Banner Heart Hospital

Community Health Needs Assessment Report

2013

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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

- o   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 Heart Hospital'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 HEART HOSPITAL – AT A GLANCE

Banner Heart Hospital (Banner Heart) opened its doors in November 2000. First-class physicians working with an experienced staff provide the latest heart care technology in an environment of clinical excellence, compassion and healing. This specialty heart hospital, adjacent to Banner Baywood Medical Center (Banner Baywood), expanded from 60 beds to 111 in early 2004. Nearly doubling in size, it is now one of the largest freestanding heart hospitals in the nation.

Banner Heart offers:
- Twenty-eight cardiovascular intensive care beds
- Sixty-seven telemetry beds
- A 16-bed interventional stay unit
- A non-invasive cardiology unit

In addition to telemetry and intensive care services, this state-of-the-art facility also has six operating room suites, six cardiac catheterization labs and two electrophysiology labs.

The facility employs more than 500 health care professionals, who specialize in heart care. More than 200 volunteers give their time at this facility, as well. The hospital has a growing medical staff of nearly 450, including cardiologists, cardiovascular and vascular surgeons and other primary care and specialty physicians.

The hospital is a referral center for high level cardiac cases Valley-wide. Patients at facilities with lower level care can be stabilized and transferred to the appropriate level of care. A partnership with Banner Ironwood Medical Center (located 20 miles away) allows for door-to-balloon time for patients being transferred with cardiac blockages that is often less than 90 minutes.

Banner Heart was the first facility in Arizona and one of the first in the nation to be designated an Accredited Heart Failure Institute by the Healthcare Accreditation Colloquium. This distinction underscores how, through a fully-integrated model of care, Banner Heart is uniquely positioned to meet the complex and ever-changing needs of those the hospital serves.

Banner Heart's commitment to providing highly specialized services led to creation of a Heart Rhythm Center to care for those with cardiac rhythm disturbances, Women's Heart Center to increase heart disease awareness, education and treatment for women, and a Heart Valve Center to provide noninvasive valve therapy and replacement procedures to those for whom open heart surgery is not an option.

As evidence of its superior care, Banner Heart, for the fourth time, was recognized among the 50 Top Cardiovascular Hospitals, 2013, by Truven Health Analytics. Other awards and recognitions include:
- Among the top 10 in the *U.S. News & World Report*'s first Best Hospitals metro area rankings in 2011.
- Solucient Top 100 Cardiovascular Award

- Best ratings in Pulmonary Embolism; Heart Attack and Heart Failure
- Top One Percent, Care Sciences: treatment of patients with heart attacks and heart failure.

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.

To ensure the most appropriate and timely medical treatment in the face of a cardiac emergency, Banner Heart established a comprehensive Cardiac Alert program. Aimed at treating heart attack patients within 90 minutes of arrival, a national standard set by the American College of Cardiology, this highly coordinated response program is a partnership between the hospital, emergency medical service (EMS) paramedics in the East Valley, and the Emergency department (ED) at Banner Baywood, conveniently located on the Banner Heart campus.

Together, these medical professionals begin life-saving treatment from the moment EMS crews respond to a 911 call for chest pain. Paramedics transmit key health information and initiate treatment under the guidance of Banner Health experts while in transit to the hospital. Upon arrival, patients are moved quickly through the ED and taken to the catheterization laboratory to begin the next phase of treatment.

In addition to the Cardiac Alert program, Banner Heart, Banner Baywood and EMS paramedics also collaborate in using therapeutic hypothermia treatment to save victims of heart attack. This revolutionary approach entails lowering the body temperature of patients who remain comatose following a heart attack in an effort to preserve neurological function. The cold treatment is followed by a natural warming process in which the body brings itself back to a normal temperature.

These life-saving initiatives exemplify Banner Heart's role as a pioneer in heart care and demonstrate why Arizona's Bureau of Emergency Medical Services and Trauma System certified Banner Heart as a Cardiac Arrest Center.

The Women's Heart Center at Banner Heart, the first of its kind in the East Valley and one of less than 50 nationwide, is shining a spotlight on the dangers of heart disease among women. Through ongoing education initiatives, preventive screening assessments, therapeutic lifestyle recommendations, and consultations with physicians who understand the unique risk factors and symptoms, we are providing the resources to help women make healthy choices, reduce their risk of heart disease and, quite possibly, save their lives. Women identified through screening assessments as being at risk for heart disease are referred to cardiologists who can help determine the true extent of their condition. These heart-care specialists also help patients explore options to delay or prevent their first heart attack, which could be fatal, and establish individualized treatment plans, when appropriate.

Other hospitals serving the far East Valley include Banner Baywood, Banner Gateway and Banner Ironwood medical centers; Mercy Gilbert Medical Center and Chandler Regional Medical Center (part of the not-for-profit Dignity Health); Mountain Vista Medical Center (owned and operated by for-profit

IASIS Healthcare); Gilbert Hospital (physician owned and operated); and Arizona Spine & Joint Hospital (physician owned and operated).
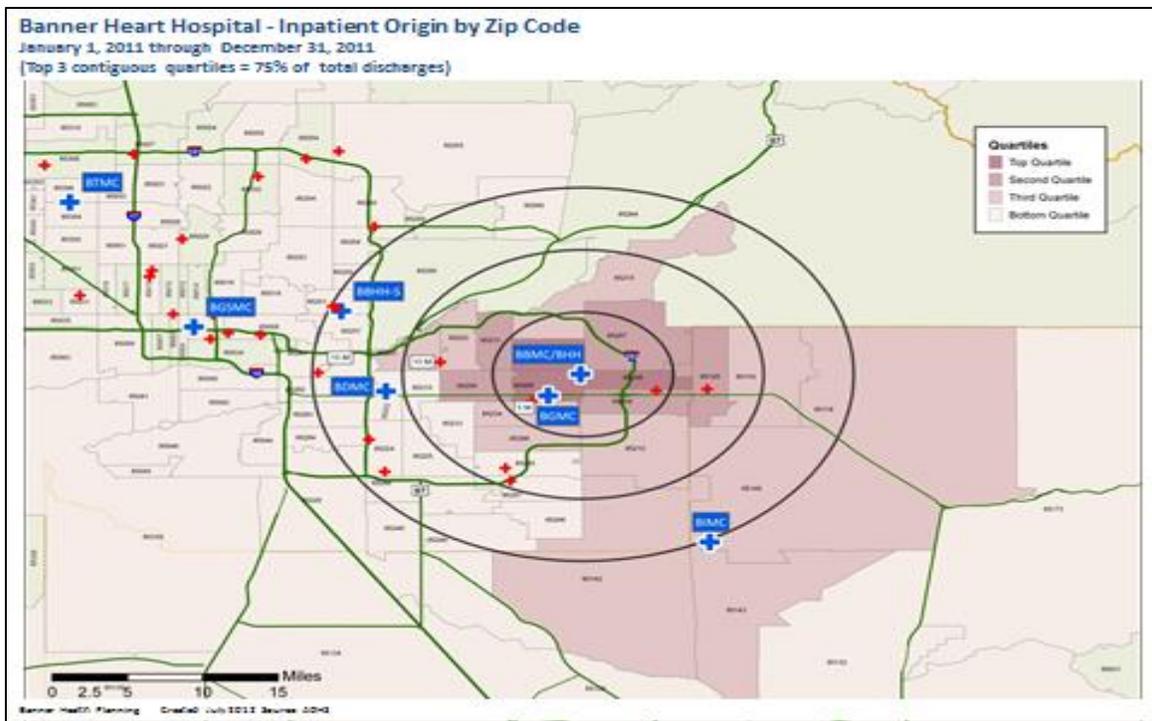
COMMUNITY DESCRIPTION

Banner Heart is located in Mesa, Arizona, adjacent to Banner Baywood, and within Maricopa County. The facility provides premier heart and vascular care services to the state of Arizona, particularly the East Valley communities and areas of northeastern Pinal County. The community directly surrounding Banner Heart includes the cities of Mesa, Apache Junction and Gilbert; these cities are the primary service areas for the facility.

While Banner Heart provides a very specialized and limited scope of services, when the primary service area was analyzed, it was almost identical to that of Banner Baywood, with over 50 percent of the primary service area consisting of the same ten zip codes, in relatively the same order.

Two of the three zip codes in Banner Heart's primary service area that are not represented in Banner Baywood's are a result of the agreement to provide advanced cardiac services to patients from Banner Ironwood Medical Center (San Tan Valley – 85143 and Queen Creek – 85140). These two zip codes comprise less than 5 percent of Banner Heart's primary service area. The third zip code not included in Banner Baywood's primary service area only represents 1.1 percent of Banner Heart's primary service area (Gilbert – 85296).

Mesa, with a 2012 estimated population of just over 450,000, is the 3rd largest city in the state of Arizona, and the 38th largest in the United States. According to the 2010 U.S. census survey, females slightly outnumber males, almost 91 percent of the population is either white or Hispanic and the median household income is $49,872, compared to a median household income of $48,745 for Arizona residents. The number of individuals living below the poverty line in the city of Mesa is 13.5 percent. The percentage of individuals living beneath the poverty level in the U.S. is 12.4 percent.

Fifty-five percent of Banner Heart's primary service area pulls from zip codes within the city limits of Mesa, as reported by Truven Health Analytics Market Expert tool (Market Expert). The remainder of the primary service area pulls from Mesa's East Valley sister cities/towns of Apache Junction (approximately 10.3 percent); Queen Creek (5.1 percent); Gilbert (3.1 percent) and San Tan Valley (2.5 percent). It is projected that much of the East Valley will continue to experience considerable growth over the next few years.

Banner Heart Hospital - Inpatient Origin by Zip Code
January 1, 2011 through December 31, 2011
(Top 3 contiguous quartiles = 75% of total discharges)

Within the primary service area, the population is evenly split between males and females, with females slightly outnumbering the males, 50.4 percent and 49.6 percent, respectively. Within the female population, approximately 40 percent are of child-bearing age (15 – 44).

Banner Heart's Primary Service Area Age Distribution, 2011

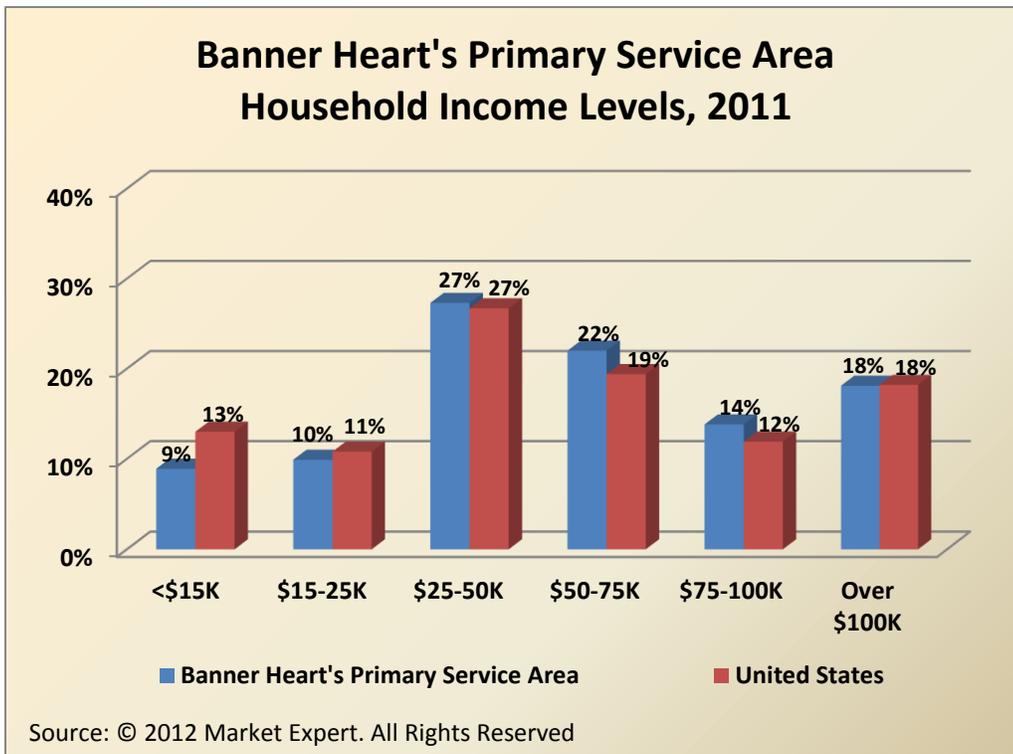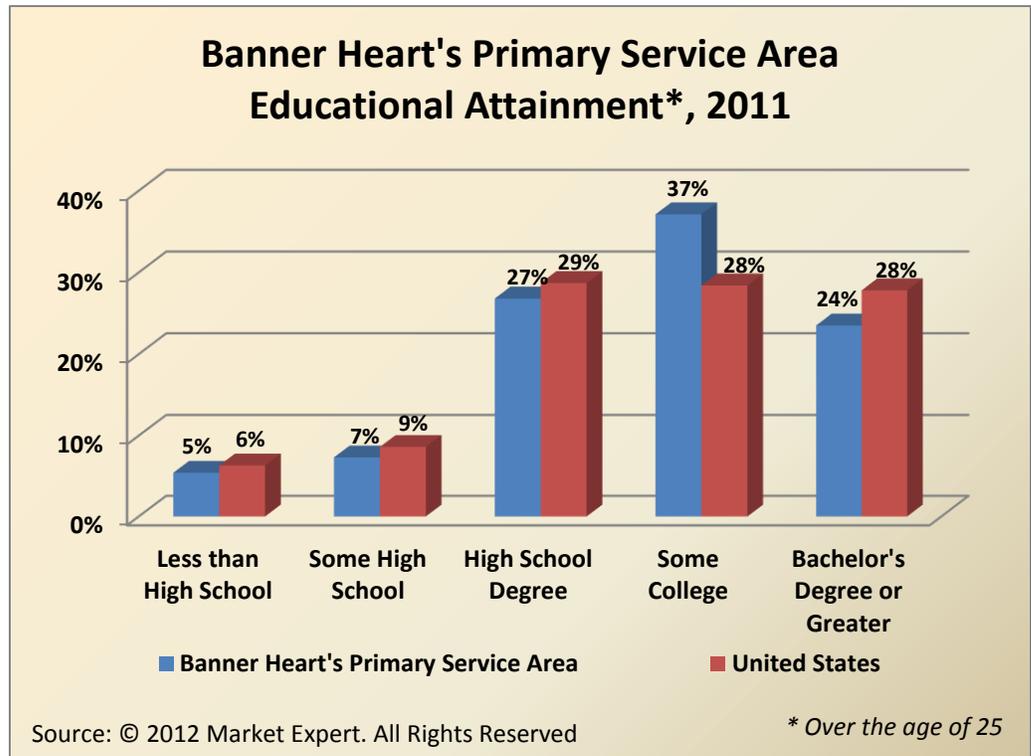Source: © 2012 Market Expert. All Rights Reserved
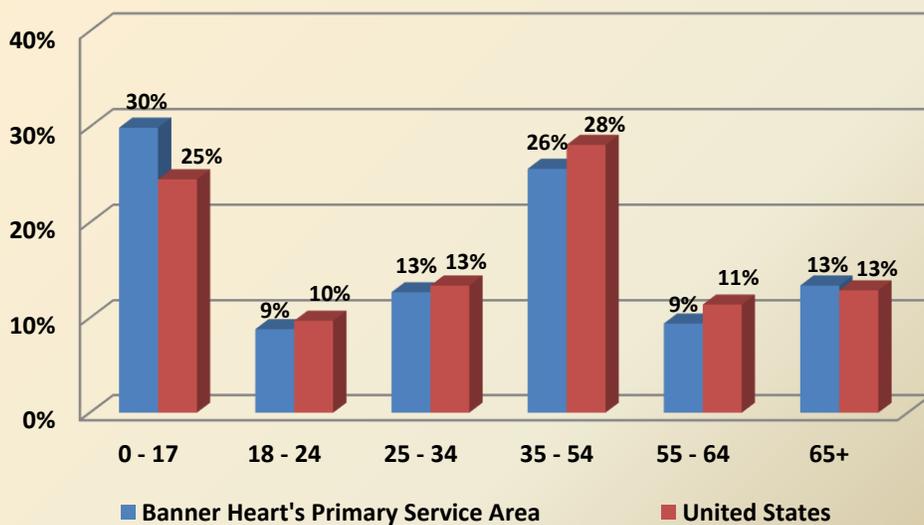
Banner Heart has a diverse age distribution that is slightly younger than the national average. Less than a quarter of the population is over the age of 54.

The two largest age groups are the pediatric and adult (ages 35 to 54) populations. Based on the distributions, it would appear likely that families comprise the largest percent of the primary service area.

Eighty-eight percent of the population, over the age of 25, has at least a high school education, which is slightly higher than the national average (85 percent).

Additionally, the percentage of the population with post-high school education is three percent above the national average.
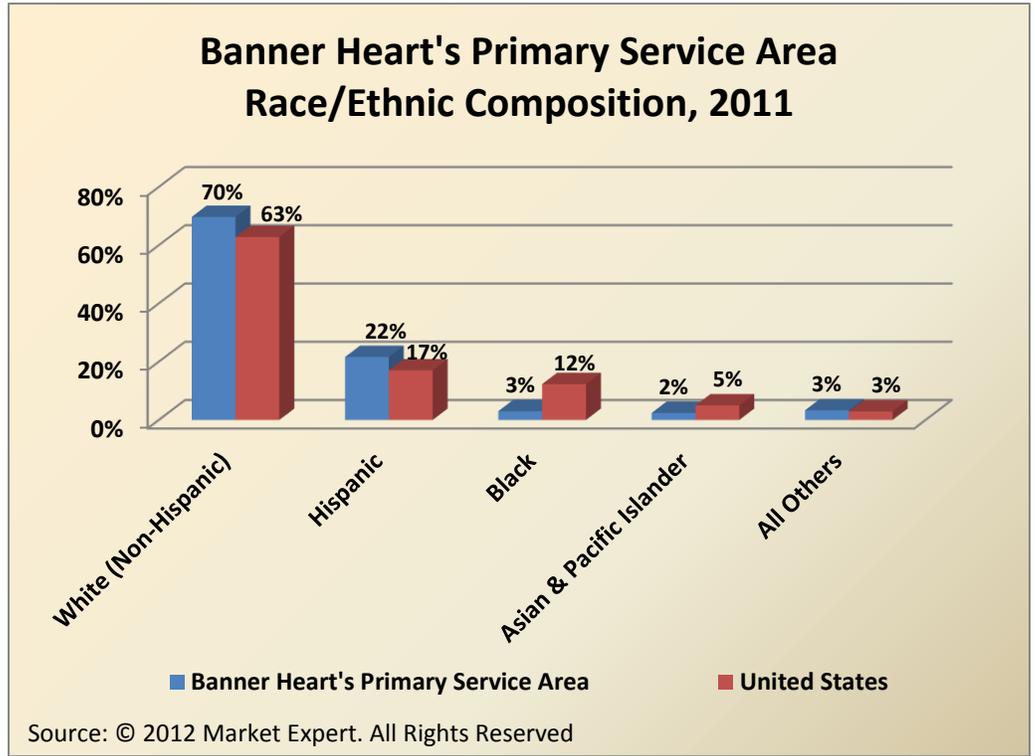
Banner Heart's Primary Service Area Educational Attainment*, 2011

Category	Banner Heart's Primary Service Area	United States
Less than High School	5%	6%
Some High School	7%	9%
High School Degree	27%	29%
Some College	37%	28%
Bachelor's Degree or Greater	24%	28%

■ Banner Heart's Primary Service Area ■ United States

* Over the age of 25

Banner Heart's Primary Service Area Household Income Levels, 2011

Category	Banner Heart's Primary Service Area	United States
<$15K	9%	13%
$15-25K	10%	11%
$25-50K	27%	27%
$50-75K	22%	19%
$75-100K	14%	12%
Over $100K	18%	18%

■ Banner Heart's Primary Service Area ■ United States

Fifty-four percent of the population has a household income of $50,000 or greater, with the largest segment of the population having an annual household income of between $25,000 and $50,000.

Close to 20 percent of the population has an annual household income below $25,000.

The White (non-Hispanic), population is the largest ethnic group within the service area, with Hispanics representing the second largest ethnic group.

All other ethnicities, including the Black and Asian/Pacific Islander populations, account for approximately 8 percent of the population, combined.

Banner Heart's Primary Service Area Race/Ethnic Composition, 2011

White (Non-Hispanic): 70% / 63%
Hispanic: 22% / 17%
Black: 3% / 12%
Asian & Pacific Islander: 2% / 5%
All Others: 3% / 3%

■ Banner Heart's Primary Service Area   ■ United States

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COMMUNITY HEALTH NEEDS ASSESSMENT METHODOLOGY

Banner Heart'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 visits to Banner Heart and ED visits to Banner Baywood, 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 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* – Maricopa County, 2012
- *Centers 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, 2011
- 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, was 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 Heart'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. Given the overlap in primary service areas, the focus group provided input and insights for Banner Heart, as well as Banner Baywood and Banner Gateway medical centers. A list of the organizations that participated in the focus group can be found under Appendix B. There was additional dialogue (via email, telephone conversations and in-person meetings) with leaders from Maricopa County Department of Public Health (MCDPH) to further review the data, existing resources and strategies for addressing the significant health concerns, including opportunities for collaboration with MCDPH and other government and nonprofit organizations.
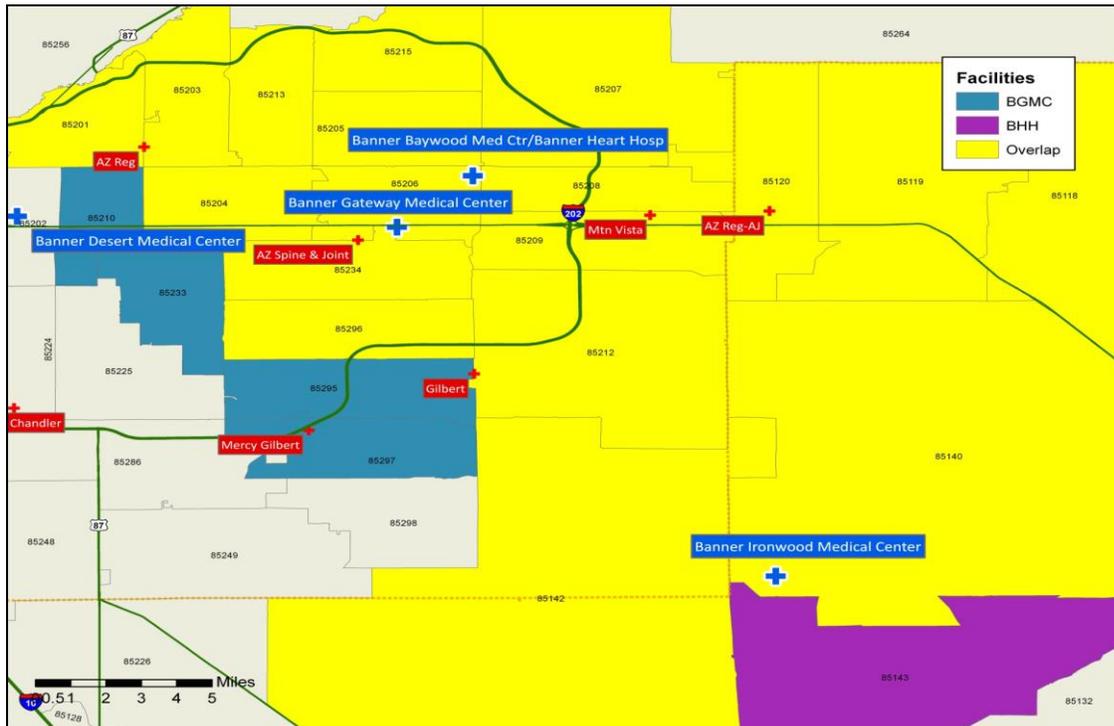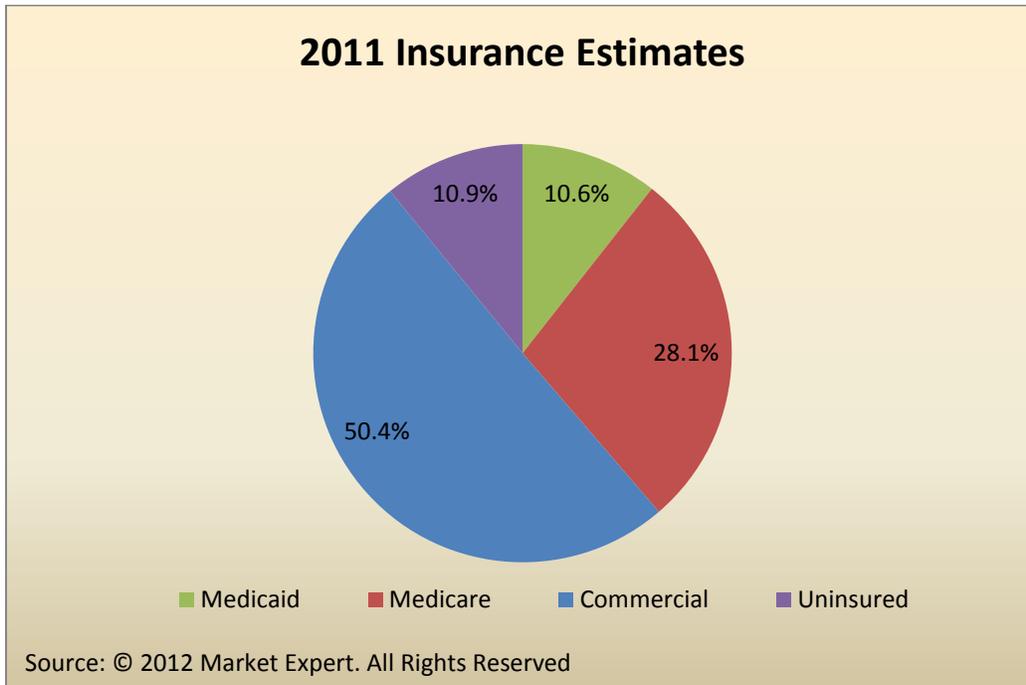
Summary of Findings and Addressing Need:

Upon the completion of Banner Heart's needs assessment, a summary of findings was comprised for review by the steering committee, Banner Heart'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 Heart'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 Community Advisory Council (CAC), comprised of hospital administrators, community leaders and other stakeholders, provided the insights necessary to complete a thorough Community Health Needs Assessment (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. Within Maricopa County, one in seven residents lacks health insurance, and one in four residents have not seen a physician in the past year. The data from Market Expert also shows that within Banner Heart's primary service area, 10.9 percent of the population is uninsured; an additional 10.6 percent are on Medicaid. This is further illustrated in the graphic below.

2011 Insurance Estimates

10.9%   10.6%

28.1%

50.4%

■ Medicaid   ■ Medicare   ■ Commercial   ■ Uninsured

Source: © 2012 Market Expert. All Rights Reserved

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 that more than 20 percent of the population are uninsured and on Medicaid, it is not surprising that access to care is an issue across the service area. As can be expected, this lends to the volume of

non-emergent cases that are seen in the Emergency department. While Banner Heart does not have an ED, many patients enter the hospital through the doors of Banner Baywood's ED, as they share the same campus. One of the most common diagnoses for adult patients (between the ages of 18 and 64), is chest pain. The top diagnoses for senior patients who present through Banner Baywood's ED are chest pain and congestive heart failure.

Discussion among the Community Advisory Council (CAC) supported the ED trends noted above, as several of the participants indicated that much of the population is not receiving preventive care. For some, this is a result of financial constraints, as the co-pay(s) are more than the parents can afford. Therefore, this issue is not isolated to the uninsured population, but is an issue across the community.

Banner Health has school-based health centers with on-site nurse practitioner located in Mesa and Chandler. This program provides primary care services to the uninsured and under-insured children. Transportation for students not physically located on one of the campuses may still pose a barrier to receiving the available services. Additionally, the services are limited to those under the age of 21.

Transportation often poses a barrier to receiving preventive, maintenance and follow-up care for all ages. Transportation can also make it difficult, especially for seniors, to eat nutritionally sound meals. The "Meals on Wheels" program provides nutritional meals to seniors who qualify, and who request participation. There is also a small program, "Meals While You Heal" that provides meals to patients who are newly discharged with immediate meal needs; this program is sponsored by Banner Health, United Way and Meals on Wheels. For those seniors who lack transportation, these services are a lifeline, and those who lack transportation but do not qualify for the meals on wheels services may suffer from improper nutrition.

Feedback from the CAC also indicated that too often the elderly experience difficulty in understanding the discharge plan when released from a hospital or other provider, which means they will often end up back in the hospital.

Chronic Disease

Chronic diseases, such as Diabetes and Heart Disease continue to cut short the lives of millions of Americans each year and contribute significantly to health care costs.

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 Maricopa County, diabetes has been identified as the 7th leading cause of death, with a disparate impact within the Hispanic, African-American and American Indian populations. The community

members who participated in the CHNA conducted by MCDPH, identified diabetes as the most important health problem facing the community.

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.

While not the leading cause of death in Maricopa County, it is the second most common cause of death and disparately impacts the African-American population, with the Native American and White (non-Hispanic) populations experiencing the second and third greatest impact, respectively.

The CAC validated that chronic disease, particularly diabetes is prevalent and a significant health concern within the community and that obesity is a central component to this, and other, chronic conditions. Given that heart disease is a potential complication of diabetes, this is of significant concern to Banner Heart, as well.

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.

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.

As part of the data compiled for the CHNA conducted by MCDPH in 2012, they compared Maricopa County to the state and national averages, as well as to the Healthy People 2010 national target for both alcohol abuse (percent of residents who binge drink) and drug abuse death rate (per 100,000). While alcohol abuse was largely in-line with both the state and national average, it exceeded the *Healthy People 2010* national target and tipped the scales at close to 15 percent of the population, with a disparate impact among the American Indian and Hispanic populations. As for drug abuse deaths per 100,000 residents, Maricopa County considerably exceeded the national average and *Healthy People*

2010 national target, with again a disparate impact on the American Indian population, as well as the White (Non-Hispanic) population.

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 Maricopa County, approximately 18 percent of adults surveyed and 11.6 percent of teenagers surveyed smoke.

According to the CAC, both mental health and substance abuse are significant health issues within the community, as they are across the nation. The CAC cited substance abuse as one of the top priority areas within the community for adults, including seniors, and mental health as a top priority area for all ages across the community. Community Bridges provides mental health services across Maricopa County, and they report facing barriers with access to medications and follow up care. The challenge is keeping patients stable if they are unable to afford medications.

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.
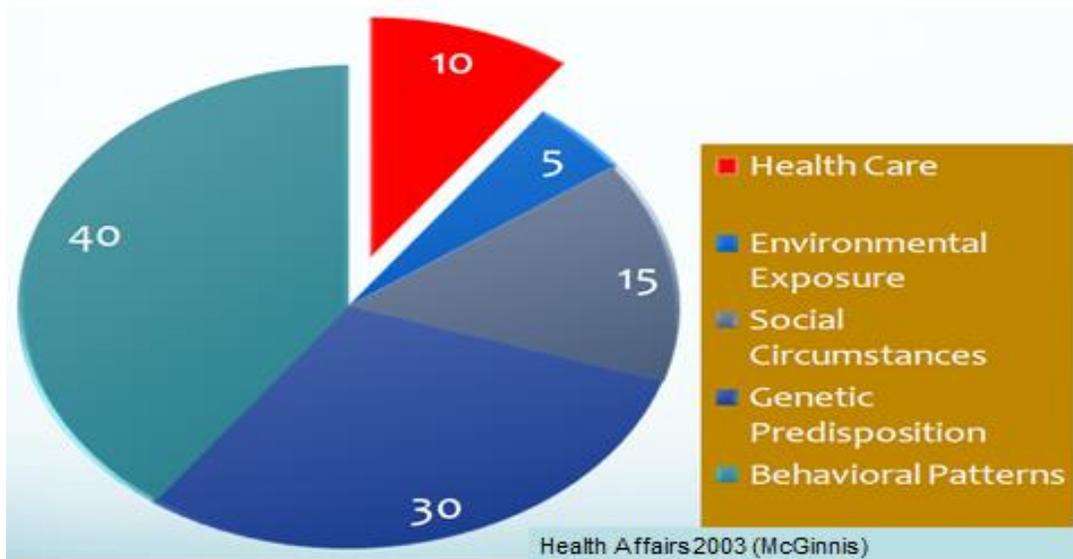
As demonstrated in this graphic, a strong correlation has been identified between health status and obesity, nutrition, physical inactivity, tobacco use and alcohol/drug use. It's not surprising then that as the rate of obesity, poor nutrition and physical inactivity have increased so has the rate of 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*, 24.7 percent of adults in Maricopa County are obese, which is sadly on par with the state average and below the national average and the *Health People 2020* national health target. The Hispanic population has a disproportionally higher percent of adult obesity, according to the *2009-2010 BRFSS*, with an obesity percent of 30.3, compared to 24.1 percent for African-Americans and 22.6 percent for Whites (Non-Hispanic). Asian/Pacific Islanders came in much lower at 5.2 percent.

Obesity isn't just a health issue relegated to adults; childhood obesity is also a significant health issue, with approximately 14 percent of Maricopa 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.

MCDPH has forecasted that in 2020, if obesity trends continue, Maricopa County adults will spend $910 million more on health care, than today. In 2020, if obesity declines to 1987 levels, Maricopa County adults will spend $945 million less on health care, than today. That represents a $1.85 billion difference between those two alternative futures.

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 Heart provides heart and vascular care services to the surrounding community, in addition to the state of Arizona. Being a specialty heart hospital, Banner Heart provides numerous health fairs and screenings aimed at increasing awareness and preventive care of heart-related conditions. These community health events are open to the public and focus on helping participants adopt heart healthy behaviors, improve their health status and reduce their use of hospital services and ED visits. Events include blood drives, blood pressure and stroke screenings, cardiac and stroke care educational classes, heart health fairs and nutrition classes.

The hospital also provides support groups that are open to heart patients and their families. These are beneficial to patients and their families upon dealing with diagnosis, treatment or surgery for heart disease.

Banner Heart works hard to spread awareness and increase educational opportunities regarding women's heart health, since heart disease is the leading cause of death among women. The hospital provides education, information and preventive screening services to help women understand their risk for heart disease and to become aware of preventive lifestyle recommendations.

The total amount spent on charity care, community benefit and other financial assistance for patients at Banner Heart for 2012 was $2.1 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
• Partner with Mission of Mercy to fund and implement My Health Direct Healthcare Scheduling Exchange (HSE)   • 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) clincis 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
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
• 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   • Partner with East Valley Senior Center to implement and support the Sustainability Program for Seniors (based on the Banner Olive Branch Senior Center model in the West Valley)

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

As noted above Banner Heart currently offers a number of programs aimed at education, prevention, maintenance and support for those suffering from, or caring for someone suffering from, chronic disease, including education around heart-related conditions.

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
• 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 • Deploy a proactive case management approach and outreach for chronic disease patients within Banner Health managed population • Develop a Chronic Disease webpage on the facility website to increase on-line educational opportunities and resource awareness

PRIORITY NEED #3: BEHAVIORAL HEALTH

While behavioral health services are not available on the campus, Banner Heart partners closely with Banner Behavioral Health Hospital, as well as other behavioral health resources in the community. For more than 30 year, Banner Behavioral Health Hospital, 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.

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.

Strategy #1: 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
• Deploy depression screening tool in Primary Care Provider clinics and Pediatric Provider clinics within Banner Medical Group • Create a webpage on the facility website that provides information, support and resources related to Mental Health and Substance Abuse issues • Partner with Community Bridges to help align patients to available resources in the community • Offer support groups

Priority Need #4: Obesity/Nutrition/Physical Inactivity

One of Banner Heart'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
• Create a webpage dedicated to healthy living, including articles, tips, recipes, calendar of related events, links to internal and external resources • Provide educational offerings around healthy living & physical activity events (e.g. Ask the Expert and Day of Dance) • Highlight healthy options offered in the café

• Continue educational offerings around healthy living & physical activity events (e.g. Ask the Expert and Day of Dance)

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
• 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 • Include a link to the ASHLine website from the Banner Healthy Living webpage • Partner with the ASHLine to provide collateral materials for our patients • Incorporate education around the risks and complications from tobacco use into the Healthy Living webpage • Support a Tobacco Free campus

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: Adelante Healthcare; American Academy of Pediatrics; Arizona Department of Economic Security, Family Assistance Administration; Boys & Girls Club of East Valley; Catholic Social Services; Cenpatico Behavioral Health of Arizona; Child Crisis Center; Cigna Behavioral Health; City of Mesa Human Services Department; Community Bridges; Corazon Behavioral Health Services; Dynamic Living Counseling; Empact; Family Behavioral Health; First Things First; Help Associates, Inc.; Horizon Human Services; Jewish Family Services; Magellan Health Services of Arizona; MARC Center; Maricopa County Department of Public Health; Mesa Public Schools; Mesa United Way; Metropolitan Neurology Behavioral Institute; Mission of Mercy; Mountain Health & Wellness; National Counseling on Alcohol Drug Abuse; New Hope Behavioral Health; A New Leaf; Southwest Behavioral Health; St. Luke's Health Initiatives; Suicide Prevention Center; Terros, Inc.; Wingspan Anti-Violence Crisis Hotline and YMCA. 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. We will also continue to partner closely with the Maricopa County Department of Public Health to identify additional resources and partnership opportunities we can help bring forth to the community.

APPENDIX A – STEERING COMMITTEE MEMBERS

Banner Health CHNA Steering Committee, in collaboration with Banner Heart'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 - *formerly*
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 Heart'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
Banner Baywood Medical Center/Banner Heart Hospital	Laura Robertson, Chief Executive Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Baywood Medical Center/Banner Heart Hospital	Stanley Adams, Chief Financial Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Gateway Medical Center	Todd Werner, Chief Executive Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
East Valley Adult Resources	Dan Taylor, Chief Executive Officer	Provides comprehensive programs and services to enhance dignity and promote independence of adults 50 and over; Community health needs, particularly within the senior population
Gilbert Public Schools	Dave Allison, Superintendent	Community needs, trends and resources, particularly related to the pediatric population, including disparities related to minority populations
Gilbert Public Schools	Lorie A. Miller, Director Health Services	Community needs, trends and resources, particularly related to the health needs of the pediatric population, including disparities related to minority populations
House of Refuge	Rachelle Smith, Director of Program Services	Provides homeless families and individuals in crisis transitional housing and supportive services that assist them towards self-sufficiency and obtaining permanent housing
Leisure World Community Association	Mark L. Wade, Community Manager	Community needs, trends and resources within the senior population

ORGANIZATION	NAME AND TITLE	AREA OF EXPERTISE/ ORGANIZATIONAL FOCUS
Maricopa County Department of Public Health	Eileen Eisen-Cohen, Performance Improvement Manager	Public health trends, programs and policy; community needs, resources and partners
Mesa Public Schools	Nadine A. Miller, RN, MS, Director Health Services and Audiology	Community needs, trends and resources, particularly related to the health needs of the pediatric population, including disparities related to minority populations
Paz de Cristo	Arlen Westline, Director	Provides food and other necessities and resources to those in need, including health care referrals
Town of Gilbert	Patrick S. Banger, Town Manager	Social-economic needs and trends within the community
Town of Gilbert	Collin DeWitt, Fire Chief	Community needs and trends, particularly related to "emergent" health issues and contributing factors; medically underserved and homeless populations
Wells Fargo Bank	David Wier, Vice President	Economic and business trends within the community; Community advocacy

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), discussions with the Maricopa County Department of Public Health (MCDPH) and Banner'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