Boulder Community Health

Community Health Needs Assessment
2017-2019

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Executive Summary

Entity Overview

Brief History
Boulder Community Hospital (BCH) has served the citizens of Boulder County as a non-profit, community owned and locally governed hospital since 1922. As an independent mission-driven organization, we are dedicated to providing local access to high-quality, comprehensive medical care by offering the latest medical innovations to meet the evolving health care needs of our growing communities. The hospital was started by Boulder citizens interested in creating a community hospital, directed by local citizens, where residents could be cared for within the community, thus avoiding travel to the Denver area. This vision and our community has grown and Boulder Community Hospital is now Boulder Community Health.

Boulder Community Health Mission
Providing our community with the highest quality health care in an innovative, patient centered environment.

System Overview
BCH has dominant market share in our primary service area, which includes the City of Boulder (population 102,760) and the adjacent mountain communities. Our secondary service area includes all of Boulder County (population 309,874) and Broomfield County (population 65,065).

The Boulder Community Health System includes:
BCH has an extensive Care Network with countywide reach:

- Boulder Community Health has two hospital campuses with a total of 165 inpatient beds. Foothills Hospital is the acute care hospital with 110 inpatient beds including intensive care and progressive care units. The hospital offers unique services including 8 operating rooms, 2 interventional cardiac catheterization laboratories, a level two 25-bed trauma center and emergency department, neurosurgical services, a comprehensive primary stroke program, an inpatient rehabilitation program, a comprehensive 18-bed community cancer program and breast cancer center, a family birth center including a special care nursery for newborns with serious medical problems, and a unit specializing in orthopedic and neurological services.
- The Foothills Hospital was the first hospital in the U.S. to earn the prestigious LEED certification for eco-friendliness
- Boulder Community Health has the only Inpatient Behavioral Health unit, the only Open Heart Surgery program, and the only Electrophysiology program in Boulder County
- 1 multidisciplinary outpatient facility (Community Medical Center)
- 6 Family Medicine Clinics
- 6 Internal Medicine Clinics
- 15 Specialty Clinics and Services to include Neurology, Cardiology, General Surgery, Pulmonology, Pain Management, AIDS and Infectious Disease, Occupational Health, Sleep Diagnostics, Travel Medicine, Wound Care, Home Care, Sports Medicine, Holistic Medicine, Integrative Complimentary Care, and Behavioral Health
- 1 Urgent Care Clinic
- 5 Laboratory locations
- 4 Imaging locations

The Medical Staff of Boulder Community Health includes 324 community physicians and 101 employed physicians in 45 different specialties.

BCH has a lengthy history of providing a emergency and other health care services to the citizens of the Boulder Valley regardless of their ability to pay. The organization works in collaboration with numerous community health and social service organizations supporting and enabling preventive health services to be readily available within the community. Boulder Community Health is dedicated to providing access to high quality health care while continuously responding to the evolving healthcare needs of our community.

Evaluation of Impact of Prior Community Health Needs Assessment

Since its last Community Health Needs Assessment (CHNA), Boulder Community Health has continued its relationships with many community organizations that provide direct health care services to the underserved particularly in the areas of in-kind support and collaboration. As part of our commitment to our community, the BCH Leadership team participates in many community boards and organizations. Donation or sponsorship of local not-for-profits approached $75,000 in 2015.

Boulder Community Health sponsors activities and care for underserved populations and is committed to sustaining its mission to benefit the population it serves. BCH's total Medicaid gross revenue increased from 5.4% in 2013 to 11.6% in 2015 and total charity care/medically indigent/Medicaid total gross revenue increased from 9% in 2013 to 13.5% in 2015.

Boulder Community Health strengthened its relationship with providers of mental health within the area and continues to enhance the care for patients struggling with mental health issues through new and innovative programs, including the integration of mental health providers within six of its primary care clinics. BCH leadership and staff have served on the board of directors and various committees of Mental Health Partners. BCH has added special safe areas within it's emergency room and a coordinator who assists in starting patient care plans. Finally, BCH is the only hospital in Boulder County to offer inpatient behavioral health care services.

Within the CHNA period, BCH expanded its palliative care program through collaboration with community providers and addition of a care coordinator. Implementation of programs such as Compassionate Care Rounds and Urban Zen have assisted providers and our Ethics Committee in understanding cultural differences and alternative approaches to care.

Innovative programmatic approaches to enhance care within the continuum include our transitional care program, which serves to decrease hospital readmissions by providing bridges and patient management between care transitions. Over 1900 discharged patients have received transitional care management services as of June 2016. BCH actual readmission rates are lower than expected and in 2014 BCH had an expected admission rate of 8.36 and an actual rate of 7.58%. As of March 2016, our readmission rate declined to 6.12%, demonstrating programmatic success.

Within the CHNA period, Boulder Community Health has built the county's first Patient Centered Medical Home to better coordinate patient care to improve outcomes, increase patient experience and satisfaction and reduce costs. This effort includes an after- hours nurse line, transitional care after hospitalizations, mental health services embedded into clinic operations, a certified diabetic education program, and care coordinators . As of June, 2016, the PCMH serves over sixty one thousand patients in eleven BCH primary care clinics and all have obtained the highest level of recognition from the National Center for Quality Assurance for BCH's Patient Centered Medical Home.

Summary of Community Health Needs Assessment

A community health needs assessment (CHNA) is defined as a systematic process involving the community to identify and analyze community health needs and assets in order to develop strategies that address these needs. A CHNA is performed to align the strategies of a not for profit health system to the needs of the community and is a requirement of the Internal Revenue Service.

The City of Boulder and Boulder County Residents face both acute and chronic disease management challenges. Through the assessment process, Boulder Community Health noted the following:

- Chronic disease management including the care of diabetes, coronary artery disease, cerebrovascular disease, cancer care and preventive care account for roughly 60% of health care spending in Boulder County.
- Traumatic and other acute care services make up the other 40% of health care spending.
- Behavioral Health (including mental health and substance use disorders) impacts both acute and chronic care and also significantly impacts the management of chronic disease management of those with comorbid medical conditions (approximately 10% of the total cost is attributable to Behavioral Health).

With an aging population, osteoarthritis and joint replacement surgery accounts for an increasing proportion of health care utilization (20% of chronic disease management by spending) and is expected to increase significantly over time. An aging population of the United States is also manifest in the increase in dementia which in the 70+ age group is topping 15% with annual costs per person being $40-$56,000. Dementia leads to a significant downstream financial impact on community services and takes a large emotional toll on family and caregivers.

The rate of those Boulder and Broomfield County citizens who are uninsured declined from 11.8% in 2013 to 5.2% in 2015 . There has been a dramatic shift for uninsured and commercial insurance to Medicaid in Boulder County with a total number of individuals enrolled in the mid 40,000 range (up from 20,000 in 2011).

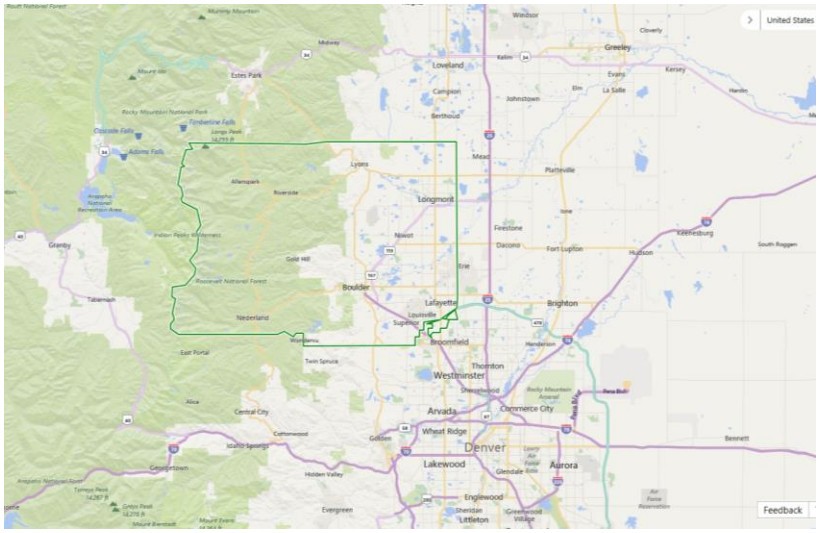
The Boulder Community Health CHNA process identified and prioritized the following as the top three health needs for its primary service area:

1. Chronic disease management
2. Mental health including chronic pain management and substance abuse
3. Wellness and preventative health including aging of the population and access to care

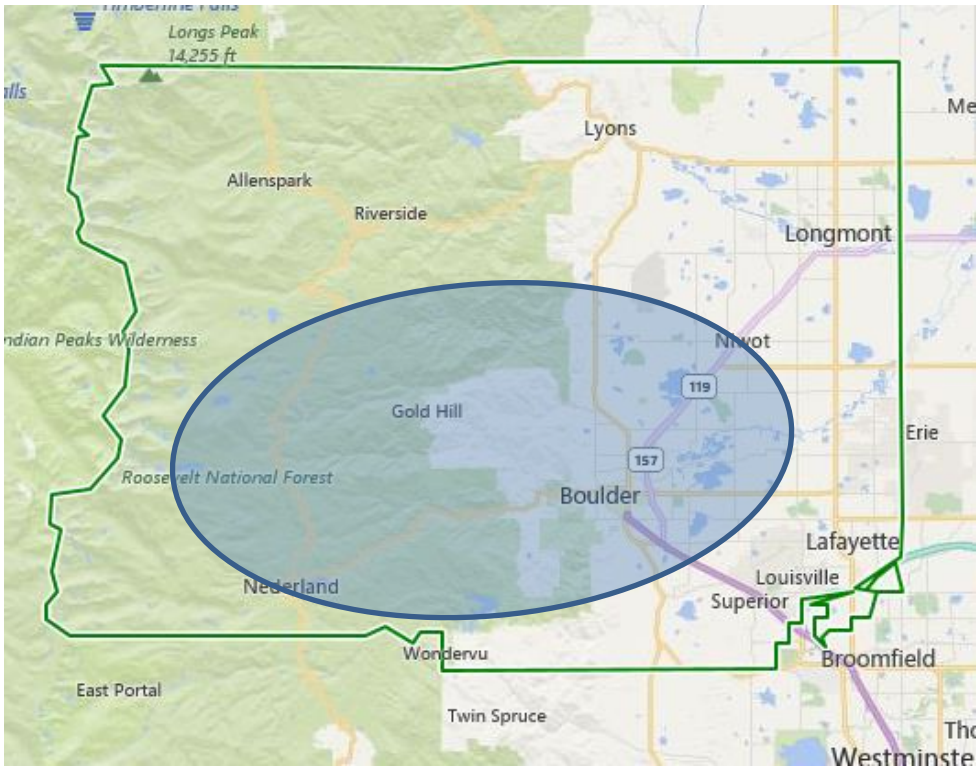
Our Community

Service Area

Boulder Community Health provides services to patients across Boulder County and due to its excellence in several program areas, from the entire Front Range of Colorado. The largest amount of patients cared for by BCH originate from its primary service area - the City of Boulder and the communities of Lyons, Jamestown, Nederland, and Ward and as a result, this CHNA addresses only the primary service area.



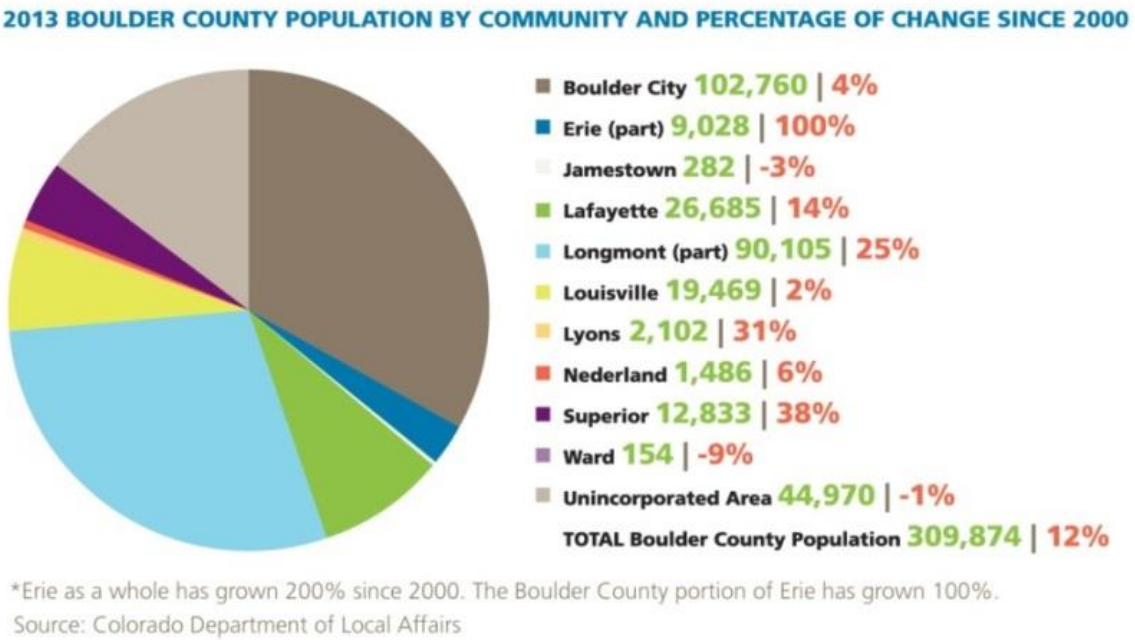
Primary Service Area:



Demographics

Population Growth

Boulder County is the seventh most populous of Colorado's 64 counties, with an estimated 310,000 residents in 2015. The City of Boulder remains the largest municipality in Boulder County and grew by 4% from 2000 to 2013. The City of Longmont grew by 25 percent in that same period and East County suburbs are growing at a much faster rate (Erie – 200%, Superior – 38%).



The slower growth rate for the City of Boulder can be attributed to several factors including restricted land use policies that limit development and the high cost of housing.

According to the Colorado State Demography Office, Boulder County's growth rates will increase slightly in the coming years, bringing the total population to a projected 360,000 by 2025. Most of this growth is anticipated to be in the eastern portion of the county. Preliminary population forecasts for Colorado counties indicate that the population of Boulder County is expected to grow 6.4% over the course of the next 5 years (2016 – 2021). In comparison, the population of adjacent Broomfield County is expected to grow 14% over the next 5 years (2013 – 2018). In 2015, Boulder County experienced a natural population increase of 4,105, with 2,952 live resident births, 1,978 deaths and net (in)migration of 3,132.

Population Trends – Cities At-A-Glance

Boulder County Cities At-A-Glance, 2013	Boulder	Longmont	Lafayette	United States	Colorado
Population	102,760	90,227	26,685	313,861,723	5,192,076
Median Age	28	36	40	37	36
Latino	8%	26%	16%	17%	21%
Speaks a language other than English at home	14%	24%	19%	21%	17%
Median Home Value*	$487,400	$237,900	$261,600	$173,200	$236,100
Lived in the same house one year ago	61%	79%	83%	85%	80%
Lived in another county one year ago	16%	6%	10%	6%	9%
Foreign Born	10%	14%	10%	13%	10%
Births per 1,000 women aged 15-50 past 12 mo.	27	62	90	53	55
Population with a disability	7%	12%	10%	12%	10%
Population under 18 with a disability	1%	5%	2%	4%	3%
Population 65 and over with a disability	25%	32%	32%	36%	32%
Population over the age of 3 enrolled in school	43%	27%	23%	27%	27%
High School Graduate (25+)	97%	86%	95%	86%	90%
Bachelor's Degree or Higher (25+)	74%	37%	55%	29%	37%
Living Below Poverty					
Families	6%	11%	4%	12%	9%
Families with related kids under 18	9%	18%	6%	19%	14%
Individuals**	24%	15%	7%	16%	13%
Children	9%	24%	11%	22%	18%
65 +	6%	7%	3%	10%	8%

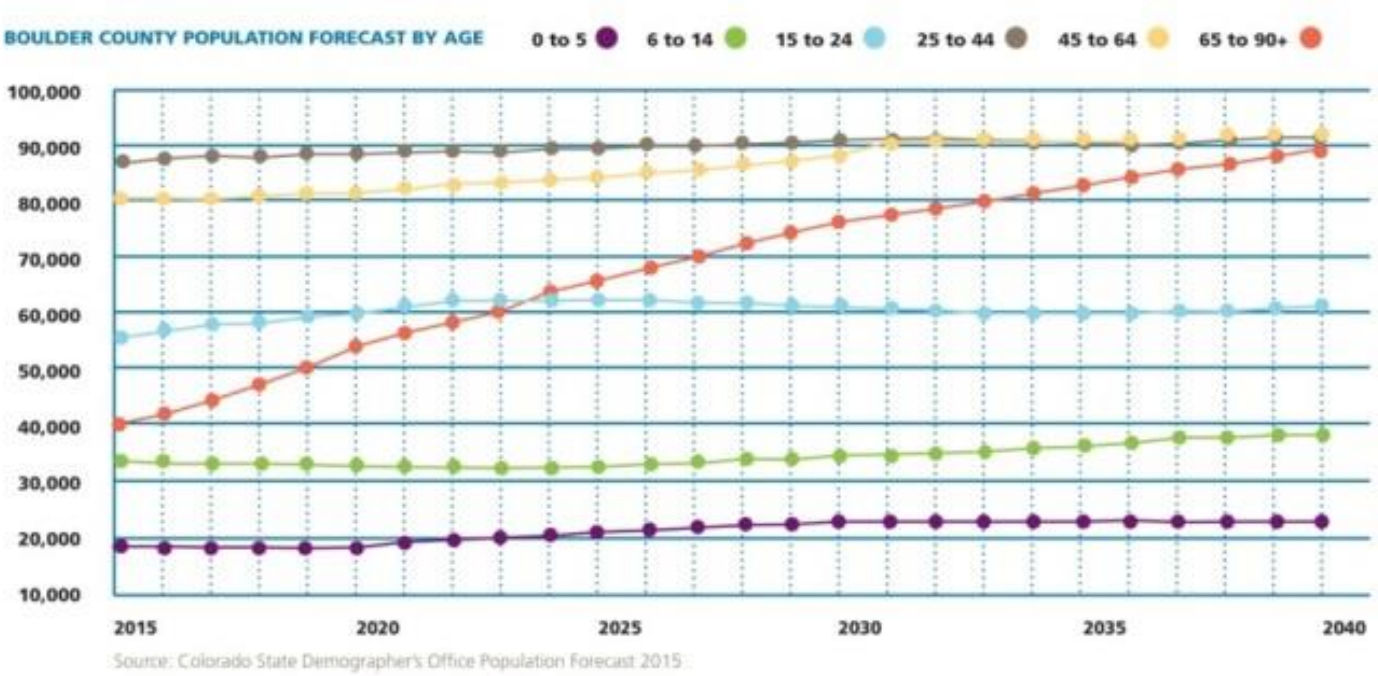
*Median home value is for all owner-occupied homes based on ACS data. For sales price figures on single-family homes, see page 61. **Includes students
Source: 2011-2013 American Community Survey 3-Year Estimates; Local population counts from the Colorado Local Affairs – Demographer's Office

Gender

In 2015 and 2016, Boulder County's population was evenly split between males and females at 50.1% and 49.9% respectively. This is not expected to significantly change over the next decade. According to 2012 US Census data, the median age for females in Boulder County was 37.1 years while the median age for males was 34.6 years.

Age

Currently, the median age of Boulder County residents is 37.4, indicating that our population is fairly young. However, forecasts from the Colorado State Demographer's Office indicate that there will be a significant shift upwards in Boulder County's median age over the course of the next decade. This aging trend, referred to as the "silver tsunami", is reflected in the population numbers of individuals age 65 and older in Boulder County from 2010 to 2020. Today, 13 percent of the county is 65 or older. By 2025, it will be 18 percent. By 2030, it will be more than 20 percent. This means the future will look quite different for health care providers in Boulder County and the demand for healthcare services, particularly in chronic disease will steadily increase.



Diversity

Overall, the state of Colorado is becoming more diverse and Boulder County's diversity tracks closely with the rest of the state. According to 2010 US Census data more than 20% of our residents identify as a person of color, up from 17% in 2000, with the greatest number identifying as Hispanic or Latino. In 2015, it was estimated that close to 40,000 Latinos currently call Boulder County home. More than 45,000 people over the age of five report that they speak a language other than English at home.

Race	1990	2000	2013
White	90%	84%	79%
Asian/Pacific	2%	3%	4%
Black or African American	1%	1%	1%
Two or more races	3%	2%	3%
Latino – any race	7%	11%	13%

Employment/Income

Boulder County ended the first quarter of 2016 with an unemployment rate of 2.98%. This is an improvement over 2015 at 3.6% and 2011 which saw rates as high as 6.7%. The Boulder County American Community Survey reveals that the median family income in Boulder County peaked in 2013 at $92,667 after a low of $63,811 in 2010. Despite the high reported median income, 14% of

individuals live below the poverty level and 13% of children live below the poverty level. Of concern within the County and particularly within the City of Boulder is the high cost of housing.

Community Health Partners

Some of our partners in providing care within the community include:

Mental Health Partners (http://www.mhpcolorado.org/Home.aspx): Provides mental health care, programs and services, 24/7/365 walk in center for immediate mental health crisis.

Clinica Family Health (https://clinica.org/): Provides comprehensive primary care including medical service, behavioral health, dental care, and full-service pharmacies to struggling residents of Boulder County.

Boulder County Public Health (http://www.bouldercounty.org/dept/publichealth/pages/default.aspx); Works to protect the health and well-being of all people and the environment and provides a broad spectrum of health and social services to residents of Boulder County. The Boulder County Health Compass (http://www.bouldercountyhealthcompass.org/) features narrative, images, and a health indicators dashboard for the aggregate of Boulder and Broomfield Counties.

Boulder County Community Services (http://www.bouldercounty.org/dept/communityservices/pages/default.aspx) The Boulder County Community Services Department (CSD) provides services, in partnership with the community, that enhance quality of life, support and protect our county's diverse community of adults, children, families and elders, and promotes economic independence and self-sufficiency.

Boulder County Housing and Human Services (http://www.bouldercounty.org/dept/housinghumanservices/pages/default.aspx) Boulder County Housing and Human Services is dedicated to a vision of healthy communities that are more self-sufficient, sustainable, and resilient. The department works collaboratively with partners to efficiently and effectively integrate health, housing, and human services, making it easier for our neighbors to access the help they need to get back on their feet.

Assessing the Needs of the Community

Overview

A community health needs assessment (CHNA) is defined as a systematic process involving the community to identify and analyze community health needs and assets in order to develop strategies that address these issues. Boulder Community Health is committed to studying and responding to health needs in Boulder County through a community wide approach. The results of the assessment will be used to guide Boulder Community Health's strategies to maximize community health and wellness, population health management and advance our missions.

CHNA Planning, Structure, and Membership

As a starting point in performing this CHNA, an internal CHNA steering committee was formed consisting of the following positions:

Chair of the Board of Directors
Chair of Planning Committee of the Board of Directors
Directors of the Board
VP and Chief Legal Counsel
Chief Business Officer
Medical Director
Director of Public Relations
RN Director of Case Management
RN Manager of Integrated Clinical Services

These individuals performed oversight duties, specified the process and methods to be used for obtaining and reviewing information. The CHNA was timed to be completed prior to BCH's strategic planning in the fall of 2016 so that the processes would be embedded and aligned with overall planning. The Implementation Strategy for the CHNA will be developed during strategic planning and will be attached to this document.

Process and Methods

The CHNA steering committee utilized a three-pronged approach of data review, community input, and prioritization to perform the CHNA.

Data Review

The committee began the process by reviewing and referencing data from local, county, regional and internal BCH sources. Data consisted of population statistics, population health statistics and community health trends.

Community Input

BCH collaborated with a number of community agencies and programs that primarily serve "traditionally under-served" populations within the organization's geographic area. Focus groups, on-line surveys, and personal interview sessions were used to gather data.

Community participants were assembled from a list of health service providers, non-profits, and other organizations in Boulder County serving various populations, including the homeless, elderly, students, those with mental and physical disabilities, and other underserved populations. The goal was to gather feedback on BCH services, the ability to access services, technology, safety, and other health care needs from the perspective of these organizations and the people they serve. The intent of these conversations was for BCH and the participating organizations to better meet these needs.

The current assessment analyzed and included a wide range of community partners, many of whom have participated in or are participating in ongoing collaborative process improvement projects. The process has served to better understand progress and community awareness of current initiatives as well as identify new gaps and needs.

A list of the Community Agencies:

Community Agencies										
Organization	Homeless	Working Poor	At Risk Adults	At Risk Children	Mental Health	Aging	Disabled	Wellness /Children	Skilled Nursing Facililties	Multi-cultural resource
ADRC			x			x				
APS	x	x	x		x	x	x		x	
Area Agency on Aging	x	x	x		x	x	x			
Attention Homes	x	x		x	x		x			
BOHO	x	x	x	x	x	x	x			
Boulder City Community Collab		x								
Boulder Community Resources										
Boulder County Care Connect	x	x	x		x	x	x			
Boulder County	x	x	x	x	x	x	x	x		x
Boulder Homeless Shelter	x	x	x		x	x	x			
Boulder Housing Partners		x				x	x			
Boulder Manor			x			x	x		x	
Boulder PD/Sheriff	x		x							x
Boulder Valley Women's Health		x		x						
Bridge House	x	x	x		x		x			
Broomfield Community Foundation										
BVSD				x	x		x	x		
Clinica	x	x	x	x	x	x	x	x		x
Colorado Children's Campaign				x			x	x		
Dental Aid	x	x						X		
EFAA		x		x		x				
Foothills United Way	x	x	x	x			x	x		
Frasier Meadows			x			x	x		x	
Imagine			x	x	x	x	x			
Intercambio		x								x
Longmont Salud	x	x	x	x	x	x	x	x		x
Manor Care			x			x	x		x	
Mesa Vista			x			x	x		x	
MHP	x		x	x	x	x	x	x		
OUT Boulder	x	x	x	x	x	x				x
St Benedict Health	x	x	x	x	x	x	x	x		x
St.Vrain School District				X						
Tru						X				
Via			x			x	x			
YMCA	x	x	x	x		x	x			

Boulder County Public Health and the Community Foundation Serving Boulder County are important collaborators for improving the health of our community. We express thanks to them for their cooperation and for the wonderful services they provide to our jointly-served residents.

Prioritization

Prioritization of health indicators was completed by the steering committee in June, 2016 based upon the trend data, proportion of population at risk/affected, perceived impact to quality of life/economic impact, premature death attributable to problem. Two important additional factors in prioritization were the ability for BCH to impact the problem and additional resources needed to do so.

Community Input Report

David R. Belin of RRC Associates was hired by BCH to facilitate a series of focus-group meetings and paper based surveys with representatives from Boulder based non-profit organizations and health service providers.

Focus Group Attendees (14 total)

Attention Homes
Boulder County Area Agency on Aging
Boulder County Adult Protection Services
Boulder County Housing
Boulder County Sheriff's Office
Boulder Homeless Shelter
Boulder Housing Partners
Boulder Outreach for Homeless Overflow
Boulder Valley School District
Bridge House
Community Foundation Serving Boulder County
Imagine
OUT Boulder
St. Benedict Health

Survey Respondents (5 total)

Boulder County Public Health
Four chose to remain anonymous

Focus Group Findings

- Mental health is one of the largest challenges for many of the organizations that participated in the focus groups. There is a concern that the number of psychiatric beds in Boulder is too low. Training the ER staff better on mental health care and having social workers on-site in the ER might be ways to improve the treatment and care of those with mental health issues. These mental health issues are tied closely to many other aspects of overall heath and require a greater level of attention.

- Post visit discharge instructions and follow up care were consistently identified as an area for improvement. Focusing more on a "warm handoff" and working with organizations to make sure support services are in place for patients being discharged are critical. Gaps and lack of coordination in the discharge process was a consensus theme among focus group participants. Having a person who serves as a patient navigation advocate present at the discharge might result in better outcomes. Language and cultural issues are very important in this process. Also important in the discharge process is an accurate transfer of information. One example given was that discharge instructions might say to follow up with your primary care physician (PCP), but many of their clients don't have a PCP.

- A major issue identified in the focus group sessions was the limited attention to preventative care, which results in minor problems becoming significant, possibly emergency, situations. Greater education and outreach for preventative care from BCH, and also from the organizations assisting their clients in seeking preventative care, continues to be an important consideration for overall health care.

- Language and cultural differences, along with services to the undocumented population, are a concern for some of the providers and their clients. More Spanish speaking medical support and providers would be helpful, as well as an understanding of cultural differences that can play a role in health outcomes.
- Access to housing was brought up as a challenge for certain populations in Boulder. This factor becomes a critical issue when it comes to discharge and follow-up care.
- The move to the Foothills Campus has made access more difficult for some populations, including the homeless and the elderly.
- One theme in the focus group sessions was for BCH to play a greater role in outreach with the community, including schools, media, education, and working with other organizations like Sister Carmen or EFFA. Clinica is seen to have better outreach than BCH. A desire exists for BCH to show the community that it is being proactive with education and preventative services.
- The perspective of many of the participants was that BCH needs to recognize the social determinants of health – food/diet, housing, support, services, etc. – as much as the medical determinants of health. Issues such as poor diet and high stress can lead to other health problems. A more holistic approach that includes these social determinants of health would be an improvement.
- The quality of the services at BCH, once a client is admitted, is consistently seen as very good to excellent. Most of the focus group participants were complimentary of BCH for excellent quality of care. Security and safety at BCH facilities is typically seen as excellent.
- Many participants had limited experience with other hospitals like Avista or Longmont United. Access to those facilities is more of an issue than it is for BCH. However, some noted that the culture at other hospitals is more welcoming, such as Good Samaritan or Avista. Clinica is the alternative to BCH – BCH is seen as the place to go if you have money, and Clinica has a better reputation for serving the needs of the populations being discussed in the focus groups.
- One area where the health system could improve is for greater access to a range of specialized services, including but not limited to dental, oncology, orthopaedic, respite care, and others. Coordination of this specialty care is seen as an area for improvement.
- Insurance, Medicaid reimbursement, and billing issues were discussed briefly in both groups. It was noted that undocumented individuals and those without insurance can sometimes present problematic issues, particularly for specialized care. Some in the groups expressed concern and frustration with the number and source of bills for the variety of medical services that might be provided when you visit the hospital. Uncertainty of the cost of services is a consistent issue for the clients of the organizations.

Summary

The participants in the groups provided honest perspective on their clients' experiences with BCH. The emphasis on the sessions was for ideas and suggestions on how BCH can improve their services to the community. The focus group participants identified opportunities. The quality of the

experience and services for admitted patients for BCH is very high; potential improvements were noted for pre- and post-care experiences.

The State of the Community's Health

Overview

Overall, Boulder County ranks very high in the state of Colorado for having low mortality and morbidity rates. According to the County Health Ranking Report by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, Boulder County ranks 5th out of 59 counties assessed for health outcomes. More than 88% of Boulder County adults reported their health as "good/excellent" with some discrepancies seen due to ethnicity and income:

How Boulder County Residents Rank Their Health

	General Population	Anglo	Latino	<$25K Income	$25K-$50K Income	$50K+ Income
Poor/Fair	12%	8%	32%	24%	20%	4%
Good/Excellent	88%	92%	68%	76%	80%	96%

Source: 2011-2012 Behavioral Risk Factor Surveillance System, CDPHE

The Colorado Health Foundation's 2014 Colorado Health Report Card gives the following grades:

Healthy Beginnings – C
Healthy Children – C
Healthy Adolescents – B
Healthy Adults – B+
Healthy Aging – A-

Comparing Adult Health Data from Boulder County to the rest of Colorado:

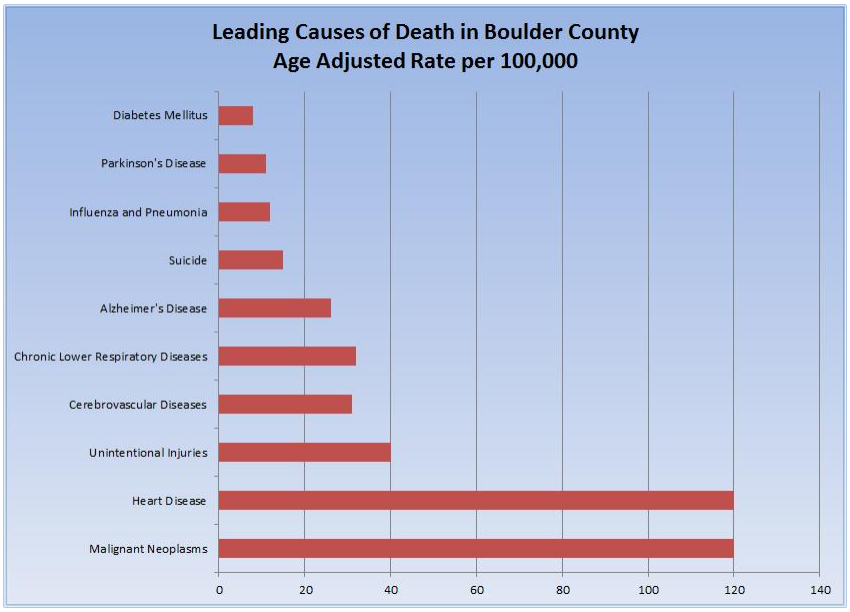
Adult Health Data		
Risk Factor	**Boulder County**	**Colorado**
Diagnosed with diabetes	6%	7%
Current smoker	12%	18%
Currently have health insurance	81%	79%
Ever had colonoscopy (ages 50 and over)	68%	67%
Had clinical breast exam and mammogram in the past 2 years (women 50 and older)	60%	63%
Ever had a Pap smear (women 18 and older)	94%	94%
Ever had asthma	13%	13%
Any leisure time physical activity	89%	83%
Ate less then one serving of vegetables daily	12%	19%
Overweight, BMI** 25.0 to 29.9	32%	36%
Obese, BMI** > 30	16%	20%

Source: Behavioral Risk Factor Surveillance System, CDPHE 2011-2012

Boulder County Public Health, as part of the Public Health Improvement Process (PHIP), identified three areas of strategic focus to improve the health of our county over the next five years. 1) increase healthy eating and active living; 2) improve mental health; 3) reduce substance abuse.

Leading Causes of Morbidity

Cancer, Heart Disease, Accidents, Cerebrovascular Disease and Chronic Lower Respiratory Disease are the top five leading causes of Morbidity in Boulder County.



Cancer

Breast cancer is the most common type of cancer among women in the U.S. other than skin cancer. The most recent data from the National Cancer Institute State Cancer Profile shows that the incidence rate for breast cancer in women of all races in Boulder County (2005-2009) was 138.9 cases. According to the Colorado Health Department, 60% of women over the age of 50 in Boulder County reported having had a mammogram in the previous two years and almost twice as many cases were reported in white women as compared to Hispanic women.

Colorectal cancer is one of the most commonly diagnosed cancers in the United States, and is the second leading cancer killer in the U.S. If adults aged 50 or older had regular screening tests, as many as 60% of the deaths from colorectal cancer could be prevented. The age-adjusted incidence rate for colorectal cancer cases in both women and men per 100,000 population for Boulder County is 38.5, affecting men slightly more than women and Hispanic population slightly more than the white population. According to the Colorado Health Department, 70.5% of residents were screened for colon cancer in 2010 as compared to only 59.9% in 2008.

Heart and Cardiovascular Disease

Ischemic heart disease is characterized by narrowing of the arteries of the heart, resulting in less blood and oxygen reaching the heart muscle. Most ischemic heart disease is caused by atherosclerosis and can result in a heart attack. Boulder County Medicare patients living with ischemic heart disease is 22%. This number has decreased from 24% in 2009.

Diabetes

Boulder County reports 4.8% of adults live with diabetes. While the percentage of Boulder County residents diagnosed with diabetes is lower than the State of Colorado, a greater percentage of those diagnosed are in the Hispanic community and the disease becomes more prevalent as the population ages.

Obesity

Like the rest of the state, Boulder County is experiencing an upward trend in obesity rates. Obesity increases the risk of many diseases and health conditions including heart disease, Type 2 diabetes, cancer, hypertension, stroke, liver and gallbladder disease, respiratory problems and osteoarthritis. Approximately 15% of adults in Boulder County are classified as obese with Hispanic population having more than twice the number of obese adults as non-Hispanics.

Mental Health

Psychological distress can affect all aspects of our lives. It is important to recognize and address potential psychological issues before they become critical. Occasional down days are normal, but persistent mental/emotional health problems should be evaluated and treated by a qualified professional. In 2013 the Colorado Department of Public Health and Environment (CDPHE) continued to focus on a number of priority areas, known as the "Winnable Battles," which represent key public health issues with the greatest potential to positively impact the health of Colorado citizens. Mental health and substance abuse have been identified as one of these priorities. Improved mental health and reductions in substance abuse are also part of the Governor's 2013 "The State of Health" plan.

Poor Mental Health Days in the Last Month, Boulder County								
	General Population	Anglo	Latino	<$25K Income	$25K-$50K Income	$50K+ Income	Women	Men
0	64%	64%	68%	51%	64%	69%	59%	69%
1-7	23%	25%	15%	26%	25%	22%	27%	19%
8+	13%	12%	17%	23%	11%	9%	14%	12%

Source: 2011-2012 Behavioral Risk Factor Surveillance System, CDPHE

Aging and Health

Youth

The Boulder County Healthy Kids Colorado Survey results (Shared Measurement for Collective Impact on Youth Health) measures youth risk and protective behaviors across a spectrum of health issue areas.

District students in both high school and middle school identified several priority areas impacting the health and well being of our youth. These areas are:

- Emotional wellness
- Early initiation of adult behaviors
- Harassment/bullying

According to the Center for Disease Control Youth Risk Behavior Surveillance System, 72% of deaths among youth and young adults results from four causes: motor vehicle crashes (26%), other unintentional injuries (17%), homicide (16%), and suicide (13%). These leading causes of morbidity and mortality among youth and young adults in the United States are related to six categories of priority health-risk behaviors: 1) behaviors that contribute to unintentional injuries and violence; 2) tobacco use; 3) alcohol and other drug use; 4) sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases (STDs), including HIV infection; 5) unhealthy dietary behaviors; and 6) physical inactivity.

Results from the 2013 Youth Risk Behavior Study for Boulder County high school students indicates that Boulder youth behaviors track closely with national rates. Noted within the table where available is an indication of the behavior increasing or decreasing since the 2011 Survey. In the latter part of 2016, the YRBS Survey will be repeated and evaluated.

YRBS Results 2013	Boulder County 2013	
Consumed alcohol (prior 30 days)	**32.1%**	**Decreased**
Consume alcohol regularly (1-2 per month)	**59.8%**	**-**
Used marijuana (prior 30 days)	**20.4%**	**Decreased**
Smoked cigarettes (prior 30 days)	**8.0%**	**Decreased**
Ever used heroin	**1.5%**	**-**
Reported mental health as not good (prior 30 days)	**65.7%**	**-**
Attempted suicide (prior 12 months)	**13.7%**	**Increased**
Currently sexually active (prior 3 months)	**19.7%**	**Decreased**
Used condom during last intercourse	**66.7%**	**Increased**
Obese	**9%**	**Increased**

Suicide constituted the second leading cause of death among Colorado youth and young adults ages 10 to 34. From 2011 to 2013 the attempted suicide rate increased alarmingly from 6.7% to 13.7%.

While overall trends in early initiation behaviors exhibits a downward trend, focusing on these areas remains a priority due to their impact on behaviors in later stages of life. More than 59% of high school students surveyed reported consuming alcohol once or twice per month. These figures are slightly above the percentages reported nationwide. Marijuana use in this age group decreased.

Overall, teen birth rates in Boulder County were significantly lower than the state average and our neighboring counties. However, according to the Colorado Department of Public Health, only 68% of young mothers in this age group receive early prenatal care, a key factor in improving birth outcomes and lowering health care costs by reducing the likelihood of complications during pregnancy and childbirth.

Adult Health and Behaviors

Boulder County Public Health partnered with the community to identify and prioritize the most pressing health issues affecting our community. Community partners and stakeholders identified three specific areas of strategic focus to improve the health of our county over the next five years. The three focus areas were prioritized from over 40 key health issues using local health data and by assessing the magnitude, severity, and actionability of each issue.

Boulder County Public Health three focus areas through 2018:

- Increase healthy eating & active living
- Improve mental health
- Reduce substance abuse

Boulder County Public Health's Health Compass (http://www.bouldercountyhealthcompass.org) is an excellent tool that monitors the health of Boulder County Residents. A system is utilized for each ranking whereby each county is ranked relative to the health of other counties with 1 or 2 being the healthiest. A dashboard of Robert Wood Johnson County Health Rankings utilized on the compass website and is as follows:

Clinical Care Ranking – 3 (of 1 to 7) The ranking is based on a summary composite score calculated from the following measures: uninsured, primary care physicians, mental health providers, dentists, preventable hospital stays, diabetic monitoring, and mammography screening.
Self-Reported General Health Assessment (poor or fair) – 11.9% This indicator shows the percentage of adults who answered poor or fair to: "How is your general health?"
Health Behaviors Ranking - 2 (of 1 to 7) The ranking is based on a summary composite score calculated from the following measures: adult smoking, adult obesity, physical inactivity, access to exercise opportunities, excessive drinking, alcohol-impaired driving deaths, sexually transmitted infections, teen births, and a food environment index.
Morbidity Ranking – 13 (of 1-15) The ranking is based on a summary composite score calculated from the following measures: poor or fair health, poor physical health days, poor mental health days, and low birthweight.
Mortality Ranking – 6 (of 1-8) This indicator shows the ranking of the county in overall length of life according to the County Health Rankings. The ranking is based on a measure of premature death.
Age Adjusted Death Rate due to Diabetes – 7.9 per 100,000

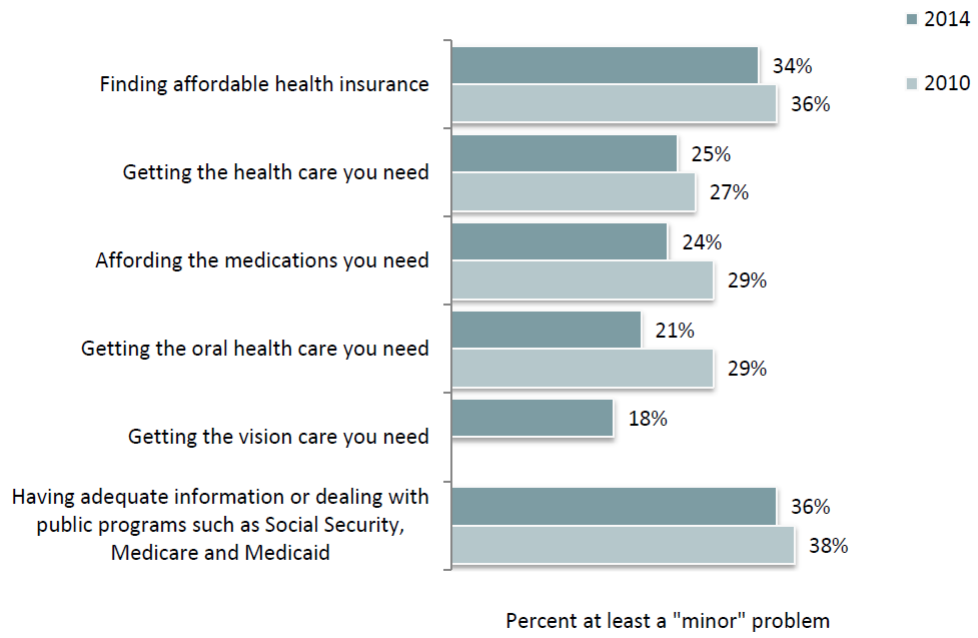
Osteoporosis: Medicare Population – 5.9% This indicator shows the percentage of Medicare beneficiaries who were treated for osteoporosis.
Adult Days in Poor Mental Health – 11.3% This indicator shows the percentage of adults who stated that they experienced eight or more days of poor mental health in the past month.
Depression: Medicare Population – 13.4% This indicator shows the percentage of Medicare beneficiaries who were treated for depression.
Frequent Mental Distress – 8.7% This indicator shows the percentage of adults who stated that their mental health, which includes stress, depression, and problems with emotions, was not good for 14 or more of the past 30 days.

Older Adults

The Health Access Survey performed by the Colorado Trust and the Colorado Health Institute Local indicates that seniors self report as in better health than the average Coloradans with only 9.4% in fair or poor health within Boulder and Broomfield Counties and 19.6% as the Colorado average.

The Boulder County Age Well Strategic Plan and the Community Assessment Survey for Older Adults
http://www.allagewell.com/introduction.html &
http://www.bouldercounty.org/doc/cs/bouldercountycasoareport2014-final.pdf revealed that Seniors are finding difficulty in access the care:

Figure 36: Health Care Problems of Older Residents in Boulder County



Within the Boulder County Age Well plan, two access goals were stated:

Goal 13: Health and Wellness Services are affordable, accessible, and readily available.
Goal 14: Wellness includes dying and end of life as a natural part of life.

Access to Care

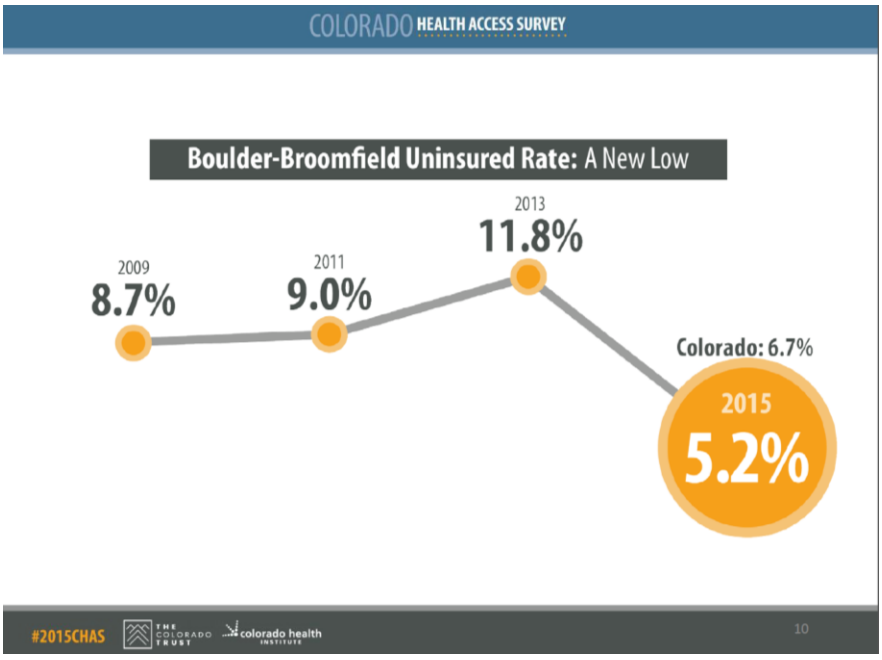
Health insurance is a key indicator for determining whether or not residents will access preventive care or seek disease management and acute care. Delays in seeking care can lead to unmet health needs, potentially avoidable hospitalizations and an increase in morbidity and mortality rates overall.

In 2013 some 197 million Americans had commercial health insurance, through employers, individual purchases or policies with public subsidies. Now federal health reform adds to existing state regulation, mandates and consumer protections. Affordable Care Act (ACA)-authorized Health insurance marketplaces or exchanges led to some 11 million individuals obtaining a new health policy between October 2013 and June, 2015.

As of May 2015, over 58,000 people in Boulder County were accessing either Medicaid or Children's Health Plan Plus (CHP+), according to Boulder County Department of Housing and Human Services. And 12,500 individuals were enrolled in the state's new marketplace, created under the ACA.

Boulder's individual insurance rates in 2015 increased 0.42 percent compared with the state increase of 0.71 percent; its small-group insurance rates went up 2.6 percent compared with the statewide increase of 2.54 percent. Medicaid enrollment in Colorado surpassed 1 million people in 2015. The state expanded its Medicaid eligibility to up to 142 percent of the poverty level, and 195 percent for pregnant women. Boulder and Broomfield Counties are at an uninsured rate of 5.2% compared to 6.7% for Colorado as a whole.

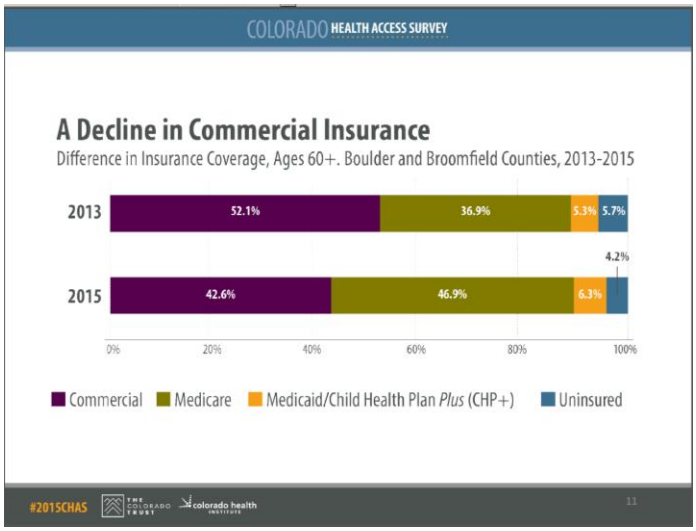
The increase in Medicaid has led to the low uninsured rated, however, commercial insurance coverage has decreased as well.



Monthly Average Boulder County Medicaid Growth 2010-2014

	Clients Age 20 and Under (EPSDT)	Clients Age 21 and Over	Total Clients –All Ages
2010	12,010	7,745	19,755
2011	13,421	9,076	22,497
2012	14,305	9,704	24,009
2013	15,641	11,194	26,835
2014	19,153	21,980	41,104

Source: Colorado Department of Health Care Policy and Financing (HCPF)



While more than 90% of Boulder County residents are insured, discrepancies emerge due to income and ethnicity. More than 93% of Anglo residents currently have health insurance compared to only 76% for Latino residents.

Hispanic mothers received less early prenatal care than their non-Hispanic counterparts, had higher incidences of infant low birth weight and more preterm births. Data from the 2011-2012 County Health Rankings Report indicated that Boulder County had a ratio of population to primary care physicians of 820:1, though the Colorado Health Foundation indicated that only 76.6% of adults have one (or more) person(s) they think of as their personal doctor or health care provider.

When it comes to the Boulder County's children, over 92% of have health insurance. With an estimated childhood poverty rate of 13%, financial barriers to health coverage is an issue and significant effort has been put towards enrolling eligible children into Colorado's Health Plan Plus and Medicaid. Of concern is that while more than 96% of white-non-Hispanic children are insured, the Boulder County Health Department reports that only 82% of their Hispanic and Latino counterparts have insurance coverage.

The 2015 Colorado Health Access Survey revealed the following issues that residents age 60 and over considered barriers to obtaining healthcare:

15.7% stated that they could not get an appointment as soon as they thought was needed
8.2% stated that the physician office was not accepting patients with their type of insurance
7.3% stated that the physician office was not accepting any new patients
6.7% listed getting time off work (if employed), and
4.5% listed transportation as barrier to obtaining healthcare.

Three of four individuals age 60 or older reported having a preventative care visit within the past year and 17.4% visited the emergency room one or more times.

Appendices

Community Organizations Questions

QUESTIONS FOR FOCUS GROUPS

ACCESS

1. Do you believe the populations served by your organization have **adequate knowledge** of BCH facilities and services?
   Follow-up question – If there is a lack of knowledge, is that deficiency primarily about hospital services, outpatient services or both?
2. Do your clients experience any problems with **overall access** to BCH facilities?
   Follow-up question -- If you're hearing that access is inadequate, what issues are contributing to this problem?
3. Do you believe the populations your organization serves get **timely care** at BCH facilities?

SERVICES

1. Overall, how well do BCH services **match your clients' needs**?
2. What **additional services** do you believe may be needed?

COMMUNITY NEEDS

1. What are the **top health care-related needs** you see in the populations you serve?
2. How well is BCH **currently** addressing these top health-care needs?
3. What could BCH do **in the future** to better meet these needs?
4. What is your organization doing to help address these top health-care needs?
5. Are there serious or widespread health-care needs that are **NOT** currently being adequately addressed?

SAFETY/QUALITY

1. How do you believe the populations your organization serves perceive the **quality of BCH hospital services**?
2. How do you believe the populations your organization serves perceive the **quality of BCH outpatient services**?
3. Do your clients express concerns about the **safety of BCH hospital services**?
4. Do your clients express concerns about the **safety of BCH outpatient services**?

BRANDING/COMMUNITY PERCEPTION

1. Based on your clients' experiences or perceptions, which area health care provider has the **widest range of services**?
2. Based on your clients' experiences or perceptions, which area provider has the **most limited range of services**?
3. If any of the providers listed below were not included in either discussion, ask specifically for perceptions of that provider's range of services:
   - Avista Adventist Hospital
   - Boulder Community Health
   - Exempla Good Samaritan Medical Center
   - Longmont United Hospital
   - University of Colorado Health
4. Based on your clients' experiences or perceptions, which area health care provider has the

most advanced medical technologies?

5. Based on your clients' experiences or perception, which area provider has the **most limited technology?**
6. If any of the providers listed below were not included in either discussion, ask specifically for perceptions of that provider's medical technology:
   - Avista Adventist Hospital
   - Boulder Community Health
   - Exempla Good Samaritan Medical Center
   - Longmont United Hospital
   - University of Colorado Health

Community Organizations Survey Questionnaire

ON-LINE QUESTIONNAIRE

1. Do you believe the populations served by your organization have adequate knowledge of BCH facilities and services?
   - No, most clients need more information about BCH
   - No, some clients need more information about BCH
   - Don't know
   - Yes, most clients are aware of BCH
   - Yes, nearly all clients are aware of BCH

2. Do your clients experience any problems with overall access to BCH facilities or services?
   - Always
   - Usually
   - Don't know -- skip to question 4.
   - Sometimes -- skip to question 4.
   - Never -- skip to question 4.

3. What are the top three issues that contribute to access problems? Please rank them in importance 1-3.
   - Lack of Primary Physicians Accepting Medicaid
   - Lack of Specialty Physicians Accepting Medicaid
   - Limited Appointments with Primary Physicians
   - Limited Appointments with Specialty Physicians
   - Inability to Pay Medical Bills
   - Limited Understanding of Health Insurance
   - Mental Health and/or Substance Abuse Issues
   - Other <<Insert Comment Field>>

4. Do you believe the populations your organization serves get timely care at BCH facilities?
   - Never
   - Sometimes
   - Don't Know
   - Usually
   - Always

5. Overall, how well do BCH services match your clients' needs?
    - Poorly
    - Adequately
    - Good match -- skip to question 7.
    - Very good match -- skip to question 7.
    - Excellent match -- skip to question 7.

5. What are the three most important services that you believe are currently needed? Please rank them in importance 1-3.

    - Mental Health (inpatient)
    - Mental Health (outpatient)
    - Memory Care
    - In-Home Services Related to Aging
    - Preventative Care
    - Alcohol and/or Substance Abuse Treatment
    - Other <<Insert comment field>>

7. What is the most prevalent health condition you see in the population you serve?
    - Cancer
    - Diabetes
    - Heart Disease
    - Respiratory Conditions
    - Stroke/Hypertension
    - Aging Issues, including Alzheimer Disease, Dementia and Arthritis
    - Mental Health/Depression
    - Substance Abuse
    - Other <<Insert Comment Field>>

8. How well do BCH services address this condition?
    - Poorly
    - Adequately
    - Well
    - Very Well
    - Excellent

9. What additional actions could BCH take to help address this condition?

10. What is the second most common health condition you see in the population you serve?
    - Cancer
    - Diabetes
    - Heart Disease
    - Respiratory Conditions
    - Stroke/Hypertension
    - Aging-Related Conditions (Alzheimer Disease, Dementia, Arthritis)
    - Mental Health/Depression
    - Substance Abuse
    - Other <<Insert Comment Field>>

11. How well do BCH services address this condition?
    - Poorly
    - Adequately
    - Well
    - Very Well
    - Excellent

12. What additional actions could BCH take to help address this condition?

13. What's the most effective way your organization helps address these two health conditions?
    - Connecting clients with health-care providers
    - Helping clients navigate insurance coverage, including Medicaid
    - Facilitating access to appropriate financial assistance programs
    - Referring clients to mental health resources
    - Other <<Insert comment field>>
    - Not applicable

14. How do you believe your organization's clients perceive the overall quality of BCH services?
    - Unsatisfactory
    - Adequate
    - Good
    - Very Good
    - Excellent

15. Do your clients express concerns about the safety of BCH services?
    - Always
    - Usually
    - Don't Know
    - Sometimes
    - Never

16. When you think of **high-quality <u>inpatient</u> hospital care**, which organization do you perceive most positively? Rank the following from 1 to 5, with 5 indicating best.
    - Avista Adventist Hospital
    - Boulder Community Health
    - Good Samaritan Medical Center
    - Longmont United Hospital
    - University of Colorado Health

17. When you think of **high-quality <u>outpatient</u> care**, which organization do you perceive most positively? Rank the following from 1 to 5, with 5 indicating best.
    - Avista Adventist Hospital
    - Boulder Community Health
    - Good Samaritan Medical Center
    - Longmont United Hospital
    - University of Colorado Health

18. When you think about a **top-quality network of physician clinics**, which organization do

you perceive most positively? Rank the following from 1 to 5, with 5 indicating best.

- Avista Adventist Hospital
- Boulder Community Health
- Good Samaritan Medical Center
- Longmont United Hospital
- University of Colorado Health

19. When you think about a **high-quality emergency room**, which organization do you perceive most positively? Rank the following from 1 to 5, with 5 indicating best.

- Avista Adventist Hospital
- Boulder Community Health
- Good Samaritan Medical Center
- Longmont United Hospital
- University of Colorado Health

20. Which organization do you think has the **widest range of health-care services?** Rank the following from 1 to 5, with 5 indicating the widest range of services.

- Avista Adventist Hospital
- Boulder Community Health
- Good Samaritan Medical Center
- Longmont United Hospital
- University of Colorado Health

21. When you think about accessing the **latest medical technology**, which organization do you perceive most positively? Rank the following from 1 to 5, with 5 indicating best.

- Avista Adventist Hospital
- Boulder Community Health
- Good Samaritan Medical Center
- Longmont United Hospital
- University of Colorado Health

Boulder Community Health Primary Service Area by Zip Code

Boulder
- 80301
- 80302
- 80303
- 80304
- 80305
- 80306
- 80307
- 80308
- 80309
- 80310
- 80314
- 80321
- 80322
- 80323
- 80328
- 80329

Eldorado Springs
- 80025

Allenspark
- 80510

Jamestown
- 80455

Nederland
- 80466

Pinecliff
- 80471

Rollinsville
- 80474

Ward
- 80481

Sources

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http://www.bouldercountyhealthcompass.org
Boulder County Trends, 2015, The Community Foundation http://www.commfound.org/about/
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Boulder Economic Council http://www.boulderеconomic council.org/
Center for Disease Control, Colorado Behavioral Risk Factor Surveillance System (BRFSS) surveys
Center for Disease Control, Youth Risk Behavior Surveillance System
Colorado Health Foundation
Colorado Department of Public Health and Environment, Health Indicators
Colorado State Demography Office
Colorado Health Institute
Colorado Health Institute's 'How Healthy are Boulder's Seniors?
http://www.bouldercounty.org/doc/cs/how%20healthy%20are%20our%20seniors_aaa_chi_feb2016_final.pdf
National Cancer Institute State Cancer Profile
United States Census Bureau, 2010 Census Data
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