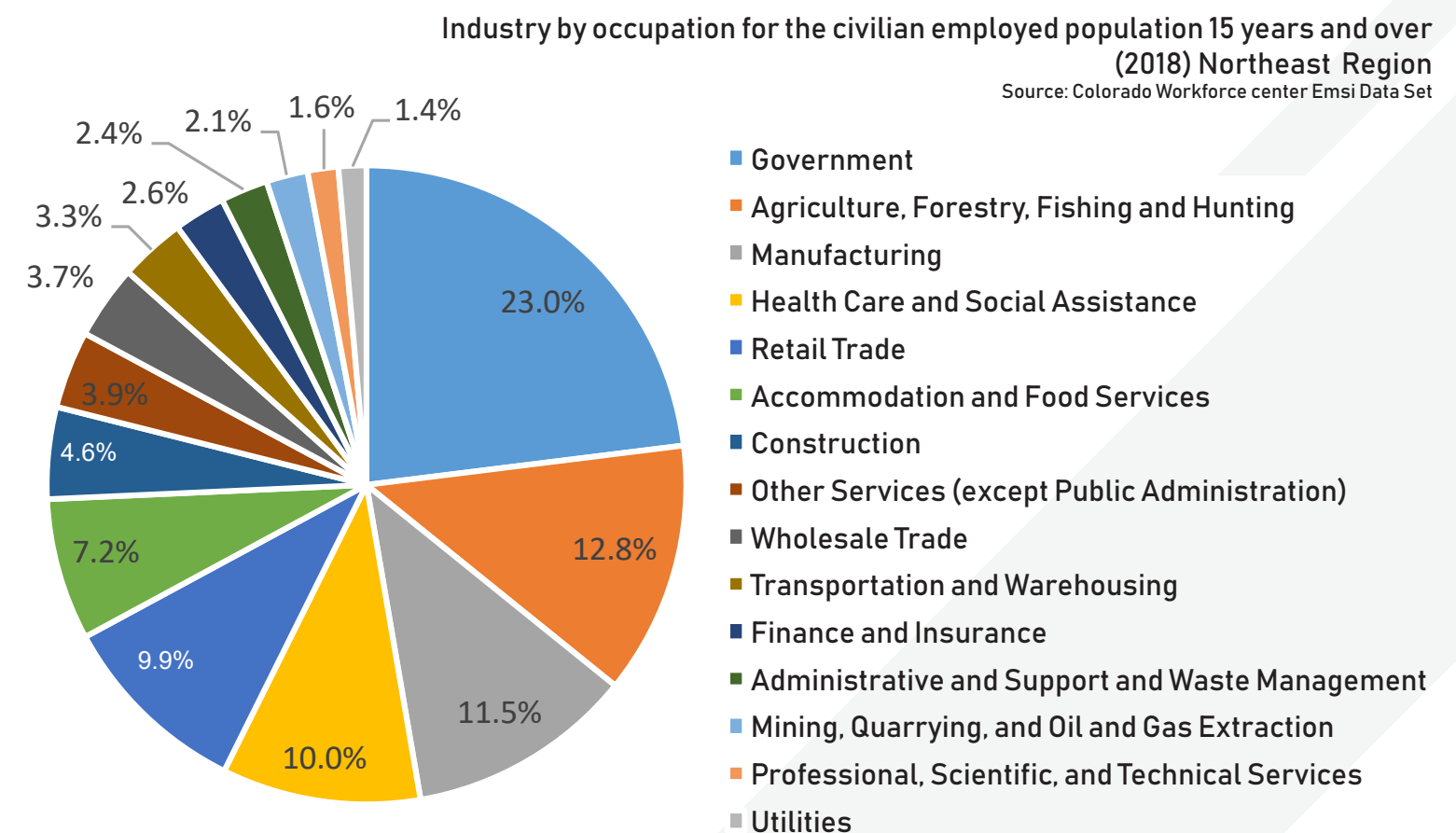
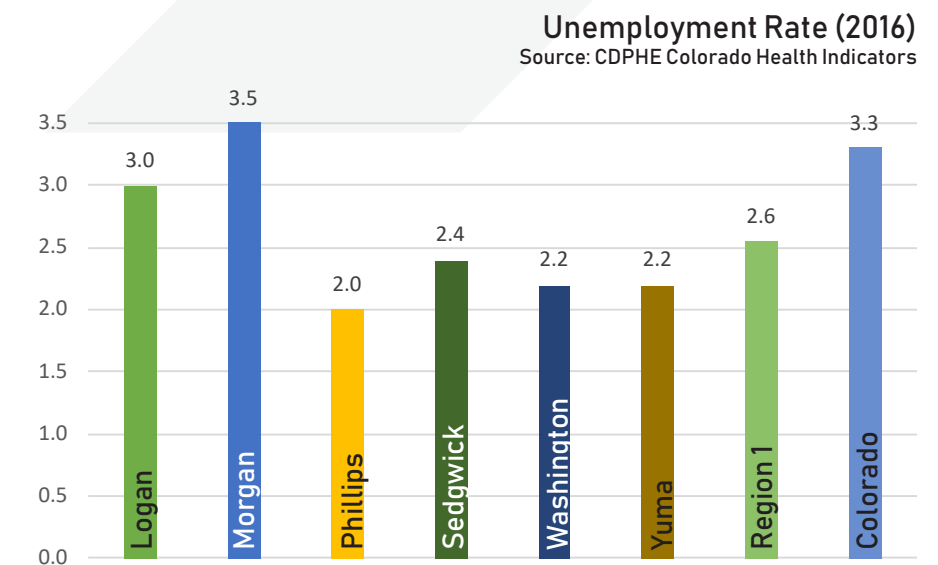
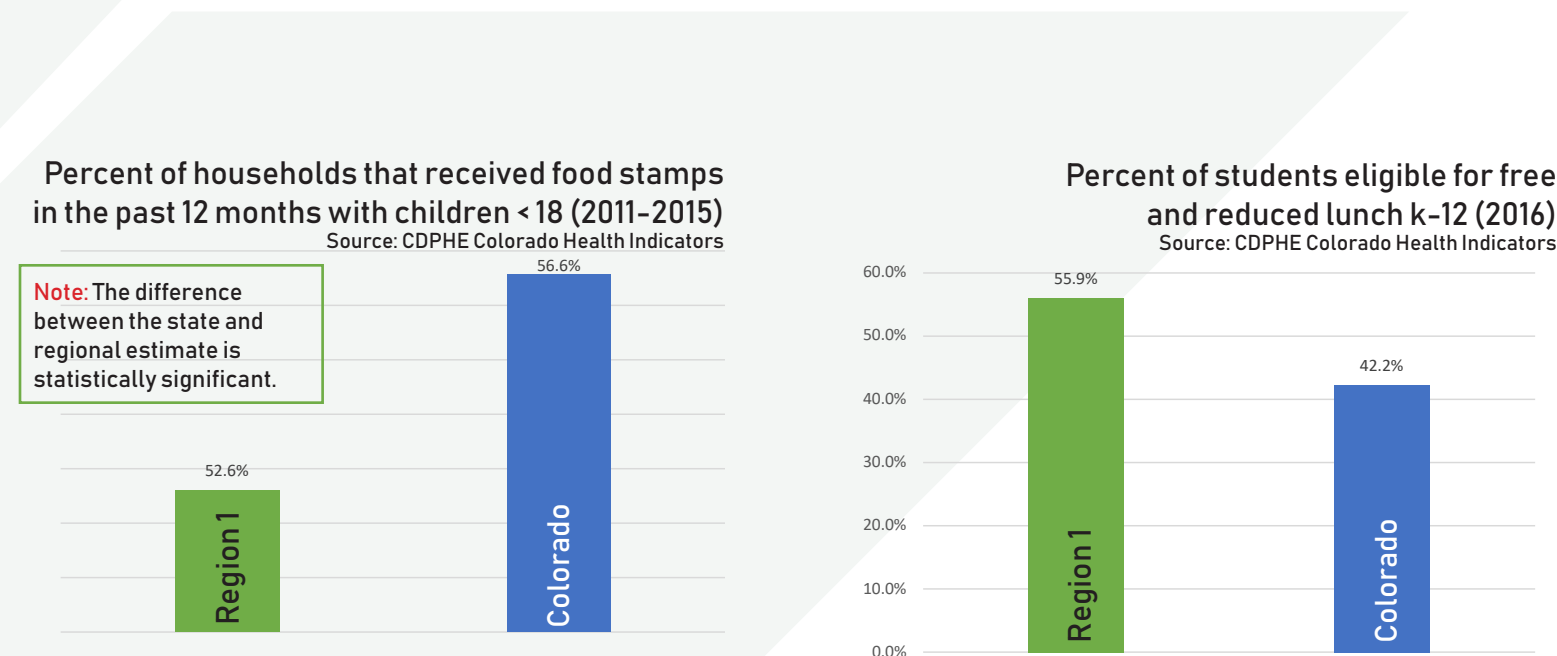
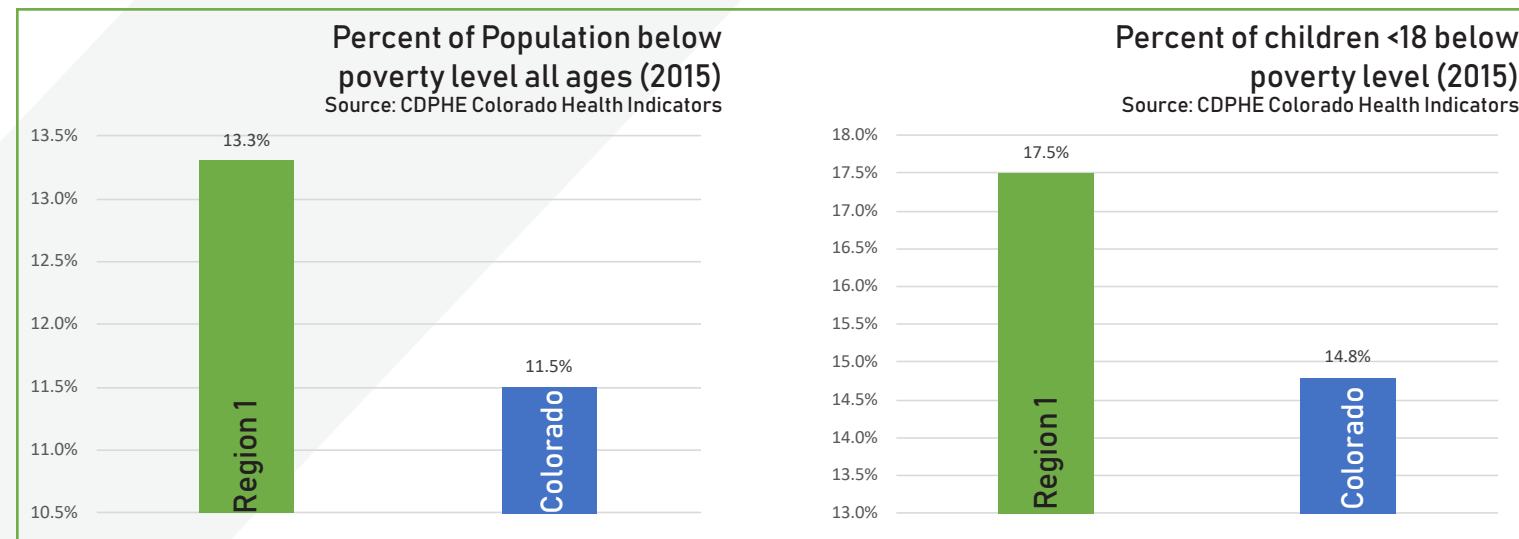
INCOME



Median Household Income (2015)
Source: CDPHE Colorado Health Indicators



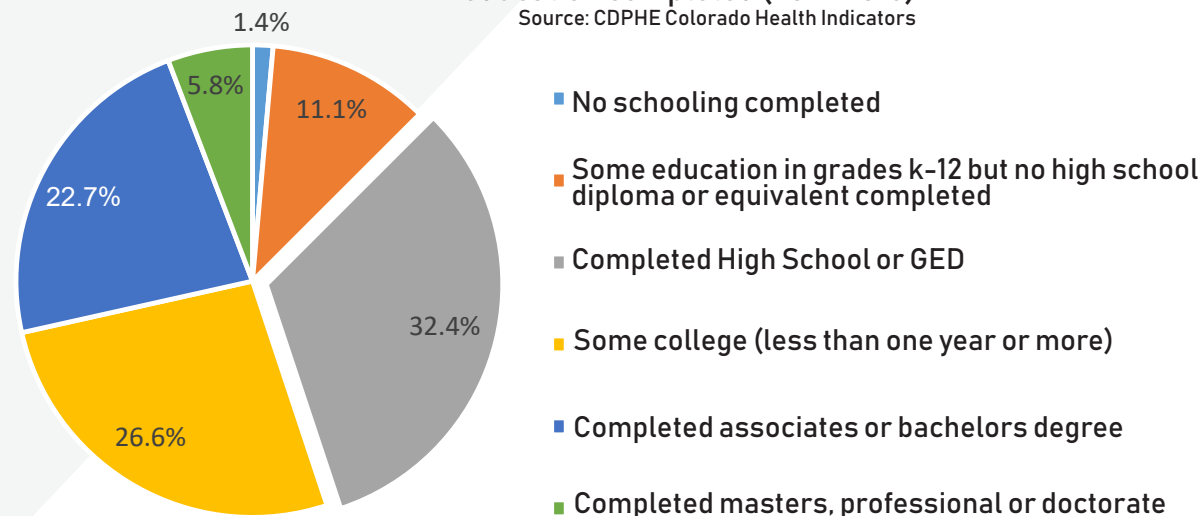
EMPLOYMENT



EDUCATION

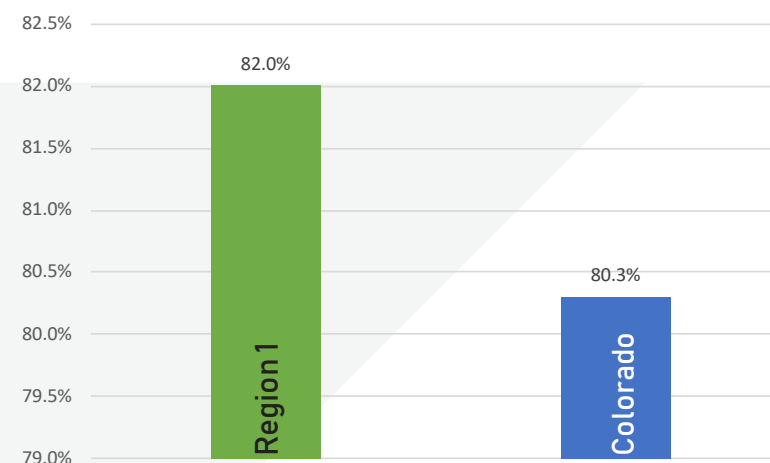
Percent of adult population, 25+ years, by level of education completed (2011-2015)

Source: CDPHE Colorado Health Indicators



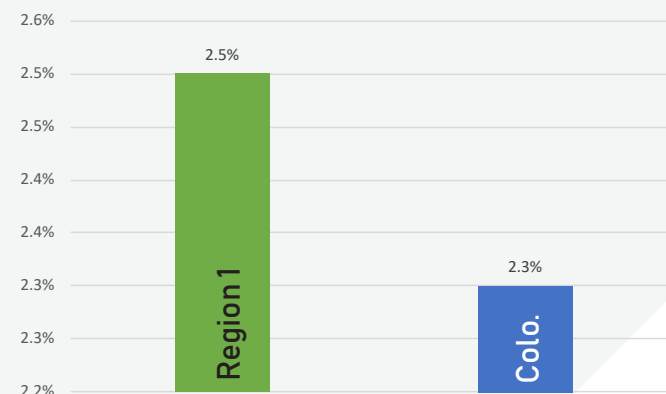
High school completion rate (2016)

Source: CDPHE Colorado Health Indicators



School dropout rate (2016)

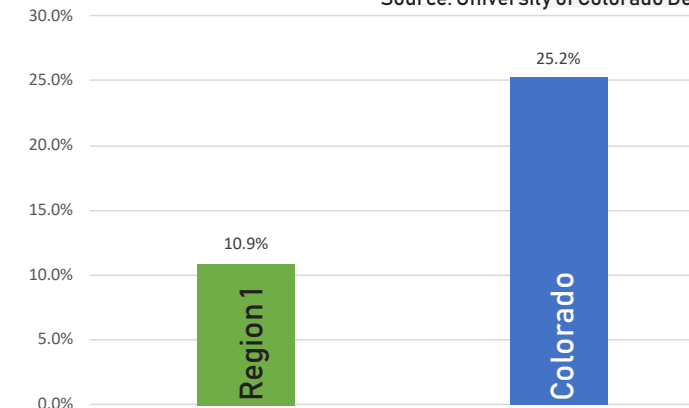
Source: CDPHE Colorado Health Indicators



HOUSING

Percent Multi-unit Housing Units (2014)

Source: University of Colorado Denver



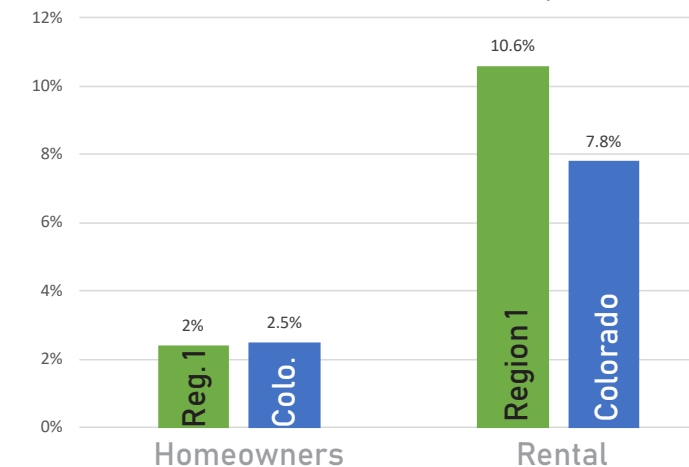
Total Population living in group quarters (2011-2015)

Source: CDPHE Colorado Health Indicators

Total northeast Region population living in group quarters 2,159
Total Colorado population living in group quarters 116,576

Home Vacancy Rates (2014)

Source: University of Colorado Denver



According to University of Colorado's 2014 Northeast Colorado Housing Needs Assessment, Health Statistics Region 1 has:

- Higher home ownership rates (69% comparable to the state's 68.2% and higher than the nation's 66.9%).
- The Northeast region has 27.0% of households that have members 65 years and older compared to state's 18.1% of households.

Housing Profile (2014)

Source: University of Colorado Denver

	Logan	Morgan	Phillips	Sedgwick	Washington	Yuma	Region	State
Total Housing Units	8,981	11,490	2,087	1,415	2,434	4,466	30,873	2,212,898
Occupied Units	8,047	10,294	1,819	1,093	1,980	3,952	27,185	1,972,868
Vacant Units	934	1,196	268	322	454	514	3,688	240,030

SUMMARY

ECONOMIC OPPORTUNITY

STRENGTHS

- Higher high school completion rates
- Lower unemployment rate
- Higher home ownership rates

CHALLENGES

- Lower median household incomes
- Higher percent of population living below the poverty level
- Statistically significant lower percentage of households with children <18 who received food stamps
- Population in HSR 1 has remained fairly stagnant in the past 20 years
- Average income in HSR 1 has not risen at the same rate as the state over the past 20 years
- Higher home vacancy rates in rentals

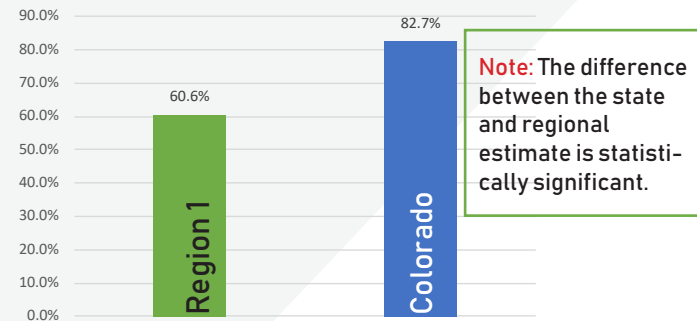
PHYSICAL ENVIRONMENT

DETERMINANTS OF HEALTH		
Economic Opportunity	Physical Environment	Social Factors
Income	Built Environment <ul style="list-style-type: none"> • Access to recreational facilities • Access to healthy food • Transportation Safety Environmental Quality	Social network/ Social Support
Employment		Political influence
Education		Violence
Housing		

BUILT ENVIRONMENT

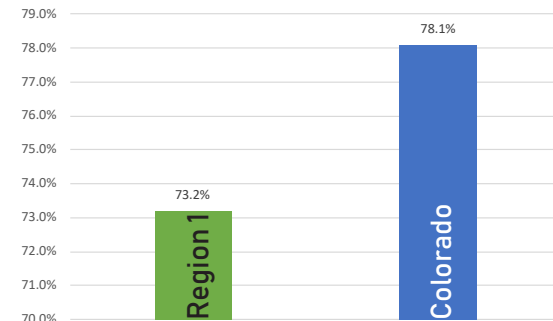
Percent with sidewalks or shoulders in neighborhood (2011)

Source: CDPHE Colorado Health Indicators



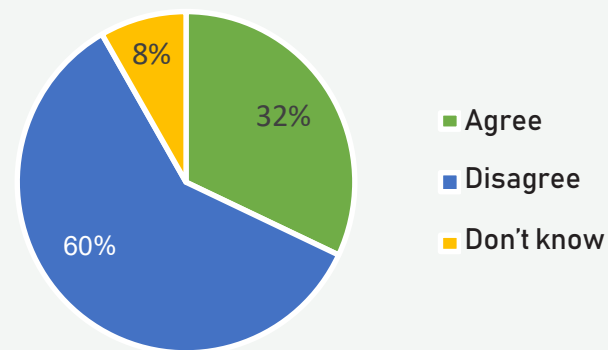
Adults with access to public exercise facilities in neighborhood (2011)

Source: CDPHE Colorado Health Indicators



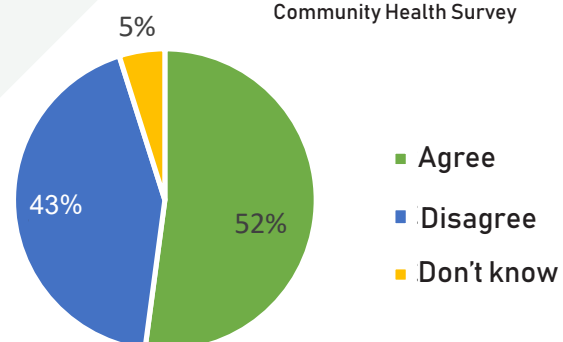
Adults 18+ who agree or disagree that there is adequate room on the shoulders of the road to ride a bike in their community (2017)

Source: Northeast Colorado Health Department Community Health Survey



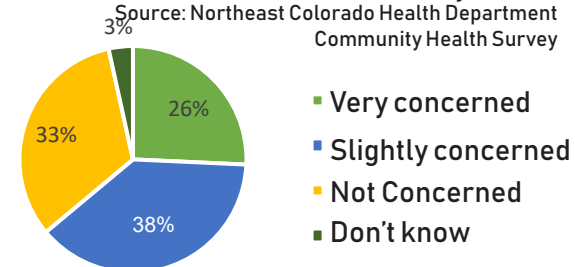
Adults 18+ who agree or disagree that there is adequate recreation facilities in their community (2017)

Source: Northeast Colorado Health Department Community Health Survey



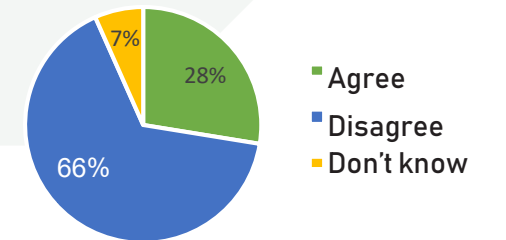
Adults 18+ who are concerned about the availability of recreational opportunities in their community (2017)

Source: Northeast Colorado Health Department Community Health Survey



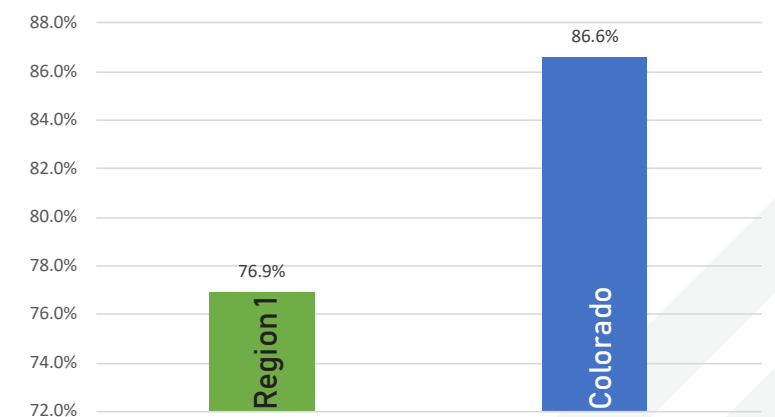
Adults 18+ who agree or disagree that their community is too remote to offer adequate choices for them to be active (2017)

Source: Northeast Colorado Health Department Community Health Survey



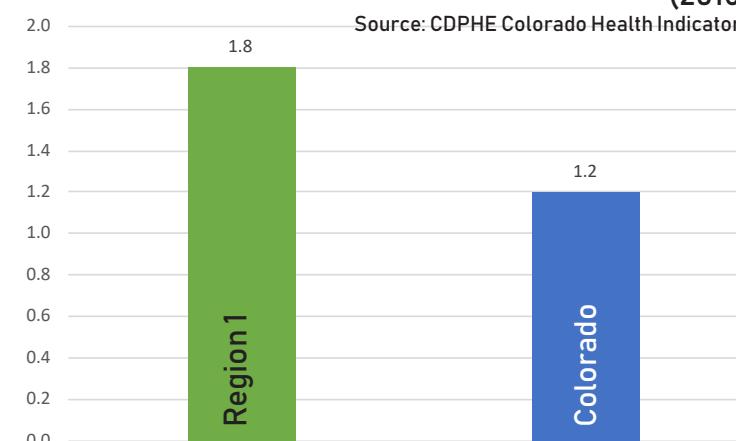
Percent who say healthy foods are somewhat or very available in their neighborhood (2011)

Source: CDPHE Colorado Health Indicators



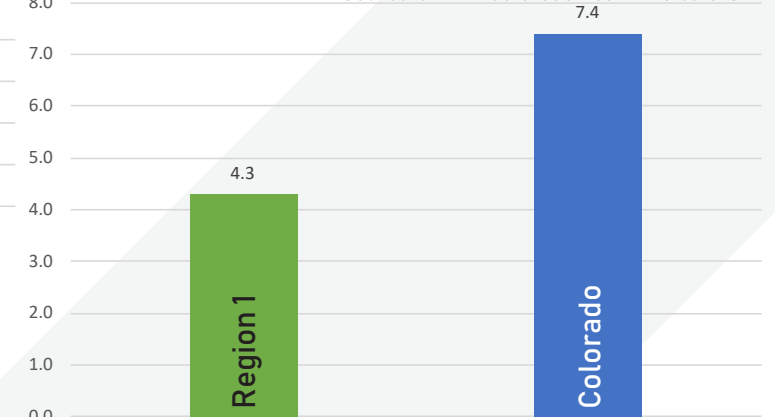
Rate of healthy food outlets per 10,000 residents (2015)

Source: CDPHE Colorado Health Indicators



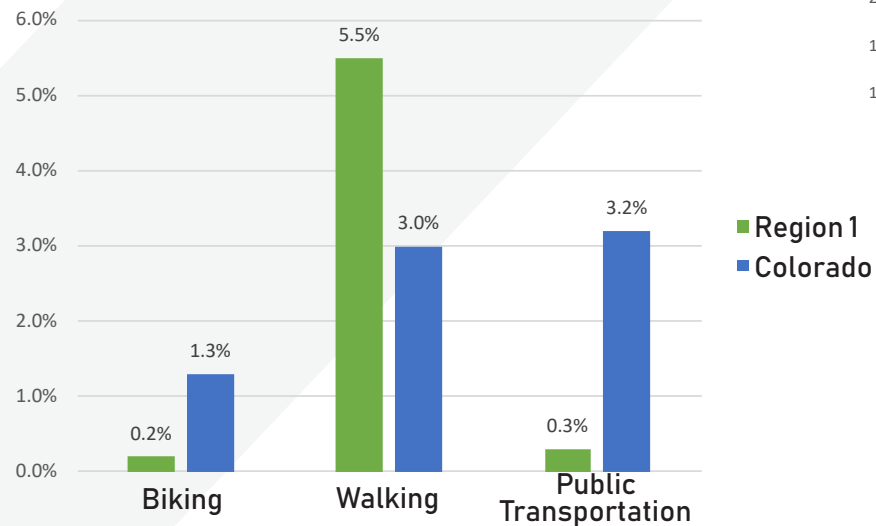
Rate of fast food restaurants per 10,000 residents (2015)

Source: CDPHE Colorado Health Indicators

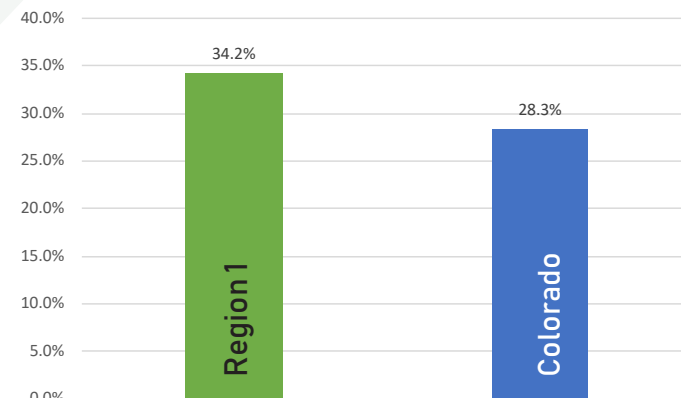


BUILT ENVIRONMENT

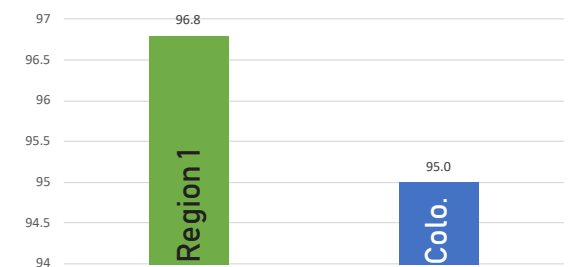
Percent of workers (16+) that commute by mode of transportation (2011-2015)
Source: CDPHE Colorado Health Indicators



Percent of children that commute to school by biking, walking, or skateboarding at least one day a week (2011-2015)
Source: CDPHE Colorado Health Indicators

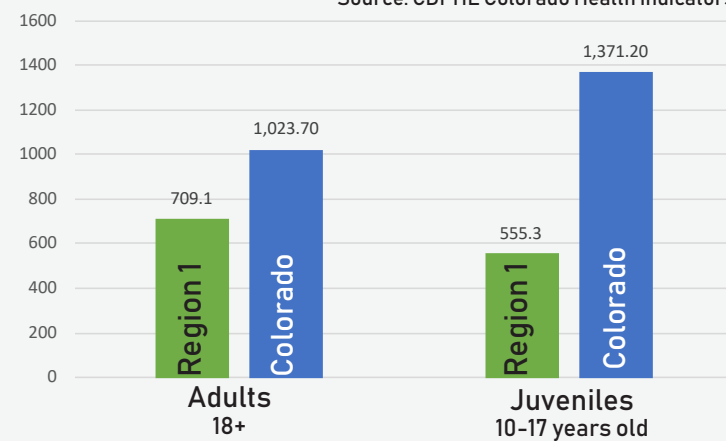


Percent of parents who feel child is usually or always safe in community/neighborhood (2012-2014)
Source: CDPHE Colorado Health Indicators

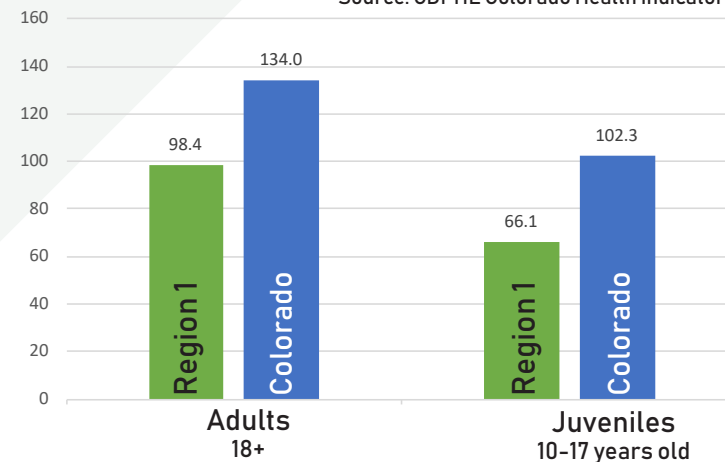


SAFETY

Property Crime rates per 100,000 population (2014)
Source: CDPHE Colorado Health Indicators

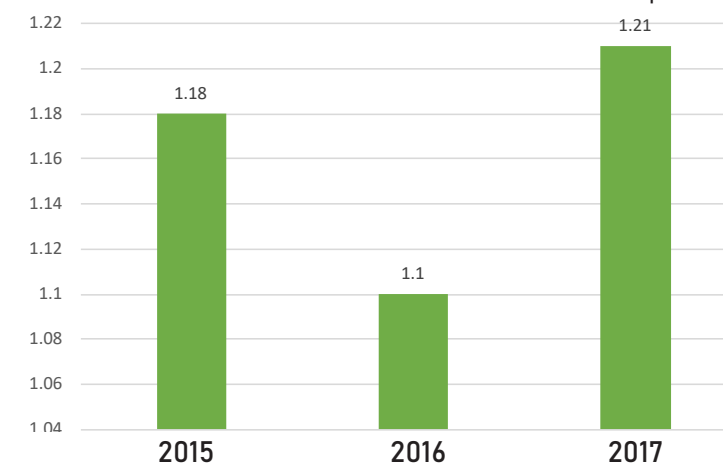


Violent Crime rates per 100,000 population (2014)
Source: CDPHE Colorado Health Indicators

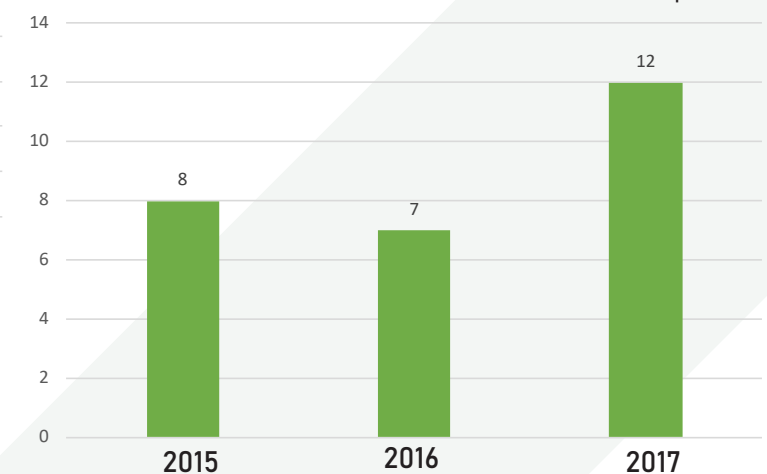


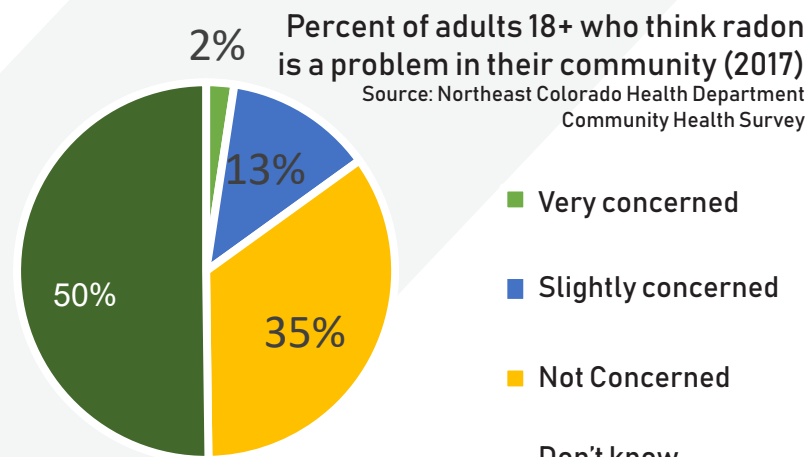
ENVIRONMENTAL QUALITY

Average number of critical violations per food service inspection in the northeast region (2018)
Source: Northeast Colorado Health Department

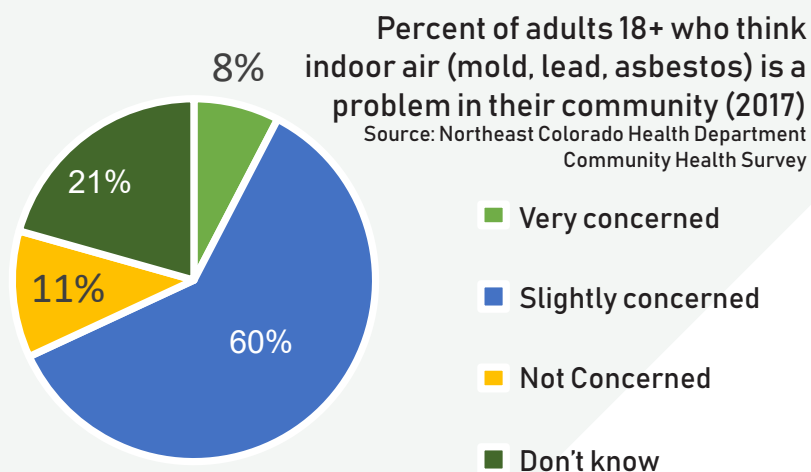
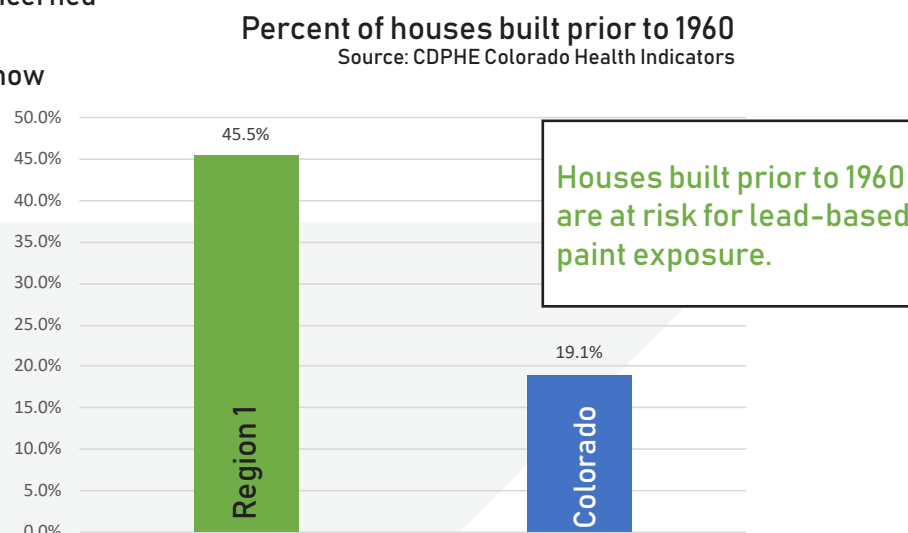
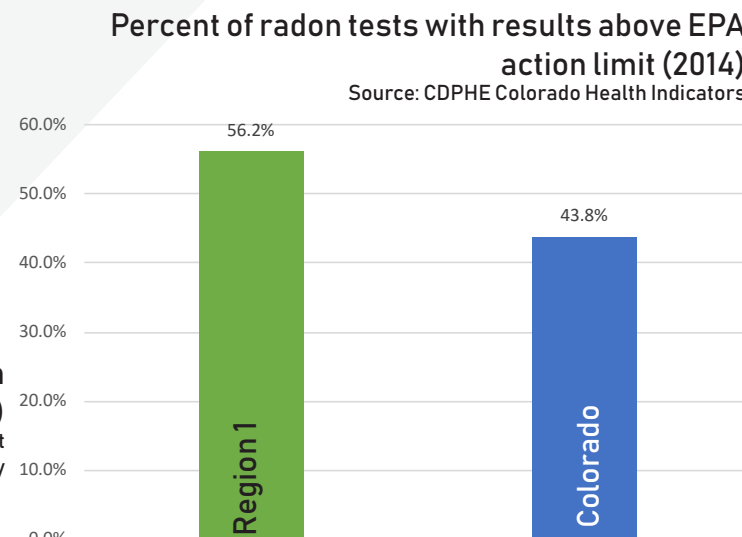


Highest number of critical violations cited during an inspection in the northeast region (2018)
Source: Northeast Colorado Health Department

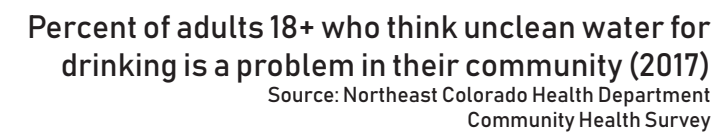
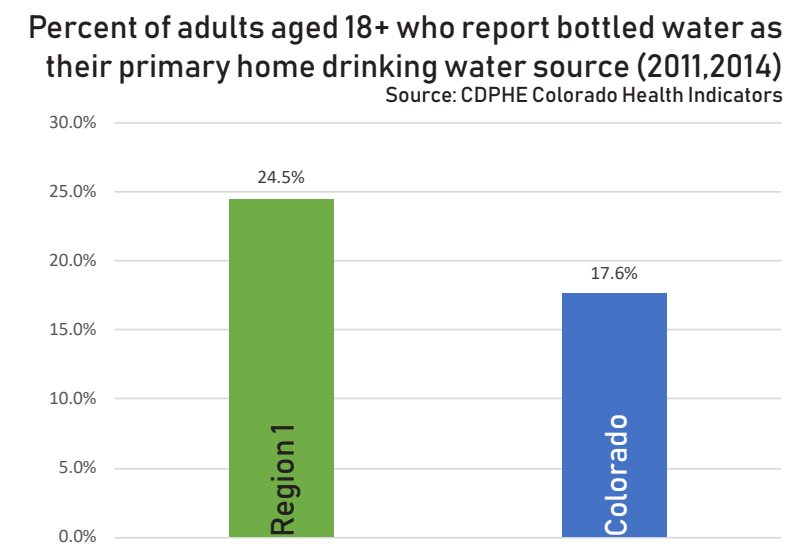
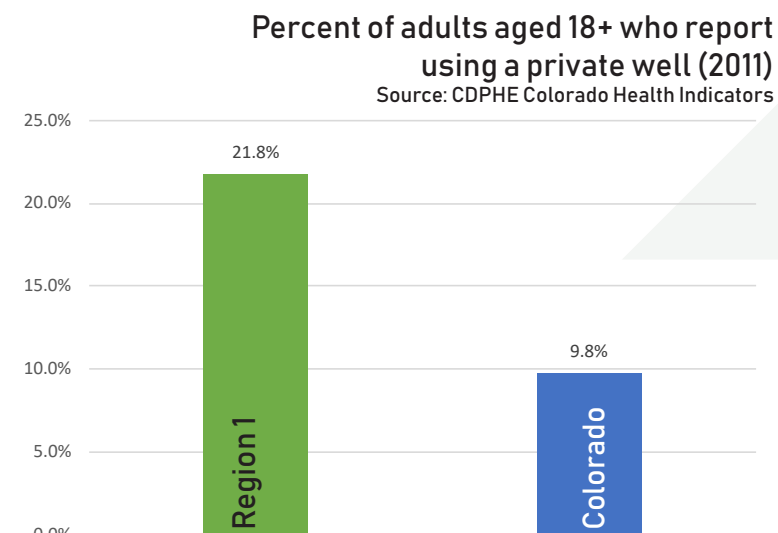




- Very concerned
- Slightly concerned
- Not Concerned
- Don't know



- Very concerned
- Slightly concerned
- Not Concerned
- Don't know



- Very concerned
- Slightly concerned
- Not Concerned
- Don't know



SUMMARY

PHYSICAL ENVIRONMENT

STRENGTHS

- Rate of healthy food outlets per 10,000 residents is higher in HSR 1 than the state
- Rate of fast food restaurants per 10,000 residents is lower in HSR 1 than the state
- Higher rate of children commute to school by biking, walking or skateboarding in HSR 1
- Property crime rates and violent crime rates are lower in HSR 1 and a higher percent of parents feel their child is usually or always safe

CHALLENGES

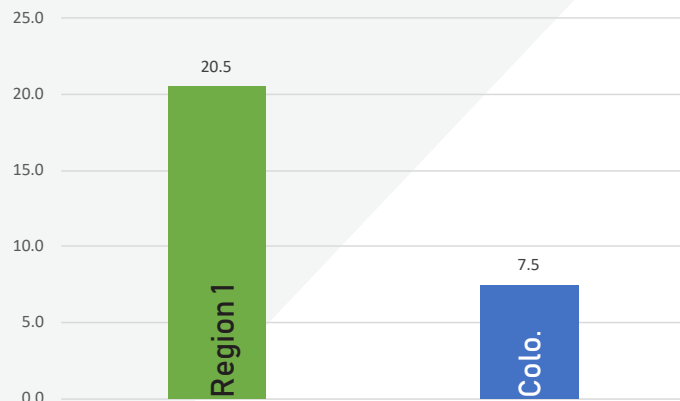
- Recreation opportunities in HSR 1 is lower: percent of sidewalks and shoulders are lower than the state (statistically significant), Sixty-four percent of respondents to the NCHD survey were concerned about availability of recreation opportunities in their community, lower percent of adults have access to public exercise facilities in HSR 1
- Data shows higher healthy food outlets and lower rate of fast food restaurants, yet lower percent of adults in HSR 1 say healthy food is available
- Lower percent of adults commute to work by biking, walking or public transportation in HSR 1
- Higher percent of radon tests conducted in HSR 1 are above the EPA action limit and half of the respondents to the NCHD survey didn't know if radon was a concern
- Higher percent of houses in HSR 1 were built before 1960 indicating a higher risk of exposure to lead-based paint
- 68% of respondents to NCHD survey are concerned about indoor air quality issues

SOCIAL FACTORS

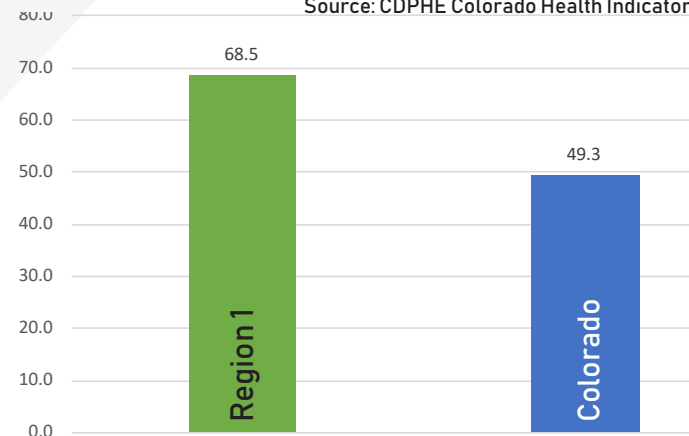
DETERMINANTS OF HEALTH		
Economic Opportunity	Physical Environment	Social Factors
Income	Built Environment	Social network/ Social Support
Employment	• Access to recreational facilities	Political influence
Education	• Access to healthy food	Organizational networks
Housing	• Transportation	Violence
	Safety	
	Environmental Quality	

SOCIAL NETWORK/ SOCIAL SUPPORT

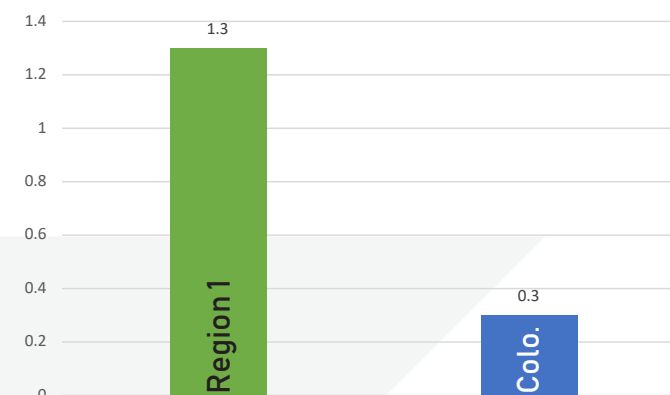
Rate of religious congregations per 10,000 population (2010)
Source: CDPHE Colorado Health Indicators



Rate of registered nonprofits per 10,000 population (2013)
Source: CDPHE Colorado Health Indicators

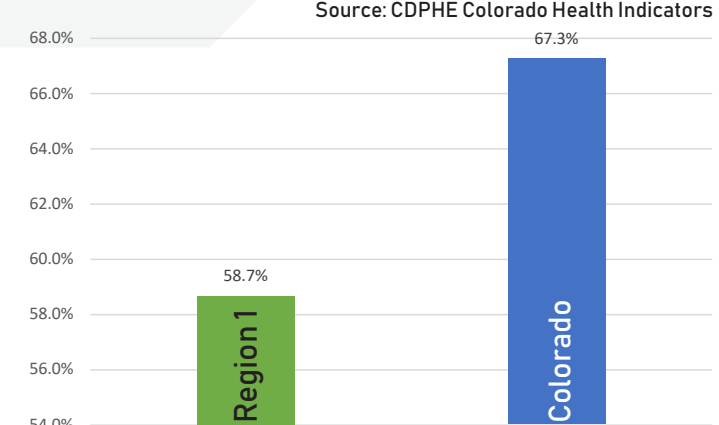


Rate of registered healthcare nonprofits per 10,000 population (2011)
Source: CDPHE Colorado Health Indicators

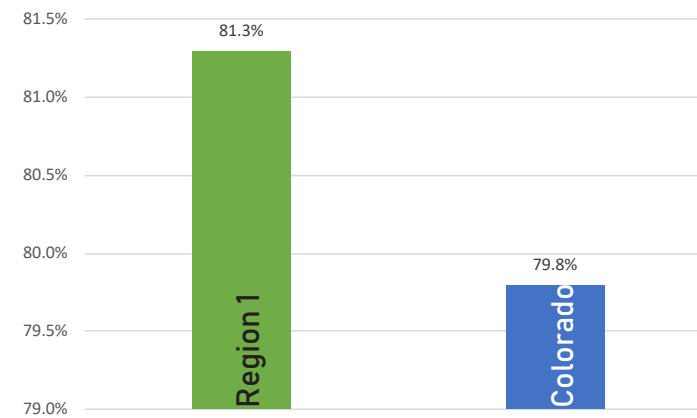


POLITICAL INFLUENCE

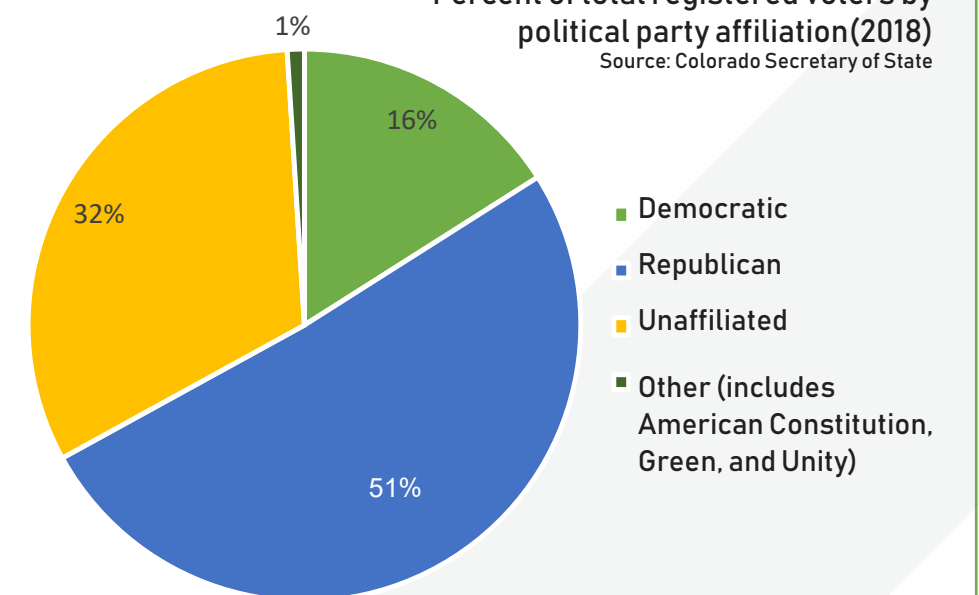
Percent of population registered to vote (2013)
Source: CDPHE Colorado Health Indicators



Percent of active registered voters (2013)
Source: CDPHE Colorado Health Indicators

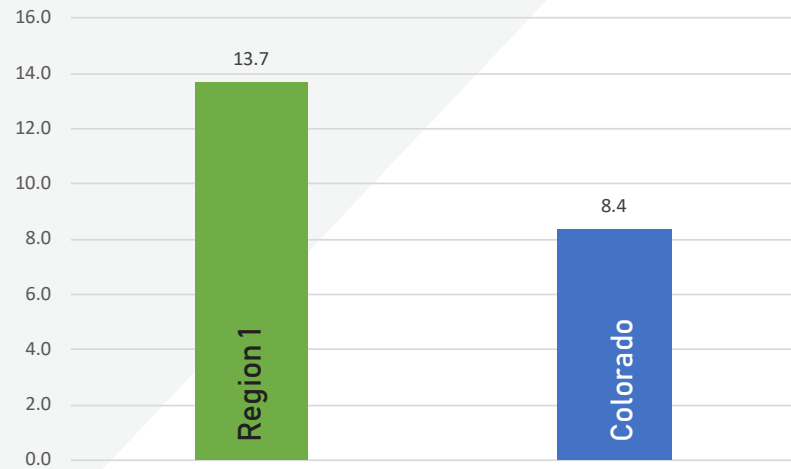


Percent of total registered voters by political party affiliation (2018)
Source: Colorado Secretary of State

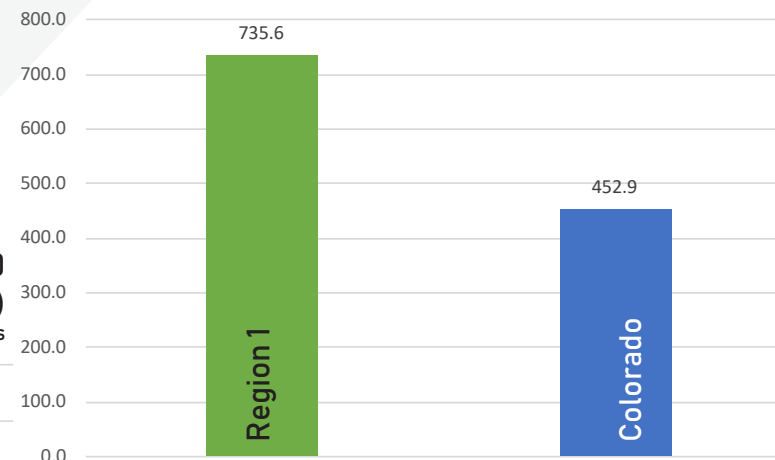


VIOLENCE

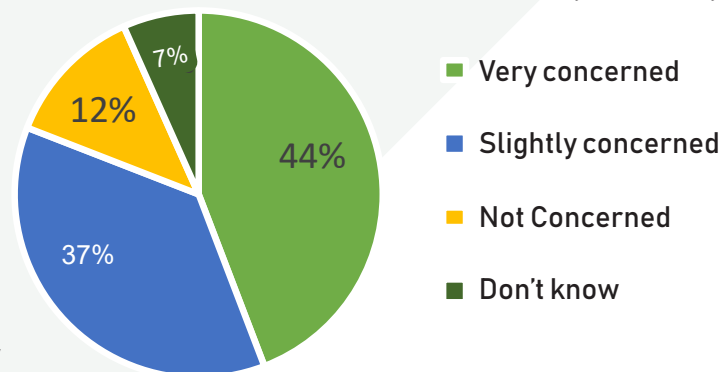
Child maltreatment rate per 1,000 children age 17 & under (2012)
Source: CDPHE Colorado Health Indicators



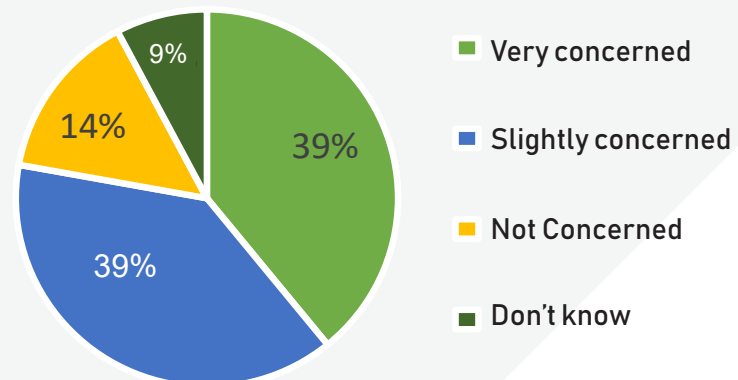
Elder abuse rate per 100,000 population 65+ (2014)
Source: CDPHE Colorado Health Indicators



Percent of adults 18+ who are concerned about child abuse in their community (2017)
Source: Northeast Colorado Health Department Community Health Survey



Percent of adults 18+ who are concerned about domestic violence in their community (2017)
Source: Northeast Colorado Health Department Community Health Survey



SUMMARY

SOCIAL FACTORS

STRENGTHS

- HSR 1 has higher rates of registered nonprofits and healthcare nonprofits per 10,000
- HSR 1 has higher rate of religious congregations per 10,000 – social supports
- HSR 1 has higher rate of active registered voters
-

CHALLENGES

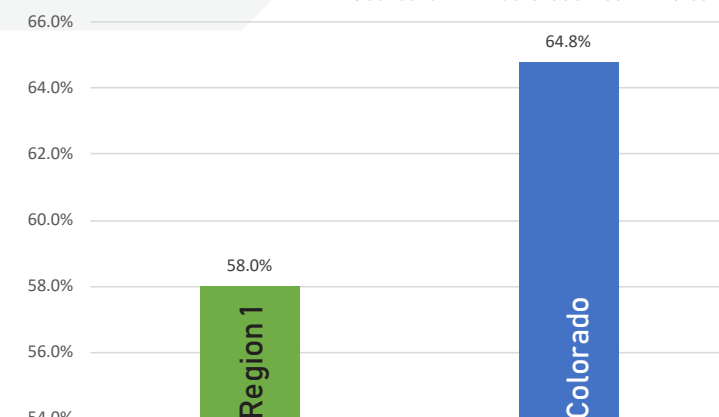
- Overall, HSR 1 has lower percent of the population registered to vote
- Higher elder abuse rate per 100,000 population
- Higher child maltreatment rate per 1,000 children
- Community members are concerned (81% about child abuse and 78% about domestic violence) in their communities

HEALTH BEHAVIORS & CONDITIONS

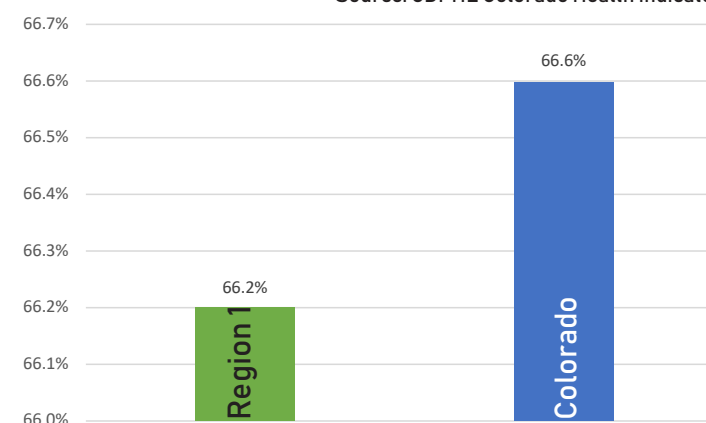
Health Factors		
Health Behaviors and Conditions	Mental Health	Access, Utilization, & Quality Care
Nutrition	Mental Health Status	Health Insurance Coverage
Physical Activity	Substance Abuse	Received Needed Care
Tobacco Use	Functional Status	Provider Availability
Injury	Suicide	Preventive Care
Child Health		
School Health		
Health Conditions		

NUTRITION

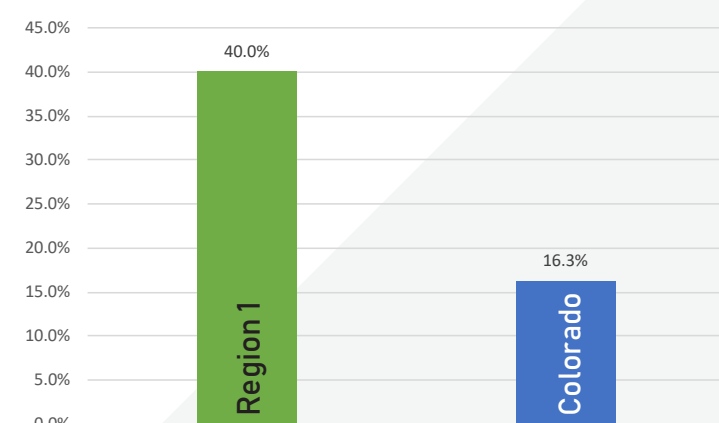
Percent of children 1-14 who ate fast food 1+ times per week (2010-2012)
Source: CDPHE Colorado Health Indicators



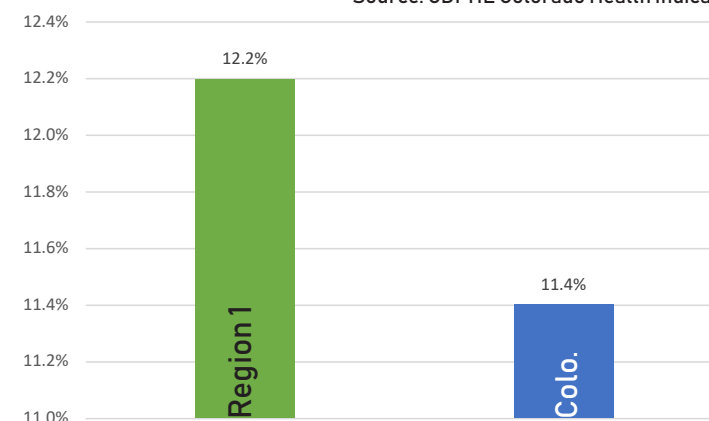
Percent of adults who reported eating fast food 1+ times per week (2011)
Source: CDPHE Colorado Health Indicators



Percent of children 1-14 who drank sugar-sweetened beverages one or more times per day (2013-2015)
Source: CDPHE Colorado Health Indicators

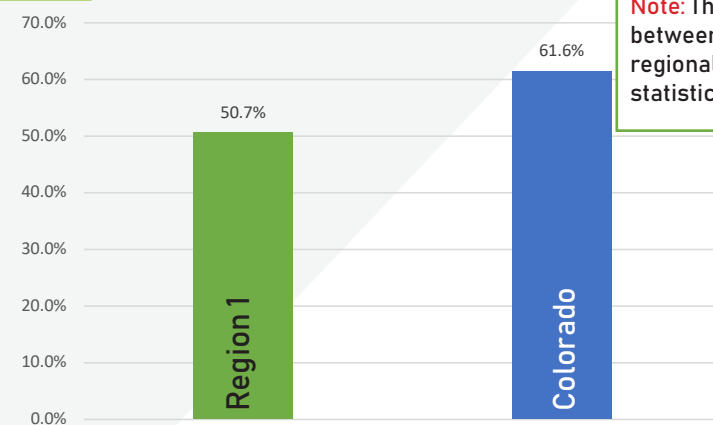


Percent of children 1-14 who ate fruit 2 or more times per day and veggies 3 or more times per day (2013-2015)
Source: CDPHE Colorado Health Indicators



PHYSICAL ACTIVITY

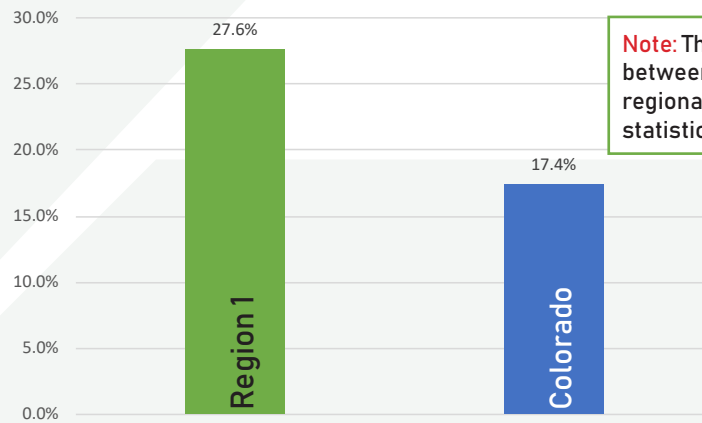
TOBACCO USE



Note: The difference between the state and regional estimate is statistically significant.

Percent of adults 18+ who get 30+ minutes of moderate activity per day 5+ days/week or 20+ min. of vigorous activity per day 3+ days/week (2011, 2013)

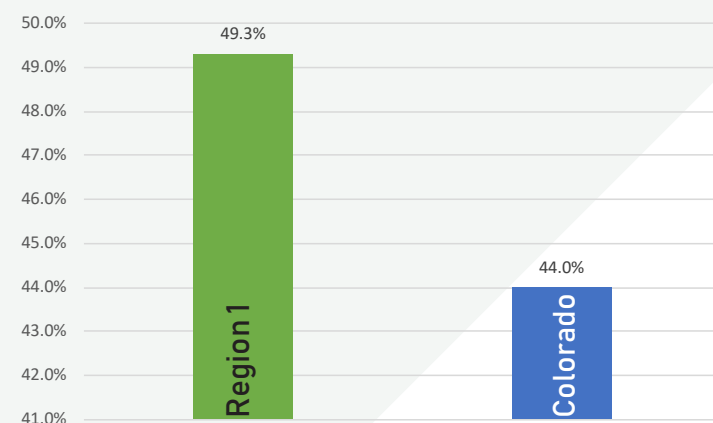
Source: CDPHE Colorado Health Indicators



Note: The difference between the state and regional estimate is statistically significant.

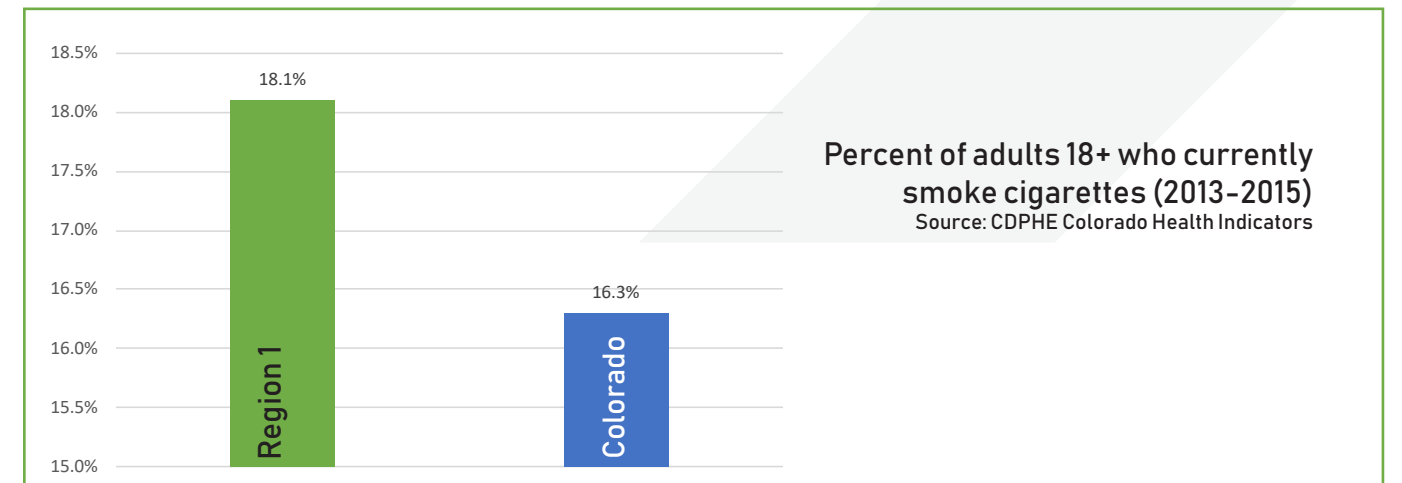
Percent of adults 18+ who are physically inactive (2013-2015)

Source: CDPHE Colorado Health Indicators



Percent of children 5-14 who were physically active for at least 60 minutes/day for the past 7 days (2013-2015)

Source: CDPHE Colorado Health Indicators

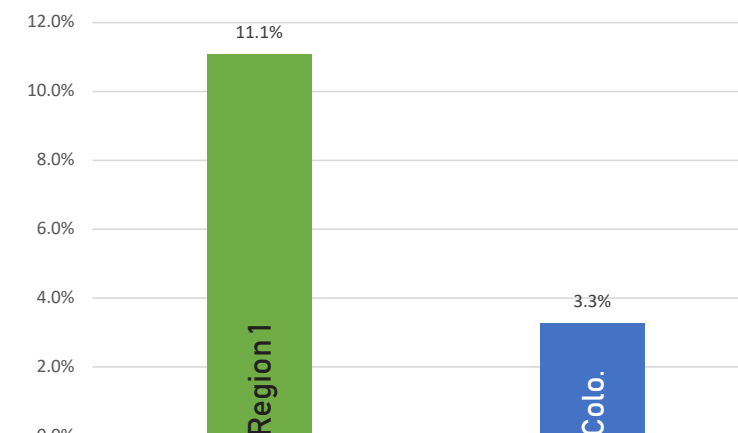


Percent of adults 18+ who currently smoke cigarettes (2013-2015)

Source: CDPHE Colorado Health Indicators

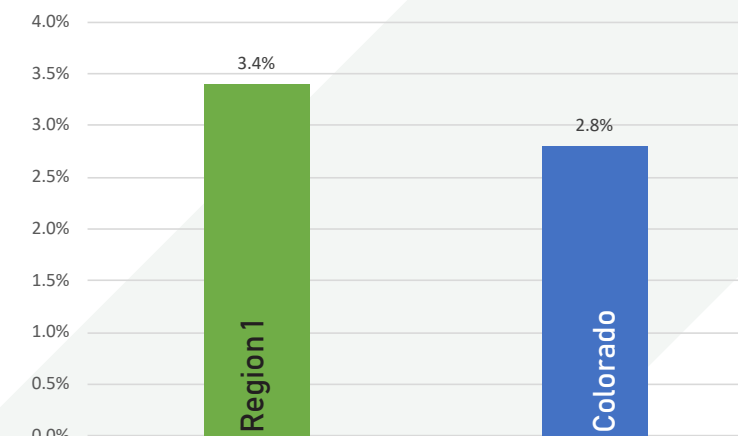
Percent of children 1-14 who rode in car in past 7 days w/someone who smoked, (2013-2015)

Source: CDPHE Colorado Health Indicators



Percent of children 1-14 who live in homes where someone smoked in past 7 days (2013-2015)

Source: CDPHE Colorado Health Indicators

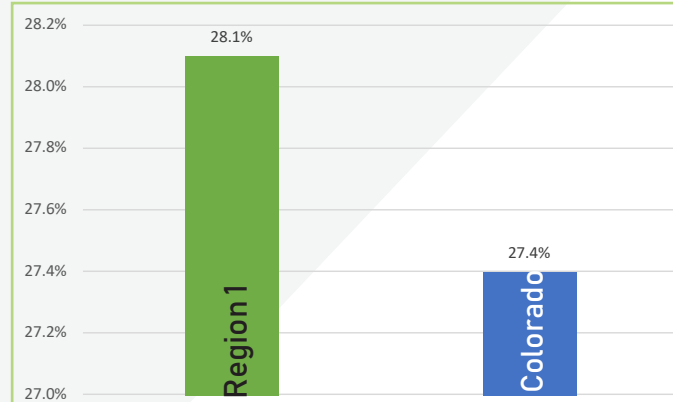


Percent of women who smoked during last three months of pregnancy, (2012-2014)

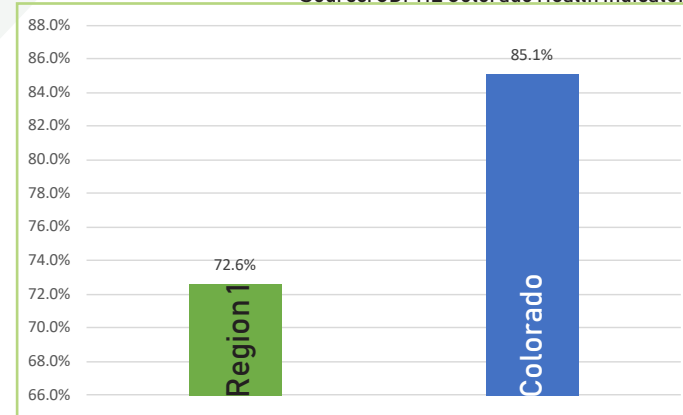
Source: CDPHE Colorado Health Indicators

INJURY

Percent of adults 65+ who report having had a fall in past 12 months (2012, 2014)
Source: CDPHE Colorado Health Indicators

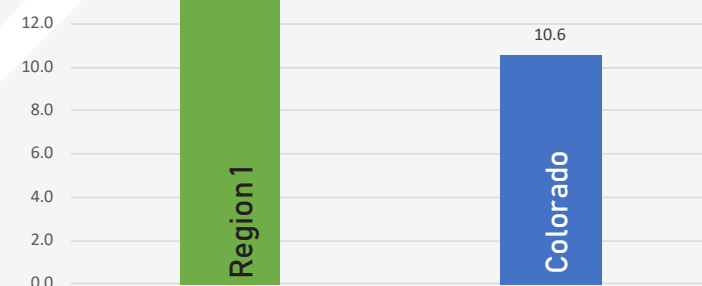


Percent of adults 18+ who report always using a seat belt (2013-2015)
Source: CDPHE Colorado Health Indicators

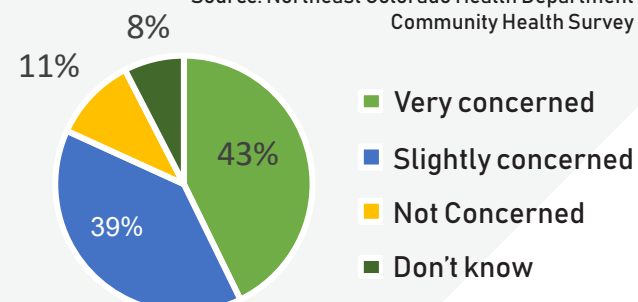


SEXUAL HEALTH

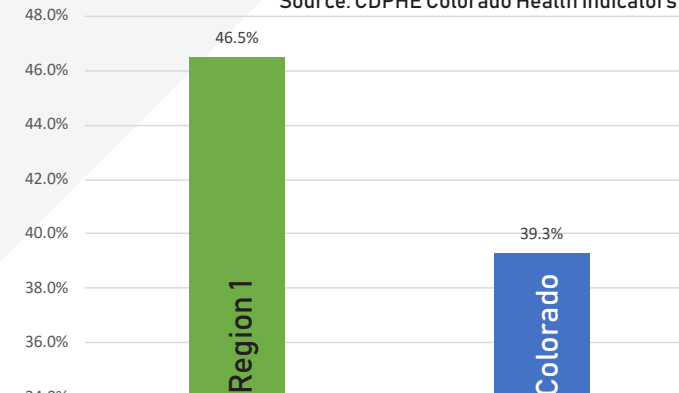
Rate of live births born to women age 15-17 per 1,000 women (2012-2014)
Source: CDPHE Colorado Health Indicators



Percent of adults 18+ who are concerned about teen sexual activity/pregnancy in their community (2017)
Source: Northeast Colorado Health Department Community Health Survey

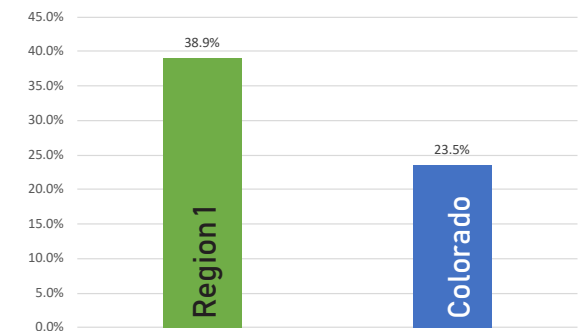


Percent of pregnancies resulting in a live birth that were unintended (2012-2014)
Source: CDPHE Colorado Health Indicators

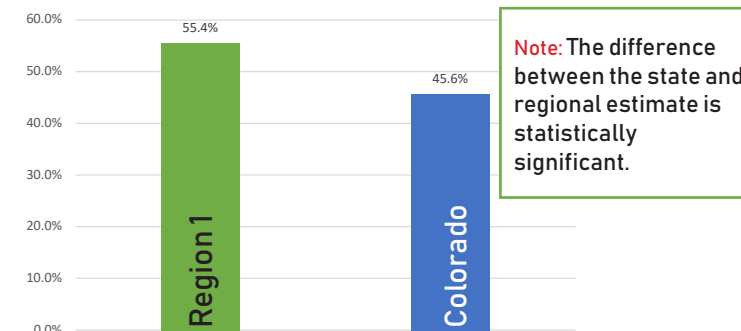


HEALTH CONDITIONS

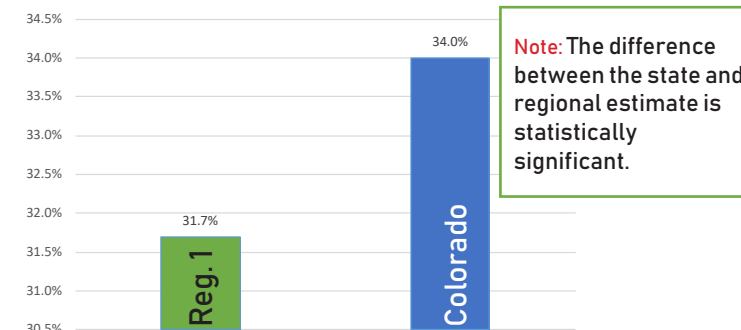
Percent of children 5-14 who are overweight or obese BMI greater or equal to 85th percentile, (2013-2015)
Source: CDPHE Colorado Health Indicators



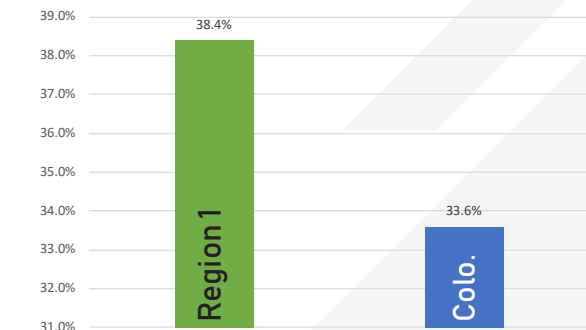
Percent of live births to mothers who were overweight or obese based on BMI before pregnancy, (2013-2015)
Source: CDPHE Colorado Health Indicators



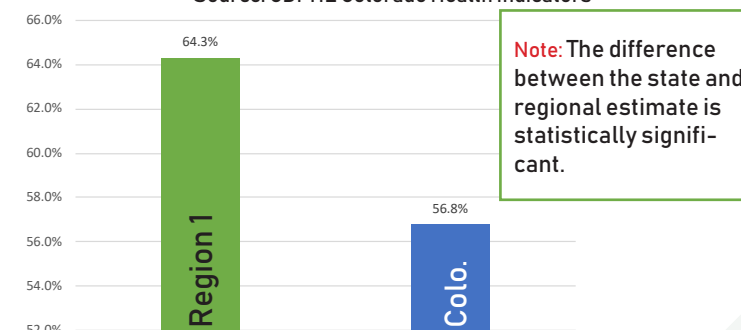
Percent of live births where mothers gained an appropriate amount of weight during pregnancy according to pre-pregnancy BMI, (2013-2015)
Source: CDPHE Colorado Health Indicators



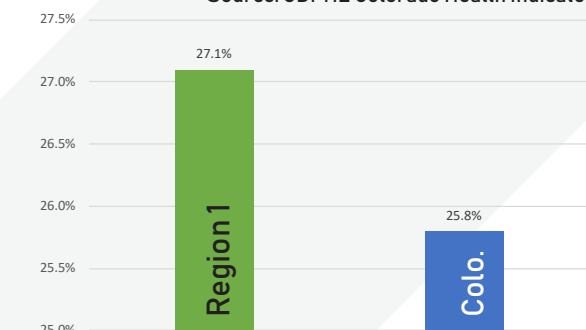
Percent of adults 18+ who have ever had cholesterol screened and a health care provider told them they had high blood cholesterol, (2013-2015)
Source: CDPHE Colorado Health Indicators



Percent of adults 18+ who are overweight or obese BMI greater or equal to 25, (2013-2015)
Source: CDPHE Colorado Health Indicators



Percent of adults 18+ told by health care provider that they had high blood pressure, (2013-2015)
Source: CDPHE Colorado Health Indicators



SUMMARY

HEALTH BEHAVIORS & CONDITIONS

STRENGTHS

- Lower percent of adults and children who ate fast food one or more times per week
- Higher percent of children ate fruits 2 or more times and veggies 3 or more times per day
- Higher percent of children (5-14) who were physically active for at least 60 minutes per day for the past 7 days

CHALLENGES

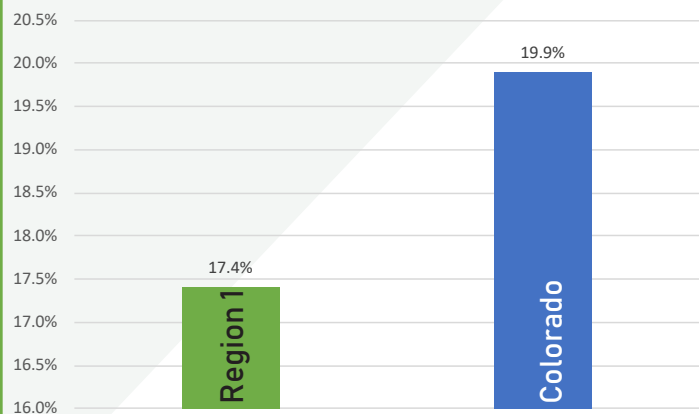
- Higher percentage of children (1-14) who drank sugar-sweetened beverages one or more times per day
- Statistically significant lower percent of adults who get 30+ minutes of moderate activity per day 5 or more days per week or 20+ minutes of vigorous activity per day 3 or more days per week and statistically significantly higher percent of adults who are physically inactive
- Higher tobacco use rates
- Higher percent of adults 65+ who had a fall in the past 12 months (HSR 1 has higher percent of 65+ than the state as well)
- Lower percent of adults report always using their seat belt
- Higher rate of live births born to women ages 15-17 (92% of respondents to NCHD survey were concerned about teen sexual activity/pregnancy in their community)
- HSR 1 has a higher percent of unintended pregnancies than the state of Colorado
- Higher percent of live births to mothers who were overweight or obese prior to pregnancy
- Statistically significantly lower percent of live births where mothers gained the appropriate amount of weight during pregnancy
- Higher percent of children and adults who are overweight or obese based on BMI
- Higher percent of adults had a healthcare provider tell them they had high blood cholesterol and a higher percent of adults have been told by a healthcare provider they have high blood pressure

MENTAL HEALTH

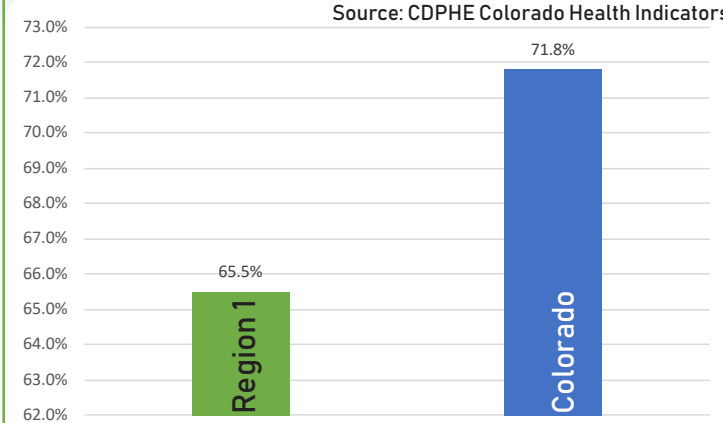
Health Factors		
Health Behaviors and Conditions	Mental Health	Access, Utilization, & Quality Care
Nutrition	Mental Health Status	Health Insurance Coverage
Physical Activity	Substance Abuse	Received Needed Care
Tobacco Use	Functional Status	Provider Availability
Injury	Suicide	Preventive Care
Child Health		
School Health		
Health Conditions		

MENTAL HEALTH STATUS

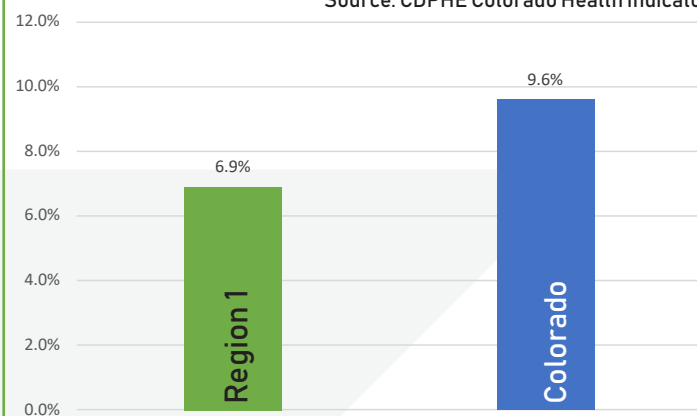
Percent of parents who reported behavioral or mental health problems in children 1-14, 2013-2015
Source: CDPHE Colorado Health Indicators



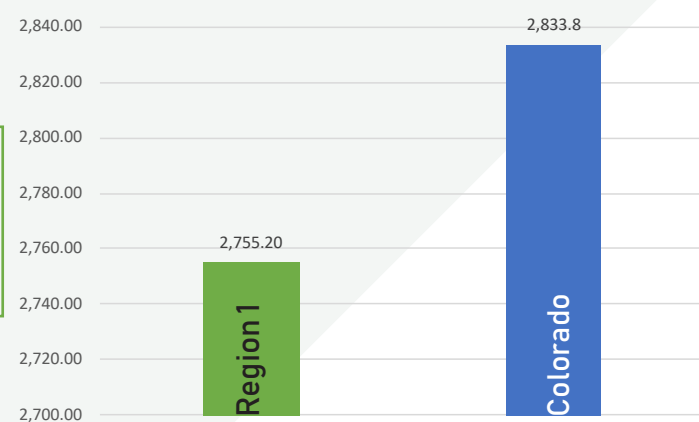
Percent of women who experienced 1 or more major life stress events 12 months before delivery (2012-2014)
Source: CDPHE Colorado Health Indicators



Percent of women who often or always felt down, depressed, sad or hopeless since new baby born (Postpartum Depressive Symptoms) (2012-2014)
Source: CDPHE Colorado Health Indicators



Age-adjusted rate of mental health diagnosed hospitalizations per 100,000 pop (2013-2015)
Source: CDPHE Colorado Health Indicators



Note: The difference between the state and regional estimate is statistically significant.

MENTAL HEALTH STATUS

Local Mental Health Clients (2014-2017)

Source: Centennial Mental Health Center

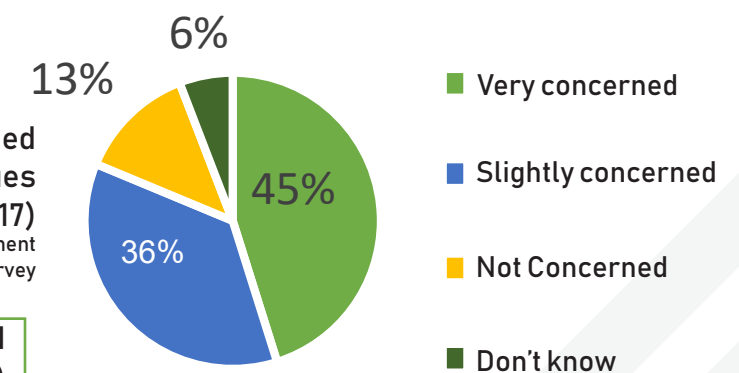
CATEGORIES	2014-2015	2015-2016	2016-2017
Clients Age 17 & Under	1,006	1,151	773
Clients Age 18 & Over	3,167	3,613	3,261

The table at the left indicates local clients of Centennial Mental Health, the largest mental health provider in Northeast Colorado.

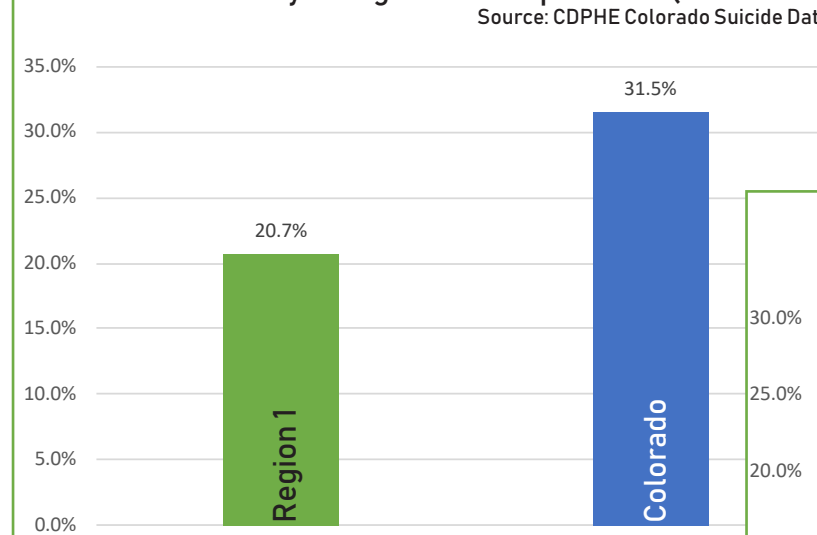
From 2014-2017, there has been a 23% decrease in clients 17 and under and a 2.9% increase in clients 18 and over.

Percent of adults 18+ who are concerned about mental illness or emotional issues in their community (2017)

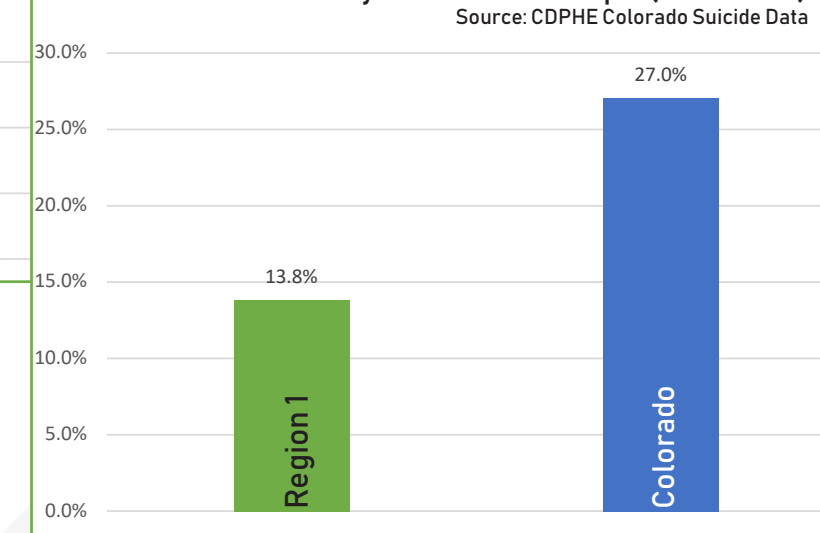
Source: Northeast Colorado Health Department Community Health Survey



Percent of suicides that were preceded by a diagnosis of depression (2013-2015)
Source: CDPHE Colorado Suicide Data

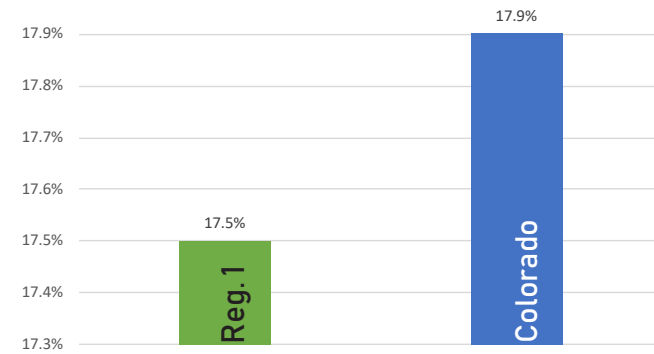


Percent of suicides that were preceded by a history of suicide attempts (2013-2015)
Source: CDPHE Colorado Suicide Data

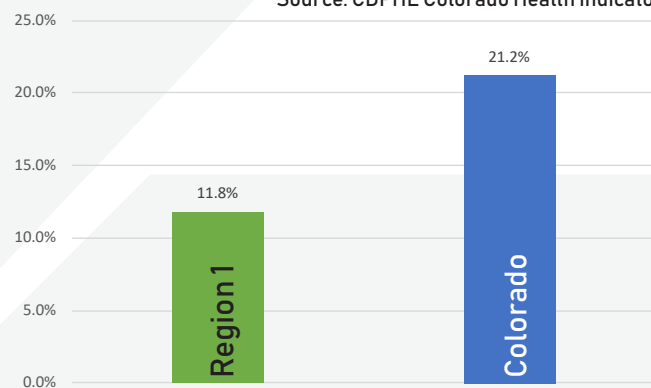


SUBSTANCE ABUSE

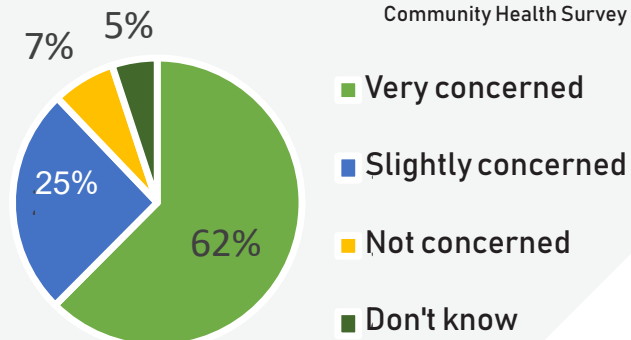
Percent of adults aged 18+ years who reported binge drinking (males 5+ and females 4+ drinks on one occasion) in past 30 days, (2013-2015)
Source: CDPHE Colorado Health Indicators



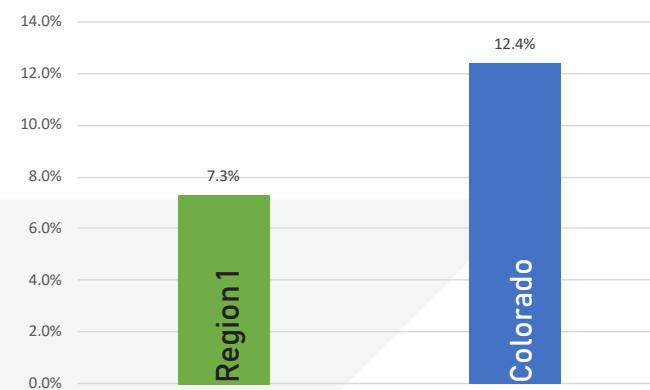
Percent of high school students who used marijuana one or more times during the past 30 days (2015)
Source: CDPHE Colorado Health Indicators



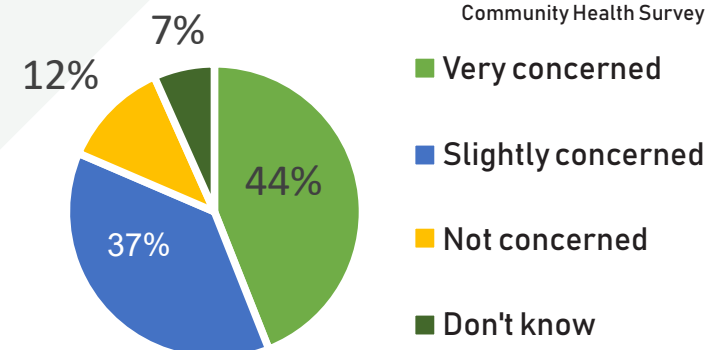
Percent of adults 18+ who are concerned about alcohol abuse in their community (2017)
Source: Northeast Colorado Health Department Community Health Survey



Percent of women who drank alcohol during last 3 months of pregnancy, (2012-2014)
Source: CDPHE Colorado Health Indicators

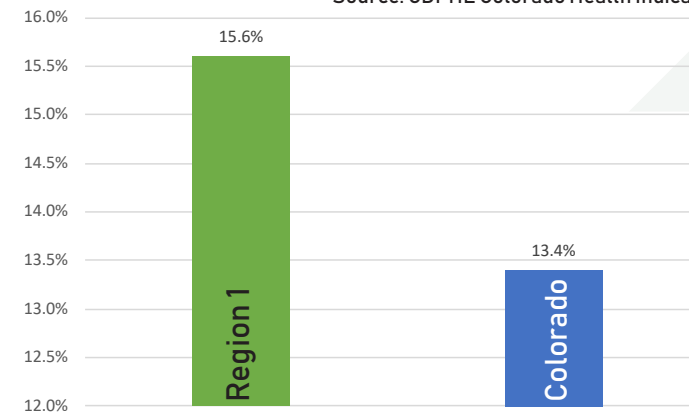


Percent of adults 18+ who are concerned about drug (legal and illegal) abuse in their community (2017)
Source: Northeast Colorado Health Department Community Health Survey

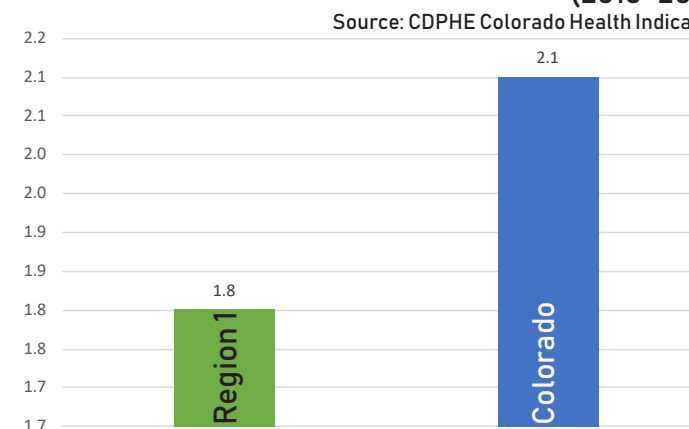


FUNCTIONAL STATUS

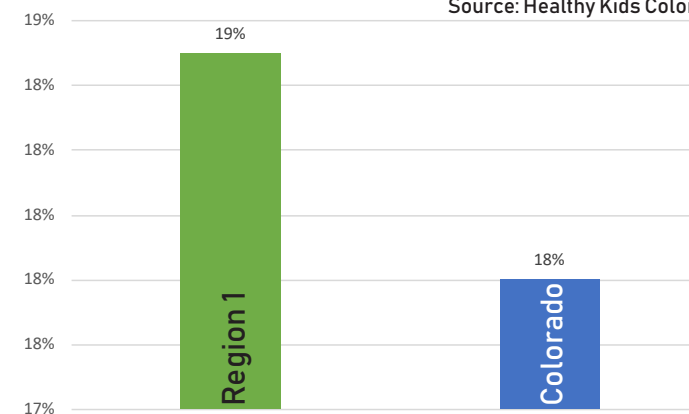
Percent of adults aged 18+ years who reported that their general health was fair or poor (2013-2015)
Source: CDPHE Colorado Health Indicators



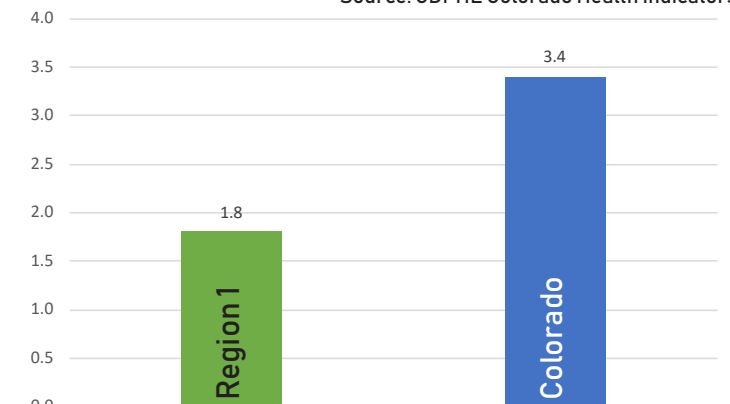
Average number of days of poor physical or mental health that kept adults (age 18+) from doing usual activities, such as self-care, work or recreation (2013-2015)
Source: CDPHE Colorado Health Indicators



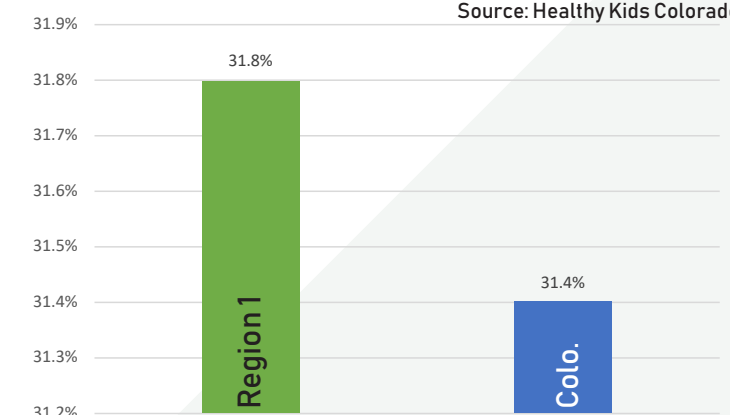
Percentage of students who purposefully hurt themselves without wanting to die in the past 12 months (2017)
Source: Healthy Kids Colorado



Average number of days in the past 30 days when adults (age 18+) report their physical health was not good (2013-2015)
Source: CDPHE Colorado Health Indicators



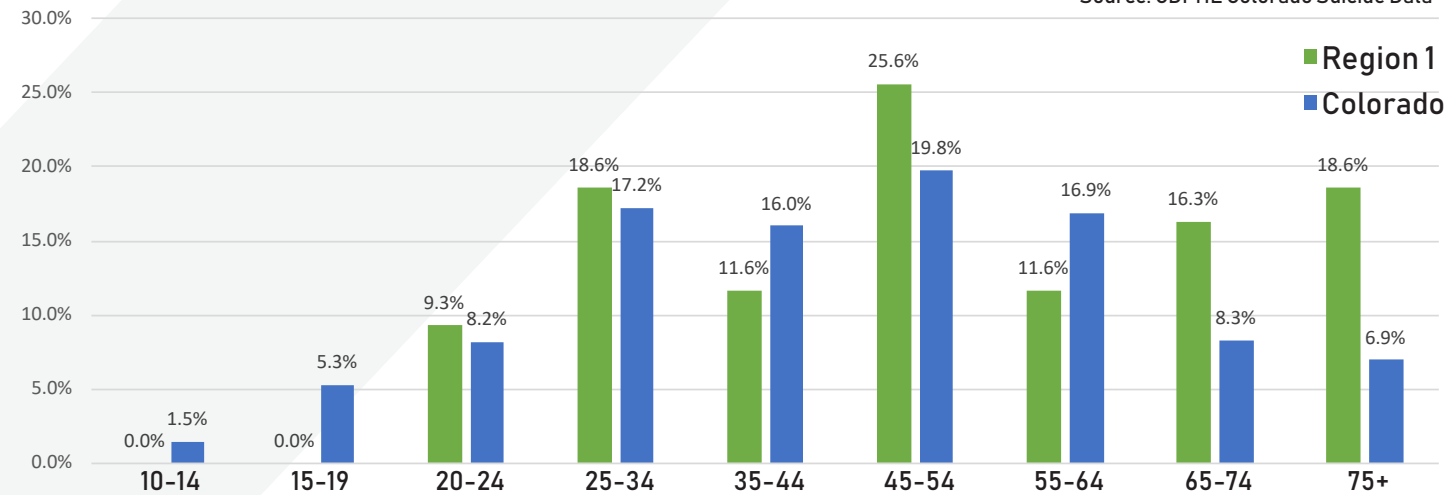
Percentage of students who felt so sad or hopeless almost every day for two weeks or more in a row during the past 12 months that they stopped doing some usual activities (2017)
Source: Healthy Kids Colorado



SUICIDE

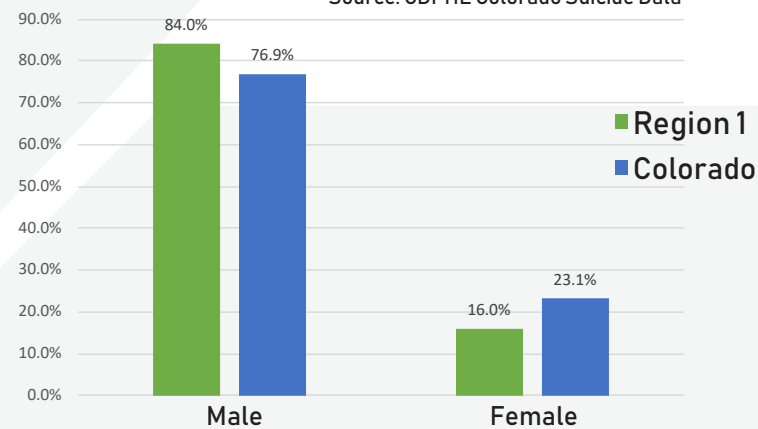
Percent of suicides by age (2013-2016)

Source: CDPHE Colorado Suicide Data



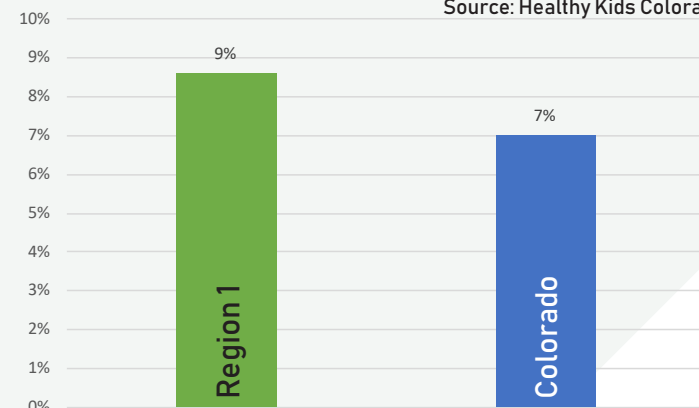
Percent of suicides by gender (2013-2016)

Source: CDPHE Colorado Suicide Data



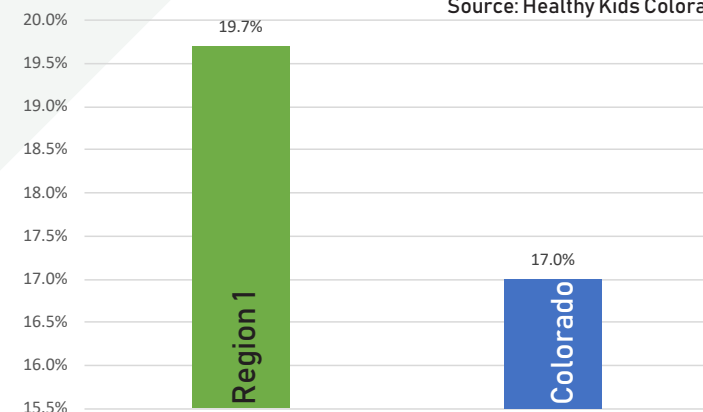
Percentage of students who attempted suicide one or more times during the past 12 months (2017)

Source: Healthy Kids Colorado



Percentage of students who seriously considered attempting suicide during the past 12 months (2017)

Source: Healthy Kids Colorado



SUMMARY

MENTAL HEALTH

STRENGTHS

- Lower percent of women in HSR 1 experienced postpartum depressive symptoms or a major life stress event 12 months before delivery
- Lower percent of parents reported behavioral or mental health problems in children (1-14)
- Lower percent of women who drank alcohol during the last 3 months of pregnancy
- Lower percent of adults who reported binge drinking in past 30 days (at the same time 87% of respondents to the NCHD community survey were slightly or very concerned about alcohol abuse in their community)
- Lower percent of high school students who use marijuana one or more times during the past 30 days (at the same time according to the NCHD community survey 81% of respondents were slightly or very concerned about drug abuse in their community)
- Lower average number of days of poor physical or mental health that kept adults from doing their usual activities
- Lower average number of days in the past 30 days when adults reported their physical health was not good

CHALLENGES

- Higher percent of high school students who seriously considered attempting suicide within the past 12 months
- Lower percent of suicides were preceded by a diagnosis of depression or a history of suicide attempts
- In HSR 1 the highest risk for suicide by age is 45-54 years followed by 25-34 years
- In HSR 1 higher percent of males than females commit suicide

ACCESS, UTILIZATION, & QUALITY CARE

Health Factors		
Health Behaviors and Conditions	Mental Health	Access, Utilization, & Quality Care
Nutrition	Mental Health Status	Health Insurance Coverage
Physical Activity	Substance Abuse	Received Needed Care
Tobacco Use	Functional Status	Provider Availability
Injury	Suicide	Preventive Care
Child Health		
School Health		
Health Conditions		

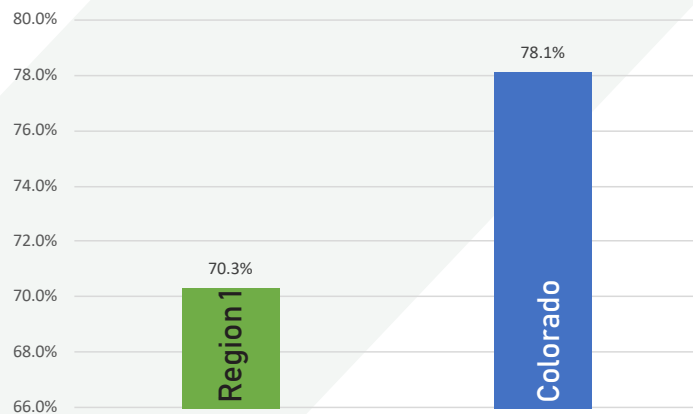


HEALTH INSURANCE COVERAGE

HEALTH INSURANCE COVERAGE	REGION 1	COLORADO
Number of children (0-18) eligible but not enrolled in Medicaid or CHP+ (2014)	777	61,996
Percent of children (0-18 years) eligible but not enrolled in Medicaid or CHP+ (2014)	4.5%	4.8%
Number of working-age adults (19-64 years) eligible but not enrolled in Medicaid (2015)	1,123	135,769
Percent of working-age adults (19-64 years) eligible but not enrolled in Medicaid (2015)	2.6%	3.9%
Number of children 0-18 without health insurance coverage (2014)	846	82,957
Number of adults (18-64 years) without health insurance coverage (2014)	5,349	475,806

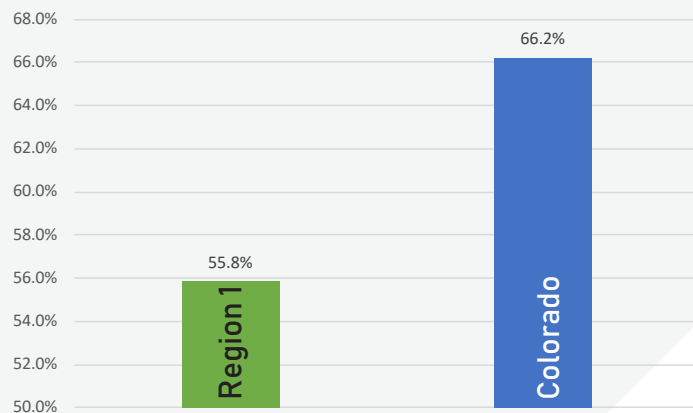
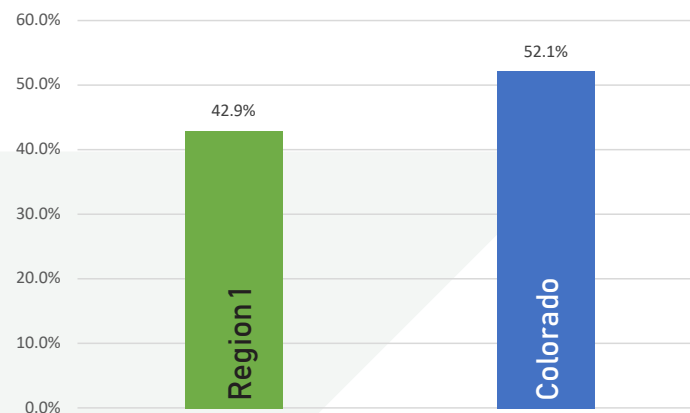
Source: CDPHE Colorado Health Institute

RECEIVED NEEDED CARE



Percent of mothers reporting that a dr., nurse or other healthcare worker talked w/them about what to do if they felt depressed during pregnancy or after delivery (2012-2014)
Source: CDPHE Colorado Health Indicators

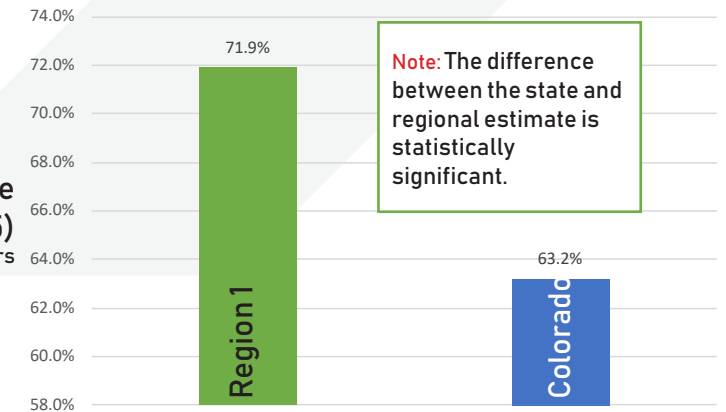
Percent of women who went for dental care during pregnancy (2012-2014)
Source: CDPHE Colorado Health Indicators



Percent of adults age 18+ who visited the dentist for any reason within past 12 months, (2012, 2014)
Source: CDPHE Colorado Health Indicators

Note: The difference between the state and regional estimate is statistically significant.

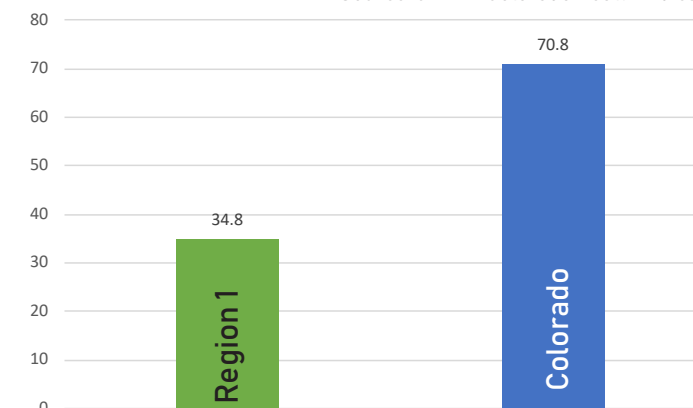
Percent of women received adequate prenatal care (2013-2015)
Source: CDPHE Colorado Health Indicators



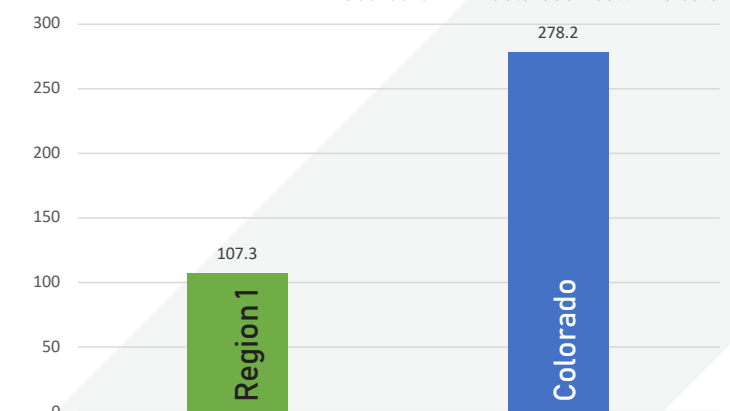
Note: The difference between the state and regional estimate is statistically significant.

PROVIDER AVAILABILITY

Rate of active, licensed dentist/100,000 pop. (2013)
Source: CDPHE Colorado Health Indicators

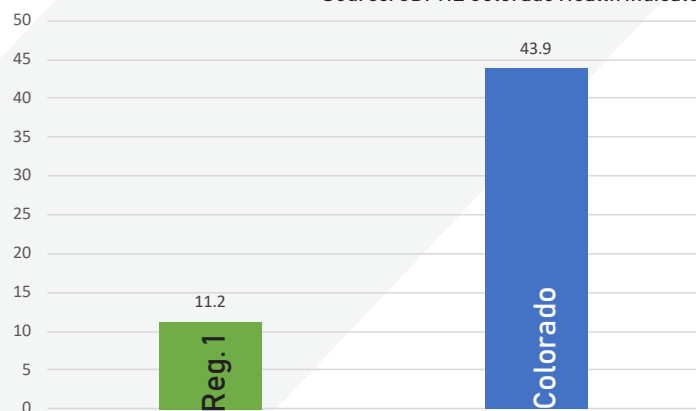


Rate of active licensed physicians/100,000 pop. (2013)
Source: CDPHE Colorado Health Indicators



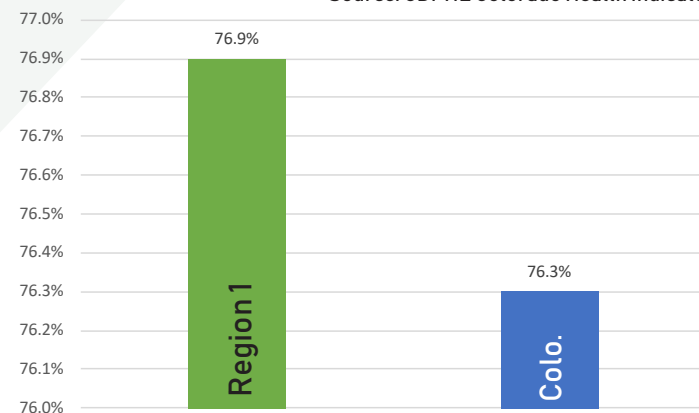
Rate of active licensed psychiatrists/100,000 pop. (2013)

Source: CDPHE Colorado Health Indicators



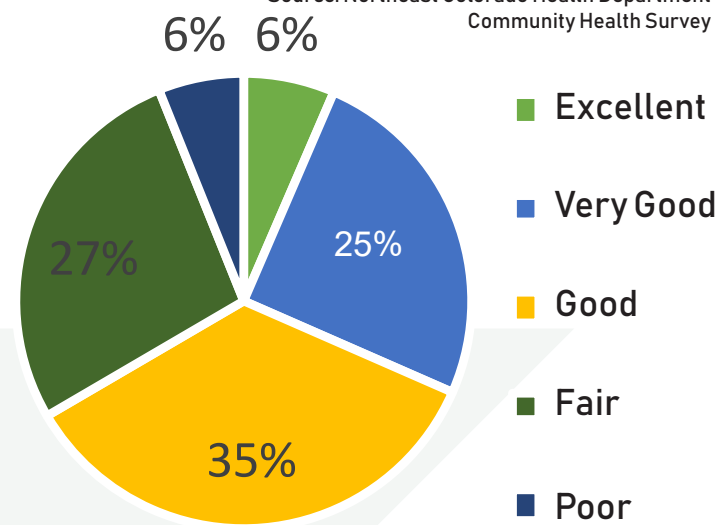
Percent of adults aged 18+ who report having one or more regular health care providers (2013-2015)

Source: CDPHE Colorado Health Indicators



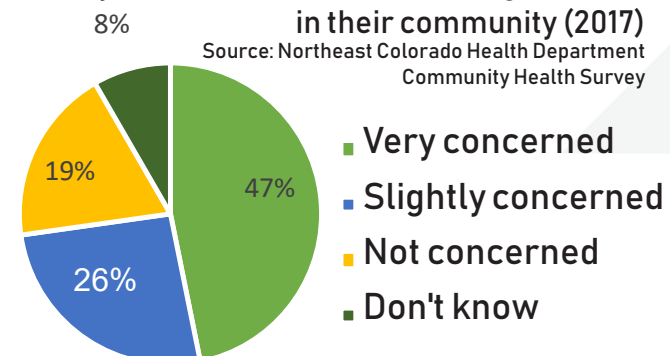
Percent of how well adults 18+ rated health care providers in their county (2017)

Source: Northeast Colorado Health Department Community Health Survey



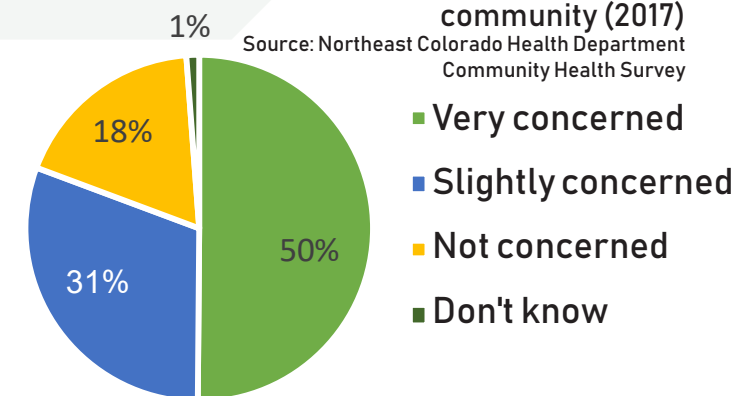
Percent of adults 18+ who are concerned about availability of mental health/ counseling services in their community (2017)

Source: Northeast Colorado Health Department Community Health Survey



Percent of adults 18+ who are concerned about availability of doctors or medical clinics in their community (2017)

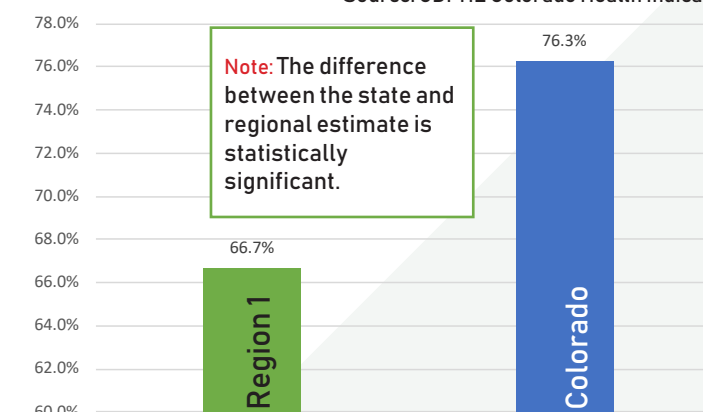
Source: Northeast Colorado Health Department Community Health Survey



PREVENTIVE CARE

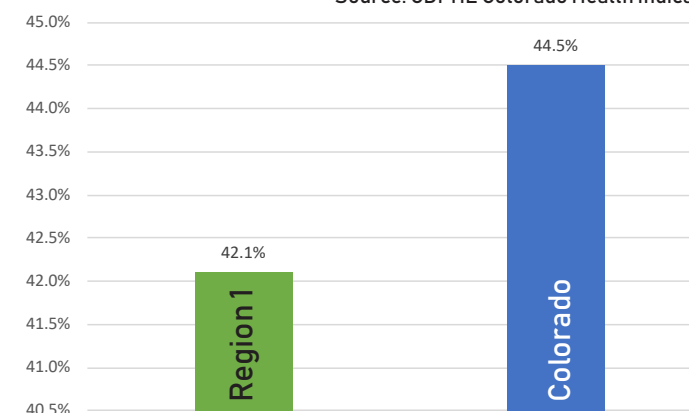
Percent of adults 18+ years who have had cholesterol screening in past 5yrs (2011,2013, 2015)

Source: CDPHE Colorado Health Indicators



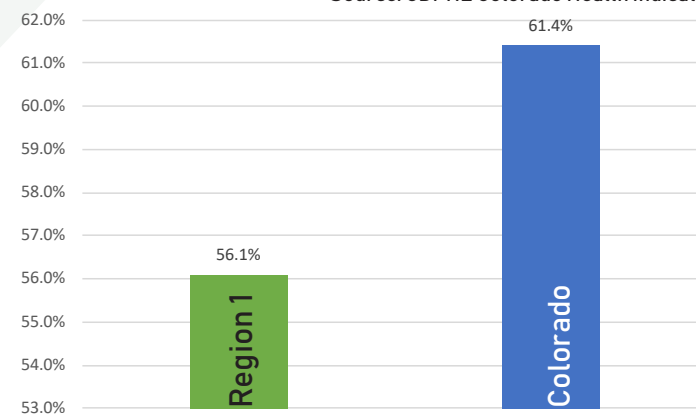
Percent of adults 18+ who report having flu shot in past 12 mo. (2013-2015))

Source: CDPHE Colorado Health Indicators



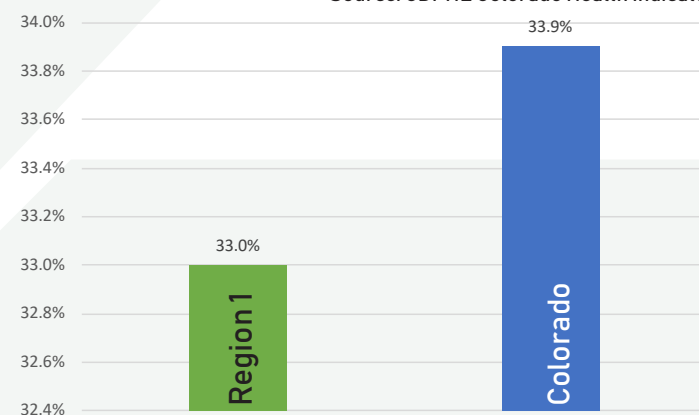
Percent of females 40+ who report having had a mammogram within last 2 years (2012, 2014)

Source: CDPHE Colorado Health Indicators



Percent of adults 18+ who report having ever had a pneumonia shot (2013-2015)

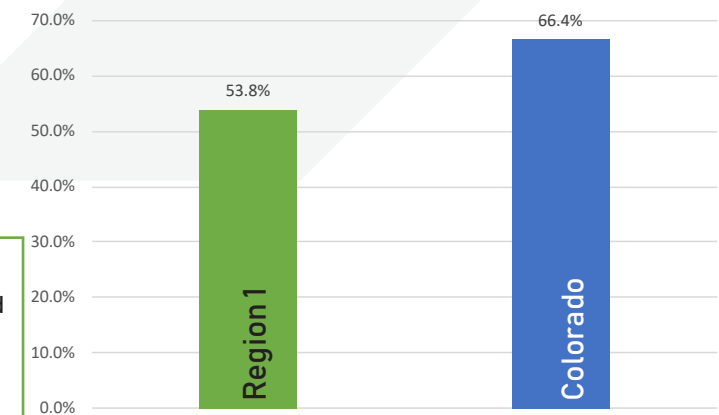
Source: CDPHE Colorado Health Indicators



Percent of adults 50+ who had colonoscopy within 10 yrs or sigmoidoscopy within 5yrs or a fecal iccult blood test within last yr (2012, 2014)

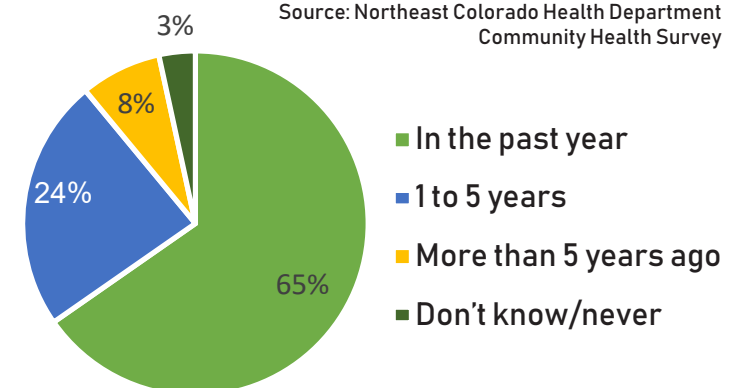
Source: CDPHE Colorado Health Indicators

Note: The difference between the state and regional estimate is statistically significant.



Percent of adults 18+ by length of time since last routine checkup, not for a specific illness, injury or condition

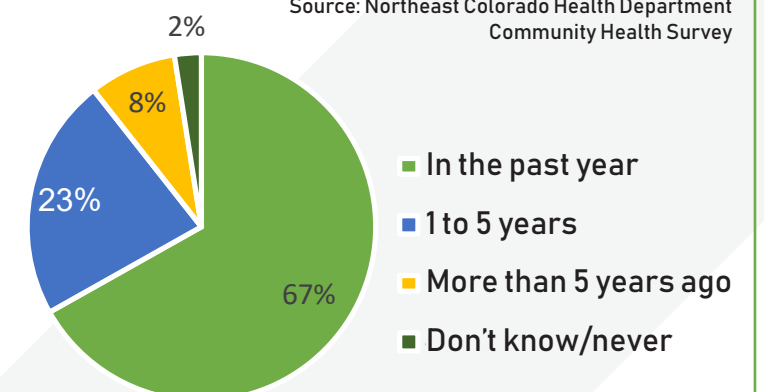
Source: Northeast Colorado Health Department Community Health Survey



Results from NCHD's Community Health Survey showed that 71.2% of respondents said their child, 17 or younger, had a well-child checkup or physical exam in the last year.

Percent of adults 18+ by length of time since dental exam and/or teeth cleaning

Source: Northeast Colorado Health Department Community Health Survey



Results from NCHD's Community Health Survey showed that 71.6% of respondents said their child, 17 or younger, had been to the dentist in the last year.

SUMMARY

ACCESS, UTILIZATION, & QUALITY CARE

STRENGTHS

- Higher percent of women who received adequate prenatal care
- 65% of adults reported having a routine checkup in the past year
- 67% of adults reported having a dental exam/ teeth cleaning in the past year
- Higher percent of adults 18+ who report having one or more regular healthcare providers
- High percentage of adults 18+ who rated healthcare providers in their county as very good or good (60%)

CHALLENGES

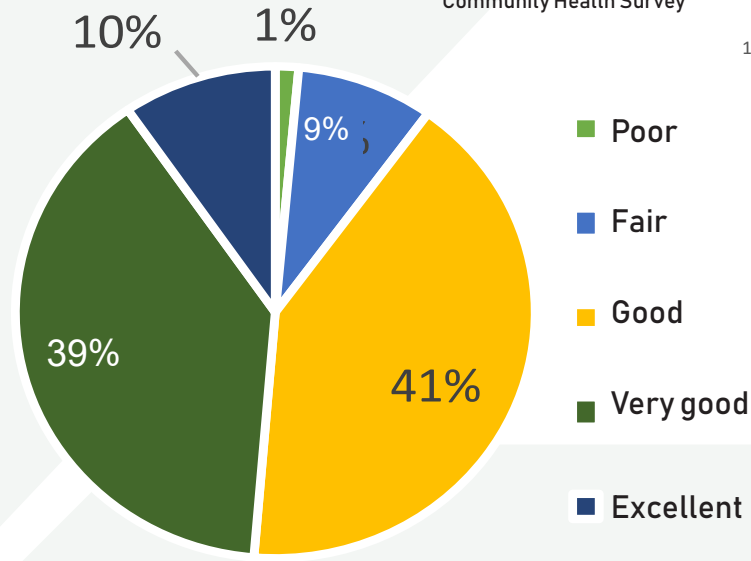
- Lower percent of mothers report that a healthcare worker talked with them about what to do if they felt depressed during pregnancy or after delivery.
- Lower percent of adults 18+ who visited the dentist for any reason
- Lower rate of physicians, dentists, and psychiatrists per 100,000 population
- High percentage of adults 18+ who are very concerned or slightly concerned about the availability of mental health/ counseling services in their community (73%)
- Percent of adults 18+ who are very or slightly concerned about availability of doctors or medical clinics in their community is high (81%)
- Lower percentages of cholesterol screening, flu shot, mammogram, and pneumonia shot

QUALITY OF LIFE, MORBIDITY & MORTALITY

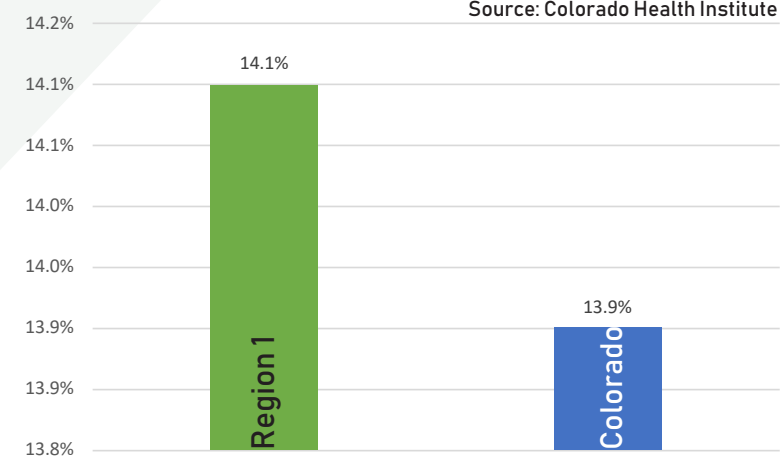
Population Health Outcomes
Quality of life
Morbidity <ul style="list-style-type: none">• Arthritis• Asthma• Cancer• Diabetes• Heart Disease and Stroke• Oral Health• Communicable Disease• Occupational Health• Birth Defects• Injury
Mortality <ul style="list-style-type: none">• Infant• Causes of Death• Years of Potential Life Lost

QUALITY OF LIFE

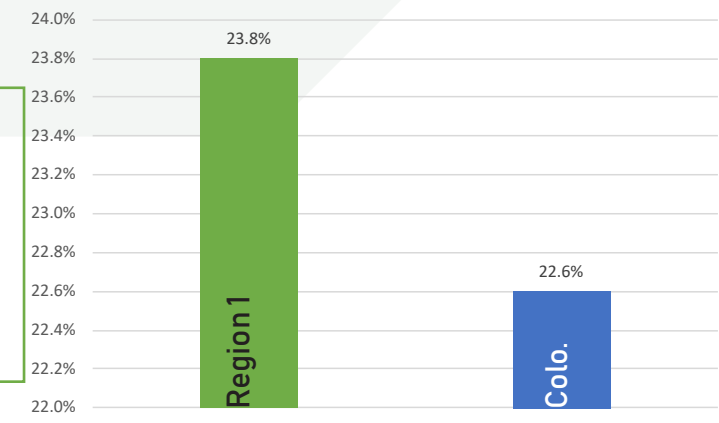
Percent of adults that rated the quality of life in their county as poor, fair, good, very good, excellent
Source: Northeast Colorado Health Department Community Health Survey



Percent of adults reporting that their general health was fair or poor.
Source: Colorado Health Institute

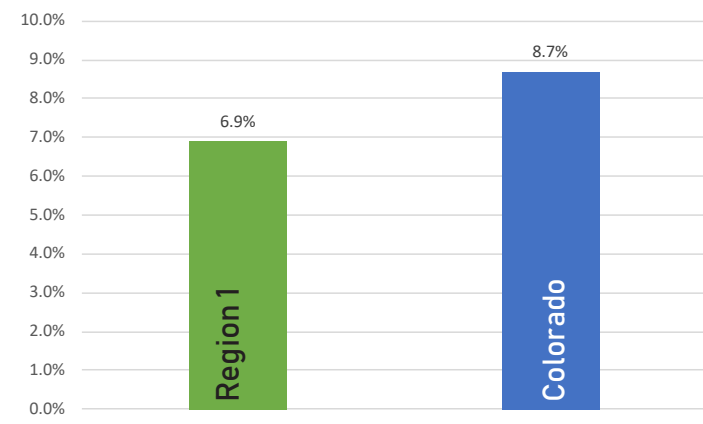


Percent of adults 18+ with arthritis (2013-2015)
Source: CDPHE Colorado Health Indicators



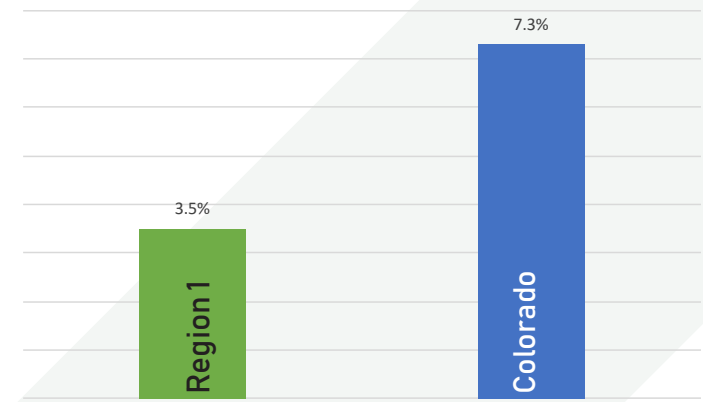
Results from NCHD's Community Health Survey showed that 22% of respondents reported they had ever been diagnosed with arthritis or rheumatism.

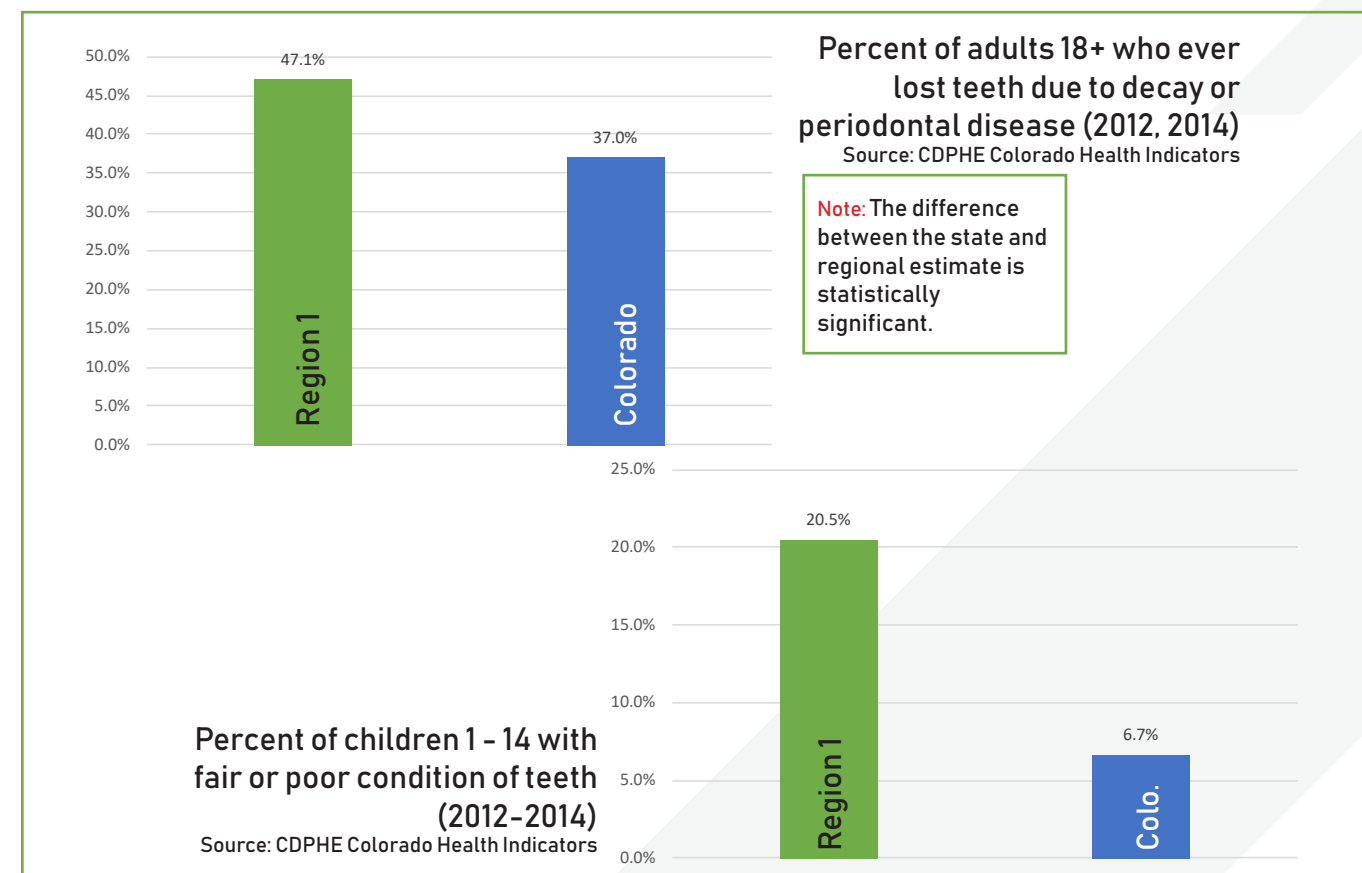
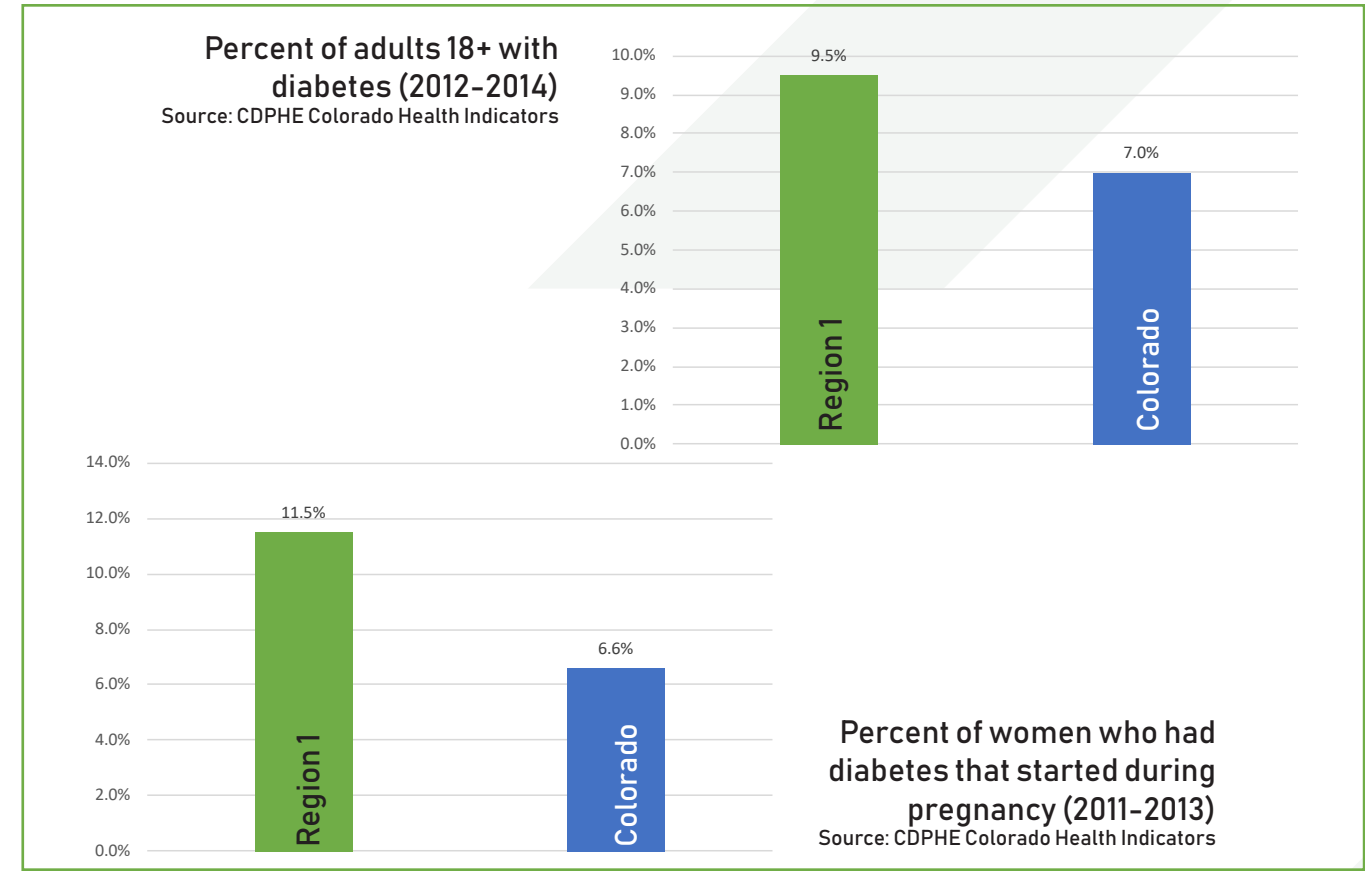
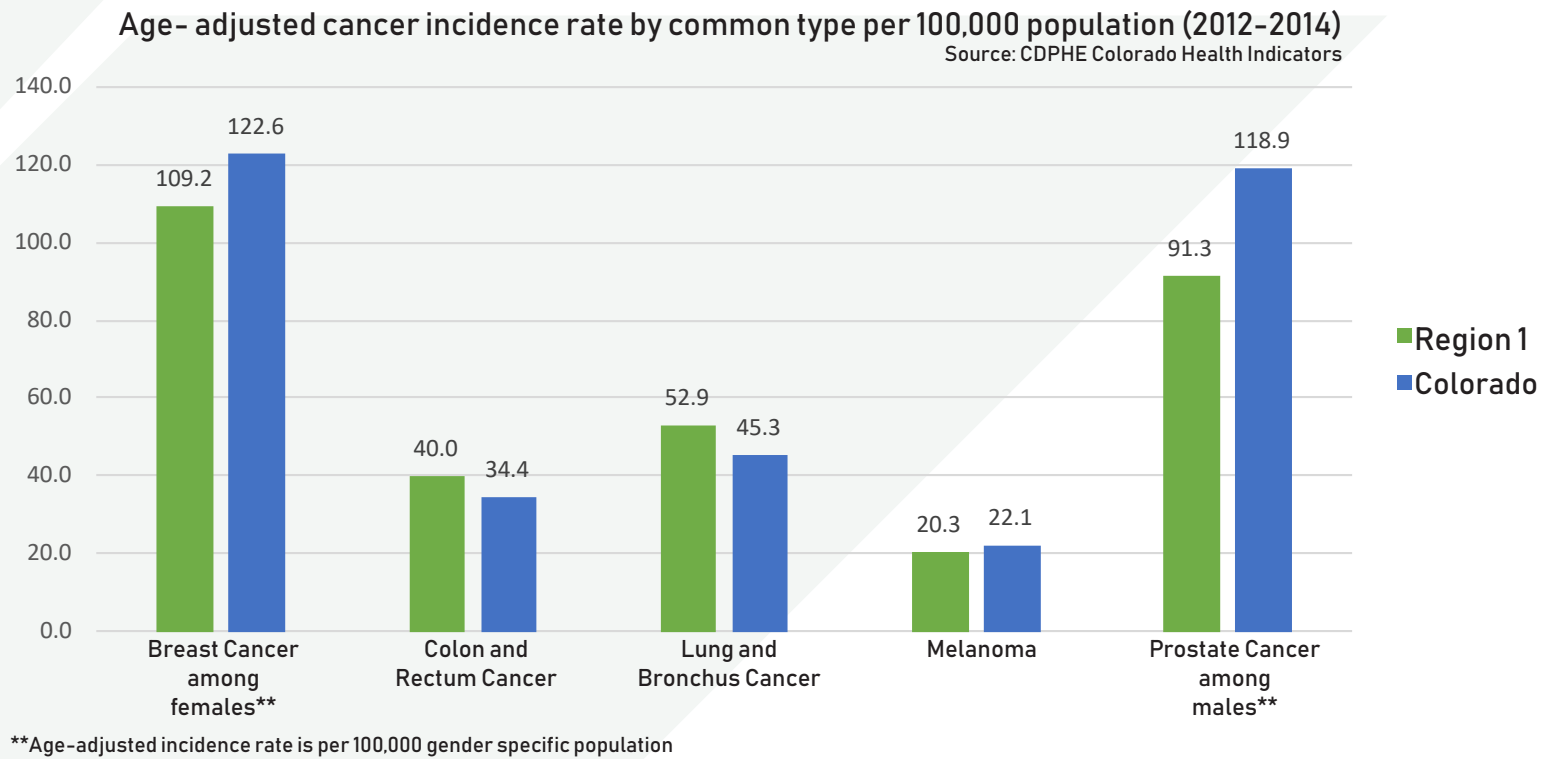
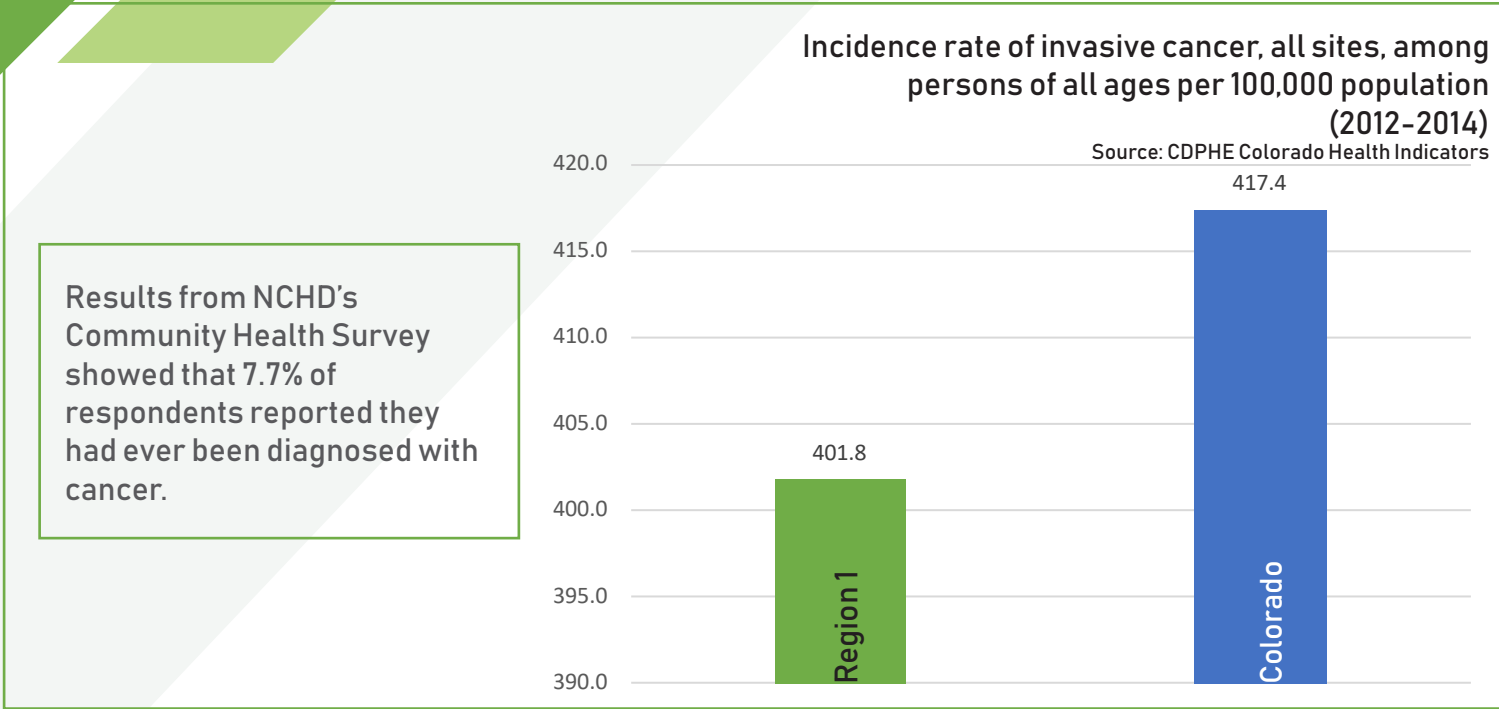
Percent of adults aged 18+ years that currently have asthma (2013-2015)
Source: CDPHE Colorado Health Indicators



Results from NCHD's Community Health Survey showed that 16.9% of respondents reported they had ever been diagnosed with asthma.

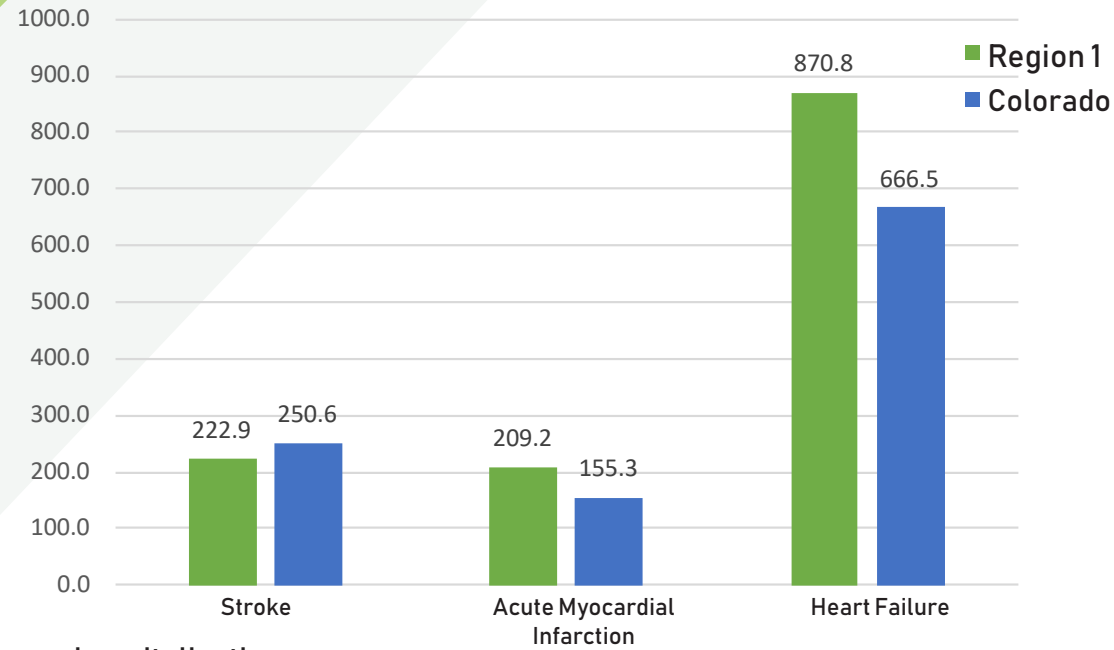
Percent of children aged 1 - 14 years with asthma (2013-2015)
Source: CDPHE Colorado Health Indicators





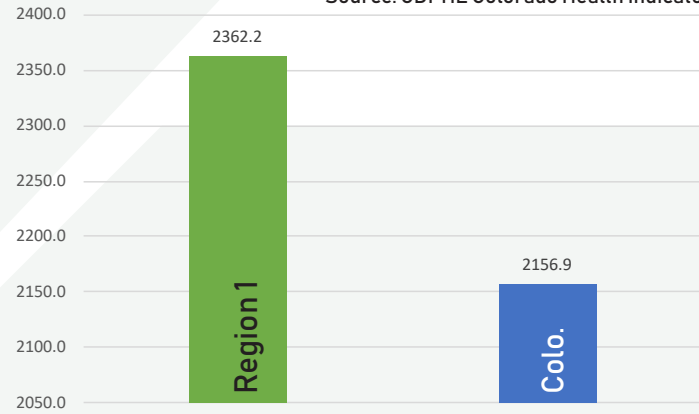
Age-adjusted rate hospitalizations per 100,000 population by cardiovascular diagnosis (2013-2015)

Source: CDPHE Colorado Health Indicators



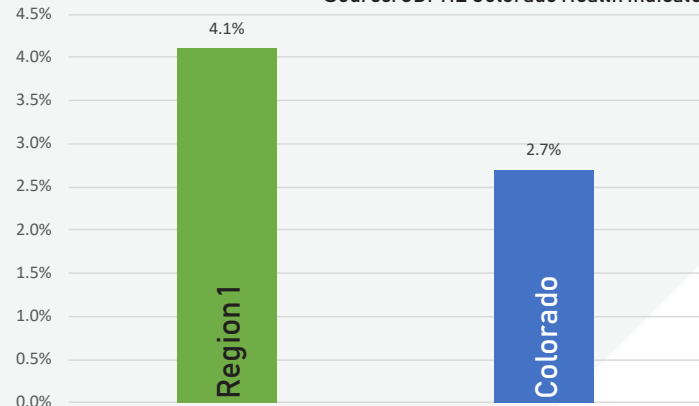
Age-adjusted rate of heart disease hospitalizations per 100,000 population (2013-2015)

Source: CDPHE Colorado Health Indicators



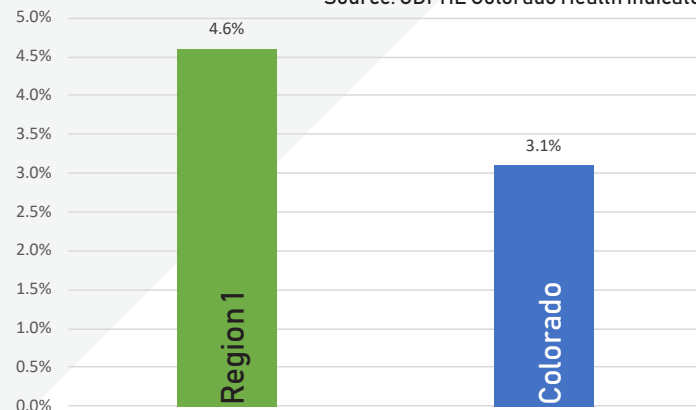
Percent of adults 18+ who ever had angina or coronary heart disease (2013- 2015)

Source: CDPHE Colorado Health Indicators



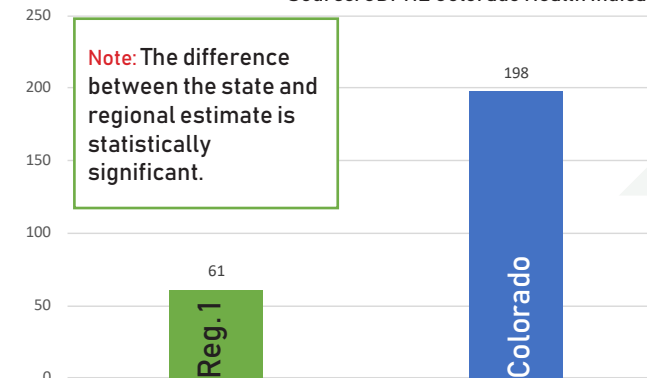
Percent of adults 18+ who ever had a heart attack (2013-2015)

Source: CDPHE Colorado Health Indicators



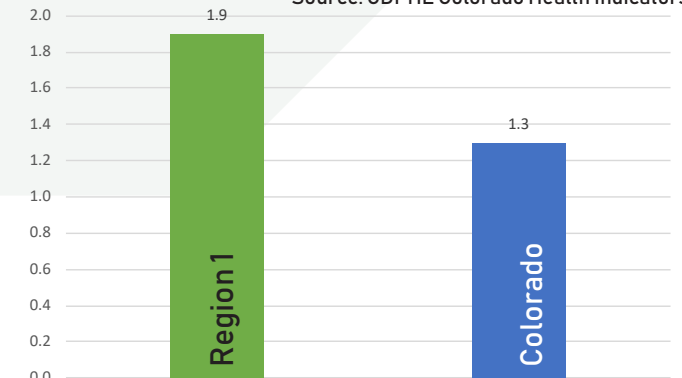
Rate of new Gonorrhea cases per 100,000 population ages 15-29 (2012-2014)

Source: CDPHE Colorado Health Indicators



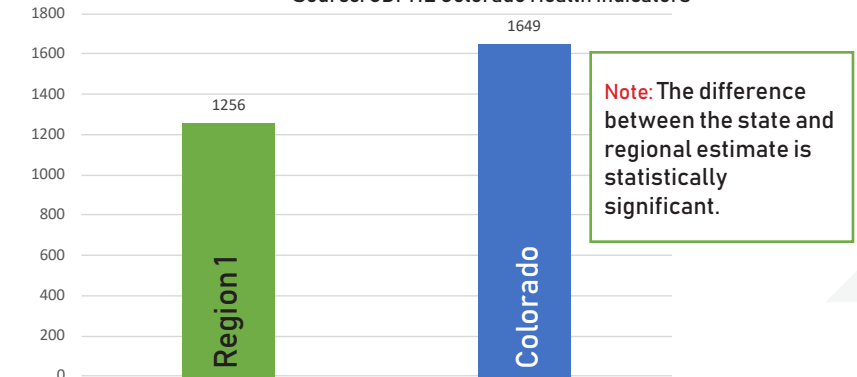
Rate of new Tuberculosis cases per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



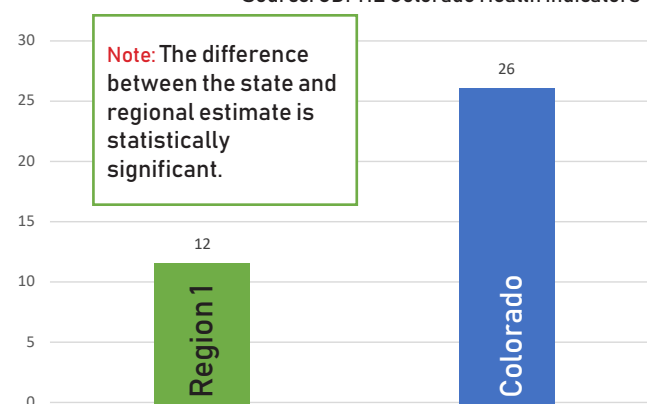
Rate of new Chlamydia cases per 100,000 population ages 15-29 (2012-2014)

Source: CDPHE Colorado Health Indicators



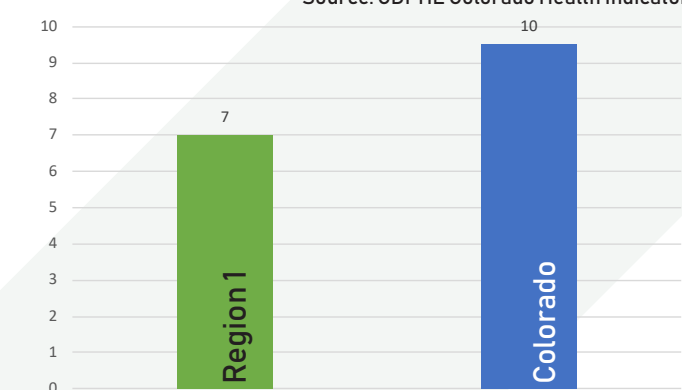
Rate of new Pertussis cases per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



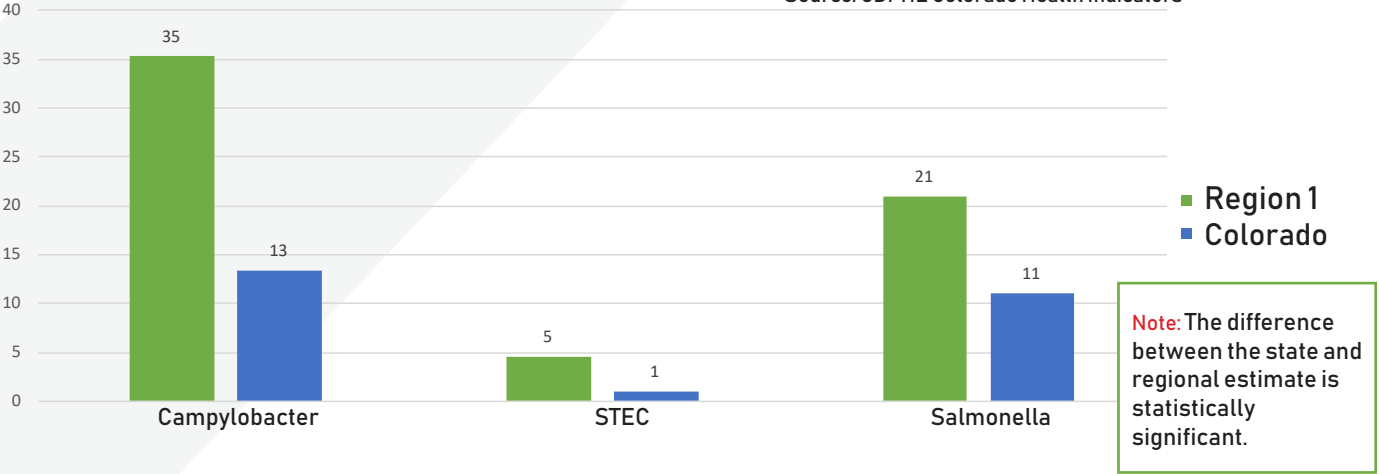
Rate of new Chronic Hepatitis B cases per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



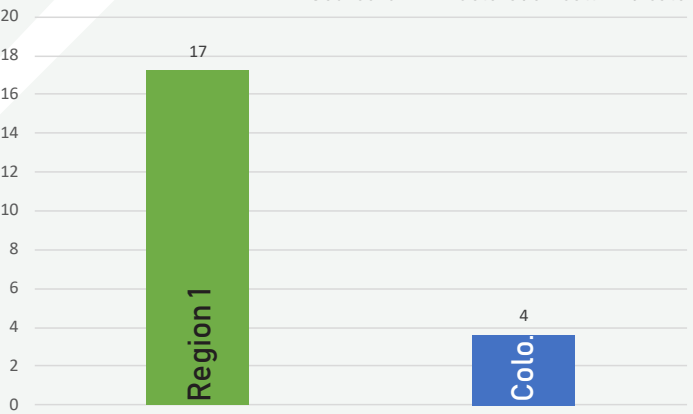
Incidence rates of food or water-borne infections
cases per 100,000 population ages 15-29 (2012-2014)

Source: CDPHE Colorado Health Indicators



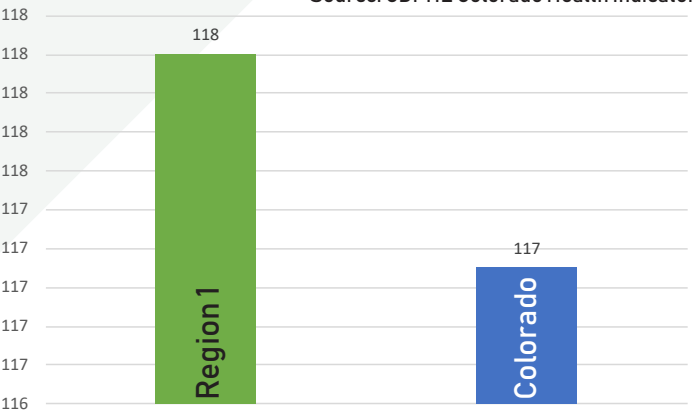
Rate of new West Nile Virus cases
per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



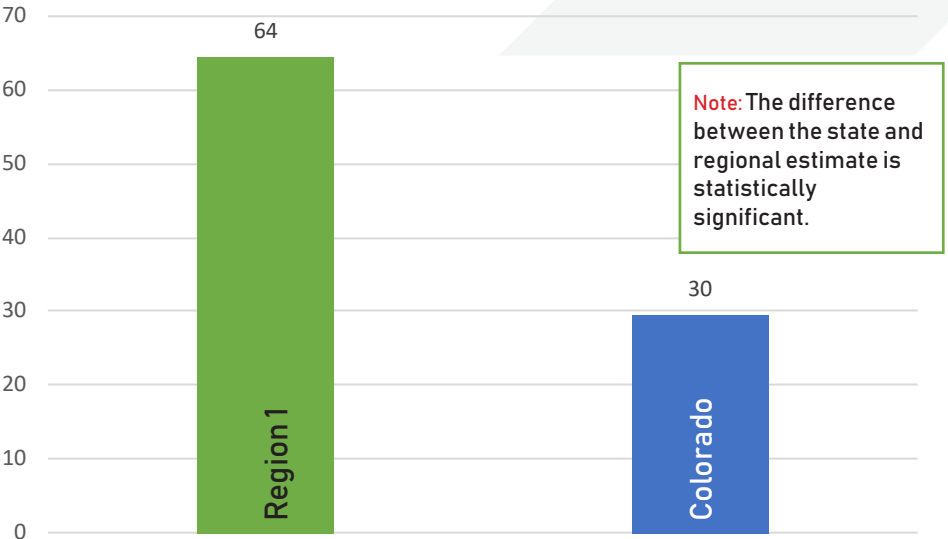
Rate of new Influenza hospitalizations in people
ages 65+ per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



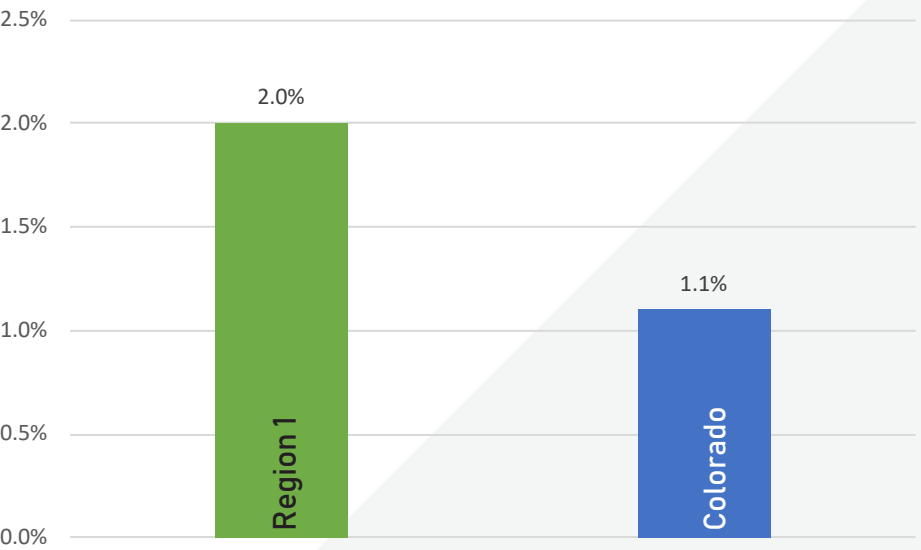
Rate of work-related hospitalizations per 100,000 age 16+,
(2013-2015)

Source: CDPHE Colorado Health Indicators



Percent of employment filing non-fatal lost-time workers'
compensation claims (2011)

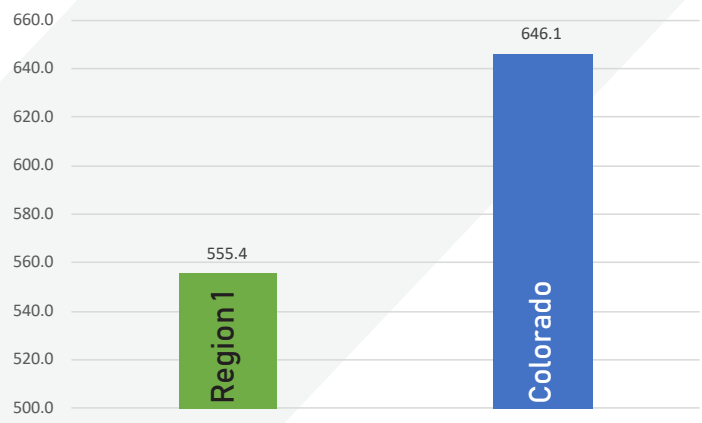
Source: CDPHE Colorado Health Indicators



MORTALITY

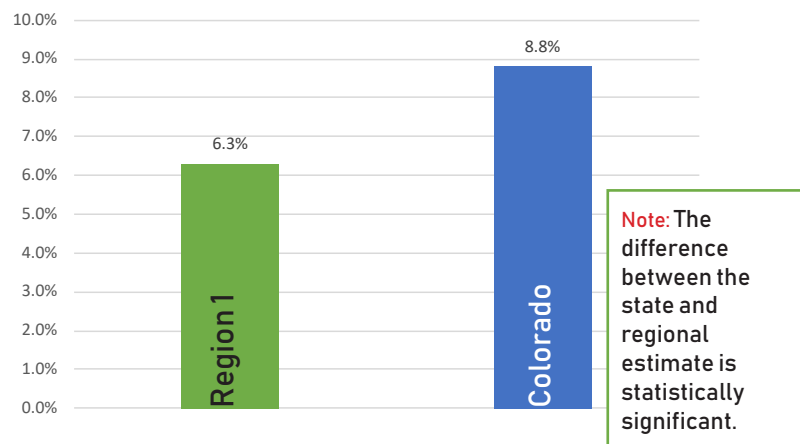
Rate of major congenital anomalies per 10,000 live births (2011-2013)

Source: CDPHE Colorado Health Indicators



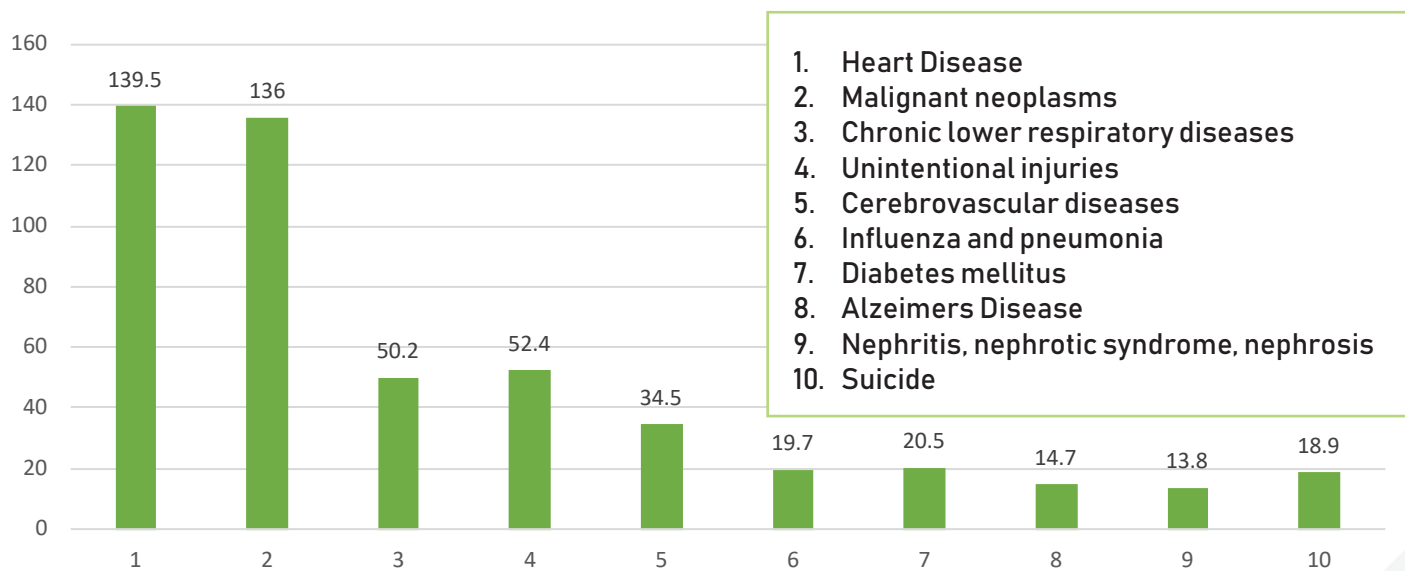
Percent of live births with low birth weight (<2500 grams) (2012-2014)

Source: CDPHE Colorado Health Indicators



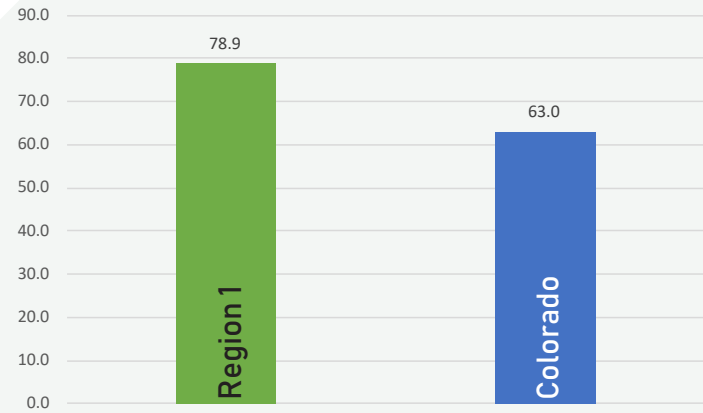
Age-adjusted rate for leading causes of death per 100,000 population in region 1 (2013-2015)

Source: CDPHE Colorado Health Indicators



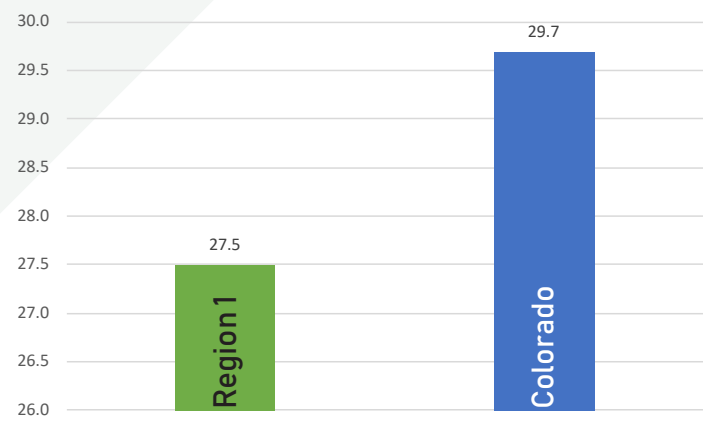
Age-adjusted rate of motor vehicle accident injuries per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



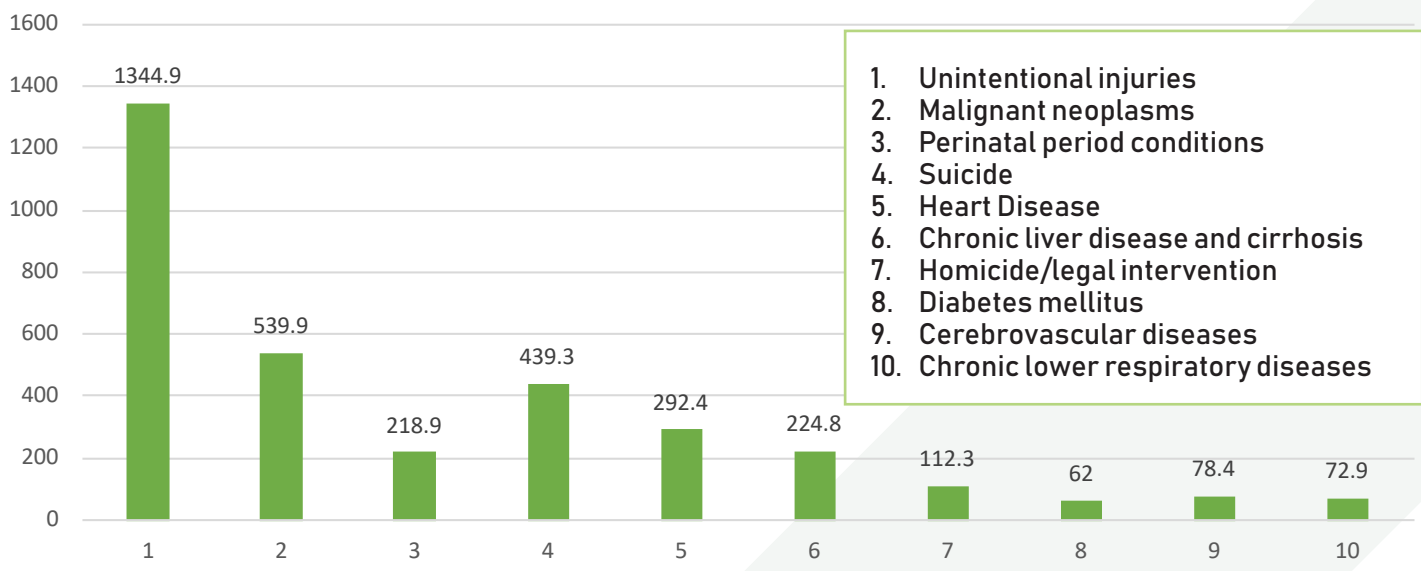
Age-adjusted rate of unintentional poisoning hospitalizations per 100,000 population (2012-2014)

Source: CDPHE Colorado Health Indicators



Age-adjusted rate for leading causes of years of potential life lost per 100,000 population in region 1 (2013-2015)

Source: CDPHE Colorado Health Indicators



SUMMARY

QUALITY OF LIFE, MORBIDITY, AND MORTALITY

STRENGTHS

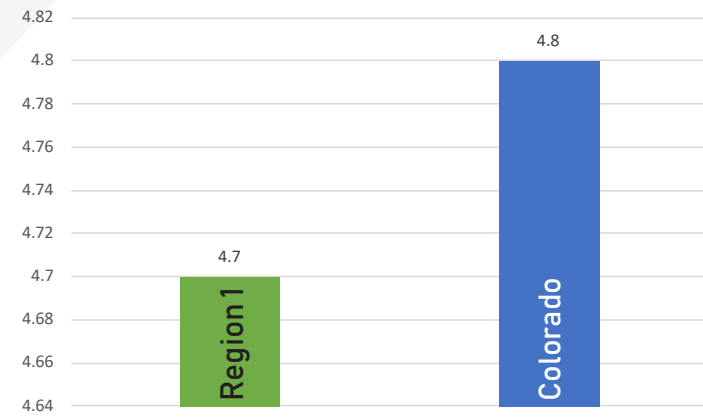
- 80% of adults rated the quality of life in their county as Good or Very Good
- Statistically significant lower rate of new Gonorrhea cases per 100,000 population
- Statistically significant lower rate of new Chlamydia cases per 100,000 population
- Statistically significant lower rate of new Pertussis cases per 100,000 population
- Statistically significant lower rate of major congenital anomalies per 10,000 live births

CHALLENGES

- Statistically significant higher percent of adults who ever lost teeth due to decay/ periodontal disease and percent of children with fair or poor condition of teeth
- Statistically significant higher rate of food or water-borne infection cases per 100,000
- Statistically significant higher rate of work-related hospitalizations per 100,000 ages 16+
- Higher age adjusted rate of heart disease hospitalizations and for heart failure
- Heart disease and malignant neoplasms are the leading causes of death in Region 1
- Higher age-adjusted rate for all causes of years potential life lost per 100,000
- Unintentional injuries are the leading age-adjusted cause of years of potential life lost per 100,000

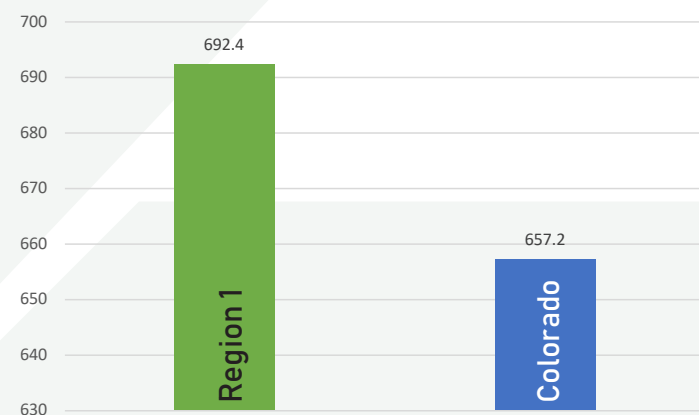
Rate of infant deaths (<1 year) per 1,000 live births (2012-2014)

Source: CDPHE Colorado Health Indicators



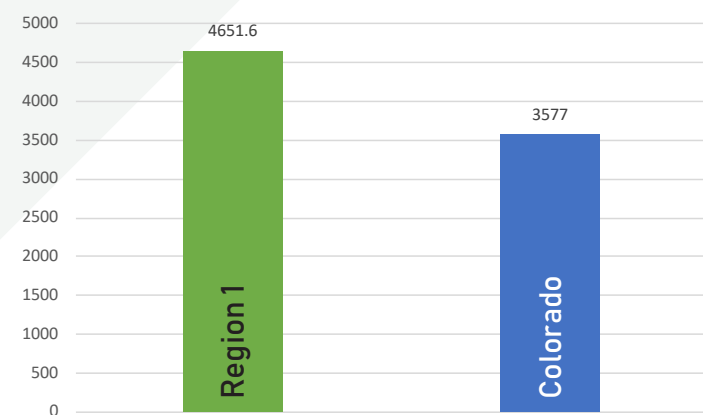
Age-adjusted rate for all causes of death, per 100,000 population (2013-2015)

Source: CDPHE Colorado Health Indicators



Age-adjusted rate for all causes of years potential life lost per 100,000 population (2013-2015)

Source: CDPHE Colorado Health Indicators



CAPACITY & PRIORITIZATION



THE PROCESS

Our first step in developing the 2019 Public Health Improvement Plan was to complete a community health assessment to identify some of the key concerns in our communities, so that we could test our capacity, and develop a plan to address those key concerns.

- We utilized three tiers of data for our community health assessment:
1. Information collected from the general public of the six counties through our community health survey.
 2. Discussion points that came out of our community engagement meetings in each county.
 3. Statistics compiled from the Colorado Health Indicators database, Colorado Suicide Data and Colorado Healthy Kids Survey.

Our goal was to identify those topics that rose to the surface in both the quantitative data from the health statistics databases and the qualitative data from community members. NCHD’s in-house project management team began with the qualitative data. In November, 2017, we hosted seven community engagement meetings across the six county region and began assessing common themes discussed in those meetings.

At each community engagement meeting, we asked community members to imagine their ideal healthy community and describe to us some of the things they envisioned. In many cases, they went through a laundry list of the things they wish their community had, or the best parts of their communities. The following list shows the most common themes that came out of those conversations.

- Positive community and family involvement
- Adequate access to primary care and emergency care
- Satisfactory quantity and quality of childcare
- Public transportation
- Healthy foods
- Affordable housing
- Services available within the community that don’t require major trips outside of the community
- All residents of the community have insurance and ability to pay for health care and other services needed
- Options for outdoor and indoor recreation
- Preventive care services
- Sidewalks and buildings would be handicap accessible and ADA compliant
- Clean and safe water and air
- Safety for children and adults to play, work and live
- High-quality schools and access to education for both adults and children
- Local shopping options
- Employment/workforce opportunities
- Low drug and alcohol use rates
- Access to behavioral health resources



Our efforts at the local level in conducting a community health assessment help us to identify the needs of our individual communities, so we can work toward creating healthier communities to live, work, and play. Together with our community partners, we can improve health and health equity across northeast Colorado. Equity is when everyone, regardless of who they are or where they live has the opportunity to thrive.

Social determinants of health, as defined by the World Health Organization, “are the conditions in which people are born, grow, work, live and age as well as the wider set of forces and systems shaping the conditions of daily life”.

The primary purpose of this community health assessment and public health improvement plan is to improve the health of all residents of northeast Colorado.

After much evaluation, we narrowed down our final list to three key issues for our capacity assessment:

- 1. Behavioral Health
- 2. Healthy Living
- 3. Access to Healthcare



Behavioral Health

Behavioral health was an issue identified at every community meeting we hosted in all six counties in November of 2017. In addition, concerns about bullying and availability of behavioral health services were high concerns on NCHD’s community health survey. Many different words were used (i.e., mental health, substance abuse, suicide) but our steering committee felt that all were encompassed under the umbrella of behavioral health.



The upward trend of overweight and obesity in northeast Colorado continues to be a priority. Our adult population has statistically significant higher rates of overweight or obesity when compared to the rest of the state. Our children also have higher rates of overweight or obesity based on BMI when compared to the state of Colorado. Our six county region also has higher percentage of adults over age 18 who have had heart attacks, coronary heart disease and diabetes. Rather than tackle obesity, heart disease, or diabetes as singular health issues, or chronic disease as a larger health issue, we have chosen to focus on healthy living behaviors and evidence-based programming that will benefit a multitude of health-related problems.

Access to Healthcare

Access to healthcare came up as a concern in all community engagement meetings hosted across the six county region in 2017 as well as in our community health survey. Our six county region does have a lower rate per capita of licensed, practicing physicians, dentists and psychiatrists than the state of Colorado. We have chosen to address access and workforce issues as part of the first two priorities: behavioral health and healthy living.



Healthy Living



CAPACITY ASSESSMENT

The ability of the public health system to achieve any community health goals is determined by capacity. NCHD conducted a capacity assessment to help determine the capacity of our community partners to support the community-wide efforts identified during our community engagement meetings and community health survey. This capacity assessment also helped determine gaps and duplication of core services.

Once the top priorities were identified, a capacity assessment was developed and sent to over 50 individuals and stakeholder organizations throughout northeast Colorado. The capacity assessment survey asked for input regarding what level of capacity each individual and/or organization could offer in addressing each prioritized topic. Their capacity could be in the form of direct services, health education, policy or advocacy, and/or capital or financial resources. The level of their interest or ability to contribute could range from “not at all interested” with a score of 1 to “extremely interested” with a score of 4.

Rate the level of interest your organization would have in addressing Behavioral Health/Mental Health/Substance Abuse on a scale of 1-4. *

	1	2	3	4	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely

ASSESSMENT RESULTS

Behavioral Health

The greatest capacity for addressing behavioral health was shown in health education and direct services. Sixty-eight percent of respondents had an extremely high interest and/or ability to address this issue. Thirty-two percent of respondents were in the middle in regards to level of interest and/or ability to address this issue.

Overweight, Obesity, Chronic Disease Prevention

The greatest capacity was found in health education regarding overweight, obesity and chronic disease prevention. The second highest level of capacity was split between direct services and policy/advocacy. Sixty-five percent of respondents scored a 2 or 3 in regards to level of interest and/or ability to address this issue. Twenty-one percent of respondents expressed high level of interest and/or ability to address this issue and fourteen percent expressed no interest and/or ability to address this issue.

Healthcare Access

The greatest capacity for addressing this issue was health education. Following that area of support, it was an even split between either capacity to provide direct services or the other extreme of no capacity at all to support a community-wide effort to address healthcare access. Twenty-five percent of respondents expressed a high interest and/or ability to address this issue. Fifty-three percent of respondents scored a 2 or 3 which demonstrated a medium level of interest and/or ability to address this issue. Twenty-one percent expressed no interest and/or ability to address this issue.

PRIORITIZATION

The prioritization process was initiated concurrently with the capacity assessment. Our steering committee reviewed qualitative data and quantitative data along with key strategies for each topic. Steering committee members, as well as NCHD’s project team, were asked to rank the top issues and key strategies for each topic in order of importance; with (1) representing “no”, (2) representing “somewhat” and (3) representing “yes”.

Behavioral Health
Priority Score: 42

Overweight, Obesity, Chronic Disease
Priority Score: 41

Healthcare Access
Priority Score: 31

Our prioritization process also showed the importance of social determinants of health (i.e., child care, affordable housing). There was much discussion regarding how the importance of these topics are interrelated with our three priority areas. However, the consensus of the group was that the overarching goal should remain focused on behavioral health. Addressing healthy living using evidence-based strategies will be the second priority. To support our top two priorities, we will undertake challenges including access to healthcare and other social determinants of health. As we move forward implementing the identified strategies we will also continue to reassess annually the quantitative and the qualitative data to ensure we are impacting these priority areas as well as emerging issues.

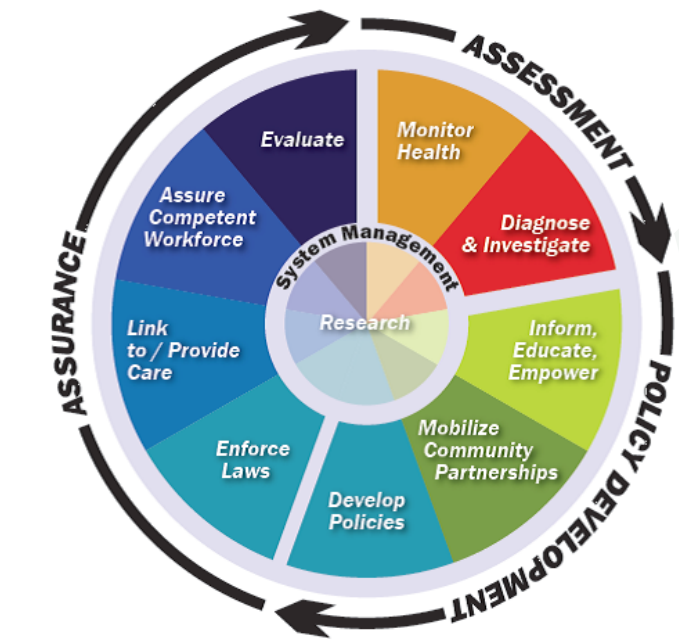
INTERNAL ASSESSMENT

In addition to assessing the capacity of our regional partners and obtaining consensus regarding health priorities in northeast Colorado, we also completed an internal capacity assessment for NCHD. The purpose of this internal assessment is to give us an idea of where our strengths and weaknesses lie as an agency with regards to the ten essential public health services. This assessment provided an analysis of our services and recommendations for improvement. We looked at our current infrastructure, needed services as well as staffing and funding.

NCHD’s internal capacity assessment was completed in September, 2018 by Trish McClain, NCHD’s Public Health Dire utilizing a tool that calculated a review summary for the ten essential public health services being provided by the Northeast Colorado Health Department.

All performance scores are an average. Scores can range from 0% to 100% and are related to four categories, Optimal, Significant, Moderate, and Minimal. These categories are shown in the chart below.

0% - 25%	Minimal
26% - 50%	Moderate
51% - 75%	Significant
76% - 100%	Optimal



ASSESSMENT ANALYSIS

ES 1 - Monitor Health Status to Identify Community Health Problems – 62.5%

Monitoring health status includes conducting population-based community health assessments on a regular basis, using current technology to manage and communicate population health data as well as maintenance of population health registries. NCHD scored 62.5 demonstrating significant activity in regards to this essential public health service. NCHD conducted its first full community health assessment of the six counties in 2012-2013.

ES 2 - Diagnose and Investigate Health Problems and Health Hazards – 75.7%

This essential public health service includes the identification and surveillance of health threats, investigation and response to public health threats and emergencies as well as laboratory support for investigation of health threats. NCHD scored 75.7 demonstrating significant to optimal activity in regards to this essential public health service. While NCHD has limited on-site laboratory capacity, we do have support from the Colorado Department of Public Health and Environment for laboratory services.

ES 3 - Inform, Educate, and Empower People about Health Issues – 72.2%

Included in this essential public health service area is health education and promotion, communication including risk communication. NCHD scored 72.2 and has significant activity for this essential service. We provide health education and promotion through our communicable disease programs, prevention and promotion programs and our environmental health programs. In addition, we provide health education through most of our direct services and our emergency preparedness and response program.

ES 4 - Mobilize Community Partnerships to Identify and Solve Health Problems – 68.8%

Mobilizing community partnerships includes the development of our partnerships. NCHD scored 68.8 for this essential service demonstrating significant activity. Due to the broad spectrum of services offered by NCHD, we have worked with most local organizations in northeast Colorado at one time or another through the various programs. Working in the rural communities of northeast Colorado often results in opportunities to partner with each other on multiple projects and on multiple levels of cooperation in response to the need created by the lack of resources. This gap in resources often leads to stronger collaborative efforts in order to leverage the resources we do have available in rural Colorado.

ES 5 - Develop Policies and Plans that Support Individual and Community Health Efforts – 79.2%

This essential public health service includes governmental presence at the local level, public health policy development, community health improvement process and strategic planning as well as planning for public health emergencies. NCHD scored 79.2 for this area. This is an area that NCHD has strengthened within the past five years. We had minimal activity in this service area five years ago but are now just coming into the optimal activity level. Our

greatest strength under this essential services is our emergency preparedness and response planning.

ES 6 - Enforce Laws and Regulations that Protect Health and Ensure Safety – 59.2%
NCHD’s score for this essential service was 59.2, significant activity. This essential service includes the review, evaluation, involvement in the improvement and enforcement of public health laws, regulations and ordinances. NCHD’s activity for this essential service is primarily provided through our environmental health programs, communicable disease programs and our emergency preparedness and response program.

ES 7 - Link to Health Services – 59.4%
This essential service involves the identification of personal health service needs of the populations we serve and assuring the linkage of people to personal health services. NCHD scored 59.4 in this area. While our score shows significant activity for this essential service, our agency aims to strengthen this service area.

ES 8 - Assure a Competent Public and Personal Health Care Workforce – 44.3%
This essential service includes conducting a workforce assessment to develop a workforce plan in order to ensure public health workforce standards are met and staff are encouraged to have life-long learning through continuing education and training. NCHD scored 44.3 on this essential public health service. Historically, NCHD has had minimal activity for this essential service and is just coming into the moderate activity level for this service. In 2017, NCHD

did conduct our first workforce assessment of core competencies and used this information to develop our first workforce development plan. NCHD is in the process of strengthening this area.

ES 9 - Evaluate Effectiveness, Accessibility and Quality of Personal and Population-Based Health Services – 55.0%
NCHD scored 55.0 for this essential public health service. While this score does indicate moderate activity, this is an area identified to improve and strengthen.

ES 10 - Research for New Insights and Innovative Solutions to Health Problems – 19.4%
This essential service includes foster innovation, linking with institutions of higher learning and research as well as capacity to initiate or participate in research. NCHD scored 19.4 indicating minimal activity in this service area. While we recognize this is NCHD’s weakest service area and we will endeavor to strengthen our capacity in this area, we also recognize that NCHD is a rural and frontier public health agency and our ability to initiate or participate in research is limited.

RECOMMENDATIONS

NCHD’s strongest levels of performance were in the following Essential Public Health Services:

- 1. Develop policies and plans that support individual and community health efforts
- 2. Diagnose and investigate health problems and health services
- 3. Inform, educate and empower people about health issues
- 4. Mobilize community partners to identify and solve health problems
- 5. Monitor health status to identify community health problems

While these five essential public health services were identified as areas of strength for NCHD, our endeavor will be to continue to improve and grow as an agency.

NCHD’s moderate levels of performance were in the following Essential Public Health Services:

- 1. Enforce laws and regulations that protect health and ensure safety
- 2. Link to health services
- 3. Evaluate effectiveness, accessibility and quality of personal and population-based health services

These three essential public health services were scored in the 50s and therefore qualified as significant level of performance, NCHD will work to increase capacity and strengthen our agency’s performance in these three essential public health service area.

NCHD’s minimal to moderate levels of performance were in the two essential service areas below:

- 1. Assure a competent public and personal health care workforce
- 2. Research for new insights and innovative solutions to health problems

NCHD developed our first Workforce Development Plan in December, 2017 and this essential public health service will be a primary goal for improvement during the course of the next five years. We will also endeavor to strengthen our capacity in relation to research, but may be limited due to our isolation and distance from institutions of higher learning as well as other research resources.

NCHD CONTRACTED STAFF BY SERVICE AREA AND PROGRAM FUNDING DATA

Service	Number of personnel assigned	Total FTE (full-time employees) assigned	Is funding stable?	Can capacity be assured through another organization?	Sources of funding	10 Essential Public Health Services addressed
Health Assessment	5	1	Yes	No	State	Essential Services #’s 1, 5, 8, 9, 10
Vital Records	4	2	Yes	No	Fees	Essential Services #’s 1, 8
Communicable Diseases	1	1	Yes	No	County & State	Essential Services #’s 2, 3, 6, 7, 8
Prevention & Promotion	12	12	Somewhat	Yes	State, County & Private	Essential Services #’s 3, 4, 5, 7, 8, 9
Environmental Health	6	5.5	Yes	No*	Federal, State, County, & Fees	Essential Services #’s 2, 3, 5, 6, 8, 9
Emergency Preparedness & Response	3	1.5	Yes	No	Federal	Essential Services #’s 2, 3, 4, 5, 6, 7, 8, 9
Direct Services	10	10	Somewhat	No**	Federal, State, County, & Fees	Essential Services #’s 3, 7, 8, 9, 10

*Prevention and control of water-borne hazards available through another entity (state health department).
**Some direct services provided by NCHD can also be provided by primary care.



ACTION PLAN

The action plan that follows, details the goals, objectives, and action steps that NCHD will implement over the next five years as we address our key health issues identified in the previous section.

While this action plan was carefully put together, we know it is just a starting point in addressing the health of our communities. With that in mind, we have identified two main objectives. These objectives are very broad. We anticipate that as our initial action steps are achieved we will be able to expand upon the foundation we have built.

PUBLIC HEALTH IMPROVEMENT ACTION PLAN		
COMMUNITY NAME: Northeast Colorado (Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma Counties – HSR 1)		
PRIORITY: 1) Behavioral Health 2) Chronic Disease Prevention	OVERARCHING GOAL: Build a system of care that supports prevention through identification and implementation of evidence-based practices and programs addressing identified and emerging healthcare issues (i.e., behavioral health, substance abuse, access to care, obesity, chronic disease, and workforce development).	
MAJOR INDICATORS: FUNCTIONAL STATUS, QUALITY OF LIFE, & MENTAL HEALTH STATUS FOR HSR 1 1) Percent of adults aged 18+ years who reported that their general health was fair or poor. 2) Percent of adults aged 18+ years who are physically inactive. 3) Percent of children (1-14 years) who drank sugar-sweetened beverages one or more times per day. 4) Percent of children (5-14) who are overweight or obese (BMI greater or equal to 85 th percentile). 5) Percent of adults 18+ who are overweight or obese (BMI greater or equal to 25). 6) Percent of high school students who felt sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities during the past 12 months. 7) Percent of high school students who seriously considered attempting suicide during the past 12 months. 8) Percent of students who purposefully hurt themselves without wanting to die in the past 12 months.		
LEAD ENTITY: Northeast Colorado Health Department (NCHD)	SUPPORTING ENTITIES: Centennial Mental Health Center (CMHC), Primary Care Providers, Hospitals, Schools, Private Mental Health Providers, Community Partners	
PRIORITY AREA: Behavioral Health, Chronic Disease Prevention		
CONTEXT: Moving toward upstream approaches for reducing health disparities and risk factors associated with poor behavioral health, substance abuse, and access to care, obesity, and chronic disease.		
<p>NCHD's Public Health Improvement Plan submitted in 2013 had an overarching goal for the following five years to “reduce people’s risk for chronic disease and the upward trend of overweight and obesity through strategies focusing on physical activity, nutrition and healthy weight.” Mental health and oral health were identified as secondary topics and evaluated in terms of how they affected the overarching goal. However, in 2017 behavioral health was identified as a top issue in each community meeting held in the six counties served by NCHD. The steering committee and capacity assessment identified behavioral health as the top priority in the region in early 2018. Chronic disease prevention was identified as the second highest priority. A key component of both priorities was access to care and addressing determinants of health.</p> <p>Prevention of behavioral health, substance abuse and obesity align with Colorado’s 10 Winnable Battles. According to CDPHE’s 10 Winnable Battles document on mental health and substance abuse, the role of public health in this area of prevention should also include identifying associated health disparities and risk factors, increasing public awareness, decreasing stigma associated with help-seeking behaviors, and improving screening and early intervention. CDPHE’s Mental Health Promotion Strategic Plan includes shared protective factors such as connectedness, positive social norms, good behavioral health, and resilience to address target areas such as child maltreatment and suicide. Reducing adolescent suicide and depression as well as increasing adult physical activity are among the objectives addressed in Healthy People 2020. The CDC’s technical package on suicide supports strengthening access and delivery of care by reducing provider shortages in underserved areas as well as systems change. It also supports promoting connectedness through peer norm programs and community engagement activities.</p> <p>The six counties served by NCHD are designated as rural or frontier. Rural health outcomes are largely influenced by the accessibility, availability, and acceptability of both physical and behavioral health care. Low socioeconomic status found in rural areas also creates greater risk for numerous barriers to obtaining needed care, especially specialized medical care that may not be available in the region. The average median income for the six county region is approximately 75% of that of the state of Colorado. Northeast Colorado also has a higher percentage than the state average of children who live in poverty and qualify for free and reduced lunch. In addition, rural areas have a distinctive cultural background and heritage that can impact health behaviors and outcomes in powerful and unexpected ways. This combination of socioeconomic and cultural factors impact not only the potential need for healthcare in rural areas but also the ways in which residents will seek out care or avoid it. The geographic isolation often experienced in rural communities creates separation from other community members and contributes to potentially life-threatening distances to available physical and behavioral healthcare.</p> <p>The obesity epidemic is even more pronounced in rural America and is a growing concern for both children and adults in northeast Colorado. People who are overweight or obese are at increased risk for chronic disease. Behavioral health issues such as depression are interconnected with obesity as well. The stigma associated with behavioral health prevents many from seeking help, especially in rural areas. Substance abuse is often linked with mental health status as well as domestic violence, child abuse and suicide. There are several determinants of health that impact these identified health issues (i.e., living in poverty, social factors, and social connectedness).</p>		
PLANNING PERIOD: 2017-2018		

GOALS:		DATA SOURCES
GOAL 1	Plan and implement evidence-based strategies to address identified needs in behavioral health in six county region.	Colorado Health Indicators, 2013-2015
GOAL 2	Increase evidence-based program and policy development and coordination of resources and services to support chronic disease prevention (i.e., tobacco cessation/prevention, seat belt use, healthy pregnancy, healthy eating, and active living).	Colorado Health Indicator, 2013-2015

OBJECTIVE A: Between 2019 and 2023, bring together partners and stakeholders from across the sectors annually to plan, prioritize, and coordinate efforts to use current resources to their fullest potential as well as implement new evidence-based strategies to address identified behavioral health needs in six county region.	LEAD: NCHD
TARGET POPULATION: Residents of the six counties served by NCHD, community partners and stakeholders interested in improving behavioral health through upstream approaches.	

CRITERIA FOR SUCCESS: Strengthened access, acceptability, and availability of behavioral health care services. Increased number of evidence-based strategies addressing behavioral health in six county region. Greater resilience, connectedness and positive social norms through assisting in the implementation of approaches that normalize help-seeking and shifting group-level beliefs that promote positive behavioral and social change. The decrease of adolescent depressive symptoms from 30.6% to less than the state average of 29.5% and adolescent suicide consideration from 18.4% to less than the state average of 17.4% by 2023.		AS INDICATED BY: General Health Status		
STRATEGY	MILESTONES/KEY ACTIVITIES	TARGET COMPLETION	RESPONSIBLE GROUP	MONITORING PLAN
Provide training and increase collaboration of community stakeholders (i.e., healthcare providers, schools, behavioral health providers, community	<ul style="list-style-type: none">- Provide training to community stakeholders (i.e., healthcare providers, schools, behavioral health providers, community organizations) to recognize symptoms of poor behavioral health and provide best practice interventions.- Identify evidence-based behavioral health prevention strategies, policies and programs.	Annually and ongoing	NCHD and Community Partners	Number of trainings provided to community stakeholders

organizations) to address behavioral health gaps.	<ul style="list-style-type: none"> - Support efforts of community partners addressing health equity factors (i.e., increased risk of abuse, isolation, economic instability, and lack of childcare). 			Identify and use evidence-based curricula Number of convening and resulting actions taken
Increase collaboration and connection between primary care, schools, and behavioral health services and programming.	<ul style="list-style-type: none"> - Convene stakeholders to increase collaboration and workforce capacity to implement evidence-based behavioral health prevention strategies (i.e., promoting social emotional skill building, coping and resilience). - Promote population-level evidence-based methods to build social and emotional competence in children and adults (i.e., strengthen communication, emotional regulation, conflict resolution, and help-seeking, problem-solving and coping skills). - Support integration of behavioral health services in primary care and school settings. - Plan and implement strategies to increase access and workforce capacity to address identified gaps. 	Annually and ongoing	NCHD Primary Care Providers, CMHC, & Schools	Number of meetings.

OBJECTIVE B: Between 2019 and 2023, promote chronic disease prevention strategies across the six county region.		LEAD: NCHD		
TARGET POPULATION: All populations in the six county region				
CRITERIA FOR SUCCESS: Increased number of chronic disease prevention strategies (i.e., tobacco cessation/prevention, seat belt use, healthy pregnancy, healthy eating, and active living) implemented across six counties. A decrease of the percentage of adults who report their general health as being fair or poor from 15.6% to less than the state average of 13.4% by 2023. An increase in access and utilization of healthcare services and specialists.				
STRATEGY	MILESTONES/KEY ACTIVITIES	TARGET COMPLETION	RESPONSIBLE GROUP	MONITORING PLAN
Promote healthy living programs, policies and activities through training and implementation of evidence-based approaches.	<ul style="list-style-type: none">- Increase awareness of resources and education of healthy living through community events.- Encourage coordinated resources and services among agencies.- Upstream approaches that support wellness (i.e., Sources of Strength, Cooking Matters)- Identify new evidence-based healthy living strategies, policies and programs- Implement and support evidence-based healthy living strategies and programs	Ongoing	NCHD Community Partners	Number of resources and community events Number of evidence-based healthy living strategies identified, implemented and supported
Provide strong leadership in collaboration with partners and stakeholders to plan, prioritize, and coordinate efforts to increase access to healthcare.	<ul style="list-style-type: none">- Collaborate with partners and stakeholders to identify, plan and prioritize strategies to address healthcare needs identified across the six county region.- Implement innovative strategies to increase healthcare capacity (i.e., telemedicine, web-based)- Plan and implement evidence-based strategies to increase workforce capacity to address identified gaps in health care across six county region.	Annually and ongoing	NCHD Healthcare Providers Community Partners and stakeholders	Number of stakeholder group meetings and committee focusing on workforce development
GENERAL INFORMATION				
PRIMARY CONTACT Michelle Pemberton, Planning & Grants Specialist	INTEGRATION POINTS: This work will be primarily integrated into our Client Health Services Division and programming (i.e., Communities that Care, State Innovative Model, Life Source, Bullying Prevention, Supplemental Program for Women, Infants and Children (WIC), Tobacco program, Healthy Schools, Oral Health Program and community health nursing).			
CONTACT INFORMATION 970-522-3741 ext. 1239 or michellep@nchd.org	LINK WITH HEALTH EQUITY: Social determinants of health impacting behavioral health, access to healthcare and ability to live healthy lives in the six counties are key areas being address through this improvement plan.			
	STRATEGIC PARTNERS: Centennial Mental Health Center, Private Behavioral Health Providers, Schools, Hospitals, Primary Healthcare Providers, Community Partners (i.e., Baby Bear Hugs, Nurse Family Partnership, Family Centers).			
	KEY STAKEHOLDERS: Centennial Mental Health Center, Private Behavioral Health Providers, Schools, Hospitals, Primary Healthcare Providers, Community Partners (i.e., Baby Bear Hugs, Nurse Family Partnership, Family Centers).			

NOTES

