



**Banner Good Samaritan  
Medical Center**

*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

- 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 Good Samaritan 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 GOOD SAMARITAN MEDICAL CENTER – AT A GLANCE

Banner Good Samaritan Medical Center (Banner Good Sam), a Level One trauma hospital located in the heart of downtown Phoenix, is known for providing excellent emergency services and advanced heart and cardiovascular care and for being a top teaching hospital for future physicians. Established in 1911, Banner Good Sam employs more than 3,800 health care professionals and support staff, and a medical staff of more than 1,700 physicians who serve the greater metropolitan Phoenix and surrounding areas.

Banner Good Sam was originally established as the Arizona Deaconess Hospital and Home by Miss Lulu Clifton (Miss Lulu), and is older than the state of Arizona by almost four months. Miss Lulu, a tuberculosis victim, came to Phoenix from Nebraska in early 1900, against the advice of her physician, who didn't believe she would survive the trip. Not only did she survive the trip to Phoenix, but she lived almost another 60 years, passing away at the age of 90. With only twelve dollars to her name, Miss Lulu founded the hospital in a downtown apartment building. She believed that Phoenix needed a new hospital, a hospital where all persons suffering from a physical disability, regardless of sex, color, race, religious belief or economic circumstances could receive quality care.

In 1917, Miss Lulu and her supporters were able to get a square block of donated property along McDowell Road, where the hospital still stands today. The hospital opened in 1923, with room for 105 patients and five operating rooms. It even had a special obstetrical delivery unit and Arizona's first incubator. In 1928, the hospital's name was changed to Good Samaritan Hospital.

Over the years, Banner Good Sam has undergone incredible growth to keep pace with the surrounding community. Along the way, the facility has also recorded a number of Arizona firsts, including the first: Open heart surgery (1947), Graduate Medical Education program (1951), Post-anesthesia recovery room in Arizona (1954), Kidney transplant (1969), Liver transplant (1983) and artificially conceived quadruplets (1986). Banner Good Sam continues to be a leader in innovation, as well as quality outcomes and excellent patient care, remaining true to Miss Lulu's vision.

In 1978, Banner Good Sam broke ground on a 12-story, 770 bed hospital tower. Each of its floors had 60 beds distributed in 15-bed clusters around a nurses' station. The building's modern architecture made the tower a Phoenix icon. The expansion also made Banner Good Sam the state's largest hospital and gave room for its growing programs in cardiology, orthopedics and trauma. Today, Banner Good Sam is a 663 bed state-of-the-art medical center, offering a full spectrum of medical services and some of the state's most specialized healthcare programs, including:

- Behavioral Health
- Cancer Care
- Emergency Care/Trauma Services
- Gastroenterology
- Geriatrics
- Heart Care
- Maternity Fetal Medicine
- Maternity Services/Women's Health

- Medical Imaging
- Neurosciences
- Orthopedics
- Plastic & Reconstructive Surgery
- Poison & Drug Hotline
- Rehabilitation
- Surgical Care
- Transplant Services
- Wound Care

In 2012, the hospital served nearly 40,000 inpatients, delivered close to 5,500 babies, performed approximately 14,600 surgeries and provided emergency/trauma care to nearly 64,000 patients. Additionally, the physician practices experienced well over 100,000 patient visits, including 7,000 outpatient behavioral health visits.

Banner Good Sam is a recognized and accredited teaching hospital, training more than 250 physicians each year, many of whom continue to practice in Arizona once their residencies are completed. With the wide range of specialized services Banner Good Sam provides, residents are able to receive a solid academic foundation in major medical areas, as well as specialties not available in most hospitals. A cornerstone of the medical education program is the hands-on training provided in specialty centers on the campus of Banner Good Sam. These clinics are managed by knowledgeable, highly-skilled faculty physicians, many of whom are recognized in their fields, who provide direct patient care and deliver valuable training to resident physicians. As a nonprofit, many of the specialty centers offer a sliding-scale fee structure to qualifying patients. Each center is on the campus of Banner Good Sam, which is convenient if a patient require admission or additional diagnostic testing. The centers include: Behavioral Health, Family Medicine, Internal Medicine, Palliative Care and Women’s Health.

The Banner Good Samaritan Behavioral Health Center provides comprehensive mental health services for adults and older adolescents. The center includes a 22-bed adult inpatient unit, as well an outpatient clinic. The outpatient clinic is a key provider of high-quality mental and behavioral health services for the central Phoenix area and is staffed through Banner Good Sam’s fully accredited Psychiatry Residency Training Program. In addition to accepting most insurance plans, a financial assistance program for qualified, uninsured patients wishing to receive treatment through the Residents’ Outpatient Clinic is available.

Banner Good Sam also has one of the largest cancer programs in Arizona, offering patients state-of-the-art inpatient and outpatient services, advanced detection and treatment tools and a range of support services. Banner Good Sam has been accredited by the American College of Surgeons as a Teaching Hospital Cancer Program and has earned national recognition for surgical treatment of liver, pancreatic and bile duct cancers. Further, the Radiation Oncology department at Banner Good Sam offers the most diverse array of treatments in Arizona, including the only program in Arizona that provides radioembolization for liver tumors; the fourth largest radioembolization center in the country. Additionally, the program is one of only a handful of hospitals in Arizona to offer intensity modulated

radiation therapy (IMRT). These programs are cutting edge and aimed at delivering precision treatment to the tumor, limiting damage to the surrounding tissue and cells.

In 1999, Banner Good Sam opened the Laura Dreier Breast Center; a comprehensive breast cancer center that offers advanced care in a soothing environment. Recognizing that many patients juggle work, family and health, the Laura Dreier Breast Center offer early morning and Saturday hours in an attempt to meet the needs of their patients and increase access to needed services. The “Reaching Out: Laura Dreier Breast Health” program was also established. The program educates women about the latest breast disease prevention, early detection and treatment information and has helped hundreds of women with little or no insurance get mammograms and breast-cancer treatment.

Banner Good Sam’s Plastic and Reconstructive Surgery Center, the largest of its kind in metro Phoenix, is dedicated to providing high-quality care for your reconstructive needs. The center helps patients with issues related to reconstructive surgery including those resulting from cancer treatment, surgeries or those inherent since birth and specializes in complex cases.

Banner Good Sam opened the Newborn Intensive Care Unit (NICU) in 1964; responding to a community need, the hospital also hired the state’s first neonatologist to care for premature babies. When Banner Good Sam opened the NICU, Arizona went from 40<sup>th</sup> in infant mortality to 5<sup>th</sup> within ten years. Always a leader in obstetrics, today Banner Good Sam also offers the latest in maternal fetal monitoring through the Maternal Fetal Center. Services range from basic fetal testing to complex therapeutic procedures, including identification of the need to perform fetal surgery while the baby is still in the womb and the ability to provide comprehensive care to the families of developing babies diagnosed with a congenital defect. It’s not surprising that parents travel from around the world to access Banner Good Sam’s high-risk obstetrics services. Banner Good Sam has delivered more high order multiples – triplets, quadruplets and quintuplets – than any other facility in the world.

Banner Good Sam also opened a five-story rehabilitation institute in 1964, the largest of its kind in Arizona. The Banner Good Sam Rehabilitation Institute is now a 63-bed facility that serves patients through all phases of the rehabilitation process. Whether addressing orthopedic needs, stroke, spinal cord trauma or acquired brain injuries, the institute provides an array of specialized programs designed to treat even the most adverse injuries and conditions. The Banner Good Samaritan Rehabilitation Institute also partners with several diagnosis-related organizations, including the Arizona Spinal Cord Injury Association, American Stroke Association, ALS Association (Lou Gehrig’s disease), the Neuropathy Association and American Parkinson’s Disease Association, to ensure patients have access to and assistance coordinating additional support, education and counseling services.

Since performing the first kidney transplant in Arizona in 1969, more than 3,200 kidney patients have benefited from this life-saving procedure. The transplant programs have grown to include liver, pancreas and kidney-pancreas transplants. The Banner Good Samaritan Transplant Center is Arizona’s oldest and most experienced transplant center and receives patient referrals from across the western United States. In 2007, Banner Good Sam began an innovative paired-kidney exchange program.

The Cavanagh Heart Center at Banner Good Samaritan is a leader in making sure metro Phoenix hearts are healthy, offering basic cardiac care to technologically advanced treatments such as the left ventricular assist device(LVAD), for heart patients who have run out of basic treatment options. Founded in 2004, the Cavanagh Heart Center encompasses cardiac catheterization labs, non-invasive heart care diagnosis, surgical and non-surgical heart care treatment, intensive care, telemetry, cardiac rehabilitation and research and is conveniently located near the hospital's Emergency, Trauma, Surgery and Medical Imaging departments. The Cavanagh Heart Center was created by Harry J. Cavanagh's friends and family gift to honor his legacy in the community: Cavanagh was a Phoenix-area philanthropist, civic leader and lawyer.

Banner Good Sam is also known for their comprehensive Neuroscience Clinic, which brings together an award-winning staff that includes physicians, therapists, and nurses who specialize in providing the most comprehensive outpatient care for patients and their families living with debilitating conditions such as ALS, epilepsy, multiple sclerosis, Parkinson's, peripheral neuropathy and stroke. The Neuroscience Clinic has provided excellent patient care since opening in 2000 and is a certified center of excellence for ALS and a certified Peripheral Neuropathy Center. Additionally, the comprehensive Parkinson's disease and movement disorders program is partnered with the Arizona chapter of the American Parkinson's Disease Association (APDA) and includes an Information and Referral Center for APDA. Banner Good Sam is also a certified Primary Stroke Center and excels in providing inpatient and outpatient care for stroke patients, as well as those suffering from a transient ischemic attack (TIA).

Given the growing number of individuals who suffer from concussions each year, currently estimated at 3.8 million, Banner opened the Banner Concussion Center on the Banner Good Sam campus. The Banner Concussion Center's comprehensive approach to concussion care includes concussion awareness and education program; baseline and post injury neurocognitive, vestibular, balance and visual integration testing. The team of expert caregivers is experienced in the diagnosis and management of concussion, and includes a readily accessible panel of subspecialists with experience in caring for people with post-concussion syndrome and other concussion complications. The multi-disciplinary research team collaborates to research all facets of mild traumatic brain injury and then works to educate parents, coaches and athletes how to recognize the signs and symptoms of concussion and what the appropriate steps that health care providers should take in the prevention, diagnosis and management of concussion. This is one of the most imperative issues sports medicine specialists are faced with today and the experts at the Banner Concussion Center strive to serve as the catalysts for change and the premier resource for the prevention, recognition and treatment of mild traumatic brain injury (mTBI).

Banner Good Sam also provides the highest level of trauma care possible -- Level I Trauma Services. This means that 24 hours a day, seven days a week a team of specially trained medical professionals is standing by to treat a trauma patient. Banner Good Sam is one of eight centers in Arizona to have specially trained trauma surgeons, trauma anesthesiologists and trauma-only operating suite available around the clock.

Like other Banner Health hospitals, Banner Good Sam leverages the latest medical technologies to ensure safer, better care for patients. Physicians document patient care in electronic medical records,

which they can access remotely. 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.

Banner Good Sam is also home to the Simulation Education and Training (SimET) Center, which allows physicians, residents, nurses and first responders to work with the latest virtual reality simulators and robotic mannequins that breathe, code, bleed and even speak to explain their symptoms. In this way our staff can perfect new techniques and be prepared to recognize signs of rarely occurring complications.

With the vast array of medical experts, specialty programs and commitment to quality outcomes and excellent patient care, it is not surprising that Banner Good Sam has distinguished itself in many ways, both locally and nationally. Some of the most recent distinctions include:

- **Magnet™ Hospital:** the highest honor a hospital can earn for its nursing care and practices. The Magnet Recognition Program® is a prestigious designation to recognize health care organizations for nursing excellence. Banner Good Sam has held this distinction since 2005.
- **Ranked #1 hospital in Arizona and #1 hospital in the Phoenix Metropolitan area in 2012,** by *U.S. News & World Report*. Within the various specialty areas, Banner Good Sam ranked in the Top 50 programs for Diabetes and Endocrinology, Cardiology and Heart Surgery, Geriatrics and Nephrology. Over the past 15 years, Banner Good Sam has been included in *U.S. News & World Report's* ranking as one of America's Best Hospitals 13 times and consecutively for the past 7 years.
- **Top kidney transplant center in the United States,** by *Konnectology*. Banner Good Sam was awarded this prestigious designation out of 246 transplant centers across the United States.
- **"Get With the Guidelines Stroke Gold Performance Achievement Award"**, by the American Stroke and American Heart Associations.
- **Named as one of 2011's "Best Places to Work"** in the Phoenix Metropolitan area, by *Phoenix Business Journal*.
- **Named as one of 2009's "Top 100 Hospitals to Work For"** in the nation, by *Nursing Professionals* magazine.
- **Phoenix Magazine's Top Docs:** About 40 percent of the physicians listed in this prestigious survey of local physicians, by local physicians, are on the medical staff at Banner Good Sam.
- **Internal Medicine residency program, "Educational Innovations Project":** Accreditation Council for Graduate Medical Education awarded a ten-year accreditation cycle to the Banner Good Sam program. Only 17 of 450 Internal Medicine teaching programs received this level of accreditation.
- **LIVESTRONG®:** Livestrong Community Impact Project awarded grant to Palliative Care Program.
- **Delta Group's CareChex Study:**
  - Cavanagh Heart Center: Ranked #1 hospital for Interventional Coronary Care in Arizona
  - Cavanagh Heart Center: Ranked among the top 10% of heart hospitals in the U.S.
  - Cancer Care program ranked #3 in Arizona
  - Cancer Care program ranked in top 10% of U.S.

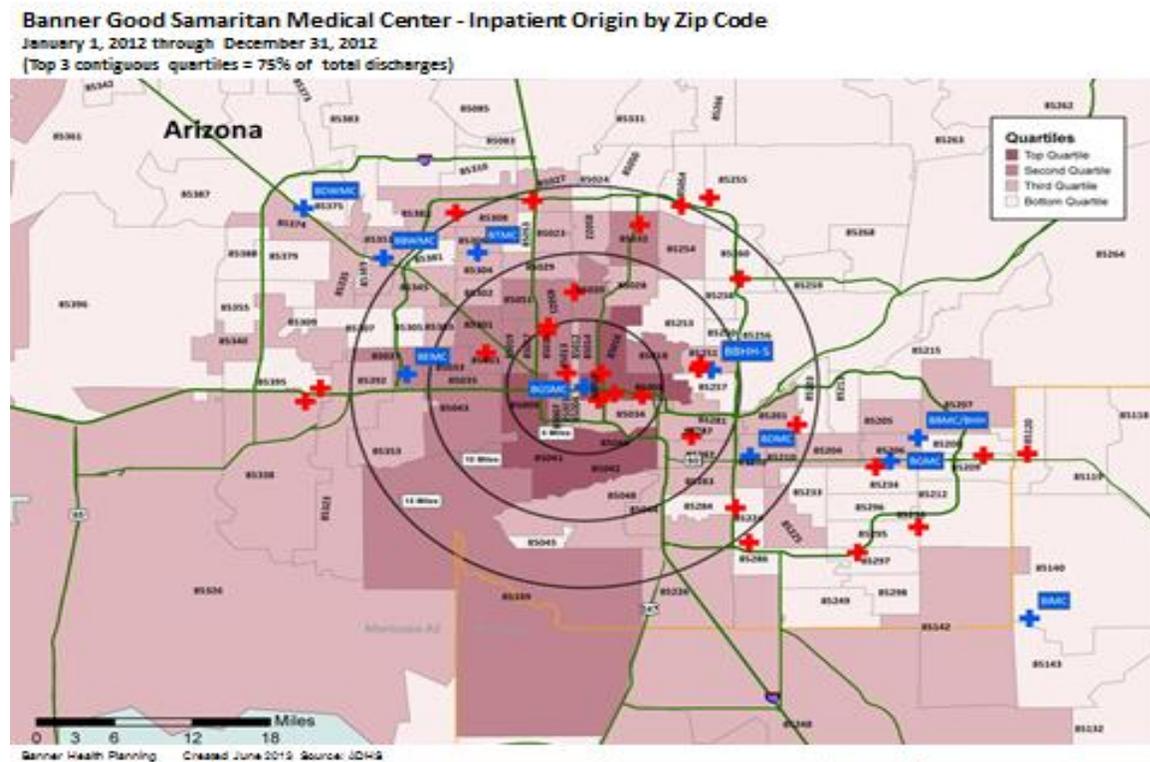
- **IBCLC Care Award:** For excellence in breastfeeding support activities by highly skilled staff certified by the International Board Certified Lactation Examiners.
- **Annual Rural Health Care Association Conference (2007):** Trauma surgeon Corey Detlefs, MD, and his team received an award for their commitment to Arizona rural health care.
- **March of Dimes Nurse of the Year 2007-Military: Deborah Lehker, RN, BSN,** Banner Good Sam Wound Care, U.S Air Force Reserves.
- **Healthcare Hero 2007: Deborah Lehker, RN, BSN,** Banner Good Sam Wound Care, U.S Air Force Reserves, has served two tours of duty in the Middle East, award given by *The Phoenix Business Journal*.
- **Healthcare Hero 2006: Charlie Thomas, MSW, Banner** Transplant Services, advocate for organ transplant patients, award given by *The Phoenix Business Journal*.
- **“Banner Good Samaritan is the most patient-preferred hospital in Phoenix.”** According to National Research Corp.

Other hospitals serving the metropolitan and surrounding areas within Maricopa County include: Banner Baywood Medical Center, Banner Heart Hospital, Banner Desert Medical Center, Banner Children’s at Cardon Medical Center, Banner Gateway Medical Center, Banner Behavioral Health Hospital, Banner Estrella Medical Center, Banner Thunderbird Medical Center, Banner Boswell Medical Center and Banner Del E. Webb Medical Center; St. Joseph’s Hospital and Medical Center, Chandler Regional Medical Center and Mercy Gilbert Medical Center (all owned and operated by nonprofit Dignity Health); John C. Lincoln Deer Valley Hospital and John C. Lincoln North Mountain Hospital (both owned and operated by nonprofit John C. Lincoln); Scottsdale Healthcare Osborn Medical Center, Scottsdale Healthcare Shea Medical Center and Scottsdale Healthcare Thompson Peak Hospital (all owned and operated by nonprofit Scottsdale Healthcare); Mayo Clinic Hospital (owned and operated by for-profit Mayo Clinic); Arizona Heart Hospital, Arizona Heart Institute, Arrowhead Hospital, Maryvale Hospital, North Peoria Emergency Center, Paradise Valley Hospital, Phoenix Baptist, West Valley Hospital and West Valley Emergency Center (all owned and operated by for profit Abrazo Healthcare), Kindred Hospital Arizona-Phoenix (owned and operated by for-profit Kindred Healthcare), THE Surgical Hospital of Phoenix (physician owned and operated), Los Niño’s Hospital (a for profit children’s hospital), Luke AFB USAF Hospital, Phoenix Indian Medical Center and VA Medical Center-Phoenix (owned and operated by the federal government), Arizona State Hospital (owned and operated by the State of Arizona) OASIS Hospital (a for profit hospital), Phoenix Children’s Hospital (a nonprofit children’s hospital), Valley Hospital (a private psychiatric hospital), Select Specialty Hospital (owned and operated by for profit Select Medical), Promise Hospital of Phoenix (xxx), St. Luke’s Medical Center and Tempe St. Luke’s Medical Center (owned and operated by for profit St. Luke’s Medical Center), Arizona Orthopedic Surgical Hospital (owned and operated by nonprofit Orthopedic Surgeons Network of Arizona and Western Regional Medical Center (owned and operated by for profit Cancer Treatment Centers of America).

## COMMUNITY DESCRIPTION

Banner Good Sam is located in Phoenix, Arizona, within Maricopa County. Phoenix, with a 2011 estimated population of almost 1.5 million, is the largest city in the state of Arizona, and the sixth most populous in the United States. According to the 2010 U.S. census survey, men slightly outnumber women, almost 90 percent of the population is either white or Hispanic and the median household income is \$48,596, 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 Phoenix is 20.3 percent. The percentage of individuals living beneath the poverty level in the U.S. is 12.4 percent.

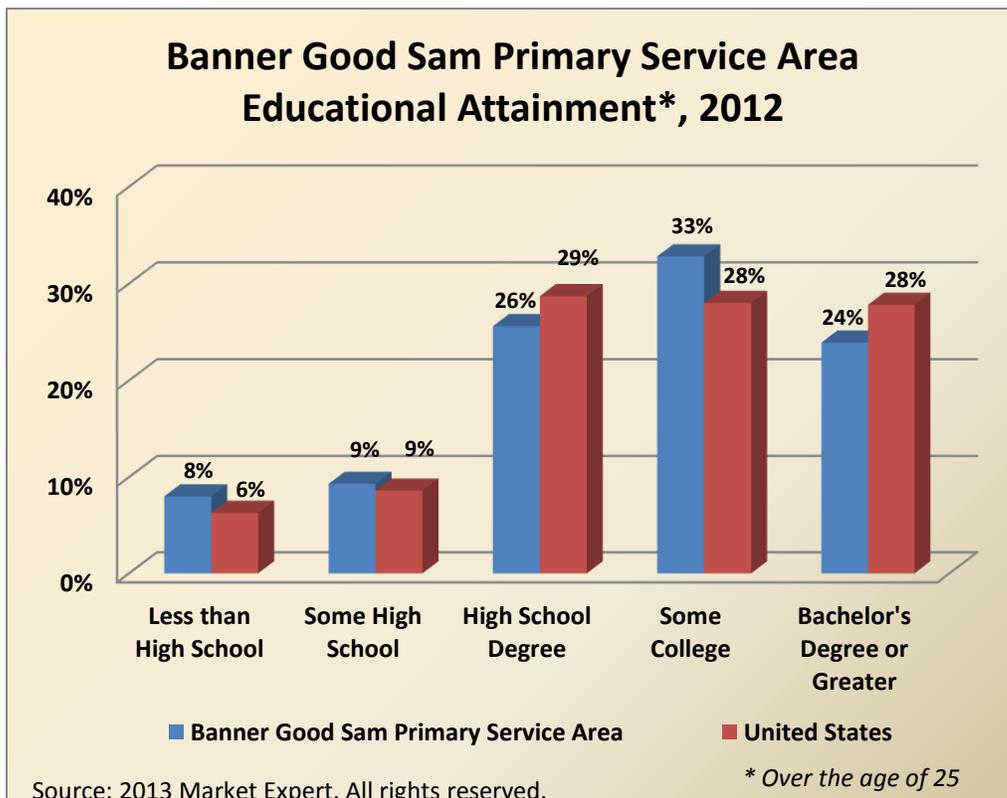
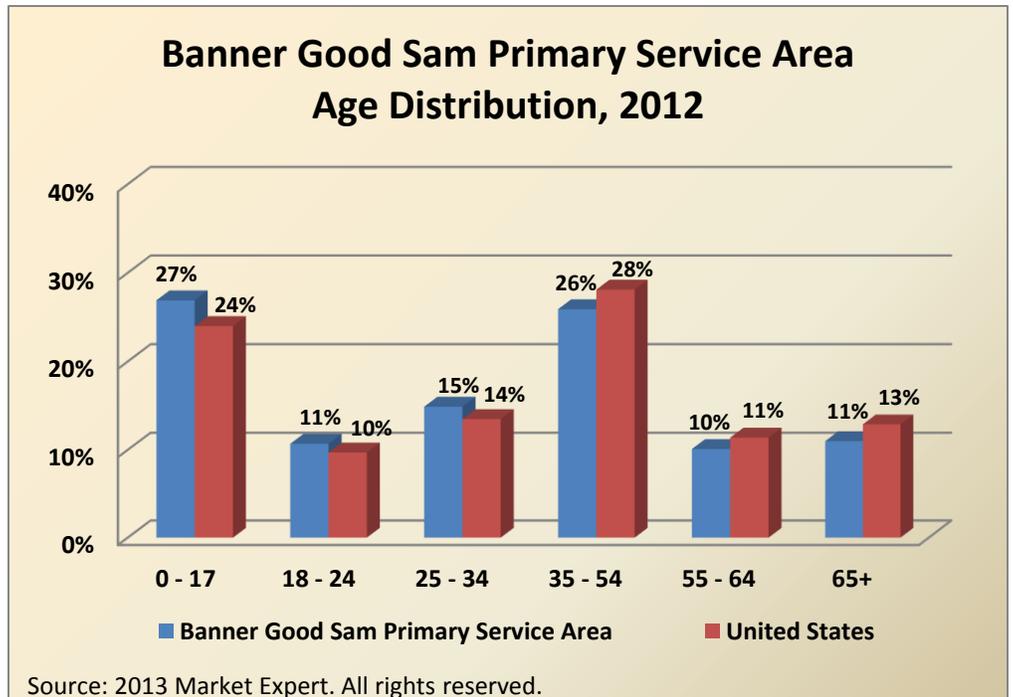
Given that Banner Good Sam is located in the heart of central Phoenix, it is not surprising that 53 percent of the primary service area pulls from zip codes within the city of Phoenix and that those zip codes comprise the top 27 percent of all of Banner Good Sam's inpatient cases for 2012, as reported by Truven Health Analytics Market Expert tool (Market Expert). The remainder of Banner Good Sam's primary service area is spread across the valley, with approximately 9 percent hailing from the East Valley (including Tempe, Mesa, Chandler, Queen Creek, Maricopa, Casa Grande and Scottsdale) and 13 percent from the West Valley (including Glendale, Peoria, Buckeye, Laveen, Tolleson, Avondale, Goodyear, Litchfield Park, El Mirage, Sun City, Surprise and Wickenburg). Banner Good Sam's primary service area is expected to continue to experience some growth, though slightly less than the state predictions, which isn't surprising given that a large part of the population draws from the interior of the metropolitan area where growth opportunities are more limited.



Within Banner Good Sam’s primary service area, the population is relatively evenly split between males and females, with females slightly outnumbering the males, 50.2 percent to 49.8 percent, respectively. Within the female population, 42 percent are of child-bearing age (15 – 44).

Banner Good Sam has a diverse age distribution, with the two largest age groups being the pediatric and adult (ages 35 to 54) populations. Based on the distributions, it would appear likely that families comprise the largest percent of Banner Good Sam’s primary service area.

Just over 20 percent of the population is age 55 or older.

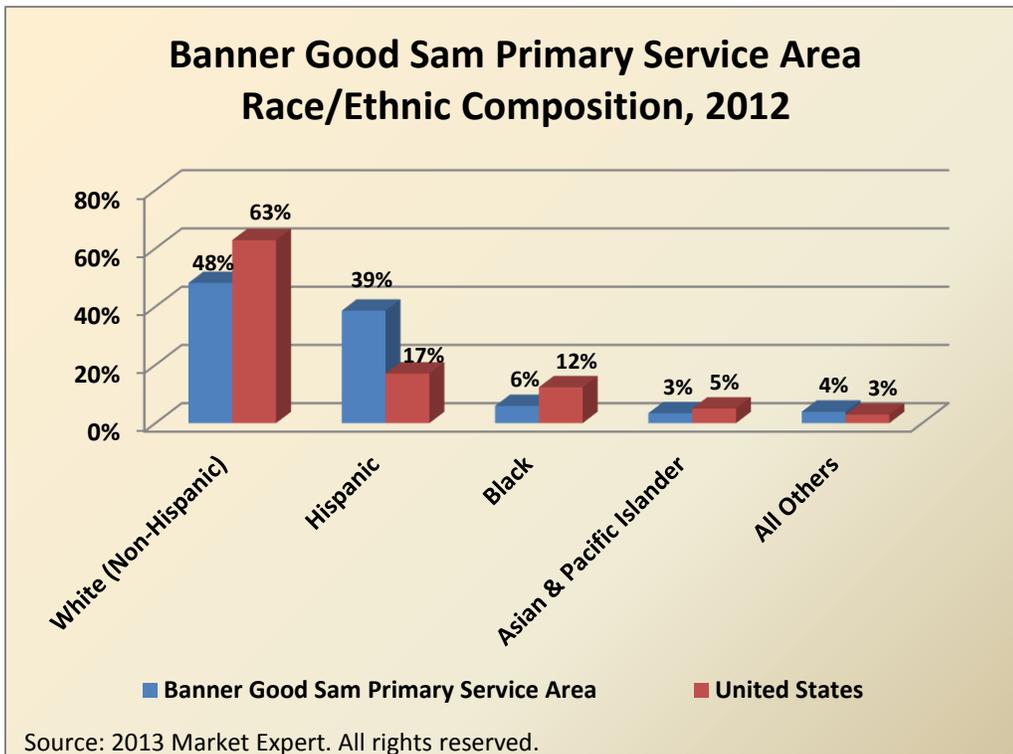
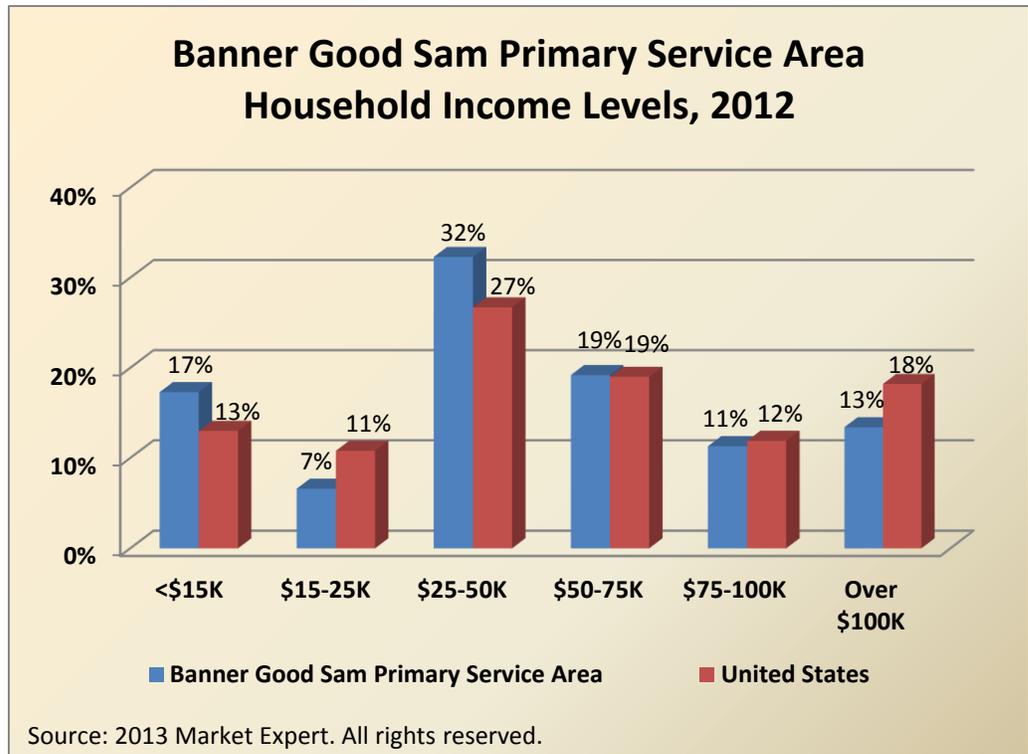


Eighty-three percent of the population, over the age of 25, has at least a high school education, which is just slightly below the national average (85 percent).

Interestingly, the percent of the population who have attended at least some college is actually on-par with the national average, 57 percent and 56 percent, respectively.

Forty-three percent of the population have 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.

Twenty-four 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 following closely, as the second largest ethnic group.

All other ethnicities, including the Black and Asian/Pacific Islander populations, account for only about 13 percent of the population, combined.

## COMMUNITY HEALTH NEEDS ASSESSMENT METHODOLOGY

Banner Good Sam'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 Banner Good Sam and its 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 Good Sam, 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 – Maricopa County, 2011 and 2012*
- *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, 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 Good Sam’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. 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:***

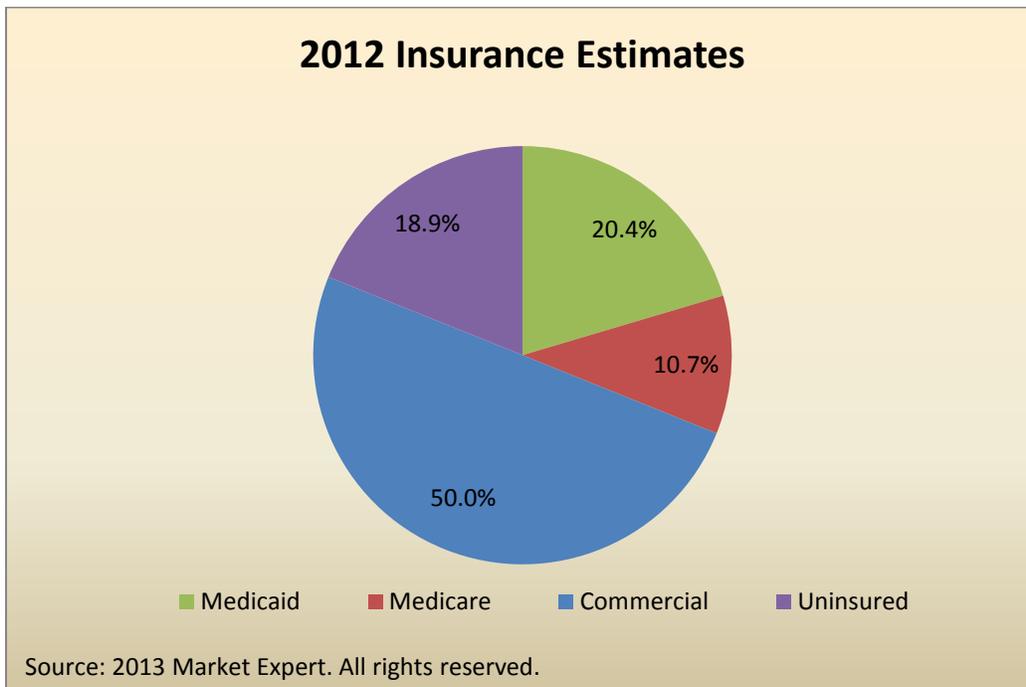
Upon the completion of Banner Good Sam’s needs assessment, a summary of findings was comprised for review by the steering committee, Banner Good Sam’s leadership team, Banner Health system Senior Management and the Banner Health Board of Directors. Needs assessments were then used to determine gaps in 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 Good Sam’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. 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 show that within Banner Good Sam’s primary service area, close to 19 percent of the population is uninsured; an additional 20.4 percent are on Medicaid. This is further illustrated in the graphic below.



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.

The CAC had considerable conversation around access to care, including the potential impact of the Affordable Care Act (ACA) and exchanges, access to insurance vs. access to care and care for the

uninsured/underinsured. While many in the system are gearing up to see more patients in anticipation of an increase in those with insurance, the consensus was that the impact may not be that great. The thought being that many individuals who are currently uninsured will not be highly motivated to buy into the exchanges, particularly the young and healthy. In addition, others will not fall under the ACA, including the large undocumented population within the community. In states, such as Massachusetts, where similar plans have rolled out, only about 65 percent have elected to participate and low income, ethnic minorities have been less likely to enroll. The CAC did agree that there will likely be somewhat of an increase in the insured population, which could in-turn result in an influx of patients who have previously put off getting care; however, for this population, there will likely still be barriers.

The CAC members did seem to agree that having access to insurance is one of the key drivers to having access to care; however, for many of those individuals there are still barriers to overcome, such as fear, language, financial resources, transportation and education/awareness. Additionally, the increase in individuals seeking appointments with a primary care provider (PCP) and particularly low cost clinics will likely further tax an already over-taxed system. The undocumented and homeless populations are also anticipated to continue to primarily seek treatment through the EDs.

Although there is some free health care for the uninsured population, those who are in need do not always know how to access the services and for those who do, the need often exceeds availability. Mission of Mercy currently has five clinics across the valley that function as mobile medical units. The goal is to keep patients out of the EDs; however, this effort needs to grow in order to accommodate the growing population, as many of the clinics are booked several weeks out and walk-in appointments are not readily available.

Even for those patients who are insured and may seek treatment from their PCP, many are unable to get into their physician within a timely fashion or are unable to go in during the traditional practice hours of operation, leaving the ED as their best, and sometimes only, option. Additionally, for some having insurance does not eliminate the financial barrier, as the co-pay and/or deductible for the visit to their PCP is more than they can afford; so, they are also pushed to seek treatment in the ED, where they know they will be seen regardless of ability to pay.

Banner Health's internal data show that a large percentage of uninsured and Medicaid outpatient ED visits in Banner Good Sam's service area are for primary care issues. Diagnosis groups with high volume of visits include upper respiratory infections (URI); abdominal pain/nausea; ear, nose and throat (ENT) infections; urinary tract infections (UTIs); pregnancy complications; abrasions/contusions/sprains; skin infections, flu/viral infections; GYN conditions; joint pain/inflammation and mental health.

Once patients are released from the ED, the follow-up care often becomes an issue, similar to the lack of access or barriers to receiving preventive, maintenance or lower acuity care. Mission of Mercy, in collaboration with Banner Health, is looking at how they can better partner with the local EDs to allow them to schedule follow-up appointments for patients in need of a low-cost/no cost follow-up care, prior to discharge.

Additionally, Phoenix Fire Department is partnering with the local hospitals to think outside the box and evaluate options, such as the fire department triaging the patients and as appropriate either treating them on-site or taking them to a clinic or urgent care where there are available time-slots.

MCDPH also shared the FindHealthPhx.org website with the group. It is a resource website that is oriented to both service providers and the community and highlights free and low cost resources within the community.

### **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 the leading cause of death in Maricopa County and was identified as the 3<sup>rd</sup> most important health problem chosen by community members in the CHNA conducted by MCDPH. 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.

According to the American Cancer Society, 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.

**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 7<sup>th</sup> 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. As 39 percent of Banner Good Sam's primary service area is comprised of those of Hispanic ethnicity, diabetes is a health issue of significant concern for this 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, high blood pressure and heart disease, is prevalent and a significant health concern within the community, and that obesity is central to so many of these conditions. According to Mission of Mercy, 54 percent of the patients they see are diabetic, and they have begun diagnosing children as young as seven with adult onset and morbid obesity. While treatment and education are both effective means for dealing with those who have been diagnosed with a chronic condition, the CAC agreed that prevention is paramount, including improving the environment so people feel safe and want to be active within their neighborhoods and having ready and affordable access to nutritional foods. For many, particularly those in lower income neighborhoods this is not the current reality. For the pediatric population, physical education is being cut in schools and recesses shortened; not only decreasing the level of physical activity afforded during the school day/week, but potentially sending the wrong message to children. The CAC also raised concerns with SNAP cards and the fact that not only can they be utilized to purchase unhealthy snack, but there is something of a black market, where by recipients can cash them out, for a price.

It was also recognized that there is a gap between post-care facilities and community resources to provide the full continuum of care. The hospitals are partnering with the Sub-acute Nursing Facilities (SNFs) and the Home Health agencies, but once they transition from the SNF or Home Health, that continuity is often lost.

The link between mental health, healthy foods and physical health was also raised; it was suggested that strategies should be aligned as closely as possible. The Centers for Disease Control and Prevention (CDC) also 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 management of chronic disease conditions more challenging. There was considerable discussion among the CAC that not only is there a need for greater integration of mental and physical health, but there simply are not adequate resources currently available for those who are suffering from mental health and/or substance abuse issues, particularly for the pediatric population.

### **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 11<sup>th</sup> 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 42<sup>nd</sup> 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 Maricopa County (15.4 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. Additionally, the rate within Maricopa County has consistently increased since 2005, with an overall 12.4 percent increase 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.

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.

Substance use is also an issue among the adolescent population in Maricopa County. According to the *Arizona Health Matters* database, in 2012, close to 28 percent of teenagers surveyed had used alcohol within the past 30 days and more than 14 percent had used 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 Maricopa County, approximately 18 percent of adults surveyed and 11.6 percent of teenagers surveyed smoke.

As previously mentioned, behavioral health concerns plague many within Banner Good Sam's primary service area, including being one of the most frequent diagnoses treated on an outpatient basis in the ED. According to the CAC, both mental health and substance abuse are significant health issues within the community. There simply are not adequate resources within the community to meet the needs; this is true across the spectrum, crisis services, outpatient treatment and long term care facilities. This is particularly an issue among the pediatric population, as the resources within the community are even more limited. Mission of Mercy is often asked by the schools if they provide behavioral health services, as this is such an area of need and many of the districts have been forced to cut back on the number of counselors within the schools.

As noted above, there is often a tie between an individual's mental and physical health and the ability to impact one, often has an impact on the other. For many, they are suffering from co-occurring conditions (mental/physical/substance abuse), particularly within the homeless population. This population often does not have the means for receiving treatment, including medication, for their psychiatric disorder and self-medicate through substance abuse.

### **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 Maricopa County, infant mortality has decreased slightly over the past few years and as of 2011 was 5.8 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 Maricopa County, the percent of low birth weight babies has remained 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 Maricopa 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 13 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 Maricopa 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 Maricopa County is exceeding 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. While Arizona ranks 39<sup>th</sup> out of the 50 states in Teen Birth Rate, Maricopa County is actually on par with the national average, and has shown a significant and steady decline since 2005. While not focused on prevention, Banner Good Sam does offer a comprehensive list of free and low cost childbirth and baby care classes, including classes specifically for teen moms.

Much of the pediatric population is not receiving preventive care, such as well child exams and immunizations; affordability and transportation seem to be two key reasons. MCDPH noted that immunizations have become an issue as they are no longer provided to insured patients at no cost; the co-pays are often more than the parents can afford. Therefore, this issue is not isolated to the uninsured population.

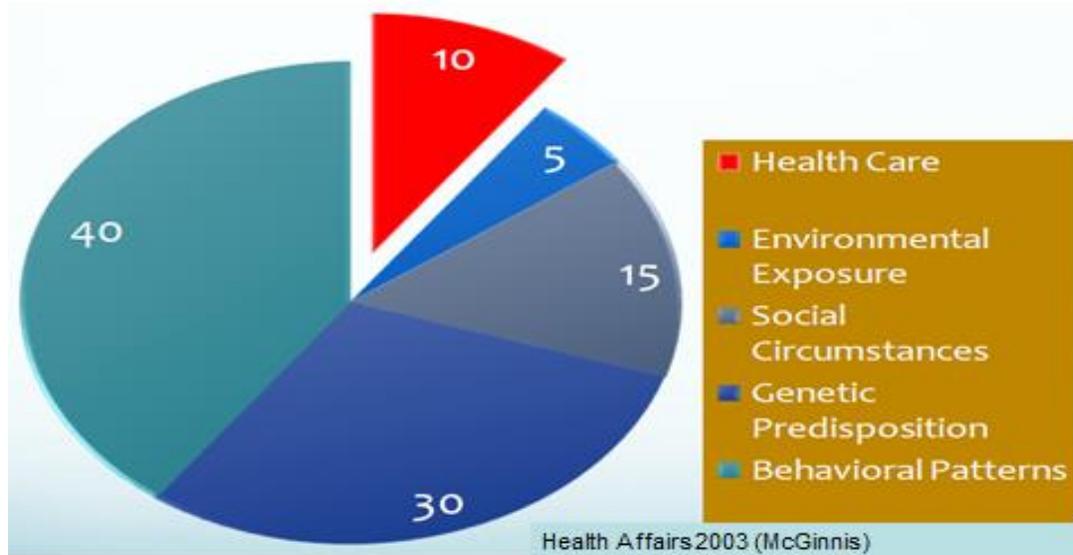
Also, as noted above, mental health, substance abuse, obesity, nutrition and reduced physical activity are things plaguing the pediatric population, and related programs are being cut, as a result of reduced funding. Additionally, many school districts no longer employ School Nurses, or have reduced the number they have and share them across the district. This often leaves the responsibility of caring for injuries/illnesses to the front office staff. Within Cartwright District, it was also noted that not only are additional programs, services and educational opportunities needed for the children, but also for the parents, as they often do not have the education/knowledge to appropriately care for themselves or their children.

Banner Health has a school-based health centers, with on-site nurse practitioners located in Chandler, Mesa and Glendale. They have also recently added a mobile unit which has set locations it travels to in San Tan Valley, Maricopa and Buckeye. The program provides primary care services to the uninsured and under-insured children. Unfortunately for some, transportation still poses a significant barrier to receiving the available services for their children.

### **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.

## Determinants of Health



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 disproportionately 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 Good Sam has a rich history of commitment to the community, including providing 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 Good Sam fulfills this community benefit through ongoing events and programs that cater to the health needs of the surrounding population. Banner Good Sam places great importance on the inclusion of uninsured and low-income individuals 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. Some examples include:

- 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 Neuro Wellness in Gilbert - Banner Neuro Wellness offers a “Safe Haven” of friendship, exercise, art, dance, education, and support. It is a state-of-the-art program complimentary to current medical treatments and therapies for individuals and families who are affected by Parkinson’s disease and other neurological conditions. Patients and families participating in Banner Neuro Wellness can enjoy a better sense of community, increased socialization and ultimately, a higher quality of life.
- The Banner Good Samaritan Poison and Drug Information Center offers a free 24-hour help line, which provides information about:
  - Poisons: first aid and treatment recommendations
  - Scorpion stings and other venomous/poisonous bites and stings
  - Adverse drug effects or problems with medications
  - Chemical exposures - household products, pesticides
  - Pill identification - drug information
  - Occupational health
  - Poison safety

The phone is answered by nurses or poison information providers specifically trained in handling poison emergencies. In 2012, Banner Good Samaritan Poison and Drug Information Center managed over 89,000 calls; close to 40 percent of the calls were able to be addressed without the caller having to leave their home. Surveys indicate that about 15,000 callers would have gone to their local ED if they had not been taken care of at home. This savings is estimated to be more than \$30 million in health care expenses.

Additionally, the toxicology physicians, nurses and education coordinator provided more than 75 lectures, presentations, workshops and participated in health fairs for the general public and medical community. In 2012, 80,000 education materials were distributed throughout Maricopa County to community groups and individuals.

- “Injury Prevention” program – Banner Good Sam’s Injury Prevention program provides assistance throughout Arizona to help keep people safe. Services include coordinating and participating in hospital, community and state safety events; planning injury-prevention activities and providing prevention education to patients, as well as hospital and community groups. The Injury Prevention Team travels throughout metro Phoenix and Arizona to provide information at health fairs, seat belt education programs, fall prevention workshops and programs for high school and elementary-school kids. Current initiatives include:

- **Fall Prevention:** More than one third of adults 65 and older fall each year in the U.S. and among older adults, falls are the leading cause of injury deaths. Banner Good Sam’s “Injury Prevention” program can provide free in-home checklists, resource list and workshops to help prevent falls. In addition to those services, the program participates on the Arizona Fall Prevention Coalition and Friends of Fall Prevention.
- **Brain Injury Referral:** Every 23 seconds, someone in the U.S. sustains a traumatic brain injury (TBI). Each year, TBIs contribute to a substantial number of deaths and cases of permanent disability. Banner Good Sam leads and participates in workshops to prevent brain injury. Upon discharge, patients at Banner Good Sam are provided with a referral to Brain Injury Association of Arizona for resources to help them in their recovery.
- **Battle of the Belt:** When surveyed, 13.4 percent of high school students said they rarely or never wear a seat belt when riding in a car driven by someone else. Banner Good Sam Trauma Services partners with St. Mary's High School for “Battle of the Belt,” a peer-driven safety belt education program for Arizona high school students. The program is presented by Arizona Injury Prevention Advisory Council. At the start of the program in November 2008, the seat belt usage at the high school was at 73 percent. Today the high school is at 83 percent seat belt usage on campus.
- Spirit of Women – a coalition of American hospitals committed to making good health easier for women and their families. As a Spirit of Women partner, Banner Good Sam provides opportunities for women and their families to learn more about their health get regular updates and be part of a community focused on well-being.
- A multitude of free support groups, including cancer, grief, maternity, orthopedics, rehabilitation, transplant and vestibular groups.

The total amount spent on charity care, community benefit and other financial assistance for patients at Banner Good Sam Medical Center for 2012 was \$45,646,356.

<b>Strategy #1: Increase access to preventive and maintenance care</b>
<b>Anticipated Outcome:</b> Reduce the use of the Emergency department for non-emergent care, as measured through Banner Good Sam’s outpatient ED utilization
<b>Tactics</b>
<ul style="list-style-type: none"> <li>● Partner with Mission of Mercy to fund and implement My Health Direct Healthcare Scheduling Exchange (HSE)</li> <li>● Promote participation in MyBanner (online patient portal)</li> <li>● Implement Patient Centered Medical Homes in the community (Banner Medical Group)</li> <li>● Offer extended hours for Primary Care Provider (PCP) clinics within Banner Medical Group</li> <li>● Partner with Hospital Patient Services to provide Medicaid enrollment assistance to self-pay patients</li> </ul>

<ul style="list-style-type: none"> <li>• Offer educational materials and links to community resources related to the insurance marketplace</li> </ul>
<ul style="list-style-type: none"> <li>• Promote both internal and external community resources that support preventive and maintenance care via the facility website</li> </ul>
<ul style="list-style-type: none"> <li>• Offer and participate in free health activities (e.g. screenings, health fairs, blood drives)</li> </ul>
<ul style="list-style-type: none"> <li>• Provide medication assistance, as appropriate</li> </ul>
<ul style="list-style-type: none"> <li>• Provide pediatric services to uninsured and underinsured families through the Banner HealthMobile and School-Based Clinics</li> </ul>
<p><b>Strategy #2: Identify the underlying causes for patients with regular, reoccurring visits to the Emergency department</b></p>
<p><b>Anticipated Outcome:</b> Reduce the frequency with which high-utilizer patients visit the Emergency department, as measured through Banner Good Sam’s ED utilization</p>
<p><b>Tactics</b></p>
<ul style="list-style-type: none"> <li>• Assign dedicated case managers to the Emergency department (ED) to support the discharge process and continuum of care</li> </ul>
<ul style="list-style-type: none"> <li>• Deploy case management services in the ambulatory setting to support the continuum of care</li> </ul>
<ul style="list-style-type: none"> <li>• Provide post-discharge scheduling of follow-up appointments and assist in arranging transportation, as appropriate</li> </ul>

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

Banner Good Sam 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. Banner Good Sam also presents regular free monthly “Ask the Expert” lectures on key health related topics.

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.

<b>Strategy #1: Engage the community in education on prevention, maintenance and taking a proactive approach to Chronic Disease Management</b>
<b>Anticipated Outcome:</b> 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
<b>Tactics</b>
<ul style="list-style-type: none"> <li>• 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</li> </ul>
<ul style="list-style-type: none"> <li>• Deploy a proactive case management approach and outreach for chronic disease patients within Banner Health managed population</li> </ul>
<ul style="list-style-type: none"> <li>• Develop a Chronic Disease webpage on the facility website to increase on-line educational opportunities and resource awareness</li> </ul>
<ul style="list-style-type: none"> <li>• Provide asthma screenings, education and medication to the pediatric population through the Banner HealthMobile</li> </ul>

**PRIORITY NEED #3: BEHAVIORAL HEALTH**

As previously noted, the Banner Good Samaritan Behavioral Health Center provides comprehensive mental health services for adults and older adolescents. The center includes both inpatient and outpatient programs, whose professional staff thoroughly evaluates and treats essentially all mental

illnesses, as well as the psychological aspects of complicated physical problems and seniors' special needs.

The secured Psychiatric Unit is a 22-bed adult inpatient unit. The inpatient program is available for those 18 years and older who require evaluation and treatment of acute and serious mental illnesses and provides thorough assessment and rapid stabilization of symptoms in a medically sophisticated and humanistic setting. Individualized treatment can include individual therapy, group therapy, family therapy, pharmacotherapies and concurrent treatment with primary care and other medical specialists, when indicated.

The outpatient clinic is a key provider of high-quality behavioral health services and is staffed through Banner Good Sam's fully accredited Psychiatry Residency Training Program. The outpatient clinic logs more than 7,000 visits annually, providing confidential and compassionate treatment to all of our patients. The trained professional staff provides thorough assessments and treatments including individual psychotherapy, medications, stress management and couple, family and group therapies. Some of the more common mental health conditions evaluated and treated at the outpatient clinic are:

- Mood disorders
- Anxiety disorders
- Psychotic illnesses
- Memory problems
- Emotional problems associated with physical illness
- Adjustment problems
- Interpersonal difficulties
- Co-dependency problems
- Post-traumatic stress disorders
- Grief and bereavement
- Sexual dysfunctions
- Eating disorders

In addition to accepting most insurance plans, a financial assistance program for qualified, uninsured patients wishing to receive treatment through the Residents' Outpatient Clinic is available.

Recognizing the shortage of psychiatrists in the valley, Banner Good Sam has remained committed to maintaining a strong Psychiatry Residency Program. There are currently about 20 residents in the program, which is fully accredited and meets all of the requirements for graduates to be eligible for the American Board of Psychiatry and Neurology (ABPN).

Also recognizing an increased need of services within our veteran population, the Banner Olive Branch Senior Center has partnered closely, even providing space on their campus, with Operation American Patriot (OAP). Through this partnership they have increased the psycho-social and behavioral health offerings to the veteran population across the valley, including crisis response, post-traumatic stress disorder (PTSD) programs and other rehabilitative programs.

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.

Additionally, 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.

<b>Strategy #1: Increase access to timely behavioral health assessments and services for those in crisis</b>
<b>Anticipated Outcome:</b> 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 Banner Good Sam's ED data
<b>Tactics</b>
<ul style="list-style-type: none"> <li>• Partner with Banner Psychiatric Center (BPC) to deploy telehealth services to patients presenting in the ED with mental health and/or substance abuse issues (this is a multi-year strategy)</li> </ul>
<ul style="list-style-type: none"> <li>• Partner with Banner Psychiatric Center (BPC) to access psychiatric telephone consults for patients presenting in the ED with mental health and/or substance abuse issues</li> </ul>
<ul style="list-style-type: none"> <li>• Partner with Operation American Patriot (OAP) to provide crisis support to veterans in the community</li> </ul>
<ul style="list-style-type: none"> <li>• Offer inpatient and intensive outpatient services</li> </ul>
<b>Strategy #2: Increase identification of behavioral health needs and access to early interventions</b>
<b>Anticipated Outcome:</b> 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
<b>Tactics</b>
<ul style="list-style-type: none"> <li>• Deploy depression screening tool in Primary Care Provider clinics and Pediatric Provider clinics within Banner Medical Group</li> </ul>
<ul style="list-style-type: none"> <li>• Create a webpage on the facility website that provides information, support and resources related to Mental Health and Substance Abuse issues</li> </ul>
<ul style="list-style-type: none"> <li>• Partner with Community Bridges to help align patients to available resources in the community</li> </ul>
<ul style="list-style-type: none"> <li>• Offer support groups</li> </ul>
<ul style="list-style-type: none"> <li>• Offer grief counseling through the Banner Olive Branch Senior Center</li> </ul>

#### Priority Need #4: Obesity/Nutrition/Physical Inactivity

Again, it is 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.

<b>Strategy #1: Engage the community in making healthy choices and maintaining a healthy lifestyle through education and awareness</b>
<b>Anticipated Outcome:</b> 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
<b>Tactics</b>
<ul style="list-style-type: none"><li>• Create a webpage dedicated to healthy living, including articles, tips, recipes, calendar of related events, links to internal and external resources</li></ul>
<ul style="list-style-type: none"><li>• Provide educational offerings around healthy living &amp; physical activity events (e.g. Ask the Expert and Day of Dance)</li></ul>
<ul style="list-style-type: none"><li>• Highlight healthy options offered in the cafeteria</li></ul>
<ul style="list-style-type: none"><li>• Partner with Maricopa County Department of Public Health to increase promotion of the WIC program</li></ul>
<ul style="list-style-type: none"><li>• Promote the importance of breastfeeding</li></ul>
<ul style="list-style-type: none"><li>• Partner with the FitKids program to promote healthy lifestyle choices and physical activity for kids and families within the community</li></ul>
<ul style="list-style-type: none"><li>• Provide free sports physicals through the Banner HealthMobile and School-Based Clinics</li></ul>

#### 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.

<b>Strategy #1: Increase community education and awareness around personal benefits to achieving and maintaining a healthy lifestyle free of tobacco</b>
<b>Anticipated Outcome:</b> 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

<b>Tactics</b>
<ul style="list-style-type: none"> <li>• 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</li> </ul>
<ul style="list-style-type: none"> <li>• Include a link to the ASHLine website from the Banner Healthy Living webpage</li> </ul>
<ul style="list-style-type: none"> <li>• Partner with the ASHLine to provide collateral materials for our patients</li> </ul>
<ul style="list-style-type: none"> <li>• Incorporate education around the risks and complications from tobacco use into the Healthy Living webpage</li> </ul>
<ul style="list-style-type: none"> <li>• Support a Tobacco Free campus</li> </ul>

There are also many other nonprofit and government agency partners in the community who are focused on improving the health of our community, such as Adelante Healthcare, American Academy of Pediatrics, Benevilla, Catholic Charities Community Services, Central Arizona Shelter Services, Circle the City, Community Bridges, first responders, First Things First, Jewish Family & Children’s Services, Maricopa County Department of Public Health, Mission of Mercy, Parkland Community Health Plan, school districts, Sojourner Center, St. Luke’s Health Initiatives 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.

**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 and the Maricopa County Department of Public Health, 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 need that was not prioritized, at this time, is:

***Community Infrastructure:*** The CAC indicated that a key need to help support and promote better nutrition and physical inactivity within the community, particularly the lower income neighborhoods include improving the environment so people feel safe and want to be active within their neighborhoods and having ready and affordable access to nutritional foods. Banner Health, and Banner Good Sam, will continue to partner with the state and county, as well as other nonprofit organizations within the community to better understand the issues and opportunities for collaboration around improving the environment and access to nutritional foods. However, at this time, we do not feel we are in a position to deploy specific strategies around these broader socio-environmental issues, though we recognize their importance and impact on the overall health of the community.

***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 Well-Child Exams and Immunizations.

In conjunction with labor & delivery services, Banner Good Sam 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. Additionally, there are other nonprofit organizations within the community that focus on prevention of teenage pregnancy and it is outside Banner Health's scope and expertise.

The implementation of Patient Centered Medical Homes, as well as the other strategies focused on improving access to care should also help assist with increasing parent's participation in well-child exams and immunizations, for all ages. Banner Health is very progressive in requiring that their employees receive the annual flu vaccine to ensure the safety of our patients, as well as our employees and their families.

## APPENDIX A – STEERING COMMITTEE MEMBERS

Banner Health CHNA Steering Committee, in collaboration with Banner Good Sam’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. Grasseti	Strategic Alignment Senior Director
Vince DiFranco	Chief Executive Officer, Banner Community Hospital – Torrington

## APPENDIX B – COMMUNITY ADVISORY COUNCIL

Banner Good Sam’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
American Academy of Pediatrics, AZ Chapter	Molly DeLeon, Manager Medical Services Project	Promotes and advocates for access to health care and health and well-being for children of all ages
Banner Good Samaritan Medical Center	Gayle Cassidy, Senior Associate Administrator	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Good Samaritan Medical Center	Tracie Crater, Social Worker MSW	Health care industry; hospital utilization trends; patient psycho-social needs and community resources
Banner Good Samaritan Medical Center	Davey Ellison, Associate Administrator	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Good Samaritan Medical Center	Cliff Loader, Chief Financial Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services;
Banner Good Samaritan Medical Center	Steve Narang, M.D., Chief Executive Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services
Banner Good Samaritan Medical Center	Kathy Singleton, Case Management Services Director	Health care industry; hospital utilization trends; discharge planning; patient psycho-social needs and community resources
Banner Good Samaritan Medical Center	Ursula Sobas-Gonzales, Nursing Director and Interim-Chief Nursing Officer	Health care industry; hospital management and utilization trends; clinical and ancillary services and chronic disease
Cartwright School District	Rebecca Osuna, Ed.D., Assistant Superintendent for Administrative Services	Pediatric and family needs, resources and trends, particularly for the lower income and minority populations within the community
Catholic Charities Community Services	Debbie DiCarlo, Director of Parish and Engagement	Free services and advocacy for those in need within the community,

<b>ORGANIZATION</b>	<b>NAME AND TITLE</b>	<b>AREA OF EXPERTISE/ ORGANIZATIONAL FOCUS</b>
		particularly the homeless, abused, children, refugees, impoverished and families
Central Arizona Shelter Services (CASS)	Katie Vandik, Housing & Supportive Services Manager	Provides shelter and supportive services to the valley homeless, including helping them to become self-sufficient and end their homelessness
Circle the City	Brandon Clark, Chief Administrative Officer	Provides step down healthcare to the homeless population as they transition out of the hospital setting
City of Phoenix Fire Department	John V. Gallagher, M.D., F.A.C.E.P, F.A.A.E.M., EMS Medical Director	Community needs and trends, particularly related to “emergent” health issues and contributing factors; medically underserved and homeless populations
City of Phoenix Fire Department	Todd Harms, Assistant Chief	Community needs and trends, particularly related to “emergent” health issues and contributing factors; medically underserved and homeless populations
City of Phoenix Police Department	Luis Samudio, Community Action Officer	Community needs, resources and trends; Medically underserved and homeless populations
City of Phoenix Police Department	Mark Tovar, Community Action Officer	Community needs, resources and trends; Medically underserved and homeless populations
First Things First	Karen Peifer, Ph.D., Senior Director of Children’s Health Programs	Early childhood needs, development and resources, including education, health care and family support; Public health programs and policy
First Things First	Christine Stein, Ph.D., Senior Program Specialist	Early childhood needs, development and resources, including education, health care and family support; Public health programs and policy
Jewish Family & Children’s Services	Carol Gottfried	Provides behavioral health and social services to children, families and adults of all ages
Maricopa County Department of Public Health	Mara de Luce Funke, Performance Improvement Coordinator	Public health trends, programs and policy; community needs, resources and partners
Mission of Mercy	Catherine Amiot, Executive Director	Free health care, dental care and prescription medications for uninsured, underinsured and those who fall through the cracks

<b>ORGANIZATION</b>	<b>NAME AND TITLE</b>	<b>AREA OF EXPERTISE/ ORGANIZATIONAL FOCUS</b>
Parkland Community Health Plan	Essen Out	Links the uninsured population to community programs, services and resources designed specifically for them
Sojourner Center	Stuart Lazar, Board of Director, Emeritus	Provides a temporary safe haven for families fleeing domestic violence, including basic living needs and counseling and support services
St. Luke's Health Initiatives	C.J. Eisenbarth, Associate Director Community Development	Informs, connects and supports efforts to improve the health of individuals and communities in Arizona, with a focus on policy, community development and capacity building
YMCA	Matt Sandoval, Vice President Community Initiatives	Works to strengthen the community, with a focus on youth development, healthy living and social responsibility

## APPENDIX C – PRIORITIZATION CRITERIA

The significant health needs identified through the Community Health Needs Assessment were prioritized based on the below criteria, which took into account the quantitative data, focus group discussion with the Community Advisory Council, discussions with the Maricopa County Department of Public Health 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