

Active Living & Environment

Impact to Health

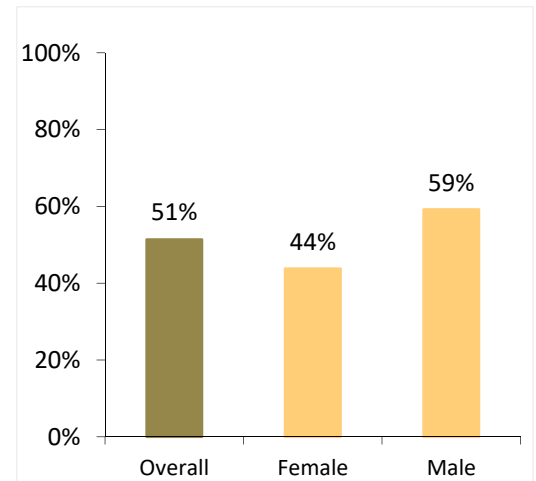
The built environment can promote consistent moderate physical activity, such as walking, cycling, or participating in sports, which can have significant health benefits.¹ For adults, physical activity can lower the risk of early death, stroke, high blood pressure, type 2 diabetes, and breast and colon cancer.¹ For children and adolescents, benefits include improved bone health, reduced symptoms of depression, and improved cardiorespiratory and muscular fitness.¹

Active living is a way of life that integrates physical activity into daily routines. The built environment refers to our man-made surroundings (e.g. homes, buildings, streets, open spaces, etc.).

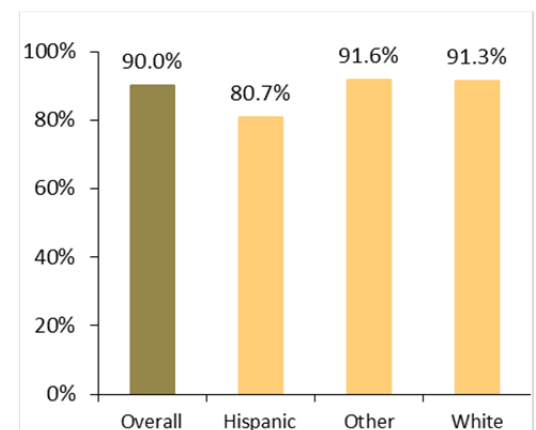
Indicators	Boulder County	Colorado
Built Environment		
Workers (age 16+ years) who commute to work by alternate transportation (e.g., public transportation, walking, biking, etc.) (2011-2015) ²	14.5%	7.5%
Children who commute to school by biking, walking, or skateboarding at least one day a week (2013-2015) ²	36.1%	28.3%
Physical Activity		
Children (aged 5-14 years) who were physically active for at least 60 minutes/day for the past 7 days (2013-2015) ²	53.9%	44.0%
Boulder Valley School District high school students who were physically active for a total of at least 60 minutes/day for all of the past 7 days (2015) ^{2,3}	23.3%	27.8%
Adults aged 18+ years who get moderate activity per day on 5+ days/week or vigorous activity per day on 3+ days/week (2013-2015) ²	71.4%	60.7%

Disparities

High School Students Participating in Vigorous Physical Activity at Least 60 Min. in 5 of Past 7 Days, by Gender Boulder County,* 2015³



Engaging in Any Physical Activity or Exercises in Past Month Other than Regular Job, by Race/Ethnicity Boulder County, 2013-2014⁴



Voice of the Community⁵

“ Flexibility in the workplace to create time for exercise.

Better walking and biking infrastructure.

Programs about physical education are very expensive - access to programs for children like soccer clubs, yoga classes, swimming classes, access to rec centers, is very expensive.

Access to/awareness of free or low-income exercise facilities.

Equal access to healthy activities across the county - not just in Boulder. ”

References

1. Office of Disease Prevention and Health Promotion (ODPHP). N.d. *Physical Activity*. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity#5072>
2. Colorado Department of Public Health and Environment (CDPHE), 2015. *Colorado Health Indicators*. Retrieved from <https://www.colorado.gov/pacific/cdphe/colorado-health-indicators>
3. Healthy Kids Colorado Survey, 2015 Retrieved from <https://www.bouldercounty.org/families/youth/results/#1488480597490-bf345527-0aab>
4. Colorado Behavioral Risk Factor Surveillance System (BRFSS)
5. Boulder County Public Health 2017 Community Health Conversations

Social & Community

Impact to Health

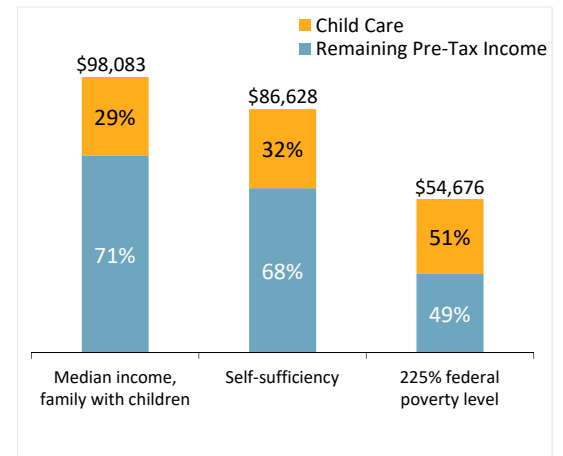
The social and community environment influences behavior by setting norms and patterns of behavior considered acceptable, determining if there are opportunities to engage in certain behaviors, and influencing which behaviors reduce or increase stress.¹ Positive social support can enhance resilience to stress and decrease functional impairment.² Further, studies suggest that individuals with high quality or quantity of social networks have a decreased risk of mortality compared to those with fewer or weaker social relationships.³

An individual's social environment is a determinant of their behavior and attitudes, and ultimately their health. It influences behavior and access to opportunities.¹ The social environment includes the structure of a community and its ability to provide support and promote support of one another.

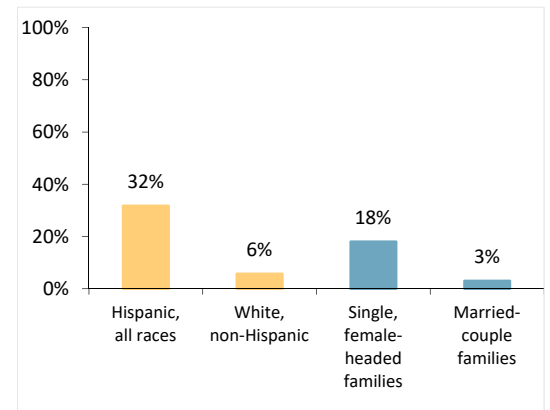
Indicators	Boulder County	Colorado
Households headed by a single adult (2011-2015) ⁵	24.6%	28.4%
Boulder Valley School District students who have an adult to go to for help with a serious problem (2015) ⁶	73.9%	71.3%
Boulder Valley School District high school students who reported being bullied on school property during the past 12 months (2015) ⁶	15.1%	20.1%
Boulder Valley School District students who participate in extracurricular activities at school (2015) ⁶	74.4%	69.3%
Voter turnout in 2016 presidential election ⁷	73.4%	74.5%
Elder abuse rates (per 100,000 population aged 65+ years) (2014) ⁸	602.5	452.9

Disparities

Child Care Cost as a Percentage of Income for a Family of Four, Boulder County, 2015⁴



Poverty by Ethnicity and Household Composition, Boulder County, 2015⁴



Voice of the Community⁹

“Change structural racism. There is racism in organizations and places of health.

Openness and availability of resources to individuals regardless of immigration status.

Our commissioners don't give support to mountain communities. They are just concerned about Boulder city and make it hard for mountain folks - which can affect health!

Transgender youth and adults would have more spaces to gather and support each other.”

References

- 1 Berkman L., Kawachi, I. 2000. *Social Epidemiology*. New York: Oxford University Press
- 2 Maija Reblin, MA, and Bert N. Uchino, PhD. 2009. *Social and Emotional Support and its Implication for Health*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2729718/>
- 3 Social Relationships and Mortality Risk: A Meta-analytic Review. Julianne Holt-Lunstad, Timothy B. Smith, J. Bradley Layton Published: July 27, 2010 <https://doi.org/10.1371/journal.pmed.1000316> Retrieved from <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000316>
- 4 Status of Children in Boulder County, 2016
- 5 U.S. Census Bureau, American Community Survey 5-Year Estimates
- 6 Healthy Kids Colorado Survey, 2015
- 7 Colorado Secretary of State
- 8 Adult Protection and Financial Assistance
- 9 Boulder County Public Health 2017 Community Health Conversations

Affordability

Impact to Health

The Self-Sufficiency Standard measures how much a family must earn to meet basic needs. Boulder County has one of the highest standards in the U.S.; in 2015, a family of 2 adults, 1 preschooler, and 1 school-age child needed \$75,906 to meet basic needs. This standard is over 300% of the federal poverty level.¹

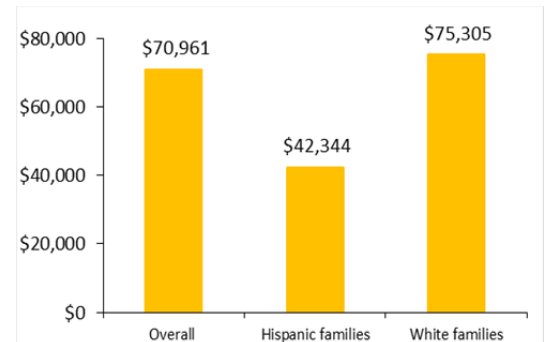
Access to affordable recreation, sports, and nutritious foods can encourage life-long healthy habits, contributing to overall mental and physical wellness over the life course. The ability to afford physical and mental health care also impacts individual health and can decrease the length and severity of illness. Affordable housing leaves money available to pay for health care and healthy food, which leads to better health outcomes.² "Affordability" was a common theme presented as a concern in conversations with Boulder County residents.

Affordability describes an individual's ability to access and pay for the goods or services needed to live well, and it is an underlying theme across many health topics. Affordability goes beyond simply measuring income to include the cost of housing, child care, nutritious food, recreation activities, transportation, health care, and more.

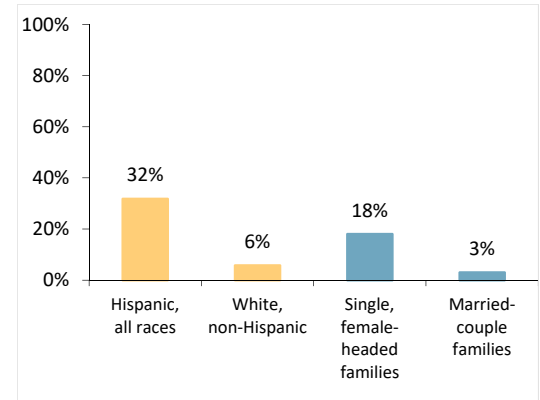
Indicators	Boulder County	Colorado
Median household income (US dollars) (2015) ³	\$72,392	\$63,945
Population below federal poverty level (all ages) (2015) ³	12.3%	11.5%
Children (< 18 years old) below federal poverty level (2015) ³	10.9%	14.8%
Households that received food stamps (SNAP) in the past 12 months (2011-2015) ³	5.5%	8.7%
Total households receiving SNAP benefits in past 12 months who have children less than 18 years old (2011-2015) ⁴	52.9%	56.6%
Households that received SNAP benefits in the past 12 months with an adult 60+ yrs old (2011-2015) ⁴	22.9%	24.4%
Public school students eligible for free or reduced-price school lunch (K-12) (2016) ⁵	26.1%	42.2%

Disparities

Median Household Income, Boulder County, 2011-2015³



Poverty by Race and Household, Boulder County, 2015³



Voice of the Community⁶

“More accessible and low-cost consultation, medicines because everything related to health is very expensive. Many times if you feel sick, don't go to the doctor for the problem.

The county would be able to provide affordable housing (my health suffers due to cost of living and working multiple jobs).

Provide jobs that have an economic ladder to the middle class.

Childcare is too expensive and inaccessible. ”

References

1. Pearce, Diana M. "The Self Sufficiency Standard for Colorado 2015." Colorado Center on Law and Policy, 2015
2. Nabihah Maqbool, Janet Viveiros, and Mindy Ault. 2015. The Impacts of Affordable Housing on Health: A Research Summary. Retrieved from <https://www.nhc.org/publication/the-impacts-of-affordable-housing-on-health-a-research-summary/>
3. U.S. Census Bureau, American Community Survey
4. U.S. Census Bureau, American Community Survey 5-Year Estimates
5. Colorado Department of Education, 2016
6. Boulder County Public Health 2017 Community Health Conversations

Health Care

Impact to Health

Not having proper access to quality care impacts timely detection and treatment of health conditions, prevention of disease, life expectancy, and overall quality of life.¹ An individual's access to and quality of care varies based on their income, race, ethnicity, sexual orientation, location (rural vs. city), age, and gender.^{1,3}

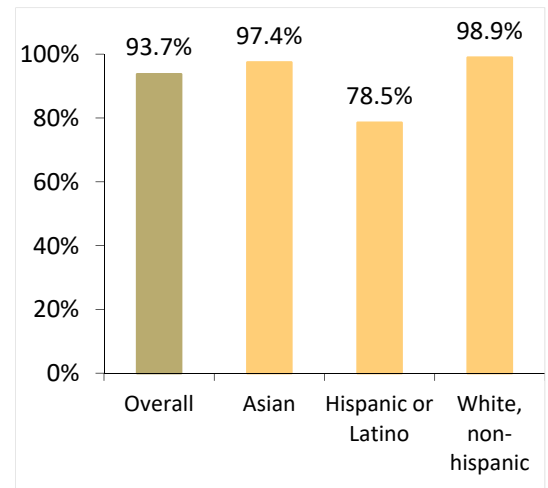
Boulder County residents suggested that the affordability of medical care and health insurance coverage has a significant impact on whether they are able to access needed health care.⁴

Access to health care refers to the ease with which an individual can get needed medical services. This includes gaining entry into the health care system, accessing a physical location where the needed services are provided, and finding a trusted health care provider with whom one can communicate successfully.¹ Quality care is safe, patient-centered, equitable, effective, and efficient.²

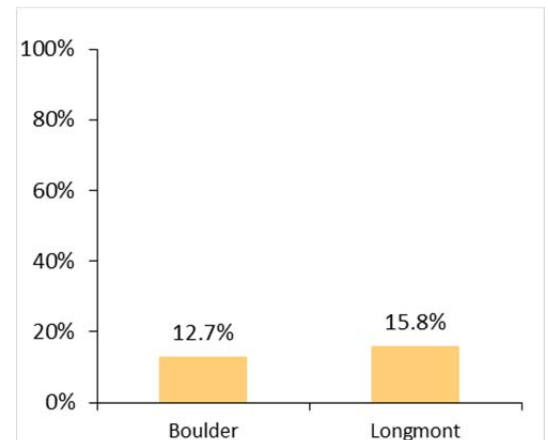
Indicators	Boulder County	Colorado
Women who received adequate prenatal care (2013-2015) ⁵	68.9%	63.2%
Uninsured children (aged 0-18 years) (2016)	3.7%	6.0%
Uninsured population (2017) ⁷	4.1%	8.2%
Adults (aged 18+ years) who have had cholesterol screening in past 5 years (2013, 2015) ⁵	79.8%	76.3%
Women (aged 40 years or older) who had a mammogram within the last 2 years (2012, 2014) ⁵	62.1%	61.4%
The rate of practicing primary care physicians per 100,000 population (2014) ⁸	125	81

Disparities

Adults with Health Insurance, Boulder County, 2014⁶



Adults Without Health Insurance, City of Boulder and City of Longmont Colorado, 2014



Voice of the Community⁴

☞ Affordable health care.

Easier access to medical sources: eye, dental, medical.

Ability of people who are not able to live independently to have available the options of care providers coming to their home instead of the only choice being to go to a nursing home. ☞

References

1. Healthy People 2020, 2017. Access to Health Services. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>
2. World Health Organization (WHO), 2006. *Quality of Care*. Retrieved from http://www.who.int/management/quality/assurance/QualityCare_B.Def.pdf
3. Agency for Healthcare Research and Quality (AHRQ), 2016. *Access and Disparities in Access to Health Care*. Retrieved from <https://www.ahrq.gov/research/findings/nhqrdr/nhqrdr15/access.html>
4. Boulder County Public Health 2017 Community Health Conversations
5. Colorado Department of Public Health and Environment (CDPHE), 2015. *Colorado Health Indicators*. Retrieved from <https://www.colorado.gov/pacific/cdphe/colorado-health-indicators>
6. U.S. Census Bureau, American Community Survey
7. CHI Colorado Health Access Survey, County Health Profile – Boulder County (2017) Retrieved from: <https://www.coloradohealthinstitute.org/county-health-profiles>
8. Robert Wood Johnson Foundation County Health Rankings

Housing

Impact to Health

The link between housing and health is twofold: poor health can contribute to being homeless, and being homeless can lead to poor health. Individuals without homes often lack access to health care treatment and have higher rates of acute and chronic illness, such as bronchitis, diabetes, mental illness, hypertension, and HIV/AIDS.²

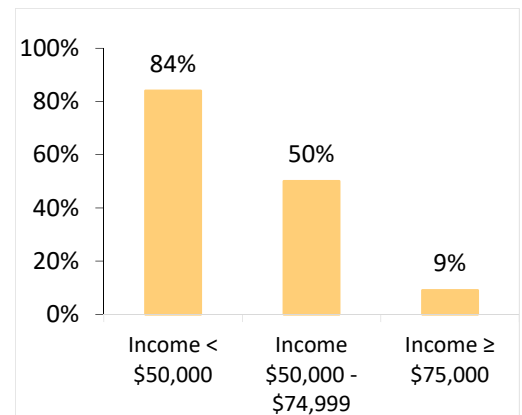
The high costs of housing in Boulder County can put a strain on family budgets. In conversations, Boulder County residents often shared concerns about the supply of affordable housing in the county.

Quality housing refers to an affordable dwelling that is clean, safe, and sanitary; without hazards or pests; and with safety and security measures in place. Housing is one of the most important supports a person or family can have.¹

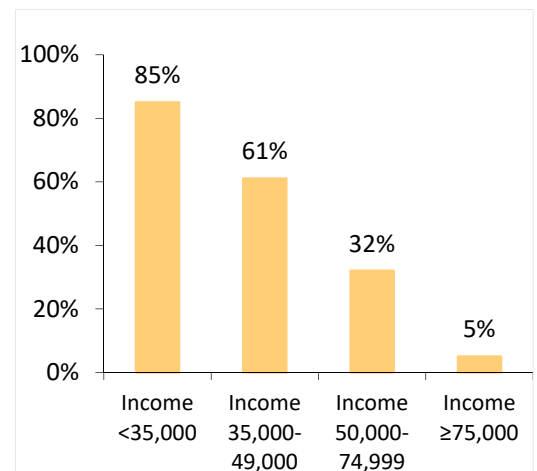
Indicators	Boulder County	Colorado
Housing units that are owner-occupied (2011-2015) ³	62.2%	64.3%
Owner-occupied housing units with mortgage-status 30% or more of household income (2011-2015) ³	27.0%	30.5%
Median home value (US dollars) for owner-occupied housing units (2011-2015) ³	\$368,800	\$247,800
Housing units that are renter-occupied (2011-2015) ³	37.8%	35.7%
Renters who are paying 30% or more of household income on rent (2011-2015) ³	54.0%	48.5%
Median gross rent (US dollars) (2011-2015) ³	\$1,187	\$1,002

Disparities

Owner-Occupied Units Paying 30% of Income for Mortgage by Household Income, Boulder County, 2011-2015³



Renters Paying 30% of Income for Rent by Household Income, Boulder County, 2011-2015³



Voice of the Community⁴

“ Affordable housing...I make very decent wage and am still considered cost-burdened. I can only imagine the thousands of people who are at over 50% cost-burdened.

It is impossible for people who live paycheck to paycheck to pay for rent or buy a house. Access to housing - the price of houses and rent is very expensive.

Affordable housing that does not compromise safety.

Greater regulations on landlords to provide a safe and habitable living environment.

More low-income access to housing - the 2+ year wait list is a significant issue. ”

References

1. American Public Health Association and National Center for Health Housing. National Health Housing Standard, 2014
2. National Health Care for the Homeless Council (NHCHC), 2011. *Homelessness and Health, What's the Connection?* Retrieved From http://www.nhchc.org/wp-content/uploads/2011/09/Hln_health_factsheet_Jan10.pdf
3. U.S. Census Bureau, American Community Survey, 5-Year Estimates
4. Boulder County Public Health 2017 Community Health Conversations

Healthy Eating

Impact to Health

Better nutrition has been found to be related to improved infant, child, and maternal health; stronger immune systems; safer pregnancy and childbirth; lower risk of diseases such as diabetes and cardiovascular disease; and longevity. In fact, people with adequate nutrition are more likely to be productive and able to gradually break the cycles of poverty and hunger.² Conversely, a poor diet can increase the risk of becoming overweight or obese.³

In 2012-2014, 45.9% (Boulder County) and 56.5% (Colorado) of adults were overweight or obese.⁴ Subsequently, rates of diabetes, cardiovascular disease, and other diet-related conditions have escalated. In 2016, heart disease was the second leading cause of death in Boulder County and Colorado (110 and 127 deaths per 100,000 age-adjusted) and diabetes was the ninth leading cause of death in the County (9 per 100,000) and eighth in Colorado (16 per 100,000, age-adjusted rate).⁵

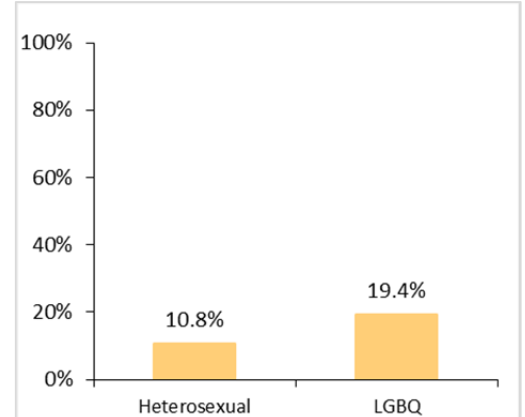
Many Boulder County residents know the importance of eating healthy and seek nutritious food but experience barriers such as no access to quality affordable food and limited time to prepare nutritious meals.¹⁰

An adequate, well balanced diet combined with regular physical activity, is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity.¹

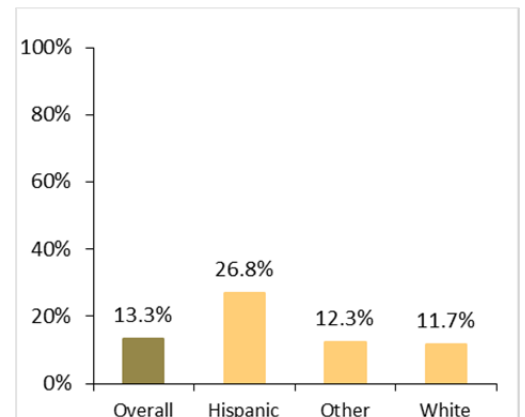
Indicators	Boulder County	Colorado
Percent of children (aged 1-14 years) who ate fruit 2 or more times per day and vegetables 3 or more times per day (2013-2015) ⁷	10.7%	11.4%
Percent of children (under 18 years of age) living in households that experienced food insecurity at some point during the year (2015) ⁸	15.0%	16.5%
Percent of BVSD high school students who ate vegetables 2 or more times per day during the past 7 days (2015) ⁹	39.5%	30.5%
Percent of BVSD high school students who experience food insecurity (went hungry because of lack of food in the house) (2015) ⁹	8.4%	14.0%
Percent of population experiencing food insecurity at some point during the year (2015) ⁸	12.8%	12.2%

Disparities

Boulder Valley School District, 2015 Overweight and Obesity in High School Students, by Sexual Orientation⁹



Obesity in Adults, by Race/Ethnicity⁴ Boulder County, 2013-2014



Voice of the Community¹⁰

“No one in our county should be hungry.”

More education on nutrition in schools and in community but culturally appropriate.

Cook healthy dishes for friends often to show them how to eat healthy food or how to prep. Modeling is a great way to make changes.

Cost efficient healthy food options including fast food. ”

References

1. World Health Organization. 2017. Retrieved from <http://www.who.int/topics/nutrition/en/>
2. World Health Organization. 2017. 10 Facts on Nutrition. Retrieved from <http://www.who.int/news-room/facts-in-pictures/detail/nutrition>
3. Dietary Guidelines Advisory Committee. Scientific Report of the 2015 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary Health and Human Services and the Secretary of Agriculture. Washington, DC: US Department of Health and Human Services; 2015.
4. Colorado Behavioral Risk Factor Surveillance System (BRFSS)
5. Colorado Vital Statistics Death Dataset, 2013-2015
6. Colorado Pregnancy Risk Assessment Monitoring System (PRAMS)
7. Colorado Child Health Survey 2013 -2015
8. Feeding America
9. Healthy Kids Colorado Survey, 2015
10. Boulder County Public Health 2017 Community Health Conversations

Mental Health

Impact to Health

Mental health and physical health are closely connected; mental health influences an individual's ability to maintain good physical health.² Health problems can occur if a stress response continues for a long period or becomes chronic. Chronic stress can cause immune, digestive, sleep, and reproductive systems to stop working normally.

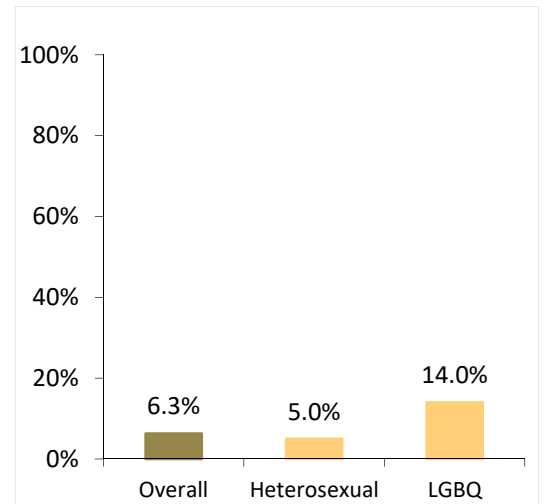
Poor mental health can lead to high rates of suicide among people who experience discrimination, such as refugees and migrants; indigenous peoples; lesbian, gay, bisexual, transgender, intersex (LGBTI) persons; and prisoners.³ In Boulder County, suicide is the seventh leading cause of death and the third leading cause of potential years of life lost.⁴

Mental health is a state of well-being when an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to their community.¹ Mental health includes diagnosable mental illness, access to mental health services, stress, substance abuse, and work-life balance.

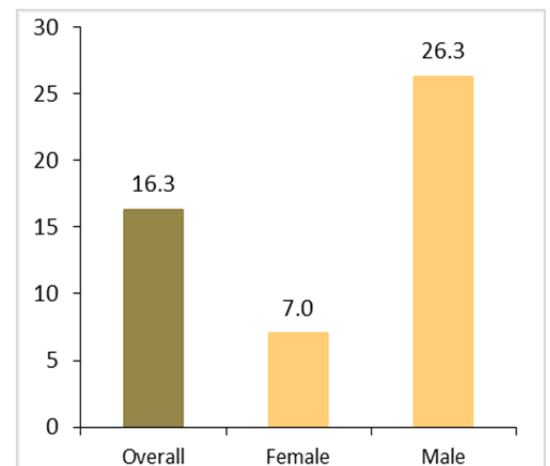
Indicators	Boulder County	Colorado
Percent of pregnant women who experienced 1 or more major life stress events 12 months before delivery (2012-2014) ⁵	59.6%	71.8%
Percent of parents who reported behavioral or mental health problems in their children (aged 1-14 years) (2013-2015) ⁶	20.1%	19.9%
Percent of BVSD 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 (2015) ⁷	27.7%	29.5%
Percent of adults (aged 18+ years) who report experiencing 8 or more days of poor mental health in the past month (2013-2014) ⁸	11.3%	13.0%
Age-adjusted suicide deaths per year (2013-2015) ⁹ per 100,000	16.3	19.1
Age-adjusted rate of hospitalizations related to mental illness per year (2013-2015) ¹⁰ per 100,000	2,184	2,834

Disparities

High School Student Attempted Suicide by Sexual Orientation
Boulder Valley School District, 2015⁷



Age-Adjusted Suicide Deaths (per 100,000 population per year)
Boulder County, 2013-2015⁹



Voice of the Community¹¹

“It is frustrating to clinicians and patients to have to call several mental health providers before finding someone who can provide service.

Life is so fast moving - not enough time to breathe.

I had 5 or more people from my high school harm themselves and pass away. Many of them were bullied or didn't feel they were important. I want there to be more opportunities for people to learn their importance and stop bullying and judgment.”

References

1. World Health Organization (WHO). 2016. *Mental health: strengthening our response*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs220/en/>
2. Lando J, Marshall Williams S, Sturgis S, et al. A logic model for the integration of mental health into chronic disease prevention and health promotion. *Prev Chronic Dis*. 2006 April;3(2):A61. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders>
3. World Health Organization (WHO). 2017. *Suicide*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs398/en/>
4. Colorado Health Statistics and Vital Information, 2015. Retrieved from: <https://www.colorado.gov/pacific/cdphe/colorado-health-indicators>
5. Colorado Pregnancy Risk Assessment Monitoring System (PRAMS), 2012-2014. Retrieved from <https://www.colorado.gov/pacific/cdphe/colorado-health-indicators>
6. Colorado Child Health Survey, 2013-2015. Retrieved from <https://www.colorado.gov/pacific/cdphe/colorado-health-indicators>
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11. Boulder County Public Health 2017 Community Health Conversations

Environmental Quality

Impact to Health

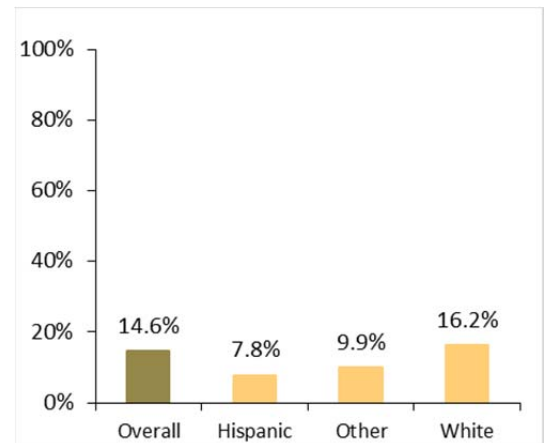
Poor air quality, both indoors and out, contributes to premature death, cancer, and long-term damage to respiratory and cardiovascular systems. In Boulder County, the most concerning air pollutant is ozone. Ozone can aggravate asthma, chronic bronchitis, and emphysema; increase use of medication; increase visits to the emergency room; and increase hospital admissions.² Poor water quality can also be harmful and lead to a range of illnesses, including gastrointestinal illness, neurological problems, and cancer.

Environmental quality refers to the quality of indoor and outdoor air and water for drinking and bathing. The environment directly affects health and plays a major role in quality of life, length of healthy life, and health disparities.¹

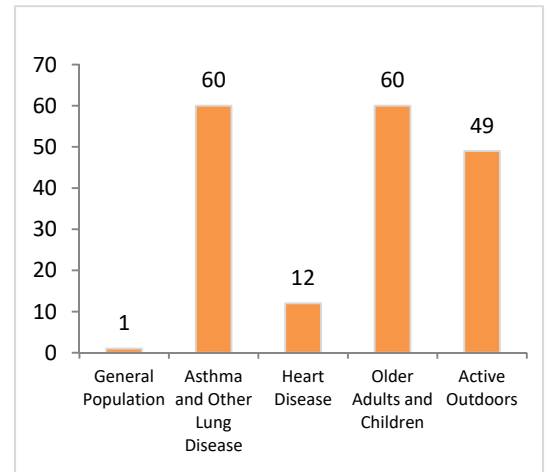
Indicators	Boulder County	Colorado
Household radon tests that were above the Environmental Protection Agency (EPA) recommended action limit of 4 pCi/L (pico Curies per liter of air) (2005-2017) ³	53.7%	not available
Adults (aged 18+ years) who report bottled water as their primary home drinking water source (2011-2014) ⁴	13.1%	17.6%
Grade for number of high ozone days in 2017 ³	F	not available
Adults (aged 18+ years) with asthma (2013-2015) ⁴	8.3%	8.7%
Boulder Valley School District high school students with asthma (2015) ⁵	22.5%	23.0%
Children aged 1-14 years with asthma (2013-2015) ⁶	8.2%	7.3%

Disparities

Adults with Asthma, by Race/Ethnicity
Boulder County, 2013-2014⁵



Front Range Air Quality Unhealthy Days by Affected Population, 2014⁷



Voice of the Community

“As a new resident of Boulder County, I would wave a magic wand to eradicate oil and gas development completely, replacing it with solar, wind, and geothermal exchange energy development. I can already feel the adverse effects of poor air quality on my health.

Keeping our air clean would help a great-grandson with his asthma.

Make everyone's water drinkable and our use more efficient. More efficient water means more behavior change towards converting grass into xeroscope, more efficient faucets, and other appliances. It also means investing into our lower-income neighborhoods to provide drinkable solutions. ”

References

1. Healthy People 2020. 2017. *Environmental Quality*. Retrieved from <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Environmental-Quality>
2. U.S. Environmental Protection Agency. Air Quality Index: A Guide to Air Quality and Your Health, February 2014. Research Triangle Park, NC. Retrieved from https://www3.epa.gov/airnow/aqi_brochure_02_14.pdf pg 5
3. <http://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/colorado/>
4. CDC Behavioral Risk Factor Surveillance System (BRFSS)
5. Healthy Kids Colorado Survey (2015)
6. The Colorado Child Health Survey (CHS)
7. Air Compare. Retrieved from <https://www3.epa.gov/aircompare/compare.htm>. Font Range includes Adams, Arapahoe, Boulder, Denver, Douglas, Jefferson, Larimer, and Weld Counties