2016
Community Health Needs Assessment
Avista Adventist Hospital
At a Glance: Community Health Needs Assessment
Avista Adventist Hospital

Area Served

Boulder and Broomfield Counties

Priorities

Healthy Eating
Active Living (HEAL)

Behavioral Health

Access to Health Care

Partners

External Partners: Boulder County, Broomfield County, Jefferson County Health Departments, Extraordinary Living, Housing Human Services, COWA, Clinica ACS Lift Growing Home, Coal Creek MOW, Family Hospice, Brain Balance, Boulder SDA Church.

Avista Internal Partners: Case Management, Social Work, Wellness (Create Your Life), Mission & Ministry, Quality, Continuum of Care, CREATION Health, CNO, CMO, New Life, Home Care
2016

Community Health Needs Assessment
Avista 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 Avista 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:
Avista 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: Behavioral Health**

Behavioral health is a leading cause of disability and associated with co-morbidity, including substance abuse behaviors, intentional injury, and aggravating diseases such as cancer and diabetes. Behavioral health is the leading diagnosis for Avista Adventist Hospital admissions across all age groups. There are a number of factors that contribute to increased risk for poor behavioral health outcomes among the service area population. First, a greater percentage of our community’s population identifies as Hispanic or Latino. Second and later generation Hispanics/Latinos are at higher risk for behavioral health issues, and older Hispanics/Latinos are disproportionately affected by depression, anxiety and post-traumatic stress. Our service area also has a higher population with limited English proficiency which presents additional barriers to accessing culturally and linguistically appropriate behavioral health resources. In our community, 20.4% of parents reported behavioral health problems in children ages 1-14. Behavioral health is intergenerational, and community engagement of our parent population is important.

Avista Adventist Hospital will support the provision of preventive, comprehensive, and coordinated parent education programming and parent support services to promote better parenting, mental health across generations, and early childhood social-emotional development.

The strategies we will use to do this include the following:

- Align with best practice behavioral health content and screening for Avista Adventist Hospital parent education and parent support programming.
- Empower Avista educators and group facilitators through advanced behavioral health training.
- Increase awareness of and improve referral to evidence-based parent education resources in the community.
- Establish five community partnerships with leaders/agencies/organizations to advance behavioral health of parents and their children (0-18 years).

**Prioritized Need: Healthy Eating and Active Living (HEAL)**

After behavioral health and substance abuse, diabetes is the leading diagnosis for Avista Adventist Hospital admissions. Healthy eating and active living are the primary protective factors against Type 2 diabetes. Overall, Avista Adventist Hospital serves communities with increased risk for Type 2 diabetes. Hispanic/Latino populations are at increased risk for Type 2 diabetes and obesity; while minority women with a history of gestational diabetes are one of the highest risk groups for developing Type 2 diabetes. Healthy eating and active living are also associated with other health outcomes identified as moderate to high needs in the CHNA process, including breast cancer, heart disease, and colorectal cancer.

Avista Adventist Hospital will increase enrollment for at-risk women in Type 2 Diabetes Prevention Programs (DPP) through improved programming, communication, awareness, and referral processes.

The strategies we will use to do this include the following:

- Establish sustainable and evidence-based DPP at Avista Adventist Hospital Neighborhood Health Centers.
- Support establishment of evidence-based DPP’s in Avista Adventist Hospital service area and ensure sufficient participation in the programs to sustain them.
• Streamline and improve referral strategies to support engagement in evidence-based diabetes prevention community programs among primary care providers serving women at-risk for Type 2 diabetes.

• Improve systematic identification of patients at high-risk for Type 2 diabetes for warm-handoff to coordinated, preventive services.

Implementation Planning Process:

The first step to developing our implementation plans was to present evidence-based practices focused on addressing behavioral health and Healthy Eating and Active Living to our hospital subcommittees. Next, we completed an environmental scan to determine which established efforts in Avista 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.

Each strategy was selected for inclusion on the basis that it is an evidence-based practice and evaluated for populations that would be potentially impacted. This list of strategies was prioritized by both quantitative and qualitative data through the Subcommittee and hospital leadership. We also conducted a Strengths, Weaknesses, Opportunities and Threats analysis to prioritize those strategies included in our plan. This process offered several ways for our Steering Committee to prioritize those areas of focus for this plan.

Implementation Plan Review and Approval:

The final implementation plans were presented and approved by the Avista Adventist Hospital Board on May 18, 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, Avista 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 Avista 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 Avista 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 Avista 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 Avista 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. 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 Avista Adventist Hospital and the Boulder, Jefferson, and Broomfield County Public Health Departments. 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, Avista 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 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 health 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.
Avista Adventist Hospital: Our Services and History

Since its foundation in 1990, Avista Adventist Hospital has provided people throughout Louisville, Broomfield, Arvada and the surrounding Boulder communities compassionate, personalized, whole-person care. Avista is a full-service, award-winning, 114 bed hospital specializing in Women’s Services and Joint and Spine.

More than 100 years ago, the Seventh-day Adventist church established a sanitarium dedicated to providing healthcare for our community. As time passed, however, we realized that the original facility and location had limitations that would inhibit our ability to grow. To respond to this need, in 1990 we opened a new hospital in Louisville. The community response has been overwhelming, and because of the remarkable growth we’ve experienced, we have expanded our hospital and we have nearly doubled our size.

Distinctive Services

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

- New Life Center / Birthing Center
- Joint and Spine Care Center
- Breast Care Center
- Women’s Health

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

- Chest Pain Center Accreditation from the Society of Cardiovascular Patient Care
- Joint Commission Gold Seal of Approval for Primary Stroke Center, Joint Program, Spine Surgery and New Life Center
- Women’s Choice Award: Best Patient Experience
- WomenCertified: Top 100 Hospitals for Patient Experience
- Healthgrades Awards 2016 for Total Knee Replacement, Treatment of Pneumonia, Sepsis and Respiratory Failure
Commitment to Our Community

At Avista Adventist Hospital (AAH), 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, AAH 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, Avista Adventist Hospital provided over $9,570,429 in total community benefit. Community services ranged from promoting wellness during life transitions through thriving support groups to enrolling families into health coverage through expansion of the Community Health Advocate program. In 2015, Avista Adventist Hospital supported 7,890 patients with Medical Financial Assistance. To support primary stroke prevention, employees donated 216 hours to facilitate stroke recognition, recovery, and prevention among 150 community members. The Family Education Center served over 1,412 families through our childbirth, baby care, family wellbeing, and breastfeeding classes. In addition, we expanded our evidence-based falls prevention programming for older adults to include Stepping On, N’Balance, and Tai Chi for Arthritis.
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 account for 75% of a hospital's inpatient admissions. These ZIP codes have a combined population of 549,657.

The demographic makeup of these communities is as follows:

Race: 84.2% White, 4% Black, 2.7% Asian, Native American/Alaskan Native 1%, and 3.3% two or more races.

Ethnicity: 23.9% of the service population reports Hispanic or Latino origin.

Education Level: In the defined service area, 62.3% of the community has Associates Degree or higher, as compared to the CO state average of 44.7%.

Unemployment Rate: The unemployment rate is 3.9%, compared to the state average of 4.0%.

Population with Limited English Proficiency: 8.1% of the service area has limited English proficiency, compared to 6.7% across the state of Colorado.

High School Graduation Rate: The reported graduation rate in our service area was 82.4%, higher than the Colorado state average of 77.6%.

Population Living in Households with Income Below 200% of Federal Poverty level: Over a quarter of the population in our service area, 25.4%, is living in a household with income below 200% of FPL, as compared to the CO state average of 29.6%.
Population Demographics in Avista Adventist Hospital’s Service Area

### Race

- **White**: 84.2%
- **Black**: 4%
- **Asian**: 2.7%
- **Native American/Alaska Native**: 1%
- **Multiple races**: 3.3%

### Ethnicity

- **Non-Hispanic**: 76.1%
- **Hispanic**: 23.9%

### Associate’s Degree or Higher

- **Avista Adventist Service Area**: 62.3%
- **State Average**: 44.7%

### High School Graduation Rate

- **Avista Adventist Service Area**: 82.4%
- **State Average**: 77.6%

### Limited English Proficiency

- **Avista Adventist Service Area**: 8.1%
- **State Average**: 6.7%

### Unemployment Rate

- **Avista Adventist Service Area**: 3.9%
- **State Average**: 4.0%

### Households Below 200% of Federal Poverty Level

- **Avista Adventist Service Area**: 25.4%
- **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 CHNA Subcommittee was made up representatives from our hospital and the 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. Avista Adventist Hospital hosted six in-person meetings during the year, each spanning two hours. Subcommittee members demonstrated a minimum of 12 hours of engagement in this process. Through mobilizing community partnerships, the subcommittee brought together over 30 individuals, representing 13 agencies, dedicating approximately 350 collective hours.

Avista Adventist Hospital’s (AAH) Partnerships with Public Health

Avista Adventist Hospital built upon our existing partnership with Boulder County Public Health (BCPH) to strengthen the effectiveness of our Community Health Needs Assessment (CHNA) process. BCPH promoted understanding of the service area and assisted in the delivery of a strong secondary data analysis to support a more objective look at the overall needs of the community. BCPH and Avista Adventist Hospital worked together to compile technical data and jointly participated in the ranking and prioritization process. Metro Denver public health agencies and BCPH generated a list of potential evidence-based practices and identified important stakeholders for community input. BCPH has also identified behavioral health and HEAL as priority areas to measure health and share solutions within their BCPH Health Compass website. Our subcommittee also had representation from Jefferson County Public Health and City and County of Broomfield Health and Human Services.
Stage 1: Scanning the Data Landscape

The CHNA was conducted through a collaborative partnership between Avista Adventist Hospital, Boulder County Public Health, City and County of Broomfield Public Health and Environment, Jefferson County Public Health, 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. Avista Adventist Hospital main service area encompasses Boulder and Broomfield County, which was the data we 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 demographics, disparities, populations, 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 1. Health Indicator Data: The health needs in the table below were analyzed during the prioritization process. See Appendix B for the full dataset.

<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>11.7%</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>132.3</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>4.8</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>35</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>4.7%</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>123.8</td>
<td>137.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Homicide</td>
<td>Rate per 100,000 population</td>
<td>1.6</td>
<td>3.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>Chlamydia rate per 100,000 population</td>
<td>283.1</td>
<td>422.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>HIV Rate per 100,000 population</td>
<td>164.1</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>40.7</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>5.5</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>15.7</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>7.5%</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>14.5%</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>13.8%</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>25.5%</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>6.6%</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>141.7</td>
<td>147.6</td>
<td>N/A</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Adults reporting heavy alcohol consumption</td>
<td>13.9%</td>
<td>17.6%</td>
<td>N/A</td>
</tr>
<tr>
<td>Suicide</td>
<td>Rate per 100,000 population</td>
<td>17.5</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>43.7</td>
<td>45.1</td>
<td>36</td>
</tr>
</tbody>
</table>
Stage 2: Delving into the Data to Identify Priorities

Our Avista 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 communities of Boulder and Broomfield 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.

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

- **Behavioral Health**
- **HEAL (Health Eating Active Living)**

HEAL is a representation of behavioral and environmental health drivers that are associated with poor health outcomes, such as heart disease, stroke, and diabetes. Other health indicators examined within HEAL include adults eating less than 5 fruits and vegetables daily (67.4% of service area) and physical activity measures. The Avista Adventist Hospital Subcommittee also aggregated hospital utilization data to better understand needs among at-risk, underserved, and disparate populations. In response to the distinct characteristics of our service area, we identified women across the life span as a priority sub-population for behavioral health and HEAL needs.

As a third priority area, Avista Adventist Hospital continues our ongoing dedication to access to care. We have carried forward our commitment to access to care from our 2012 CHNA process.

Additional data provided by our local public health departments was also reviewed.

**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 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. Avista Adventist Hospital hosted two focus groups on-site and supplemented with electronic data collection from parent education program participants. One group included eleven faith leaders serving community members across all demographics in
the Avista Adventist Hospital service area. The other group was comprised of twelve Avista Adventist Hospital providers who facilitate our parent education classes, parental support groups, and/or complete screening and referrals for postpartum mental health needs. These providers serve diverse backgrounds among women of childbearing age. The community members who participated in the electronic survey ranked their preferences for types of referrals to classes, content of classes and barriers to attending classes.

Next, the group identified questions to ask the focus groups to gain a better understanding of behavioral health and Healthy Eating Active Living (HEAL). Specifically, we wanted to identify focus areas, gaps in knowledge, needs not met, or current external efforts around behavioral health and HEAL that could be improved by health care participation.

A key finding was the identification of an underserved group that challenged our understanding of at-risk populations. Low-income community members who are connected with Federally Qualified Health Centers may sometimes have better access to supportive programming than those who have private insurance. Thus, low-income women who do not qualify for Medicaid and/or have private insurance who are not screening as high-risk for behavioral health conditions are an important priority group for targeted programming interventions. In addition, both providers and community participants indicated a mother’s partner as an important resource to identify behavioral health needs, and current programming is limited in partner engagement. A gap was also identified in programming for community members who are at risk for diabetes but do not have a diagnosis from a provider, and/or whose insurance does not cover diabetes prevention services.

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 to address mental health and HEAL among women across the life span. The first step was to present evidence-based practices focused on behavioral health and HEAL to our hospital subcommittees. Next, we completed an environmental scan to identify those established efforts (in Avista Adventist Hospital or 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.

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
- Doug Muir, Director of Behavioral Health Service Line, Porter Adventist Hospital
- Sarah Kurz, VP of Policy and Communication, Livewell Colorado
- Kim Patton, HRSA, Acting Deputy Regional Administrator, Mental Health
- Reg Cox, Senior Minister, Lakewood Church of Christ
- Andrea Bon-Wilson, Psychological and Behavioral Counselor, Cardiac Rehabilitation and Health Wellness, HELP for Diabetes Program, St. Anthony Hospital

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.

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.
Boulder County Public Health led the development of a comprehensive list of potential strategies for each priority need; all strategies are currently utilized by Metro Denver public health departments to improve HEAL and behavioral health. Each strategy was selected for inclusion on the basis that it is an evidence-based practice. Each strategy was also evaluated for populations that would be potentially impacted (community, providers, and workplace associates). The list of potential strategies was narrowed by the Avista Adventist Hospital CHNA subcommittee after thoughtful consideration of capacity and community partnerships. Further consensus was built through engaging with Avista Adventist Hospital leadership. Two evidence-based practices were selected in each priority area for a total of four possible strategies.

The four options presented were 1) reflective of the Avista Adventist Hospital CHNA results; 2) aligned with Avista Adventist Hospital strategic plan to focus on women’s health across the lifespan; and 3) speak to Centura’s overarching goals. A SWOT (Strength, Weaknesses, Opportunities, Threats) analysis of each of the top four practices was performed to inform the final selection process. To reduce bias and engage as many Avista Adventist Hospital CHNA members as possible, an electronic questionnaire was utilized to prioritize HEAL and Behavioral Health strategies through quantitative and qualitative data. Aggregate data of the quantitative results and patterns in the qualitative data were shared in an in-person meeting to further inform the subsequent SMART goals development process.

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.

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

**Behavioral Health:**

Individual: Sense of safety and security (e.g., shelter and safety from violence)

Interpersonal: Positive connections with peers and family

Organizational: Access to community activities, such as school clubs and recreation facilities, in which people have an awareness and understanding of behavioral health signs and symptoms through classes such as Mental Health First Aid

Hospital/HealthCare: Assess for risk factors associated with behavioral health issues to identify risk and early symptoms and referral to resources to meet basic needs (food, shelter) and health care services

Community: Create environments that encourage positive connections and in which there is decreased stigma associated with behavioral health

Public policy: Increase access to basic needs (e.g., affordable housing, Supplemental Nutrition Assistance Program enrollment) and behavioral health care providers through reducing shortages among those who accept Medicaid

1 http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html

![Figure 2. The Socio-Ecological Model](image-url)
Health in Avista 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:

- Behavioral Health
- Healthy Eating and Active Living

Prioritized Health Needs

Avista Adventist Hospital prioritized behavioral health and Healthy Eating Active Living (HEAL); both priority areas outranked other health needs and can positively impact related health outcomes and health drivers.

Behavioral Health

Behavioral health is a leading cause of disability and associated with co-morbidity, including substance abuse behaviors, intentional injury, and aggravating diseases such as cancer and diabetes. Behavioral health is the leading diagnosis for Avista Adventist Hospital admissions across all age groups. A greater percentage of our community’s population identifies as Hispanic or Latino. Second and later generation Hispanics/Latinos are at higher risk for behavioral health issues, and older Hispanics/Latinos are disproportionately affected by depression, anxiety and post-traumatic stress. Our service area also has a higher population with limited English proficiency which presents additional barriers to accessing culturally and linguistically appropriate behavioral health resources.

Gender is another structural determinant that exasperates co-occurring behavioral health disparities. Women experience significantly higher rates of depression and anxiety, nearly twice as commonly as men. Avista Adventist Hospital data demonstrates women are more frequently served by our hospital services, accounting for 68% of admissions. Historically, Avista Adventist Hospital is known for its service of women of reproductive age. In our community, 58.9% of women experienced 1 or more major life stress events in the 12 months before delivery. After birth, over 1 in 10 women experienced post-partum depressive symptoms; making depression the most common pregnancy complication. Children with mothers who identify as having poor mental health are more likely to display social and emotional problems themselves. In our community, 20.4% of parents reported mental health problems in children aged 1-14. Behavioral health is intergenerational, and community engagement of our parent population is important.
It is important to recognize the association between behavioral health needs and our other priority, Healthy Eating Active Living. Behavioral health issues are frequently associated with the comorbidities of obesity-related conditions. Individuals who are obese or overweight also have an increased risk of developing depression and anxiety, while conversely poor behavioral health also increases the risk for progression of chronic disease. Thus, the community response must be rapid, coordinated, and comprehensive across both priority needs.

Sixteen percent of Avista Adventist Hospital inpatients and outpatients are served by Medicaid. Populations with Medicaid as the primary payer are typically at higher risk for poor mental health and obesity as per socioeconomic status as a health determinant. With Avista Adventist Hospital serving individuals across the payment spectrum, effective community partnerships and high level community collaboration remains essential to reach all underserved and disparate populations in the service area regardless of payer source.

**Healthy Eating and Active Living (HEAL)**

After behavioral health and substance abuse, diabetes is the leading diagnosis for Avista Adventist Hospital admissions. Healthy eating and active living are the primary protective factors against disease progression to Type 2 diabetes. Hispanic/ Latino populations are at increased risk for Type 2 diabetes and obesity; while minority women with a history of gestational diabetes are one of the highest risk groups for developing Type 2 diabetes. Overall, Avista Adventist Hospital serves communities with increased risk for Type 2 diabetes, where obesity (the single best predictor for Type 2 diabetes) is also rising. A number of other health outcomes identified as moderate-high needs in the CHNA process are associated with obesity, including diabetes, breast cancer, heart disease, and colorectal cancer. In addition, obesity can aggravate asthma and/or increase risk of developing respiratory problems.

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 obesity revealed that our community has many opportunities to participate in recreational activities. There are 20.5 recreation and fitness facilities per 100,000 residents in Boulder and Broomfield Counties, nearly doubling the state average of 11.4. Additionally, there are ample opportunities for fitness outside, such as hiking, biking, or taking a walk on one of the many walking paths in our communities. These opportunities are coupled with the fact that our service area experiences high outdoor air quality, with 0 days exceeding both Ozone and Particulate Matter 2.5 standards.

The public transportation system in our community is well-developed, giving our communities greater connectedness between home, work, and medical care providers. Grocery store access in our community is higher than the state average, with 18 grocery stores per 100,000 population. Only 3.4% of the low-income population in our community experiences low food access.

However, there are over 91 fast food restaurants available per 100,000 population in our community compared to the state average of 76.6. There are also fewer SNAP- and WIC-authorized stores in our community than the average in Colorado, making it more difficult for low-income members of our community to access the high-quality food necessary for healthy eating.

<table>
<thead>
<tr>
<th>Environmental Indicator</th>
<th>Fast Food Restaurant Access</th>
<th>WIC-Authorized Food Store Access</th>
<th>SNAP-Authorized Food Store Access</th>
</tr>
</thead>
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<td>Service Area</td>
<td>91</td>
<td>7.6</td>
<td>40.8</td>
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<tr>
<td>Colorado</td>
<td>76.6</td>
<td>8.8</td>
<td>52.3</td>
</tr>
</tbody>
</table>
Avista Adventist Hospital has an outstanding history of strong partnerships. Clinica Family Health is one such partner nationally recognized for delivering exceptional care. As a community health center, Clinica Family Health is a leader in culturally appropriate and prevention-focused medical and behavioral health care. Clinica largely overlaps the AAH service area, with a special focus on low-income and underserved populations in our shared community. Avista Adventist Hospital and Clinica Family Health have worked closely during the CHNA process to maximize opportunities to bridge gaps and comprehensively address needs across the service population. As one key informant described, “We need to support for families across the spectrum […] and we need continuity and trust. We have to make sure we’re leveraging what we do best and linking with what they (community partners) do best.” The Clinica Family Health-Avista Adventist Hospital partnership is one of the greatest assets to the success of our CHNA implementation plan.

Avista Adventist Hospital is a founding partner of the integrated Physician Network (iPN). iPN is a quality improvement collaborative comprised of independent physicians dedicated to improving population health and delivering patient-centered, cost-effective healthcare. This partnership creates unique opportunities to ensure success of primary care based initiatives in our CHNA implementation plan.

Avista Adventist Hospital has secured additional resources to support the promotion of HEAL and behavioral health. Avista Adventist Hospital was recently awarded a C.R.E.A.T.I.O.N. Health grant to foster holistic, whole-person wellness through application of self-management skills and establishing mental wellbeing behaviors to our highest need patients. This grant also builds capacity to augment access to care initiatives. Varied resources coupled with strong partnerships provide our community with a valuable window to develop sustainable solutions as partners.

Access to Care

In addition to the above prioritized health needs, Centura Health and Avista 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, Avista 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’s) 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 medical home and to decrease the number who are uninsured. We identify uninsured patients in our Emergency Departments, our community-based partner organizations, and at local events to engage them with CHA’s 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.
As of July 2015, Avista Adventist Hospital has a dedicated, full-time CHA connected to Centura’s broader CHA network. Avista Adventist Hospital is also designated as in-person enrollment assistance location for Connect for Health Colorado. From November 2015 through January 2016, the CHA’s assisted 598 families through enrollment assistance into commercial insurance programs, Medicaid, and identification of a primary care medical home. Our CHA accepted referrals from the broader community, as well as directly from our Medicaid Eligibility Specialist in the hospital. Additionally, our Create Your Life program is designed to decrease overutilization of the Emergency Department and 30-day readmissions by connecting people to a medical home and those services they need in the community.

While our uninsured rates are lower than Colorado’s average, 14.92% of the service area population reports not having insurance coverage. This represents 359,356 individuals in our immediate communities with coverage barriers to accessing care. This is inclusive of the 7.79% of uninsured children under the age of 19 in the service area. Boulder and Broomfield counties have 120.7 primary care physicians per 100,000 population, while Colorado overall has 79.2 per 100,000. However, 20.7% of the adult service population does not have a regular doctor, which is slightly lower than the state average at 23.6%. While the Avista Adventist Hospital community is faring better than Colorado overall, our population still has significantly underserved pockets, with fewer federally qualified health centers per 100,000 population and unique service challenges with an above average population with limited English proficiency.

Access to Behavioral Health Services

Inadequate access to behavioral health services is also a concern in the communities we serve. Centura Health has recognized this gap and is currently working with behavioral health partners and providers to better integrate behavioral health services into our hospitals, clinics, and neighborhood health centers. At Avista Adventist Hospital, we are currently working with Centura Health Physicians Group, Centennial Peaks Hospital, Clinica Family Health Services, and Mental Health Partners, to provide behavioral health services to our patients and our communities.
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. Boulder County is one of the few counties or cities in Colorado with laws that do not allow smoking in attached bars or separately ventilated rooms and do not have size exemptions. The city of Boulder has imposed several measures to limit tobacco use in more ways than Colorado state law. For example, the city of Boulder extended all existing smoking bans to the use of electronic cigarettes and prohibits smoking in certain downtown areas, parks, and trails. The city of Lafayette extended all existing smoking bans to the use of electronic cigarettes as well. The city of Longmont has not extended Colorado law in regards to tobacco use. Broomfield possesses a few extensions to Colorado’s state laws regarding tobacco use. For example, the no-smoking perimeter around buildings is extended to 20 feet.

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. Boulder County residents who participate in the Supplemental Nutrition Assistance Program (SNAP) are able to buy twice as many fruits and vegetables when they use their benefits at the Boulder County Farmers’ Markets. There are several Farmers’ Markets in Broomfield and Boulder counties that accept SNAP payments. Boulder county farmers’ markets also accept WIC payments.

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.

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 only 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

The 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.

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 city of Boulder was one of five communities across the nation to receive a platinum rating from the League of American Bicyclists. Bike-friendly roadways are crucial in encouraging active lifestyles and preventing bike accidents. Boulder has numerous bike-friendly ordinances and 95% of its arterial roadways have bike lanes.

1 http://www.gaspforair.org/gasp/ordinance/ordinance_index.php
2 https://www.ams.usda.gov/local-food-directories/farmersmarkets
11 http://www.denverpost.com/ci_12498806
12 C.R.S. 27-65-105
Conclusion

Evaluation

Progress since our last CHNA

In 2012, Avista Adventist Hospital identified 1) access to care; 2) diabetes care management and obesity; and 3) behavioral health—mental health and substance abuse as CHNA priority areas. Avista advanced the three priority areas through a myriad of initiatives and activities, including but not limited to the following successes:

• Avista collaborated with Centura Health Links to participate in open enrollment events; our Eligibility Specialist and Community Health Advocate network targeted uninsured newly eligible beneficiaries; and we launched a CREATION Health program to reduce over-utilization of the emergency department and increase primary care driven service.

• Clinica Family Health Services delivered robust diabetes management care with a lauded group-visit model. We further strengthened the Avista-Clinica partnership to provide coordinated, comprehensive care to our shared diabetes patients. Avista Adventist Hospital has also worked to establish expanded evidence-based wellness and self-management classes, resulting in increased Patient Activation Measures (PAM) through Healthy Westminster.

• Recent efforts to advance behavioral health skillsets have resulted in certification of associates throughout the hospital in Mental Health First Aid. We also expanded our outreach and long-term engagement in the New Life Center, founding a well-attended support group for new parents.

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. Avista Adventist Hospital will also track progress through annual community health improvement plans and community benefit reports.

Community Health Improvement Plans

The CHNA allows Avista 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:

Darrell Rott, Director of Spiritual Care | Avista Adventist Hospital
Office: 303.673.1266 | DarrellRott@Centura.Org

Or

Monica Buhlig | Group Director of Community Health
Mountain and North Denver Operating Group
Office: 720-321-0028 | monicabuhlig@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.

Avista Adventist Hospital
- Susan Ahlberg, Clinical Dietitian
- Lana Brennan, Assistant Nurse Manager NICU
- Jeanne Birch, Assistant Nurse Manager L&D
- Evie Chaddic, Administrative Assistant
- Kim Crawford, Director Continuum Care
- Carla Downing, Childbirth Educator
- David Ehrenberger, CMO
- Chris Gibbard, Manager Case Management
- Jane Harris, Nurse Supervisor
- Lavah Lowe, Chief Nursing Officer
- Marilee O’Connor, Community Health Advocate
- Melissa Phillips, Marketing Manager
- Tammy Piccone, Assistant Nurse Manager New Life
- Darrell Rott--Director Pastoral Care

Broomfield County Public Health
- Marie Gruceski, Public Health Educator
- Jason Vahling, Director Public Health

Clinica Family Health
- Simon Smith, CEO
- Susan Wortman, Development Director

Other Organizations
- Karen Eriksen, Boulder County Human Services
- Margaret Huffman, Director Community Health Services, Jefferson County Public Health
- Debbi Jackson, Director, Adventist Community Services
- Lesley Jackson, Director, Coal Creek Meals on Wheels
- Preston Knock, Community Outreach and Education, New Century Hospice
- Doug Muir, Director Behavioral Health, Porter Adventist Hospital
- Beth Oden, Co-Founder and Program Director, Extraordinary Living Project
- Michelle Selcke, Director, Brain Balance
- Erika Stutzman, TRENDS Director, The Community Foundation Boulder County
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 it consistent when we prioritize. Outcome data not available at zip code level
### 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

### Avista Adventist Hospital

**DEMOGRAPHICS: COMMUNITY & POPULATION**

### Centura’s Communities

### Avista Adventist Hospital Community

### Avista Adventist Stark Service Area

**Service Area Population: 549,657**

<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>40,024</td>
<td>7.3%</td>
</tr>
<tr>
<td>Age 5-17</td>
<td>101,974</td>
<td>18.6%</td>
</tr>
<tr>
<td>Age 18-24</td>
<td>52,472</td>
<td>9.6%</td>
</tr>
<tr>
<td>Age 25-34</td>
<td>83,677</td>
<td>15.2%</td>
</tr>
<tr>
<td>Age 35-44</td>
<td>83,828</td>
<td>15.3%</td>
</tr>
<tr>
<td>Age 45-54</td>
<td>80,086</td>
<td>14.6%</td>
</tr>
<tr>
<td>Age 55-65</td>
<td>58,926</td>
<td>10.7%</td>
</tr>
<tr>
<td>Age 65+</td>
<td>48,988</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

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

#### EDUCATION

<table>
<thead>
<tr>
<th>Population with Associate Level Degree or Higher</th>
<th>High School Graduation Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Area</strong> 62.3% Colorado 44.7%</td>
<td><strong>Service Area</strong> 82.4% Colorado 77.6% Healthy People 2020 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><strong>Service Area</strong> 13.9%</td>
<td><strong>Service Area</strong> 67.4%</td>
<td>11.5%</td>
<td>10.0%</td>
</tr>
<tr>
<td><strong>Colorado</strong> 17.6%</td>
<td><strong>Colorado</strong> 75.0%</td>
<td>16.8%</td>
<td>15.2%</td>
</tr>
</tbody>
</table>


---

#### ENVIRONMENT

<table>
<thead>
<tr>
<th>Liquor Store Access Per 100,000 Population</th>
<th>Low Income Population with Low Food Access</th>
<th>Recreation and Fitness Facility Access Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Area</strong> 22.3</td>
<td><strong>Service Area</strong> 4.4%</td>
<td><strong>Service Area</strong> 18.9%</td>
</tr>
<tr>
<td><strong>Colorado</strong> 24.6</td>
<td><strong>Colorado</strong> 6.4%</td>
<td><strong>Colorado</strong> 10.8%</td>
</tr>
</tbody>
</table>


---

#### ENVIRONMENT

<table>
<thead>
<tr>
<th>Air Quality/Ozone Percentage of Days With Ozone Levels Exceeding Standards</th>
<th>Violent Crime Rate of Violent Crime Reported by Law Enforcement per 100,000 Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Area</strong> 0.0%</td>
<td><strong>Service Area</strong> 304.7</td>
</tr>
<tr>
<td><strong>Colorado</strong> 0.1%</td>
<td><strong>Colorado</strong> 321.0</td>
</tr>
</tbody>
</table>

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

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#### HEALTH OUTCOMES: MORBIDITY & MORTALITY
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>132.3</td>
<td>125.3</td>
<td>40.9</td>
</tr>
<tr>
<td>Cervical</td>
<td>4.8 (Boulder)</td>
<td>6.2</td>
<td>7.1</td>
</tr>
<tr>
<td>Colon and Rectum</td>
<td>35.0</td>
<td>36.9</td>
<td>38.7</td>
</tr>
<tr>
<td>Lung</td>
<td>39.3</td>
<td>48.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Prostate</td>
<td>141.7</td>
<td>147.6</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: State Cancer Profiles, 2007-2011

Mortality

<table>
<thead>
<tr>
<th>Cause</th>
<th>Service Area</th>
<th>Colorado</th>
<th>Healthy People 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>134.9</td>
<td>149.8</td>
<td>160.5</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>123.81</td>
<td>137.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Ischemic Heart Disease</td>
<td>75.4</td>
<td>83.0</td>
<td>103.4</td>
</tr>
<tr>
<td>Stroke</td>
<td>32.4</td>
<td>36.5</td>
<td>33.8</td>
</tr>
<tr>
<td>Lung Disease</td>
<td>40.7</td>
<td>49.8</td>
<td>NA</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>5.3</td>
<td>5.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>5.4 (Boulder)</td>
<td>5.6</td>
<td>NA</td>
</tr>
<tr>
<td>Unintentional Injury</td>
<td>43.7</td>
<td>45.1</td>
<td>36.0</td>
</tr>
<tr>
<td>Homicide</td>
<td>1.6 (Boulder)</td>
<td>3.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Suicide</td>
<td>17.5</td>
<td>17.2</td>
<td>13.1</td>
</tr>
</tbody>
</table>


Years of Potential Life Lost Due to Premature Death

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,637</td>
<td>6,073</td>
</tr>
</tbody>
</table>

Source: County Health Rankings, 2009-2013

ACCESS: COVERAGE & QUALITY CARE

Avista Adventist Hospital

Six designated HPSC facilities (one PC, four MH, one OH)

Rates of FQHCs per 100,000 Population

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Area</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.4</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Source: Health Resources and Human Services Administration, Health Professional Shortage Areas, 2014

Uninsured Adults Ages 18-64

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Population Without Medical Insurance</th>
<th>Percentage Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area</td>
<td>359,936</td>
<td>75,915</td>
<td>14.92%</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 B: First Round of Data

ACCESS: QUALITY CARE

Pneumonia Vaccination
Percentage of adults 65 and over who have received
Service Area 72.3%
Colorado 74.5%

Preventable Hospital Events
Discharge rate per 1,000 Medicare enrollees for ambulatory-sensitive events
Service Area 33.0
Colorado 38.2

Centura Health Data Approach

Demographics
Community Population
Health Drivers
Behaviors Environment
Health Outcomes
Morbidity Mortality

Access
Coverage Quality Care

Behavioral Risk Factor Surveillance System, 2006-2012
Source: Dartmouth Atlas of Health Care, 2012