Community Health Needs Assessment

2019

Banner Health

North Colorado Medical Center

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EXECUTIVE SUMMARY

The Patient Protection and Affordable Care Act (ACA) has requirements that nonprofit hospitals must satisfy to maintain their tax-exempt status under section 501(c)(3) of the Internal Revenue Code. One such requirement added by the ACA, Section 501(r) of the Code, requires nonprofit hospitals to conduct a Community Health Needs Assessment (CHNA) and adopt implementation strategies to address the identified needs for the community at least once every three years. As part of the CHNA, each hospital is required to collect input from individuals in the community, including public health experts as well as residents, representatives or leaders of low-income, minority, and medically underserved populations.

As part of the process for evaluating community need, a Banner Health CHNA Steering Committee was formed. This committee, which was commissioned to guide the CHNA process, was comprised of professionals from a variety of disciplines across the organization. This steering committee has provided guidance in all aspects of the CHNA process, including development of the process, prioritization of the significant health needs identified and development of the implementation strategies, anticipated outcomes, and related measures. A list of the steering committee members can be found in Appendix B.

Beginning in early 2019, Banner Health conducted an assessment for the health needs of residents of Weld County as well as those in its primary service area (PSA). For the purposes of this report, the primary service area is defined as the area where the top 75 percent of patients for the respective facility originate from. The CHNA process undertaken and described in this report was conducted in compliance with federal requirements.

Headquartered in Phoenix, Arizona, Banner Health is one of the nation's largest nonprofit health care systems and is guided by our nonprofit mission: "Making health care easier, so life can be better." This mission serves as the cornerstone of operations at our 28 acute care facilities located in small and large, rural and urban communities spanning 6 western states. Collectively, these facilities serve an incredibly diverse patient population and provide more than $113M annually in charity care – treatment without expectation of being paid. As a nonprofit organization, we reinvest revenues to add new hospital beds, enhance patient care and support services, expand treatment technologies, and maintain equipment and facilities. Furthermore, we subsidize medical education costs for hundreds of physicians in our residency training programs in Phoenix and Tucson, Arizona and Greeley, Colorado.

With organizational oversight from a 13-member board of directors and guidance from both clinical and non-clinical system and facility leaders, our more than 50,000 employees work tirelessly to provide excellent care to patients in Banner Health hospitals, urgent cares, clinics, surgery centers, home care, and other care settings.

While we have the experience and expertise to provide primary care, hospital care, outpatient services, imaging centers, rehabilitation services, long-term acute care and home care to patients facing virtually any health conditions, we also provide an array of core services and specialized services. Some of our core services include: cancer care, emergency care, heart care, maternity services, neurosciences, orthopedics,

pediatrics and surgical care. Specialized services include behavioral health, burn care, high-risk obstetrics, Level 1 Trauma care, organ and bone marrow transplantation and medical toxicology. We also participate in a multitude of local, national and global research initiatives, including those spearheaded by researchers at our three Banner – University Medical Centers, Banner Alzheimer's Institute, and Banner Sun Health Research Institute.

Ultimately, our unwavering commitment to the health and well-being of our communities has earned accolades from an array of industry organizations, including distinction as a Top 5 Large Health System three out of the five past years by Truven Health Analytics (formerly Thomas Reuters) and one of the nation's Top 10 Integrated Health Systems according to SDI and Modern Healthcare Magazine. Banner Alzheimer's Institute has also garnered international recognition for its groundbreaking Alzheimer's Prevention Initiative, brain imaging research and patient care programs. Further, Banner Health, which is the second largest private employer in both Arizona and Northern Colorado, continues to be recognized as one of the "Best Places to Work" by Becker's Hospital Review.

In the spirit of the organization's continued commitment to providing excellent patient care, Banner Health conducted a thorough, system wide Community Health Needs Assessment (CHNA) within established guidelines for each of its hospital and healthcare facilities with the following goals at the heart of the endeavor:

- Effectively define the current community programs and services provided by the facility.
- Assess the total impact of existing programs and services on the community.
- Identify the current health needs of the surrounding population.
- Determine any health needs that are not being met by those programs and services, and/or ways to increase access to needed services.
- Provide a plan for future programs and services that will meet and/or continue to meet the community's needs.

The CHNA results have been presented to the leadership team and board members to ensure alignment with the system-wide priorities and long-term strategic plan. The CHNA process facilitates an ongoing focus on collaboration with governmental, nonprofit, and other health-related organizations to ensure that members of the community will have greater access to needed health care resources.

Banner Health has a strong history of dedication to community and of providing care to underserved populations. The CHNA process continues to help identify additional opportunities to better care for populations within the community who have special and / or unmet needs; this has only strengthened our commitment to improving the health of the communities we serve.

For North Colorado Medical Center leadership team, this has resulted in an ongoing commitment to continue working closely with community and healthcare leaders who have provided solid insight into the specific and unique needs of the community since the previous cycle. In addition, after accomplishing measurable changes from the actions taken in the previous CHNAs, we have an improved foundation to

work from. United in the goal of ensuring that community health needs are met now, and, in the future, these leaders will remain involved in ongoing efforts to continuously assess health needs and subsequent services.

INTRODUCTION

PURPOSE OF THE CHNA REPORT

The purpose of this CHNA is to identify and prioritize significant health needs of the community served by North Colorado Medical Center (NCMC). The priorities identified in this report help to guide the hospital's ongoing community health improvement programs and community benefit activities. This CHNA report meets requirements of the ACA that nonprofit hospitals conduct a CHNA at least once every three years.

North Colorado Medical Center is dedicated to enhancing the health of the communities it serves. The findings from this CHNA report serve as a foundation for understanding the health needs found in the community and will inform the implementation strategies selected. This report complies with federal tax requirements set forth in Internal Revenue Code Section 501(r) requiring hospital facilities owned and operated by an organization described in Internal Revenue Code Section 501(c)(3) to conduct a CHNA at least once every three years. Regarding the CHNA, the ACA specifically requires nonprofit hospitals to:

1. Collect and take into account input from public health experts, community leaders, and representatives of high need populations – this includes minority groups, low-income individuals, medically underserved populations, and those with chronic conditions;
2. Identify and prioritize community health needs;
3. Document a separate CHNA for each individual hospital; and,
4. Make the CHNA report widely available to the public. In addition, each nonprofit hospital must adopt an implementation strategy that describes how the hospital will address the identified significant community health needs.

This is the third cycle for Banner Health, with the second cycle completed in 2016. Feedback on the previous CHNA and Implementation Strategy will be addressed later in the report.

This CHNA report was adopted by the Banner Health's board on December 6, 2019.

This report is widely available to the public on the hospital's website bannerhealth.com, and a paper copy is available for inspection upon request at CHNA.CommunityFeedback@bannerhealth.com

Written comments on this report can be submitted by email to:
CHNA.CommunityFeedback@bannerhealth.com

ABOUT NORTH COLORADO MEDICAL CENTER

North Colorado Medical Center is a 378-bed licensed medical center located 50 miles north of Denver, within north central Colorado, in Greeley, the county seat of Weld County. The medical center's roots go back to 1904 when the Greeley Hospital was opened. The name has changed several times over the years, eventually to North Colorado Medical Center in the mid-1980's. The medical center has never strayed

from the community focus, constantly striving to live the Banner Health mission of, "Making health care easier, so life can be better".

North Colorado Medical Center is committed to providing a wide range of quality care, based on the needs of the community, including the following services:

- Heart Center
- Cancer Care
- Trauma and Emergency Care
- Surgical Care
- Women's Services
- 1,600 Specialty Clinics
- Level 2 Trauma Services

As noted above, NCMC also operates several physician clinics across Colorado, Wyoming, and Nebraska, including the Cardiovascular Institute of North Colorado located within a new addition on the southwest campus.

The staff of 306 active staff physicians including primary care and specialty physicians, alongside 435 volunteers, provides personalized care complemented by leading technology from Banner Health and resources directed at preventing, diagnosing, and treating illnesses. On an annual basis, North Colorado Medical Center's health professionals render care to nearly – 145,000 outpatients, about 21,000 inpatients, and over 52,000 patients in the Emergency Department (ED). The staff also welcomes an average of 1,400 newborns into the world each year.

North Colorado Medical Center serves Weld County, northern Colorado, and the surrounding multistate region leveraging the latest medical technologies to ensure safer, better care for patients. Physicians and clinical personnel document patient data in an electronic medical record rated at the highest level of implementation and adaptation by HIMSS Analytics, a wholly-owned nonprofit subsidiary of the Healthcare Information and Management Systems Society. This facility is also part of the Banner iCare™ Intensive Care Program where specially trained physicians and nurses back up the bedside ICU team and monitor ICU patient information 24 hours a day, seven days a week.

To help meet the needs of uninsured and underinsured community members, NCMC follows the Banner Health process for financial assistance, including financial assistance and payment arrangements. A strong relationship with the community is a very important consideration for Banner Health giving back to the people we serve through financial assistance is just one example of our commitment. In 2018, NCMC reported $34,291,000 in Charity Care, while it wrote off an additional $15,460,000 in Bad Debt, on uncontrollable money owed to the facility.

DEFINITION OF COMMUNITY

North Colorado Medical Center is located in the city of Greeley, on the Colorado Front Range in Weld County. Greeley is a Home Rule Municipality, the county seat and the most populous municipality of Weld County. It was originally founded as an experimental utopian society.

Historically, and in its base form, Greeley is largely an agricultural center – livestock, meat packing, sugar beets, and related processing activities remain extensive today. The University of Northern Colorado adds a college-town vibe, bringing some 13,000 students.

DESCRIPTION OF COMMUNITY

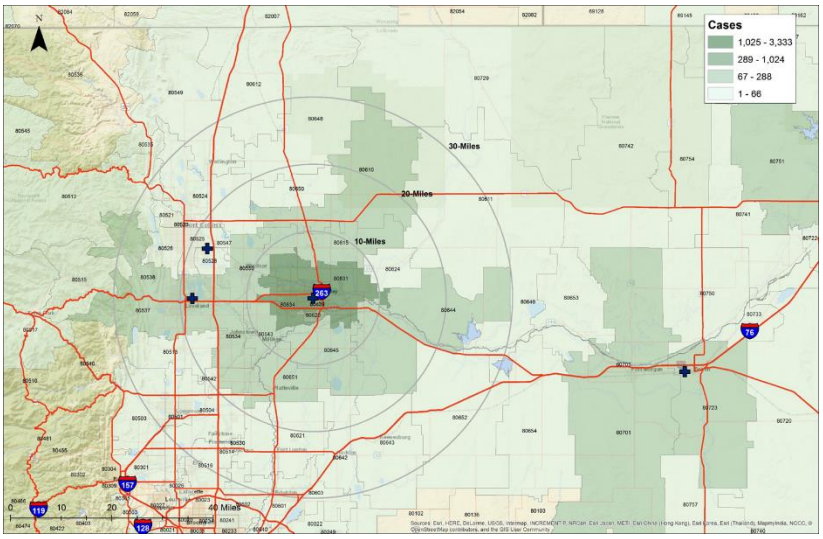
Primary Service Area

The Primary Service Area (PSA) is determined based on where the top 75 percent of patients for the respective facility originate from. In Table 1 the top ~75 percent of the North Colorado Medical Center PSA is listed.

Table 1. Primary Service Area

Zip	Segment	%	Cumulative
80651	East Greeley	29.6%	29.6%
80634	West Greeley	26.2%	55.8%
80620	Central Weld	9.3%	65.1%
80615	North Weld	3.1%	68.2%
80645	Central Weld	2.0%	70.2%
80538	Loveland	1.4%	71.6%
80537	Loveland	1.4%	73.0%
80631	Central Weld	1.3%	74.3%
80534	Johnston-Milliken	1.3%	75.6%

Source: McKesson, 2018



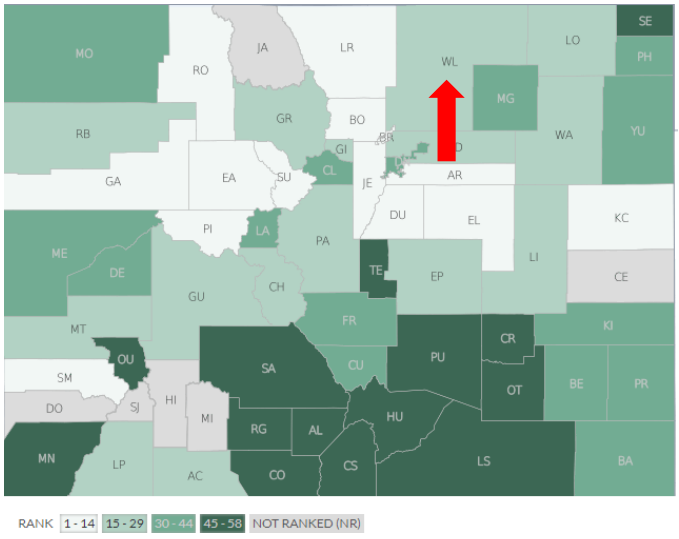
Source: Banner Strategy and Planning

Hospital Inpatient Discharges and Map

North Colorado Medical Center's Inpatient Origin by Zip Code data informs the primary service area. For the 2019 CHNA report the data derives from the 2018 calendar year and is determined by the top 3 contiguous quartiles, equaling 75 percent of total discharges. The City of Greeley accounted for 55 percent of North Colorado Medical Center's inpatient discharges in 2018, 9 percent of discharges came from La Salle, and an additional 11 percent came from Loveland, Platteville, and Johnsville.

Health Outcomes Ranking and Map

2019 Colorado County Health Outcomes Rankings: Weld County ranked #20 of 58 participating counties, an increase in the health outcome rankings of 2016 (#23 of 59). The health outcomes determine how healthy a county is by measuring how people feel while they are alive and how long they live. Health outcomes are influenced by health factors, which are thus influenced by programs and policies in place at the local, state, and federal levels. Health outcomes indicate whether health improvement plans are working. Listed below are the two areas that the study looked at when determining health outcomes:

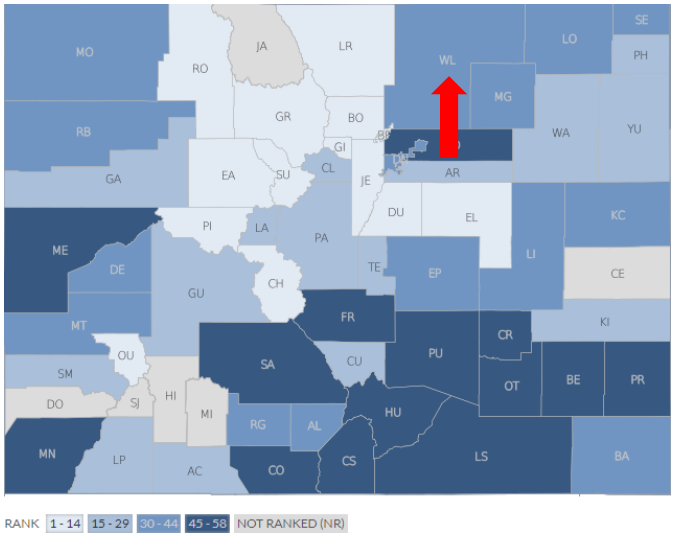


Source: County Health Rankings and Roadmaps, 2018

- Length of Life: measuring premature death and life expectancy.
- Quality of Life: measures of low birthweight and those who rated their physical and mental health as poor. (County Health Rankings, 2019)

Health Factors Ranking and Map

2019 Colorado County Health Factors Rankings: Weld County ranked #33 of 58 participating counties, a slight decrease in ranking compared to 2016 (#32 of 59). Health factors represent things that can be modified to improve the length and quality of life and are predictors for how healthy communities can be in the future. While there are many factors, from education to the environment in which a person lives, this study focused on the following four factors:



Source: County Health Rankings and Roadmaps, 2018

- Health Behaviors: rates of alcohol and drug abuse, diet and exercise, sexual activity, and tobacco use.
- Clinical Care: showing the details of access to quality of health care.
- Social and Economic Factors: rating education, employment, income, family and social support, and community safety.
- Physical Environment: measuring air and water quality, as well as housing and transit. (County Health Rankings, 2019)

COMMUNITY DEMOGRAPHICS

Table 2 provides the specific age, gender distribution, and data on key socio-economic drivers of health status of the population in the North Colorado Medical Center primary service area compared to Weld County and the state of Colorado.

Table 2. Community Demographics

	North Colorado Medical Center PSA	Weld County	Colorado
Population: estimated 2018	194,313	408,584	5,640,545
Gender			
• Male	50.3%	50.2%	50.3%
• Female	49.7%	49.8%	49.7%
Age			
• 0 to 9 years	13.6%	13.9%	12.2%
• 10 to 19 years	14.3%	14.2%	12.8%

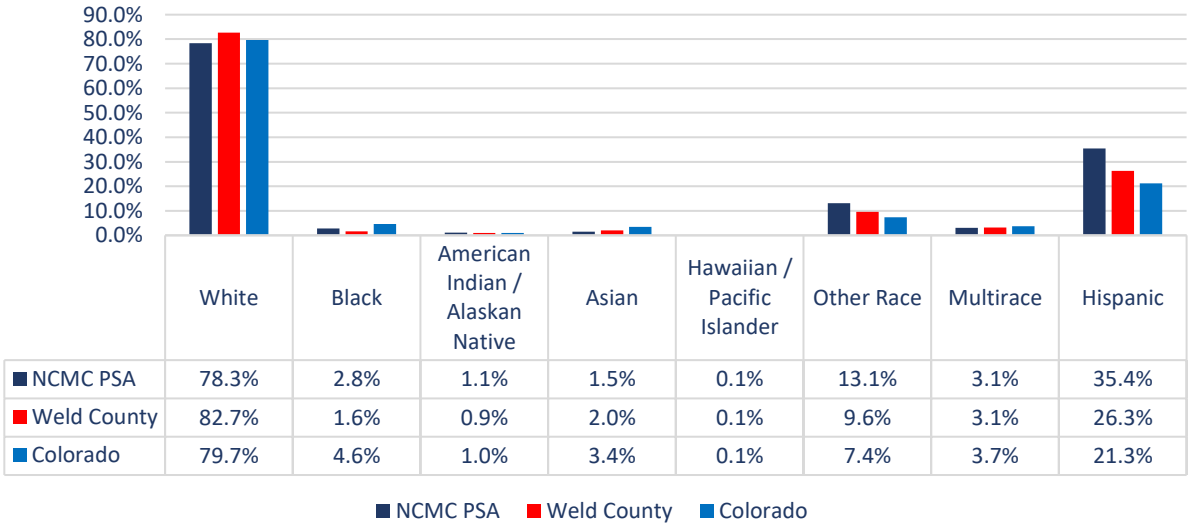
• 20 to 34 years	23.2%	20.9%	21.8%
• 35 to 64 years	34.7%	37.9%	38.9%
• 65 to 84 years	12.2%	11.8%	12.6%
• 85 years and over	1.9%	1.3%	1.6%
Social & Economic Factors			
• No HS diploma	15.5%	10.8%	8.5%
• Median Household Income	$56,000	$72,600	$72,400
• Unemployment	2.2%	2.0%	2.2%

Source: Advisory Board 2019

Race/Ethnicity (PSA, County and State)

North Colorado Medical Center primary service area has a smaller population of white (78.3%) compared to both the county and the state. The county and the PSA have a higher prevalence of the population which identifies as Hispanic than that of the state.

Chart A. Race / Ethnicity, 2019



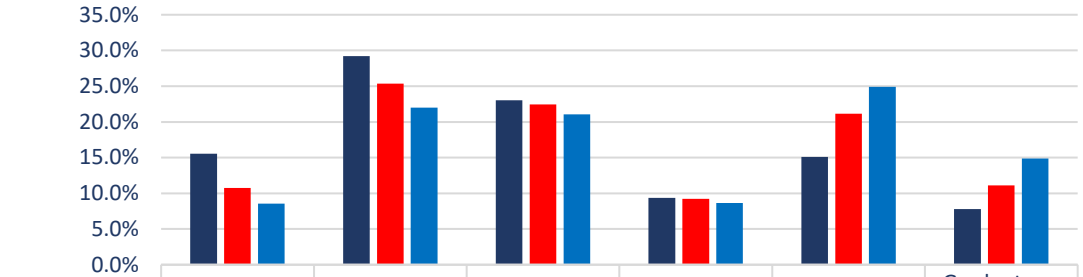
	White	Black	American Indian / Alaskan Native	Asian	Hawaiian / Pacific Islander	Other Race	Multirace	Hispanic
NCMC PSA	78.3%	2.8%	1.1%	1.5%	0.1%	13.1%	3.1%	35.4%
Weld County	82.7%	1.6%	0.9%	2.0%	0.1%	9.6%	3.1%	26.3%
Colorado	79.7%	4.6%	1.0%	3.4%	0.1%	7.4%	3.7%	21.3%

Sources: Crimson, Advisory Board, 2019

Educational Attainment (PSA, County and State)

The PSA has a larger population of those not completing HS than that of the state. Both Weld County and the PSA have lower rates of post-secondary education achievement compared to the state.

Chart B. Educational Attainment*, 2019



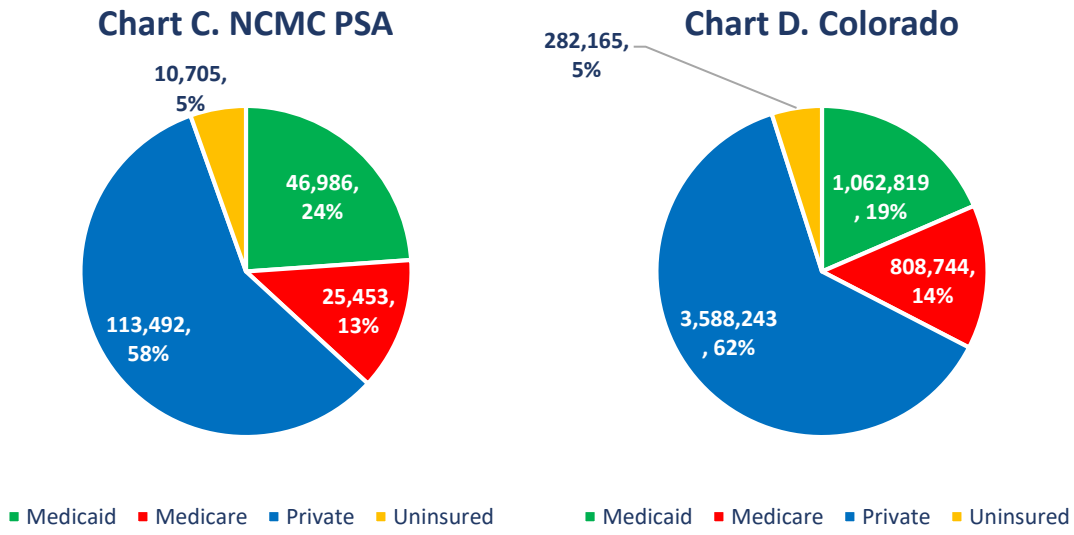
	No HS diploma	HS graduate	College no diploma	Associate degree	Bachelor's degree	Graduate or prof school degree
NCMC PSA	15.5%	29.2%	23.0%	9.4%	15.1%	7.8%
Weld County	10.8%	25.4%	22.4%	9.2%	21.2%	11.1%
Colorado	8.5%	22.0%	21.0%	8.6%	24.9%	14.9%

NCMC PSA Weld County Colorado

**Over the Age of 25; Sources: Crimson, Advisory Board, 2019*

Insurance Coverage Estimates for PSA and State of Colorado Populations

The charts below indicate that the PSA has a higher rate of the population being insured by Medicaid (24%), than the state (19%). Private Insurance is utilized by both the state and PSAs population at over 50 percent. The uninsured rate is low for both the state and PSA, and can be attributed to the low unemployment rate.

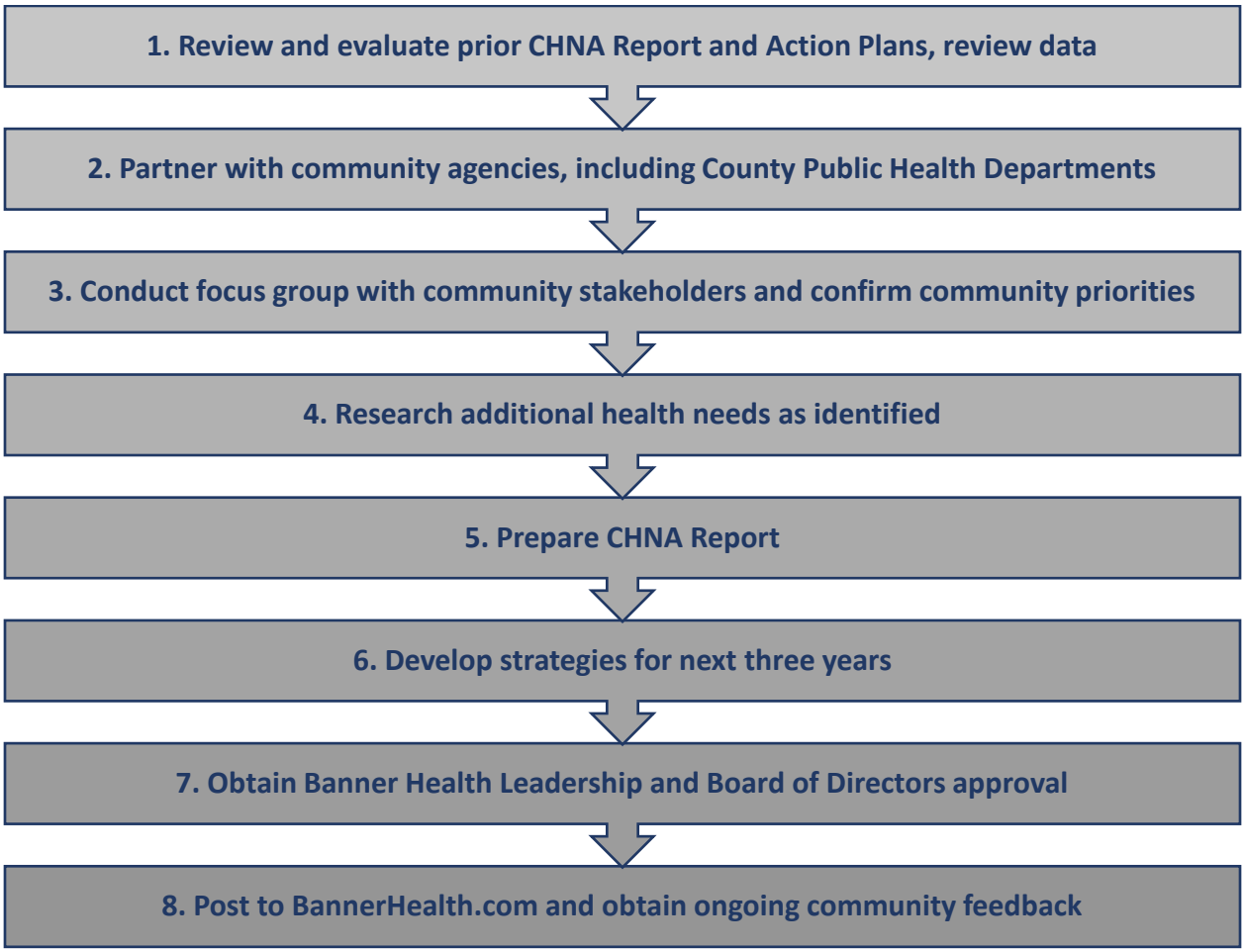


Source: 2017-18 Colorado State Data, Truven

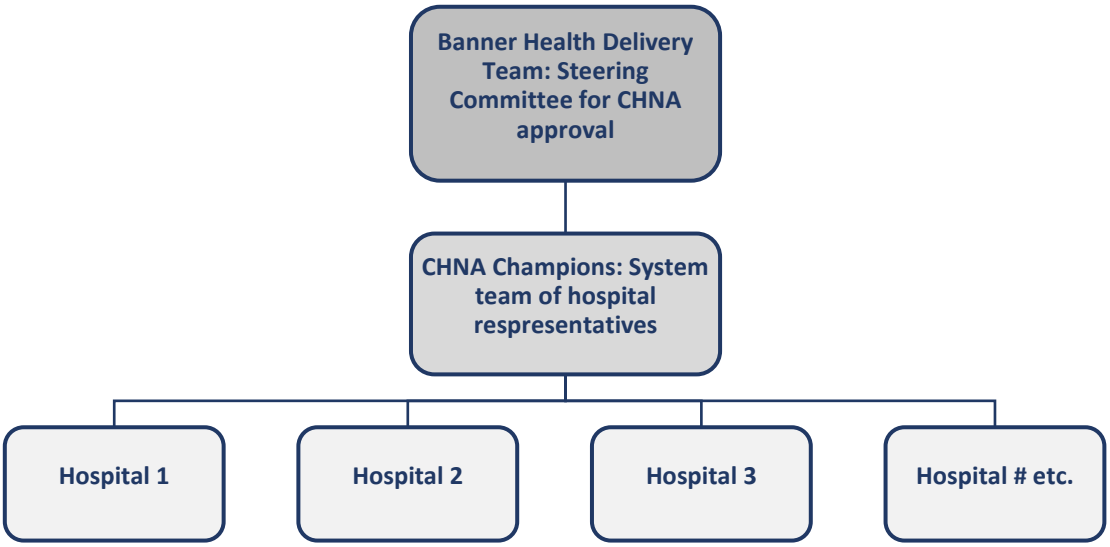
PROCESS AND METHODS USED TO CONDUCT THE CHNA

North Colorado Medical Center's process for conducting Community Health Needs Assessments (CHNAs) involves a leveraged multi-phased approach to understanding gaps in services provided to its community, as well as existing community resources. A focused approach to understanding unmet needs especially for those within underserved, uninsured and minority populations included a detailed data analysis of national, state and local data sources, as well as obtaining input from leaders within the community.

North Colorado Medical Center's eight step process, based on experience from previous CHNA cycles, is demonstrated below. The process involves continuous review and evaluation of the CHNAs from previous cycles, through both the action plans and reports developed. Through each cycle Banner Health and North Colorado Medical Center has been able to provide consistent data to monitor population trends.



BANNER HEALTH CHNA ORGANIZATIONAL STRUCTURE



PRIMARY DATA / SOURCES

Primary data, or new data, consists of data that is obtained via direct means. For Banner, by providing health care to patients, primary data is created by providing that service, such as inpatient / outpatient counts, visit cost, etc. For the CHNA report, primary data was also collected directly from the community, through stakeholder meetings.

The primary data for the Community Health Needs Assessment originated from Cerner (Banner's Electronic Medical Record) and McKesson (Banner's Cost Accounting / Decision Support Tool). These data sources were used to identify the health services currently being accessed by the community at Banner locations and provides indicators for diagnosis-based health needs of our community. This data was also used to identify the primary services areas and inform the Steering Committee (Appendix C) and facility champions on what the next steps of research and focus group facilitation needed to entail.

SECONDARY DATA / SOURCES

Secondary data includes publicly available health statistics and demographic data. With input from stakeholders, champions, and the steering committee, additional health indicators of special interest were investigated. Comparisons of data sources were made to the PSA, county, and state.

Data analytics were employed to identify demographics, socioeconomic factors, and health trends in the PSA, county, and state. Data reviewed included information around demographics, population growth, health insurance coverage, hospital services utilization, primary and chronic health concerns, risk factors and existing community resources. Several sources of data were consulted to present the most

comprehensive picture of North Colorado Medical Center's PSA's health status and outcomes. Data sources are listed in Appendix B.

DATA LIMITATIONS AND INFORMATION GAPS

Although the data sources provide an abundance of information and insight, data gaps still exist, including determining the most appropriate depth and breadth of analyses to apply. Additional gaps include:

Table 3. Data Limitations and Information Gaps

Data Type	Data Limitations and Data Gaps
Primary Data	• Data not available on all topics to evaluate health needs within each race / ethnicity by age-gender specific subgroups. • Limited data is available on diabetes prevalence and health risk and lifestyle behaviors (e.g. nutrition, exercise) in children.
Secondary Data	• Data not available on all topics to evaluate health needs within each race / ethnicity by age-gender specific subgroups. • Not all counties participated in the Colorado County Health Outcomes and Health for 2018, thus understanding the health rankings for the county was limited due to the lack of a complete data set. • For many counties in Colorado data is suppressed due to the small numbers reported for certain conditions making it difficult to compare data at a national level. • Some data was over two years old, making it hard to assess what the current health needs are.

COMMUNITY INPUT

Once gaps in access to health services were identified through data analytics, as explained above, Banner Health system representatives worked with North Colorado Medical Center's leadership to identify those impacted by a lack of health-related services. The gaps identified were used to drive the conversation in facilitating Community Stakeholder Focus Groups. Focus group participants involved PSA community leaders, community focused programs, and community members, all of which represented the uninsured, underserved, and minority populations. These focus groups (through a facilitated conversation) reviewed and validated the data, providing additional health concerns and feedback on the underlying issues for identified health concerns. A list of the organizations that participated in the focus groups can be found under Appendix B and a list of materials presented to the group can be found under Appendix D.

PRIORITIZATION OF COMMUNITY HEALTH NEEDS

To be considered a health need the following criteria was taken into consideration:

- The county had a health outcome or factor rate worse than the state / national rate
- The county demonstrated a worsening trend when compared to state / national data in recent years
- The county indicated an apparent health disparity
- The health outcome or factor was mentioned in the focus group
- The health need aligned with Banner Health's mission and strategic priorities

Building on Banner Health's past two CHNAs, our steering committee and facility champions worked with Banner Health corporate planners to prioritize health needs for Cycle 3 of the CHNA. Facility stakeholders, community members, and public health professionals were among major external entities involved in identifying health needs, which were then brought to the steering committee. Both Banner Health internal members, and external entities were strategically selected for their respective understanding of community perspectives, community-based health engagement, and health care expertise.

Using the previous CHNAs as a tool, the steering committee reviewed and compared the health needs identified in 2019 to the previous health needs. The group narrowed the community health needs to three. It was determined that Banner Health, as a health system would continue to address the same health needs from Cycle 2, the 2016 CHNA, due to the continued impact these health needs have on the overall health of the community. These needs and the strategies to address the needs align with the short- and long-term goals the health system has, specific strategies can be tailored to the regions Banner Health serves, and the health needs can address many health areas within each of them. The graphic below lists the three health needs, and the areas addressed by the strategies and tactics.

Access to Care	Chronic Disease Management	Behavioral Health
•Affordability of care •Uninsured and underinsured •Healthcare provider shortages •Transportation barriers	•High prevalence of: heart disease, diabetes, and cancer •Obesity and other factors contributing to chronic disease •Health literacy	•Opioid Epidemic •Vaping •Substance abuse •Mental health resources and access

DESCRIPTION OF PRIORITIZED COMMUNITY HEALTH NEEDS

Banner Health has a strong history of dedication to its community and of providing care to the underserved populations. The CHNA process continues to help identify additional opportunities to better care for populations within the community who have special and / or unmet needs; this has only strengthened our commitment to improving the health of the communities we serve. The following statements summarize each of the areas of priority for North Colorado Medical Center and are based on data and information gathered through the CHNA process

PRIORITY #1: ACCESS TO CARE

Access to care is a critical component to the health and wellbeing of community members. Often individuals without insurance, and even those who are underinsured, experience greater difficulty readily accessing health care services, particularly preventative and maintenance health care. This can be very costly, both to the individuals and the health care system. Focus group participants overwhelmingly felt that access to care is an important issue for the community.

Low-income populations are known to suffer at a disproportionate rate to a variety of chronic ailments, delay medical care, and have a shorter life expectancy compared to those living above the poverty level (Elliott, Beattie, Kaitfors, 2001). Understanding income and its correlation to access to care, primarily through access to health insurance is necessary to understand the environmental factors that influence a person's health. Research supports the correlation between income and health, compared to high-income Americans those with low-incomes have higher rates of heart disease, diabetes, stroke, and other chronic conditions (Khullar, Dhruv, Chokshi, 2018).

Table 4 breaks down the percentage of the community living in various states below federal poverty levels. One quarter of Weld County's population lives at 185 percent below the federal poverty level.

Table 4. Percentage Below Federal Poverty Level (FPL) 2013 – 2017

	Weld County	Colorado	U.S.
Population Below FPL			
50%	5.35%	5.14%	6.48%
100%	11.24%	11.51%	14.58%
185%	25.77%	25.08%	30.11%
200%	28.74%	27.55%	32.75%
Children Below FPL			
100%	13.35%	18.32%	20.31%
200%	44.49%	45.08%	42.24%

Source: U. S. Census Bureau, American Community Survey, 5-Year Estimates, 2013 – 2017

Populations living in Weld County are in a Health Professional Shortage Area (HPSA). An HPSA is a designation indicating a health care provider shortage in primary, dental, and / or mental health. In the U.S. 23 percent of the population is living in an area affected by a HPSA compared to 19.2 percent of Colorado and 30.4 percent of Weld County. HPSAs are an indicator for access and health status issues (HHS, February 2019).

This results of living in an HPSA is that Weld County experiences a high percentage of the adult population who is without a person they think of as their primary care doctor or health care provider (Weld – 22.92% of adults without any regular doctor; Colorado – 23.58%; U.S. – 22.07%). To further understand the HPSA Table 5 shows the ratio of population to primary care physicians.

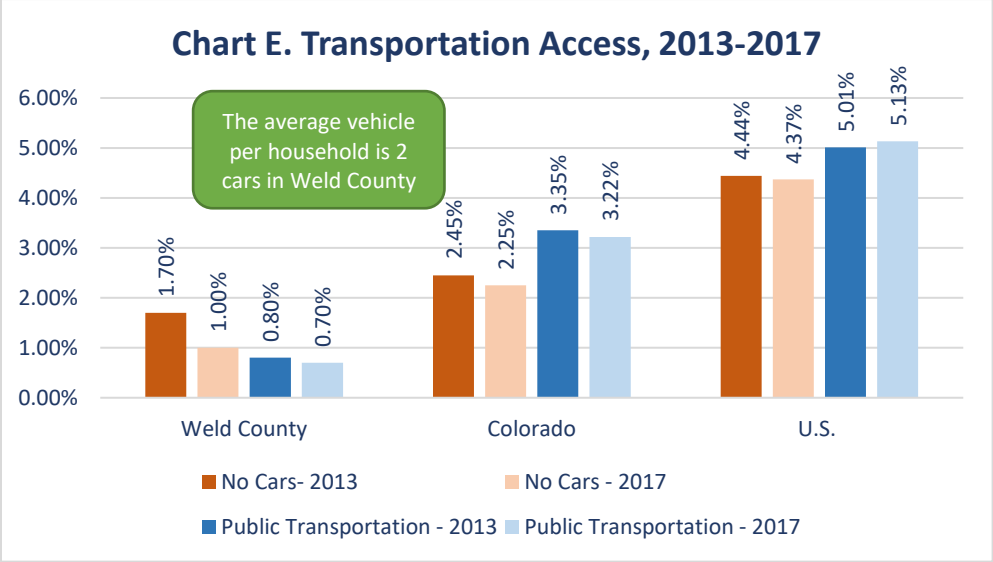
Table 5. Ratio of Population to Primary Care Physicians

	Weld County	Overall in Colorado	Top U.S. Performers (90th Percentile)
2017	2,070:1	1,240:1	1,040:1
2018	2,070:1	1,240:1	1,030:1
2019	2,030:1	1,230:1	1,050:1

County Health Rankings, 2017-2019

Transportation barriers are often associated as a barrier to healthcare access – including missed appointments, delayed care, and missed / delayed medication use. This in turn can result in poor health management, leading to poor health outcomes (Syed, Gerber, Sharp, 2013).

From 2013 to 2017, the population of Weld County who did not have a car slightly decreased from 1.7 percent to 1 percent, public transportation utilization for commuting in Weld county decreased by a 10th of a percentage point during the same time period. For this report we have used commuter data to interpret general utilization of public transportation for county residents. Lack of public transportation can lead to low utilization of public transportation services which then can result in transportation barriers. Chart E compares transportation access for Weld County, Colorado and the U.S.



Source: Census Bureau, American Community Survey, 5-Year Estimates, 2013-17

PRIORITY #2: CHRONIC DISEASE MANAGEMENT

Chronic diseases such as cancer, diabetes, and heart disease affect the health and quality of life of Weld County residents, but they are also major drivers in health care costs. In Colorado alone cardiovascular disease is a top cause of premature death.

In 2018, the leading cause of a chronic disease in Weld County was cardiovascular disease, affecting nearly 160 per 100,000 of the population. The mortality rate of chronic lower respiratory diseases and diabetes mellitus affect a greater percentage of the population in Weld County compared to the state, refer to Table 6.

Table 6. Chronic Disease Mortality Rates per 100,000, 2018

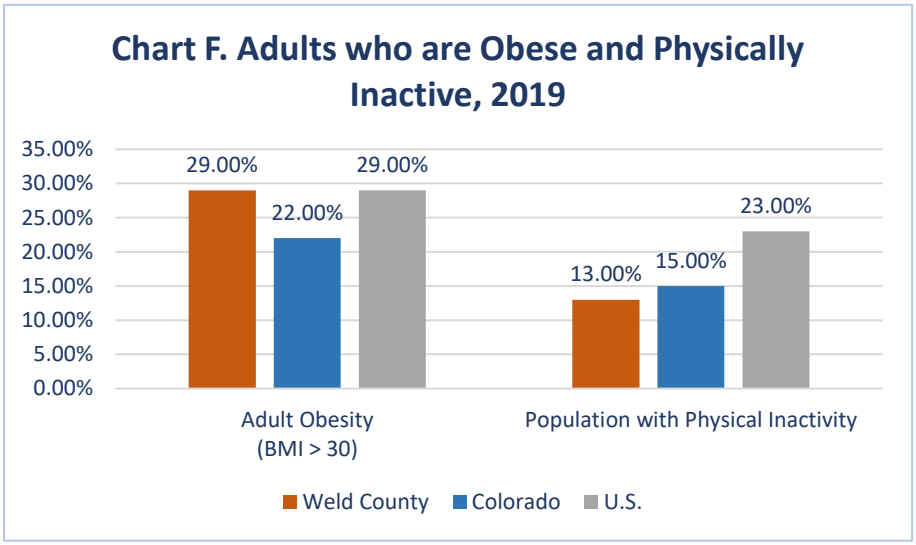
	Weld County	Colorado
Cardiovascular Disease	159.6	167.9
Cancer	128.8	126.2
Chronic Lower Respiratory Diseases	51.2	43.3
Pneumonia and Influenza	10.4	9.6
Diabetes Mellitus	23.8	15.8
Alzheimer's Disease	26.7	28.9
Chronic Liver Disease and Cirrhosis	13.9	13.1

Source: Colorado Department of Public Health and Environment, 2018

Obesity can be an indicator for chronic diseases down the road (Chart F). Obesity is defined as having a Body Mass Index (BMI) score greater than 30 (BMI > 30.0), while being overweight, a precursor to obesity, is defined as having a BMI from 25 to 30 (CDC, 2015). Body Mass Index is determined by a person's height and weight. Obesity can contribute to chronic diseases, as well as community environmental factors such as physical inactivity and food access (CDC, 2017).

Chart F shows the populations national, state and county trends of obesity and physical inactivity prevalence. Weld County has an adult obesity and physical inactivity rate that is greater than the state and national averages (County Health Rankings, 2019).

Data collected in 2016 indicates food access concerns in Weld County. There are about 13 grocery stores per 100,000 residents within the county, which is significantly lower than the states ratio of 16 and the U.S. at 21 per 100,000 (US Census Bureau, 2019). Access to foods, specifically to fresh and health food can become a strong indicator for positive health behaviors, access to local grocery stores are a key way to measure access.



Source: County Health Rankings, 2019

PRIORITY #3: BEHAVIORAL HEALTH (SUBSTANCE ABUSE / DEPRESSION / BEHAVIORAL HEALTH)

Behavioral Health encompasses both mental health conditions, such as depression and anxiety disorder; and substance abuse issues, including opioid addiction, alcohol, illicit drugs, and tobacco. According to Substance Abuse and Mental Health Services Administration in 2018 47.6 million U.S. adults experienced mental illness, representing 1 in 4 adults or 19.1 percent of the adult population in the U.S (SAMHSA, 2019). In Weld County the ratio of the population to Mental Health Care Providers is significantly higher compared to the state average, this lack of access to a mental health provider can have reverberating effects on the behavioral health of a community.

Table 7. Access to Mental Health Care Providers in 2019			
	Weld County	**Colorado**	**U.S.**
Ratio of Population to Mental Health Providers	430:1	300:1	310:1

Source: County Health Rankings, 2019

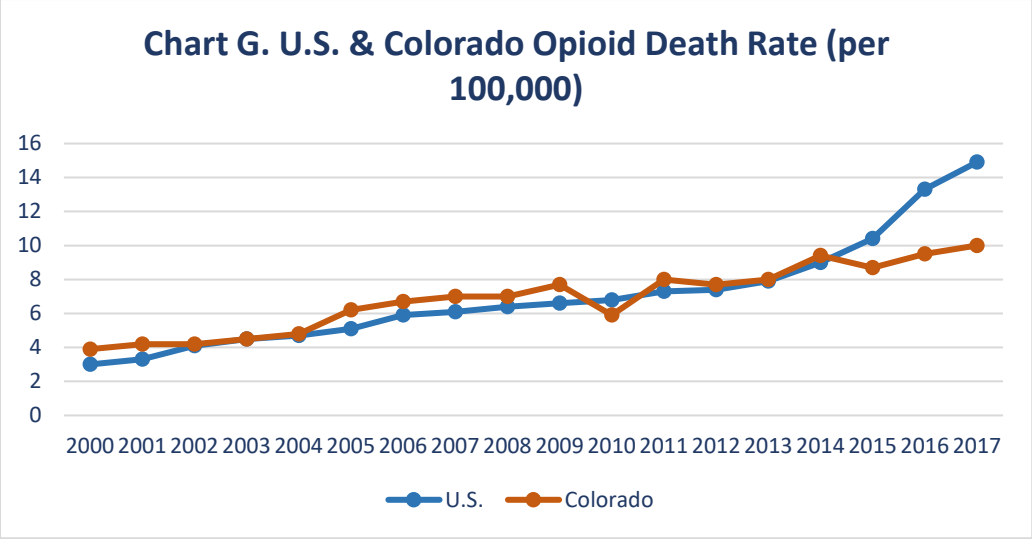
2019 County Health Rankings data indicates 14 percent of residents in Colorado reported their health as "fair or poor" compared to the national average of 12 percent. The average number of self-reported mentally unhealthy days is greater in Colorado when compared to the national average. Adults in Weld County report having insufficient social or emotional support at a higher percentage compared to the state, 17.2 percent to 16.9 percent, however, overall this is lower than the national average at 20.7 percent (CDC, 2012). Having a high rating in these areas can be an indicator of suicide risk.

Table 8 shows that while Weld County does not have a significantly higher incidence for suicide, drug, and alcohol induced deaths, it is in the same range as the state for all three categories. As the opioid crisis continues to grow it will be important to continue to monitor the mortality rates concerning drug and alcohol induced deaths.

Table 8. Substance Abuse and Suicide Mortality Rates per 100,000, 2018		
	Weld County	**Colorado**
Suicide	20.2	21.6
Drug-Induced Deaths	14.4	17.2
Alcohol-Induced Deaths	15.3	16.3

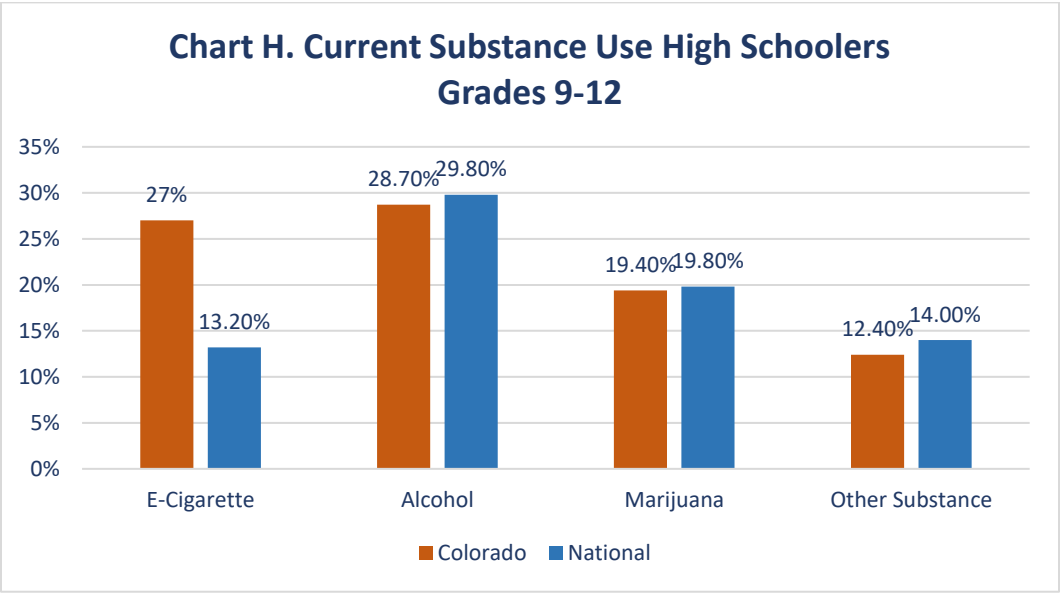
Source: Colorado Department of Public Health and Environment, 2018

The opioid crisis is affecting communities through the United States, in Colorado there has been a steady increase in the number of opioid deaths from 2000 to 2017 (Chart H). While Weld County has had a decrease in opioid prescriptions 56.5 per 100,000 in 2006 to 49.9 per 100,000 in 2017 the county continues to have an increase in opioid overdose (CDC, 2019). This can be an indicator for increased opioid addiction and use of illicit opioids.



Source: Centers for Disease Control and Prevention, 2019

E-Cigarette use (electronic vapor product use) among Colorado High Schoolers is much higher compared to national rates (Chart H). Use of alcohol, marijuana and other substances for Colorado high schoolers are similar to the national average. Colorado has a significantly higher prevalence of current (past 30 days) e-cigarette use compared to the national rate (21% Colorado vs. 13.2% national). Pacific Islander youth in Colorado are at twice the rate as the state average for other substance abuse and are at a higher risk of alcohol and e-cigarette use, compared to their peers (Healthy Kids of Colorado Survey, 2017).



Source: Healthy Kids Colorado Survey (HKCS), 2017

Lung disease as the result of vaping is a rising health concern, specifically its effects on the health and health behaviors of youth, as of November there are currently over 2,000 confirmed and probable cases, not including cases that are under investigation. Vaping has affected 36 states, resulted in nearly 50 deaths, and the numbers continue to rise (CDC, September 2019). Characteristics that factor into an adolescent smoking include, older age (High School aged), being male, being white (compared to Black and Hispanic adolescents), lacking college plans, having parents who are not college educated, and experiencing highly stressful events (HHS, 2019). Based on data in Chart H, it is clear there is a gap in tobacco use education in young Colorado communities.

NEEDS IDENTIFIED BUT NOT PRIORITIZED

Focus Group participants discussed their concerns regarding inactivity, lifestyle choices, tobacco cessation, and health education in their communities. It was determined that while all are important and addressing these health needs in the long term would have a positive effect on the community's health, the current health priorities were encompassing enough that the listed health needs would be addressed in the upcoming cycle by the three prioritized community health needs.

2016 CHNA Follow Up and Review

Feedback on Preceding CHNA / Implementation Strategy

In the focus groups the facilitators referred to the cycle 2 CHNAs significant areas. Specific feedback on the impact the strategies developed to address the health need is included in Table 9 below. In addition, the link to the 2016 report was posted on the Bannerhealth.com website and made widely available to the public. Over the past three years little feedback via the email address has been collected, but the account has been monitored.

In order to comply with the regulations, feedback from cycle 3 will be solicited and stored going forward. Comments can be sent to CHNA.CommunityFeedback@bannerhealth.com

Impact of Actions Taken Since Preceding CHNA

Table 9 indicates what actions have been taken on the cycle 2 CHNA action plan in creating impact in the North Colorado Medical Center PSA.

Table 9. Implementation Strategies 2016 for North Colorado Medical Center Primary Service Area

Significant Need #1: Access to Care
Strategy #1: Increase use of Banner Urgent Care facilities and improve access to primary care services
Impact of Strategy: • NCMC has offered extended hours for PCP clinics within Banner Medical Group • We have collaborated with other local healthcare resources to align potential patients with services • Our facility has participated in free health activities, including screenings, health fairs, and blood drives • We are continuing to promote participation in MyBanner, our online patient portal • NCMC has implemented Patient Centered Medical Homes in the community
Significant Health Need #2: Chronic Disease (Diabetes / Heart Disease)
Strategy #1: Increase personal management of Chronic Disease
Impact of Strategy: • We are continuing to work to increase the rate of mammography screenings • NCMC provides chronic disease educational offerings in the community, leveraging our partnerships with community-based organizations to help host and promote these events to a broader community population
Significant Need #3: Behavioral Health (Mental Health & Substance Abuse)
Strategy #1: Increase identification of behavioral health needs and access to early interventions
Impact of Strategy: • We have deployed a depression screening tool in Primary Care Provider (PCP) clinics and Pediatric Provider clinics within Banner Medical Group

- We are continuing to partner with local behavioral health inpatient facilities to provide acute stabilization care and discharge planning and follow-up for patients who do not have a payer source.
- We are opening a 17-bed acute psychiatric stabilization unit for geriatric patients.
- We are opening a senior behavioral health outpatient clinic that will provide outpatient psychiatric care for geriatric patients with behavioral health needs. This unit will also provide step-down care for the Inpatient geriatric psychiatric unit to provide a continue of care and to prevent readmission.
- We provide psychiatric crisis assessments in all three Banner emergency departments.
- We have added tele-psych assessment capability to all three Banner emergency departments.
- We participate in local community interagency groups which identify and collaborate regarding services for residents.
- We partner with Rocky Mountain Crisis Partners for follow care for at risk patients.
- We collaborate with local law enforcement and mobile assessment team to identify behavioral health needs and proper use of resources.

APPENDIX A. STAKEHOLDERS AND RESOURCES POTENTIALLY AVAILABLE TO ADDRESS NEEDS

Listed below are available resources in the community to address the three priority needs. This list, while not exhaustive, identifies individuals/ organizations external to Banner Health that represent the underserved, uninsured, and minority populations. Stakeholders were identified based on their role in the public health realm of the hospital's surrounding community. These stakeholders are individuals/ organizations with whom we are collaborating, or hope to do, around improving our communities. Each stakeholder is vested in the overall health of the community and brought forth a unique perspective with regards to the population's health needs. This list does not include all the individuals and organizations that have participated in the focus groups.

Name of Organization	Website	Phone Number	Address	Priority Area
Northeast Health Partners	www.northeasthealthpartners.org	888-502-4189	710 11th Avenue Suite 203 Greeley, CO 80631	BH/SA
North Colorado Health Alliance	www.northcoloradohealthalliance.org	970-350-4673	2930 11th Avenue | Evans, CO 80620 1010 A Street, Greeley, CO 80631 302 3rd Street SE, Loveland, CO 80537	All
Sunrise Community Health	www.sunrisecommunityhealth.org	970-353-9403	2930 11th Avenue, Evans, CO 80620	All
North Range Behavioral Health	www.northrange.org	970-347-2120	928 12th Street Greeley, CO 80631	BH/SA
Weld County Department of Public Health & Environment	www.weldgov.com/departments/health_and_environment	970-400-4000	Weld County Colorado 1150 O ST. Greeley, CO 80631	
Front Range Behavioral	www.frontrangementalhealth.com	800-511-2795	1067 E. US Hwy 24, #294, Woodland Park, CO 80863	BH
Summit Stone	www.summitstonehealth.org	970-494-4200	4856 Innovation Dr. Ste B Fort Collins, CO 80525	BH/SA
Banner Health Medical Group	www.bannerhealthnetwork.com	800-827-2464		CD/AC
Banner North Colorado Family Medicine	https://www.bannerhealth.com/locations/greeley/north-colorado-family-medicine	970-810-2424	1600 23rd Ave Greeley, CO 80634	CD/AC

Name of Organization	Website	Phone Number	Address	Priority Area
Mednax	www.mednax.com	800-243-3839	1301 Concord Terrace Sunrise, FL 33323	All
University of Denver (Project CO-SLAW)	https://www.thebutlerinstitute.org/projects-products-services/co-slaw	303-871--4588	2148 S. High Street | Denver, CO 80208-7100	SA
Salud	www.saludclinic.org	970-484-0999	203 S. Rollie Avenue Fort Lupton, Co 80621	CD/BH

APPENDIX B. LIST OF DATA SOURCES

PRIMARY AND SECONDARY DATA SOURCES

The primary data sources that were utilized to access primary service information and health trends include:

Advisory Board (2019) Primary Service Area Demographic Data.

Colorado Department of Public Health and Environment. (2017) Health Kids Colorado Survey.

Colorado Department of Public Health and Environment. (2017) CDPHE Community Level Estimates on Health Conditions and Risk Behaviors 2014-17.

Colorado Department of Public Health and Environment. (2018) Colorado Health Information Dataset.

County Health Rankings and Roadmaps. (2019) Colorado Health Outcomes and Factors.

Elliott, M. K. Beattie, S. E. Kaitfors. (May 2001) Health needs of people living below poverty level. Family Medicine; 33(5): 361–366.

Health and Human Services – Health Resources and Services Administration (February 2019) Health Professional Shortage Area.

Health and Human Services – Office of Population Affairs. (April 2019) Adolescents and Tobacco: Risk and Protective Factors

Khullar, Dhruv and Chokshi, Dave A. (October 2018) Health, Income, & Poverty: Where We Are & What Could Help. Health Affairs – Health Policy Brief the Culture of Health.

McKesson. (2018) Primary Service Area Data Set

National Center for Disease Prevention and Health Promotion – Population Health. (2012) Behavioral Risk Factor Surveillance System.

National Center for Disease Prevention and Health Promotion – Division of Nutrition, Physical Activity, and Obesity. (May 2015) Healthy Weight – Assessing Your Weight Body Mass Index.

National Center for Chronic Disease Prevention and Health Promotion – National Center for Injury Prevention and Control. (July 2017) Opioid Overdose - U.S. County Prescribing Rates, 2017.

National Center for Chronic Disease Prevention and Health Promotion – Division of Nutrition, Physical Activity, and Obesity. (2017). Adult Obesity Causes and Consequences.

National Center for Chronic Disease Prevention and Health Promotion. (January 2019) CDC Wonder Online Database.

Substance Abuse and Mental Health Services Administration - Center for Behavioral Health Statistics and Quality. (2019). Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health

National Center for Disease Control and Prevention – Smoking & Tobacco Use. (November 2019) Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products.

Syed, S. T., Gerber, B. S., & Sharp, L. K. (2013). Traveling towards disease: transportation barriers to health care access. *Journal of community health*, *38*(5), 976–993. doi:10.1007/s10900-013-9681-1

Truven. (2017-18) Colorado State Data.

U.S. Census Bureau. (2017) American Community Survey

FOCUS GROUPS

Engagement Activity	Partners Included	Topics of Discussion
RAE2/NCHA Collective monthly meeting	Northeast Health Partners; RAE; North Colorado Health Alliance; Sunrise Community Health; North Range Behavioral Health; Weld County Department of Public Health & Environment; Area Agency on Aging; Salud; Centennial Mental Health; UC Health; Greeley Fire; School District	Review of HTP priority populations and areas of focus
Colorado Opiate Synergy Larimer and Weld Meeting	Northeast Health Partners, NCHA, Sunrise, Health District, Front Range Behavioral, Summitstone, Opisafe, UC Health, BH Recovery, Rocky Mountain Health Plan, Banner Health	Improvement in substance use disorder by use of Medically Assisted Therapy Reduction in overdose deaths Decrease in opioid prescription hospitalization rate
ALTO program—Alternatives to Opioids	Banner Health facilities in Colorado and system wide; Partnering with COSLAW	Decrease use of opioids in the EDs
High Risk OB Clinic* *newly listed since mid-year report	Banner Health, Banner Medical Group OB/GYN, Banner Medical Group North Colorado Family Medicine, Sunrise Community Health, MedNax	We will provide High Risk OB evaluations within the BMG OB/Gyn clinic space and serve patients of Sunrise Community Health FQHC
NCMC Perinatal Care Council* *newly listed since mid-year report	Banner Health, Banner Medical Group OB/GYN, Banner Medical Group North Colorado Family Medicine, Sunrise Community Health	Implementation of standardized Clinical Practices: Severe Hypertension Maternal/Newborn Intra amniotic Infection Postpartum Hemorrhage

APPENDIX C. STEERING COMMITTEE AND FACILITY BASED CHAMPIONS

STEERING COMMITTEE

Banner Health CHNA Steering Committee, in collaboration with North Colorado Medical Center's leadership team and Banner Health's Strategic Planning and Alignment department were instrumental in both the development of the CHNA process and the continuation of Banner Health's commitment to providing services that meet community health needs.

Steering Committee Member	Title
Darin Anderson	Chief of Staff
Derek Anderson	AVP HR Community Delivery
Ramanjit Dhaliwal	AVP Division Chief Medical Officer Arizona Region
Phyllis Doulaveris	SVP Patient Care Services / CNO
Kip Edwards	VP Facilities Services
Anthony Frank	VP Financial Operations Care Delivery
Russell Funk	CEO Pharmaceutical Services
Larry Goldberg	President University Medicine Division
Margo Karsten	President Western Division / CEO Northern Colorado
Becky Kuhn	Chief Operating Officer
Patrick Rankin	CEO Banner Medical Group
Lynn Rosenbach	VP Post-Acute Services
Joan Thiel	VP Ambulatory Services

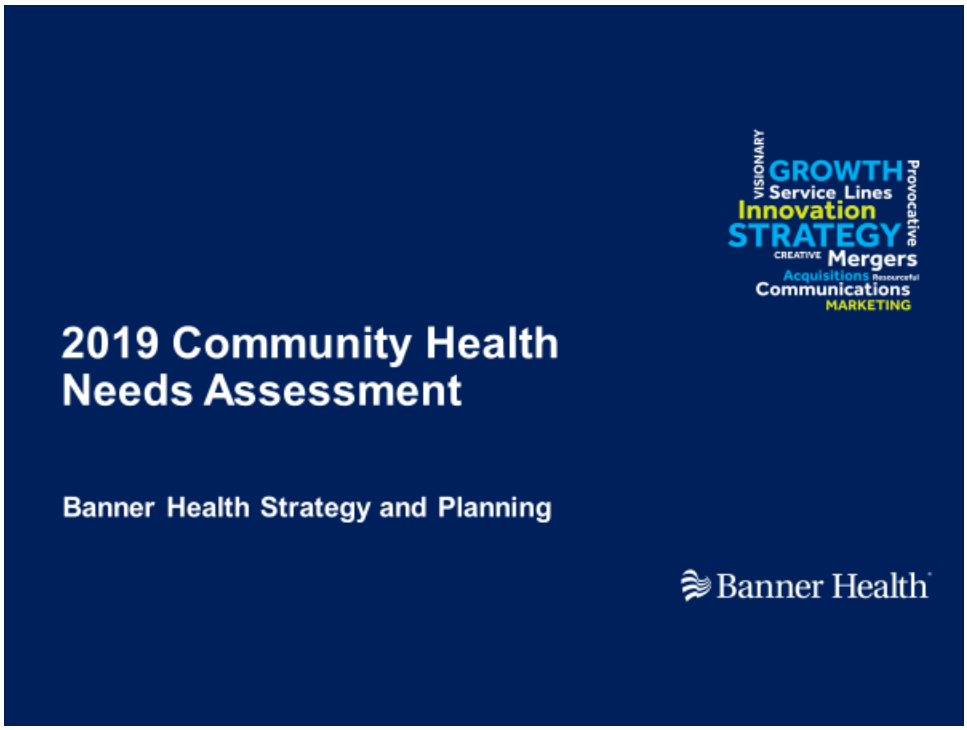
CHNA FACILITY-BASED CHAMPIONS

A working team of CHNA champions from each of Banner Health's 28 Hospitals meets on a monthly basis to review the ongoing progress on community stakeholder meetings, report creation, and action plan

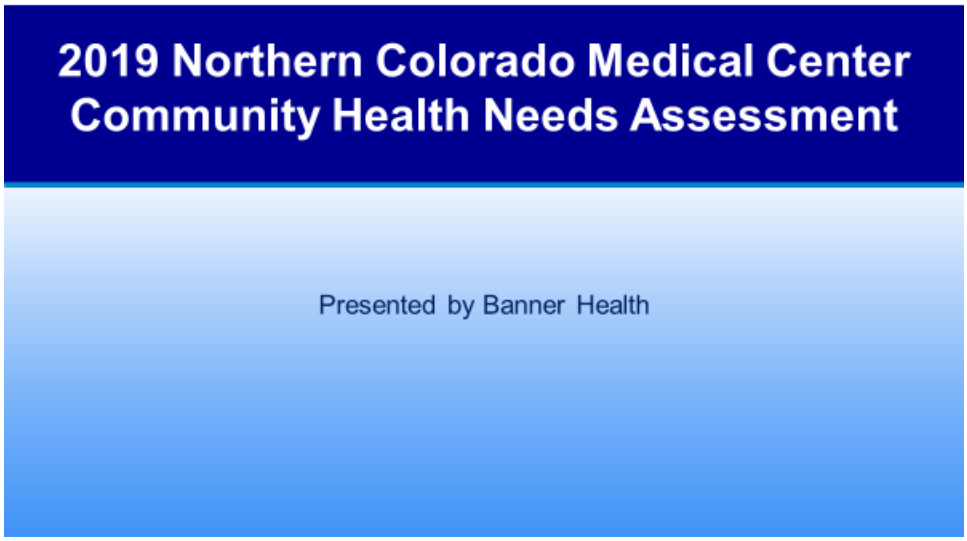
implementation. This group consists of membership made up of CEOs, CNOs, COOs, facility directors, quality management personnel, and other clinical stakeholders.

APPENDIX D. MATERIALS USED IN FOCUS GROUP

Slides used for focus groups



Banner Health



Banner at a Glance

- 28 Acute Care and Critical Access Hospitals
- Behavioral Hospital
- Banner Health Network
- Banner Network Colorado
- Banner Medical Group and Banner – University Medical Group with nearly 2,000 physicians and advanced practitioners and more than 200 Banner Health Centers and Clinics
- Banner Home Care and Hospice
- Outpatient Surgery
- Urgent Care
- Banner – University Medicine division
- $7 billion in revenue in 2015
- AA- bond rating
- $746 million in community benefits, including $62.9 million in charity, 2015

Banner Health

Community Health Needs Assessment Purpose

- Gather input and feedback from community leaders that represent the community
- Validate and/or identify significant areas of healthcare need within the community
- Promote collaborative partnerships
- Identify opportunities to engage with the community in addressing potential areas of need
- Requirement of the Patient Protection and ACA

Banner Health

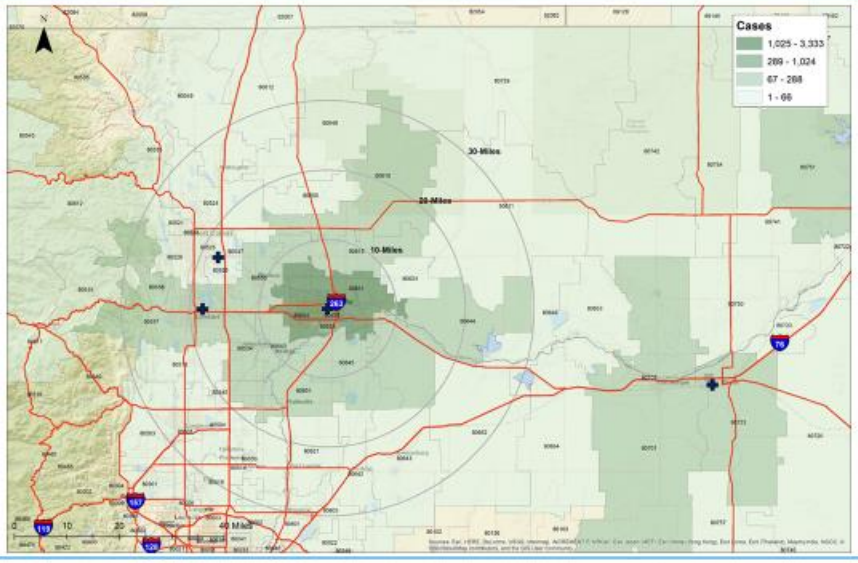
2018 Community Benefit

Facility:	Bad Debt:	Charity Care:	2018 Community Benefit:
NCMC	$15,460,000	$34,291,000	**$49,751,000**
McKee	$4,413,000	$6,181,000	**$10,594,000**
Ft. Collins	$1,838,000	$1,914,000	**$3,752,000**
NOCO Total:	**$21,711,000**	**$42,386,000**	**$64,097,000**

Source: Banner Financials December 2018 - Unaudited

NCMC - Inpatient Origin by Zip Code

January 1, 2017 through December 31, 2017 (Top 3 contiguous quartiles = 75% of total discharges)



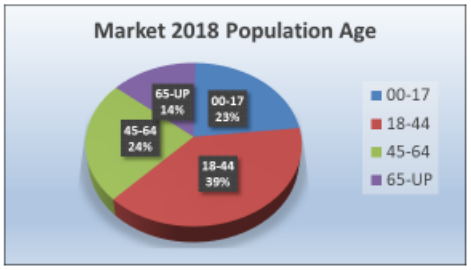
Source: Banner Strategy and Planning

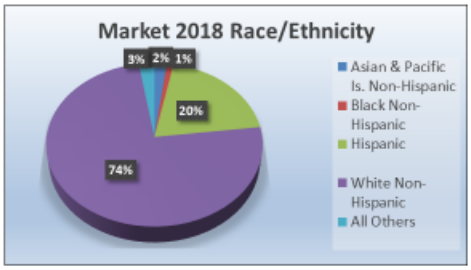
NCMC 2018 Demographic Snapshot – Larimer and Weld Co

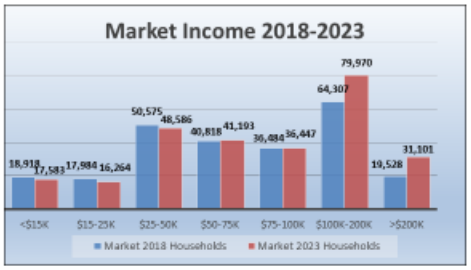
Sg2 MARKET SNAPSHOT

Banner Health
Larimer and Weld Counties, Colorado

Population and Gender	Market 2018 Population	Market 2018 % of Total	Market 2023 Population	Market 2023 % of Total	Market Population % Change
Female Population	321,272	49.9%	348,914	50.0%	8.6%
Male Population	322,343	50.1%	348,907	50.0%	8.2%
Total	**643,615**	**100.0%**	**697,821**	**100.0%**	**8.4%**







Source: SG2 Health Care Intelligence

Banner Health

County Health Rankings

Health Outcomes

- Health outcomes in the *County Health Rankings* represent how healthy a county is. They measured two types of health outcomes: how long people live (mortality) and how people feel while alive (morbidity).

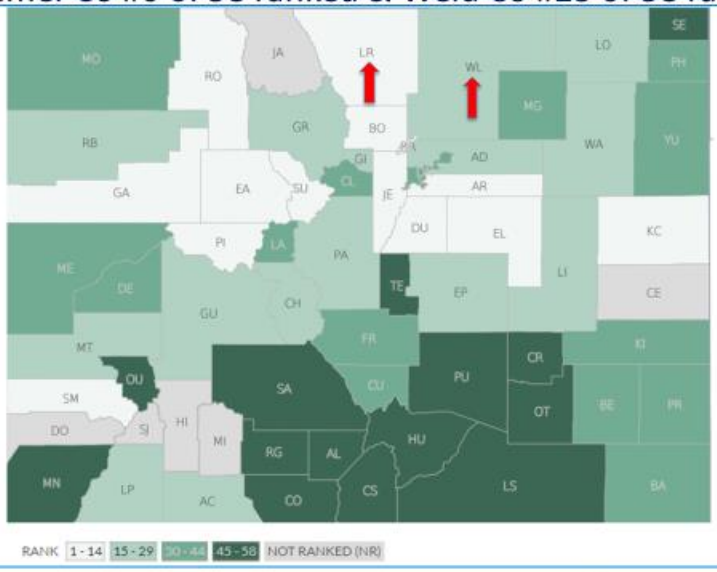
Health Factors

- Health factors in the *County Health Rankings* represent what influences the health of a county. They measured four types of health factors: health behaviors, clinical care, social and economic, and physical environment factors. In turn, each of these factors is based on several measures.

Source: www.countyhealthrankings.org

Banner Health

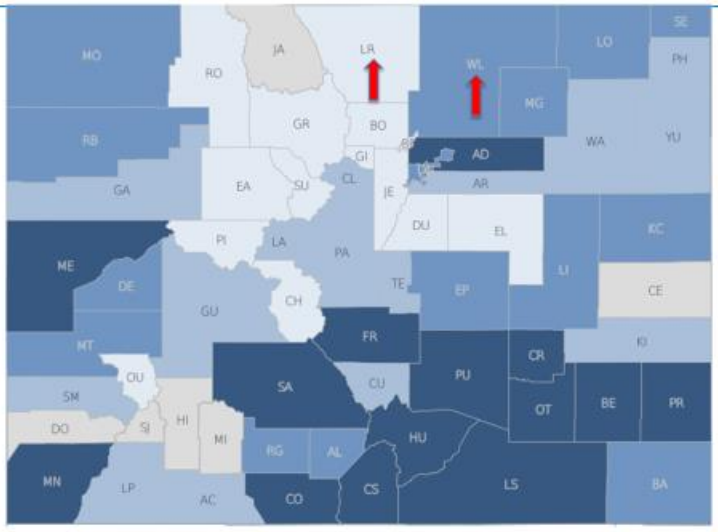
2018 Colorado County Health Outcomes Rankings
Larimer Co #6 of 58 ranked & Weld Co #23 of 58 ranked



RANK 1 - 14 | 15 - 29 | 30 - 44 | 45 - 58 | NOT RANKED (NR)

http://www.countyhealthrankings.org/app/colorado/2018/rankings/outcomes/overall

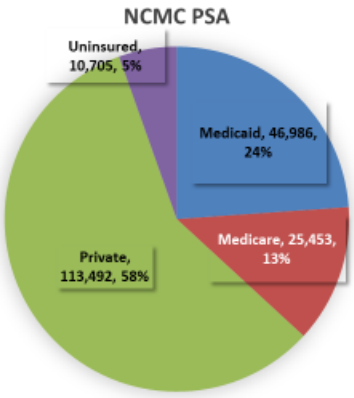
2018 Colorado County Health Factors Rankings
Larimer Co #12 of 58 Ranked & Weld Co #32 of 58 Ranked

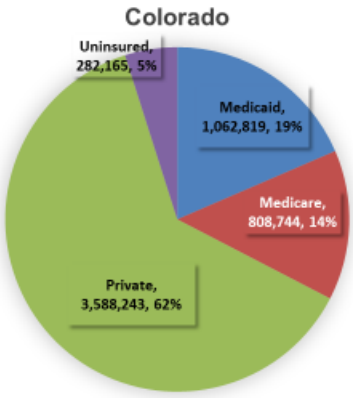


RANK 1 - 14 | 15 - 29 | 30 - 44 | 45 - 58 | NOT RANKED (NR)

http://www.countyhealthrankings.org/app/colorado/2018/rankings/outcomes/overall

2019 Insurance Estimates = Top 75% Patient Origin*





PSA/Top 75% Patient Origin Zip Codes:
80615, 80620, 80631, 80634, 80644,
80645, 80701, 80723, 80751

Source: 2017-18Q2 Colorado State Data
Source: Truven

2019 County Health Rankings

- Weld County ranks 23rd out of 58 Colorado Counties in Health Outcomes
- Adult smoking, adult obesity and excessive drinking are areas of improvement to explore, compared to national benchmark.
- Lower percentage of mammography screenings than US benchmark
- Higher unemployment than US benchmark

	Weld County	Rank of 58	Top U.S. Performers	Colorado
Health Outcomes		23		
Length of Life		24		
Premature death	5,900		5,300	5,700
Quality of life		24		
Poor or fair health**	14%		12%	12%
Poor physical health days**	3.3		3.0	3.4
Poor mental health days**	3.5		3.1	3.6
Low birth weight	8%		6.0%	9%
Health Factors		32		
Health Behaviors		45		
Adult Smoking**	16%		14%	16%
Adult Obesity	26%		26%	21%
Food Environment Index	8.6		8.6	8.2
Physical Inactivity	18%		20%	15%
Access to exercise opportunities	75%		91%	91%
Excessive Drinking**	21%		13%	21%
Alcohol impaired driving deaths	36%		13%	35%
Sexually transmitted infections	375.6		145.1	445.4
Teen births	29		15	24
Clinical Care		18		
Uninsured	8%		6%	9%
Primary Care Physicians	2,070:1		1,030:1	1240:1
Dentists	2,340:1		1,280:1	1290:1
Mental Health Providers	460:1		330:1	330:1
Preventable Hospital Stays	36		35	31
Diabetic Monitoring	88%		91%	84%
Mammography Screening	63%		71%	60%

Area of Strength
Area of Concern

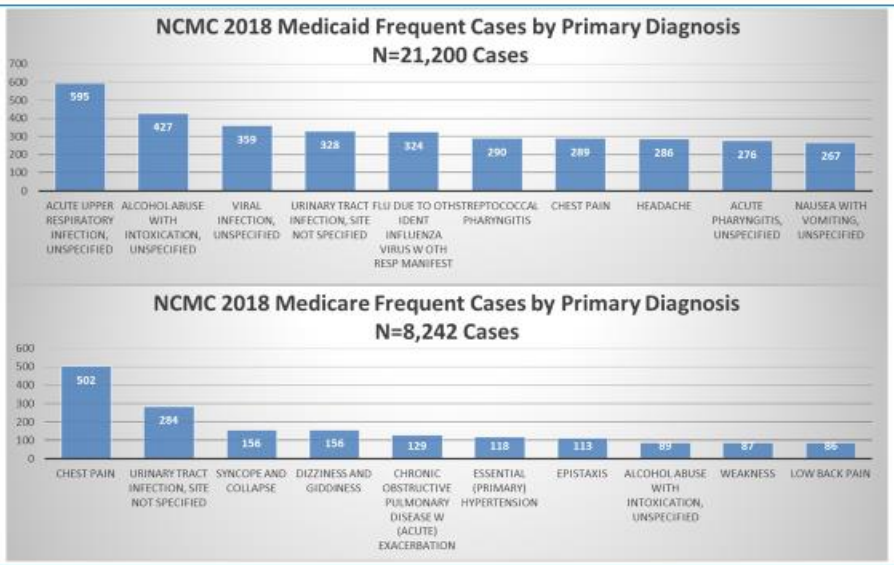
Source: http://www.countyhealthrankings.org/app/colorado/2018/rankings/weld/county/outcomes/overall/snapshot
** Data should not be compared to prior years

	Weld County	Rank (of 58)	U.S. Benchmark	Colorado
Social & Economic Factors		30		
High School Graduation	80%		95%	77%
Some College	62%		72%	71%
Unemployment	3.4%		3.2%	3.3%
Children in Poverty	13%		12%	13%
Income Inequality	4.1		3.7	4.5
Children in Single-parent households	25%		20%	28%
Social Associations	6.9		22.1	8.7
Violent crimes	295		62	309
Injury Deaths	65		55	74
Physical Environment		57		
Air pollution-particulate matter	9.2		6.7	5.4
Drinking water violations	Yes		No	No
Severe housing problems	18%		9%	17%
Driving alone to work	80%		72%	75%
Long commute-driving alone	39%		15%	34%

Area of Strength
Area of Concern

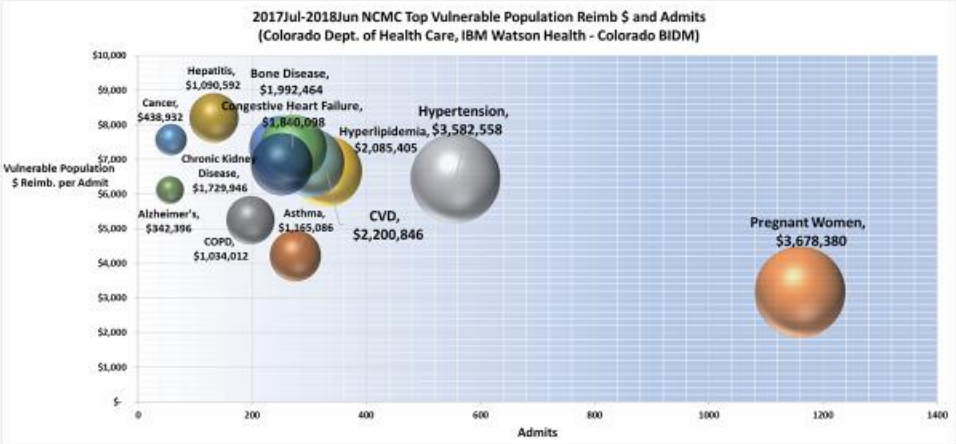
Source: http://www.countyhealthrankings.org/app/colorado/2018/rankings/weld/county/outcomes/overall/snapshot
** Data should not be compared to prior years

Outpatient ED Visits Frequent Diagnosis



Source: Banner McKesson 2018 Full year

Vulnerable Populations IP Admits and Reimb - NCMC



Vulnerable Populations IP Admits and Reimb - NCMC