



**Banner Ironwood
Medical Center**

*Community Health Needs
Assessment Report
2013*

TABLE OF CONTENTS

OVERVIEW	3
BANNER IRONWOOD MEDICAL CENTER – AT A GLANCE	5
COMMUNITY DESCRIPTION	7
COMMUNITY HEALTH NEEDS ASSESSMENT METHODOLOGY	10
SUMMARY OF COMMUNITY SIGNIFICANT HEALTH NEEDS.....	12
RESPONSE TO COMMUNITY SIGNIFICANT HEALTH NEEDS	19
APPENDIX A – STEERING COMMITTEE MEMBERS.....	26
APPENDIX B – COMMUNITY ADVISORY COUNCIL	27
APPENDIX C – PRIORITIZATION CRITERIA	29

OVERVIEW

Headquartered in Phoenix, Ariz., Banner Health is one of the nation's largest nonprofit health care systems and is guided by our mission: "We exist to make a difference in people's lives through excellent patient care."

This mission serves as the cornerstone of operations at our 24 hospitals and care facilities located in small and large, rural and urban communities spanning seven western states. Collectively, these facilities serve an incredibly diverse patient population and provide more than \$149 million annually in charity care – treatment without the 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 Greeley, Colo.

With organizational oversight from a 15-member board of directors and guidance from both clinical and non-clinical system and facility leaders, our more than 35,000 employees work tirelessly to provide excellent care to patients in Banner Health hospitals, clinics, surgery centers, home care and hospice facilities.

While we have the experience and expertise to provide primary care, hospital care, long-term acute care and home care to patients facing virtually any health condition, 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 Banner Alzheimer's and Banner Sun Health Research institutes.

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 by Truven Health Analytics (formerly Thomson 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."

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

Participants in the CHNA process include members of Banner Health's leadership teams and strategic alignment team, public health experts, community representatives and consultants. A full list of participants can be viewed in Appendix B. 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. One result of the CHNA process is Banner Health's renewed 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 the underserved populations. The CHNA process has helped 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 Banner Ironwood Medical Center's leadership team, this has resulted in a renewed commitment to continue working closely with community and health care leaders who have provided solid insight into the specific and unique needs of the community. 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.

BANNER IRONWOOD MEDICAL CENTER – AT A GLANCE

Banner Ironwood Medical Center (Banner Ironwood), located in San Tan Valley, Arizona, is one of Banner Health's 24 hospital and healthcare facilities. Comprised of an 80-acre campus near the town of Queen Creek, Banner Ironwood was established to meet the healthcare needs in Pinal County.

San Tan Valley is an unincorporated area in Pinal County with just over 70,000 residents. The area grew quickly during the housing boom, offering affordable homes to young families and retired couples. However, the nearest medical services at that time were 17 miles away from this remote community. Since its opening, two other smaller organizations have also entered the market, including Florence Community Hospital and Anthem Hospital at Florence. Residents were anxious to have local medical support, or even nearby physicians' offices.

Banner Ironwood opened in November of 2010, with 36 beds and a strong capacity in Maternity and GYN services, Medical/Surgical, Medical Imaging and Emergency Medicine. News of the hospital and its related resources caused many primary care physicians to locate their practices within the San Tan Valley community. Additionally, specialists also now visit the area on a weekly rotating basis. Approximately 15 OB/GYNs now practice in San Tan Valley, which is highly appreciated by the family-centered community.

A telemedicine service, based in the Emergency department (ED), gives quick access to psychiatric and pediatric support.

What's more, the hospital is a gateway to Banner Health services Valley-wide. An onsite helipad and base station for Phil Air means that patients can be stabilized and transferred to the appropriate level of care. A partnership with Banner Heart Hospital (located 20 miles away) allows for door-to-balloon time for patients with cardiac blockages. In addition, Banner Ironwood is using therapeutic hypothermia as a means of stabilization for transport after cardiac arrest. A stroke alert program at Banner Baywood Medical Center, a certified Stroke Center, assures a stroke team will be waiting for patients that are transported from Banner Ironwood.

The campus 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.

Because the average age of residents in the area is 33, and the average household has two children, the Maternity Service grew quickly at Banner Ironwood. To ensure the hospital continues to meet the community needs, a multi-operational service unit was opened; this innovative unit allows the patient requiring medical/surgical care or ICU care to stay in the same room with staff changing to meet the patient's acuity level. This allows for continuity of care and less transfers from unit to unit. Events to allow the community to learn more about surgical care, as well as events to introduce new physicians in the area have been offered.

Additionally, Banner Ironwood offers a comprehensive list of free and low cost childbirth and baby care classes for moms, teen moms, dads and even siblings. A breast-feeding support group is also available on campus. Banner Ironwood also serves as a “Safe Haven” alternative for babies who might otherwise be abandoned if parents feel unequipped to care for them.

Banner Ironwood was designed with the ability to grow and adjust with the community. The first patient tower opened with 48 beds, but can accommodate up to 86 beds when fully equipped. Much of that space is already shelled, and in the first year 12 beds have already been added. There is a plan that could support more than 500 beds and supporting health services on this campus, if needed.

Banner Ironwood is known to be a support to the local community medically, and also as a corporate citizen. The local school district has asked them to participate in its Student of the Month program, recognizing students of multiple local schools for good behavior and responsible tactics. Hospital leaders present the awards at School Board meetings.

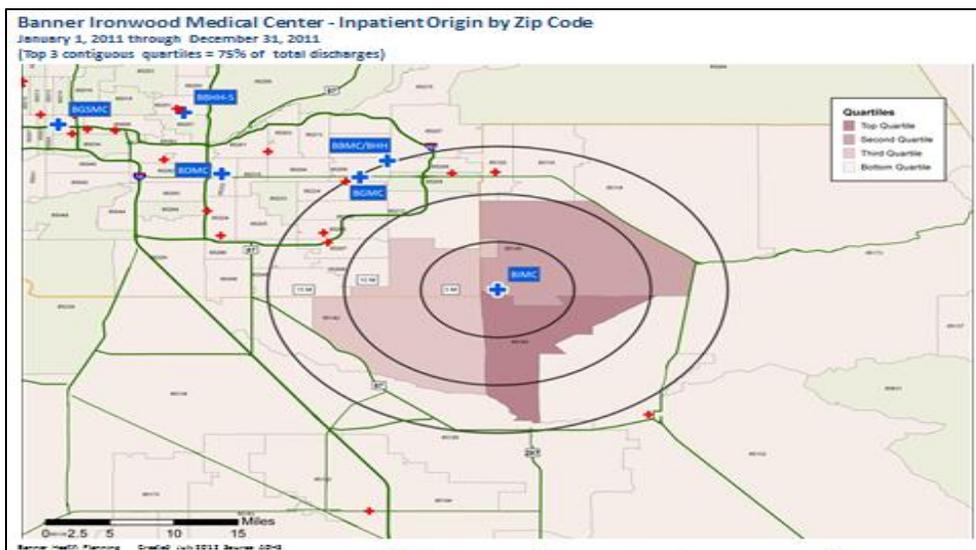
COMMUNITY DESCRIPTION

Banner Ironwood is located in San Tan Valley, Arizona, within Pinal County, the third largest county in the state. Pinal County has experienced accelerated population growth patterns as growth southward from the Phoenix metropolitan area has spread into northern parts of the county. The total county population in July, 2009, was 340,962, with approximately 65 percent urban and 35 percent rural. The median resident age was 37.1 years, compared to the state's median age of 34.2 years. Males make up 53.3 percent of the county's population and females make up the remaining 46.7 percent.

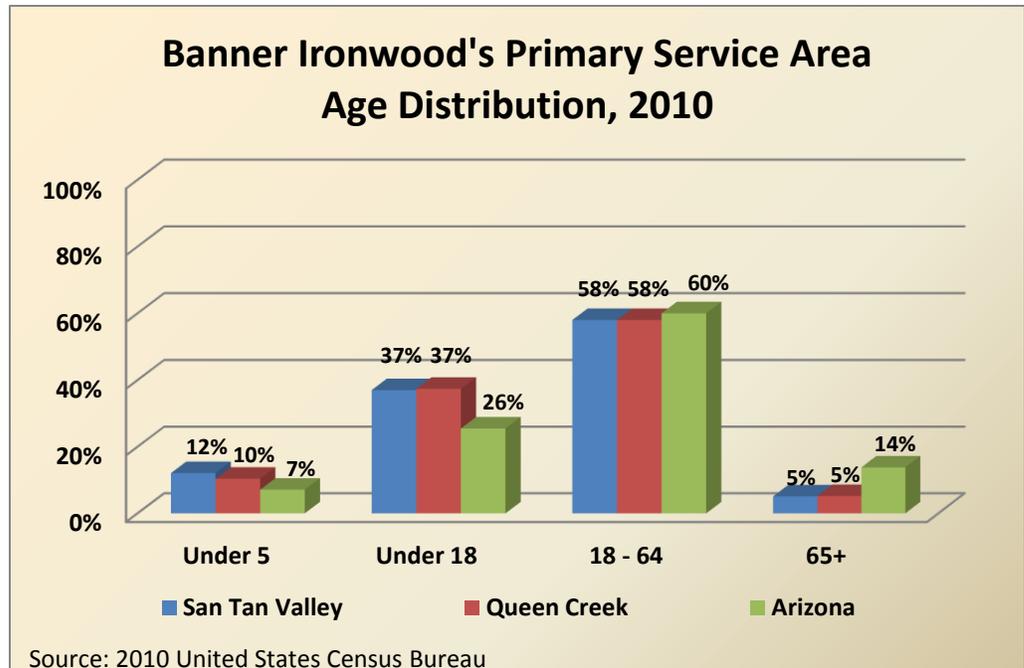
San Tan Valley is located in the unincorporated area between the towns of Queen Creek to the north and west, and Florence to the south. The area is also bound by the San Tan Mountains Regional Park on the west and the Gila River Indian Community on the southwest. The area, which had consisted primarily of undeveloped desert and agriculture prior to 2000, experienced considerable growth in the early part of the decade and now consists largely of master planned communities. According to the 2010 census the population was 81,321, with females slightly outnumbering males, 50.5 percent to 49.5 percent, respectively.

Banner Ironwood is uniquely situated to care for residents from both Pinal and Maricopa Counties. While located within Pinal County, the facility is located less than a mile outside the town of Queen Creek, which is in Maricopa County and is the closest facility for many Queen Creek residents. The population of Queen Creek is 26,361, according to the 2010 U.S. Census. Between 2000 and 2010, Queen Creek's population grew over 700 percent, the 2nd fastest growth in Arizona when combining the statistics for Queen Creek and San Tan Valley. The 2010 U.S. Census also reports that males slightly outnumbered females, 50.1 percent to 49.9 percent, respectively.

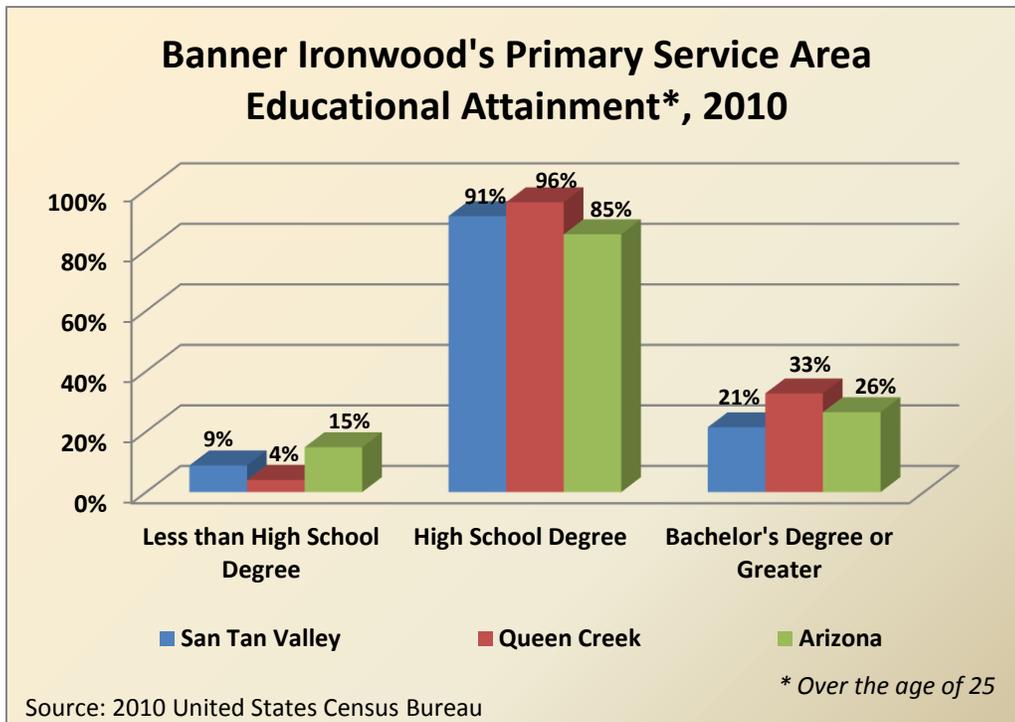
Just over 56 percent of Banner Ironwood's primary service area pulls from zip codes within San Tan Valley, as reported by Market Expert. The remainder of the primary service area pulls from Queen Creek (21.5 percent).



Both San Tan Valley and Queen Creek are relatively young communities, with a greater percentage of children under 18 and a lower percentage of elderly adults (65+) compared to Arizona.

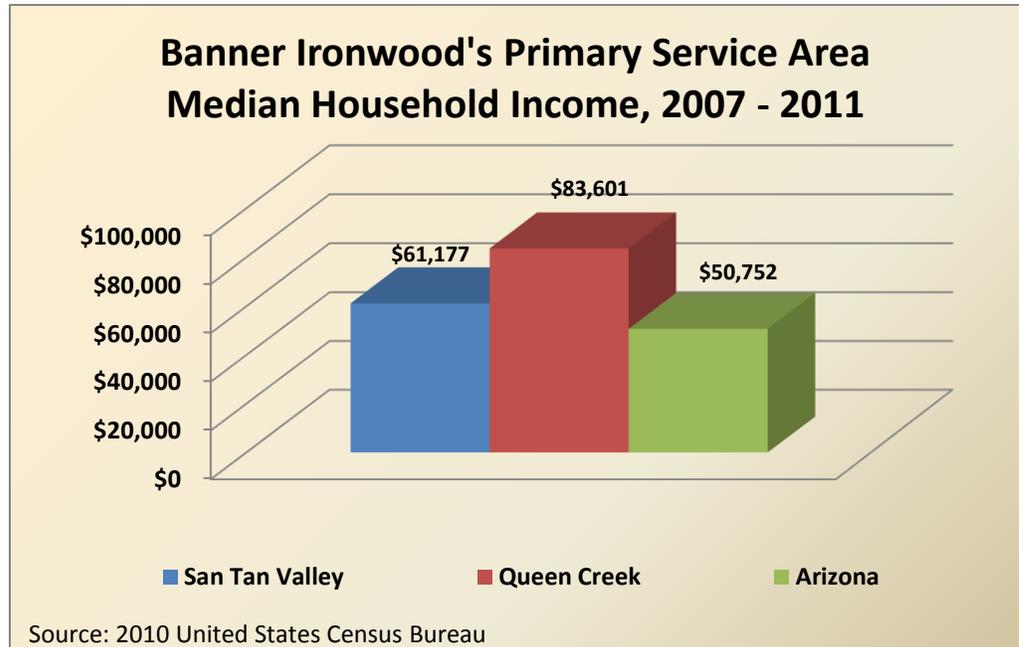


The population, over the age of 25 that had at least a high school education, is considerably higher than the state average for both San Tan Valley and Queen Creek. The percent of adults possessing a

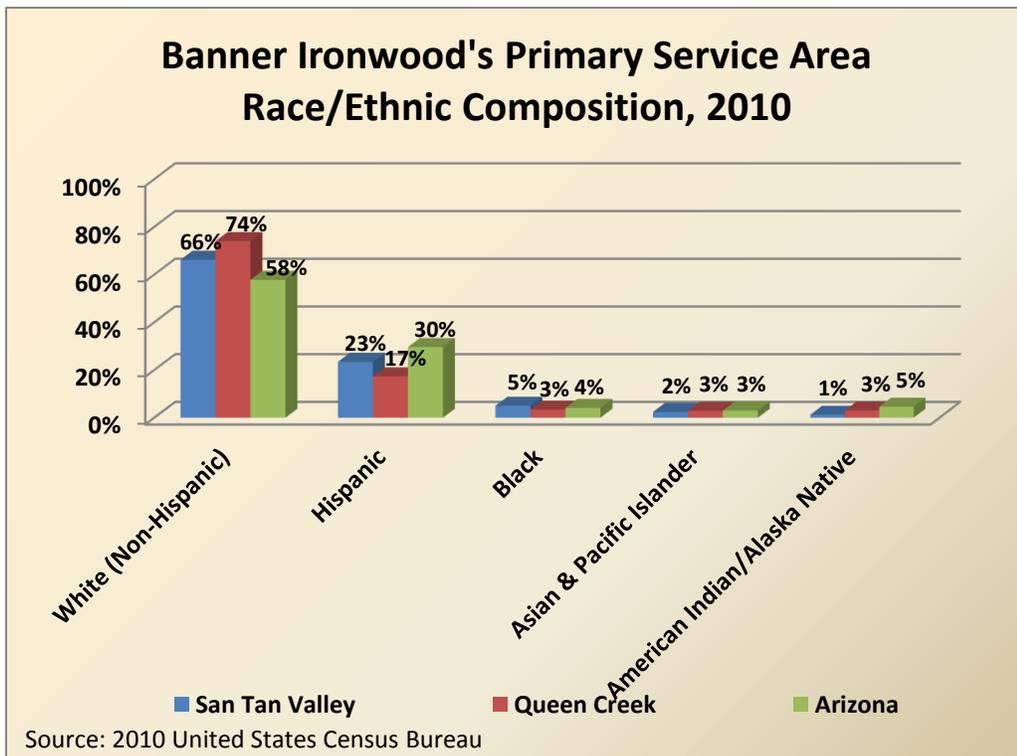


Bachelor's Degree or Greater is also higher than the state average within Queen Creek; while the percentage of this population is actually below the Arizona average within San Tan Valley. Overall, it would appear that residents within Banner Ironwood's primary service area, particularly those in Queen Creek, are relatively well-educated.

Given that the educational attainment of Banner Ironwood's primary service area exceeds the state average, it is not surprising that so does the median household income. This parallel seems to be further supported by the variance in both educational attainment and median household income between San Tan Valley and Queen Creek.



The White (non-Hispanic), population is the largest ethnic group within the service area, and is



considerably higher than the Arizona average. Hispanics represent the second largest ethnic group, but at a smaller percent than represented at the state level.

All other ethnicities, account for approximately 10 percent of the population, combined.

COMMUNITY HEALTH NEEDS ASSESSMENT METHODOLOGY

Banner Ironwood's process for conducting CHNAs leveraged a 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.

Banner Health CHNA Steering Committee:

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 community 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 under Appendix A.

Assessment Process – Data Analytics:

The CHNA process started with an overview of the primary service area. The service area was defined as the market where at least 75 percent of inpatient admissions originated. Data analytics were employed to identify Inpatient and Emergency department (ED) visits to Banner Ironwood, as well as health and socioeconomic trends within the community. Quantitative 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.

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

- American Cancer Society, *Cancer Facts & Figures 2013*
- American Diabetes Association, *2011 Fact Sheet*
- American Lung Association
- *America's Health Rankings, 2012*
- *Arizona Health Matters, 2012*
- *Behavioral Risk Factor Surveillance Survey, 2011*
- *County Health Rankings –Pinal County, 2011*
- *Center for Disease Control Heart Disease Fact Sheet*
- Maricopa County Department of Public Health *Community Health Assessment, 2012*
- National Institute on Drug Abuse, *2011 Facts*
- National Institute of Mental Health
- Outpatient Emergency department data, 2012

- Truven Health Analytics Market Expert, 2012
- U.S. Census, 2010

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

- Data are not available on all topics to evaluate health needs within each race/ethnicity by age-gender specific subgroups.
- Limited data are available on diabetes prevalence and health risk and lifestyle behaviors (e.g. nutrition, exercise) in children.

Assessment Process – Community Input/Community Advisory Council:

Data analytics, as identified above, were used to drive the Community Advisory Council (CAC) participation. Once gaps in access to health services were identified within the community, the steering committee worked with Banner Ironwood’s leadership to identify those impacted by a lack of health and related services. Individuals that represented these populations, including the uninsured, underserved and minority populations were invited to participate in a focus group to review and validate the data, provide additional health concerns and feedback as to the underlying issues and potential strategies for addressing. A list of the organizations that participated in the focus group can be found under Appendix B.

Summary of Findings and Addressing Need:

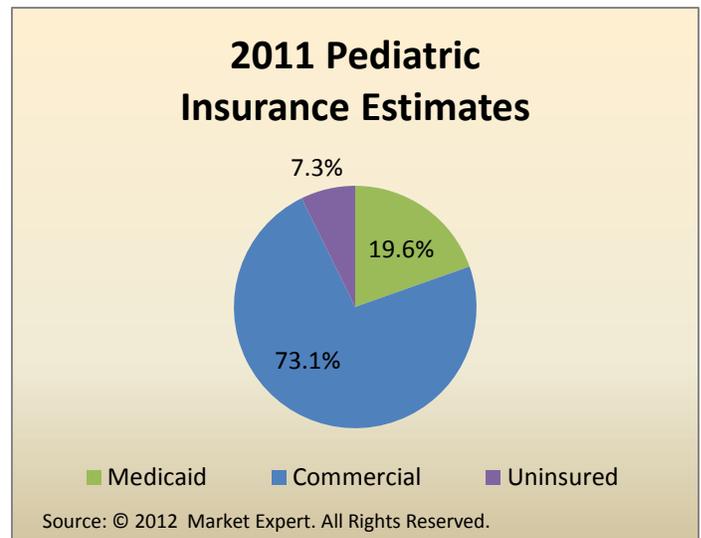
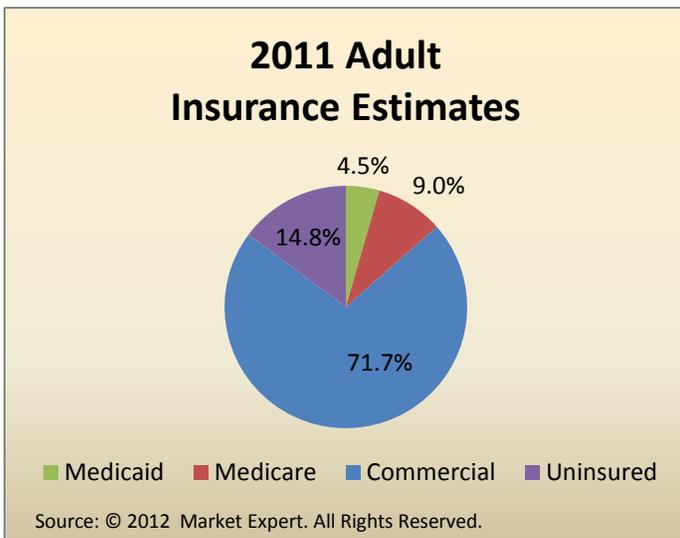
Upon the completion of Banner Ironwood’s needs assessment, a summary of findings was comprised for review by the Steering Committee, Banner Ironwood’s leadership team, Banner Health system Senior Management and the Banner Health Board of Directors. Needs assessments were then used to determine gaps in health-related services and services that were not reaching specific populations within the community, including children, seniors and minority populations. This summary also includes a synopsis of pressing issues impacting the community. Once significant health needs were highlighted, Banner Ironwood’s leadership team worked with the steering committee to make recommendations for how best to prioritize and address the needs identified.

SUMMARY OF COMMUNITY SIGNIFICANT HEALTH NEEDS

The summary of community health needs is comprised of two components – stakeholder feedback from the community and data analytics pulled from aforementioned data and health indicator sources. The CAC, comprised of hospital administrators, community leaders and other stakeholders, provided the insights necessary to complete a thorough CHNA. Many of the community leaders who participated in the CAC represent the underserved, underinsured and minority populations. The community health needs were then prioritized, based on a defined set of criteria; the prioritization criteria can be found under Appendix C.

Access to Care

According to the *2012 America's Health Rankings*, the uninsured population has increased 15 percent over the past 10 years. The data from Market Expert also shows that within Banner Ironwood's primary service area, 14.8 percent of the adult population is uninsured; an additional 4.5 percent are on Medicaid. Conversely, within the pediatric population, only 7.3 percent are uninsured; however, close to 20 percent are on Medicaid. This is further illustrated in the graphics below.



Given the relatively higher median household income within Banner Ironwood's primary service area, the data would seem to indicate that, as with many communities, there are likely considerable disparities in income levels, with those at the higher end of the spectrum offsetting those who are low on the spectrum. Within Banner Ironwood's primary service area 6 percent of children under 18, live below the poverty level and as indicated above over a quarter of the service area's children are uninsured or on Medicaid. Local statistics further support this, as approximately 55 percent of local students qualify for free or reduced lunches based on federal guidelines (overall state average is 22 percent).

These are important indicators as often individuals without insurance, and even those who are underinsured, experience greater difficulty readily accessing health care services, particularly preventive and maintenance health care. This can be very costly, both to the individuals and the health care system.

Given the large number of individuals who are uninsured and on Medicaid, it is not surprising that access to care is an issue among the surrounding adult and pediatric populations. As can be expected, this lends to a higher volume of non-emergent cases that are seen in the ED. In 2011, the uninsured and Medicaid populations, both adult and pediatric, were four times more likely to visit the ED than the commercial population.

Additionally, Banner Ironwood's internal data shows that a large percentage of uninsured and Medicaid outpatient ED visits are for primary care issues. Diagnosis groups with high volume of visits include upper respiratory infections (URIs), abdominal pain/nausea, ear, nose and throat (ENT) infections, urinary tract infections (UTIs), pregnancy complications, skin infections, GYN issues, mental health and substance abuse issues. While some of these diagnoses are truly emergent situations, the data clearly illustrates that all age groups are visiting the ED for services that could often be handled through a primary care provider (PCP).

Feedback from the CAC indicated that access to care is an issue that is not isolated to the uninsured population, but is an issue across the community. One major barrier is a shortage of health professionals, which was also supported in the *County Health Rankings*. The ratio of patients to PCPs is three times greater than that for Arizona and close to six times greater than the national benchmark. Services have simply not kept up with the rapid growth of the surrounding community. The shortage of PCPs was identified as a huge issue, specifically for the Medicaid and Medicare populations. The council validated that this is indeed an area of concern.

In addition to the need to increase the number of PCPs, some core specialty areas were also noted as a significant need: pediatrics neurology, cardiology, infectious disease and pulmonary. Within the pediatric population, the CAC also specified the need for additional services for asthma, special needs providers/programs and outpatient rehab services. The feedback indicated that there is frustration within the community at having to travel and/or have family transported to receive care in these areas.

Banner Health does have a HealthMobile with on-site nurse practitioner located on the Ironwood Campus. This program provides primary care services to the uninsured and underinsured pediatric population. However, transportation for students not physically located near the campus may still pose a barrier to receiving the available services. Additionally, the scope is limited to primary care services and is only available for those under the age of 21, and is limited above the age of 18.

In addition to the need for additional services, CAC feedback indicated that there is a general lack of awareness of available health services among the surrounding community population. Individuals are reportedly often unaware of the many free health fairs, support classes and other events provided by Ironwood. There may be a lack of cross-group communication among health care providers as well as a lack of sufficient health education efforts and partnerships. One of the CAC members suggested there

may be opportunities to develop partnerships between the hospital and the school districts to provide health education and events, possibly field trips.

Transportation and affordability were also cited as additional barriers to access to care. Even when the services are available, and known, some members of the community are simply unable to get there and/or cover the cost of the co-pay.

Chronic Disease

Chronic diseases, such as cancer, diabetes and heart disease continue to cut short the lives of millions of Americans each year and contribute significantly to health care costs.

Cancer: While advancements continue to be made in the fight against cancer, it remains one of the leading causes of death across the nation and within Arizona, second only to heart disease. According to the American Cancer Society, lung cancer continues to cause more deaths than any other cancer, regardless of gender, despite the prevalence of breast cancer in women and prostate cancer in men.

The American Cancer Society also indicates that cancer in children under the age of 14 is very rare, representing less than 1 percent of all new cancer diagnoses. While it is relatively uncommon, it still remains the second leading cause of death in children, second only to accidents.

According to *Arizona Health Matters*, cancer incidence rates have been trending downward over the past few years within Pinal County, and with the exception of liver and bile duct cancer incidence rates are performing better than the state average.

Diabetes: According to the *American Diabetes Association 2011 Fact Sheet*, 8.3 percent of the population of the United States has diabetes; this equates to 25.8 million children and adults. Of that 25.8 million, more than 25 percent are undiagnosed. There are an additional 79 million people who are prediabetic and are poised to develop the disease. Complications from diabetes include heart disease, stroke, high blood pressure, blindness, kidney disease, neuropathy, amputation and death. Sadly, this is a type 2 diabetes is also increasing prevalence among the pediatric population.

Within Pinal County, diabetes affects just over 10 percent of the population, with a disparate impact within minority and elderly populations. While Pinal County is performing better than the state, which is at 11.4 percent, it is performing worse than Maricopa County (9.2 percent).

Heart Disease: Heart disease is the leading cause of death in the United States for both men and women, and most racial/ethnic groups, as well. The primary risk factors include diabetes, overweight/obesity, poor diet, physical inactivity and excessive alcohol use.

As noted above, heart disease is also the leading cause of death in Arizona and disparately impacts the African-American population, with the Native American and White (non-Hispanic) populations experiencing the second and third greatest impact, respectively. According to *Arizona Health Matters*, Pinal County (115.8 deaths/100,000) is performing slightly better than the state related to age-adjusted

death rate due to heart disease. However, this is still considerably higher than the *Healthy People 2020* target of 100.8 deaths/100,000.

The CAC validated that chronic disease and the providers needed to care for those with chronic disease are issues within the community. Also as previously indicated, asthma is an issue within the pediatric population.

Also of note, the Centers for Disease Control and Prevention (CDC) report the link between chronic disease and mental health as an emerging trend nationwide. Chronic disease often leads to depression. Likewise, depression and other mental health issues make chronic disease management more challenging. Therefore, it was discussed that integration of these two areas should be considered.

Behavioral Health

Behavioral health encompasses both mental health conditions, such as depression and anxiety disorders, and substance abuse issues, including alcohol, prescription medication, illicit drugs and tobacco.

Mental Health: According to the National Institute of Mental Health, in a given year, an estimated 26.2 percent (57.7 million) Americans over the age of 18 have a diagnosed mental disorder, and nearly 6 percent suffer from serious mental illness. In fact, Major Depressive Disorder is the leading cause of disability in the United State for ages 15 to 44, and is more prominent in females than males.

Suicide has also begun to receive recognition as a serious, and preventable, public health issue. In 2007, suicide was the 11th leading cause of death in the United States, and it is estimated that for every suicide that results in death, there are an additional 8 to 25 attempts. While men are nearly four times more likely to die from suicide, women attempt suicide two to three times more often than men. Elderly individuals are disproportionately more likely to die by suicide; in fact, the highest suicide rates in the United States are white men over the age of 85.

In the 2012 *America's Health Rankings*, Arizona was ranked 42nd out of the 50 states for suicide, with 16.5 deaths per 100,000; the national average is 12 per 100,000. While the 2011 suicide rate for Pinal County (14.2 deaths per 100,000) is slightly better than the state average, it still exceeds both the national average and is considerably higher than the *Healthy People 2020* national target of 10.2 deaths per 100,000. On a positive note, the rate within Pinal County seems to be on the decline, as it peaked the prior two years at 20.3 in 2009 and 19.7 in 2010; the current rate is actually the second lowest rate for the timeframe between 2005 and 2011.

Substance Abuse: In 2011, a startling 8.4 percent of Americans needed treatment for a problem related to drugs or alcohol, but less than 1 percent received treatment at a specialty facility, according to the National Institute on Drug Abuse. The health care costs in that same time period associated to substance abuse, including alcohol, illicit drugs and tobacco, were approximately \$137 billion.

Substance use is definitely an issue among both the adult and adolescent populations in Pinal County. According to the *Arizona Health Matters* database, in 2012, 14.5 percent of adults reported binge

drinking at least once within the past 30 days and more than 26 percent of teenagers surveyed had used alcohol within the past 30 days. Additionally, 12.5 percent of teenagers reported using marijuana in that same time period. Marijuana is the most commonly abused illicit drug in the United States; among youth illicit drug use is associated with heavy alcohol use, tobacco use, delinquency, violence and suicide. Fortunately, methamphetamine use within this population seems to be on the decline and in alignment with the state average of just over 1 percent; methamphetamines can be highly addictive and result in very damaging physical and psychological effects, including homicidal and suicidal thoughts. One potential shortcoming to the survey data, conducted through the Arizona Criminal Justice Commission (ACJC), is that it was limited to teenagers enrolled in public school.

While tobacco use has declined considerably over the past several years, it is still a considerable problem and has been classified as, “the agent most responsible for avoidable illness and death in America today,” according to the *Arizona Health Matters* website. The website also went on to state, “Approximately, one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco.” Additionally, tobacco use has been linked to other adverse health effects, including cancer, respiratory infections and asthma. Within Pinal County, approximately 16 percent of adults surveyed and 15 percent of teenagers surveyed smoke.

CAC input indicated that prescription drug abuse is also prevalent among the adult population; this is corroborated by the number of cases that presented through Banner Ironwood’s ED. It was discussed that prescription drug abuse can become prevalent when physicians do not coordinate care and are unaware of prescriptions patients have obtained from other doctors. This can also occur when there is a lack of sufficient management at the pharmacy level to help reduce overprescribing. Finally, it was noted that some patients go to Mexico to purchase drugs and self-medicate.

It was suggested that education is a crucial component to addressing these unhealthy behaviors. Other suggestions included organized and coordinated medical care (patient-centered medical homes) and increasing the access to behavioral health services and resources. Unfortunately, behavioral health providers are severely lacking in Pinal County; the patient to provider ratio is five times higher than that for the state.

Women and Infant Services

The infant mortality rate is considered one of the most widely utilized indicators of the overall health status of a community. The leading causes of death among infants are birth defects, pre-term delivery, low birth weight, Sudden Infant Death Syndrome (SIDS) and maternal complications during pregnancy. According to the *2012 America’s Health Rankings*, infant mortality has decreased 36 percent from 1990 to 2012, with the greatest occurrences in the African-American population. Within Pinal County, infant mortality overall has decreased slightly over the past few years and as of 2011 was 5.6 deaths per 1,000 live births, which is on par with the *Healthy People 2020* national health target of 6 deaths per 1,000 live births.

Not only can low birth weight contribute to infant mortality, but low birth weight babies are more likely to require specialized medical care. Low birth weight is often associated with premature birth and

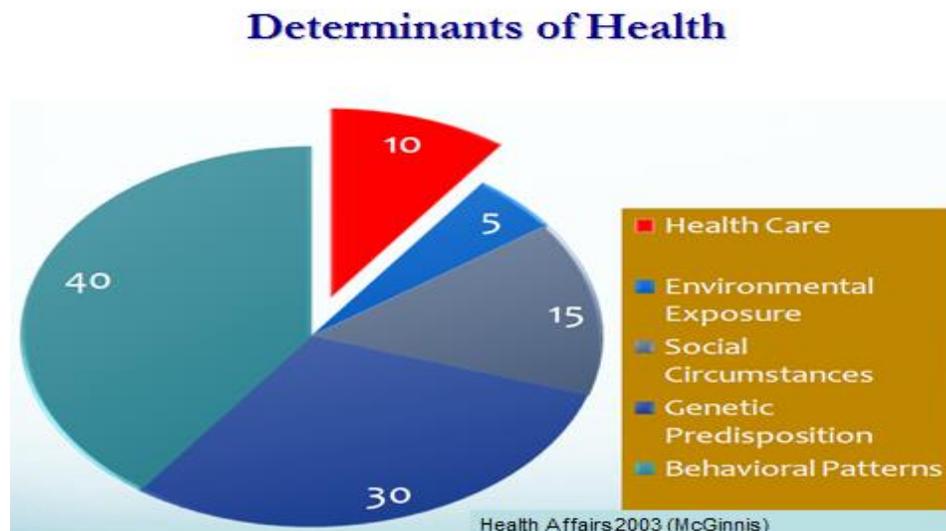
certain risky behaviors such as not taking prenatal vitamins, smoking, use of alcohol and/or drugs and not receiving appropriate prenatal care. Within Pinal County, the percent of low birth weight babies has remained relatively stagnant for the past several years, hovering around 7 percent, which is below the national average of 8.1 and the *Healthy People 2020* national health target of 7.8 percent. The highest rate of low birth weight babies in Pinal County is in women over the age of 45, which may be attributed, at least in part, to age-associated risks. The African-American population also has a significantly higher percentage of low birth weight babies, at almost 14 percent.

Preterm births and appropriate prenatal care have been identified as two of the biggest contributors to low birth weight babies, as noted above. As Pinal County is performing better than the national average and the *Healthy People 2020* national health target for both infant mortality and low birth weight babies, it is not surprising that they also exceed national averages and targets for both preterm births and prenatal care, as well.

Teen births are a significant health concern, as they pose potential risks to both the mother and the baby, including preterm deliveries and low birth weight. Arizona ranks 39th out of the 50 states in teen birth rate. While rates of teen pregnancy have been on a steady decline over the past few years in Pinal County, the teen pregnancy rate is still considerably higher than the state and national averages, 43.3 per 1,000 females aged 15 to 19. Feedback from the CAC supported that this issue remains a concern within the community. While not focused on prevention, Banner Ironwood does offer a comprehensive list of free and low cost childbirth and baby care classes, including classes specifically for teen moms.

Behavioral Risk Factors (Health Behaviors)

The *2003 Health Affairs* publication broke Determinants of Health into 5 categories: Health Care, Environmental Exposure, Social Circumstances, Genetic Predisposition and Behavioral Patterns. Interestingly enough, it was Behavioral Patterns that came out the big winner, with Health Care a distant fourth place.



As demonstrated in this graphic, a strong correlation has been identified between health status and obesity, nutrition, physical inactivity, tobacco use and alcohol/drug use. It's not surprising then that as the rate of obesity, poor nutrition and physical inactivity have increased so has the rate of diabetes, with both obesity and diabetes soaring to the ranks of a national epidemic. In fact, according to *America's Health Rankings*, 2011 is the first year where every state reported an obesity rate of 20 percent or greater. They further report that if the current obesity trend continues, 43 percent of the population will be obese by 2018.

Arizona Health Matters states that the percent of obese adults is an indicator of the overall health and lifestyle of a community and can have a significant impact on health care spending. Additionally, as noted above, obesity increases the risk of several chronic conditions such as Type 2 diabetes, heart disease, cancer, hypertension, stroke, liver and gallbladder disease, respiratory problems and osteoarthritis. According to the *2011 Behavioral Risk Factor Surveillance Survey (BRFSS)*, as reported through *Arizona Health Matters*, 33 percent of adults in Pinal County are obese, which is significantly above the state average of 24.7 percent, as well as the *Health People 2020* national health target of 30.6 percent.

Obesity isn't just a health issue relegated to adults; childhood obesity is also a significant health issue, with 13 percent of Pinal County children classified as obese. *Arizona Health Matters* reported that results from a recent study indicate that nearly 80 percent of children who were overweight as teenagers were obese adults at age 25. According to the CAC, one contributing factor is that there are no established Parks and Recreation department in the area, so team sports are limited to private sports leagues like Pop Warner and Little League, which some families cannot afford.

Alcohol, drug and tobacco use were discussed under Behavioral Health.

RESPONSE TO COMMUNITY SIGNIFICANT HEALTH NEEDS

Prioritization

The Banner Health Community Health Needs Steering Committee developed a prioritization process and criteria for evaluating the significant health needs identified through the CHNA. The process and criteria can be reviewed in further detail in Appendix C. Each steering committee member was afforded an opportunity to independently, as well as collectively prioritize the health needs. Through consensus discussion, the steering committee narrowed the top ranked priority areas to the following:

- Access to Care
- Chronic Disease Management, with a focus on Diabetes and Heart Disease
- Behavioral Health, including mental health and substance abuse
- Obesity, with a focus on nutrition and physical activity
- Smoking/Tobacco Use

Strategies for Addressing Priority Areas

The steering committee, along with other key stakeholders, devised strategies and tactics for addressing the prioritized health needs identified through the CHNA. These strategies and tactics were reviewed with Maricopa County Department of Public Health for additional feedback and identification of additional collaboration opportunities. Banner Health's Senior Leadership Team also reviewed the strategies and tactics to ensure alignment with Banner Health's strategic plan for the coming years. Ultimately, the full CHNA Report, including the Implementation Strategies, was reviewed and approved by the Banner Board of Directors on December 7, 2013.

Across these priority health concerns, there were several consistent contributing factors, such as lack of awareness of services and resources available in the community, ease of accessing the services, coordination of care and community engagement. As such, while each of the strategies and supporting tactics is aligned to a specific health concern, many of them truly cut across several or all of the priority areas. Additionally, these common themes are evident in many of the strategies and supporting tactics across each of the five priority areas.

PRIORITY NEED #1: ACCESS TO CARE

Banner Health is dedicated to providing system wide community health events and services to the public. Health events include health screenings, support groups, blood drives and health fairs in addition to many other events that bring value to nearby communities and encourage preventive health care. Banner Ironwood fulfills this community benefit through ongoing events and programs that cater to the health needs of the surrounding population and places great importance on the inclusion of uninsured persons in free health events and other services. The facility provides numerous health fairs and classes aimed at hard to reach populations and spreads word of such events through social media outreach, print advertising and other broad-based communications efforts.

Throughout its community outreach efforts, Banner Ironwood’s priorities are in alignment with national health priorities. For example, many community health events and classes are aimed towards helping participants adopt healthy behaviors, improve their health status, and reduce their use of hospital services and emergency room visits.

The total amount spent on charity care, community benefit and other financial assistance for patients at Banner Ironwood for 2012 was \$2.8 million.

Strategy #1: Increase access to preventive and maintenance care
Anticipated Outcome: Reduce the use of the Emergency department for non-emergent care, as measured through outpatient ED utilization
Tactics
<ul style="list-style-type: none"> • Promote participation in MyBanner (online patient portal) • Implement Patient Centered Medical Homes in the community (Banner Medical Group) • Offer extended hours for Primary Care Provider (PCP) clinics within Banner Medical Group • Partner with Hospital Patient Services to provide Medicaid enrollment assistance to self-pay patients • Offer educational materials and links to community resources related to the insurance marketplace • Promote both internal and external community resources that support preventive and maintenance care via the facility website • Offer and participate in free health activities (e.g. screenings, health fairs, blood drives) • Provide medication assistance, as appropriate • Provide pediatric services to uninsured and underinsured families through the Banner HealthMobile and School-Based Clinics
Strategy #2: Identify the underlying causes for patients with regular, reoccurring visits to the Emergency department
Anticipated Outcome: Reduce the frequency with which high-utilizer patients visit the Emergency department, as measured through ED utilization
Tactics
<ul style="list-style-type: none"> • Deploy case management services in the ambulatory setting to support the continuum of care • Provide post-discharge scheduling of follow-up appointments and assist in arranging transportation, as appropriate

PRIORITY NEED #2: CHRONIC DISEASE MANAGEMENT (WITH A FOCUS ON DIABETES & HEART DISEASE)

Case Management also offers a variety of programs to provide support and resources for those with chronic conditions, including care transition and palliative care programs. The implementation of the Patient Centered Medical Home (PCMH) and increased case management resources aligned to the

medical homes will further increase the coordination of care, which is so critically important to this population. PCMH is a way of practicing medicine that actively engages the patient in their health management and takes care of them in a more comprehensive manner through a team-based approach, including case managers and pharmacists. This team-based model of care, led by a primary care physician, provides continuous and coordinated care to ensure the highest level of health care is being offered to the patient. Medication management is also a key part of the PCMH, with dedicated pharmacy resources to evaluate and advise providers and patients regarding medication regimens, as well as provide education on generic prescription alternatives.

In 2011, Banner Health Network (BHN) was selected to participate in the Pioneer Accountable Care Organization (ACO) model, a transformative new initiative sponsored by the Centers for Medicare and Medicaid Services (CMS) to provide Medicare beneficiaries with higher quality care, while reducing growth in Medicare expenditures through enhanced care coordination. BHN is a comprehensive provider network that accepts patient care and financial accountability for those served by the network. It is one of a few networks in Arizona serving patients in a population health management model. As part of this innovative model, BHN has implemented several strategies, including education and awareness materials and events, as well as a Lifestyle Management Program, that target chronic disease. BHN’s Lifestyle Management Program primarily serves patients who have been newly diagnosed with a chronic disease and is focused on helping the patient understand their disease and how they can best care for themselves to achieve the best outcomes.

Additionally, while a separate priority area, with the correlation of healthy lifestyle choices and chronic disease, the strategies and supporting tactics we employ around obesity, nutrition and physical inactivity would support our efforts around chronic disease, particularly as they relate to diabetes and heart disease. Similarly, the strategies around tobacco use would also support prevention of lung and bronchial cancers. Further, while mental health is also addressed separately, we recognize the connection, both from a behavioral change standpoint and from the potential impact a chronic disease can have on one’s mental health. Again, one of the intents of Patient Centered Medical Homes and increased case management functions are to ensure the coordination of care across these closely aligned areas that contribute to the overall well-being of our community.

Strategy #1: Engage the community in education on prevention, maintenance and taking a proactive approach to Chronic Disease Management
Anticipated Outcome: Increased community engagement, accountability and compliance with preventive and maintenance strategies, as measured through a survey on the Chronic Disease webpage and patient data through Banner Medical Group
Tactics
<ul style="list-style-type: none"> • Provide relevant chronic disease educational offerings in the community, leveraging partnerships with community-based organizations to help host and promote the events to a broader community population

<ul style="list-style-type: none"> • Deploy a proactive case management approach and outreach for chronic disease patients within Banner Health managed population
<ul style="list-style-type: none"> • Develop a Chronic Disease webpage on the facility website to increase on-line educational opportunities and resource awareness
<ul style="list-style-type: none"> • Provide asthma screenings, education and medication to the pediatric population through the Banner HealthMobile

PRIORITY NEED #3: BEHAVIORAL HEALTH

While behavioral health services are not available on the campus, Banner Ironwood partners closely with Banner Behavioral Health Hospital (Banner Behavioral), as well as other behavioral health resources in the community. For more than 30 year, Banner Behavioral, located in Scottsdale, has provided a nationally recognized behavioral health care program for children, teens and adults faced with psychiatric, mental health or chemical dependency challenges. The Banner Psychiatric Center (BPC), located on the campus of Banner Behavioral, was built to address behavioral health related crowding in hospital Emergency departments and provides doc to doc telephone consults to ED providers at Banner Ironwood, as well as other Banner Health facilities across the valley. The staff at Banner Behavioral and BPC provides assessments for outpatient treatment, as well as offering Intensive Outpatient Programs at both the Scottsdale campus and the Chandler office.

Also located on the campus of Banner Behavioral is the Howard S. Gray School. The school is a nationally accredited private school that offers a smaller class size, experienced faculty and individualized curriculum to help students with emotional or learning challenges reach their academic potential.

Also, as noted under Chronic Disease, one aim of implementing Patient Centered Medical Homes in the community is to improve the coordination of care, including integration of physical and mental health. Additionally, some of the classes offered around chronic disease self-management also have application to those who have chronic behavioral health conditions, as do the support groups offered to the community.

Further, not only is there a correlation between physical chronic disease conditions and healthy lifestyle choices, but there is also a strong relationship to certain behavioral conditions, such as stress and depression. Therefore, it’s anticipated, and intended, that the strategies aligned to addressing healthy lifestyle choices, particularly obesity, nutrition and physical activity would also have a positive impact on behavioral health.

<p>Strategy #1: Increase access to timely behavioral health assessments and services for those in crisis</p>
<p>Anticipated Outcome: Decrease the use of the Emergency department (ED) for behavioral health issues and for those who present to the ED, decrease delay in care, as measured through ED utilization</p>

Tactics
<ul style="list-style-type: none"> Partner with Banner Psychiatric Center (BPC) to deploy telehealth services to patients presenting in the Emergency department (ED) with mental health and/or substance abuse issues (this is a multi-year strategy)
<ul style="list-style-type: none"> Partner with Banner Psychiatric Center (BPC) to access psychiatric telephone consults for patients presenting in the Emergency department (ED) with mental health and/or substance abuse issues
Strategy #2: Increase identification of behavioral health needs and access to early interventions
Anticipated Outcome: Increase the number of community members who seek early interventions and decrease those who present in crisis, as measured through patient data within Banner Medical Group and a survey on the Mental Health and Substance Abuse webpage
Tactics
<ul style="list-style-type: none"> Deploy depression screening tool in Primary Care Provider clinics and Pediatric Provider clinics within Banner Medical Group
<ul style="list-style-type: none"> Create a webpage on the facility website that provides information, support and resources related to Mental Health and Substance Abuse issues
<ul style="list-style-type: none"> Partner with Community Bridges to help align patients to available resources in the community

Priority Need #4: Obesity/Nutrition/Physical Inactivity

One of Banner Ironwood’s sister facilities, Banner Children’s at Cardon Children’s Medical Center partnered with Fit Kids several years back to help provide kids and their families located in the East Valley with the tools and resources they need to maintain a fun, active lifestyle while making healthy decisions to improve how they feel on a daily basis. The program is free and includes a variety of activities and resources, including challenges, events, videos, healthy recipes and health tips by clinical experts on food, fitness, facts and family. Given the great response and benefit to the community, Banner Health has now spread the program across the Valley, and is expanding it into Colorado, as well.

Again, it is also envisioned that the Patient Centered Medical Homes will play a crucial role in keeping our communities healthy, in addition to caring for them when they are sick. A big part of wellness is educating people on and engaging them in making healthy choices.

Strategy #1: Engage the community in making healthy choices and maintaining a healthy lifestyle through education and awareness
Anticipated Outcome: Percentage of adults, seniors and pediatrics in the community that are overweight and obese trends down over the next 3 years, as measured through the County Health Rankings and a survey on the Healthy Living and Wellness webpage

Tactics
<ul style="list-style-type: none"> • Create a webpage dedicated to healthy living, including articles, tips, recipes, calendar of related events, links to internal and external resources
<ul style="list-style-type: none"> • Provide educational offerings around healthy living & physical activity events (e.g. Ask the Expert and Day of Dance)
<ul style="list-style-type: none"> • Highlight healthy options offered in the cafeteria
<ul style="list-style-type: none"> • Promote the importance of breastfeeding
<ul style="list-style-type: none"> • Partner with the FitKids program to promote healthy lifestyle choices and physical activity for kids and families within the community
<ul style="list-style-type: none"> • Provide free sports physicals through the Banner HealthMobile and School-Based Clinics

Priority Need #5: Smoking/Tobacco Use

The focus on tobacco use will also be further supported through inclusion in educational series and healthy living web-based education, resources and support, as living tobacco free is a key part of maintaining a healthy lifestyle. Therefore, several of the strategies noted above around obesity, nutrition and physical activity would also include information on tobacco cessation and education around the importance of being tobacco free.

Additionally, some of the strategies and supporting action plans under Behavioral Health could also provide additional support to the following strategies, aimed at helping tobacco users quit and maintain a tobacco free lifestyle.

Strategy #1: Increase community education and awareness around personal benefits to achieving and maintaining a healthy lifestyle free of tobacco
Anticipated Outcome: Increase participation in the State Quit Line, reducing the number of individuals who utilize tobacco, as measured through the County Health Rankings, patient data from Banner Medical Group and a survey on the Healthy Living and Wellness webpage
Tactics
<ul style="list-style-type: none"> • Partner with the ASHLine to build the ASHLine Proactive Referral into the Banner Medical Group clinic workflows and provide education to the providers and their staff
<ul style="list-style-type: none"> • Include a link to the ASHLine website from the Banner Healthy Living webpage
<ul style="list-style-type: none"> • Partner with the ASHLine to provide collateral materials for our patients
<ul style="list-style-type: none"> • Incorporate education around the risks and complications from tobacco use into the Healthy Living webpage

There are also many other nonprofit and government agency partners in the community who offer great resources towards improving the health of our community. Such organizations include: American Academy of Pediatrics; Apache Junction Boys & Girls Club; Arizona Department of Economic Security, Family Assistance Administration; Arizona Department of Health Services; Catholic Social Services;

Cenpatico Behavioral Health of Arizona; Cigna Behavioral Health; Community Bridges; Empact; First Things First; J.O Combs Head Start; J.O. Combs School District; Magellan Health Services of Arizona; Mountain Health & Wellness; National Counseling on Alcohol Drug Abuse; Pinal County Public Health Clinics; Pinal County Public Health Services; Pinal Gila Community Child Services; San Tan Counseling; St. Luke's Health Initiatives; Suicide Prevention Center and Terros, Inc. We will continue to facilitate dialogue with these community partners, as well as others to continue exploring opportunities for how best to collaborate in caring for our community.

Significant Health Needs Not Prioritized

We recognize that we do not have the resources nor in some cases the expertise to pursue all of the significant health needs identified through the CHNA. Therefore, the steering committee, in concert with Banner Health leadership worked diligently to ensure the strategies and tactics we selected would be impactful, foundational for future efforts and in alignment with our strengths, mission, vision and strategic plan.

The significant health needs that were not prioritized, at this time, are:

Women and Infant Services: While the data indicates positive trending in several areas related to women and infant services, as noted above, the Community Advisory Council (CAC) did raise a few concerns that they felt represented a health concern within the community, specifically teen pregnancy.

In conjunction with labor & delivery services, Banner Ironwood offers a comprehensive list of free and low cost childbirth and baby care classes for teen moms, as well as moms of all ages, dads and even siblings. While we recognize this is a significant health concern within the community, we simply do not have the resources to develop a strategy around pregnancy prevention, at this time and feel we are better aligned to influence the other significant health concerns identified above.

APPENDIX A – STEERING COMMITTEE MEMBERS

Banner Health CHNA Steering Committee, in collaboration with Banner Ironwood’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
Candace Hoffmann	Public Relations Director
Dave Cheney	Chief Executive Officer, Banner Boswell Medical Center
Kathy Townsend	Chief Nursing Officer, Banner Boswell Medical Center Chief Nursing Officer, Banner Ironwood Medical Center - <i>formerly</i>
Kim Schraven	Strategic Alignment Project Consultant
Kristin Davis	Consultant
Laura Snow	Planning Senior Director
Laura Valenzuela	Systems Consultant – Strategic Planning
Linda Stutz	Care Coordination Senior Director
Lisa Davis	Payroll and Tax Senior Director
Lynn Chapman	Planning Senior Director
Megan Christopherson	Child Health/Wellness Director
Rhonda Anderson	Chief Executive Officer, Banner Cardon Children’s Medical Center
T.J. Grassetti	Strategic Alignment Senior Director
Vince DiFranco	Chief Executive Officer, Banner Community Hospital – Torrington

APPENDIX B – COMMUNITY ADVISORY COUNCIL

Banner Ironwood’s leadership team, in collaboration with members of the steering committee, created a Community Advisory Council (CAC) of community leaders that represent the underserved, uninsured and minority populations. CAC participants were identified based on their role in the public health realm of the hospital’s surrounding community. Emphasis was placed on identifying populations within the service area that are considered minority and/or underserved. Each CAC participant is vested in the overall health of the community and brought forth a unique perspective with regards to the population’s health needs. The CAC provided Banner Health with the opportunity to gather valuable input directly from the community.

ORGANIZATION	NAME AND TITLE	AREA OF EXPERTISE/ ORGANIZATIONAL FOCUS
Arizona Department of Health Services, Department of Health Systems Development	Cieola Mohapatra, Community Development Program Manager	Disparities, trends, programs, policies, community needs, resources and partners related to behavioral health
Arizona Department of Health Services, Division of Health Services	Patricia Tarango, MS Bureau Chief	Public health trends, programs and policy; community needs, resources and partners
Banner Ironwood Medical Center	Russ Carlson, Community Advisory Board	Community needs, trends, programs and resources related to healthcare
Banner Ironwood Medical Center	Lori Linder, Chief Financial Officer/Interim Chief Executive Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Ironwood Medical Center	Michael O’Connor, MD, Chief Medical Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Ironwood Medical Center	Catherine Townsend, Chief Nursing Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
Encanterra Community	Don Mousseau, Resident	Community needs and growth opportunities for a variety of services
J.O. Combs Head Start	Luz Anderson, Site Manager	Early childhood needs, including screenings, referrals and some treatment; areas of focus include medical, dental, vision, developmental, hearing, growth assessment and social-emotional
J.O. Combs School District	Gayle Blanchard, Superintendent	Community needs, trends and resources, particularly related to the pediatric population, including disparities related to minority populations

ORGANIZATION	NAME AND TITLE	AREA OF EXPERTISE/ ORGANIZATIONAL FOCUS
Pinal County	Bryan Martyn, Supervisor	Full spectrum of needs and trends within the community
Pinal County Public Health Services	Graham Briggs, Administrator, Infectious Diseases and Epidemiology Section	Public health trends, programs and policy; community needs, resources and partners
Pinal County Public Health Services	Darrel Johnson, Community Health Specialist	Public health trends, programs and policy; community needs, resources and partners
Pinal Partnership	Sandie Smith, President & CEO	Research, planning and coordination of private and public efforts related to infrastructure, natural resources and community development
Town of Queen Creek	Gail Barney, Mayor	Full spectrum of needs and trends within the community

APPENDIX C – PRIORITIZATION CRITERIA

The significant health needs identified through the Community Health Needs Assessment (CHNA) were prioritized based on the below criteria, which took into account the quantitative data, focus group discussion with the Community Advisory Council (CAC) and Banner Health’s mission, vision and strategic plan. Each significant health need was evaluated based on the criteria, using a ranking of low (1), medium (3) or high (5) for each criterion; all criteria were equally weighted. The criterion scores for each health need were compiled to determine the overall prioritization.

Criteria:

- Data indicates a clear need
- Priority within the community
- Clear disparities exist
- Cost of not addressing is high
- Desired outcome can be clearly defined
- Measures can be identified
- Public would welcome the effort
- Banner has the ability to impact
- Alignment with Banner’s mission, vision and strategic plan