UCHealth | **2016**

Community Health Needs Assessment

UNIVERSITY OF COLORADO HOSPITAL

Executive summary

We are pleased to present this report, the 2016 Community Health Needs Assessment (CHNA) for University of Colorado Hospital Authority (University of Colorado Hospital). Organized as a non-profit, body corporate and state authority, University of Colorado Hospital is part of a larger system known as UCHealth. UCHealth combines Memorial Hospital, Poudre Valley Hospital, Medical Center of the Rockies, Colorado Health Medical Group and University of Colorado Hospital into one organization dedicated to health and unmatched patient care in the Rocky Mountain West. The information within this report will enable us to strategically establish priorities, direct resources and implement initiatives to improve the health of our communities.

Overview

Required of all not-for-profit hospitals as a condition of retaining tax-exempt status, a CHNA is part of a hospital's documentation of community benefit mandated by the Affordable Care Act. Conducting this CHNA ensures that UCHealth hospitals identify and respond to the health needs of area residents.

Description of University of Colorado Hospital

University of Colorado Hospital is the Rocky Mountain region's leading academic medical center. University of Colorado Hospital is best known as an innovator in patient care and often as one of the first hospitals to bring new medicine to the patients' bedside. University HealthSystem Consortium named University of Colorado Hospital the #1 Academic Medical Center in quality in the nation in both 2011 and 2012, and U.S. News & World Report calls University of Colorado Hospital the best hospital in the state. University of Colorado Hospital is one of five Colorado hospitals that make up UCHealth. University of Colorado Hospital has 620 available hospital beds and a wide network of primary care and specialty clinics. The hospital's physicians are affiliated with the University of Colorado School of Medicine, part of the University of Colorado system. Based on the expansive Anschutz Medical Campus in Aurora, CO, the hospital is where patient care, research and education converge to establish the future of health care delivery.

Hospital primary service areas

To define the hospital's primary service area for the purpose of this CHNA, University of Colorado Hospital leaders identified Colorado counties in which at least 10 percent of their patient population resided. Based on this calculation, the University of Colorado Hospital community is defined as Adams, Arapahoe, Denver and Douglas counties.

Methods

Between July 2015 and February 2016, University of Colorado Hospital, along with all other UCHealth hospitals, conducted a CHNA in collaboration with the Center for Public Health Practice, Colorado School of Public Health.

A sequential, mixed-method design was developed based on a review of the previous CHNA for the purpose of creating a common philosophy and unifying themes across the UCHealth hospital regions. The design represents best practices in community assessment, with a first phase of strong quantitative data analysis followed by a series of structured activities to engage the community and public health experts in identifying health needs and perceived priorities.

To mobilize the medical provider community, a web-based survey was administered to obtain providers' perspectives on the significant health issues affecting their patients. Key community stakeholders were interviewed to provide insight on top needs facing the University of Colorado Hospital-defined community. These stakeholders were brought together to form the Community Advisory Group (CAG), which was convened to provide input on hospital-based resources needed to address the key health needs. To allow additional community members to share their views and also to solicit comments related to the 2013 CHNA and Implementation Strategy reports, an email survey was sent to community stakeholders.

A subset of University of Colorado Hospital's Senior Management Group was then convened to review all information obtained from the activities described above. Participants in this internal advisory group (IAG) completed the health-issue prioritization identification using an evidence-based, structured process (prioritization matrix included in Appendices). As a final step, the University of Colorado Hospital board of directors was apprised of and approved the information contained within the report during its June 2016 meeting.

Findings

The Center for Public Health Practice, Colorado School of Public Health, conducted a detailed review of publicly available data from a database consolidated by the Colorado Department of Public Health & Environment. Indicator measures included health data, population characteristics and social and economic factors. Data was compared at the county and state levels to identify key health needs. To enhance the health-needs identification, Healthy People 2020[1] benchmarks were also reviewed.

Tables were generated summarizing key health data for University of Colorado Hospital to describe the community and its health status. Key health needs were determined by the Center for Public Health Practice and University of Colorado Hospital based on the data, priorities of the previous CHNAs, current priorities of local health departments, potential to prevent deaths using evidence-based practices and expert opinion.

Within the review of the secondary data, gaps were identified related to minority, low-income and uninsured individuals. To learn more about these populations, University of Colorado Hospital conducted interviews with community members and/or leaders of organizations that serve them.

[1] Healthy People 2020, *Topics and Objectives*, available at: healthypeople.gov/2020/topics-objectives

The community health assessments and prioritization activities carried out by each UCHealth hospital in Colorado yielded two overarching key health themes for the communities they serve. They are:

» Access to care
» Cardiovascular disease prevention and control

For the communities served by University of Colorado Hospital, the assessment further identified significant health needs that were rated highly according to: 1) the in-depth analysis of secondary data; 2) input from the community, medical providers and public health experts; 3) the likelihood of making a measurable impact using evidence-based and innovative interventions; and 4) the hospital's ability to address the problem.

Two of the identified needs overlap with the overarching themes above. Mental and behavioral health needs were additionally identified as a key theme. Further, the need for improved transportation is a key social determinant of health in University of Colorado Hospital's defined community. The needs selected to be prioritized by University of Colorado Hospital's Internal Advisory Group were:

» Access to health care services (with a focus on specialty care access).
» Mental and behavioral health (access to care, integration with primary care).
» Cardiovascular disease prevention and control.
» Transportation to and among health care facilities.

Health care resources available to address needs
Adams, Arapahoe, Denver and Douglas counties are served by several large health care systems, multiple community-based health centers and a large network of medical providers. During the 2013 CHNA, University of Colorado Hospital compiled a list of health care resources in the community available to meet health needs; this list remains relevant today. In addition, Be Healthy Denver has compiled resources on Denver County, and the Tri-County Health Department lists resources for Adams, Arapahoe and Douglas counties.

List of proven strategies available to impact health needs
Within the health-needs prioritization process, the IAG reviewed resources containing evaluated interventions that, if implemented, could make an impact on the significant health issues identified. Some of these resources include The Community Guide for Preventive Services, Colorado's 10 Winnable Battles recommendations and Healthy People 2020 Evidence-Based Resources.

Written comments on previous CHNA
The following is an excerpt of a review of University of Colorado Hospital's 2013 CHNA report provided by Holly Wolf, Ph.D., the Center for Public Health Practice, Colorado School of Public Health.

"An outstanding resource guide to address priority areas was developed and can serve as a valuable resource to the community. The secondary data analysis was extensive, laying a strong data background for the hospital."

Summary of impact of actions taken since previous CHNA
University of Colorado Hospital (and partnering organizations) directed resources to address the priority health issues identified in the 2013 CHNA. The impact of these actions include: 1) the appointment of a broad-based steering committee comprised of hospital administrators, physicians and community partners; 2) the formation of the Bridges to Care program, which focuses on health care access for high utilizers of the Emergency Department; and 3) the development of the Triage Project, which is designed to keep non-emergent patients with mental and behavioral health issues out of the Emergency Department.

Prioritized community health needs
Based on the information compiled from the activities described within this report, it is concluded that access to specialty care, cardiovascular disease (and related risk factors) and mental and behavioral health (including a special focus on primary care integration) are the community health issues that achieved the highest priority within the University of Colorado Hospital community and therefore should be the focus of the 2016 University of Colorado Hospital Implementation Strategy development.

Acknowledgments, recommendations and next steps
We would like to thank our colleagues from the Center for Public Health Practice, Colorado School of Public Health; local medical providers; county and community leaders; and community members who provided insight and expertise that greatly assisted in the completion of this project.

In the following months, implementation strategies designed to address the prioritized health needs within our communities will be prepared and presented to the University of Colorado Hospital board of directors for their oversight and approval.

The University of Colorado Hospital CHNA report will be made available to the public for viewing or download on the hospital's website as well as in hardcopy form at the hospital's administrative offices.

Table of contents

Overview of community health needs assessment requirement

Organized as a non-profit, body corporate and state authority, University of Colorado Hospital is part of a larger system known as UCHealth. A Colorado Front Range health system, UCHealth delivers the highest quality patient care with the highest quality patient experience.

UCHealth combines Memorial Hospital, Poudre Valley Hospital, Medical Center of the Rockies, Colorado Health Medical Group and University of Colorado Hospital into one organization dedicated to health and unmatched patient care in the Rocky Mountain West. Separately these institutions can continue providing superior care to patients and service to the communities they serve. Together they push the boundaries of medicine, attracting more research funding, hosting more clinical trials and improving health through innovation.

The mission of UCHealth is to be an integrated, independent, nonprofit organization providing innovative, comprehensive care of the highest quality and exceeding expectations of the communities it serves. Completion of a Community Health Needs Assessment (CHNA) and development of a related Implementation Strategy (IS) ensures that hospitals identify and respond to the primary health needs of the residents of the communities they serve. IRS Section 501(r) requires that nonprofit community hospitals conduct a CHNA every three years to maintain tax-exempt status.

Description of University of Colorado Hospital

University of Colorado Hospital, part of UCHealth, has been serving Coloradans since 1885 and has been in the Denver metro area since 1925. As the region's only academic medical center and a partner with the renowned University of Colorado Denver School of Medicine, University of Colorado Hospital and its health care providers lead the latest research and treatment. To ensure patient safety, the hospital commits tremendous resources to continuously monitor and act on many factors, including medical quality measures, clinical outcomes and patient satisfaction scores. In addition, the University of Colorado Hospital practice model offers the latest in patient- and family-centered care. University of Colorado Hospital has 620 available hospital beds as well as a wide network of primary care and specialty clinics.

Communities served by University of Colorado Hospital

The CHNA Primary Service Area (PSA) for University of Colorado Hospital includes all ZIP codes within Adams, Arapahoe, Denver and Douglas Counties.
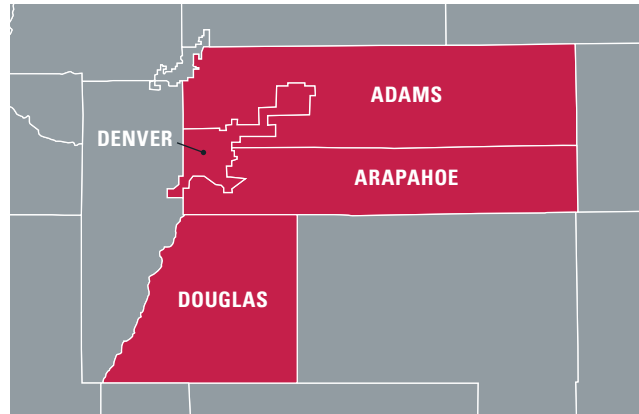
Demographic Characteristics of Adams, Arapahoe, Denver and Douglas Counties

Population

The counties comprising University of Colorado Hospital's PSA – Adams, Arapahoe, Denver and Douglas – are a mix of urban and suburban as well as some rural communities. The table below shows that Denver County is the most populous and Douglas County the least.

Population in Primary Service Area	
Adams	484,186
Arapahoe	620,974
Denver	650,702
Douglas	314,619
Total PSA Population	2,070,571

Age

The population in the Denver metro area is relatively young. On average in the University of Colorado Hospital PSA, 37.3 percent of individuals are between the ages of 20 and 44. The age breakdown by county is displayed in the table below.

By Age (%)	Adams County	Arapahoe County	Denver County	Douglas County	PSA Average
<1 year	1.7	1.3	1.4	1.0	1.4
1-14	22.4	19.3	17.7	22.2	20.0
15-19	7.0	6.8	4.8	8.2	6.4
20-44	36.7	34.8	43.0	31.0	37.3
45-64	23.0	26.5	21.9	28.4	24.5
65+	9.4	11.5	11.1	8.8	10.5

Gender

Males and females are dispersed evenly throughout the University of Colorado Hospital defined community counties. The table below breaks down gender by county.

	Adams County	Arapahoe County	Denver County	Douglas County	PSA Average
% Male	50.28%	49.07%	49.99%	49.45%	49.70%
% Female	49.72%	50.93%	50.01%	50.55%	50.30%

INTRODUCTION

Race/Ethnicity

The racial and ethnic breakdown in the University of Colorado Hospital PSA shows the population to be a majority Non-Hispanic White (61.7 percent), followed by 23.1 percent Hispanic. Non-Hispanic Black and other Non-Hispanic races comprise 8.4 percent and 6.9 percent of the total population, respectively. In the table below, you will find that some counties in the UCHealth PSA are more diverse than others.

By Race/Ethnicity (%)	Adams County	Arapahoe County	Denver County	Douglas County	PSA Average
Non-Hispanic White	53.3	64.0	54.4	85.5	61.7
Hispanic White	35.3	16.4	27.8	7.5	23.1
Black	4.1	12.0	11.1	1.7	8.4
Asian American	4.6	6.3	4.3	4.7	5.0
Native American	2.6	1.4	2.4	0.6	1.9

Economic stability

The median household income in the University of Colorado Hospital PSA was $63,128 in 2013, with 18.8 percent of children younger than 18 years and 13.2 percent of families living below the U.S. Census Bureau's 2013 poverty threshold. Families living in poverty are less concentrated in Douglas County (3.6 percent) and more concentrated in Denver County (18.7 percent). An estimated 8.1 percent of households in the University of Colorado Hospital PSA received Supplemental Nutrition Assistance Program benefits (SNAP, formerly known as food stamps) in 2010. According to the Colorado Department of Labor and Employment, the average unemployment rate in the University of Colorado Hospital PSA during 2013 was 6.7 percent.

In 2013, 21 percent of adult residents in the University of Colorado Hospital defined community counties held a high school diploma or equivalent as their highest degree, and 45.8 percent held a college degree.

The table below contains data on the economic stability of each of the counties in University of Colorado Hospital's PSA:

	Adams County	Arapahoe County	Denver County	Douglas County	PSA Average
Median household income (US dollars)	$54,876	$61,092	$51,156	$105,192	$63,128
Below poverty level, all ages (%)	13.2	12.3	18.7	3.6	13.2
Below poverty level, children <18 (%)	17.5	16.6	28.7	3.8	18.8
Households receiving SNAP (%)	9.7	7.4	10.5	2.1	8.1
Eligible for free/reduced school lunch (%)	47.8	43.8	70.3	11.3	48.3
Unemployment (%)	7.5	6.5	7.0	5.4	6.7

(For detailed indicators and sources referenced above, see Appendix 1.)

Between July 2015 and February 2016, University of Colorado Hospital, along with all other UCHealth hospitals, conducted a CHNA in collaboration with the Center for Public Health Practice, Colorado School of Public Health. The CHNA process provided an opportunity for the hospitals to engage public health experts, medical providers and community stakeholders in a formal process to ensure that community benefit programs and resources are focused on significant health needs identified within the communities they serve.

Community health needs assessment

Methods used to conduct the community health needs assessment
A sequential, mixed-method design was developed based on a review of the previous CHNA, with the purpose of creating a common philosophy and unifying themes across the UCHealth hospital regions. The design represents best practices in community assessment, with a first phase of strong quantitative data analysis followed by a series of structured activities carried out to engage the community and public health experts in identifying the health needs and perceived priorities. These qualitative techniques were implemented after sharing the significant health needs identified in the first phase. To mobilize the medical provider community, a web-based survey was administered to obtain their perspective on the significant health issues affecting their patients. A Community Advisory Group was convened in each hospital region to provide input related to hospital-based resources needed to address the key health needs.

COMMUNITY HEALTH NEEDS ASSESSMENT

The following figure illustrates the CHNA process components and participants.

Identify community health needs

Secondary data analysis
- » Population characteristics
- » Social and economic factors
- » Health data

Community and medical provider input
- » Brainstorming and ranking
- » What are our community's biggest health problems?

Prioritize significant community health needs

Synthesis of information
- » In-depth secondary data analysis
- » Community and provider input
- » Community advisory group input
- » Written comment on prior CHNA

Prioritization matrix
- » Scope of issue
- » Ability to impact?
- » Evidence-based strategies available?

Hospital internal advisory group priority issue selection

Board of directors review and approval

Secondary data sources and analysis
The Center for Public Health Practice, Colorado School of Public Health, conducted a detailed review of publicly available data from a database consolidated by the Colorado Department of Public Health & Environment. The database was created to support its local public health agencies in carrying out their Community Health Assessments and Community Health Improvement Plans. It contains key health indicators from multiple data sources to describe health from a health-equity context.

Indicator measures include health data, population characteristics and social and economic factors. Data was compared at the county and state levels to identify key health needs. To enhance the health needs identification, Healthy People 2020[2] benchmarks were also reviewed.

Tables summarizing key health data for University of Colorado Hospital were generated to describe the community and its health status. Key health needs were determined by the Center for Public Health Practice and University of Colorado Hospital based on the data, priorities of the previous CHNAs, current priorities of local health departments, potential to prevent deaths using evidence-based practices and expert opinion.

Categories examined included:

1. Demographics and socioeconomic status
2. Health care access and services
3. Health behaviors
4. Nutrition, physical activity and body mass index
5. Maternal and child health
6. Physical and mental health status
7. Specific health conditions – morbidity and mortality

Data sources and related web site links are available in Appendix 1.

Information gaps impacting ability to assess needs
Within the review of the secondary data, gaps were identified related to minority, low-income and uninsured individuals. To learn more about these individuals, University of Colorado Hospital facilitated meetings (see below) with community members and/or leaders of organizations serving these individuals.

Community engagement for input
To gather community input, University of Colorado Hospital carried out three main activities: 1) interviews with key stakeholders representing the underserved populations in the hospital's surrounding community, 2) a medical provider web-based survey and 3) a group priority discussion with the Community Advisory Group. Persons with special knowledge or expertise in public health; representatives of health departments serving community health; agency leaders providing services to and/or members of the medically underserved, low-income and minority populations; and other stakeholders in community health were included. Key health concerns identified by the secondary data obtained during the first phases of this CHNA were used as supporting information for these sessions.

[2] Healthy People 2020, *Topics and Objectives*, available at: healthypeople.gov/2020/topics-objectives

COMMUNITY HEALTH NEEDS ASSESSMENT
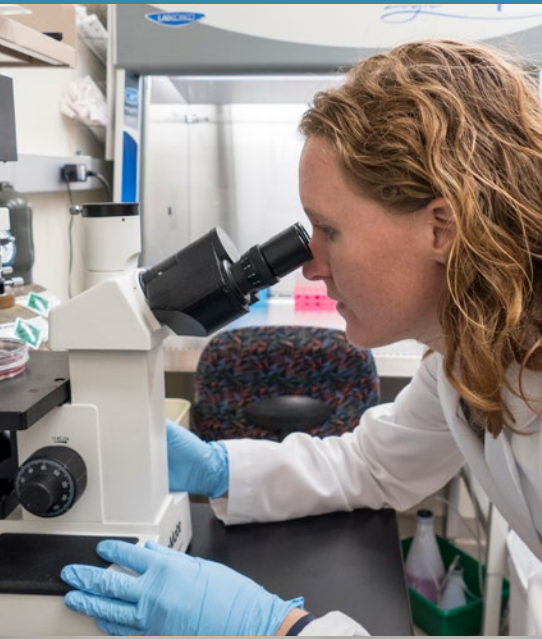
1.) Key stakeholder interviews were completed with key community members representing the hospital's surrounding community to learn more about the health needs in the hospital's primary service area. (Appendix 3 provides a complete list of the organizations.) Notes taken from the interviews were coded and analyzed to support further narrowing down of the list to prioritize, catalogue community resources and identify ideas for the Implementation Strategy.

2.) In conjunction with the other UCHealth hospitals, University of Colorado Hospital administered a web-based survey of providers in its service area to rank significant health needs from the list generated in the secondary data analysis. Other health-issue topics and open-ended comments were also solicited from survey respondents.

3.) A group priority discussion with University of Colorado Hospital's Community Advisory Group narrowed down the health needs identified through the secondary data, key stakeholder interviews and provider survey. The Community Advisory Group is comprised of key stakeholders or their delegates and will continue to meet throughout the Implementation Strategy development

Method to obtain written public comment on previous CHNA and implementation strategy
To allow community members to share their views and also to solicit comments specifically related to the 2013 CHNA and Implementation Strategy reports feedback was sought during the key stakeholder interviews. Key stakeholders were asked to review and provide written comment following their interviews.

Data Integration and synthesis
The results of the secondary data review, provider survey and community input were combined to generate the list of proposed priorities. This list was presented to University of Colorado Hospital's Internal Advisory Group (IAG), comprised of key Senior Management Group members, for review and approval prior to advancing the priorities to support the Implementation Strategy.

Internal advisory group prioritization
A priority-setting meeting with University of Colorado Hospital's IAG served to discuss the main health needs identified through the CHNA and to recommend priority issues to be addressed by University of Colorado Hospital. The prioritization matrix used by the IAG is contained in Appendix 2. The following criteria for prioritization were used:

- » Scope and severity of the health need
- » Economic feasibility to address health need
- » Potential for hospital to impact health need
- » Alignment with UCHealth system strategies

Health needs identified for communities served by University of Colorado Hospital
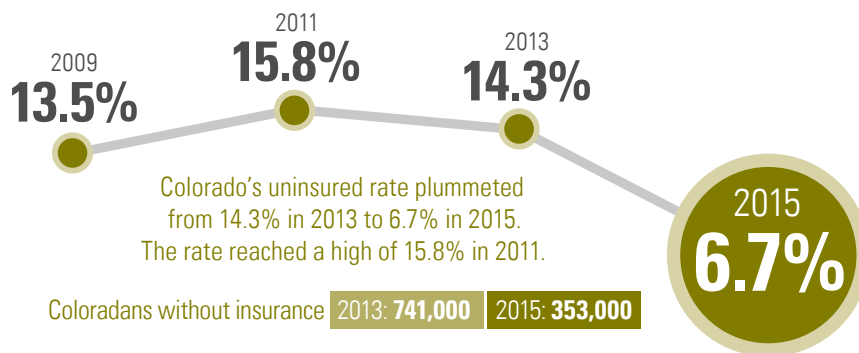
A synopsis of key data findings from the secondary data analysis, medical provider survey and community input identified by the 2016 CHNA and opportunities identified for University of Colorado Hospital are provided below. (Appendix 1 provides more specific health measures/indicators used to describe the health needs that University of Colorado Hospital shared with the community to guide discussions and gain input.).

Specialty care access
– Importance to the community

For the 2016 CHNA, the recent data reported by the Colorado Health Institute showed a sharp decline in the proportion of people with no health insurance in the state due to the Affordable Care Act and its implementation.[3]

Colorado's uninsured rate: A new low

2009
13.5%

2011
15.8%

2013
14.3%

2015
6.7%

Colorado's uninsured rate plummeted from 14.3% in 2013 to 6.7% in 2015. The rate reached a high of 15.8% in 2011.

Coloradans without insurance | 2013: **741,000** | 2015: **353,000**

The uninsured rate for the University of Colorado Hospital PSA varies from 2.4 to 7.1 percent, with an average of 5.0 percent for the combined region. Most of the decline in the number of uninsured was due to increased enrollment in Medicaid. Still, the community has identified that there remain many barriers to access to care, particularly specialty care, both through Medicaid and other payer sources.

Specialty care access
– suggested opportunities for 2016 implementation plan

Access to care was selected as a priority for University of Colorado Hospital in the 2013 CHNA and included in its implementation plan. Participation in the Metro Community Provider Network's Bridges to Care program, which identifies patients at high risk for emergency room visits and hospital admissions, has been a successful element of community outreach.

University of Colorado Hospital has initiated communitywide meetings to provide a roundtable for discussion on how to address increasing patient demands, including provider referral, and how to better manage those demands. The community representatives in this CHNA have stressed the importance of University of Colorado Hospital partnerships and support in collaborative efforts to reduce this need but also requested that University of Colorado Hospital engage in activities that are realistic and can be measured. In the coming years, there is substantial opportunity for University of Colorado Hospital to develop other novel ways to improve access to specialty care for the communities it serves, such as the partnership with the Mile High Health Alliance and ClinicNET to build a specialty care referral network in Denver.[4]

---

[3] Colorado Health Institute: 2015 Colorado Health Access Survey; available at: http://www.coloradohealthinstitute.org/key-issues/detail/health-coverage-and-the-uninsured/colorado-health-access-survey-1

[4] http://www.clinicnet.org/wp-content/uploads/2015/01/2014_12_04_Stakeholder-Meeting_Slides_Final.pdf

Mental and behavioral health
– *Importance to the community*

Mental health problems produce substantial morbidity in the population and compound physical health problems in many ways. Adults report that about 10 percent of the time their mental health is not good, and about 5 percent of adults report being generally unsatisfied with their lives. Alcohol and substance abuse in the University of Colorado Hospital PSA was identified as higher than the overall rate in Colorado. About 20 percent of adults report binge drinking. Community input identified addiction to both prescription and street drugs as a substantial health concern.

Mental and behavioral health
– *suggested opportunities for 2016 implementation plan*

University of Colorado Hospital's 2013 CHNA identified mental health as a top priority but also indicated that the issue was a larger societal challenge that would take a large effort to address the magnitude of concerns. The TriCounty Health Department, which serves Adams, Arapahoe and Doulas counties, has selected mental health as a top priority for its improvement plan. Public health leaders' comments during the University of Colorado Hospital 2016 CHNA suggest that the ongoing State Innovation Model (SIM) efforts to better integrate physical and behavioral health in primary care in Colorado has produced promising results. The SIM could present new opportunities for University of Colorado Hospital to become engaged in mental health improvement in the community

Cardiovascular disease
– *Importance to the community*

Cardiovascular disease (CVD) remains the leading cause of mortality and hospitalizations, despite the substantial and ongoing progress being made in CVD prevention and treatment over the past 30 years. The age-adjusted mortality rates for heart disease and cardiovascular disease for the University of Colorado Hospital PSA in 2013 are substantial, at 124.4 deaths per 100,000 people and 30.3 deaths per 100,000 people .The age-adjusted hospitalization rate for heart disease in the University of Colorado Hospital PSA — 2,528.1 hospitalizations per 100,000 residents per year — exceeds the overall Colorado rate of 2,272 hospitalizations per 100,000 people per year. Further, the rates of mortality and hospitalizations for heart disease are about 50 percent and 100 percent higher in Adams County than in Douglas County, respectively. A substantial proportion of those events are preventable through control of hypertension and cholesterol as well as timely treatment.

Tobacco use is a substantial risk factor for many diseases, including cardiovascular disease. It is important to consider tobacco use as a major modifiable risk factor regardless of differences across counties or in comparison to the state. There are substantial differences in adult tobacco use between University of Colorado Hospital PSA (e.g., Adams County at 22 percent versus Douglas County at 9 percent).

Cardiovascular disease
– *suggested opportunities for 2016 implementation plan*

Armed with the evidence that many cardiovascular hospitalizations and deaths are preventable, new efforts in CVD risk-factor control in the community could become a high priority for University of Colorado Hospital community investment.

University of Colorado Hospital has a very successful tobacco cessation program for inpatients. With that program as a base, extension into the community to support tobacco use prevention and cessation could be a high priority for University of Colorado Hospital community investment.

Transportation
– *Importance to the community*

In discussions about social determinants that affect health, community groups indicated that transportation is one of the biggest barriers for the underserved to access medical care. The proximity to highways and consistent construction near University of Colorado Hospital, along with limited bus service, creates challenges for some patients to make their appointments. Similarly, access to primary care services is sometimes difficult for patients.

Transportation
– *suggested opportunities for 2016 implementation plan*

With the rapid growth in Aurora, the installation of a light rail system, and University of Colorado Hospital's involvement in planning efforts for the changing transportation system, community members encouraged increased participation by University of Colorado Hospital as a champion for changes that would benefit the underserved communities.

Other Comments

The community also encouraged University of Colorado Hospital to continue to seek opportunities to impact "public policy" at all levels of government and play an active role in addressing access to specialty care, mental health and behavioral health care, cardiovascular disease prevention and transportation in the communities it serves.

Community input synopsis

The graphic below contains themes identified by community stakeholders through University of Colorado Hospital's community outreach.

chronic illness

OBESITY mental & behavioral health

SPECIALTY ACCESS

social determinants of health

transportation DENTAL HEALTH

cultural sensitivity

Medical provider survey results

The table below highlights the priority needs identified by the 109 respondents of the medical provider survey who serve patients within University of Colorado Hospital's service area.

Provider Ranking	Health Issue
#1	Health care access
#2	Mental health
#3	Cardiovascular disease
#4	Alcohol and substance abuse
#5	Obesity
#6	Diabetes

Data integration and synthesis

The community health assessments and prioritization activities carried out by each UCHealth hospital in Colorado yielded two overarching key health themes for the communities they serve. They are:

» Access to care
» Cardiovascular disease prevention and control

For the communities served by University of Colorado Hospital, the assessment further identified significant health needs that were rated highly according to: 1) the in-depth analysis of secondary data, 2) input from the community, medical providers and public health experts, 3) the likelihood of making a measurable impact using evidence-based and innovative interventions, and 4) the hospital's ability to address the problem.

Two of the identified needs overlap with the overarching themes above. Mental and behavioral health needs were additionally identified as a key theme. Further, the need for improved transportation is a key social determinant of health in the University of Colorado Hospital PSA. The needs selected to be prioritized by University of Colorado Hospital's Internal Advisory Group were:

» Access to health care services (with a focus on specialty care access).
» Mental and behavioral health (access to care, integration with primary care).
» Cardiovascular disease prevention and control.
» Transportation to and among health care facilities

The following table summarizes the health needs identified by the different stages of data collection and analysis within the criteria used to select them.

Health needs for University of Colorado Hospital - identified by various data collection methods

Health need	Secondary data review	Community meetings	Medical provider survey	Internal advisory group
Access to care	+	+	+	+ (specialty care)
Cardiovascular disease	+	+	+	+
Diabetes	+		+	
Mental and behavioral health	+	+	+ mental + substance abuse	+
Obesity	+		+	
Social determinants for health	+ (poverty)	+ (housing)		+ transportation + poverty
Teen Pregnancy	+			
Tobacco	+		+	+ (as part of CVD prevention)

Written comments on previous CHNA and implementation strategy

The following is a review of University of Colorado Hospital's 2013 CHNA report provided by Holly Wolf, Ph.D., C.S.P.H.

"University of Colorado Hospital partnered with the Center for Health Administration at the University of Colorado Denver to carry out the CHNA in 2013 to meet the Internal Revenue code requirements for conducting a CHNA every three years.

This assessment provided a good first effort for the CHNA. The processes used to collect data to describe the community and support the prioritization process were well described. The assessment used three components to collect the data, including:

» Obtaining health indicators from the Colorado Department of Public Health & Environment databases to create a description of the community served by University of Colorado Hospital.

» Carrying out a medical provider survey to engage the medical community by brainstorming health concerns and ranking them.

» Holding key stakeholder interviews to learn about the needs of the hospital's community and opportunities for collaboration.

Prioritization was carried out by combining a ranking of health concerns in which the University of Colorado Hospital community measured below state averages, a physician brainstorming and ranking of health concerns and the overlap of key stakeholder concerns with the prior concerns identified.

These efforts resulted in access, mental health and obesity as the top three health needs.

This process resulted in concerns that overlapped with the health improvement priorities selected for Denver's Community Health Improvement Plan 2013-2018 of access to care and healthy childhood weight and for TriCounty Health Department's Public Health Improvement Plan 2014-2018 (including Adams, Arapahoe and Douglas Counties) of mental health.

An outstanding resource guide to address priority areas was developed and can serve as a valuable resource to the community.

The secondary data analysis was extensive, laying a strong data background for the hospital. Its use in ranking health concerns was limited in a comparison of the community to the state. No clearly defined criteria other than expert opinion were used in the prioritization process for the CHNA. Inclusion of assessment of evidence-based interventions to substantially address a health need and whether those represented concerns would benefit from University of Colorado Hospital's involvement were carried out in the developing the Implementation Plan."

Written public comment

While written public comments were solicited, no written comments were received. The methods for soliciting and receiving public comment for the 2016 University of Colorado Hospital Community Health Needs Assessment will be reviewed and improved.

Community-wide health care resources available to address needs
Adams, Arapahoe, Denver and Douglas counties are served by several large health care systems, multiple community-based health centers and a large network of medical providers. During the 2013 CHNA, University of Colorado Hospital compiled health care resources in the community to meet health needs; this list remains relevant today. In addition, Be Healthy Denver has resources compiled related to Denver County, and Tri-County Health Department has resources listed related to Adams, Arapahoe and Douglas counties.

List of proven strategies available to impact health issues
Within the health-issue prioritization process, the IAG reviewed resources containing evaluated interventions that, if implemented, could make an impact on the significant health issues identified. These resources, and their related websites, include:

» Community preventive services task force findings:
http://www.thecommunityguide.org/about/whatworks.html

» Colorado's 10 winnable battles recommendations:
https://www.colorado.gov/pacific/cdphe/colorados10winnablebattles

» Healthy people 2020 evidence-based resources:
http://www.healthypeople.gov/2020/tools-resources/Evidence-Based-Resources

Summary of impact of actions taken by hospital since previous CHNA and IS

In UCHealth's 2015 fiscal year (July 1, 2014 – June 30, 2015), the system invested $203 million in programs, facilities, subsidies, research and more in the communities it serves, improving lives and building on its vision of moving from health care to health.

University of Colorado Hospital's 2013 Implementation Strategy described the various resources and initiatives directed toward addressing the health issues identified and prioritized within the 2013 CHNA. The following is a snapshot of the impact of actions taken by University of Colorado Hospital and partnering organizations to address the priority health issues:

Priority Health Issue – Access

» A broad-based steering committee comprised of hospital administrators, physicians, community partners, etc., met and agreed to address Access to Care as the primary implementation focus.

» Bridges to Care (B2C) is a program funded through a three-year Centers for Medicare and Medicaid Innovation grant awarded through Rutgers University to four sites throughout the United States, including Colorado. Partnering with Metro Community Provider Network (MCPN), University of Colorado Hospital, particularly the Emergency Department, was the front-end provider to identify patients who could be candidates for B2C. The program utilizes the concept of hotspotting, which is a proven clinical/societal intervention for the most costly, high-risk patients, resulting in savings that can be reinvested in community-based intervention and wellness.

Priority Health Issue – Mental and Behavioral Health

» Regarding mental and behavioral health, it was felt that these and related issues are much larger societal challenges that would take longer-term, concerted efforts by all levels of government, mental health professionals and community leaders working collaboratively to address the magnitude of concerns. However, mental and behavioral health concerns can also at least be partially addressed through proper and appropriate physical health care and ongoing health maintenance.

» With funding from the City of Aurora, the Triage Project was created through the collaboration of University of Colorado Hospital, Medical Center of Aurora - MCA (HealthONE), Aurora Mental Health Center, Arapahoe House (substance abuse treatment) and the city's police and fire departments. This project is designed to identify individuals who are predictable high utilizers of hospital emergency departments (both University of Colorado Hospital and MCA). Rather than law enforcement or emergency medical services (Aurora Fire) bringing detox patients into the emergency departments (EDs), the project redirects them to Arapahoe House for basic detox and to Aurora Mental Health Center for additional care. The Triage Project has demonstrated great success in keeping non-emergent patients out of the EDs.

Priority Health Issue – Obesity

» The steering committee noted that obesity issues could be at least partially addressed if people had access to appropriate medical care, including proper health maintenance, nutrition and exercise as part of a wellness and prevention plan coordinated through a primary care provider.

PRIORITIZED COMMUNITY HEALTH NEEDS

Based on the information compiled from the activities described within this report, it is concluded that access to specialty care, cardiovascular disease (and related risk factors) and mental and behavioral health (including a special focus on primary care integration) are the community health needs that achieved the highest priority within the University of Colorado Hospital communities and therefore should be the focus of the 2016 University of Colorado Hospital Implementation Strategy development.

Focus of the 2016 University of Colorado Hospital Implementation Strategy

Access to specialty care

Cardiovascular disease

Mental and behavioral health

Approval of CHNA by University of Colorado Hospital Board of Directors

During their June 2016 meeting, the University of Colorado Hospital board of directors was apprised of and approved the information contained within this report. In the following months, implementation strategies — designed to address the identified health needs within our communities — will be prepared and presented to the University of Colorado Hospital board of directors for their oversight and approval.

Acknowledgments, recommendations and next steps

We would like to thank our colleagues from the Center for Public Health Practice, Colorado School of Public Health; local medical providers; county and community leaders; and community members who provided insight and expertise that greatly assisted in the completion of this project.

In the following months, implementation strategies designed to address the prioritized health needs within our communities and specifically aligned with each hospital facility's specialty areas will be prepared and presented to the University of Colorado Hospital board of directors for their oversight and approval.

The University of Colorado Hospital CHNA report will be made available to the public for viewing or download on the hospital's website as well as in hardcopy form at the hospital's administrative offices.

Appendices

Appendix 1a: data sources

Association of Religion Data Archives
CDC National Center for Health Statistics
CDPHE Division of Disease Control and Environmental Epidemiology
CDPHE Hazardous Materials and Waste Management Division
CDPHE Safe Drinking Water Information System database
Colorado Behavioral Risk Factor Surveillance System
Colorado Bureau of Investigation
Colorado Central Cancer Registry
Colorado Child Health Survey
Colorado Department of Education
Colorado Department of Human Services
Colorado Department of Labor and Employment
Colorado Health and Hospital Association

Colorado Health Institute
Colorado Health Statistics and Vital Records
Colorado Pregnancy Risk Assessment Monitoring System
Colorado Secretary of State
Healthy Kids Colorado Survey
Environmental Protection Agency Air Quality System
Library Research Service
National Center for Charitable Statistics
State Demography Office
US Bureau of Labor Statistics
US Census Bureau American Community Survey
US Census Bureau County Business Patterns
US Census Bureau Small Area Income and Poverty Estimates

Appendix 1b: data sources

Summary of Community Needs for University of Colorado Hospital
From Holly Wolf and Tim Byers, Oct. 30, 2015

Background and purpose of this report
As the first step in the ongoing community health needs assessment for University of Colorado Hospital, existing data from multiple sources were compiled to describe the characteristics of the four-county University of Colorado Hospital primary service area (Adams, Arapahoe, Denver and Douglas Counties). Sources of data were the U.S. Census, surveys of health care access and health-related behaviors and both disease incidence and mortality data. A table displaying selected data is included as Attachment 1, and a complete set of tables is provided as Attachment 2. Following is a summary of what seem to be significant needs and opportunities for University of Colorado Hospital to improve population health in its service area in the coming three years. This listing, and the data tables, are provided here as background to community stakeholders and hospital staff to elicit their views on priorities for University of Colorado Hospital as it completes the process of the Community Health Needs Assessment and moves into the process of prioritizing and planning in the coming weeks.

Sociodemographic background
Of course, University of Colorado Hospital is a statewide and regional medical center, but its primary service area consists of more than two million residents. There are substantial differences in socioeconomics between the counties of Douglas and Arapahoe as compared to Denver and Adams. Adams County could become a particularly important focus for University of Colorado Hospital in the coming years, as its lower socioeconomic status and higher health risks are not now served by a health system as comprehensive as Denver Health, serving Denver County.

Significant needs and opportunities (alphabetized listing)
Alcohol and Substance Abuse: About 20 percent of adults report binge drinking. Addiction to both prescription and street drugs is also a substantial health burden. The ongoing State Innovation Model efforts to better integrate physical and behavioral health in Colorado could present new opportunities for University of Colorado Hospital to become better engaged in community efforts to prevent and control alcohol and drug addiction in the community.

Cancer: Screening can substantially reduce the risk of morbidity and mortality from both colorectal cancer and lung cancer. Colonoscopy has been shown to reduce the risk of colorectal cancer by at least 60 percent, yet a third of people are not up-to-date on screening. Low-dose CT imaging has been shown to reduce risk of dying from lung cancer by at least 20 percent, but very few people at risk have been screened. New outreach to increase colorectal and lung screening could become a priority for University of Colorado Hospital community investment.

Appendices

Appendix 1b: data tables *(cont.)*

Cardiovascular Disease: CVD remains the leading cause of mortality and hospitalizations, despite the substantial and ongoing progress made in CVD prevention and treatment over the past 30 years. Both hospitalization and mortality rates for CVD are about 50 to 100 percent higher in Adams County than in Douglas County. Armed with the evidence that many of those hospitalizations and deaths are preventable, new efforts in CVD risk-factor control in the community could become a high priority for University of Colorado Hospital community investment.

Diabetes: Diabetes is both preventable and manageable. Diabetes prevalence varies across the University of Colorado Hospital counties, as does mortality, with two-fold differences. There are now evidence-based methods for both preventing diabetes and substantially improving its management. Armed with that evidence, new efforts in diabetes prevention and education in the community could become a high priority for University of Colorado Hospital community investment.

Health Care Access: The Affordable Care Act has significantly reduced the proportion of people with no health insurance in the University of Colorado Hospital area. Despite this, there are still many barriers to access to care, particularly specialty care, both through Medicaid and other payer sources. Bridges to Care has been a successful program of community outreach. In the coming years, University of Colorado Hospital could develop other novel ways to improve access to specialty care for the communities it serves.

Mental Health: Mental health problems produce substantial morbidity in the population and compound physical health problems in many ways. Adults report that about 10 percent of the time their mental health is not good, and about 5 percent of adults report being generally unsatisfied with their lives. The ongoing State Innovation Model efforts to better integrate physical and behavioral health care in Colorado could present new opportunities for University of Colorado Hospital to become engaged in mental health improvement in the community.

Obesity: Obesity is a substantial risk factor for many diseases. It is important to consider obesity as a major modifiable risk factor regardless of differences across counties or in comparison to the state. There are substantial differences in adult obesity among counties served by University of Colorado Hospital (e.g., Adams County at 26 percent versus Douglas County at 16 percent). Given community resources now in development by LiveWell and others, obesity prevention and management could be a high priority for University of Colorado Hospital community investment.

Postpartum Depression: About 10 percent of women report substantial symptoms of depression in the postpartum period. Outreach and follow-up to women who have delivered at University of Colorado Hospital and involvement in community awareness and support for young mothers could become a high priority for University of Colorado Hospital community investment.

Teen Pregnancy: There is substantial variation across the counties served by University of Colorado Hospital in the rate of live births to teens ages 15-17 (19.6 per 1,000 teens in Adams County versus 2.2 per 1,000 teens in Douglas County). Reducing barriers to access of long-acting, reversible contraception for teens has been shown to be an effective way to reduce unplanned pregnancy and also abortions. New outreach to educate teens about birth control could become a high priority for University of Colorado Hospital community investment.

Tobacco: Tobacco use is a substantial risk factor for many diseases. It is important to consider tobacco as a major modifiable risk factor regardless of differences across counties or in comparison to the state. There are substantial differences in adult tobacco use among counties served by University of Colorado Hospital (e.g., Adams County at 22 percent versus Douglas County at 9 percent). University of Colorado Hospital has a very successful tobacco cessation program for inpatients. Extending that program into the community to support tobacco prevention and cessation could be a high priority for University of Colorado Hospital community investment.

Appendices

Attachment 1 – Selected Health Characteristics for University of Colorado Hospital

	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Population	2015	5,438,077	484,186	620,974	650,792	314,619	2,070,571
% Hispanic	2013	19.0	35.3	16.4	27.8	7.5	23.1
% Black	2013	5.1	4.1	12.0	11.1	1.7	8.4
% with less than high school education	2009-2013	10.0	18.6	8.6	14.6	2.5	11.9
% of people without health insurance	2015	6.7	7.0	7.1	2.8	2.4	5.0
% adults who currently smoke cigarettes	2011-2013	17.9	22.0	16.9	20.7	8.8	18.1
% adults - report 5+ drinks on one occasion in past month	2011-2013	19.2	21.5	19.6	26.8	16.7	21.9
%of adults (18+) who are:							
obese (BMI => 30)	2011-2013	20.8	25.5	21.8	20.0	16.5	21.3
overweight or obese (BMI => 25)	2011-2013	56.1	62.2	58.0	53.9	53.3	57.0
% of pregnant women who often or always felt down, depressed, sad or hopeless since the new baby was born	2009-2011	10.5	8.6	15.3	9.2	8.3	10.8
Live births born to women age 15-17 per 1,000 women age 15-17	2011-2013	12.4	19.6	10.7	21.6	2.2	15.0
Adults with diabetes (%)	2011-2013	6.9	8.1	6.2	8.3	4.1	7.0
Stroke hospitalization rate	2011-2013	246.9	293.0	249.7	255.8	224.3	257.8
Heart disease hospitalization rate	2011-2013	2272.3	2654.0	2456.1	2651.4	2216.6	2528.1
Acute MI hospitalization rate	2011-2013	162.5	206.4	138.6	179.7	113.4	163.6
Congestive heart failure hospitalization rate	2011-2013	669.2	833.8	646.6	851.6	548.1	740.5

Appendices

Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital – Central Region

Table 1. Demographics and Socioeconomic Status

Demographics and socioeconomic status	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Total population	2013	5,264,894	468,686	606,617	648,926	306,032	2,030,261
2015 estimate	2015	5,438,077	484,186	620,974	650,792	314,619	2,070,571
By gender (%)							
male	2013	2,635,638	235,632	297,646	324,426	151,332	1,009,036
female	2013	2,629,256	233,054	308,972	324,500	154,700	1,021,225
By age (%)							
<1 year	2013	1.4	1.7	1.3	1.4	1.0	1.4
1-14	2013	20.0	22.4	19.3	17.7	22.2	20.0
15-19	2013	6.4	7.0	6.8	4.8	8.2	6.4
20-44	2013	37.3	36.7	34.8	43.0	31.0	37.3
45-64	2013	24.5	23.0	26.5	21.9	28.4	24.5
65+	2013	10.5	9.4	11.5	11.1	8.8	10.5
By race/ethnicity (%)							
Non-Hispanic White	2013	70.4	53.3	64.0	54.4	85.5	61.7
Hispanic White	2013	19.0	35.3	16.4	27.8	7.5	23.1
Black	2013	5.1	4.1	12.0	11.1	1.7	8.4
Asian American	2013	3.6	4.6	6.3	4.3	4.7	5.0
Native American	2013	1.9	2.6	1.4	2.4	0.6	1.9
Speaks mostly Spanish at home	2009-2013	4.8	10.7	5.5	8.9	1.1	7.1
Education among adults (%)							
Less than high school	2009-2013	10.0	18.6	8.6	14.6	2.5	11.9
HS graduation or GED	2009-2013	22.1	29.7	20.9	18.5	13.4	21.0
Some college	2009-2013	22.8	22.5	23.2	18.8	20.4	21.2
College graduate or more	2009-2013	45.2	29.1	47.2	47.2	63.8	45.8
Median household income (US dollars)	2013	$58,942	$54,876	$61,092	$51,156	$105,192	$ 63,128
Below poverty level, all ages (%)	2013	12.9	13.2	12.3	18.7	3.6	13.2
Below poverty level, children <18 (%)	2013	16.8	17.5	16.6	28.7	3.8	18.8
Households receiving food stamps (%)	2009-2013	8.0	9.7	7.4	10.5	2.1	8.1
Eligible for free/reduced school lunch (%)	2014	41.8	47.8	43.8	70.3	11.3	48.3
Unemployment (%)	2013	6.8	7.5	6.5	7.0	5.4	6.7
Violent crime rate (per 100,000 population)							
adults	2013	134.7	284.4	24.4	298.6	26.0	172.3
juveniles	2013	108.4	246.5	27.4	311.7	21.6	168.0
Child maltreatment per 1,000 children (17 and under)	2012	8.4	11.9	7.0	8.7	3.1	8.1
Elder abuse per 100,000 people (ages 65+)	2014	452.9	336.5	328.0	546.1	165.7	375.2

Appendices

Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital – Central Region *(cont.)*

Table 2. Health Care Access and Services

	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Percent of adults ages 18+ reporting one or more regular health care providers	2011-2013	76.5	71.9	75.8	68.6	83.2	73.7
Number of people without health insurance coverage*	2015	352664	30950	42062	56670	7762	137444
Percent of people without health insurance coverage*	2015	6.7	7.0	7.1	2.8	2.4	5.0
Percent of children (less than 19 years old) without health insurance coverage*	2015	2.5	.	.	.	.	
Licensed health care providers per 100,000 population							
social workers	2013	134	7	11	37	8	18
clinical social workers	2013	75	35	72	140	54	82
nurses	2013	1065	713	1057	984	1386	1004
psychologists	2013	44	16	45	98	25	52
physicians	2013	27	219	314	526	205	343
practicing physicians	2013	226	329	241	396	125	293
practicing primary care physicians	2013	63	61	56	82	48	64
physician assistants	2013	42	26	38	59	51	44
nurse practitioners	2013	56	27	53	69	73	55
dentists	2013	71	41	85	79	87	73
dental hygienists	2013	65	41	61	42	108	57
nurse midwives	2013	6	3	4	10	5	6
optometrists	2013	17	10	18	15	24	16
physical therapists	2013	94	36	81	100	123	83
respiratory therapists	2013	41	41	49	32	43	41

* Colorado Trust and Colorado Health Institute "Findings from the 2015 Colorado Health Survey," September 2015. Data based on Health Statistics region. Not yet obtained for children.

Appendices

Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital – Central Region *(cont.)*

Table 3. Health Behaviors

Percents	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Children 1-14 who:							
rode in car with someone smoking last week	2011-2013	4.9	6.9	7.7	3.3	0.1	4.9
live in home where someone smoked last week	2011-2013	3.3	2.4	3.4	2.0		2.2
use sunscreen appropriately	2010, 2012	79.0	79.8	76.9	81.8	84.0	80.2
use an appropriate car restraint	2010-2012	78.7	76.9	76.6	75.7	82.4	77.2
High school students who:							
currently smoke cigarettes	2013	10.7	11.1	8.4	11.0	9.3	10.0
report driving with someone who had been drinking in last month	2013	7.7	10.3	6.1	11.9	5.9	8.9
report 5+ drinks in 2 hours at least once in past month	2013	16.6	18.7	13.9	19.6	13.8	16.8
report using marijuana at least once in past month	2013	19.7	22.8	20.6	26.6	13.2	21.9
Adults who:							
currently smoke cigarettes	2011-2013	17.9	22.0	16.9	20.7	8.8	18.1
use sun protection appropriately	2012	41.6	32.7	41.1	42.5	47.4	40.5
always use seat belts	2011-2013	84.6	83.6	86.6	84.8	90.8	85.9
report 5+ drinks on one occasion in past month	2011-2013	19.2	21.5	19.6	26.8	16.7	21.9
had a cholesterol test in past 5 years	2011, 2013	75.6	69.6	76.9	73.3	85.1	75.3
had cholesterol tested and told it is high	2011, 2013	34.2	33.4	33.0	32.2	34.0	33.0
have been told their blood pressure is high	2011, 2013	25.6	24.0	25.3	24.8	21.8	24.3
(females ages 40+) had a mammogram in past 2 years	2012	68.0	66.7	70.2	68.6	78.5	70.1
(females 18+) had a Pap smear in past 3 years	2012	78.8	82.0	78.5	80.4	84.5	80.8
(adults 50+) report adequate colorectal screening	2012	65.9	67.6	69.4	66.7	68.4	68.0
had a flu shot in past year	2011-2013	41.4	38.4	44.0	41.6	44.9	42.1
Ages 65+ who have:							
had a flu shot in past year	2011-2013	66.7	71.2	73.0	69.0	68.5	70.6
ever had a pneumonia vaccine	2011-2013	74.5	75.4	80.1	79.7	73.2	77.8
had a serious fall in last year	2012	27.4	24.3	28.9	25.2	22.0	25.6

Appendices

**Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital
– Central Region** *(cont.)*

Table 4. Nutrition, Physical Activity and Body Mass Index

	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Percent of children ages 1-14 who:							
ate fruit two or more times per day and vegetables three or more times per day	2011-2013	11.1	10.8	9.2	10.6	11.4	10.4
ate fast food one or more times in the past week	2010-2012	64.8	67.3	71.4	64.5	71.8	68.3
consumed sugar-sweetened beverages one or more times per day	2011-2013	20.0	23.1	21.5	23.7	16.5	21.8
watched TV or videos, played video games, or played on a computer for 2 hours/day or less							
on weekends	2011-2013	53.5	47.0	48.7	58.5	54.8	52.4
on week days	2011-2013	85.2	79.0	81.1	83.7	88.0	82.5
(ages 5-14 years) physically active for at least 60 minutes/day for the past 7 days	2011-2013	45.3	40.3	46.9	44.4	44.2	44.2
Percent of high school students who:							
ate fruits and vegetables 5 or more times per day	2013	12.0	11.4	12.8	11.2	10.7	11.7
were physically active for a total of at least 60 minutes/day for the past 7 days	2013	26.4	22.8	24.5	20.2	23.6	22.6
Percent of adults (18+) who:							
reported eating fast food one or more times per week	2011	66.6	79.2	63.1	61.7	69.0	67.2
reported 150+ minutes of moderate or 75+ minutes of vigorous aerobic physical activity per week	2011, 2013	61.1	53.0	59.1	60.1	63.9	58.7
are physically inactive	2011-2013	17.2	23.8	19.7	17.2	11.1	18.5
Obesity and overweight:							
Percent of children ages 2-14 who are:							
obese (Body Mass Index (BMI) = 95th percentile)	2011-2013	15.4	18.8	15.6	19.6	10.5	16.9
overweight or obese (Body Mass Index (BMI) = 85th percentile)	2011-2013	28.1	32.2	27.4	37.5	17.9	30.3
underweight (Body Mass Index (BMI) < 5th percentile)	2011-2013	9.7	9.9	8.2	7.8	13.4	9.2
Percent of high school students who are:							
obese (Body Mass Index (BMI) = 95th percentile)	2013	8.0	10.1	7.7	10.7	4.1	8.7
overweight or obese(Body Mass Index (BMI) - 85th percentile)	2013	20.8	24.5	19.1	25.5	13.0	21.5
Percent of adults (18+) who are:							
obese (Body Mass Index (BMI) = 30)	2011-2013	20.8	25.5	21.8	20.0	16.5	21.3
overweight or obese (Body Mass Index (BMI) = 25)	2011-2013	56.1	62.2	58.0	53.9	53.3	57.0

Appendices

**Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital
– Central Region** *(cont.)*

Table 5. Maternal and Child Health

	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Percent of:							
sexually active adults (aged 18-44 years) using an effective method of birth control	2011-2012	65.0	67.7	60.6	59.7	70.34	63.4
high school students who have ever had sexual intercourse	2013	33.1		35.6	39.5	23.8	26.9
sexually active high school students using an effective method of birth control	2013	78.1		79.2	79.8	80.9	61.4
unintended pregnancies resulting in live births	2009-2011	37.1	41.6	37.8	39.1	24.9	37.2
Percent of pregnant women who:							
received adequate prenatal care	2011-2013	63.3	61.8	63.8	62.0	80.1	65.2
smoked during the last three months of pregnancy	2009-2011	8.4	9.4	10.6	5.0	4.4	7.6
drank alcohol during the last three months of pregnancy	2009-2011	10.7	9.3	11.7	16.6	12.4	12.8
gained an appropriate amount of weight during pregnancy	2011-2013	33.9	31.9	34.0	35.3	35.9	34.2
reported a health care professional counseled them on depressive symptoms after delivery	2009-2011	74.7	77.9	76.0	72.9	67.1	74.1
often or always felt down, depressed, sad or hopeless since the new baby was born	2009-2011	10.5	8.6	15.3	9.2	8.3	10.8
Rate of live births born to women age 15-17 per 1,000 women age 15-17	2011-2013	12.4	19.6	10.7	21.6	2.2	15.0
Rate of major congenital anomalies (per 10,000 live births)	2011-2013	646.1	706.3	623.9	868.4	602.0	717.8
Percent of live births with low birth weight (< 2500 grams)	2011-2013	8.8	8.6	9.5	9.0	8.8	9.0
Rate of infant deaths (under 1 year of age) per 1,000 live births	2011-2013	5.1	5.5	5.2	5.8	3.9	5.3

Appendices

Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital – Central Region *(cont.)*

Table 6. Physical and Mental Health Status

	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Average number of days in past month when adults reported:							
physical health was not good	2011-2013	3.4	3.5	2.8	3.6	2.1	3.1
mental health was not good	2011-2013	3.4	3.8	3.2	3.4	2.6	3.3
poor physical or mental health kept them from doing usual activities	2011-2013	3.9	4.2	3.2	3.7	2.7	3.5
(ages 65+) poor physical or mental health kept them from usual activities	2011-2013	5.2	5.7	4.8	4.4	4.3	4.8
Percent of adults reporting health is fair or poor	2011-2013	13.8	18.6	13.1	17.6	6.7	14.8
Percent of parents reporting children's health is fair or poor	2011-2013	2.8	4.1	3.0	3.0	1.4	3.0
Percent of high school students who:							
felt sad or hopeless almost every day for two or more weeks in a row so that they stopped doing some usual activities during the past year	2013	24.3	28.0	26.0	29.2	21.5	26.8
seriously considered attempting suicide during the past 12 months	2013	14.5	16.6	15.9	13.1	14.1	14.9
Percent of adults who:							
reported behavioral or mental health problems in children (aged 1-14 years)	2011-2013	23.2	26.6	29.4	24.1	24.7	26.4
are satisfied or very satisfied with their life in general	2008-2010	95.6	95.1	94.8	96.0	96.9	95.6
usually or always get the emotional or social support they need	2008-2010	82.8	81.5	80.3	77.8	87.1	80.8
Age-adjusted rate per 100,000 per year for:							
mental health diagnosed hospitalizations	2011-2013	2802.4	3163.4	2912.2	1087.3	1469.5	2169.6
suicide hospitalizations	2011-2013	51.8	44.7	42.9	.	26.2	

Appendices

Attachment 2 – Community Health Needs Assessment Full Data Tables for University of Colorado Hospital – Central Region *(cont.)*

Table 7. Specific Health Conditions – Morbidity and Mortality

	Year	Colorado	Adams	Arapahoe	Denver	Douglas	UCH
Percent of adults who reported they have:							
asthma	2011-2013	8.7	9.3	9.7	7.4	8.0	8.6
diabetes	2011-2013	6.9	8.1	6.2	8.3	4.1	7.0
ever had a heart attack	2011-2013	2.9	2.7	2.4	3.1	1.8	2.6
ever had coronary disease or angina	2011-2013	2.7	2.1	2.3	2.6	1.3	2.2
Percent of children with							
asthma (ages 1-14)	2011-2013	7.8	9.1	9.0	10.0	6.5	9.0
asthma (high school students)	2013	20.9	19.6	20.1	19.7	23.3	20.3
Age-adjusted incidence rates of cancer per 100,000 population per year							
all cancer sites combined	2009-2011	426.4	415.9	430.9	439.2	457.6	434.1
lung cancer	2009-2011	46.2	52.2	49.4	48.4	38.2	48.0
invasive breast cancer (females)	2009-2011	124.6	112.9	132.2	131.9	143.9	129.4
prostate cancer (males)	2009-2011	133.7	124.2	127.0	142.2	135.7	132.5
colorectal cancer	2009-2011	34.8	37.4	34.8	35.9	36.8	36.1
invasive cervical cancer (females)	2009-2011	6.0	8.0	4.8	6.5	5.9	6.3
melanoma	2009-2011	22.1	16.2	19.8	15.4	31.0	19.3
Age-adjusted rate of hospitalization per 100,000 per year							
stroke	2011-2013	246.9	293.0	249.7	255.8	224.3	257.8
heart disease	2011-2013	2272.3	2654.0	2456.1	2651.4	2216.6	2528.1
acute myocardial infarction	2011-2013	162.5	206.4	138.6	179.7	113.4	163.6
congestive heart failure	2011-2013	669.2	833.8	646.6	851.6	548.1	740.5
(ages 65+) influenza	2011-2013	71.8	75.4	71.4	110.7	79.6	86.1
Incidence rate per 100,000 per year							
AIDS	2011-2013	4.1	6.4	4.4	12.8	1.1	7.0
HIV	2011-2013	5.0	5.1	7.2	17.0	1.9	9.0
chronic hepatitis B	2011-2013	27.0	19.8	23.2	37.5	10.3	25.1
chronic hepatitis C	2011-2013	0.6	0.3	0.3	1.2	0.2	0.6
tuberculosis	2011-2013	1.3	1.8	1.6	2.9	0.6	1.9
Mortality rates per 100,000							
All causes	2013	662.7	779.2	633.5	703.0	563.2	678.8
Malignant neoplasms	2013	141.1	163.2	137.1	151.1	127.3	146.1
Heart disease	2013	127.0	143.1	112.7	134.9	96.8	124.4
Unintentional injuries	2013	46.5	52.6	39.0	52.4	34.2	45.7
Chronic lower respiratory diseases	2013	46.1	67.6	43.4	43.8	30.7	47.2
Cerebrovascular diseases	2013	32.7	32.9	29.8	30.2	27.8	30.3
Alzheimer's disease	2013	28.0	36.2	39.7	29.9	50.1	37.3
Suicide	2013	18.6	16.5	17.7	15.8	16.7	16.6
Diabetes mellitus	2013	15.6	20.6	16.7	17.6	8.8	16.7

Appendices

Methodology Overview:
These tables summarize key health data for the University of Colorado Hospital region using common data sources for all in order to allow consolidation of county level data into regions to describe the community and health status and in order to allow comparison of information across all three UCHealth hospital regions. It provides information to be used to further narrow down key health concerns to be carried forward for discussions of prioritization. This narrowing toward prioritization will be described further in other documents but briefly involves several aspects, including priorities of the previous CHNAs, current priorities of local health departments, potential to prevent deaths using evidence-based practices and expert opinion. Additional data tables and charts will be provided separately in support of this process.

All data except insurance status was obtained by downloading Colorado and County data on August 16, 2015. First the following website (http://www.chd.dphe.state.co.us/Health Indicators) was accessed to select the specific county from the map to access the county data. This then allowed downloading of data for the county or state as an Excel file. Some Healthy People 2020 goals were included in these data sets.

URLs for the downloads on the day of download were:
  » Colorado: https://drive.google.com/file/d/0BxOEw8MUpuY6ZURaMjI6V001LXc/view?pli=1
  » Adams: https://drive.google.com/file/d/0BxOEw8MUpuY6VG52ejBJTmd4S1E/view?pli=1
  » Arapahoe: https://drive.google.com/file/d/0BxOEw8MUpuY6b2hMWTF1RVNhRWM/view?pli=1
  » Denver: https://drive.google.com/file/d/0BxOEw8MUpuY6N01Db1AtQU1kT1k/view?pli=1
  » Douglas: https://drive.google.com/file/d/0BxOEw8MUpuY6NVZpcHlrSzdlUlU/view?pli=1

Consolidation of the data for hospital region comprised of more than one county was carried out by calculating a weighted average based on the 2013 population since most of the provided data was determined for or through 2013. Data from additional sources that are not uniformly available to all three hospital regions are not currently in these tables. The data were then analyzed in an iterative manner to identify key measures to use in this summary of the community and its health status.

Appendices

Appendix 2 – prioritization matrix

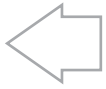Instructions: Rank each health issue against the criteria using this rating scale

4 = High   3 = Moderate   2 = Low   1 = None   0 = Unable to rank

Identified Health Issues	Prioritization criteria				
	Scope and severity (how many people affected; impact of issue on mortality rates)	**Budget feasibility** (costs of internal resources)	**Potential for hospital to impact** (availability of effective interventions, staff expertise, community readiness, political will)	**Alignment with current UCHealth system strategies and/or state and national health objectives** (e.g. Colorado Winnable Battles / National Prevention Strategy)	**Total score**
Access to Care (Specialty)					
Cardiovascular disease					
Diabetes					
Mental/behavioral health					
Transportation *(Social Determinants of Health)*					
Other *(Describe)*					

Appendix 3 - Organizations Providing Input

The following organizations, government agencies and public health departments provided input for this report by participating in key stakeholder interviews, community meetings and/or sharing data and information:

DAWN Clinic	Aurora Chamber of Commerce
ClinicNET	Aurora Health Access
Doctors Care	School of Dental Medicine
Together Colorado	Mile High Health Alliance, Denver Public Health, Be Healthy Denver (Access to Care Taskforce)
MCPN	City of Aurora
Aurora Mental Health	Tri-County Health