Community Health Needs Assessment

2019

Banner Health

Banner Behavioral Health Hospital

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EXECUTIVE SUMMARY

COMMUNITY HEALTH NEEDS ASSESSMENT BACKGROUND

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

Beginning in early 2016, the Banner Health CHNA Steering Committee in partnership with the Maricopa County Department of Public Health, and the Maricopa County Synapse coalition, a coalition of non-profit and federally qualified health care partners, worked collaboratively and conducted an assessment of the health needs of residents in Maricopa County, Arizona, as well as Banner Behavioral Health Hospital (BBHH) primary service areas (PSA). The CHNA process undertaken and described in this report was conducted in compliance with federal requirements.

COMMUNITY DESCRIPTION

The geographic area for this CHNA is Maricopa County, the common community for all partners participating in the Synapse coalition. Although the population served by BBHH Banner Behavioral in Arizona extends beyond the county line and the borders of the state, most of our patients are located within Maricopa County. The remaining percentage of BBHH Banner Behavioral patients are from the remaining zip codes in Arizona, the surrounding states of the Southwest and a smaller, yet significant number of international patients.

Maricopa County is the fourth most populous county in the United States. With an estimated population of 4 million and growing, Maricopa County is home to well over half of Arizona's residents. Maricopa County encompasses 9,224 square miles, includes 27 cities and towns, as well as the whole or part of five sovereign American Indian reservations. Maricopa County is ethnically and culturally diverse, home to more than 1.2 million Hispanics (30% of all residents), 216,000 African Americans, 157,000 Asian Americans, and 77,000 American Indians. According to the U.S. Census Bureau, 12% percent of the population does not have a high school diploma, 17% are living below the federal poverty level, and over 530,000 are uninsured[i].

Assessment, Process and Methods

The ACA requirements are mirrored in the Public Health Accreditation Board's (PHAB) standard mandating that health departments participate in or conduct a community health assessment every three to five years. Federally funded community health centers must also ensure their target communities are of high need. The similar requirements from IRS, PHAB, and the federally funded health center requirements put forth by the United States Department of Health and Human Services provide an opportunity to catalyze stronger collaboration and better shared measurement systems among hospitals, health centers, and health departments. Additionally, limited resources for comprehensive health assessments and the move toward new population health models have created the need for an organized, collaborative public-private approach for conducting assessments. As a result, Banner Health, Adelante Healthcare, Dignity Health, Mayo Clinic Hospital, Native Health, and Phoenix Children's Hospital have joined forces with Maricopa County Department of Public Health to identify the communities' strengths and greatest needs in a coordinated community health needs assessment. In addition, Banner Health has established assessment guidelines for each of its hospitals 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.

Summary of Prioritization Process

As part of conducting this assessment, health needs were identified through a combined analysis of secondary data and community input. The process of conducting this assessment began with a review of over 100 indicators to measure health outcomes and associated health factors of Maricopa County residents. The indicators included demographic data, social and economic factors, health behaviors, physical environment, health care, and health outcomes. Based on the review of the secondary data, a consultant team developed a primary data collection guide used in focus groups which were made up of representatives of minority and underserved populations.

As part of the process for evaluating community need, a Banner Health CHNA Steering Committee was formed. This committee, which was commissioned to guide the CHNA process, was comprised of professionals from a variety of disciplines across the organization. This steering committee has provided guidance in all aspects of the CHNA process, including development of the process, development of assessment tools, and prioritization of the significant health needs identified and development of the

implementation strategies, anticipated outcomes and related measures. A list of the steering committee members can be found in Appendix B.

Participants in the CHNA process include members of Banner Health's leadership teams, public health experts, community healthcare partners and representatives, and consultants. The CHNA results have been presented to the leadership team and board members to ensure alignment with the system-wide priorities and long-term strategic plan. The CHNA process facilitates an ongoing focus on collaboration with governmental, nonprofit and other health-related organizations to ensure that members of the community will have greater access to needed health care resources.

SUMMARY OF PRIORITIZED NEEDS

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

1. ***Access to Care:*** Access to affordable, quality health care is important to physical, social, and mental health. In 2016, 28 million Americans younger than age 65 were uninsured, nearly a 16 million decrease since 2013[ii]. However, for the first time since the implementation of the Affordable Care Act (ACA), the number of uninsured increased by more than half a million in 2017[iii]. Even under the ACA, many uninsured people cite the high cost of insurance as the main reason they lack coverage. Maricopa County community members and key informants overwhelmingly felt that access to care is an important issue for the community. When residents in the BBHH PSA were asked, what was the most important "Health Problem" impacting their community, access to care was their top concern. Fifteen percent of Maricopa County community survey respondents indicated they had no health insurance coverage in 2016 and according to the 2017 Behavioral Risk Factor Surveillance Survey (BRFSS), 12.6% of Arizonians have no health insurance and 16.3% of Maricopa County respondents indicated they do not have health care coverage.

2. ***Behavioral Health (Substance Abuse / Depression / Behavioral Health):*** Behavioral Health and mental health are terms often used interchangeably to refer to a range of health conditions which are each distinct yet co-occurring and overlapping. In Maricopa County, mental health was ranked as the most important health problem impacting the community by key informants. This was echoed by participants in focus groups who believed mental health was one of top health issues impacting community residents. Rates for overall mental health emergency department visits, non-drug induced mental disorders (Schizophrenic disorder, delusional disorder, manic or

bipolar disorder, major depressive disorder, persistent mood disorder, anxiety disorder, PTSD, dissociative and conversion disorder, dementias, delusional disorders, personality disorders, adjustment disorders), inpatient hospitalizations, mood and depressive disorders, and suicide have increased from 2016 to 2017[iik]. Substance abuse and mental health disorders are closely linked and affect people from all different backgrounds and all age groups. Both affect the health of the individual and community at large.

3. ***Chronic Disease Management:*** Chronic diseases such as heart disease, cancer, chronic lower respiratory disease, and diabetes are leading causes of death and disability in the United States, Arizona, and Maricopa County. Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain cancers are also leading causes of preventable, premature death. In 2015, 4.2 million people in Arizona had at least 1 chronic disease and 1.6 million had 2 or more chronic diseases[iv]. Cancer is a leading cause of death burden in Arizona with an average of 85 new diagnosis a day[v]. In 2017, it was the second leading cause of death in Maricopa County and number one in BBHH primary service area[vi]. Heart disease is the second leading cause of death in Arizona, causing nearly 1 in every 4 deaths[vii] and is the number one leading cause of death in Maricopa County and second in the BBHH primary service area (PSA)[viii]. These diseases affect the health and quality of life of Maricopa County residents and are leading drivers of health care costs.

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

INTRODUCTION

PURPOSE OF THE CHNA REPORT

The purpose of this Community Health Needs Assessment (CHNA) is to identify and prioritize significant health needs of the community served by Banner Behavioral Health Hospital (BBHH). The priorities identified in this report help to guide the hospital's ongoing community health improvement programs and community benefit activities. This CHNA report meets requirements of the Affordable Care Act (ACA) that nonprofit hospitals conduct a CHNA at least once every three years.

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

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

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

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

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

ABOUT BANNER HEALTH

Headquartered in Phoenix, Arizona, Banner Health is one of the nation's largest nonprofit health care systems and is guided by our nonprofit mission: "Making health care easier, so life can be better." This mission serves as the cornerstone of operations at our 28 acute care facilities located in small and large, rural and urban communities spanning 6 western states. Collectively, these facilities serve an incredibly

diverse patient population and provide more than $113M annually in charity care – treatment without expectation of being paid. As a nonprofit organization, we reinvest revenues to add new hospital beds, enhance patient care and support services, expand treatment technologies, and maintain equipment and facilities. Furthermore, we subsidize medical education costs for hundreds of physicians in our residency training programs in Phoenix and Tucson, Arizona and Greeley, Colorado.

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

While we have the experience and expertise to provide primary care, hospital care, outpatient services, imaging centers, rehabilitation services, long-term acute care and home care to patients facing virtually any health conditions, we also provide an array of core services and specialized services. Some of our core services include: cancer care, emergency care, heart care, maternity services, neurosciences, orthopedics, pediatrics and surgical care. Specialized services include behavioral health, burn care, high-risk obstetrics, Level 1 Trauma care, organ and bone marrow transplantation and medical toxicology. We also participate in a multitude of local, national and global research initiatives, including those spearheaded by researchers at our three Banner- University Medical Centers, Banner Alzheimer's Institute and Banner Sun Health Research Institute.

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

ABOUT BANNER BEHAVIORAL HEALTH HOSPITAL

For nearly 40 years, Banner Behavioral Health Hospital (Banner Behavioral) in Scottsdale, Arizona, has provided nationally recognized, behavioral health care programs for children, teens and adults faced with psychiatric or chemical dependency challenges. Since opening its doors in 1980, the hospital has remained dedicated to providing safe, confidential and compassionate care. Located in central Scottsdale, Banner Behavioral offers a wide range of services for adults and adolescents who need help with psychiatric and addiction issues, including:

- Assessment and Intake Department operating 24 hours a day, 7 days a week

- Inpatient treatment programs, including Dialectical Behavioral Therapy and many other therapeutic modalities
- Detoxification and Medicated-Assisted Treatment
- Exercise and recreational therapy options, including a pool, a multi-use sport court, and an indoor gymnasium.
- Neurostimulation outpatient clinic on site providing ECT and Transcranial Magnetic Stimulation
- Intensive Outpatient Programs operated in Chandler and Scottsdale
- Banner Academy (formerly the Howard S. Gray School) located in Tempe

The staff of 38 physicians and allied health professionals, alongside 378 employees, provide personalized care, complemented by leading technology from Banner Health and resources directed at preventing, diagnosing and treating behavioral health illnesses, including substance use disorders. On an annual basis, Banner Behavioral' s team of professionals provide care for more than 40,000 patient days and see 7,100 admissions to the inpatient unit and provide care during 5,500 outpatient visits.

Funds have also been designated to support our veterans and first responders to meet their treatment needs.

Banner Health's hospital-based health services offer a safe and structured setting where patients can get the highest level of care. With 156 beds, including the recent construction of a 96-bed tower (with all private rooms), Banner Behavioral is Banner's largest inpatient behavioral health facility. Disorders treated within the inpatient setting include depression, bipolar illness, thought disorders, mood disorders, anxiety disorders, dual diagnosis, and chemical dependency. In addition to the inpatient services, Banner Behavioral also offers behavioral health outpatient care for adults and teens in a variety of settings and formats. When appropriate, patients are referred to an Intensive Outpatient Program, designed to avert crisis and make the transition from a hospital setting to the home setting as smooth as possible. All programs stress family involvement, when appropriate, and are designed to help the patient and family acquire new coping skills.

Banner Behavioral continues to earn recognition for its commitment to quality care both internally and externally.

Banner Behavioral, as part of the larger Behavioral Health Service Line, continues to work with Banner's many emergency departments to expand its innovative Telepsychiatry program that allows patients and Emergency physicians to consult with a psychiatrist via a secured telemedicine link. The Telepsychiatry program is aimed at addressing a national shortage of psychiatric services, as well as streamlining the care behavioral health patients receive in the ED. Services have been expanded to include consultation for pediatric patients in rural areas of the state that would otherwise not have ready access to psychiatric care.

The Banner Academy is another unique offering that is administered by Banner Behavioral. This accredited school has provided excellent education to emotionally fragile children, and those with autism and

Asperger's syndrome, for more than 30 years. The school, located in Tempe, AZ, provides a safe and nurturing place for children with special behavioral needs to thrive.

The program is specially designated for students from the 5th through the 12th grades and includes academics, adaptive physical education and life-skill courses to help prepare students for adulthood and often post-secondary education. The school is nationally accredited by Advanced ED and approved by the Arizona Department of Education. The aim of the program is to help adolescents develop their intellect, self-discipline, and self-esteem. Many of the students graduate with a high school diploma or GED.

To help meet the needs of the uninsured and underinsured community members, Banner Behavioral follows the Banner Health process for financial assistance, including financial assistance and payment arrangements. A strong relationship with the community is a very important consideration for Banner Health. Giving back to the people we serve through financial assistance is just one example of our commitment. In 2018, Banner Behavioral reported $1.7 million in Charity Care for the community, while $2.7 million dollars that were owed to the facility were written off as a bad debt.

DEFINITION OF COMMUNITY

The geographic area for this CHNA is Maricopa County, the common community for all partners participating in the Synapse coalition collaborative. However, primary service area (PSA) information for BBHH will also be provided when available. The Banner Behavioral Health Hospital PSA includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations.

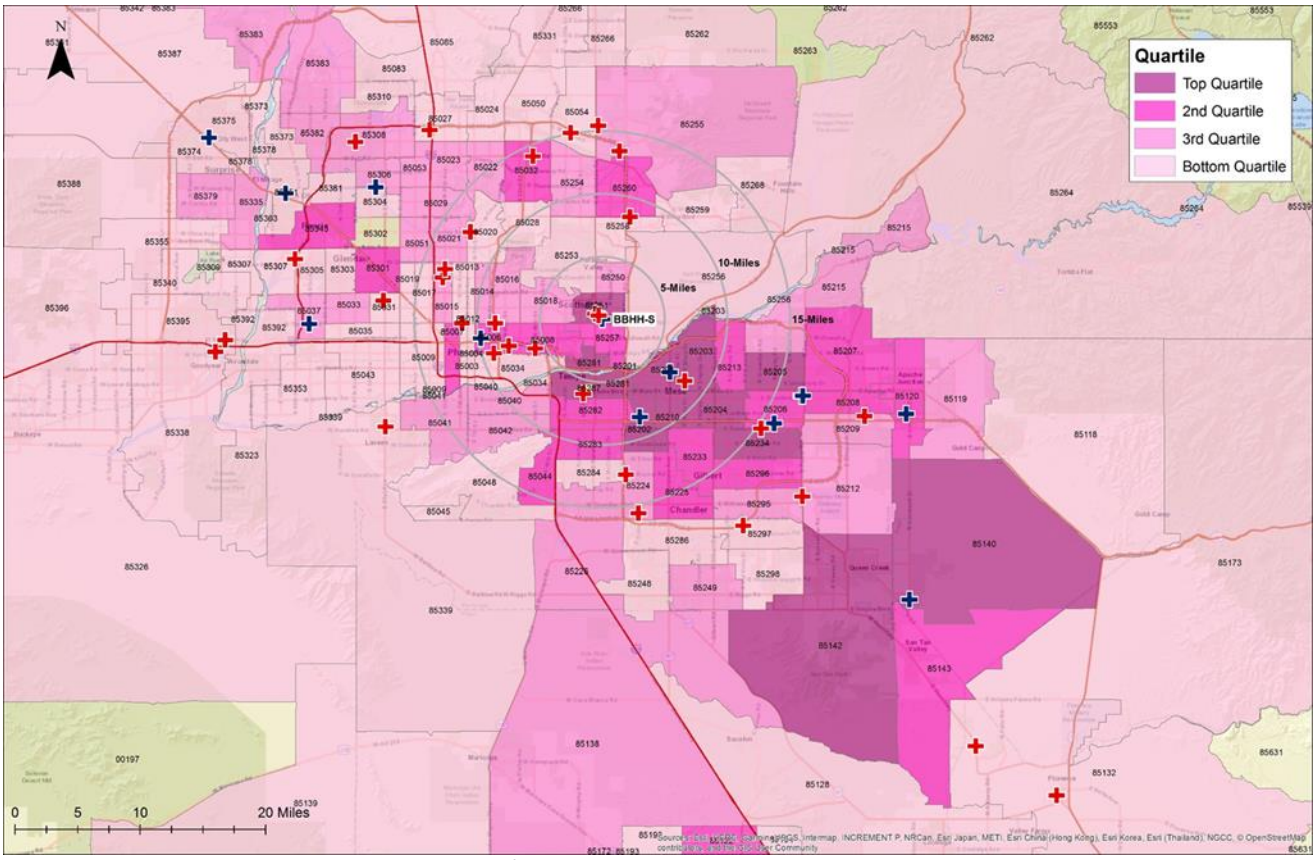
DESCRIPTION OF COMMUNITY

Maricopa County is the fourth most populous county in the United States. With an estimated population of four million and growing, Maricopa County is home to well over half of Arizona's residents. Maricopa County encompasses 9,224 square miles, includes 27 cities and towns, as well as the whole or part of five sovereign American Indian reservations.

Banner Behavioral Health Hospital (BBHH) is located is Scottsdale, Arizona within Maricopa County. The Banner Behavioral PSA includes the zip codes making up the top 75% of total patient cases. Eight percent of BBHH pulls from zip codes within the city limits of Scottsdale, as reported by McKesson (2018) Banner's Cost Accounting / Decision Support Tool. The remainder of the PSA pulls from Mesa, Phoenix, Gilbert, Cave Creek, Tempe, Chandler, Glendale, Peoria, Alahambra, Ahwatukee, Sun City and Surprise.

BANNER BEHAVIORAL HEALTH HOSPITAL -- INPATIENT ORIGIN BY ZIP CODE

January 1, 2018 through December 31, 2018 (Top 3 contiguous quartiles = 75% of total discharges)



Source: McKesson (2018) Banner's Cost Accounting / Decision Support Tool

COMMUNITY DEMOGRAPHICS

Maricopa County is ethnically and culturally diverse, home to 4.1 million individuals with a 71.6 percent White population, approximately 1.2 million Hispanics (30.6% of all residents), 211,930 African Americans, 162,064 Asian Americans, and 62,332 American Indians. According to the U.S. Census Bureau, 12.9% percent of the population does not have a high school diploma, and 4.3% are unemployed. According to the United States Census, the County had a 15% increase in population from 2010 to 2018ix.

For more than 30 years, Banner Behavioral Health Hospital (BBHH) has provided a nationally recognized, behavioral health care program for children, teens and adults faced with psychiatric, behavioral health, or chemical dependency challenges in the Phoenix metro area. BBHH provides safe, confidential and compassionate treatment with customized treatment plans to meet each patient's needs. BBHH also provides outpatient services in Chandler and North Scottsdale, Arizona.

Table 1. Banner Behavioral Health Hospital (BBHH) PSA, Maricopa County and Arizona Resident Demographics

	BBHH PSA	Maricopa County	Arizona
Population: 2017	2,673,777	4,155,501	6,809,946
Gender			
• **Male**	49.6%	49.5%	49.7%
• **Female**	50.3%	50.5%	50.3%
Age			
• **0 to 9 years**	13.6%	13.6%	13.1%
• **10 to 19 years**	13.7%	13.8%	13.5%
• **20 to 34 years**	22.1%	21.2%	20.6%
• **35 to 64 years**	37.2%	37.3%	36.7%
• **65 to 74 years**	7.9%	8.2%	9.4%
• **75 years and over**	5.6%	5.9%	6.7%
Race			
• **White**	59.9%	56.3%	55.6%
• **Asian/Pacific Islander**	3.9%	3.9%	3.0%
• **Black or African American**	4.6%	5.1%	4.1%
• **American Indian/Alaska Native**	1.6%	1.5%	3.9%
• **Other/Unknown**	2.5%	2.4%	2.3%
Ethnicity			
• **Hispanic**	27.6%	30.6%	30.9%
Social & Economic Factors			
• **Median Household Income**	$46,365	$58,580	$53,510
• **Uninsured**	12.20%	12.3%	12.2%
• **No HS Diploma**	6.1%	12.9%	13.5%
• **Unemployment**	5.9%	4.3%	5.0%

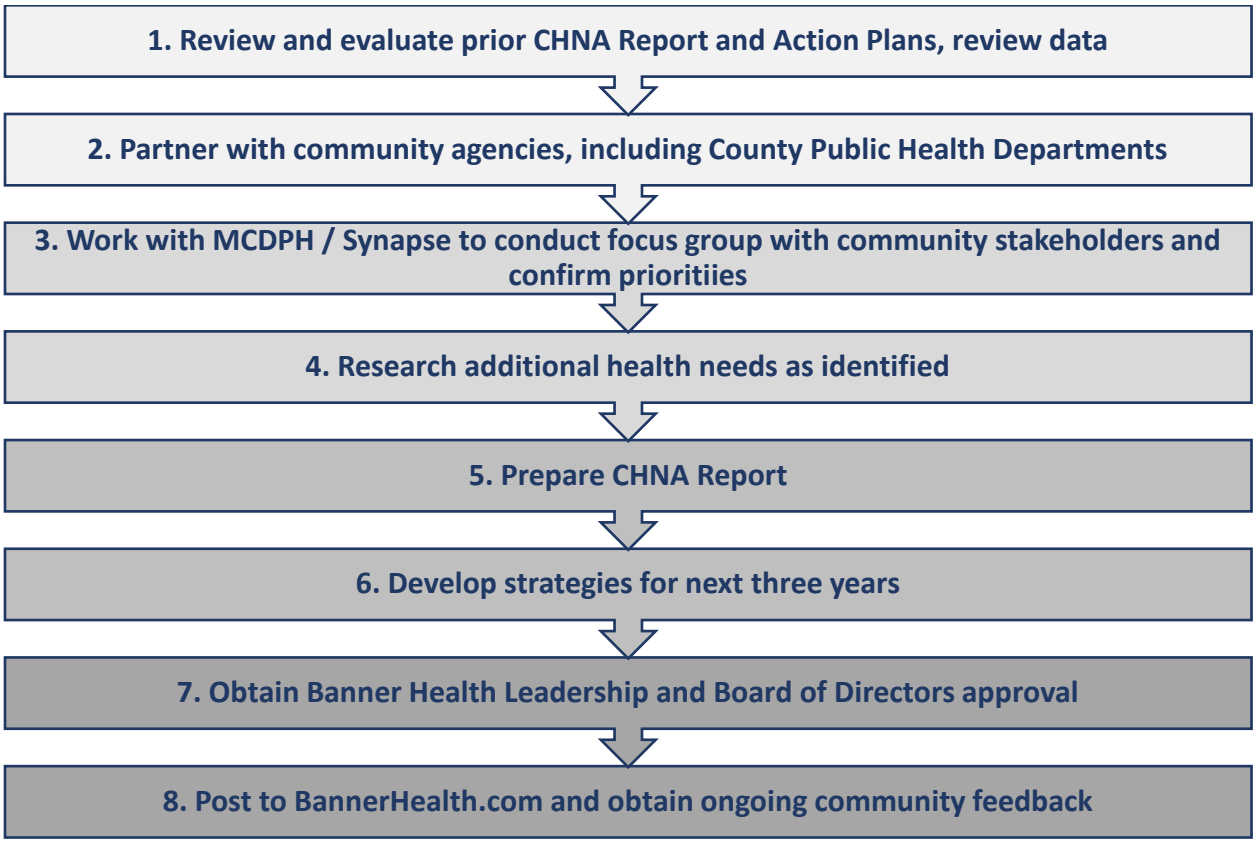
Source: Census, ACS, 2017

PROCESS AND METHODS USED TO CONDUCT THE CHNA

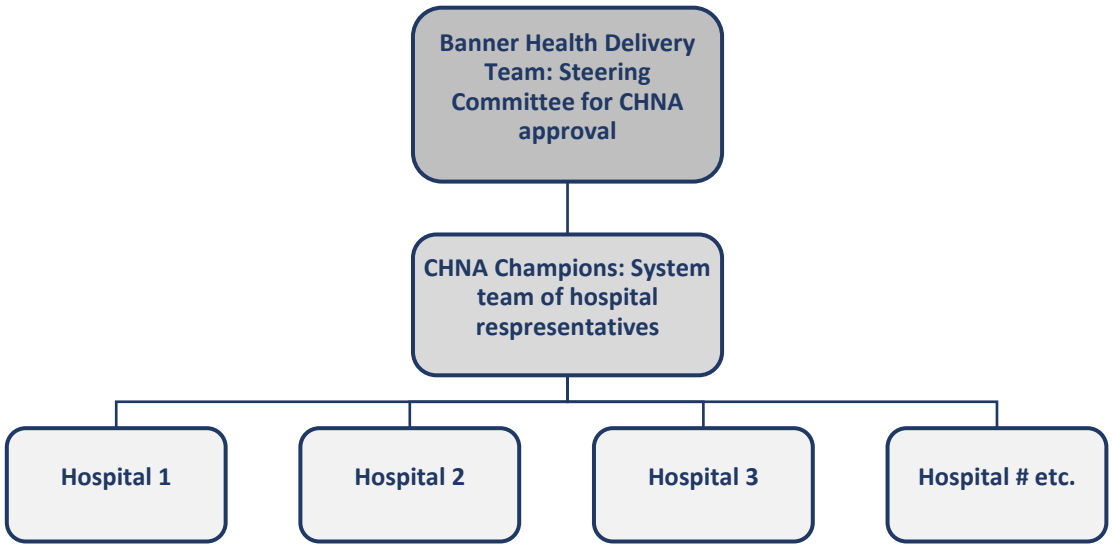
The Affordable Care Act (ACA) requirements are mirrored in the Public Health Accreditation Board's (PHAB) standard mandating that health departments participate in or conduct a community health assessment every three to five years. Other PHAB standards require health departments to conduct a comprehensive planning process resulting in a community health improvement plan and implement strategies to improve access to health care. Federally funded community health centers must ensure their target communities are of high need and address the shortage of health services that are occurring within these communities. The similar requirements from IRS, PHAB, and the Federally funded health center requirements put forth by the United States Department of Health and Human Services provides an opportunity to catalyze stronger collaboration and better shared measurement systems among hospitals, health centers, and health departments. Additionally, limited resources for comprehensive health assessments and the move toward new population health models have created the need for an organized, collaborative public-private approach for conducting assessments.

Maricopa County hospitals and health centers play significant roles in the region's overall economy and health. In addition to providing safe and high-quality medical care, these institutions work to improve regional health through programs that promote health in response to identified community needs. Additionally, health care partners are often serving the same or portions of the same communities across Maricopa County. As a result, Adelante Healthcare, Banner Health, Dignity Health, Mayo Clinic Hospital, Native Health, and Phoenix Children's Hospital have joined forces with Maricopa County Department of Public Health (MCDPH) to identify the communities' strengths and greatest needs in a coordinated community health needs assessment.

BBHH's eight step process based on our experience from previous CHNA cycles is demonstrated below. Our process involves continuous review and evaluation of our CHNAs from previous cycles, through both the action plans and reports developed on a three-year cycle. Through each cycle Banner Health, Banner Behavioral, and the Synapse Coalition has been able to provide consistent data to monitor population trends.



BANNER HEALTH CHNA ORGANIZATIONAL STRUCTURE



PRIMARY DATA / SOURCES

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

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

SECONDARY DATA / SOURCES

BBHH process for conducting CHNA leveraged a multi-phased approach to understanding gaps in services provided to the community, as well as existing community resources. The CHNA utilized a mixed-methods approach that included the collection of secondary or quantitative data from existing data sources and community input or qualitative data from focus groups, and meetings with internal leadership. The advantage of using this approach is that it validates data by cross-verifying from a multitude of sources.

Many of the challenging health problems facing the United States in the 21st century require an understanding of the health not just of individuals but also of communities. The challenge of maintaining and improving community health has led to the development of a "population health" perspective[x]. Population health can be defined as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group[xi]." A focus on population health implies a concern for the determinants of health for both individuals and communities. The health of a population grows directly out of the community's social and economic conditions as well as the quality of its medical care. As a result, the CHNA utilized a community health framework for this report to develop criteria for indicators used to measure health needs.

Synapse partners selected approximately 100 data indicators to help examine the health needs of the community (Appendix A). These indicators were based on the Center for Disease Control and Prevention's (CDC) Community Health Assessment for Population Health Improvement: Most Frequently Recommended Health Metrics report[xii]. While this report does not identify the specific indicators that should be utilized, it does specify the categories of information that should be considered.

The following five data categories describe the type of health factor and health outcome indicators utilized in the CHNA (See Table 2):

- ***Health Outcomes*** include: morbidity, which refers to how healthy people are by measuring disease burden and quality of life (e.g. obesity rates, asthma incidence, and low birth weight babies, etc.); and mortality, which measures causes of death by density rates (e.g. cancer mortality, motor vehicle deaths, etc.);
- ***Health Care*** includes access, which refers to factors that impact people's access to timely, affordable clinical care (e.g. primary care physicians, number of federally qualified health centers, etc.); and health insurance coverage;
- ***Health Behavior*** refers to the personal behaviors that influence an individual's health either positively or negatively (e.g. breastfeeding, physical activity, eating fruits and vegetables, etc.). This also includes delivery, which measures clinical care being delivered to the community (e.g. rate of preventive screenings, ambulatory care sensitive discharges, etc.);
- ***Demographics and Social Environment*** describe the population of interest by measuring its characteristics (e.g. total population, age breakdowns, limited English proficiency, etc.). Unlike other categories, demographic indicators are purely descriptive and not generally compared to benchmarks or viewed as positive or negative. This category also includes measures of social status, educational attainment, and income, all of which have a significant impact on an individual's health and;
- ***Physical Environment*** measures characteristics of the built environment of a community that can impact the health of that community either positively or negatively (e.g. parks, grocery stores, walkability, etc.)

Table 2. Health Factor and Health Outcome Indicators

Health Outcome Metrics		Health Determinants and Correlated Metrics			
Mortality	***Morbidity***	***Access to Healthcare***	***Health Behaviors***	***Demographics & Social Environment***	***Physical Environment***
Leading Causes of Death	Hospitalization Rates	Health Insurance Coverage	Tobacco Use/Smoking	Age	Air Quality
Infant Mortality	Obesity	Provider Rates	Physical Activity	Sex	Water Quality
Injury-related Mortality	Low Birth Weight	Quality of Care	Nutrition	Race/Ethnicity	Housing
Motor Vehicle Mortality	Cancer Rates		Unsafe Sex	Income	
Suicide	Motor Vehicle Injury		Alcohol Use	Poverty Level	
Homicide	Overall Health Status		Seatbelt Use	Educational Attainment	
	STDs		Immunizations & Screenings	Employment Status	
	Communicable Diseases			Language Spoken at Home	

Source CDC's Community Health Assessment for Population Health Improvement: Most Frequently Recommended Health Metrics

Quantitative data used in this report are high quality, population-based data sources and were analyzed by MCDPH, Office of Epidemiology. Data came from local, state, and national sources such as the Maricopa County Department of Public Health, Arizona Department of Health Services, Arizona Criminal Justice Commission, U.S. Census Bureau, U.S. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System survey, and Youth Risk Behavior survey.

Additionally, Banner BBHH considered the top five leading causes of death for Maricopa County and its PSA in the secondary data review (Table 3). While there are slight variations between the County and BBHH PSA, overall the causes of death are similar, but differ in ranking. Additional tables below show the causes of death by race/ethnicity (Table 4).

Table 3. Top 5 Leading Causes of Death for Maricopa County & Banner Behavioral Health Hospital (BBHH) (2017)

Rank	Maricopa County	BBHH
1	Cardiovascular Disease	Cancer
2	Cancer	Cardiovascular Disease
3	Chronic Lower Respiratory	Chronic Lower Respiratory
4	Alzheimer's	Alzheimer's
5	Unintentional Injury	Unintentional Injury

Source: Maricopa County Hospital Discharge Data (2017) from ADHS, analysis performed by Maricopa County

Table 4. Top 3 Leading causes of Death by Race/Ethnicity for Maricopa County & BBHH PSA (2017)

Rank	Population: White	
	Maricopa County	**BBHH**
1	Cancer	Cardiovascular Disease
2	Cardiovascular Disease	Cancer
3	Chronic Lower Respiratory	Chronic Lower Respiratory
Rank	**Population: Hispanic**	
	Maricopa County	**BBHH**
1	Cancer	Cancer
2	Cardiovascular Disease	Cardiovascular Disease
3	Unintentional Injury	Stroke

Rank	Population: Black	
	Maricopa County	**BBHH**
1	Cancer	Cancer
2	Cardiovascular Disease	Cardiovascular Disease
3	Unintentional Injury	Stroke
Rank	**Population: American Indian**	
	Maricopa County	**BBHH**
1	Unintentional Injury	Diabetes
2	Liver Disease	Stroke
3	Cancer	Unintentional Injury
Rank	**Population: Asian**	
	Maricopa County	**BBHH**
1	Cancer	Cancer
2	Cardiovascular Disease	Cardiovascular Disease
3	Stroke	Chronic Lower Respiratory

Source: Maricopa County Hospital Discharge Data (2017) from ADHS, analysis performed by Maricopa County

ADDITIONAL PRIMARY DATA

Focus Groups

A series of 36 focus groups with medically underserved populations across Maricopa County were conducted between September 2015 and June 2016. Focus groups helped to identify priority health issues, resources, and barriers to care within Maricopa County through a community-driven process known as Mobilizing for Action through Planning and Partnership (MAPP). The focus group process moved through five phases: (1) initial review of literature; (2) focus group discussion guide development; (3) focus group recruitment and securement; (4) focus group collection; and (5) report writing and presentation findings.

Members of the community representing subgroups, defined as groups with unique attributes (race and ethnicity, age, sex, culture, lifestyle, or residents of an area in Maricopa County), were recruited to participate in focus groups. A standard protocol was used for all focus groups (See Appendix A) to understand the experiences of these community members as they relate to accessing health care, health disparities and chronic disease. In all, a total of twelve focus groups were conducted with 127 community

members from the following groups: (1) older adults (50-64, 65-74, 75+ years of age); (2) adults without children; (3) adults with children; (4) American Indian adults; (5) Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) adults; (6) African American adults; (7) Hispanic/Latino adults (English); (8) adults with children (Spanish); (9) low socio-economic status adults (Spanish), and (10) young adults (18-30 years of age), (11) adult males (Spanish), (12) adult females (Spanish), (13) Caregivers, and (14) Asian American adults.

Content analysis was performed on focus group interview transcripts to identify key themes and salient health issues affecting the community residents. The most common problem identified was access to care. Specific barriers discussed includes lack of transportation, high cost of doctor visits, high deductibles, unexpected or complicated bills from insurance, and a perceived lack of cultural competency and respect from providers. Participants also identified mental health, substance abuse, and community safety as important issues. Additionally, American Indian and African American participants felt diabetes was a significant health concern for their community.

Recommended prevention strategies for health improvement discussed amongst the participants included:

- More educational resources and opportunities, especially for children.
- Improved access to physical fitness facilities and activities.
- Access to healthy food, nutrition information.
- Access to healthcare for special populations (e.g. the elderly, disabled, Native Americans, LGBTQ, and children), shortened wait times for medical appointments, affordable medical transportation services, and additional ADA accessible buildings.
- Cultural Competency, being mindful of cultural issues especially in Spanish speaking communities.
- More trained healthcare system community workers, navigators, advocates, and aides.
- Improved affordability services, lower the cost of insurance, copays, and specialists, sliding scale fees.

The list of questions presented to the focus groups and the organizations that participated in the focus groups can be found under Appendix A.

COMMUNITY HEALTH ASSESSMENT & KEY INFORMANT SURVEYS

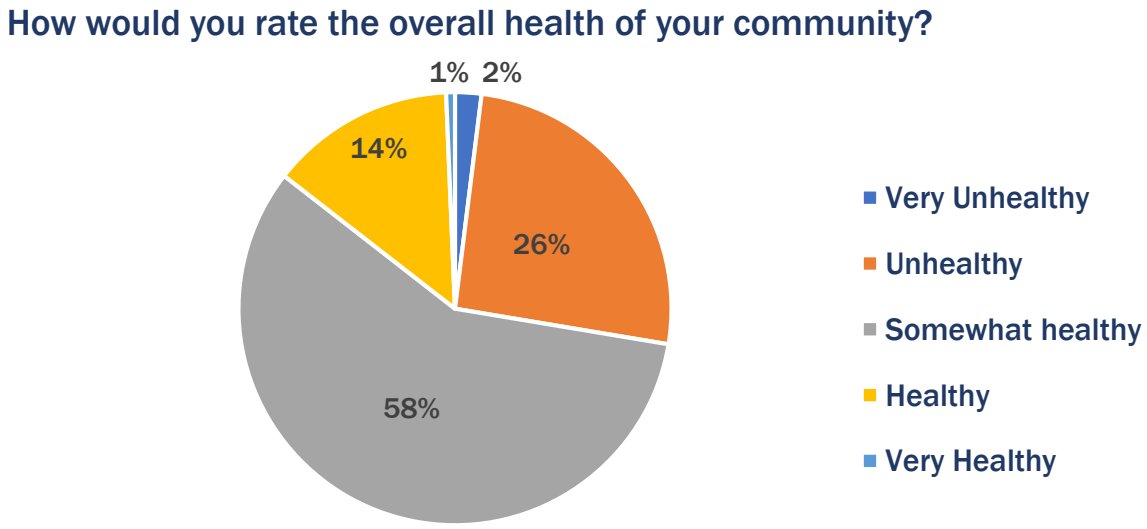
In order to identify and understand community health needs, a community health assessment survey was administered to community members and key informants. Community health assessment surveys were administered between April-July 2016. Surveys were intended to provide information about prominent health problems facing the community. The survey had a total of 13 questions and identified factors which contributed to overall quality of life, most important health issues and behaviors, and rating scales measuring the health of the individual and their community. A total of 5,883 surveys were collected within Maricopa County from community residents ages 12 and above.

Key informant surveys were also administered to professionals in the community. Key informants were identified as health or community experts familiar with target populations and geographic areas within Maricopa County. The survey was administered to 152 key informants who provide services throughout Maricopa County. The survey asked respondents similar questions as the community assessment survey, about factors that would improve "quality of life," most important "health problems," in the community, "risky behaviors" of concern and their overall rating of the health of the community.

The survey instrument was created by MCDPH based on recommendations from the National Association of County and City Health Officials, Centers for Disease Control and Prevention and Synapse members. Please see Appendix A for the complete version of surveys.

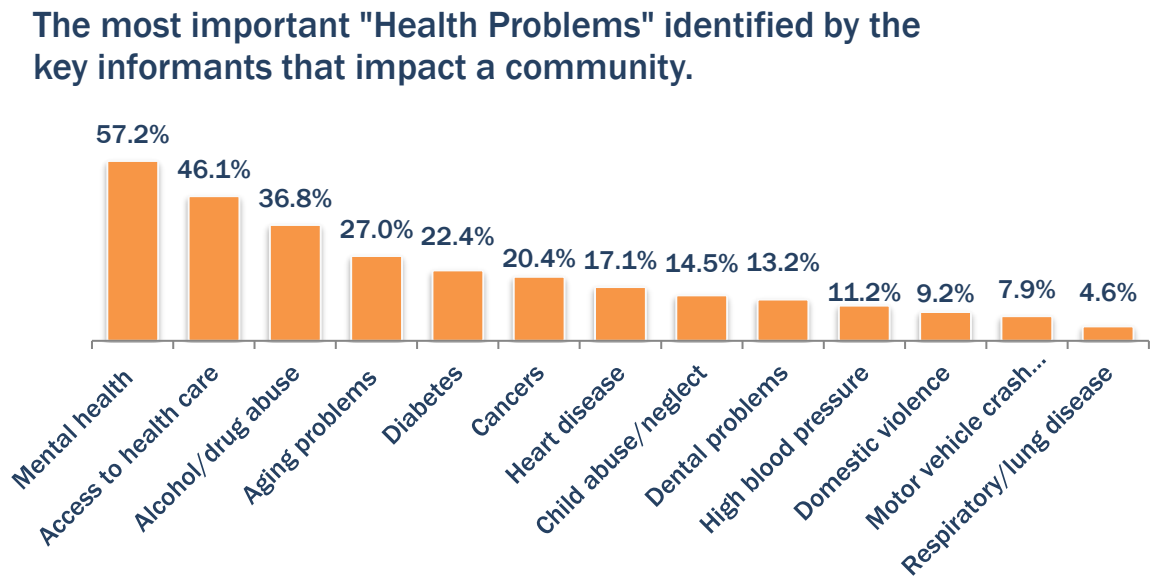
When surveyed about the overall health of the community, 14 percent reported "Healthy", 26 percent reported it was "unhealthy" and 58 percent reported "Somewhat healthy" (Graph 1). Key informants felt the most important health problems impacting their community are mental health, access to health care, alcohol/drug abuse, aging problems, and diabetes (Graph 2).

Graph 1



Source: Key Informant Survey

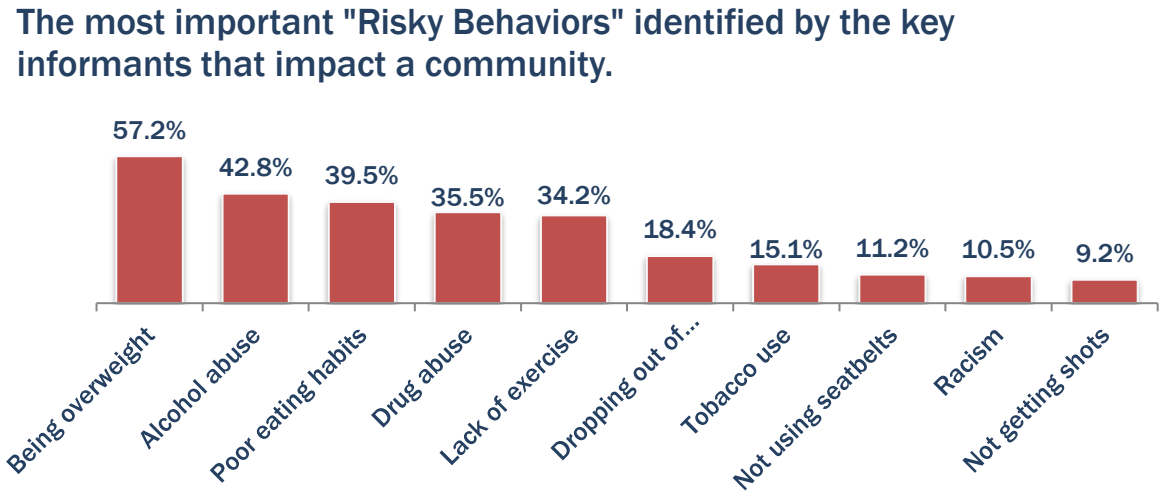
Graph 2



Source Key Informant Survey

When asked to rank the three most important risky behaviors seen in the community, the top five answers selected by respondents included being overweight, alcohol abuse, poor eating habits, drug abuse, and lack of exercise (Graph 3). Though the responses reflect distinct behaviors, there appears to be some overlap with primary concerns of key informants centering on the areas of substance use, healthy eating, and active living.

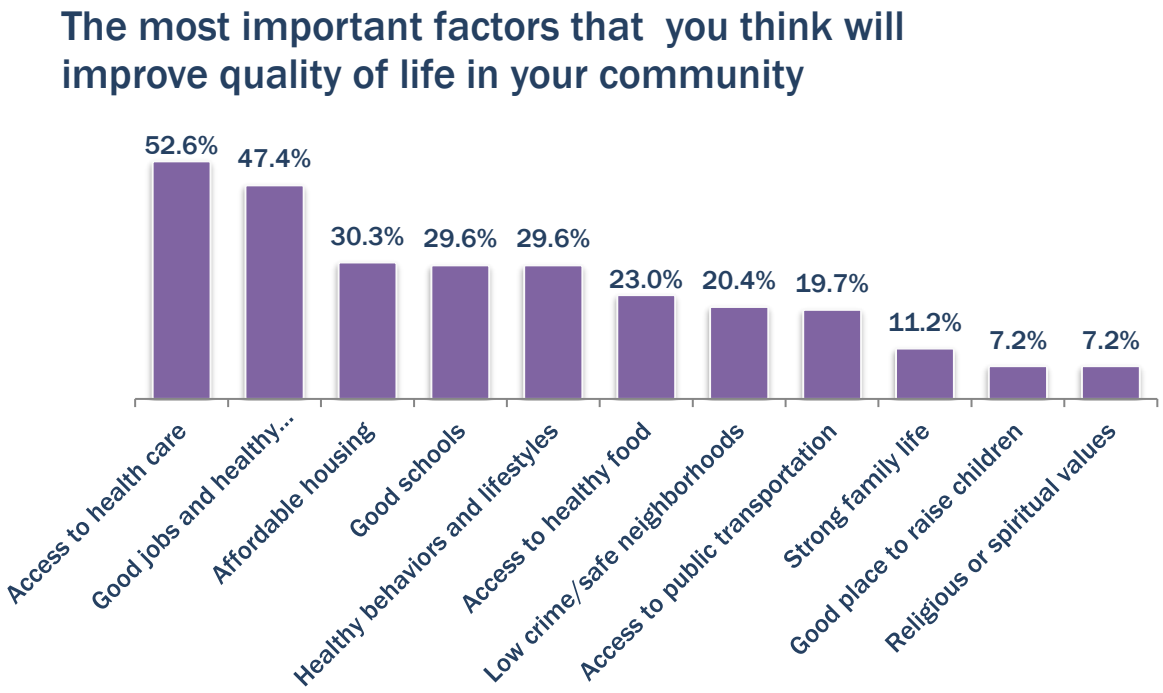
Graph 3



Source: Key Informant Survey

Lastly, the most important factors key informants felt would improve the quality of life within their community included access to healthcare, good jobs and healthy economy, affordable housing, good schools, and healthy behaviors and lifestyles (Graph 4).

Graph 4



Source: Key Informant Survey

DATA LIMITATIONS AND INFORMATION GAPS

The CHNA utilized an approach that included the collection of qualitative and quantitative data from existing data sources and community. The qualitative data comes from focus groups, surveys, and meetings with internal leadership teams. The process was reiterative as qualitative and quantitative data were used to help inform each other. The advantage of using this approach is that it validates data by cross-verifying from a multitude of sources.

The data used throughout this report are from various reliable sources, but there are limitations to the data that need to be considered. For example, birth and death records are filled in by various individuals related to the event and fields are filled in based on recall. A family member may assist filling in information and may not know about an individual's personal habits (like smoking), meaning it may not be recorded on the death certificate. Additionally, a mother who is asked when she began prenatal care may have an estimate but typically doesn't cite the exact date. Similarly, with hospital discharge data (HDD) for inpatient (IP) discharges and emergency department (ED) visits, the data comes from licensed

facilities, but does not include federal, military, and the Department of Veteran Affairs facilities. When reviewing the HDD data, we must consider the fact that these are only those individuals that seek care. The Behavioral Risk Factor Surveillance System survey (BRFS) is a randomized self-reported survey of adults within Maricopa County. The survey is done every other year and cannot be drilled down to the county level. All data from the Youth Risk Behavior Surveillance System (YRBSS) is for the entire state. The Arizona Youth survey (AYS) is done every other year, opposite of the YRBSS, and is of 8th, 10th, and 12th grade students in Arizona schools. This data was evaluated at the county level.

PRIORITIZATION OF COMMUNITY HEALTH NEEDS

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 B. 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 down to three.

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

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

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

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

members, and external entities were strategically selected for their respective understanding of community perspectives, community-based health engagement, and health care expertise.

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

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

DESCRIPTION OF PRIORITIZED COMMUNITY HEALTH NEEDS

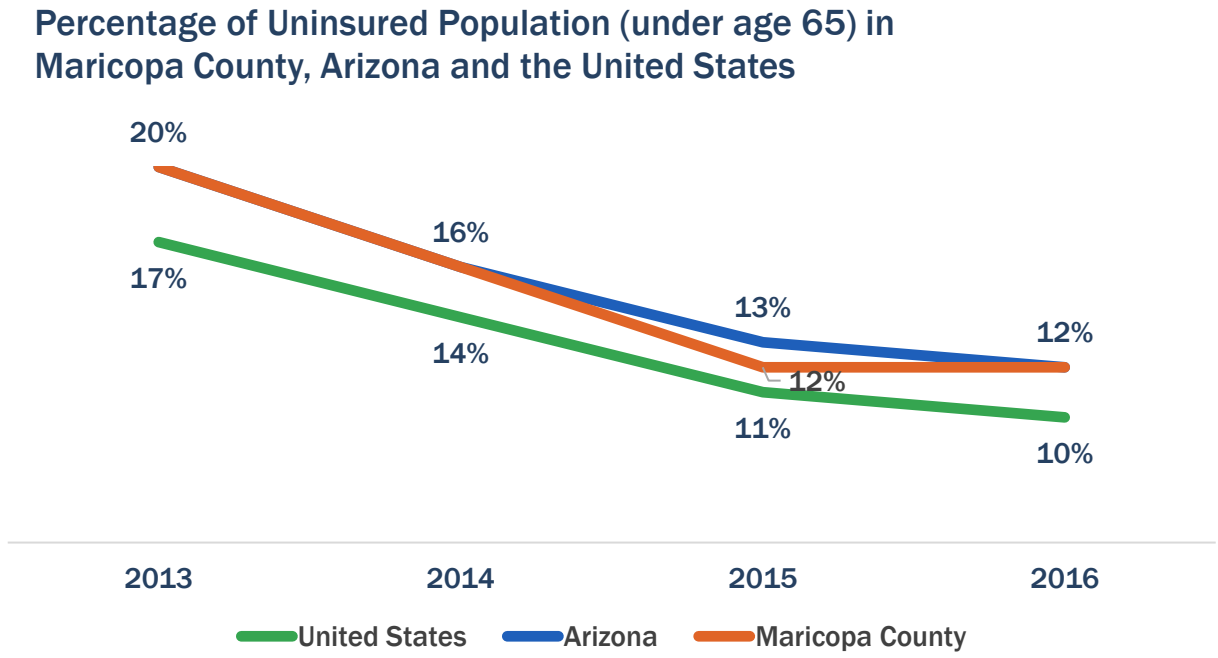
The following statements summarize each of the areas of priority for Banner Behavioral Hospital (BBHH) and are based on data and information gathered through the CHNA.

PRIORITY #1: ACCESS TO CARE

Access to comprehensive, quality health care is important for promoting and maintaining health, preventing and managing disease, and achieving health equity for all people. Access to Care impacts one's overall physical, social, and mental health status and quality of life[xiii]. Improved access to care requires that health services can be obtained, accessible, and affordable to all.

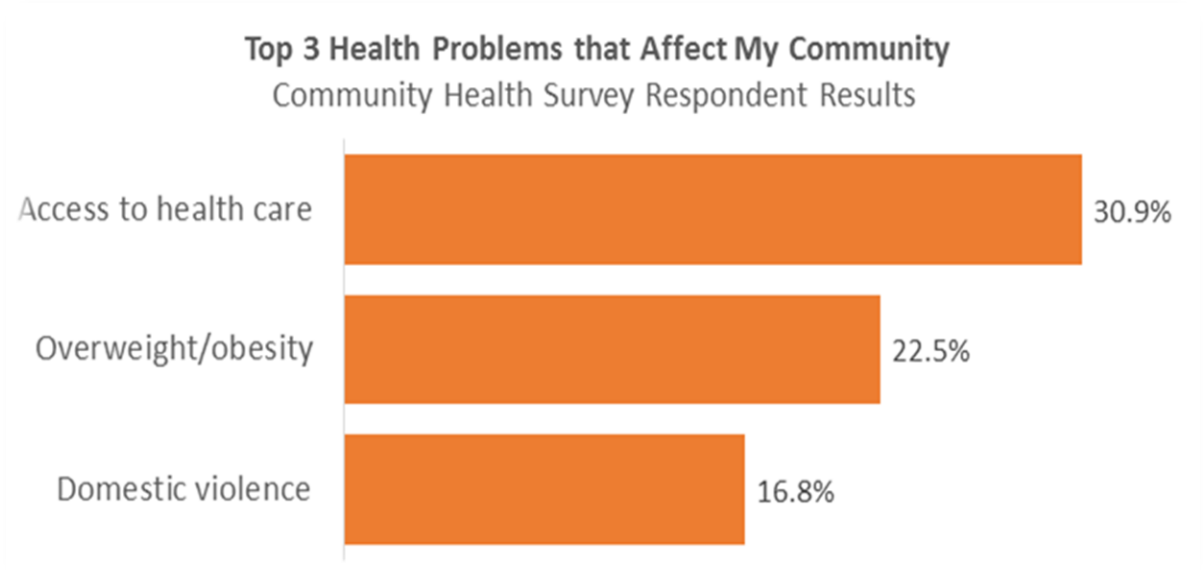
According to the Behavioral Risk Factor Surveillance Survey (BRFSS), in the state of Arizona, 14.1% of respondents indicated that in the past year they could not see a doctor because of cost, and 16.3% of Maricopa County residents indicated they had no health insurance. According to the 2019 County Health Rankings & Roadmaps, from 2013 to 2016, the percentage of population under 65 without health insurance in Maricopa County improved, but still were higher than National rates[xiv] (Graph 5). In Maricopa County, more than 80% of both males and females have health insurance, but females have a slightly higher percentage than males, and the age group with the lower percentage of insurance coverage is the 25-34-year-old populations[xv]. When Community Survey respondents in Maricopa County were asked about health care affordability, 60% indicated they *sometimes or never* have enough money to pay for health care and when asked what 3 *health problems* impacting their community, access to health care was ranked highest (Graph 6). In the BBHH PSA, the Arizona Health Care Cost Containment System (AHCCCS)/Medicaid utilization for inpatient hospitalizations and emergency department visits are nearly identical to the Maricopa County rates (Graph 7 & 8)[xvi].

Graph 5



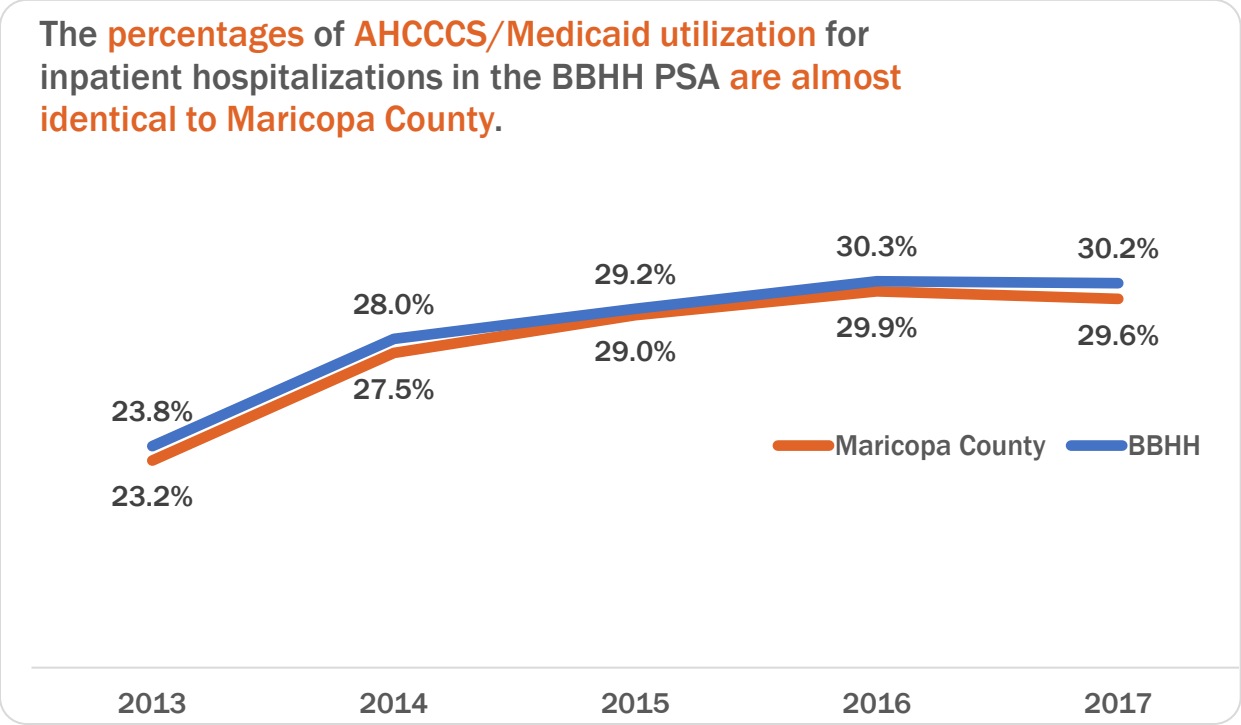
Source: County Health Ranking, 2019

Graph 6

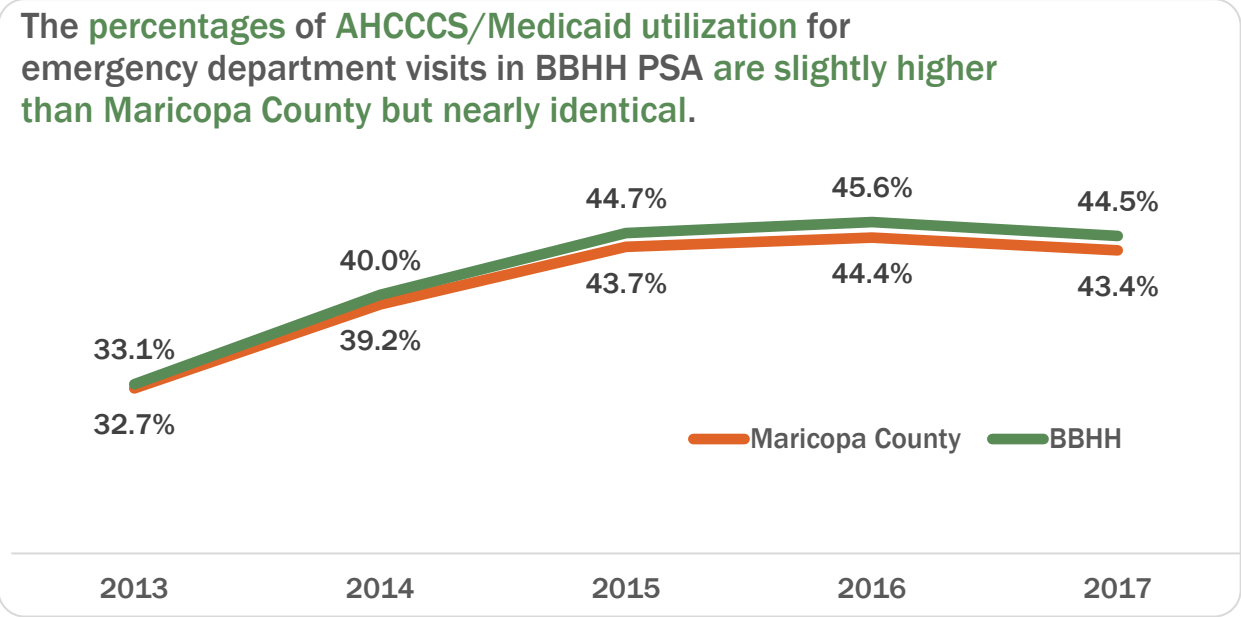


Source: MCDPH Community Health Assessment Survey results (2016)

Graph 7



Graph 8



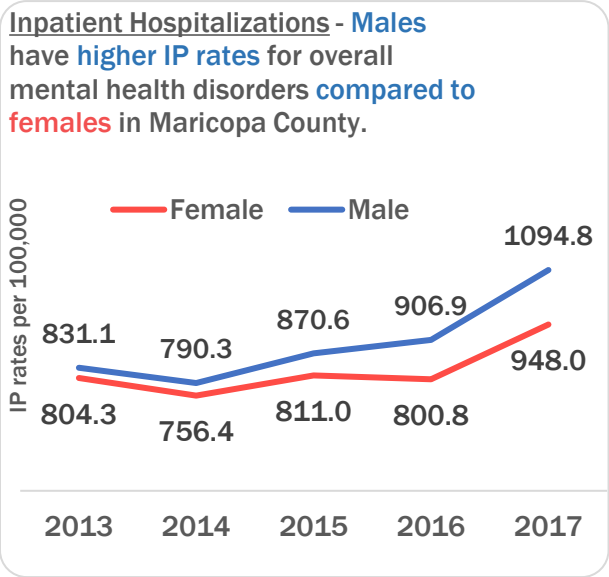
Source: Hospital Discharge Data from ADHS, Analyzed by MCDPH (Graph 7-8)

PRIORITY #2: BEHAVIORAL HEALTH (SUBSTANCE ABUSE / DEPRESSION / BEHAVIORAL HEALTH)

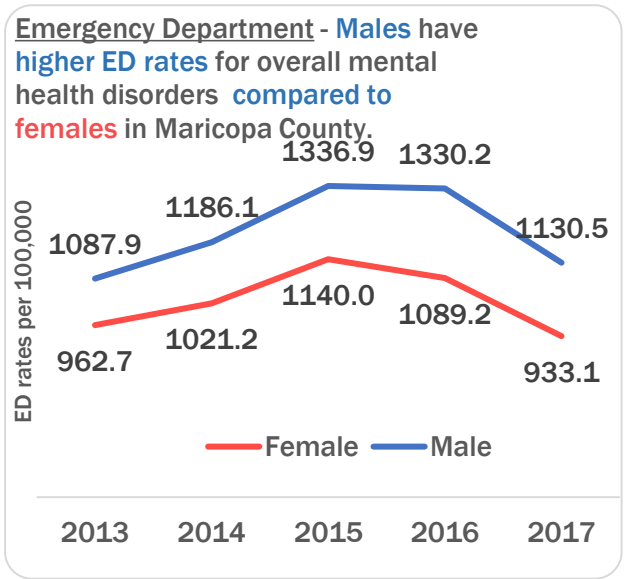
Behavioral Health and mental health are terms often used interchangeably to refer to a range of health conditions which are each distinct yet co-occurring and overlapping. Mental and behavioral health plays a major role in people's ability to maintain good health and is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community.

In Maricopa County, mental health was ranked as the most important health problem impacting the community by key informants. This was echoed by participants in focus groups who believed mental health was one of top health issues impacting community residents[xvii]. When Maricopa County survey participants were asked, "Where do you go to get mental health services?" 12% were unsure where to go for help. When looking at inpatient hospitalizations (IP) and emergency department (ED) visits, males in Maricopa County have higher IP hospitalizations and ED rates for all mental health disorders compared to females (Graphs 9 and 10). The IP hospitalization rates for all populations and all mental health disorders have been increasing since 2014 and are highest among age's 15-54[xviii]. Emergency department visits for all mental health disorders are highest among 20-34-year old's[xix] in Maricopa County. In BBHH PSA, IP hospitalizations for all mental health disorders are slightly lower than Maricopa County rates, but have increased from 2016 to 2017, and ED visits are slightly below Maricopa County rates and decreased from 2015 to 2017 (Graphs 11 and 12). Inpatient hospitalizations due to mood and depressive disorders, in the BBHH PSA, are slightly lower than Maricopa County and have increased from 2014 to 2017 (Graph 13). The ED rates are also lower than Maricopa County, and have decreased from 2016 to 2017 (Graph 14).

Graph 9

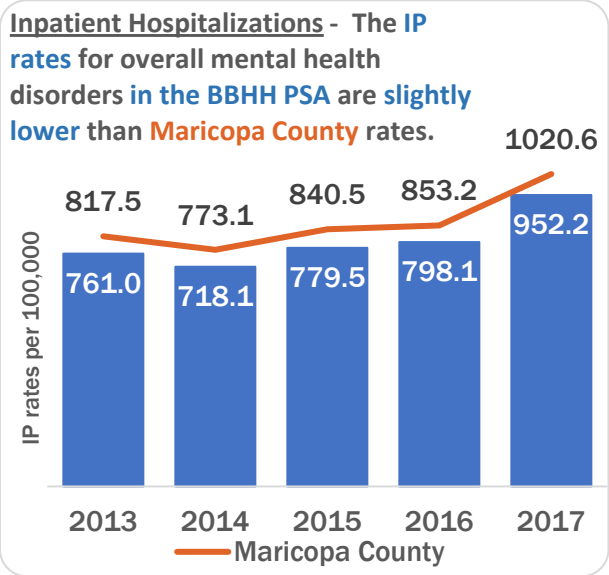


Graph 10

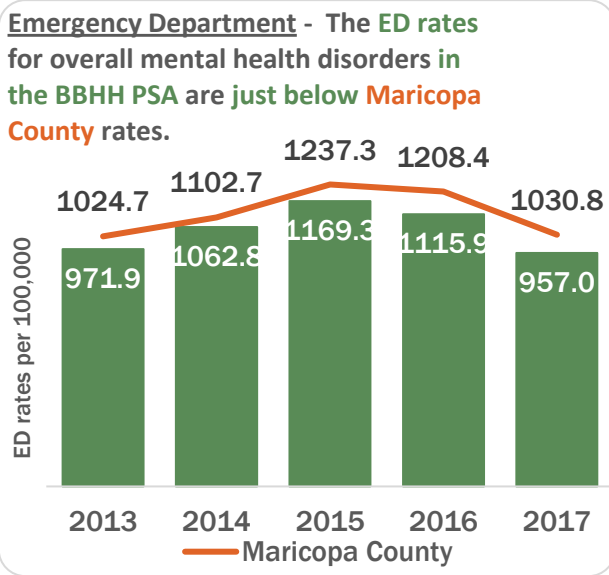


Source: Hospital discharge data from ADHS, analyzed by MCDPH (Graph 9-10)

Graph 11

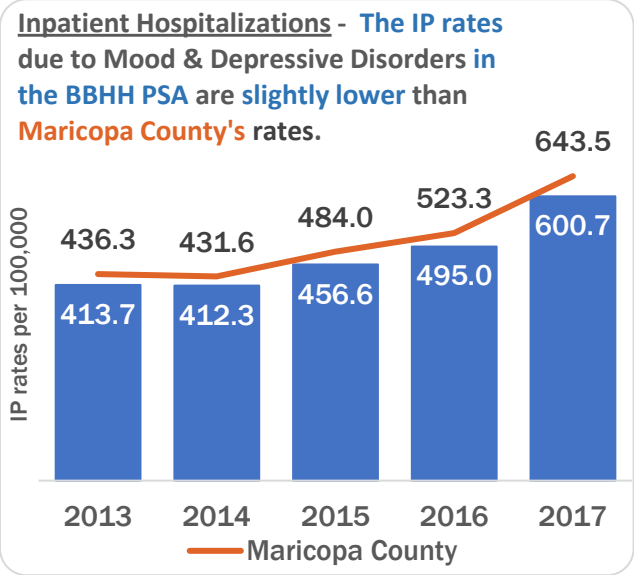


Graph 12

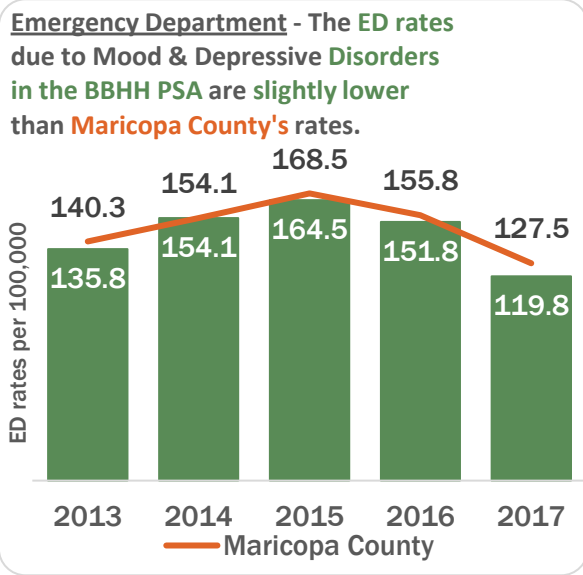


Source: Hospital discharge data from ADHS, analyzed by MCDPH (Graph 11-12)

Graph 13



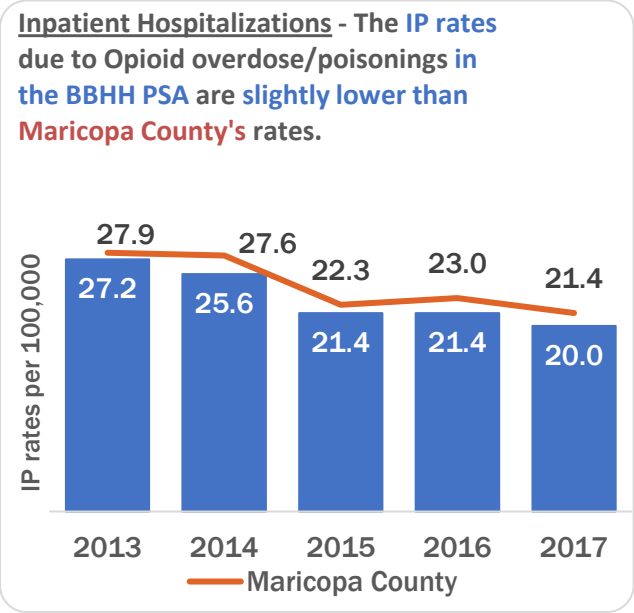
Graph 14



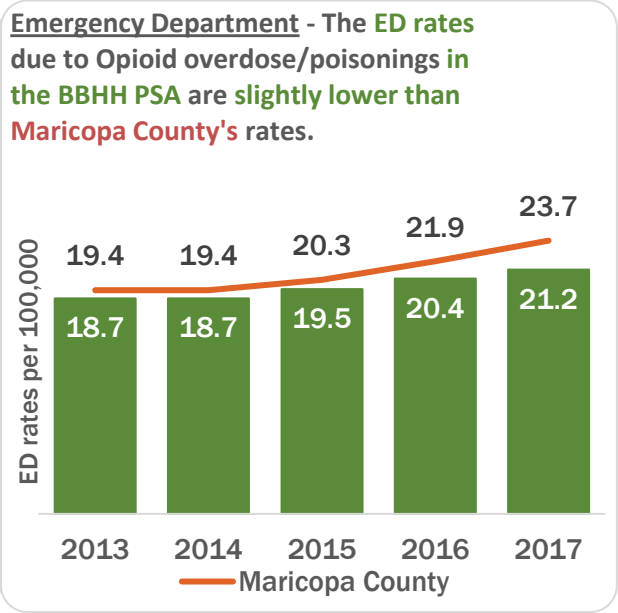
Source: Hospital discharge data from ADHS, analyzed by MCDPH (Graph 13-14)

Prescription and illegal opioids are additive and can be deadly. Drug overdoses continue to increase in the United States, Arizona, and in Maricopa County. From 1999 to 2017, more than 700,000 people died from a drug overdose and around 68% of the more than 70,200 drug overdose deaths in 2017 involved an opioid in the United States[xx]. In Arizona, more than two people die every day from opioid overdoses and in 2017, because of the alarming increase in opioid deaths, the state of Arizona's Governor Ducey declared a state emergency. Maricopa County (MC) and individuals who are 25-34 years old have the highest number of verified opioid overdoses in the state[xxi]. Most overdose deaths involved opioids, methamphetamine, and alcohol[xxii]. Inpatient hospitalizations for opioid drug use in Maricopa County shows that 45-74-year old's have the highest rates, and emergency department rates show 15-34-year old's have the highest rates[xxiii]. In the BBHH PSA, inpatient hospitalizations (IP) rates due to Opioid Overdose/Poisonings were lower than Maricopa County rates and slightly decreased in 2017 (Graph 15). Emergency department (ED) visits due to Opioid Overdose/Poisonings have steadily increased from 2013 to 2017 (Graph 16).

Graph 15



Graph 16

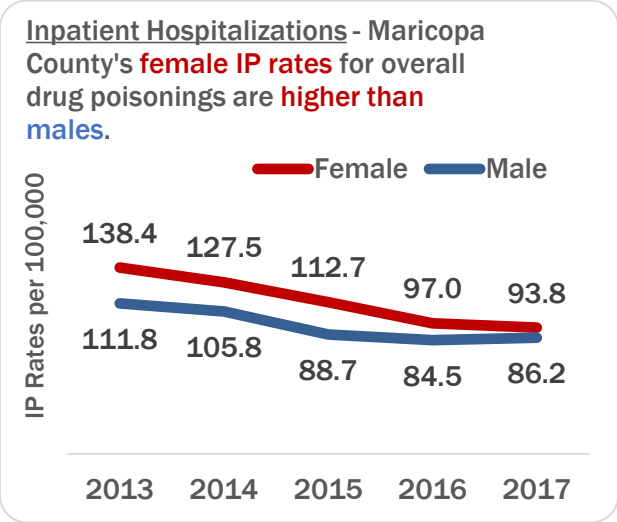


Source: Hospital discharge data from ADHS, analyzed by MCDPH

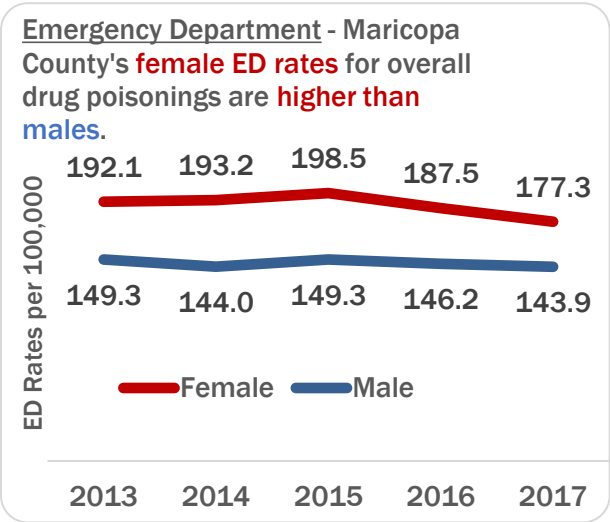
Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems[xxiv]. In 2005, an estimated 22 million Americans struggled with a drug or alcohol problem.[xxv] In Maricopa County, inpatient hospitalizations (IP) and emergency department (ED) visits for overall drugs (drug and alcohol poisoning) are highest among the American Indian populations, whereas White and Black populations are at a five year low.[xxvi] Females in Maricopa County have higher IP and ED rates for overall drugs compared to males (Graphs 17 and 18). Inpatient hospitalization (IP) rates for overall drugs

in Maricopa County show that 34-64-year old's have higher rates than other age groups[xxvii]. In the BBHH PSA, IP and ED rates mirror Maricopa County (Graphs 19 and 20).

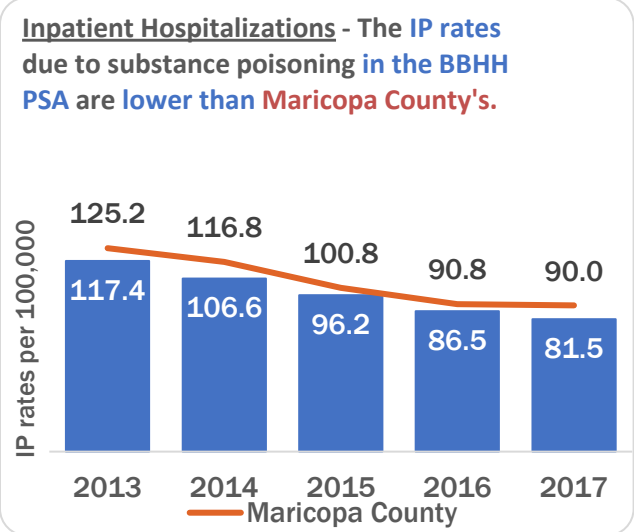
Graph 17



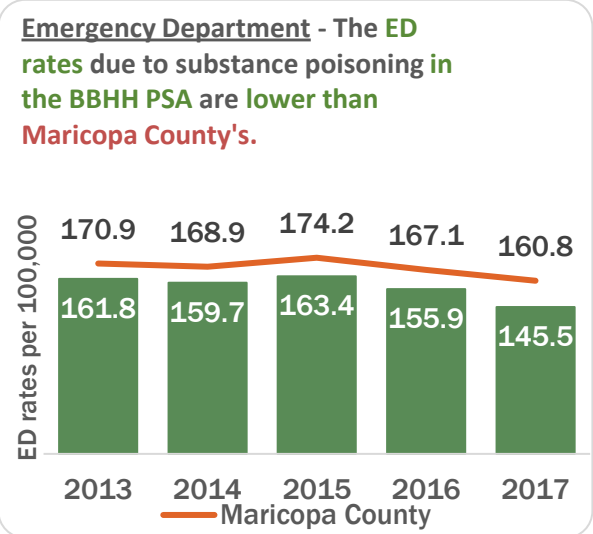
Graph 18



Graph 19



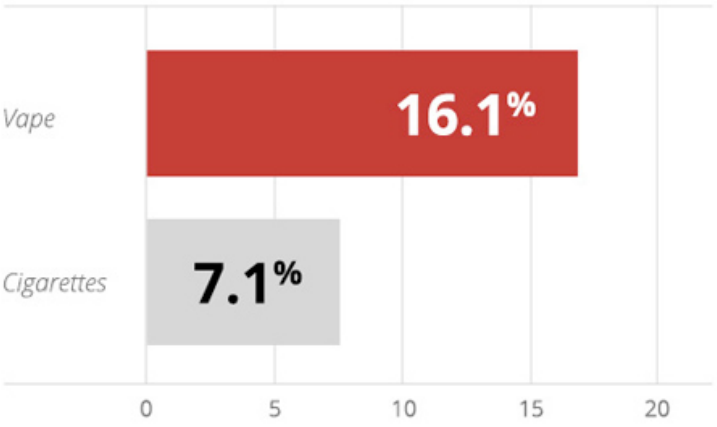
Graph 20



Source: Hospital discharge data from ADHS, analyzed by MCDPH

Scientists are still learning about the long-term health effects of E-cigarettes. E-cigarettes are not safe for youth, young adults, pregnant women, or adults who do not currently use tobacco products. E-cigarettes are known by many different names and are sometimes called, "e-cig", "e-hookahs", "mods", "vape pens", "vapes", "tank systems", and "electronic nicotine delivery systems." They also can be used to deliver marijuana and other drugs[xxviii]. Among current U.S. E-cigarettes users ages 45 years and older in 2015,

most were either current or former regular cigarette smokers, and 1.3% had never been cigarette smokers. In 2018, more than 3.6 million U.S middle and high school students used e-cigarettes in the past 30 days, including 4.9% middle school students and 20.8% high school students[xxix]. In Arizona, data shows that vaping is on the rise. Fifty one percent of Arizona high school students have tried electronic vaping products and teens who vape are nearly four times likely to start smoking cigarettes[xxx]. More than two times as many Arizona youth vape than smoke cigarettes.



Source: Arizona Department of Health Services (2019)

PRIORITY #3: CHRONIC DISEASE MANAGEMENT

Chronic diseases such as heart disease, cancer, chronic lower respiratory disease, and diabetes are leading causes of death and disability in the United States, Arizona, and Maricopa County. Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain cancers are also leading causes of preventable, premature death. In 2015, 4.2 million people in Arizona had at least 1 chronic disease and 1.6 million had 2 or more chronic diseases[xxxi]. Cancer is a leading cause of death burden in Arizona with an average of 85 new diagnosis a day[xxxii]. It is the second leading cause of death in Maricopa County and number one in the BBHH primary service area[xxxiii]. Heart disease is the second leading cause of death in Arizona, causing nearly 1 in every 4 deaths[xxxiv] and is the number one leading cause of death in Maricopa County and second in the BBHH primary service area (PSA)[xxxv]. These diseases affect the health and quality of life of Maricopa County residents and are leading drivers of health care costs.

Cancer is the second leading cause of death in the United States and is a leading cause of disease burden in Arizona. In the state of Arizona an average of 85 individuals are diagnosed every day. From 2010 to 2015, the count of reported cases for all cancers combined has shown a steady increase in Arizona. However, rates for males and females have declined. In 2015, 31,047 Arizonans were diagnosed with cancer[xxxvi]. Cancer is the second leading cause of death in Maricopa County and number one in the BBHH PSA. The following tables (5-9) show the different types of cancer incidence rates from 2011-2015 in

Maricopa County, Arizona, and the United States. Maricopa County disparities by gender and race are highlighted below.

Breast Cancer Incidence Rates per 100,000			
	Maricopa County	**Arizona**	**United States**
Females	120.5 CI: (118.4, 122.6)	112.9 CI: (111.4, 114.4)	124.7 CI: (124.4, 124.9)
Asian	79.8 CI: (71.4, 89.0)	77.2 CI: (70.3, 84.6)	92.3 CI: (91.4, 93.1)
Black	114.5 CI: (104.8, 124.9)	106.7 CI: (98.6, 115.3)	123.8 CI: (123.1, 124.5)
Hispanic	92.5 CI: (87.9, 97.4)	90.1 CI: (86.9, 93.4)	93.4 CI: (92.8, 94.0)
American Indian	69.4 CI: (56.2, 84.5)	57.52 CI: (52.1, 63.4)	73.8 CI: (71.9, 75.7)
White	127.4 CI: (124.9, 130.0)	120.7 CI: (118.8, 122.6)	130.0 CI: (129.7, 130.2)

Table 5

Cervical Cancer Incidence Rates per 100,000			
	Maricopa County	**Arizona**	**United States**
Females	6.9 CI: (6.4, 7.4)	6.6 CI: (6.2, 7.0)	7.5 CI: (7.5, 7.6)
Asian	3.9 CI: (2.3, 6.3)	4.0 CI: (2.6, 5.9)	6.0 CI: (5.8, 6.3)
Black	6.7 CI: (4.6, 9.4)	6.1 CI: (4.4, 8.3)	9.0 CI: (8.8, 9.2)
Hispanic	10.5 CI: (9.1, 12.0)	9.1 CI: (8.2, 10.2)	9.6 CI: (9.4, 9.8)
American Indian	4.7 CI: (3.3, 6.5)	4.7 CI: (3.3, 6.5)	6.5 CI: (6.0, 7.1)
White	5.7 CI: (5.1, 6.3)	5.8 CI: (5.3, 6.3)	7.0 CI: (7.0, 7.1)

Table 6

Source: ADHS Cancer Registry

Table 7

Prostate Cancer Incidence Rates per 100,000			
	Maricopa County	**Arizona**	**United States**
Males	85.8 CI: (84.0, 87.6)	78.6 CI: (77.4, 79.9)	109.0 CI: (108.8, 109.2)
Asian	42.7 CI: (34.9, 51.7)	39.1 CI: (32.8, 46.2)	55.7 CI: (54.9, 56.5)
Black	121.9 CI: (110.3, 134.3)	111.2 CI: (102.2, 120.8)	175.2 CI: (174.3, 176.2)
Hispanic	67.1 CI: (62.3, 72.2)	64.8 CI: (61.5, 68.2)	91.2 CI: (90.5, 92.0)
American Indian	56.7 CI: (41.0, 75.7)	57.7 CI: (50.7, 65.2)	57.9 CI: (56.0, 59.9)
White	83.7 CI: (81.7, 85.7)	77.7 CI: (76.2, 79.1)	101.8 CI: (101.6, 102.1)

Table 8

Lung & Bronchus Cancer Incidence Rates per 100,000			
	Maricopa County	**Arizona**	**United States**
Total	49.1 CI: (48.1, 50.0)	49.3 CI: (48.6, 50.0)	60.2 CI: (60.1, 60.3)
Females	45.1 CI: (43.9, 46.3)	45.0 CI: (44.1, 45.9)	52.2 CI: (52.1, 52.3)
Males	54.2 CI: (52.7, 55.7)	54.7 CI: (53.6, 55.8)	70.8 CI: (70.7, 71.0)
Asian	33.1 CI: (28.4, 38.4)	32.5 CI: (28.6, 36.7)	34.9 CI: (34.5, 35.3)
Black	54.9 CI: (49.4, 60.9)	51.3 CI: (46.9, 56.1)	62.3 CI: (62.0, 62.7)
Hispanic	31.7 CI: (29.3, 34.2)	31.6 CI: (30.0, 33.2)	30.9 CI: (30.6, 31.2)
American Indian	38.7 CI: (29.9, 48.9)	20.0 CI: (17.4, 22.9)	43.6 CI: (42.4, 44.7)
White	51.8 CI: (50.7, 52.9)	53.5 CI: (52.7, 54.4)	64.3 CI: (64.2, 64.5)

Source: ADHS Cancer Registry

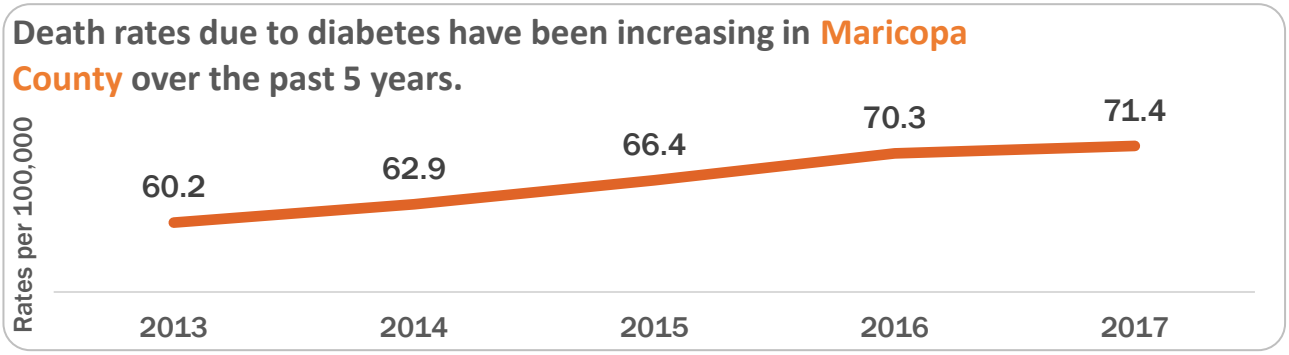
Table 9

Colorectal Cancer Incidence Rates per 100,000			
	Maricopa County	**Arizona**	**United States**
Total	34.1 CI: (33.3, 34.9)	33.6 CI: (33.0, 34.2)	39.2 CI: (39.1, 39.3)
Females	29.6 CI: (28.6, 30.7)	29.1 CI: (28.4, 29.9)	34.3 CI: (34.2, 34.4)
Males	39.3 CI: (38.1, 40.6)	38.6 CI: (37.7, 39.5)	45.1 CI: (45.0, 45.3)
Asian	25.1 CI: (21.0, 29.6)	23.8 CI: (20.6, 27.4)	30.7 CI: (30.3, 31.1)
Black	36.0 CI: (31.7, 40.6)	34.0 CI: (30.5, 37.8)	45.7 CI: (45.3, 46.0)
Hispanic	34.0 CI: (31.8, 36.4)	34.4 CI: (32.8, 36.0)	34.5 CI: (34.2, 34.8)
American Indian	34.4 CI: (26.7, 43.4)	26.1 CI: (23.3, 29.2)	30.7 CI: (29.8, 31.7)
White	33.9 CI: (33.0, 34.8)	33.6 CI: (32.9, 34.3)	38.9 CI: (38.8, 39.0)

Source: ADHS Cancer Registry

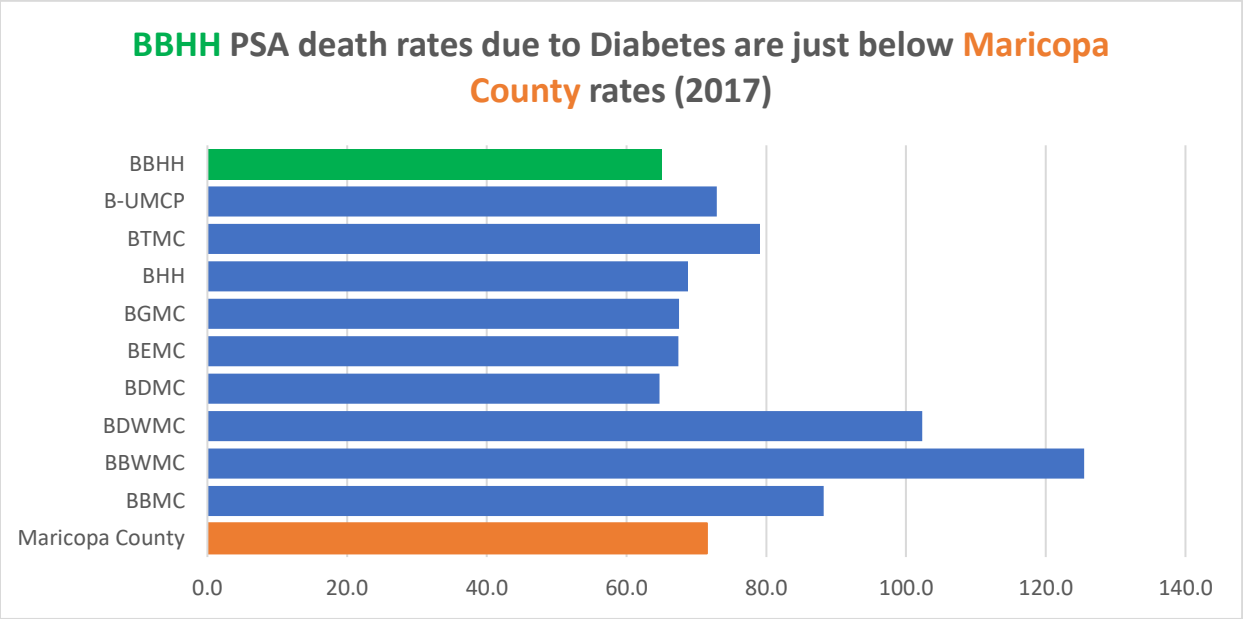
More than 30 million people in the United States have diabetes, and more than 84 million US adults, have prediabetes. Diabetes is the 7th leading cause of death in the United States, Arizona, Maricopa County, and in the BBHH PSA, and Type 2 diabetes accounts for about 90% to 95% of all diagnosed cases of diabetes[xxxvii]. In Maricopa County death rates due to diabetes have been increasing over the past 5 years (Graph 21) and are highest among those 75 years and older[xxxviii]. Banner Behavioral PSA overall death, IP, and ED rates due to diabetes are lower than the Maricopa County rates (Graphs 22-24).

Graph 21



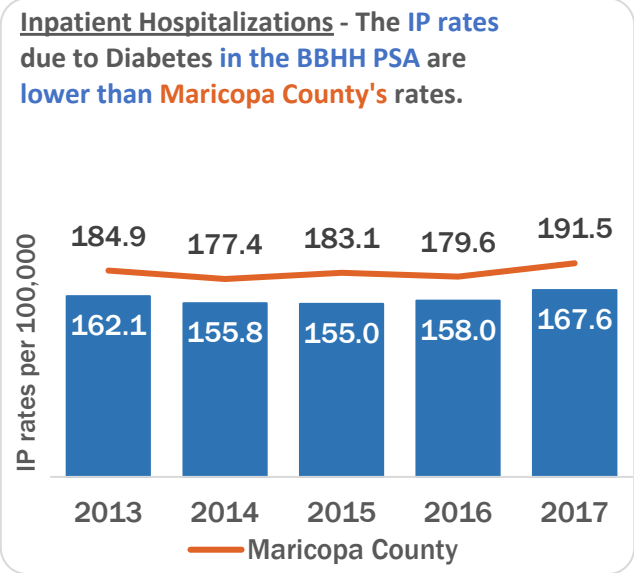
Source: Death data from Arizona vital records, analyzed by MCDPH

Graph 22

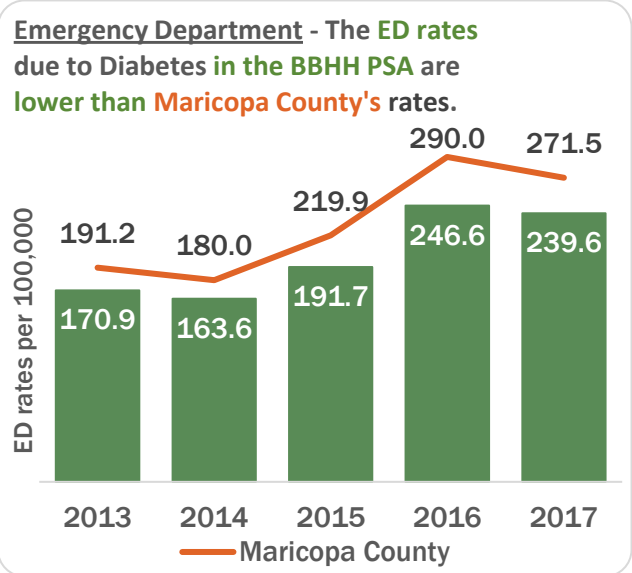


Source: Death data from Arizona vital records, analyzed by MCDPH

Graph 23



Graph 24

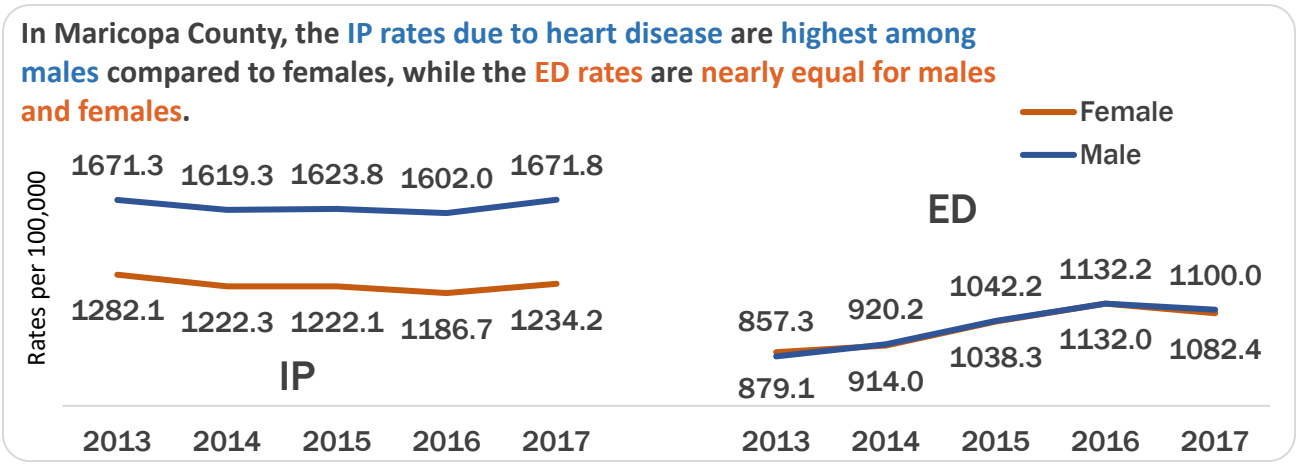


Source: Hospital discharge data from ADHS, analyzed by MCDPH (Graph 23-24)

Heart disease is the leading cause of death nationally, in Arizona and in Maricopa County. About 610,000 people die of heart disease in the United States every year.[xxxix] In Arizona heart disease and stroke claim the lives of more than 13,000 people each year[xl]. Heart disease is the number one cause of death in Maricopa County and number two in the BBHH PSA[xli]. In Maricopa County, inpatient (IP) hospitalizations are highest among males and emergency department (ED) visits are nearly equal for males and females (Graph 25). White, American Indian, and Black populations have the highest inpatient hospitalization and emergency department rates for heart disease and those individuals 75 years and older[xlii]. In the BBHH PSA, IP and ED visit rates due

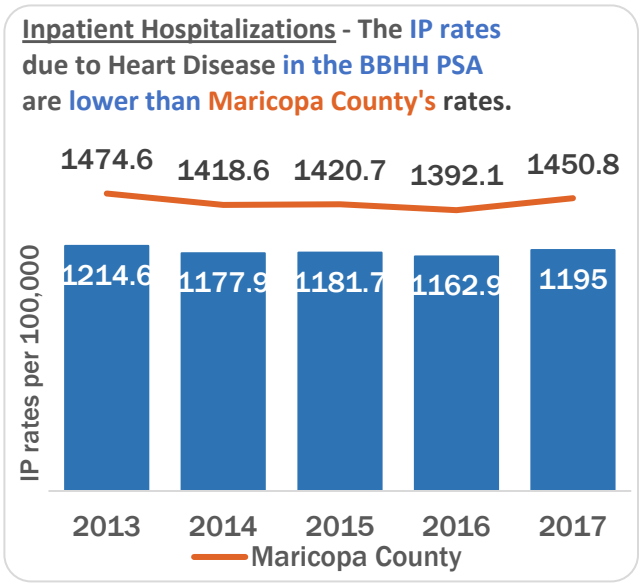
to heart disease are lower than Maricopa County and have been steady, with ED visits decreasing in 2017 (Graphs 25 and 26).

Graph 25

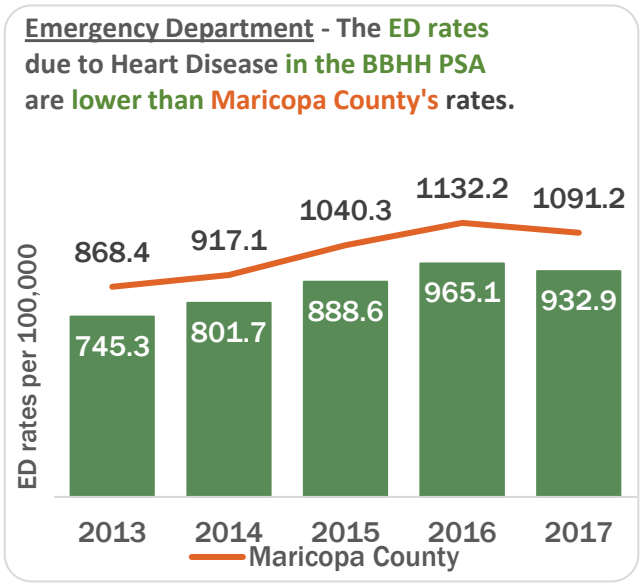


Source: Hospital discharge data from ADHS, analyzed by MCDPH

Graph 26



Graph 27



Source: Hospital discharge data from ADHS, analyzed by MCDPH (Graph 26-27)

Obesity related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer that are some of the leading causes of preventable, premature death[xliii]. According to the Center for Disease Control and Prevention, the estimated annual medical cost of obesity in the United States was $147 billion in 2008 and the medical cost for people who have obesity was $1,429 higher than those of normal weight. More than one in four Arizona adults surveyed in 2016 were obese, like the national median Behavioral Risk Factor Surveillance System[xliv]. In addition, 29.5% of adults are obese, ranking the state 30th in the

nation[xlv] and in 2017, the Maricopa County's obesity rate was 28.9%, with males, those 55-64 years old, and Hispanics having higher percentages than other groups (Table 10).

Table 10. Maricopa County Obesity Rate for 2015-2017

		2015	2016	2017
Sex	Male	29.5%	29.0%	30.1%
	Female	26.7%	27.6%	27.7%
Age	18-24	19.5%	13.8%	16.0%
	25-34	28.6%	28.4%	30.1%
	35-44	32.5%	32.9%	32.6%
	45-54	30.4%	35.5%	32.8%
	55-64	34.3%	31.7%	33.7%
	65+	22.8%	25.6%	26.0%
Race/Ethnicity	White non-Hispanic	25.5%	25.9%	26.9%
	Hispanic	36.3%	24.8%	34.4%
Total		28.1%	28.3%	28.9%

Source: Hospital discharge data from ADHS, analyzed by MCDPH

2016 CHNA Follow Up and Review

Feedback on Preceding CHNA / Implementation Strategy

Specific feedback on the impact the strategies developed to address the health need is included in Table 11 below. In addition, the link to the 2016 report was posted on the Bannerhealth.com website and made widely available to the public. Over the past three years little feedback via the email address has been collected, but the account has been monitored.

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

Impact of Actions Taken Since Preceding CHNA

Table 11 indicates what actions have been taken on the cycle 2 CHNA action plan in creating impact in the Banner Behavioral Health Hospital (BBHH) Primary Service Areas (PSA).

Table 11

Banner Behavioral Health Hospital - Impact of 2016 Strategies
Significant Need #1: Access to Care
Strategy #1: Increase use of Banner Urgent Care facilities and improve access to primary care services
Impact of Actions • In 2018 4,000 Banner Health patients were supported through Banner services, saving patients a total in $50M in OOP. • Efforts and resources were invested to increase the use of online scheduling for Banner Urgent Care facilities, the results showed a growth from 8% encounters via online scheduling in 2017 to 25% in 2019.
Strategy #2: Reduce reoccurring visits to the Emergency Department and increase access to preventative care
Impact of Actions • Discharge education and follow up is hard wired in Cerner. • Case managers are available to cover the ED. • Pediatric services are provided to uninsured and underinsured families through Banner HealthMobile and School-based clinics.
Significant Health Need #2: Chronic Disease (Diabetes / Heart Disease)
Strategy #1: Increase personal management of Chronic Disease
Impact of Actions • BBHH has partnered with community programs based on patient's health needs and background to provide a network of services and events to educate on chronic diseases. • We have worked to close care gaps for our Banner Health Network Members through adherence to our internal patient care and preventative initiatives.

• Using a Chronic Disease webpage on our facility website, we increased access to online educational opportunities and resource awareness.
Significant Need #3: Behavioral health (Mental Health & Substance Abuse)
Strategy #1: Increase access to behavioral health assessments and services for those in crisis
• Services and support are offered to those in crisis through Behavioral Health Pavilion. • We have expanded our Behavioral Health services and capabilities through capital investments
Strategy #2: Increase identification of behavioral health needs and access to early interventions
• We have a depression screening tool Banner Medical Group uses for both adults and pediatric patients. • We offer a support groups for those who have anxiety, depression, and other mental health issues.

RESOURCES POTENTIALLY AVAILABLE TO ADDRESS NEEDS

Resources potentially available to address identified needs include services and programs available through hospitals, governmental agencies, and community-based organizations. Resources include access to hospital emergency and acute care services, Federally Qualified Health Centers (FQHC), food banks, homeless shelters, school-based health clinics, churches, transportation services, health enrollment navigators, free or low cost medical and dental care, and prevention-based community education. Below is a list of some potential resources to address prioritized community health needs:

Hospital systems and FQHC's providing emergency care, acute, outpatient services, and community programs:

- Dignity Health
- Phoenix Children's Hospital
- Mayo Clinic
- Adelante Healthcare
- Native Health
- Banner Health

BANNER HEALTH PROGRAMS AND SERVICES

Banner Behavioral Health Hospital	BBHH 7575 E. Earll	IOP Chandler Blvd. Chandler	IOP San Alberto Scottsdale
Inpatient Detox Adult	X		
Inpatient Detox Adolescent	X		
Dual Diagnosis Inpatient Adult	X		
Dual Diagnosis Inpatient Adolescent	X		
Mental Health Inpatient Adult	X		
Mental Health Inpatient Adolescent	X		
ECT Inpatient Adult	X		
ECT Outpatient Adult	X		
Transcranial Magnetic Stimulation Inpatient Adult	X		
Transcranial Magnetic Stimulation Outpatient Adult	X		
Dialectical Behavioral Therapy (DBT Skills) IOP Adult		X	X
Mental Health IOP Adult		X	X
Mental Health IOP Adolescent		X	x
Substance Abuse IOP Adult		X	X

COMMUNITY AGENCIES

Community-Based Agencies	Services Provided
American Cancer Society	Patient Navigators, support groups, financial assistance, and medication assistance.
Anthony Bates Foundation	Affordable cardiac screening for youth and families.
Arizona Living Well Institute	Chronic Disease Self-Management Education
Catholic Charities Community Services	Social services and behavioral health treatment.
Circle the City	Medical care and respite for homeless.
Clinica Adelante	Primary medical care for uninsured and underserved.
Community Bridges	Supportive services for homeless, mental health and substance abuse
Esparanca Women's Health Center	Women's Health.
Faith Community / Churches	Parish Nurse programs.
Keogh Health Connection	Heath insurance enrollment and navigation.
Healthcare for the Homeless and Dental Clinic	Health and dental care for the homeless population
Mission of Mercy	Primary medical care for uninsured and underserved.
Mountain Park Health Center	Primary medical care for uninsured and underserved.
Native Health Center	Medical, Dental Behavioral health for urban Native Americans.
Neighborhood Christian Clinic	Free and reduced health services.
Parson's Family Health Center	Homeless Healthcare and Federally Qualified Health Center.
Phoenix Indian Center	Support to American Indians for education and employment.
Southwest Human Development	Services for children and families.
St. Mary's Food Bank	Food bank.
Terros Health Center	Primary medical care and behavioral health treatment for uninsured and underserved.
The Society of St. Vincent De Paul	Medical, dental, food, clothing, housing for underserved.
Touchstone Behavioral Health	Behavioral Health services.
United Food Bank	Food bank.
Valle dal Sol	Primary healthcare services are offered for children and adults, in addition to behavioral health services

The Health Improvement Partnership of Maricopa County (HIPMC) is a collaborative effort between Maricopa County Department of Public Health (MCDPH) and public and private organizations addressing access to care, healthy eating, and early childhood development. The HIPMC provides a forum to share ideas and resources as well as a data-drive process to identify gaps and barriers to health improvement in Maricopa County and the surrounding areas. With more than 100 partner organizations, these resources help Banner Health connect to other community-based organizations that target the same health priorities.

APPENDIX A. LIST OF DATA SOURCES

PRIMARY & SECONDARY DATA SOURCES

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

- Vital statistics (birth, death) – obtained from the Arizona Department of Health Services (ADHS). Data analysis completed by MCDPH Office of Epidemiology staff. (2016-2017)
- Hospital Discharge Data (inpatient and emergency department) - obtained from the Arizona Department of Health Services. Data analysis completed by MCDPH Office of Epidemiology staff. (2013-2017)
- Behavioral Risk Factor Surveillance Survey (BRFSS) 2016-2017
- Arizona Youth Survey (AYS) 2016
- Youth Risk Behavioral Surveillance Survey (YRBSS) 2016-2017
- Centers for Disease Control (CDC) Environmental Public Health Tracking (EPHT) –2014
- Arizona Department of Health Services EPHT Explorer
- US Census, American Fact Finder (2013-2017)

FOCUS GROUPS, KEY INFORMANT SURVEY RESULTS & COMMUNITY HEALTH ASSESSMENT SURVEY QUESTIONS

Focus Group Questions
For the purposes of this discussion, "community" is defined as where you live, work, and play.

Opening Question (5 minutes)

1. *To begin, why don't we go around the table and introduce ourselves. State your name (or whatever you would like us to call you) and what makes you most proud of your community.*

General Community Questions (20 minutes)
I want to begin our discussion today with a few questions about health and quality of life in your community.

2. What does quality of life mean to you?
3. What makes a community healthy?
4. Who are the healthy people in your community?
    a. What makes them healthy?
    b. Why are these people healthier than those who have (or experience) poor health?
5. What do you believe are the 2-3 most important issues that must be addressed to improve health and quality of life in your community?
    a. What are the biggest health problems/conditions in your community?

Family Questions (20 minutes)
Now we are going to transition a bit and focus a bit more on your family and experiences.

6. What types of services or support do you (your family, your children) use to maintain your health?

    a. Why do you use these particular services or supports?
7. Where do you get the information you need related to your (your family's, your children's) health?
8. What keeps you (your family, your children) from going to the doctor or from caring for your health?
    a. Are there any cost issues that keep you from caring for your health? (Such as co-pays or high-deductible insurance plans)
    b. If you are uninsured, do you experience any barriers to becoming insured?

Improvement Questions (20 minutes)

Next I'd like to ask a few questions about ways to improve community health.

9. What are some ideas you have to help your community get or stay healthy?
10. What else do you (your family, your children) need to maintain or improve your health? *[Prompts]*
    a. Services, support or information to manage a chronic condition or change health behaviors such as smoking, eating habits, physical activity, or substance use?
    b. Preventive services such as flu shots or immunizations?
    c. Specialty healthcare services or providers?
11. What resources does your community have that can be used to improve community health?

Ending Question (5 minutes)

12. Is there anything else related to the topics we discussed today that you think I should know that I didn't ask or that you have not yet shared?

Facilitator Summary & Closing Comments (5-10 minutes)

Let's take a few minutes to reflect on responses you provided today. We will review the notes we took and the themes we observed. This is your opportunity to clarify your thoughts or to provide alternative responses.

[Co-facilitator provides a brief summary of responses for each of the questions or asks clarifying questions if she thinks she may have missed something.]

Thank you for your participation in this focus group meeting. You have all raised several great issues for us to consider. We will look at what you have told us and use this information to make recommendations to area hospitals and the Maricopa County Department of Public Health.

Cycle 1 Focus Group Schedule

Date	Time	Population	Location
9/25 (Fri.)	9:30-11:30am	Older adults (65-74) [n=10]	Sun City Branch Library (16828 N 99th Ave, Sun City, AZ 85351)
9/28 (Mon.)	5:30-7:30pm	Native American adults (x2) [n=24]	Phoenix Indian Center (4520 N Central Ave #250, Phoenix, AZ 85012)
9/29 (Tues.)	5:30-7:30pm	Adults without children [n=10]	Mesa Main Library (64 E. 1st St., Mesa, AZ 85201)
9/30 (Wed.)	6:00-8:00pm	LGBTQ adults [n=6]	Phoenix Pride LGBT Center (801 N 2nd Ave, Phoenix, AZ 85003)
10/2 (Fri.)	9:00-11:00am	Adults with children under age 18 [Spanish; n=15]	Maryvale Community Center (4420 N. 51st Avenue, Phoenix, AZ, 85031)
10/2 (Fri.)	6:00-8:00pm	Low-income Adults [Spanish; n=15]	Sojourner Center (2330 E Fillmore St, Phoenix, AZ 85006)
10/4 (Sun.)	2:00-4:00pm	Hispanic/Latino adults [English; n=8]	Cesar Chavez Library (3635 W Baseline Rd, Laveen Village, AZ 85339)
10/5 (Mon.)	5:30-7:30pm	Adults with children under age 18 [n=10]	Embry Riddle Aeronautical University, Phoenix Mesa Campus (5930 S. Sossaman Rd., Ste. #102, Mesa, AZ 85212)
10/6 (Tues.)	5:30-7:30pm	Young adults (18-30) [n=10]	Pendergast Community Center (10550 W. Mariposa St., Phoenix, AZ 85037)
10/7 (Wed.)	6:00-8:00pm	African American adults [n=10]	Southwest Behavioral Health Services (4420 S. 32nd St., Phoenix, AZ 85040)
10/8 (Thurs.)	11:30-1:30pm	LGBTQ adults [n=9]	ASU/SIRC (502 E. Monroe St., Phoenix, AZ 85004)

Cycle 2 Focus Group Schedule

Date	Time	Population	Location
2/27 (Sat.)	10:00-12:00pm	Older adults (50-64) [Spanish; n=8]	Guadalupe Town Office (9241 S Avenida del Yaqui Guadalupe, AZ 85283)
3/5 (Sat.)	11:30-1:30pm	Adults with children [Spanish; n=12]	Dysart Community Center (14414 N El Mirage Rd, El Mirage, AZ 85335)
3/12 (Sat.)	9:30-11:30am	Adult males [Spanish; n=8]	Glendale Community College (6000 W Olive Ave, Glendale, AZ 85302)
3/12 (Sat.)	1:00-3:00pm	Adult females [Spanish; n=12]	Open Door Fellowship Church (8301 N 19th Ave, Phoenix, AZ 85021)
3/15 (Tues.)	5:30-7:30pm	Lower income adults [n=9]	Escalante Community Center (2150 E Orange St, Tempe, AZ 85281)
3/19 (Sat.)	9:30-11:30am	Older adults [75+] [n=10]	Red Mountain Multigenerational Center (7550 E Adobe Rd, Mesa, AZ 85207)
3/19 (Sat.)	9:30-11:30am	Caregivers [n=8]	Red Mountain Multigenerational Center (7550 E Adobe Rd, Mesa, AZ 85207)
3/22 (Tues.)	5:30-7:30pm	African American adults [n=9]	Tanner Community Development Corporation [TCDC] (700 E Jefferson St # 200, Phoenix, AZ 85034)
3/24 (Thurs.)	5:30-7:30pm	Native American adults [n=6]	Mesa Community College (1833 W Southern Ave, Mesa, AZ 85202)
3/29 (Tues.)	5:30-7:30pm	Adults with children [n=8]	Paradise Valley Community College (18401 N 32nd St, Phoenix, AZ 85032)
4/2 (Sat.)	9:30-11:30am	Asian American adults [n=8]	Chandler Downtown Library (22 S Delaware St Chandler, AZ 85225)

Table 12. Key Informant Survey Total Number & Percentage of Participants

Total Number of Participants	152
Characteristic	Percentage of Participants
Male	22%
Female	78%
0-17	0%
18-24	1%
25-39	16%
40-54	39%
55-64	29%
65 or older	15%
American Indian/Alaskan Native	1%
Asian/Pacific Islander	1%
African American	7%
Hispanic	15%
White	76%

COMMUNITY HEALTH ASSESSMENT (CHA) SURVEY QUESTIONS

Please take a minute to complete the survey below. The purpose of this instrument is to get your opinions about community health issues. In collaboration with our public health partners we plan to compile this information and use it as input for the development of Dignity healthcare's community health improvement plan.

Thank you for your time and interest in helping us to identify our most pressing problems and issues.

In this survey, "community" refers to the major area where you provide services. Please check one from the following list:
__ Northeast (Scottsdale, Carefree, Fountain Hills, Cave Creek)
__ Northwest (Peoria, Surprise, El Mirage, Sun City)
__ Central (Phoenix, Paradise Valley)
__ Central west (Glendale, Avondale, Litchfield Park)
__ Central East (Tempe, Mesa)
__ Southeast (Chandler, Ahwatukee, Gilbert)
__ Southwest (Tolleson, Buckeye, Goodyear)

Part I: Community Health

1. Please check the **three most important factors that you think will improve the quality of life in your community?"**

Check only three:

___ Good place to raise children	___ Excellent race/ethnic relations
___ Low crime / safe neighborhoods	___ Good jobs and healthy economy
___ Low level of child abuse	___ Strong family life
___ Good schools	___ Healthy behaviors and lifestyles
___ Access to health care (e.g., family doctor)	___ Low adult death and disease rates
___ Safe Parks and recreation	___ Low infant deaths
___ Clean environment	___ Religious or spiritual values
___ Affordable housing	___ Emergency preparedness
___ Arts and cultural events	___ Access to public transportation
___ Access to Healthy Food	___ Other_____

2. In your opinion, what are **the three most important "health problems"** that impact your community?

Check only three:

___Access to Health care	___ Heart disease and stroke	___ Rape / sexual assault
___Aging problems (e.g., arthritis, hearing/vision loss, etc.)	___ High blood pressure	___ Respiratory / lung disease
	___ HIV / AIDS	___ Sexually Transmitted Diseases (STDs)
___ Cancers	___ Homicide	
___ Child abuse / neglect	___ Infant Death	___ Suicide
___ Drug and Alcohol abuse	___ Infectious Diseases (e.g., hepatitis, TB, etc.)	___ Teenage pregnancy___ Other _____
___ Dental problems		
___ Diabetes	___ Mental health problems	
___ Domestic Violence	___ Motor vehicle crash injuries	
___ Firearm-related injuries		

3. In the following list, what do you think are **the three most important "risky behaviors"** seen in your community?

Check only three:

___ Alcohol abuse	___ Racism
___ Being overweight	___ Tobacco use
___ Dropping out of school	___ Not using birth control
___ Drug abuse	___ Not using seat belts / child safety seats/bike helmets
___ Lack of exercise	___ Unsafe sex
___ Lack of maternity care	___ Unsecured firearms
___ Poor eating habits	___ Other_____
___ Not getting "shots" to prevent disease	

4. If you selected drug abuse in question 3 please specify substances of use here:

_____

5. How would you rate the overall health of your community?

___ Very unhealthy ___ Unhealthy ___ Somewhat healthy ___ Healthy ___ Very healthy

Part II: Demographics

Please answer questions #5-8 so we can see how different types of people feel about local health issues.

6. Zip code where you work: _____

7. Age:
___ 0-17
___ 18-25
___ 26-39
___40-54
___ 55-64
___ 65 or over

8. Sex: ____Male ____Female

9. Ethnic group you most identify with:

___ African American____ Asian/Pacific Islander___ Hispanic/Latino
___ Native American____ White/Caucasian___ Other: _____

APPENDIX B. STEERING COMMITTEE AND COMMUNITY ADVISORY COUNCIL MEMBERS

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

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

CHNA FACILITY-BASED CHAMPIONS

A working team of CHNA champions from each of Banner Health's 28 Hospitals meets on a monthly basis to review the ongoing progress on community stakeholder meetings, report creation, and action plan implementation. This group consists of membership made up of CEOs, CNOs, COOs, facility directors, quality management personnel, and other clinical stakeholders.

EXTERNAL STAKEHOLDERS

A team of external stakeholders is made up of individuals and organizations external to Banner Health, and represent the underserved, uninsured, and minority populations in Maricopa County and the

surrounding areas. This team of stakeholders were identified based on their role in the public health realm of the hospital's surrounding community. These stakeholders are individuals/ organizations with whom we are collaborating, or hope to do, around improving our communities. Each stakeholder is vested in the overall health of the community and brought forth a unique perspective with regards to the population's health needs. This group consists of membership made up of Executive Directors, CEO's, Program Managers, Coordinators, Nurses, Patient Navigators, and other community stakeholders.

APPENDIX C. REFERENCES

[i] Census Bureau, American Community Survey 2013-2017 5 Year Data Release (2018). Analysis performed by Maricopa County.
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