Community Health Needs Assessment

Porter Adventist Hospital
At a Glance: Community Health Needs Assessment
Porter Adventist Hospital

Area Served

Denver, Arapahoe, Jefferson Counties

Priorities

- Suicide Prevention
- Healthy Eating Active Living (HEAL)/Obesity
- Oral Health
- Access to Health Care
- Heart Disease

Partners

Doctors Care, Adventist Community Services, PAH Foundation, Denver Public Health, Tri-County Health, Christian Living Communities, South Metro Health Alliance, Centura Associate Wellness, Porter Adventist Hospital Associates
2016

Community Health Needs Assessment
Porter Adventist Hospital

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Executive Summary

The Patient Protection and Affordable Care Act, enacted March 23, 2010, added new requirements for nonprofit hospitals to maintain their tax-exempt status, including a requirement to conduct a Community Health Needs Assessment (CHNA) once every three years to gauge the health needs of their communities and to develop strategies and implementation plans for addressing them. This CHNA was conducted in compliance with these new federal requirements and as an opportunity for Porter Adventist Hospital to fulfill our commitment to our organizational mission to “extend the healing ministry of Christ by caring for those who are ill and by nurturing the health of the people in our communities.”

CHNA Methodology and Process

Service Area Definition:
To define our community for the CHNA and to analyze demographic and health indicator data, we used the STARK-Law service areas, defined as the lowest number of contiguous ZIP codes that account for 75% of a hospital’s inpatient admissions. We used the main counties within the STARK-Law service area to analyze our health driver and health outcome data, as health outcome data was generally not available at the ZIP code level.

Qualitative and Quantitative Data Collection:
We began the data collection process by selecting quantitative indicators for analysis. Community Commons, a population health indicator data platform, was utilized throughout the quantitative data collection process. This platform compiles data from the US Census, the Behavioral Risk Factor Surveillance System, the CDC, the National Vital Statistics System, and the American Community Survey, among others. Specific health indicator data were selected, including community demographic information, behavior and environmental health drivers and outcomes indicators, as well as coverage, quality, and access data. These indicators were selected because they most accurately describe the community in terms of its demographics, disparities, population, and distinct health needs.

Additionally, we sought to engage our community in the qualitative data collection process. Once health needs were prioritized, we determined groups and individuals appropriate for focus groups, being sure to solicit input from underserved or minority groups within the communities we serve. These focus groups helped identify particularly important needs as seen by our communities, help us identify gaps in knowledge, and understand current external efforts around health needs that could be improved by healthcare participation.

Prioritization Process:
Porter Adventist Hospital created a CHNA subcommittee to review the qualitative and quantitative health data, prioritize health needs in our communities, and to develop implementation strategies to address the prioritized needs. This subcommittee was made up of both hospital staff and community stakeholders including representatives from local public health departments. We prioritized health needs in our community using the Centura Health prioritization method, adapted from the Hanlon Method for Prioritizing Health Problems. First, members of the hospital subcommittee individually rated each identified need against the size of the problem, the seriousness of the problem, and how much the need already aligned with Centura Health and the community’s existing efforts. Based on the criteria rankings assigned to each health need, we calculated priority scores using the formula: \( D = C(A + 2B) \), where:

- \( D \) = Priority Score
- \( A \) = Size of health need ranking
- \( B \) = Seriousness of health need ranking
- \( C \) = Alignment ranking
After calculating priority scores for each identified health need, we gave the need with the highest score a rank of 1, with the next highest score receiving a rank of 2, and so forth. This helped us identify the health needs in our community.

**Prioritized Need: Mental Health/Suicide Prevention**

The health need, mental health/suicide, for Porter Adventist Hospital was prioritized because the health indicators for mental health were either higher than state average data, or not meeting the goal of Healthy People 2020. Porter Adventist Hospital’s service area’s suicide rate is 16.8 per 100,000 compared to Colorado’s 17.2. This is much higher than the Healthy People 2020 goal of 10.2 per 100,000. Additionally, 18.1% of individuals in our service area reported a lack of social or emotional support.

Several hospital activities and initiatives are available to address this need. Mental Health training programs are offered to both associates and community members in order to raise the competency levels of people who deal with mental health issues. These programs include Mental Health First Aid and Youth Mental Health First Aid (Y/MHFA): In-person training that teaches how to help people developing a mental illness or in a crisis, and AMSR Training (Assessing Mental Health and Suicide Risks).

**Prioritized Need: Healthy Eating Active Living/Obesity**

This was identified as a health need because 34% of adults in our service area were overweight, and 18.7% were obese. Additionally, 75% of adults reported eating less than 5 fruits or vegetables per day, and 13.6% reported getting no leisure time physical activity. Our focus groups confirmed that healthy eating active living/obesity is a high priority need in our community. Our participants stated this issue disproportionately affected vulnerable populations, such as those with low incomes, the elderly and minorities. We felt it was imperative that we worked to remove barriers to healthy eating and increase opportunities for active living in our community.

Programs at the hospital to address obesity include the Pathways to Health and Wellness (PHW), CaféWell, CREATION Health, and the Healthy Hospital Compact.

**Prioritized Need: Access to Care**

Improving access to care is a critical factor in addressing the mental health and obesity needs identified in the CHNA process. As a nonprofit and faith-based hospital, Porter Adventist Hospital has a mission to understand all of the potential factors that prevent members of our community from accessing the care, both mental and physical, that they need. The rising costs of healthcare can prevent members of our communities from seeking care or from continuing with the care they need. Additionally, the recent expansion of Medicaid has greatly increased the number of patients in our communities seeking specialty care. This increased demand has led to access barriers for our Medicaid populations who are typically the most vulnerable and underserved members of our community. In our community, 28.2% of adults had no dental exam in the past year, and 9.6% have poor dental health. In 2012, 19.6% of adults and 9.1% of children under 19 were uninsured.

Access to care programs are designed to increase enrollment in insurance programs and connection to primary care homes. These programs enable low income residents to obtain health services, which was one of the top concerns of people in the food bank focus groups. Programs at the hospital include Centura Community Health Advocates and Eligibility Specialists that assist with insurance enrollment; and Centura Health Physician Group that connects patients to primary care homes.

**Prioritized Need: Heart Disease**

Heart Disease is a significant health need in our community. “Chest pain” is among the top ten admitting diagnosis for hospital patients, hospital admissions, and for Emergency Room patients not admitted to the hospital. Within PAH’s service area, 2.8% of the population have heart disease and 33.5% have high cholesterol, the same rates as
the state. In addition, 24.2% have high blood pressure, slightly higher than the state rate. The mortality rate for heart disease is 135.3 per 100,000, close to the state rate. The mortality rate for ischemic heart disease is also close to the state rate. A risk factor for heart disease is smoking, and 17% of the service area currently smokes, the same rate as the state. The high rate of obesity in the population is another risk factor for heart disease and is discussed in more detail in the obesity section.

**Prioritized Need: Oral Health**

Oral Health was also determined to be a significant need in our community. In Porter’s service area, 9.6% of adults have poor dental health, close to the state rate. In addition, 28.2% of adults have had no dental exam in the past year. The lack of insurance among 19.6% of adults and 9.1% among children under 19 hinders their ability to obtain dental services, contributing to poor oral health among this population. One resource, Kids in Need of Dentistry, provides dental services to underserved children, and is described further in the Implementation Plan section that follows.

**Implementation Planning Process:**

The first step to developing our implementation plans was to present evidence-based practices focused on addressing mental health, healthy eating active living/obesity, and access to care to our hospital subcommittees. Next, we completed an environmental scan to determine which established efforts in Porter Adventist Hospital and our community we could leverage or build upon to meet the health needs. We then used the PEARL test to determine if a program or strategy would be effective and appropriate.

To create our implementation plan, we modified the CHAPS Action Plan, provided by CDPHE. For each health priority we created SMART goals, strategies, and metrics.

Once our community’s health needs were identified and prioritized, we began the process of developing an implementation plan to address mental health/suicide, healthy eating active living/obesity, and access to care. The first step was to present evidence-based practices focused on mental health/suicide, healthy eating active living/obesity, and access to care to our hospital subcommittees. Next, we completed an environmental scan to identify those established efforts (in Porter Adventist Hospital and our community) we could leverage or build upon to meet the health needs. We then used the PEARL test to determine if a program or strategy would be effective and appropriate. Our last step was to hear from a panel of experts on mental health, healthy eating, and active living, before we created our plans.

**Implementation Plan Review and Approval:**

The final implementation plans were presented to and approved by the Porter Adventist Hospital Board on March 24, 2016.
Our Mission
We extend the healing ministry of Christ by caring for those who are ill and by nurturing the health of the people in our communities.

Our Vision
Centura Health will fulfill a covenant of caring for our communities with excellence and integrity to become their partner for life.

Our Core Values
Compassion
  Respect
  Integrity
  Spirituality
  Stewardship
  Imagination
  Excellence
Introduction

Centura Health, Porter Adventist Hospital and Our Community

Background on the Community Health Needs Assessment

The evolving health care landscape has provided health systems throughout the country the opportunity to work with partners in their communities to improve and promote population health. The Patient Protection and Affordable Care Act, enacted March 23, 2010, added new requirements for nonprofit hospitals to maintain their tax-exempt status. One such provision requires nonprofit hospitals to conduct a Community Health Needs Assessment (CHNA) once every three years to gauge the health needs of their communities and to develop strategies and implementation plans for addressing them. This CHNA was conducted in compliance with these new federal requirements.

In addition to Affordable Care Act (ACA) compliance, the implementation of the CHNA furthers Centura Health’s and Porter Adventist Hospital’s mission and vision. As the region’s largest health care provider, Centura Health fulfills our mission to extend the healing ministry of Christ by caring for those who are ill and by nurturing the health of the people in our communities. We honor our commitment to provide outstanding care within our hospital walls and to move upstream to positively impact our patients’ lives.
Our Goals for the Community Health Needs Assessment

The CHNA process gave Porter Adventist Hospital the opportunity to work closely with our community to identify existing and emerging health needs, understand community assets and gaps, and to implement strategies to improve health. This approach continues to strengthen partnerships between Porter Adventist Hospital, our local public health departments, community leaders, and stakeholders. Our goal is to build our organizational capacity in population health best practices and to better position Porter Adventist Hospital to provide sustainable, whole-person care to our patients and communities. The CHNA process provided valuable information to guide us in integrating our community health work with our hospital and strategic plans.

With this focus, we bring new dynamism to our historical legacy of addressing community needs. The Adventists have always had a focus on wellness, and we are renewing that focus in this new era of healthcare. We are moving from the older model of simply caring for the sick to delivering and supporting the full spectrum of health, wellness and prevention resources the community depends upon in a world in which both acute and chronic health needs are prevalent and overwhelming. We specifically looked at factors that we know impact the social determinants of health. We recognize the important role that social factors such as housing, education, and employment play in affecting a wide range of health risks and outcomes and contributing to the disparities we see across race/ethnicity and geography. Health can be impacted by where we live, and we know that communities with unstable housing, high rates of poverty and crime, and substandard education have higher rates of morbidity and mortality. We looked at specific indicators representative of the social determinants of health in our prioritization process. Through the CHNA we sought to bring awareness to the importance of the social determinants, and work to promote and create social and physical environments that promote health equity and improve population health.

We seek to create efficiencies in our processes, community partnerships, and delivery of care. We have continued to build upon existing relationships between Porter Adventist Hospital and the Denver and Tri-County Public Health Department. Together, we have taken great strides to create a model to which hospitals and health care systems around the nation can look to address their own community's needs. By following the model of activating primary care networks, advancing evidence-based practices, and providing training for care teams and community providers, Porter Adventist Hospital is continuing to strengthen opportunities for good health and addressing the determinants of poor health in the communities we serve.

To more fully integrate a population health mindset throughout the Centura Health system, we leveraged existing data resources, internal expertise, and the strength of our network to design a system-wide CHNA process. This helped to assure key stakeholders' increased knowledge of public health and to engage internal systems in population health data to help to explain the drivers of emergency room and inpatient visits. The knowledge we gained from the CHNA process helped our hospitals more effectively lay out their strategic plan for addressing the needs in their communities. Over the course of the year, this CHNA process facilitated collaboration within our family of hospitals, helping us build a stronger system in which our hospitals benefit from powerful learning networks and relationships, rather than function as separate entities.
Porter Adventist Hospital: Our Services and History

Since its foundation in 1930, Porter Adventist Hospital has provided people throughout Denver and the surrounding communities with compassionate, personalized, whole-person care. Porter Adventist Hospital is an award-winning regional medical center that specializes in advanced surgery, complex medicine, and life-saving emergency care.

Eighty-six years ago, Henry Porter recognized the value in holistic health care after receiving treatment at two Seventh-day Adventist Sanitariums. His experiences at these sanitariums changed his life, and the face of health care in Denver, forever. The treatment he received in both facilities was unlike anything he had experienced before. State-of-the-art health care, coupled with remarkable kindness and a focus on healthful living was revolutionary in Henry’s day. The care he received left such an impact on him that he became committed to opening a similar facility in Denver, CO. Today Porter Adventist Hospital continues to apply the same philosophy of care in treating the mind, body and spirit.

As part of Centura Health, Colorado’s largest health network with 17 hospitals and a number of senior living communities, medical clinics, Flight for Life® Colorado, and home care and hospice services, Porter Adventist Hospital provides care that transcends the walls of the hospital to nurture the health of its communities.

Distinctive Services

Porter Adventist Hospital offers leading medical experts, cutting-edge technology and a broad array of specialties and services. Our distinctive services include:

• Joint Replacement & Orthopedics
• Spine Surgery
• Organ Transplant
• Behavioral Health
• Cancer Care
• Cardiac
• Robotic Surgery

Our expertise in these areas has earned us a number of awards and honors throughout the years. Porter Adventist Hospital is proud to have received the following awards:

• Magnet™ designation for excellence in nursing services by the American Nurses Credential Center’s (ANCC) Magnet Recognition Program®

• 2015 top 100 Great Hospitals in America by Becker’s Hospital Review

• In 2015 Porter Adventist Hospital was named as one of the top two hospitals in Colorado by U.S. News and World Report with high performance recognition in five specialties and three procedures, including heart failure.

• NICHE (Nurses Improving Care for Health System Elders) Designation, 2 Years in a Row (2015-2016)

• Three accreditations by the Society of Cardiovascular Patient Care in Atrial Fibrillation, Chest Pain and Heart Failure.

• Healthgrades America’s 100 Best Hospitals for Joint Replacement™ in 2016 and Prostate Surgeries™ for 3 Years in a Row (2014-2016)
Commitment to Our Community

At Porter Adventist Hospital, the work we do outside of medical care is born out of the second part of our mission, “to nurture the health of the people in our communities.” From access for the uninsured, to strengthening community partnerships to build vibrant and healthy neighborhoods, Porter Adventist Hospital is a partner for life.

As a private, non-profit hospital, our dedication is solely to fulfilling our organizational mission by living out our core values and protecting the health and wellbeing of our communities. Our community benefit activities are integral to our religious mission and are the basis of our tax-exempt status. Throughout Centura Health, these community benefit activities include improving community health by providing services to low-income patients and connecting patients with services after discharge, community building, such as economic development and community health programs, subsidized health services like hospice, home care, research to advance the field, financial and in-kind contributions to the community, and community benefit planning.

In fiscal year 2015, Porter Adventist Hospital provided over $24,519,230 in total community benefit. Community services included a Cardiac Early Detection program for firefighters, over 7,000 dental screenings for children, and funding to provide care to over 8,000 underprivileged patients. During the Day of Caring: Love Matters Most, we gathered nearly 400 people to paint the exteriors of five homes, and provided their owners with a musical concert and house gifts. We incorporated CREATION Health, a faith-based wellness plan, into our activities to ensure that every effort cares for the whole person.
Our Community

To define our community for the CHNA and to analyze demographic and health indicator data, we used the STARK-Law service areas. The STARK-Law service area is defined as the lowest number of contiguous ZIP codes that accounts for 75% of a hospital’s inpatient admissions. These ZIP codes have a combined population of 1,991,393.

The demographic makeup of these communities is as follows:

Race and Ethnicity: White=81.59%; Black=5.34%; Asian=3.81%; Native American/Alaskan Native-0.89%; Native Hawaiian/Pacific Islander=0.11%; Some other race=4.99%; Multiple races=3.26%. 21.8% of the population in our service area reports as Hispanic or Latino.

Education Level: In our community, 47.6% of the population has an Associate’s Degree or higher. CO average is 44.7%

Unemployment Rate: 3.9%, CO average is 4.0%

Population with Limited English Proficiency: 8.5%, CO average is 6.7%

High School Graduation Rate: 68.6%, CO average is 77.6%

Population Living in Households with Income Below 200% of Federal Poverty level: 29.5%, CO average is 29.6%
Population Demographics in Porter Adventist Hospital’s Service Area

**Race**

- White: 81.59%
- Black: 5.34%
- Asian: 3.81%
- Native American/Alaska Native: 0.89%
- Native Hawaiian/Pacific Islander: 0.11%
- Other: 4.99%
- Multiple races: 3.26%

**Ethnicity**

- Non-Hispanic: 78.20%
- Hispanic: 21.80%

**Limited English Proficiency**

- Porter Service Area: 8.5%
- State Average: 6.7%

**Unemployment Rate**

- Porter Service Area: 3.9%
- State Average: 4.0%

**Households Below 200% of Federal Poverty Level**

- Porter Service Area: 29.5%
- State Average: 29.6%
Our Approach to the Community Health Needs Assessment

In order to assess the needs of our community, we created a hospital subcommittee to solicit and take into account input from individuals representing the broad interest of our community. Our hospital subcommittee was made up of key stakeholders and individuals who represented our community.

Our subcommittee:

- Reviewed the quantitative data and provided insight;
- Prioritized health needs using the Centura Health Prioritization Method;
- Identified implementation strategies to maximize impact on a specific health need; and
- Coordinated and collaborated implementation strategies across prioritized needs.

Each subcommittee member was provided with a written description of his/her role. The subcommittee met four times for two hours at each meeting from March to December 2015.

Porter Adventist Hospital’s Partnerships with Public Health

The Tri-County Health Department, which represents Douglas, Arapahoe and Adams Counties, worked closely with Porter Adventist and all of the South Denver hospitals. The main contacts for this effort were, and continue to be, Bernadette Albanese, M.D., M.P.H., Medical Epidemiologist, and Patty Boyd, RD, MPH, Strategic Partnerships Manager, at Tri-County Health Department. Emily McCormick, Medical Epidemiologist and Health Service Research PhD Candidate, and Chris Bui, JD, MPH, Lead, Policy and Partnerships Coordinator, at Denver Public Health, have also served on the PAH subcommittee. These representatives provided two rounds of public health data about the population in Porter Hospital’s market area. The Public Health representatives attended every meeting and provided input into the process of narrowing the selection of health issues.
Stage 1: Scanning the Data Landscape

The CHNA was conducted through a collaborative partnership between Porter Adventist Hospital, Tri-County (Adams, Arapahoe, Douglas), Denver County and community stakeholders. We used the main counties within the STARK-Law service area to analyze our health driver and health outcome data. Health outcome data was generally not available at the ZIP code level. Porter Adventist Hospital's main service area encompasses Denver, Arapahoe and Jefferson Counties, which was the data used for this process.

The subcommittee used both quantitative and qualitative data to gain a full understanding of our community and specific health needs. We began the data collection process by selecting quantitative indicators for analysis. Community Commons, a website and data platform that houses population health indicator data, was utilized throughout the process.

In this process, certain health indicator data were selected, including community and population demographic information, behavior and environmental health drivers and health outcomes indicators, as well as coverage, quality, and access data. These indicators were selected because they most accurately describe the community in terms of its demographics, disparities, population, and distinct health needs. These areas address the social determinants of health, quality of life, and healthy behaviors, all things that we know impact community health. To be sure we were measuring all determinants of health, we conducted a full legal and environmental scan of issues and policies impacting health in our community.
<table>
<thead>
<tr>
<th>Health Need</th>
<th>Indicator</th>
<th>Community Value</th>
<th>Colorado Value</th>
<th>Healthy People 2020 Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>Percentage of adults 18 and older who self-report that they have ever been told by a health professional that they had asthma</td>
<td>13.4%</td>
<td>12.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>Cases per 100,000 females per year, age adjusted</td>
<td>131.6</td>
<td>125.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Cervical Cancer</td>
<td>Cases per 100,000 females per year, age adjusted</td>
<td>6.3</td>
<td>6.2</td>
<td>7.1</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>Cases per 100,000 population per year of colon and rectum cancer, age adjusted</td>
<td>37.3</td>
<td>36.9</td>
<td>38.7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes</td>
<td>5.8%</td>
<td>6.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>Death rate due to coronary heart disease per 100,000 population</td>
<td>135.3</td>
<td>137.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Homicide</td>
<td>Rate per 100,000 population</td>
<td>4.3</td>
<td>3.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>Chlamydia rate per 100,000 population</td>
<td>567.9</td>
<td>422.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>HIV Rate per 100,000 population</td>
<td>546.5</td>
<td>265</td>
<td>N/A</td>
</tr>
<tr>
<td>Lung Disease</td>
<td>Death rate due to chronic lower respiratory disease per 100,000 population</td>
<td>48.4</td>
<td>48.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Maternal, Infant, and Child Health</td>
<td>Infant mortality rate per 1,000 births</td>
<td>6.3</td>
<td>5.5</td>
<td>6</td>
</tr>
<tr>
<td>Maternal, Infant, and Child Health</td>
<td>Teen birth rate per 1,000 female teens</td>
<td>39.3</td>
<td>36.5</td>
<td>N/A</td>
</tr>
<tr>
<td>Maternal, Infant, and Child Health</td>
<td>Percentage of low birth weight births</td>
<td>9.1%</td>
<td>8.8%</td>
<td>7.80%</td>
</tr>
<tr>
<td>Mental Health</td>
<td>Percentage of adults who lack social or emotional support</td>
<td>18.1%</td>
<td>16.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>Obesity/Overweight, Physical Activity and Nutrition</td>
<td>Percentage of adults 18 and older who self-report a Body Mass Index (BMI) greater than 30.0</td>
<td>18.7%</td>
<td>20.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>Oral Health</td>
<td>Percentage of adults who did not receive a dental exam in the past year</td>
<td>28.2%</td>
<td>31.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>Oral Health</td>
<td>Percentage of adults with poor dental health</td>
<td>9.6%</td>
<td>10.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td>Cases per 100,000 males per year, age adjusted</td>
<td>154.5</td>
<td>147.6</td>
<td>N/A</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Adults reporting heavy alcohol consumption</td>
<td>18.2%</td>
<td>17.6%</td>
<td>N/A</td>
</tr>
<tr>
<td>Suicide</td>
<td>Rate per 100,000 population</td>
<td>16.8</td>
<td>17.2</td>
<td>10.2</td>
</tr>
<tr>
<td>Unintentional Injury</td>
<td>Death rate due to unintentional injury (accident) per 100,000 population</td>
<td>47</td>
<td>45.1</td>
<td>36</td>
</tr>
</tbody>
</table>

Table 1. Health Indicator Data: The health needs in the table below were analyzed during the prioritization process. See Appendix B for the full dataset.
Stage 2: Delving into the Data to Identify Priorities

Our Porter Adventist Hospital CHNA Subcommittee received a health indicator data presentation compiled by the CHNA Steering Committee. The Subcommittee identified and prioritized community health needs using the Centura Health prioritization method as detailed below. They identified the most pressing needs in the Denver, Jefferson and Arapahoe communities based on health indicators, health drivers, and health outcomes.

Our subcommittee defined a health need as a poor health outcome and its associated health driver, or a health driver associated with a poor health outcome where the outcome has not yet arisen as a need. To fit the definition of a health need, the need must be confirmed by more than one indicator and/or data source, and must be analyzed according to its performance against the state benchmark or Healthy People 2020.

Process to Identify Priority and Non-Priority Health Needs

The Centura Health prioritization method was adapted from the Hanlon Method for Prioritizing Health Problems. First, members of the hospital subcommittee individually rated each identified need against the size of the problem, the seriousness of the problem, and how much the need aligned with Centura Health and the community’s existing efforts. The criteria rating rubric for this step is shown below, along with the scores assigned to each need:

Table 2. Centura Health CHNA Prioritization Method: Sample Criteria Rating

<table>
<thead>
<tr>
<th>Rating</th>
<th>Size of Health Problem</th>
<th>Seriousness of Health Problem</th>
<th>Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 or 10</td>
<td>&gt;25% /rate much higher than Colorado benchmark</td>
<td>Very Serious</td>
<td>Alignment with CHNA, CHIP, community groups, hospital and system strengths</td>
</tr>
<tr>
<td>7 or 8</td>
<td>10%-24.9%/rate somewhat higher than Colorado benchmark</td>
<td>Relatively Serious</td>
<td>Alignment with 3 of the following: CHNA, CHIP, community groups, hospital and system strengths</td>
</tr>
<tr>
<td>5 or 6</td>
<td>1%-9.9%/rate slightly higher than Colorado benchmark</td>
<td>Serious</td>
<td>Alignment with 2 of the following: CHNA, CHIP, community groups, hospital and system strengths</td>
</tr>
<tr>
<td>3 or 4</td>
<td>.1%-9.9%/rate same as Colorado benchmark</td>
<td>Moderately Serious</td>
<td>Alignment with 1 of the following: CHNA, CHIP, community groups, hospital and system strengths</td>
</tr>
<tr>
<td>1 or 2</td>
<td>.01%-0.09%/rate slightly lower than Colorado benchmark</td>
<td>Relatively Not Serious</td>
<td>Some alignment with 1 or two of the following: CHNA, CHIP, community groups, hospital and system strengths</td>
</tr>
<tr>
<td>0</td>
<td>&lt;.01% /rate lower than Colorado benchmark</td>
<td>Not Serious</td>
<td>No Alignment and/or no community gap in need being addressed</td>
</tr>
</tbody>
</table>

Guiding Considerations

- Size of Health Problem should be based on baseline data collected from the community
- Does it require immediate attention? What is the economic impact? What is the impact on quality of life? Is there a high hospitalization rate? Is there public demand?
- Is this health need being addressed by our last CHNA? Is this health need addressed in our last CHIP? Is this health need addressed by a Local public health department’s CHIP? Is this health need addressed by a strong local community organization?
Based on the criteria rankings assigned to each health need above, we calculated priority scores using the formula: \( D = C(A + 2B) \), where:

- \( D \) = Priority Score
- \( A \) = Size of health need ranking
- \( B \) = Seriousness of health need ranking
- \( C \) = Alignment ranking

After calculating priority scores for each identified health need, we gave the need with the highest score a rank of 1, with the next highest score receiving a rank of 2, and so forth. This helped us identify the health needs in our community.

Once our community’s health needs were rated by the criteria above, we used the ‘PEARL’ test to determine the feasibility of addressing those needs. The questions we considered in the PEARL test included:

- **Propriety** - Is a program for the health problem suitable?
- **Economics** - Does it make economic sense to address the problem? Are there economic consequences if the problem is not carried out?
- **Acceptability** - Will a community accept the program? Is it wanted?
- **Resources** - Is funding available or potentially available for a program?
- **Legality** - Do current laws allow program activities to be implemented?

In addition to the PEARL test questions, we also considered Centura Health’s Mission and Values when considering health needs to prioritize and address. The final question we considered was whether our activities and strategies to address the health need align with our organizational mission to extend the healing ministry of Christ by caring for those who are ill and by nurturing the health of the people in our communities.

Porter Adventist Hospital identified five needs as priority areas for which we have the ability to impact. These include:

- Mental Health/Suicide Prevention/Substance Abuse
- Obesity / Healthy Eating Active Living (HEAL)
- Heart Disease
- Oral Health
- Access to Care

To help narrow the focus within mental health and obesity, our highest priority areas, we used a ranking exercise to identify the most significant issues within these areas.

Additional data provided by the Tri-County Public Health Department was also reviewed. Please see more information in Appendix C.
Stage 3: Engaging our Community to Understand and Act

We sought to engage our community in the qualitative data collection process. Once health needs were prioritized, the hospital subcommittee worked together to determine groups and individuals appropriate for focus groups, being sure to solicit input from underserved or minority groups within the communities we serve. We made sure to solicit input from those who know experiences of the underserved, minority, and aging populations best through personal experience or close work with them. After much discussion, the subcommittee decided to collect information from two food banks that serve the homeless, low income residents, and the underserved.

Next, the group identified questions to ask the focus group to gain a better understanding of mental health, suicide, and healthy eating active living. Specifically, we wanted to identify focus areas, gaps in knowledge, needs not met, or current external efforts around mental health, suicide, and healthy eating active living that could be improved by health care participation.

Castle Rock, Littleton, Parker, and Porter conducted focus groups together and shared their results. The focus groups were with a ministerial alliance group, two food banks, and one independent living facility. Each focus group lasted one hour. Highlights of the focus groups are as follows.

Ministerial Alliance: When asked about the most significant health issue in their community, the pastors identified teen suicide, followed by mental health issues in the general population, such as depression, anxiety and ADHD. The most common causes of depression and suicide were believed to be isolation, lack of foundation in Jesus Christ, and a breakdown in the family structure. The group believed that events that are designed to promote an integrated community experience would be effective in preventing and reducing mental health problems.

Food Banks: The first food bank identified “mental health” as the biggest health concern, with stress related to financial issues as the biggest contributor to depression. The inability to pay for health services due to their high cost was the biggest concern for the second focus group. When discussing obesity, participants in both focus groups agreed that the people who struggle the most with weight are the poor, elderly and minorities. There is a gap in linking obesity management with mental health concerns.

Senior Living: The residents stated that poor treatment by doctors was a significant issue. They felt that hospitals wanted to “treat and street” because they are quick to discharge, quick to medicate, hold short visits, and have rushed interactions with patients. At Porter Adventist Hospital, we understand the time restraints on healthcare providers in seeing patients. We offer support to our healthcare providers in the form of training staff members, and providing resources that can be given to patients. When asked about mental health issues, many participants agreed that depression and anxiety about failing health are common among seniors. Regarding obesity, the focus group agreed that healthy food is expensive at grocery stores, where most of them shop for food.

Stage 4: Developing the Implementation Plan

Once our community’s health needs were identified and prioritized, we began the process to develop an implementation plan for how we would address mental health, suicide, and healthy eating active living. The first step to developing our implementation plans was to present evidence-based practices focused on addressing mental health, suicide, and healthy eating active living to our hospital subcommittee. Next, we completed an environmental scan to determine which established efforts (in Porter Adventist Hospital and our community) we could leverage or build upon to meet the health needs. We then used the PEARL test (mentioned previously) to determine if a program or strategy would be effective and appropriate.

On September 17, 2015, the CHNA hospital leads from each Centura Health hospital attended a panel at Porter Adventist Hospital. The panel featured local experts on mental health, healthy eating, and active living initiatives:

- Shannon Breitzman, Branch Director, Injury, Suicide and Violence Prevention, CDPHE
The panelists spoke about available resources and programs in their communities that are impactful, and gaining traction locally, regionally, and/or statewide, that address mental health and/or healthy eating and active living. They also spoke to current programming gaps that health care systems or hospitals can help to address.

At Porter, we utilized the logic model as a guide for narrowing our focus for our implementation plan. We compiled a list of existing programs in our community to determine where we could best partner. And, we relied on our health department partners to inform us of what was already working that we could support.

To create our implementation plan, we modified the Colorado Health Assessment and Planning System (CHAPS) Action Plan, provided by Colorado Department of Public Health and Environment. CHAPS is a standardized process used by local public health departments to meet the community health needs assessment and planning requirements. For each health priority we created specific, measurable, achievable, realistic, and time bound (SMART) goals, strategies, and metrics.

The hospital leads from the South Denver group of hospitals, which included Castle Rock, Littleton, Parker, and Porter, met as a group in this meeting and several times after this meeting. As a regional group, they decided to pursue several community health initiatives together for the following reasons: 1) all four subcommittees had prioritized mental health and obesity as their primary health issues, 2) their service areas and communities overlapped and/or were in the same counties, 3) the hospitals were interested in collaborating with the same community partners, and 4) several representatives were serving on multiple subcommittees and expressed a desire to consolidate the meetings.

As a result, a regional meeting of all four hospital subcommittees was held on December 4, 2015 for 2.5 hours with the purpose of prioritizing health initiatives and programs under the mental health and Obesity/ Healthy Eating Active Living categories. In this meeting, representatives of community programs provided brief overviews of their activities and answered questions, thus providing participants with a greater understanding of their programs. The participants were then asked to rate the programs using criteria, such as the program’s ability to impact upstream (root) causes, demonstration of evidence based strategy, and demonstrated sustainability. The results of this process were shared with the group and followed by a quick rating process that identified their top choices for collaboration with community organizations. Because the rating process allowed them to rate many programs highly, the results of this endeavor demonstrated that many mental health programs were rated as equally important, and many HEAL programs were within a similar range.

After this exercise, the group was informed that South Denver hospital leaders would evaluate the results via an additional vetting process that considered funding issues, seasonal limitations, potential resource utilization, and alliance with Centura’s mission and values and alliance with Centura’s mission and values, etc. The leaders discussed these issues on 12/10/2015 and agreed that their regional focus would be on mental health and obesity / healthy eating active living (HEAL).

In addition to these regional initiatives, Porter Hospital will continue to support existing local initiatives, such as oral health and heart disease, because of their support from, and success within, the local community. Following the meeting, Logic Models and Implementation Plans of each category were developed by members of the leadership team. The Implementation Plans included SMART goals, strategies and metrics.
The Social-Ecological Model

The social-ecological model recognizes the complex interplay between individual, relationship, community, and societal factors. Individuals are responsible for making and maintaining lifestyle choices, such as healthy eating and active living. However, the ability to make these choices is determined largely by the social environment we live in (i.e., community norms, laws, policies). Barriers to healthy eating and active living are shared by the community, and removal of the barriers makes behaviors attainable and sustainable. The overlapping rings in the model illustrate how factors at one level influence factors at another level (see Figure 2). Therefore the most effective approach to impacting health outcomes is a combination of efforts at the individual, interpersonal, organizational, community, and public policy levels.¹

The following are examples of factors in the social-ecological model for the areas of priority for this Community Health Needs Assessment. To achieve long-term health outcomes among our communities, changes at every level of the model will both support people making the healthy choices and removing the barriers to making the healthy choices. The model makes it such that a person can leave the physician’s office and their community – people and environment – will support the person in the changes recommended by the physician. It also makes it possible for healthy choices to be supported in diverse communities or various income and race/ethnicity.

**Healthy Eating:**
- Individual: Eat nine servings of fruits/vegetables daily
- Interpersonal: When friends gather, there are fruits/vegetables served
- Organizational: At work and in schools, vending machines and cafeterias offer fruits/vegetables
- Community: Stores that sell fruits/vegetables are in all communities (e.g., food pantries, convenience stores and grocery stores)
- Public policy: Women, Infants and Children Program for lower income moms can be used to purchase all healthy options within a store

**Active Living:**
- Individual: Exercise for 150 minutes/week
- Interpersonal: Friends and neighbors go for walks together as a part of their routines
- Organizational: At work and in schools, there are daily opportunities to get up and move for longer periods of time (e.g., breaks and recess)
- Community: There are places to walk in communities that support people safely walking where they would typically go (e.g., sidewalks to stores)
- Public policy: Complete Streets policies guide cities and states to create sidewalks and bike lanes along with roads

¹[http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html](http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html)
Health in Porter Adventist Hospital’s Community

Identified Health Needs

A community health need is defined as either:

- A poor health outcome and its associated health drivers
- A health driver associated with a poor health outcome, where the outcome itself has not yet arisen as a need

We used a specific set of criteria to identify the health needs in our communities. Specifically, we sought to ensure that the identified needs fit the above definition, and that the need was confirmed by more than one indicator and/or data source. Finally, we determined that the indicators related to the health need performed poorly against either the Colorado state average or the Healthy People 2020 benchmark. We utilized the Centura Health Prioritization Method to determine our prioritized needs.

The health needs identified in this CHNA included:

- Mental Health/Suicide / Substance Abuse
- Access to Care
- Obesity / Healthy Eating Active Living (HEAL)
- Heart Disease
- Oral Health

Prioritized Health Needs

Porter Adventist Hospital prioritized mental health/suicide, healthy eating active living/obesity, and access to care. Heart Disease and Oral Health were added by the hospital after the initial prioritization process.

Mental Health

Mental health was chosen as a health need because Porter Adventist Hospital’s service area’s suicide rate is 16.8 per 100,000. This is much higher than the Healthy People 2020 goal of 10.2 per 100,000.

Suicidal Ideation was the fourth most frequent admitting diagnosis for Emergency Room patients not admitted to the hospital. Alcohol abuse was the tenth most frequent diagnosis. The prevalence of behavioral health and alcohol/substance abuse was also high for hospital patients and hospital admissions.

Denver and Arapahoe Counties had depression and anxiety rates that were higher than the state average in 2014. Among adolescents, both Denver and Arapahoe Counties had higher rates of “feeling sad or hopeless”
than the state, and Arapahoe County teens had higher rates of suicidal ideation than the state. Additional supportive information can be found at the CDPHE website of county health indicators.

Several resources that are available to promote mental health include the following.

• Screening, Brief Intervention, and Referral to Treatment (SBIRT) addresses risk factors for suicide: substance abuse and depression

• Applied Suicide Intervention Skills Training (ASIST) and Assessing and Managing Suicide Risk (AMSR) target suicide reduction.

• Mental Health First Aid training providers and community members with the tools to support individuals in a mental health crisis.

Data gathered from our focus group also pointed to suicide as a high need in our community. Ministers in a focus group identified teen suicide and mental health issues (depression, anxiety) in the general population as the predominant health issues in Littleton. They believe that isolation and a breakdown in family structure contribute to depression and suicide.

Healthy Eating and Active Living (HEAL)/Obesity

HEAL/Obesity was the second health need that was selected based on Health Department data in Porter’s service area. While many of the indicators in the research demonstrated service area rates that were similar to state rates, the rates themselves were deemed to be high and thus warrant attention. For example, Jefferson, Denver, and Arapahoe Counties had overweight rates that were close to the state average, at around 34%, and obesity rates that were just under the state rate of 20%.

Denver’s obesity rate among children was higher than the state average, which created concern since obesity rates in children strongly correlate with obesity rates in adulthood. High obesity levels in the population were a concern for the hospital because of the high rates of associated illnesses, such as diabetes, heart disease, and cancer. For example, Denver County’s diabetes rate is currently higher than the state average. Obesity rates are also higher among those with less education, lower incomes and from minority populations.

An understanding of the non-clinical factors that influence health, including environmental quality and the built environment, is important to fully grasp the needs of the communities we serve. Environmental factors, including access to healthy foods and recreation facilities, impact behavior and health outcomes.

An analysis of the environmental indicators for Arapahoe, Denver, and Jefferson Counties revealed that our community has both opportunities and barriers to living a healthy and active lifestyle. There are 12 recreation and fitness facilities per 100,000 residents in our community, which is higher than the state average of Colorado (11.4). Additionally, only 5.06% of the low-income population in our service area experiences low food access and there more SNAP-authorized food stores in our service area than in Colorado as a whole. Grocery store access is also
adequate in our communities, which can contribute to further opportunities to participate in healthy eating.

However, there are fewer WIC-authorized food stores in our community, more fast food restaurants, and more liquor stores. These can all contribute to barriers to healthy eating.

<table>
<thead>
<tr>
<th>Environmental Indicator</th>
<th>Low-Income Population with Low Food Access</th>
<th>Recreation and Fitness Facility Access</th>
<th>SNAP-authorized Food Store Access</th>
<th>Grocery Store Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>5.06%</td>
<td>12.4</td>
<td>54.08</td>
<td>15.6</td>
</tr>
<tr>
<td>Colorado</td>
<td>6.39%</td>
<td>11.4</td>
<td>52.27</td>
<td>15.7</td>
</tr>
</tbody>
</table>

Moving forward into our implementation plans, Porter Adventist Hospital recognizes both the opportunities and barriers to achieve a healthy and active lifestyle in our community.

Several resources that are available to address the obesity issue include the following:

- Centura Health Physician Group (CHPG) primary care and specialty practices that monitor BMI
- Pathways to Health and Wellness provides a comprehensive approach to weight loss
- The Healthy Hospital Compact has influenced hospital cafeterias in providing healthier selections
- Doctors Care monitors BMI and enrolls qualifying patients in weight loss programs
- CafeWell and CREATION Health offer web based approaches to weight loss

**Heart Disease**

Heart disease is a significant health need in our community. “Chest pain” is among the top ten admitting diagnosis for hospital patients, hospital admissions, and for Emergency Room patients not admitted to the hospital. Within PAH’s service area, 2.8% of the population have heart disease and 33.5% have high cholesterol, the same rates as the state. In addition, 24.2% have high blood pressure, slightly higher than the state rate. The mortality rate for heart disease is 135.3 per 100,000, close to the state rate. The mortality rate for ischemic heart disease is also close to the state rate. A risk factor for heart disease is smoking, and 17% of the service area currently smokes, the same rate as the state. The high rate of obesity in the population is another risk factor for heart disease and is discussed in more detail in the obesity section.

**Oral Health**

Oral health was also determined to be a health need in our community. In Porter’s service area, 9.6% of adults have poor dental health, close to the state rate. In addition, 28.2% of adults have had no dental exam in the past
year. The lack of insurance among 19.6% of adults and 9.1% among children under 19 hinders their ability to obtain dental services, contributing to poor oral health among this population. One resource, Kids in Need of Dentistry, provides dental services to underserved children, and is described further in the Implementation Plan section that follows.

Access to Care

In addition to the above prioritized health needs, Centura Health and Porter Adventist Hospital recognize that access to care is a critical factor to assess, screen, and provide treatment that improves and maintains health. We have a primary duty to ensure we address barriers to access, and link our communities to the care they need.

Access to care has been a top priority for Centura Health throughout our history. Our founders recognized a community need for health care services and built the first hospitals to meet that need. More recently, we have proactively redesigned our core services and facilities to create low-cost healthcare options, including urgent care and neighborhood health centers, closer to our patient’s homes.

While not a driver of health outcomes, improving access to care is a critical factor in addressing the mental health and obesity needs identified in the CHNA process. As a nonprofit and faith-based hospital, Porter Adventist Hospital has a mission to understand all of the potential factors that prevent members of our community from accessing the care, both mental and physical, that they need. The rising costs of healthcare can prevent members of our communities from seeking care or from continuing with the care they need. Additionally, the recent expansion of Medicaid has greatly increased the number of patients in our communities seeking specialty care. This increased demand has led to access barriers for our Medicaid populations who are typically the most vulnerable and underserved members of our community.

Centura Health continually promotes programs and services to ensure that individuals in our communities can access the care they need. Throughout the organization, we engage Community Health Advocates (CHA) who work with uninsured individuals or those without a primary care doctor to enroll them into coverage and link them with providers. Our goals are to increase the number of patients in our communities who have a designated primary care

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**Figure 1. The Determinants of Health**

Source: Robert Wood Johnson Foundation
medical home and to decrease the numbers who are uninsured. We identify uninsured patients in our Emergency Departments, our community-based partner organizations, and at local events to engage them with CHAs to guide them through the insurance enrollment process and navigation to the appropriate source of care. Once they have received the coverage they need, our Advocates refer the patients to providers so they may begin to receive high quality and consistent medical care.

The Community Health Advocate program has been successful throughout the Centura Health network in enrolling community members and patients into insurance plans.

Porter Adventist Hospital’s service area shows a 19.6% uninsured rate for residents between the age of 18-64 and 9.1% uninsured for children under the age of 19. There are 94.9 primary care physicians per 100,000 and 23% of adults in the community report they do not have a regular doctor.

Access to Mental Health Services

Inadequate access to mental health services is also a concern in the communities we serve. Centura Health has recognized this gap and is currently working with mental health partners and providers to better integrate mental health services into our hospitals, clinics, and neighborhood health centers. At Porter Adventist Hospital, we host the Center for Behavioral Health, and work closely with the Tri County Health Department (TCHD), Arapahoe Douglas Mental Health Network, and Doctors Care to provide mental health services to our patients and our communities.

Community Health Advocates and Eligibility Specialists at PAH enroll the uninsured in Medicaid, Connect for Health Colorado and other insurance programs to enable patients to access mental health services. Doctors Care also enrolls its clients in insurance programs that cover mental health services.
Other Issues Impacting Health across the State and in Our Community

Smoking

The Colorado Clean Indoor Air Act is a state law limiting smoking in indoor areas and within 15 feet of building entryways. The law does not extend to outdoor areas. Many cities and counties in Colorado have enacted ordinances to make their smoking laws more stringent than state law. In many cases, cities and counties have extended their restrictions to widen the perimeter of restricted entryways and extend no smoking laws to outdoor areas like downtown areas, parks, transit waiting areas, and dining patios. Some counties have also chosen to apply all of their existing smoking laws to the use of electronic cigarettes. The city of Denver extended Colorado state smoking laws to prohibit smoking on hospital grounds and sidewalks.

SNAP and WIC Accepted at Farmer’s Markets

Many Coloradans purchase their fresh fruits and vegetables from their local farmers’ market. Farmers’ markets are an excellent way for people to access nutritious, locally grown products. Ideally, farmers’ markets would be accessible to all Coloradans, regardless of income levels. Supplemental Nutrition Assistance Program (SNAP) payments are accepted at numerous farmers’ markets across the state. Women, Infants, and Children (WIC) payments are accepted only at 7 farmers’ markets across the state. There are several farmers’ markets in Arapahoe, Denver, and Jefferson counties to accept SNAP benefits, however none accept WIC benefits.

Colorado’s Lack of Affordable Housing

The average cost of rent in Colorado is growing three times faster than the national average. For a Coloradan to afford a median-priced rental in the state, the resident must make thirty-five dollars an hour, which is four times as much as Colorado’s minimum wage. Denver is one of five U.S. cities that has seen housing prices rise above pre-bubble historical averages. An individual living in Denver earning a median income can expect to devote 35% of their pay to cover the rent on a typical rental property, and that is compared with an average U.S. rent burden of 30.2% of income. Currently Denver ranks first among major metro areas in the United States in home price appreciation rate.

High “Self Sufficiency Standard”

The cost of living in Colorado has risen 32% from 2001 to 2015. Between 2001 and 2005, health care went up by 86%, food by 63%, child-care by 48%, and housing increased by 27%. The state’s minimum wage is insufficient to support families anywhere inside the state, and is only sufficient to support one-person households in Otero, Bent, and Custer Counties. 76% of workers in the most common occupations do not earn wages sufficient to support their families.

Homelessness

Sturm College of Law at the University of Denver has conducted an extensive report addressing Colorado’s homelessness issues. Closely related to the issue of a shortage of affordable housing in many Colorado towns is a failure to address the needs of homeless residents. In Colorado’s 76 largest cities, there are 351 city ordinances in Colorado that criminalize life-sustaining behaviors for the homeless. These laws disproportionately impact homeless residents. Sturm College of Law at the University of Denver’s report estimates that six Colorado cities spent at least $5 million enforcing fourteen anti-homeless ordinances between 2010 and 2014, and this is a conservative estimate. These funds could be better used to fund programs to rehabilitate and support the homeless, many of whom suffer from behavioral health issues.

Marijuana Legalization – Effect on Tourists

Out-of-state visitors to Colorado emergency rooms for marijuana-related symptoms accounted for 163 per
10,000 visits in 2014, up from 78 per 10,000 visits in 2012, according to research published by Dr. Howard Kim, a Northwestern research fellow and emergency medicine physician. The 109% increase far outpaced the 44% increase among Colorado residents since the state’s recreational marijuana sales began Jan. 1, 2014.7

Access to Care for Undocumented Individuals

Due to current laws and regulations, it is difficult for undocumented individuals to get health insurance. Also, families with both documented and undocumented individuals are apprehensive of applying for coverage even when they are eligible, out of fear that the undocumented members of their family will be reported to immigration authorities. However, there are currently strong legal protections against using information received through health insurance against an undocumented individual. Centura Health and other community organizations must educate the community regarding these rules to encourage more undocumented individuals to apply for coverage.

Preventable Motor Vehicle Accidents

Colorado is only one of fifteen states in the country with secondary safety belt laws – meaning that law enforcement drivers can only cite drivers for not wearing seat belts if they are stopped for another violation. Colorado safety belt usage is lower than the national average at 82.4% compared with 87% nationally. Also, it is not mandatory by law for motorcycle riders to wear helmets. Currently, it is legal for anyone over the age of 18 to use a phone while driving.

Education

Coloradans with less education are more likely to live in poverty. A 2012 report shows that only 4.5% of Coloradans with a bachelor’s degree or higher lived in poverty, while 26.9% of Coloradans without a high school diploma or GED are living in poverty. Furthermore, the unemployment rate for Coloradans with a bachelor degree is 3.9%, which is significantly lower than the state average of 8%. 10.6% of Coloradans without a high school diploma or GED are unemployed. Education is strongly associated with higher earners. Coloradans with a bachelor’s degree had a median income of $47,782, while those with only a high school education or GED had a median income of $28,486.

Civil Commitment Statute - Statewide

According to Colorado law, a person can be involuntary committed for psychiatric evaluation if they pose an “imminent danger” of harm to themselves or others. Spurred by the Aurora movie theater shooting in July 2012, there has been a contentious debate over this current law because it does not fall in line with 43 other states in which there is a lesser standard to involuntarily commit a person that poses a behavioral health risk to the public. Proposed bills to change this standard have been rejected as policymakers have shown hesitation to encroach on civil rights. Despite civil rights concerns, there are concerns that the current involuntary commitment standard is insufficient. Researchers at the School of Social Welfare at the University of California at Berkley reported in 2011 that broader commitment criteria are strongly associated with lower homicide rates.

Shortage of Mental Health Professionals

There is a shortage of mental health professionals in many Colorado counties. Colorado ranks near the bottom in psychiatric beds per capita. Also, Colorado ranks in the bottom half in per capita state and federal spending on mental-health. Despite the Affordable Care Act’s mandate that commercial insurers create “parity” between mental health care services and physical care services, insurers are still able to reimburse hospitals at a higher rate for physical healthcare than mental healthcare. Low funding and low reimbursement rates are leaving providers unable to invest in improving their behavioral health services.
Lack of Integration between Primary Care and Behavioral Healthcare

There is high demand for integration between behavioral health services and primary care. A 2014 study found that only 12% of patients who were referred to behavioral health therapy actually completed the treatment. Policy makers believe that if behavioral health treatment is integrated into primary care, the social stigma behind receiving behavioral healthcare will be eroded and patients will actually receive the treatment they need. There have been statewide attempts to integrate primary care and behavioral health services. Currently, the State is focusing on integrating the Accountable Care Collaborative efforts with the Colorado State Innovation Model and Behavioral Health Organization efforts. The goal of these efforts is to result in integration of physical and behavioral health services for Medicaid patients.

Also, Colorado has the seventh highest suicide rate in the nation. In the month before their deaths, a majority of people who have committed suicide were found to have visited a primary care physician. Increased integration of primary care and behavioral healthcare can result in improved detection tools and support for primary care physicians to identify mental illness and those at risk for suicide.

Bike Friendliness

Bike friendliness is an important function to encourage active lifestyles. Also, bike friendliness means creating roads that are cognizant of bicyclists, which leads to the reduction of unnecessary bike and car accidents. Colorado is currently named by The League of American bicyclists as a top 10 state for bike friendliness. Policies and laws can be enacted to increase bike friendliness and bike safety. The cities of Denver and Arvada received a silver rating from the League of American Bicyclists. In Denver, only 8% of its arterial streets have bike lanes, but the city possesses many bike-friendly ordinances.
Evaluation

Progress since our last CHNA

The needs prioritized in the prior 2016 CHNA are described below.

- Access to Care and Insurance Enrollment: We continued to train and support Community Health Advocates, who enrolled 26 patients in insurance plans in 2016.

- Wellness and Obesity: We promoted the CREATION Health CafeWell program that allowed users to track online their own health goals, including weight loss and exercise levels. Health indicators, such as Body Mass Index, are continually monitored by the Centura Health Physician Group.

- Community Engagement/Activation: We offered cardiac testing programs to community groups, such as firefighters and the police. We also provided cancer screening, diabetes monitoring, and asthma control to community members.

- Behavioral Health: We collaborated with Rocky Mountain Crisis Partners to receive ED patients requiring intervention. We supported Doctors Care in its consultation with and treatment of youth.

- Oral Health: We funded Kids in Need of Dentistry which reduces the number of low-income children with untreated decay through early diagnosis, disease management, oral health education, and the prevention of dental disease.

Evaluating our Impact for this CHNA

To understand the impact we are having in our communities, we remain dedicated to consistently evaluating and measuring the effectiveness of our implementation plans and strategies. We will complete bi-annual assessments of core metric progress measures. Porter Adventist Hospital will also track progress through annual community health improvement plans and community benefit reports.

Community Health Improvement Plans

The CHNA allows Porter Adventist Hospital to measurably identify, target, and improve health needs in our communities. From this assessment, we will generate annual Community Health Improvement Plans to carry out strategies for the advancement of all individuals in our communities. These plans detail the specifics of implementing the strategies from the CHNA, including the prioritized needs, partnerships in the community to address those needs, goals, initiatives, and progress to date.

Community Benefit Reports

As mentioned previously, a vital aspect of our non-profit and religious hospital status is the benefit we provide to the communities. Each fiscal year, we publish our annual community benefit report that details our communities by county, their demographics, the total community benefit that we provided, and the community benefit services and activities in
which we engaged. These reports are an important way to visualize the work we do in our communities and to show the programs and services we offer along with the number of people reached through them. We will continue to use these reports to track our progress with the CHNA implementation strategies because they clearly demonstrate the number of people reached through our programs and services and the resources spent to achieve our goals.

Community Feedback

We welcome feedback to our assessment and implementation plan. Any feedback provided on our plan is documented and shared in future reports.

For comments or questions, please contact:

James Feldbush, M.A., Director, Mission and Ministry | 303-765-3513 | jamesfeldbush@centura.org

No written feedback from the community was received on our last Community Health Needs Assessment.

Thank You and Recognition

Our Community Health Needs Assessment is as strong as the partnerships that created it. It is through these partnerships that we were able to ensure we were leveraging the assets in our communities, getting the voices of those who are experiencing challenges with their health and social determinants of health and making a plan to which both the community and hospital are committed. Thank you to the following people who committed their time, talent and testimony to this process.

- Bebe Kleinman, Executive Director, Doctors Care
- Bernadette Albanese, Medical Epidemiologist, Tri-County Health Department Tri-County Health Dept.
- Chris Bui, Lead Policy and Partnerships Coordinator, Denver Public Health
- Susan Davis, Director, Porter Adventist Hospital Volunteers
- Douglas Muir, Director, Behavioral Health, Porter Adventist Hospital
- Edward Ammon, Director, Porter Adventist Hospital Foundation and Adventist Community Services
- Eileen Aire, Consultant/Associate Director, University of Colorado Denver
- Emily McCormick, Epidemiologist, Denver Public Health
- Jim Feldbush, Director, Mission and Ministry/Community Health
- Stephen King, VP South Denver Group Mission Integration, Porter Adventist Hospital
- Patty Boyd, Strategic Partnerships Manager, Tri-County Health Dept.
- Eric Shadle, Group Manager South Denver Group Community Health, Porter Adventist Hospital
- Marti Steger, Community Outreach Coordinator, Porter Adventist Hospital
- Ted Ahlem, Executive Director of Ethics and Compliance, Christian Living Communities
- Traci Jones, Membership & Communications, South Metro Health Alliance
- Valerie Purser, Executive Director, South Metro Health Alliance
- Angie Villamaria, Manager, Associate Wellness Centura
Appendix A: Data Sources

American Community Survey, 2008-12
Colorado Health and Hospital Association, 2010-12
County Health Rankings, 2008-2010
County Business Patterns, 2012
Dartmouth Atlas of Health Care, 2012
National Center for Education Statistics, 2012-2013
National Center for Education Statistics, 2008-2009
Behavioral Risk Factor Surveillance System, 2006-2012
Behavioral Risk Factor Surveillance System, 2005-09
Behavioral Risk Factor Surveillance System, 2006-2010
Behavioral Risk Factor Surveillance System, 2006-2012
Behavioral Risk Factor Surveillance System, 2011-2012
Federal Bureau of Investigation Uniform Crime Reports, 2010-12
Health Resources and Human Services Administration, Health Professional Shortage Areas, 2014
National Center for Chronic Disease Prevention and Health Promotion, 2012
National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, 2012
National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, 2010
National Environmental Public Health Tracking Network, 2008
National Vital Statistics System, 2006-2010
Small Area Health Insurance Estimates, 2012
State Cancer Profiles, 2007-2011
Area Health Resource File, 2012
US Department of Health & Human Services, Health Resources and Services Administration
USDA Food Access Research Atlas, 2010
Appendix B: First Round of Data

Centura Health Data Approach

- **Demographics**: Community & Population
- **Health Drivers**: Behaviors & Environment
- **Health Outcomes**: Morbidity & Mortality
- **Access**: Coverage & Quality Care

Service Area Definition

- Stark versus County
- The Stark Law-defined service area is defined as the lowest number of contiguous zip codes that accounts for 75% of a hospital’s inpatient admissions
  - Demographic data was gathered for Stark service areas
- County level data used for health drivers, outcome, and access data
  - Keep consistent when we prioritize. Outcome data not available at zip code level
Appendix B: First Round of Data

Data Sources

- American Community Survey
- Behavioral Risk Factor Surveillance System
- National Center for Education Statistics
- National Vital Statistics System
- State Cancer Profiles
- Bureau of Labor Statistics

Porter Adventist Hospital

DEMOGRAPHICS: COMMUNITY & POPULATION

Centura’s Communities

Porter Adventist Community

Porter Stark Service Area

Service Area Population: 1,991,393

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Population in Age Range</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 0-4</td>
<td>138,846</td>
<td>7.0%</td>
</tr>
<tr>
<td>Age 5-17</td>
<td>349,961</td>
<td>17.6%</td>
</tr>
<tr>
<td>Age 18-24</td>
<td>174,611</td>
<td>8.8%</td>
</tr>
<tr>
<td>Age 25-34</td>
<td>311,756</td>
<td>15.7%</td>
</tr>
<tr>
<td>Age 35-44</td>
<td>293,107</td>
<td>14.7%</td>
</tr>
<tr>
<td>Age 45-54</td>
<td>247,854</td>
<td>14.5%</td>
</tr>
<tr>
<td>Age 55-64</td>
<td>204,313</td>
<td>11.5%</td>
</tr>
<tr>
<td>Age 65+</td>
<td>190,049</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

Source: American Community Survey, 2008-12
Appendix B: First Round of Data

### Race and Ethnicity

#### White, Black, Asian, Native American/Alaska Native

<table>
<thead>
<tr>
<th></th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>81.59%</td>
<td>84.15%</td>
</tr>
<tr>
<td>Black</td>
<td>5.34%</td>
<td>3.99%</td>
</tr>
<tr>
<td>Asian</td>
<td>3.81%</td>
<td>2.71%</td>
</tr>
<tr>
<td>Native American/Alaska Native</td>
<td>0.89%</td>
<td>0.97%</td>
</tr>
</tbody>
</table>

#### Hispanic Population

<table>
<thead>
<tr>
<th></th>
<th>Non-Hispanic</th>
<th>Hispanic or Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>78.18%</td>
<td>21.82%</td>
</tr>
<tr>
<td>Colorado</td>
<td>79.37%</td>
<td>20.63%</td>
</tr>
</tbody>
</table>

### Population

#### Population with Limited English Proficiency

<table>
<thead>
<tr>
<th></th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>8.5%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Colorado</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Unemployment Rate

<table>
<thead>
<tr>
<th></th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>9.3%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Colorado</td>
<td>3.9%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

### Income

#### Children Eligible for Free/Reduced Price Lunch

<table>
<thead>
<tr>
<th></th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>47.2%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Colorado</td>
<td></td>
<td>29.6%</td>
</tr>
</tbody>
</table>

Source: National Center for Education Statistics, 2011-13

Source: American Community Survey, 2008-12

Appendix B: First Round of Data

**EDUCATION**

<table>
<thead>
<tr>
<th>Population with Associates Level Degree or Higher</th>
<th>High School Graduation Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>47.6%</td>
</tr>
<tr>
<td>Colorado</td>
<td>44.7%</td>
</tr>
<tr>
<td>Service Area</td>
<td>68.6%</td>
</tr>
<tr>
<td>Colorado</td>
<td>77.6%</td>
</tr>
<tr>
<td>Healthy People 2020</td>
<td>82.4%</td>
</tr>
</tbody>
</table>

Source: American Community Survey, 2008-12 National Center for Education Statistics, 2008-09

**HEALTH BEHAVIORS**

<table>
<thead>
<tr>
<th>Adults reporting heavy alcohol consumption</th>
<th>Adults eating less than 5 fruits and vegetables daily</th>
<th>Current smokers</th>
<th>Adults with no leisure time physical activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>18.2%</td>
<td>75.0%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Colorado</td>
<td>17.6%</td>
<td>75.0%</td>
<td>16.8%</td>
</tr>
</tbody>
</table>


**ENVIRONMENT**

<table>
<thead>
<tr>
<th>Supermarket Access Per 100,000 Population</th>
<th>Law Income Population with Low Food Access</th>
<th>Recreation and Fitness Facility Access Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>25.7</td>
<td>5.1%</td>
</tr>
<tr>
<td>Colorado</td>
<td>24.6</td>
<td>6.4%</td>
</tr>
</tbody>
</table>


**ENVIRONMENT**

<table>
<thead>
<tr>
<th>Air Quality/Ozone</th>
<th>Percentage of Days with Ozone Levels Exceeding Standards</th>
<th>Violent Crime</th>
<th>Rate of Violent Crime Reported by Law Enforcement per 100,000 Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>0.2%</td>
<td>390.4</td>
<td></td>
</tr>
<tr>
<td>Colorado</td>
<td>0.1%</td>
<td>321.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: National Environmental Public Health Tracking Network, 2008 Federal Bureau of Investigation Uniform Crime Reports, 2010-12

**HEALTH OUTCOMES: MORBIDITY & MORTALITY**

Porter Adventist Hospital

HEALTH DRIVERS: BEHAVIORS & ENVIRONMENT
Appendix B: First Round of Data

Cancer Incidence by Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Area</th>
<th>Colorado</th>
<th>Healthy People 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>131.6</td>
<td>125.3</td>
<td>40.9</td>
</tr>
<tr>
<td>Cervical</td>
<td>6.3</td>
<td>6.2</td>
<td>7.1</td>
</tr>
<tr>
<td>Colon and Rectal</td>
<td>17.3</td>
<td>16.9</td>
<td>38.7</td>
</tr>
<tr>
<td>Lung</td>
<td>45.0</td>
<td>48.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Prostate</td>
<td>154.5</td>
<td>147.6</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: State Cancer Profiles, 2007-2011

Mortality

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Area</th>
<th>Colorado</th>
<th>Healthy People 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>153.2</td>
<td>149.3</td>
<td>160.6</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>136.3</td>
<td>137.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Ischemic Heart Disease</td>
<td>82.0</td>
<td>83.0</td>
<td>103.4</td>
</tr>
<tr>
<td>Stroke</td>
<td>34.2</td>
<td>36.5</td>
<td>33.8</td>
</tr>
<tr>
<td>Lung Disease</td>
<td>48.4</td>
<td>49.8</td>
<td>NA</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>6.3</td>
<td>5.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>5.7</td>
<td>5.6</td>
<td>NA</td>
</tr>
<tr>
<td>Unintentional Injury</td>
<td>47.0</td>
<td>45.3</td>
<td>36.0</td>
</tr>
<tr>
<td>Homicide</td>
<td>4.3</td>
<td>3.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Suicide</td>
<td>16.8</td>
<td>17.2</td>
<td>10.2</td>
</tr>
</tbody>
</table>


Years of Potential Life Lost Due to Premature Death (Per 100,000 Population)

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6,387</td>
<td>6,073</td>
</tr>
</tbody>
</table>

Source: County Health Rankings, 2006-2010

ACCESS: COVERAGE & QUALITY CARE

Porter Adventist Hospital

Uninsured Adults Ages 18-64

<table>
<thead>
<tr>
<th>Type</th>
<th>Population Age 18-64</th>
<th>Population Without Medical Insurance</th>
<th>Percentage Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>1,147,853</td>
<td>225,212</td>
<td>19.6%</td>
</tr>
<tr>
<td>Colorado</td>
<td>3,256,899</td>
<td>635,874</td>
<td>19.52%</td>
</tr>
</tbody>
</table>

Source: Small Area Health Insurance Estimates, 2012
Appendix C: Data From Local Public Health Departments

Obesity and Mental Health: Indicators Telling a Story

August 10, 2015

Hospital Service Area: Demographic Description Handout

Weight, diet, physical activity

- Body mass index (BMI) is a widely used measure of unhealthy overweight, as defined by:
  - For adults, a BMI of 25 to 29 (overweight) or 30 or greater (obesity)
  - For children and adolescents, a BMI at or above the 85th to 94th BMI-for-age percentile (overweight) and above the 95th BMI-for-age percentile (obesity)

Adult Overweight & Obesity is Common

Source: Colorado Health Impact and Prevention (CHIP) Defining Overweight and Obesity.

- Jefferson
- Denver
- Arapahoe
- COLORADO

Source: CHIPS, Behavioral Risk Factor Surveillance System (BRFSS) 2015-2016 combined.
Appendix C: Data from Local Public Health Departments

Slight Regional Variation in Obesity-Related Outcomes

<table>
<thead>
<tr>
<th>County</th>
<th>Told you have diabetes</th>
<th>Told you have hypertension</th>
<th>Told you have high cholesterol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspen</td>
<td>2.9%</td>
<td>3.9%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Denver</td>
<td>3.3%</td>
<td>4.7%</td>
<td>33.9%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>2.5%</td>
<td>2.5%</td>
<td>34.5%</td>
</tr>
<tr>
<td>COLORADO</td>
<td>2.0%</td>
<td>2.0%</td>
<td>34.8%</td>
</tr>
</tbody>
</table>


Lifestyle Behaviors Track With Weight

<table>
<thead>
<tr>
<th></th>
<th>Normal/ Underweight</th>
<th>Overweight</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consuming fruit less than once per day</td>
<td>32%</td>
<td>37%</td>
<td>35%</td>
</tr>
<tr>
<td>Consuming vegetables less than once per day</td>
<td>21%</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>Air fresh food one or more times per week</td>
<td>59%</td>
<td>71%*</td>
<td>72%*</td>
</tr>
<tr>
<td>Drink more than one SSB per day</td>
<td>31%</td>
<td>23%</td>
<td>31%</td>
</tr>
<tr>
<td>Exercise past 30 days</td>
<td>44%</td>
<td>34%</td>
<td>37%*</td>
</tr>
<tr>
<td>Exercise &gt;2 hours per week</td>
<td>56%</td>
<td>59%*</td>
<td>51%</td>
</tr>
</tbody>
</table>

* Statistical difference versus normal weight


Environment Can Impact Health Behavior - Adults

- Not easy to purchase healthy foods in neighborhood: 11%
- Worry about affording nutritious meals: 23%
- Do not have sidewalks or shoulders to safely walk, run, or bike: 9%


Environment Can Impact Health Behavior - Children <14 years

- Drink more than one SSB per day: 18%
- Eat fast food more than one time per week: 66%
- Do not walk bike, or skateboard to school more than one day per week: 69%
- Households with children who could not afford food they needed in past year: 24%


Obesity Risk - Take Home Points

- Obesity is common
- Obesity tracks with diabetes, risks for heart disease
- Childhood obesity progresses into adulthood
- Black, Hispanic, low income, less educational attainment populations are disproportionately affected
- Lifestyle behaviors track with obesity
- Nutritional and physical activity choices are less than optimal is overweight and obese adults
- Behaviors are established during childhood

Mental Health & Substance Abuse

- Mental health is a leading cause of disability and has substantial co-morbidity with substance abuse and physical health
- Mental health impacts the entire lifespan

Sources: Healthy People 2020; National Institute of Mental Health, National Institute on Drug Abuse.
Appendix C: Data From Local Public Health Departments

How Common is Depression & Anxiety in Adults?

<table>
<thead>
<tr>
<th></th>
<th>8 or more poor mental health days in past month</th>
<th>Current depression</th>
<th>Ever had anxiety disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arapahoe</td>
<td>11.6%</td>
<td>9.5%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Denver</td>
<td>14.6%</td>
<td>6.9%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>11.7%</td>
<td>5.3%</td>
<td>15.1%</td>
</tr>
<tr>
<td>COLORADO</td>
<td>12.6%</td>
<td>6.8%</td>
<td>15.1%</td>
</tr>
</tbody>
</table>

Source: CDPHE, Behavioral Risk Factor Surveillance System (BRFSS), 2014

Consequences of Depression in Adults

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Currently depressed</th>
<th>Not currently depressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trouble sleeping</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>Binge drinking</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Smoking</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Statistical difference versus not depressed

Source: CDPHE, Behavioral Risk Factor Surveillance System (BRFSS), Denver Metro Combined, 2014

Consequences of Anxiety in Adults

<table>
<thead>
<tr>
<th>Anxiety disorder</th>
<th>No anxiety disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trouble sleeping</td>
<td>60%</td>
</tr>
<tr>
<td>Binge drinking</td>
<td>50%</td>
</tr>
<tr>
<td>Smoking</td>
<td>40%</td>
</tr>
</tbody>
</table>

* Statistical difference versus no anxiety

Source: CDPHE, Behavioral Risk Factor Surveillance System (BRFSS), Denver Metro Combined, 2014

Sadness Among High School Students

"During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities"

- Consistently across Denver Metro area, teens experiencing sadness are more likely to:
  - Smoke cigarettes
  - Binge drink
  - Use marijuana
  - Be recently sexually active

Source: CDPHE, Healthy Kids Colorado Survey, 2013

Regional Variations in Adolescent Depression

<table>
<thead>
<tr>
<th></th>
<th>Feeling sad or hopeless</th>
<th>Considered suicide in past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arapahoe</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>Denver</td>
<td>29%</td>
<td>13%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>COLORADO</td>
<td>24%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Source: CDPHE, Healthy Kids Colorado Survey, 2013

Teen Sadness Associated with Suicidal Ideation

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage with suicidal ideation in past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Experiencing Sadness</td>
</tr>
<tr>
<td>Arapahoe</td>
<td>5.8%</td>
</tr>
<tr>
<td>Denver</td>
<td>3.8%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: CDPHE, Healthy Kids Colorado Survey, 2013
Appendix C: Data From Local Public Health Departments

Disparities Among High School Girls, Colorado

Mental Health Across the Lifespan: Children

Mental Health Care Access for Children, 4-14 years of age

Suicide-Related Hospitalizations by County

Suicide Rates by County

Gender Disparities: Suicide Vs Suicide-Related Hospitalizations


Source: CDHPH, Child Health Survey, DENVER METRO AREA COMBINED, 2012-2014.

Source: CDHPH, Child Health Survey, DENVER METRO AREA COMBINED, 2012-2014.

Source: CDHPH, Vital Statistics.

Source: CDHPH, Vital Statistics.

Source: CDHPH, Vital Statistics.

Note: differences in age groups and sexes.
Gender Disparities in Suicide Deaths

- Higher suicide-related hospitalizations in females, but higher suicide death rates in males
- Method of suicide
  - Males – firearms
  - Females - drugs, hanging

Mental Health Care: Costs, Insurance, Stigma

<table>
<thead>
<tr>
<th>Why did you not receive needed mental health care?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerned about the cost of treatment</td>
<td>75%</td>
</tr>
<tr>
<td>Did not think health insurance would cover</td>
<td>55%</td>
</tr>
<tr>
<td>Not comfortable talking with a health professional about personal problems</td>
<td>31%</td>
</tr>
<tr>
<td>Hard time getting an appointment</td>
<td>30%</td>
</tr>
<tr>
<td>Concerned about what would happen if someone found out you had a problem</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: CO Health Institute. 2015 CO Health Access Survey, Statewide

Mental Health Risk - Take Home Points

- Depression & anxiety are common
- Disparities related to socioeconomic factors
- Such as sleep disturbance, smoking, alcohol use
- Perceived concerns about cost and insurance coverage
- Tied depression associated with suicidal ideation
- Stigma is evident

The Health Gradient

- Individually oriented preventive action
- Health hazards

Questions

Comments

Other Data Requests